

CITY OF LAKE WORTH BEACH, FLORIDA



**CITY OF LAKE WORTH BEACH
Canal Transmission Substation Construction
IFB #22-110**

Contract

**CITY OF LAKE WORTH BEACH
ELECTRIC UTILITIES**

TABLE OF CONTENTS

	<u>No. of pages</u>
<u>BIDDING AND CONTRACT DOCUMENTS</u>	
00020 INVITATION TO BID	2
00100 INSTRUCTIONS TO BIDDERS	10
00300 BID FORM	12
00310 BIDDERS'S QUALIFICATION QUESTIONNAIRE & APPENDIX 1 BIDDERS'S QUALIFICATION QUESTIONNAIRE CONTRACTOR SAFETY FORM & BIDDERS SUBMITTED DOCUMENTS	18
00500 AGREEMENT	11
00501 OPINION OF ATTORNEY	1
00620 CONSTRUCTION PAYMENT AND PERFORMANCE BOND	3
00630 NOTICE OF COMPLIANCE WITH CHAPTER 556, FLORIDA STATUTES.....	1
00670 CONTRACTOR'S AFFIDAVIT TO OWNER	1
00680 APPLICATION FOR PAYMENT	1
00681 SCHEDULE OF VALUES AND WORK COMPLETED	1
00700 GENERAL CONDITIONS	72
00800 SUPPLEMENTARY CONDITIONS	6
00820 SPECIAL CONDITIONS	2
00840 RESIDENT PROJECT REPRESENTATIVE	3
00850 CAMPAIGN CONTRIBUTION STATEMENT	2
00851 SCRUTINIZED COMPANIES CERTIFICATION FORM.....	1
00900 ADDENDA	29
NOTICE OF INTENT TO AWARD.....	1
BID BOND.....	3
DOCUMENTATION SUBMITTED WITHIN CONTRACTOR BID PACKAGE.....	101
CONSTRUCTION SPECIFICATIONS WITH APPENDICES	276
APPENDIX A - RACEWAY LIST	
APPENDIX B - SOIL BORING REPORT	
APPENDIX C - DRAWINGS	
APPENDIX D - ELECTRICAL HEALTH AND SAFETY PLAN	

**City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction**

**00020
INVITATION TO BID**

The City of Lake Worth Beach is soliciting bids from responsible and experienced contractors for the construction of the new 138 kV Canal Transmission Substation located at 4601 Davis Road, Lake Worth Beach, FL 33461 Canal Transmission Substation for the City's Electric Utilities.

This Invitation for Bid (IFB) may be downloaded at lakeworthbeachfl.bidsandtenders.net or www.lakeworthbeachfl.gov. All Bidders shall have a Bidding System Vendor account and be registered as a Plan Taker for this Bid opportunity, which will enable the Bidders to download the Bid Call Document, to receive Addenda email notifications and download all documents without the watermark "preview" on them.

To ensure receipt of the latest information and updates via email regarding this bid, or if a Bidder has obtained this Bid Document from a third party, the onus is on the Bidder to create a Bidding System Vendor account and be register as a Plan Taker for the bid opportunity. Copies of this IFB may also be acquired by contacting purchasing1@lakeworthbeachfl.gov.

Time is of the essence and any bid received after **3:00 PM, August 10, 2022** whether by mail or otherwise shall be rejected by the City. The time of receipt shall be determined by the time clock located in the Financial Services Office. Bids shall be placed in a sealed envelope, marked with the bid number, title, date, and hour bids are scheduled to be received. **The City offices have limited access to the public at this time. Courier deliveries SHALL NOT require signature for the receipt. Bidders may deliver bids directly to City Hall during regular business hours 8 a.m. to 5 p.m. Monday through Friday. If bids are delivered in person, visitors shall ring the bell at the City Hall front entrance and wait for assistance or by contacting Procurement Division at (561) 586 – 1770 in advance.** Bidders are responsible for ensuring that their bid is stamped by office personnel by the deadline indicated.

All persons or entities responding to the IFB (hereafter "Bidders") are responsible for ensuring that their bid is received by the City at its' designated office address by the deadline indicated in the IFB. The City will in no way be responsible for delays caused by any occurrence. Bids shall not be submitted and will not be accepted in by e-mail, telephone, telegram, facsimile or any other City's address except as notified below. The time of receipt shall be determined by the time clock in Financial Services Department.

A Non-Mandatory Pre-Bid meeting is scheduled for July 14, 2022 at 10:00 a.m. at 4601 Davis Road, Lake Worth Beach, FL 33461

A Site Visit / Inspection will be held shortly after the conclusion of the Pre-Bid Meeting. The City will not answer any question at the visit. Bidders can submit their questions following the solicitation protocol after their visit.

All bids must be mailed or delivered to:

**City of Lake Worth Beach, City Hall
Financial Services Office - Procurement
7 North Dixie Hwy. 2nd floor
Lake Worth Beach, FL 33460**

INVITATION TO BID
00020-1

01/12/21-LWU

ENVELOPES MUST BE IDENTIFIED AS IFB # 22-110 Canal Transmission Substation Construction

Bids will be opened publicly at the City Hall immediately following the bid deadline.

All questions must be in writing submitted on lakeworthbeachfl.bidsandtenders.net or purchasing1@lakeworthbeachfl.gov before **July 20, 2022** at 4 p.m.

Bids must be accompanied by a copy of Bid Security in the form of a certified or bank check made payable to the Owner, or a Bid Bond. The amount of the security shall not be less than five (5) percent of the Bidder's total price indicated in Bid Form. Bidder must be able to deliver original Bid Bond immediately after the bid opening if requested by the City.

No Bid may be withdrawn for a period of 120 days after the scheduled closing date for the receipt of bids except as otherwise provided in Article 13 of the Instructions to Bidders.

The successful Bidder, who is awarded the Contract, shall be required to furnish a 100% Construction Performance Bond and a 100% Construction Payment Bond which meet the requirements of section 255.05, Florida Statutes.

The OWNER reserves the right to reject any or all Bids, to waive all nonmaterial irregularities, to re-advertise, and to cancel any invitation to bid when it is in the best interests of the City.

PUBLISHED: June 26, 2022 – Palm Beach Post & City Website

00100
INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS.

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract (EDCJC C-700, 2013 Edition) have the meanings assigned to them in the General Conditions. The term "Bidder" means one who submits a Bid directly to Owner, as distinct from a sub-bidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

2. COPIES OF BIDDING DOCUMENTS.

2.1. Complete sets of the Bidding Documents in the number and for the cost, if any, stated in the Advertisement or Invitation to Bid may be obtained from **lakeworthbeachfl.bidsandtenders.net** or **www.lakeworthbeachfl.gov**.

All Bidders shall have a Bidding System Vendor account and be registered as a Plan Taker for this Bid opportunity, which will enable the Bidders to download the Bid Call Document, to receive Addenda email notifications and download all documents without the watermark "preview" on them.

To ensure receipt of the latest information and updates via email regarding this bid, or if a Bidder has obtained this Bid Document from a third party, the onus is on the Bidder to create a Bidding System Vendor account and be register as a Plan Taker for the bid opportunity.

2.2. Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3. Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS.

To demonstrate qualifications to perform the Work, each Bidder must submit the bidder qualifications questionnaire in its entirety. Bidder must also be prepared to submit within five days of Owner's request, written evidence such as financial data, previous experience, present commitments and other such data as may be reasonably specifically requested by Owner or otherwise required in Contract Documents. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE.

4.1. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work, (c) consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents during the question submission period.

4.2. Reference is made to Division 1: General Requirements of the Specifications for the identification of:

4.2.1. those reports of explorations and tests of subsurface conditions at the site which have been utilized by Engineer in preparation of the Contract Documents.

4.2.2. those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which have been utilized by Engineer in preparation of the Contract Documents.

4.2.3. Copies of such reports and drawings (referred to above), if not attached to the Specifications or added on the Drawings, will be made available by Owner to any Bidder on request. Those reports and drawings are not a part of the Contract Documents. Bidder may not rely upon the accuracy of the non-technical data, interpretations or opinions contained in those reports and drawings. Bidder may not rely on the completeness of those reports and drawings for the purposes of bidding or construction. Bidder may rely on any technical data contained in those reports and drawings specifically referenced in Division 1: General Requirements as technical data that can be relied on.

4.3. Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities or others, and Owner does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

4.4. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, Underground Facilities and other physical conditions, and possible changes in Contract Documents due to differing conditions appear in Paragraphs 5.03 and 5.05 of the General Conditions.

4.5. Before submitting a Bid, each Bidder will, at Bidder's own expense, be responsible to make or obtain such examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.6. On request in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

4.7. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

4.8. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5. INTERPRETATIONS AND ADDENDA.

5.1 All questions about the meaning or intent of the Contract Documents are to be directed to the bid on **lakeworthbeachfl.bidsandtenders.net or by e-mail to purchasing1@lakeworthbeachfl.gov**. Interpretations or clarifications considered necessary by the Owner or Engineer in response to such questions will be issued by Addenda. Questions received after **July 20, 2022 at 4 PM** may not be answered. Only questions answered by formal written Addenda will be binding. **Questions or requests for clarification directed to any member of the City staff or Engineer may be grounds for rejection of the bid as being irregular. Oral and other interpretations or clarifications will be without legal effect.**

5.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.

6. BID SECURITY.

6.1. Each Bid must be accompanied by Bid security made payable to Owner in an amount of five percent of the Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions.

6.2. The Bid security of the Successful Bidder will be retained by the Owner until such Bidder has delivered all of the following documents to the Owner:

6.2.1 All required certificates or proof of insurance;

6.2.2 The fully executed Agreement contained in the Contract Documents; and,

6.2.3 The fully executed Public Construction Bond (if required) along with a certified copy of the Public Construction Bond as recorded in the Official Records of Palm Beach County, Florida.

Upon receipt of all of the foregoing documents, the Bid security will be returned to the Successful Bidder. The required certificates or proof of insurance and the fully executed Agreement must be delivered by the Successful Bidder within fifteen days after the Successful Bidder's receipt of the Agreement from the Owner. The Public Construction Bond and certified copy of the same must be delivered to the Owner by the Successful Bidder no later than fifteen (15) days after the Owner approves and executes the Agreement contained in the Contract Documents (as previously executed and delivered by the Successful Bidder).

If the Successful Bidder fails to deliver all of the above documentation to the Owner in the timeframes stated above, the Owner may annul the Notice of Award and/or may immediately terminate the Agreement upon written notice to the Successful Bidder and the Bid security will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the Effective Date of the Agreement or the 120th day after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security with Bids which are not competitive will be returned within seven days after the Bid opening.

7. CONTRACT TIME.

The numbers of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set forth in the Bid Form and the Agreement. If Contract Times are left blank in the Bid Form, the time for Substantial Completion and final completion are to be set forth by Bidder in the Bid and will be included in the Agreement. The times will be taken into consideration by Owner during the evaluation of Bids, and it will be necessary for the Successful Bidder to satisfy Owner of Bidder's ability to achieve Substantial Completion and final completion within the times designated in the Bid.

8. LIQUIDATED DAMAGES.

Provisions for liquidated damages, if any, are set forth in the Agreement.

9. SUBSTITUTE OR "OR-EQUAL" ITEMS.

The contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications. A substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement. The procedure for submission of any such application by Contractor and consideration by Engineer is set forth in Article 7 of the General Conditions and may be supplemented in Division 1: General Requirements.

10. SUBCONTRACTORS, SUPPLIERS AND OTHERS.

10.1. If the Bid Form or Specifications require (or if Owner requests after Bids are received) the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish

the principal items of material and equipment) to be submitted to Owner in advance of the specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within seven days after the Bid opening (or seven days after request by Owner) submit to Owner a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person or organization if requested by Owner. Subcontractors shall be required to meet Contractor's liability insurance requirements as established by the General and Supplementary Conditions or be listed as an additional insured on the apparent successful Bidder's policy. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, Supplier, other person or organization, either may before the Notice of Award is given request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price. If apparent Successful Bidder declines to make any such substitution, Owner may award the contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Bidder. Any Subcontractor, Supplier, other person or organization listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in the General Conditions.

10.2. No Contractor shall be required to employ any Subcontractor, Supplier, other person or organization against whom Contractor has reasonable objection.

11. BID FORM.

11.1. The Bid Form is included with the Bidding Documents; additional copies may be obtained from the issuing office.

11.2. All blanks on the Bid Form must be completed in ink or by typewriter.

11.3. Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

11.4. Bids by partnerships must be executed in the partnership name and signed by a general partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

11.5. All names must be typed or printed below the signature.

11.6. The Bid shall contain an acknowledgement of receipt of all Addenda (the numbers of which must be filled in on the Bid Form). All Addenda are a part of the Bid documents and each Bidder will be bound by such Addenda, whether or not received by the Bidder. It is the responsibility of each Bidder to verify that he or she has received all Addenda issued before Bids are opened.

11.7. The address and telephone number for communications regarding the Bid must be shown.

12. SUBMISSION OF BIDS.

Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of the Bidder and accompanied by the Bid security and other required documents. Bids shall not be submitted and will not be accepted in by e-mail, telephone, telegram, facsimile or any other City's address except as notified below. The time of receipt shall be determined by the time clock in Financial Services Department.

All bids must be mailed or delivered to:

**City of Lake Worth Beach, City Hall
Financial Services Office - Procurement
7 North Dixie Hwy. 2nd floor
Lake Worth Beach, FL 33460**

**SUBJECT LINE MUST BE IDENTIFIED IFB #22-110 Canal Transmission Substation
Construction**

13. MODIFICATION AND WITHDRAWAL OF BIDS.

13.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

13.2. If, within twenty-four hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

14. OPENING OF BIDS.

Bids will be opened publicly immediately after the bid receipt at the City Hall, 7 N Dixie Ave, Lake Worth Beach, FL 33460 and as indicated in the Invitation to Bid.

14.1. When Bids are opened publicly they will be read aloud, and the amounts of the base Bids and major alternates (if any) will be made available after the opening of Bids. If applicable, the bid will be opened in accordance with sec. 255.0518, Florida Statutes.

15. BIDS TO REMAIN SUBJECT TO ACCEPTANCE.

All bids will remain subject to acceptance for 120 days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date.

16. AWARD OF CONTRACT.

16.1. Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make and award to the Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

16.2. In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

16.3. Owner may consider the qualifications and experience of Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions (or as requested by Owner after the Bids are received). Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major

items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

16.4. Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

16.5. If the contract is to be awarded, it will be awarded to the qualified lowest, responsive and responsible Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project and subject to the Veteran Owned Enterprise, Small Business and/or Local Business preference policy. No bid shall be accepted from, nor will any Contract be awarded to any Bidder who is in arrears to the Owner upon any debt or Contract or who is a defaulter as surety or otherwise upon any obligation to the Owner or who has failed to perform faithfully any previous Contract with the Owner or other party as determined by the Owner.

16.6. If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within 120 days after the day of the Bid opening.

16.7. When Bidder is permitted to designate the Contract Time, Bid prices will be compared after adjusting for differences in the time designated in the Bid for Substantial Completion.

17. CONTRACT SECURITY.

Paragraph 6.01 of the General Conditions and the Supplementary Conditions set forth Owner's requirements as to performance and payment Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by the required performance and payment Bonds.

18. SIGNING OF AGREEMENT.

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within 15 days thereafter Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds. In the event the successful Bidder fails to execute the Contract and return same to the Owner within the stipulated fifteen (15) days, the Owner may disqualify the Bid, and said Bidder shall not be permitted to contest to the contrary and does waive such right upon submitting a Bid.

19. DISQUALIFICATION OF BIDDER

19.1 Bidder may be disqualified and its Bid rejected for any of the following:

- a) Bidder does not meet the Competency of Bidder and Reference requirements set forth herein or does not meet minimum qualifications criteria as set forth in solicitation documents.
- b) Reason to believe that collusion exists among or between Bidders.
- c) Unbalanced Bid; that is, Bid in which the prices bid for some items are out of all proportion to those Bids of others.
- d) Bidder's uncompleted workload, which in the judgment of the Owner, may cause detrimental impact or impair the prompt completion of this Contract.
- e) Lack of responsibility on the part of Bidder, (for example, no Bidder would be considered responsible who had failed to carry out any Contract in which the Owner had been directly or indirectly concerned), or to which Bidder failed to perform on other projects.
- f) A determination by Owner of the Contractor's lack of experience or lack of competency as may be revealed by qualification statements, financial statements, experience records, references, or other questionnaires.
- g) Substantial evidence of bad character or dishonesty.
- h) Bidder is involved in any current litigation with Owner.
- i) Bidder has defaulted on any contract or is in arrears on any contract.

- j) Incomplete Bid, missing or incomplete requested documentation and information

20. LICENSES, PERMITS, AND CERTIFICATION

- 20.1 When applicable, vendor must hold a Certificate of Competency issued by the State of Florida or the Palm Beach County Construction Industry Licensing.
- 20.2 A business tax receipt obtained from the Owner shall be required of any person maintaining a permanent business location or branch office within the City of Lake Worth Beach.
- 20.3 A copy of any licenses and permits shall be submitted with the Bid and must be in the name of the vendor shown on the Bid submittal.

21. PREPARATION EXPENSE

- 21.1 Neither the Owner nor its representatives will be liable for any expenses incurred in connection with the preparation, presentation or submittal of any Bid.

22. NON-COLLUSION

- 22.1 Bidder certifies that this Bid is made without prior understanding, agreement, or connection with any individual, firm, partnership, corporation or other entity submitting a Bid for the same materials, services, supplies, or equipment and is in all respects fair and without collusion or fraud. No premiums, rebates, or gratuities are permitted with, prior to, or after any delivery of material or provisions of services. Any violation of this provision may result in Contract cancellation, return of materials or discontinuation of services, and the possible removal of Bidder from the vendor Bid list(s).

23. CODE OF ETHICS

- 23.1 If any Bidder violates or is a party to a violation of the Code of Ethics of the Owner, Palm Beach County, and/or of the State of Florida with respect to this Bid, such Bidder may be disqualified from performing the work described in this Bid or from furnishing the goods or services for which this Bid is submitted and may be further disqualified from bidding on any future Bids for work or for goods or services for the Owner.

24. CONFLICT OF INTEREST

- 24.1 The award is subject to any and all applicable conflict of interest provisions found in the policies or Code of Ordinances of the City, the Palm Beach County Code of Ethics, and found in the Florida Statutes. All Bidders must complete the Conflict of Interest Form attached hereto.

Further, any Bidder coming before the City Commission for an award of a contract and who has made an election campaign contribution in an amount that is more than one hundred dollars (\$100.00) to any elected official of the City Commission, who is a current sitting member of the Commission, must disclose such election campaign contribution, verbally and in writing, in their responsive proposal to this IFB. FAILURE TO INCLUDE THE CAMPAIGN CONTRIBUTION STATEMENT WILL CAUSE YOUR BID TO BE REJECTED.

25. DRUG FREE WORKPLACE PROGRAMS

- 25.1 Preference may be given to businesses with Drug-Free Work Place Programs. Whenever two or more Bids which are equal with respect to price, quality, and service are received by the Owner for the procurement of commodities or contractual services, a Bid received from a business that completes the attached DFW form certifying that it is a DFW may be given preference in the award process.

26. LEGAL REQUIREMENTS

26.1 Federal, State, County and Owner laws, ordinances, rules, codes, guidelines, directives and regulations that in any manner affect the items covered herein apply. Lack of knowledge by the Bidder shall in no way be a cause for relief from responsibility.

27. PUBLIC ENTITY CRIMES

27.1 By submitting a bid, each bidder acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier or sub-contractor under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.

27.2 SCRUTINIZED COMPANIES

A. Contractor certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the City may immediately terminate this Agreement at its sole option if the Contractor or any of its subcontractors are found to have submitted a false certification; or if the Contractor or any of its subcontractors, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of this Agreement.

B. If this Agreement is for one million dollars or more, the Contractor certifies that it and its subcontractors are also not on the Scrutinized Companies with Activities in Sudan List, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaged in business operations in Cuba or Syria as identified in Section 287.135, Florida Statutes. Pursuant to Section 287.135, the City may immediately terminate this Agreement at its sole option if the Contractor, or any of its subcontractors are found to have submitted a false certification; or if the Contractor or any of its subcontractors are placed on the Scrutinized Companies with Activities in Sudan List, or Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or are or have been engaged with business operations in Cuba or Syria during the term of this Agreement.

C. The Contractor agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under this Agreement.

D. The Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the term of this Agreement, including any and all renewals.

E. The Contractor agrees that if it or any of its subcontractors' status changes in regards to any certification herein, the Contractor shall immediately notify the City of the same.

F. As provided in Subsection 287.135(8), Florida Statutes, if federal law ceases to authorize the above-stated contracting prohibitions then they shall become inoperative.

28. COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT

28.1 The Bidder certifies that all equipment and materials contained in this Bid shall meet all O.S.H.A. requirements. Bidder further certifies that, if it is the successful Bidder and the equipment and/or materials delivered are subsequently found to be deficient in any O.S.H.A. requirements in effect on the date of delivery, all costs necessary to bring the equipment and/or materials into compliance with the aforementioned requirements shall be borne by the Bidder.

29. NON-APPROPRIATIONS

29.1 The obligations of the Owner to make a Bid award and sign an agreement under the terms of this "Invitation to Bid" are contingent upon funds lawfully appropriated for this purpose. Should funds not be appropriated for this purpose, the Owner, at its sole discretion, shall have the right to reject all Bids.

30. FLORIDA PUBLIC RECORDS ACT AND CONTRACT CONTENT OWNERSHIP

30.1 All material submitted regarding this Bid becomes the property of the Owner. Pursuant to sec. 119.07(1), Fla. Stat., sealed Bids received by the Owner pursuant to a competitive solicitation are subject to disclosure when the Owner provides notice of an intended decision or until thirty (30) after opening of the Bids, whichever is earlier. If the Owner rejects all bids submitted in response to a competitive solicitation and the Owner concurrently provides notice of its intent to reissue the competitive solicitation, the rejected bids remain exempt from sec. 119.07(1), Fla. Stat., until such time as the Owner provides notice of an intended decision concerning the reissued competitive solicitation or until the Owner withdraws the reissued competitive solicitation. A Bid is not exempt from disclosure for longer than 12 months after the initial notice rejecting all Bids made by the Owner. Bidder should take special note of this as it relates to any proprietary information that might be included in their offer. Any resulting contract may be reviewed by any person after the contract has been executed by the Owner. The Owner has the right to use any or all information/material submitted in response to this bid and/or any resulting contract from the same. Disqualification of a Bidder does not eliminate this right.

30.2 Contractor shall comply with Florida's Public Records Laws, and, if applicable, specifically agrees to:

- a) Keep and maintain public records that ordinarily and necessarily would be required by the Owner in order to perform the service.
- b) Provide the public with access to public records on the same terms and conditions that the Owner would provide the records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.
- d) Meet all requirements for retaining public records and transfer, at no cost, to the Owner all public records in possession of the Contractor upon termination of the Contract Documents 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 Owner in a format that is compatible with the information technology systems of the Owner.

31. E-VERIFY

Pursuant to Section 448.095(2), Florida Statutes, beginning on January 1, 2021, the CONTRACTOR shall:

- a) Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all CONTRACTORS (providing services or receiving funding under this Agreement) to register with and use the E-Verify system to verify the work authorization status of all the Contractors' newly hired employees;
- b) Secure an affidavit from all CONTRACTORS (providing services or receiving funding under this Agreement) stating that the CONTRACTOR does not employ, contract with, or subcontract with an "unauthorized alien" as defined in Section 448.095(1)(k), Florida Statutes;
- c) Maintain copies of all CONTRACTOR affidavits for the duration of this Agreement and provide the same to the City upon request;
- d) Comply fully, and ensure all CONTRACTORS comply fully, with Section 448.095, Florida Statutes;
- e) Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized aliens; employment prohibited) shall be grounds for termination of this Agreement; and,
- f) Be aware that if the City terminates this Agreement under Section 448.095(2)(c), Florida Statutes, the CONTRACTOR may not be awarded a contract for at least 1 year after the date on which the Agreement is terminated and will be liable for any additional costs incurred by the City as a result of the termination of the Agreement.

32. VETERAN BUSINESS ENTERPRISE, SMALL BUSINESS, AND LOCAL BUSINESS PREFERENCE

Section 2-117 of the City's Code of Ordinance shall govern the application of a Veteran Business Enterprise, Small Business and/or Local Business preference for this IFB. Documentation to support a Bidder as a Veteran Business Enterprise, Small Business and/or Local Business must be submitted with a bid in response to the IFB. Documentation submitted after the proposal deadline will be rejected.

The order and application of preferences is as follows: For all preferences set forth in this IFB, only one preference may be identified in a response to this solicitation. In an event of a tie, for the purpose of determining the best value in the award of an IFB where more than one bidder identifies a preference, the Veteran Business Enterprise preference shall take precedence over the Local Business preference, and the Local Business preference shall take precedence over the Small Business preference.

END OF SECTION

Bids shall be submitted to:
City of Lake Worth Beach, City Hall

BIDDER: Energy Erectors, Inc.
PROJECT: **City of Lake Worth Beach**
IFB #22-110
Canal Transmission Substation Construction
DATE: August 10, 2022
(Bid Submitted on)

00300
BID FORM

THIS BID IS SUBMITTED TO:

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 120 days after the day of Bid opening. BIDDER will sign and submit the Agreement with the Bonds and other documents required by the Bidding Requirements within 15 days after the date of OWNER's Notice of Award.

3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

(a) **BIDDER has examined copies of all the Bidding Documents and of the following Addenda** (receipt of all which is hereby acknowledged):

Date	07/22/2022	Number	1
	07/29/2022		2

(b) BIDDER has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

(c) BIDDER has studied carefully all reports and drawings of subsurface conditions and drawings of physical conditions which are identified in the Division 1: General Requirements as provided in paragraph 5.03 of the Supplementary Conditions, and accepts the determination set forth in Division 1: General Conditions of the extent of the technical data contained in such reports and drawings upon which BIDDER is entitled to rely.

(d) BIDDER has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests and studies (in addition to or to supplement those referred to in (c) above) which pertain to the subsurface or physical conditions at the

BID FORM

site or otherwise may affect the cost, progress, performance or furnishing of the Work as BIDDER considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 5.03 of the General Conditions, as amended by the Supplementary Conditions; and no additional examinations, investigations, explorations, tests, reports or similar information or data are or will be required by BIDDER for such purposes.

- (e) BIDDER has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said Underground Facilities are or will be required by BIDDER in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 5.05 of the General Conditions.
- (f) BIDDER has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- (g) BIDDER has given ENGINEER written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER.
- (h) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

4. BIDDER agrees to perform all the Work described in Contract Documents, subject to adjustments as provided therein, for the Prices BIDDER provides on the Unit Price Schedule (Page 00300-5):

5. BIDDER declares it understands that the unit quantities shown on the Bid Form Unit Price Schedule are approximate only and not guaranteed and are subject to either increase or decrease; and that should the quantities of any of the items of Work be increased, the BIDDER agrees to do the additional Work at the unit prices set out herein, and should the quantities be decreased, BIDDER also understands that final payment shall be made on actual quantities completed at the unit prices, and shall make no claims for anticipated profits for any decrease in the quantities.

6. The BIDDER further declares it understands the OWNER may elect to construct only a portion of the Work covered by these Documents and BIDDER agrees to perform that portion of the Work for which BIDDER is awarded a Contract at the unit prices quoted herein.

7. BIDDER agrees that the Work:

will be substantially complete within 475 calendar days after the date when the Contract Time commences to run as provided in paragraph 4.01 of the General Conditions, and completed and ready for final payment within 505 calendar days after the date when the Contract Time commences to run. Contract time completion is not adjustable and will be strictly enforced by the City. The Contractor shall ensure to utilize any means necessary including working 24/7 and/or overtime to ensure completion in designated timeline.

BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work on time.

8. The following documents are attached to and made a condition of this Bid:

- (a) Required Bid Security in the form of Performance and Payment Bond.

- (b) Unit Price Schedule (Page(s) 00300-5,6,7).
- (c) Trench Safety Affidavit (Page(s) 00300-8).
- (d) Schedule of Subcontractors (Page(s) 00300-9).
- (e) Schedule of Suppliers, Equipment and Materials (Page(s) 00300-10).
- (f) Sworn Statements Under Section 287.133(3)(a), Florida Statutes, on Public Entity Crimes (Page(s) 00300-11 and 00300-12).
- (g) Certification of Drug Free Workplace Program (Page(s) 00300-13).
- (h) Veteran Business Enterprise, Small Business and Local Business Preference Form (Page(s) 00300-14)
- (i) Bidders Qualification Questionnaire (Page(s) 00310-1 thru 00310-6) and Appendix 1 Contractor Safety Form (3 pages)
- (j) Campaign Contribution Statement (Page(s) 00850-1 and 00850-2).
- (k) Scrutinized Companies Certification Form (Page(s) 00851-1).
- (l) **Other required documents to be submitted:**
 - **Project/Construction Manager Resume**
 - **On-Site Superintendent Resume**
 - **Project Milestones/Work Schedule**

9. Communications & questions concerning this Bid shall be submitted **lakeworthbeachfl.bidsandtenders.net** or **purchasing1@lakeworthbeachfl.gov**.

The phone number and address of BIDDER indicated below.

Contractor Address: Energy Erectors, Inc. 31588 Progress Road
Leesburg, FL 34748

Contractor Phone Number: O: (352) 787-3878
C: (352) 267-3491

Troy Janoske, Lead Estimator/Project Manager

10. The terms used in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions.

11. BIDDER's Florida Contractor's License No. EC13004074.

12. BIDDER covenants that it is qualified to do business in the State of Florida and has attached evidence of BIDDER's qualification to do business in the State of Florida, or if not attached, BIDDER covenants to obtain such evidence within five days of request by OWNER to provide evidence.

13. BIDDER represents that it is financially solvent and sufficiently experienced and competent to provide all goods and services required under this IFB and that all information provided in the Bid is true and correct in all respects.

14. If BIDDER is:

An Individual

By _____ N/A (SEAL)
(Individual's Name)

_____ (Signature)

doing business as _____

Business address: _____

Phone No. : _____

A Partnership

By _____ N/A (SEAL)
(Firm Name)

_____ (General Partner) (Signature)

Business address: _____

Phone No. : _____

A Corporation

By _____ Energy Erectors, Inc. (SEAL)
(Corporation Name)

_____ Florida
(State of Incorporation)

By _____ Mohamed Konate
(Name of Person Authorized to Sign)
Vice President of Operations

_____ (Title)

_____ (Signature)

(Corporate Seal)

Attest _____ Misty A. Wilson
(Secretary)

_____ (Signature)

Business address: _____ 31588 Progress Road

_____ Leesburg, FL 34748

Phone No. : _____ 352-787-3878



IFB #22-110
Canal Transmission Substation Construction

UNIT PRICE SCHEDULE

All bid items shall include prices for furnishing, to the City, all materials (except those provided by the City), tools, equipment, supplies, labor and all costs incurred in providing all work shown on the plans and specifications for City of Lake Worth Beach Utilities. Said costs shall be complete and inclusive of all labor, permits, inspection, taxes, bond(s), insurance, miscellaneous costs, record drawings, warranty, overhead and profit.

LUMP SUM BID: \$ 3,352,690.00
(write in numbers)

STRUCTURAL AND ELECTRICAL INSTALLATION

Bid for performing all work as described and broken down as follows:

- | | |
|--|----------------------|
| 1. Steel Structures Installations | \$ <u>73,650.00</u> |
| 2. HV Breaker Installations | \$ <u>7,250.00</u> |
| 3. CCVT Installations | \$ <u>8,700.00</u> |
| 4. Metering Unit Installations | \$ <u>4,350.00</u> |
| 5. Wave Traps/Line Tuner Installations | \$ <u>2,200.00</u> |
| 6. Switch Installations | \$ <u>60,250.00</u> |
| 7. Bus Work Installations | \$ <u>261,500.00</u> |
| 8. Equipment Installations | \$ <u>4,350.00</u> |
| 9. Foundation Installations | \$ <u>504,590.00</u> |
| 10. Grounding Installations | \$ <u>205,750.00</u> |
| 11. Conduit/Cable Trench Installations | \$ <u>185,000.00</u> |

12. Station Service Installations	\$ <u>2,000.00</u>
13. Control and Power Cables Installations	\$ <u>281,200.00</u>
14. Wall & Gates Installation	\$ <u>385,000.00</u>
15. Lightning Protection Installation	\$ <u>21,400.00</u>
16. Lighting Installations	\$ <u>21,400.00</u>
17. Control Building	\$ <u>12,500.00</u>
18. Clearing/Site Work	\$ <u>613,000.00</u>
19. Drainage Installation	\$ <u>361,000.00</u>
20. Switchyard rock surfacing	\$ <u>110,000.00</u>
21. Equipment Testing	\$ <u>60,000.00</u>
22. Relaying Testing	\$ <u>73,000.00</u>
23. Miscellaneous	\$ <u>94,600.00</u>
LUMP SUM BID	\$ <u>3,352,690.00</u>

PROJECT SCHEDULE:

Provide a preliminary schedule with milestones which include mobilization to start and substantial completion at the end. Expected start timeframe is September thru October of 2022. If outside of expected timeframe please list earliest mobilization/start date below. Start dates outside of the expectation could be disqualified based on City construction requirements.

Earliest start date/month: September 2022

UNIT PRICE SCHEDULE

Unit prices below are required to be provided for both installation and material for additive or subtractive adjustments to certain specific work on the project.

Bidders must provide the unit prices below to be considered to the contract award.

SUBSTATION ITEMS

Unit Pricing

Earthwork (cubic yard)	\$ 120.00
Dewatering (per linear foot)	\$ 2,500.00
Bus System (per foot)	\$ 30.00
Equipment (each)	\$ 5,000.00
Foundations (per rebar lbs. & concrete CY.)	\$ 3,500.00
Circuits (per foot)	\$ 2.50
Conduits (per foot)	\$ 18.00
Grounding (per foot)	\$ 18.00

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

TRENCH SAFETY AFFIDAVIT

(FAILURE TO COMPLETE THIS FORM MAY RESULT IN THE BID BEING DECLARED NON-RESPONSIVE)

Energy Erectors, Inc. (NAME OF CONTRACTOR) hereby provides written assurance that compliance with applicable Trench Safety Standards identified in the Occupational Safety & Health Administration's Excavation Safety Standards, (OSHA) 29 C.F.R.S. 1926.650 Subpart P will be adhered to during trench excavation in accordance with Florida Statutes 553.60 through 553.64 inclusive (1990), "Trench Safety Act".

The undersigned acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the Florida "Trench Safety Act" as summarized below: (Attach additional sheets as necessary)

Schedule Item	Trench Safety Measure (Slope, Trench Shield, etc.)	Cost
		\$ N/A
		\$
		\$
		\$
		\$
		\$
	Total	\$

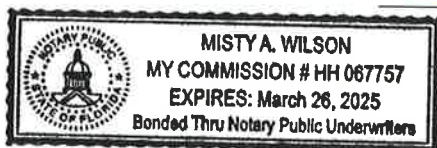
[Signature]
(Signature)

08/09/2022
(date)

STATE OF Florida)
COUNTY OF Lake)

THE FOREGOING instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on this 9th day of August 2022, by Mohamed Konate, as the Vice President of Operations [title] of Energy Erectors, Inc. [vendor's name], a Florida Corporation [corporate description], who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONTRACTOR to the same.

Notary Seal:



[Signature]
Notary Public Signature

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

SCHEDULE OF MAJOR SUBCONTRACTORS

List subcontractors and/or tasks where a subcontractor will be used and relative work % of total cost expected. **Subcontracting must not exceed 60% of the work based on cost.**

List Proposed Major Subcontractors	Category of Work	Percentage
<u>Merico Construction Services</u>	<u>Civil</u>	<u>29%</u>
<u>JJB South LLC</u>	<u>Flat Foundations</u>	<u>3%</u>
<u>Precision Foundations</u>	<u>Drilled Piers</u>	<u>10%</u>
<u>TRC Engineers</u>	<u>Testing</u>	<u>3%</u>
<u>Precast Wall Systems</u>	<u>Wall</u>	<u>4%</u>
<u>Florida Door & Control</u>	<u>Gates</u>	<u>4%</u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

**SWORN STATEMENT UNDER SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to City of Lake Worth Beach
[print name of the public entity]
by Mohamed Konate, Vice President of Operations
[print individual's name and title]
for Energy Erectors, Inc.
[print name of entity submitting sworn statement]

whose business address is 31588 Progress Road, Leesburg, FL 34748

and (if applicable) its Federal Employer Identification Number (FEIN) is 39-1363163

(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

2. I understand that a "public entity crime" as defined in Paragraph 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 of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of 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 Paragraph 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 jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in Paragraph 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 officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an 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 for fair market value under an arm's length agreement, shall be a prima 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 36 months shall be considered an affiliate.
5. I understand that a "person" as defined in Paragraph 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 into 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 an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. [Please indicate which statement applies.]

X Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity has 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, members, 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.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the 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 a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings 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 1 (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 OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

[Signature]
[signature]

August 09, 2022
[date]

STATE OF Florida)
COUNTY OF Lake)

THE FOREGOING instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on this 9th day of August 2022, by Mohamed Konate, as the Vice President of Operations [title] of Energy Erectors, Inc. [vendor's name], a Florida Corporation [corporate description], who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONTRACTOR to the same.

Notary Seal:



[Signature]
Notary Public Signature

Form PUR 7068 (Rev. 04/10/91)
M/R 03/06/92

January 2021

BID FORM
00300-12

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

CERTIFICATION OF DRUG FREE WORKPLACE PROGRAM

I certify the firm of Energy Erectors, Inc. maintains a drug-free workplace program, and that the following conditions are met:

1. We publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying that actions will be taken against employees for violations of such prohibitions.
2. We inform employees about the dangers of drug abuse in the workplace, the company's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. We give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection one (1).
4. In the statement specified subsection one (1) we notify the employee that; a condition of working in the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty nolo contendere to any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. We impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is convicted.
6. We make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



Contractor's Signature

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

**VETERAN BUSINESS ENTERPRISE, SMALL BUSINESS AND
LOCAL BUSINESS PREFERENCE FORM**

Section 2-117 of the City's Code of Ordinances shall govern the application of a Veteran Business Enterprise, Small Business and/or Local Business preference for this IFB.

The undersigned Bidder, hereby claims the following preference: N/A

☐ Veteran Business Enterprise

☐ Small Business

☐ Local Business

Documentation to support a Bidder as a Veteran Business Enterprise, Small Business or Local Business must be submitted with a bid in response to the IFB and attached to this form. Documentation submitted after the bid deadline will be rejected.

Signature: _____

I hereby certify that the above statements are true and correct to the best of my knowledge and I understand that a false or inaccurate statement may result in the rejection of this bid/proposal/submittal or the immediate termination of any resulting agreement with the City of Lake Worth Beach.

By: _____

Print Name: _____

Print Title: _____

Print Name of Business: _____

Contractor: Energy Erectors Inc.
 Project Name: Canal Transmission Substation
 Date: 08/10/2022



Assumptions, Clarifications & Exceptions

Item	GENERAL	Owner Response	Reason/Comments
1	Our proposal does not have provision for any work outside the limit of construction.		
2	Any subsurface underground obstruction(s) encountered that impacts our ability to install foundations conduits or any other underground facilities may result in a change order.		
3	Removal, disposal, or treatment of any hazardous, contaminated, or toxic materials encountered during construction is not included in our proposal.		
4	No pricing provisions have been included for removal of Telephone, Overhead Powerline, Transmission Line, Underground Utilities or Power Poles.		
5	Crews will work 5 days a week, 10-hour days. EEI reserves the right to adjust work weeks and hours worked in order to meet project in-service dates.		
6	EEI reserves the rights to negotiate contractual terms and conditions that are mutually agreeable prior to the procurement of materials or mobilization to the jobsite.		
7	We are assuming excavated materials are suitable for backfill.		
8	Geo fabric, rock, sand or any material or combination that may be required for drainage above or below ground for the wall installation is not included in our proposal as it was not deemed necessary per the RFP drawings.		
9	Test settings and configuration files will be done by others and this information will be provided prior to Test Crew Mobilization.		
10	Control house foundation thickness was assumed to be 6" slab with 1'-6" footer.		
11	Our proposal assumes the Control House internal wiring, panels and equipment and exterior equipment are by others.		
12	Our proposal assumes steel structures will be delivered to the site.		

City of Lake Worth Beach
IFB #22-110 Canal Transmission Substation Construction

00310
BIDDERS'S QUALIFICATION QUESTIONNAIRE
(Include in Bid Submission)

THE UNDERSIGNED GUARANTEES THE TRUTH AND ACCURACY OF ALL STATEMENTS AND ANSWERS HEREIN CONTAINED:

- A. Any information judged by OWNER OR ENGINEER to be false is grounds for rejection of Bid and Cost Proposal. (Use additional sheets as required to provide the required information.)
- B. The individual who holds the General Contractor's License certified in Florida shall be active in the management and ownership of the firm awarded the work and be available to provide their expertise for the project on an ongoing-basis. Provide the name of this individual for the complete duration of this project.

Jason Kangas

- 1a. State the numbers of years your organization has experience in substation construction. A minimum of 5 years is required in substation construction.

42 years

- 1b. State the numbers of years your organization has been doing business as a Licensed General Contractor in Florida. _____ 42 years

2. We normally perform 40 % of the work with our own forces. A minimum of 40% of the work based on cost must be completed by Bidder's employed staff. The Project Manager and on-site manager/foreman shall be Bidder's employees. List the trades/tasks and the work % based on cost for proof. On-site manager/foreman shall be on-site at all times during work hours throughout the construction and be available by phone and email.

List: _____

3. Have you ever failed to complete work awarded to you? If so, state where when and why

No

4. BIDDER shall have successfully constructed, completed and certified, the following:

1. A minimum of three (3) electrical substations of 15kV or higher within the past 5 years.

2. At least one of the above projects must be minimum of \$1,500,000 value.

List these projects below (or attach).

Project #1 Name: Farmlife Substation 230kV Substation

Contract Amount: \$10,670,875.00

Owner: Florida Power & Light **Phone No:** 561-694-3962

Consultant /Engineer ECI - Dan Short **Phone No.** 406-259-9933

Owner Contact: Robert Thomas **Phone No.** 561-694-3962

Description of Project: Construction of 230kV Transmission Switchyard, 2 - 230/138kV autotransformers, Relay Vault & Battery Vault

Date Completed: 08/02/2019

Contract Schedule (days): 200

Actual Completion Schedule (days): 250

Project #2 Name: Hennis Substation

Contract Amount: \$2,604,187.59

Owner: Florida Power **Phone No:** 561-694-3962

Consultant /Engineer ECI -Dan Short **Phone No.** 406-259-9933

Owner Contact: Joe Mills **Phone No.** 561-694-3962

Description of Project: Construction of 230kV Solar Collection Subs., Foundations, Conduits, Structures, Bus-Work & Cablling

Date Completed: 01/18/2022

Contract Schedule (days): 120 days

Actual Completion Schedule (days): 135 days

Project #3 Name: Parrot Substation

Contract Amount: \$4,459,426.00

Owner: Florida Power & Light **Phone No:** 561-694-3962

Consultant /Engineer Sargent Lundy **Phone No.** 312-269-2000

Owner Contact: Joe Mills **Phone No.** 561-694-3962

Description of Project: Construction of 230/34.5kV Substation, Foundations, Conduits, Grounding, Bus-Work, Testing

Date Completed: 05/08/2020

Contract Schedule (days): 210 days

Actual Completion Schedule (days): 232

5. List ALL projects within the past five years (started, underway, or completed) in which liquidated damages (LD) were incurred, either directly or indirectly (please add additional pages if necessary): We have not had any liquidated damages.

Project: none

LD Amount: -

LD Unit Price: -

Project: none

LD Amount: -

LD Unit Price: -

Project: none

LD Amount: -

LD Unit Price: -

6. BIDDER shall specifically name proposed superintendents to be utilized on this project and identify years of experience completed by the proposed superintendents within the previous seven (7) years. It is preferable that the experience is with the current bidder's company. List the Bidder's Employed Project Manager/Construction Manager and the on-site foreman at a minimum. Most of the 7 years experience must be substation construction related and/or include general civil or electrical construction. Resumes providing the qualification of Project/Construction Manager and On-Site Forman must be submitted with the Bid. The City reserves the right to reject Bids submitted without the resumes and those that could not provide minimum qualification requirements.

Name: Troy Janoske

Position: Project Manager

Years of Experience with BIDDER: 36

Type of Work Responsible For: Project Management

License: -

(attach resume)

Name: Michael Gneiting

Position: Superintendent/Foreman

Years of Experience with BIDDER: 2 years (20+ Electrical Exp)

Type of Work Responsible For: Overseeing Job site, Management of material, manpower, cost & quality control, supervision of employees, safety awareness

License: -

(attach resume)

Name: Robert Forbes

Position: Foreman

Years of Experience with BIDDER: 25 years

Type of Work Responsible For: Overseeing Job site, Management of material, manpower, cost & quality control, supervision of employees, safety awareness

License: -

(attach resume)

7. BIDDER shall provide information related to the job safety and safety rating of the corporation (**Fill out Bidder Qualification Form Appendix 1 - Contractor Safety Form**). Bidder must have no higher than an OSHA Experience Modification Rate (EMR) of 1.0 and no higher than a Total Recordable Incident Rate (TRIR) of 3.0 for qualification:
2021 EMR 0.70, 2021 TRIR 1.78

See attachment #2

10. Bonding Capacity

(a) Please state your bonding capacity per project. \$500,000,000.00

(b) Please state your total bonding capacity. 1,500,000,000.00

- (c) Please provide name, address and contact person of your bonding company.

Travelers Bond & Specialty Ins. - Jack Preston

1 N. Dale Mabry Hwy.

Tampa, FL 33609

12. What equipment do you own that is available for the proposed work?

See attachment 3

13. What equipment will you purchase for the proposed work?
What ever equipment that we do not already have or that can be rented
14. What equipment will you rent for the proposed work?
Mini Excavators, Skid Steers, Trenchers, Forklifts, Booms, Rammer
15. List and describe all successful Performance or Payment Bond claims made to your surety(ies) during the last five (5) years. The list and descriptions should include claims against the bond of the Bidder and its predecessor organization(s).
We have not had any claims made against our performance or payment bonds.
16. List all claims, arbitrations, administrative hearings and lawsuits brought by or against the Bidder or its predecessor(s) during the last five (5) years. The list shall include all case names; case, arbitration or hearing identification numbers; the name of the project over which the dispute arose; and a description of the subject matter of the dispute and the resolution of the same.
none
17. State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business. (If corporation, state the name of the president and secretary. If a partnership, state the name of all partners. If a trade name, state the name of the individuals who do business under the trade name).
Energy Erectors, Inc.
- (a) The business is a Corporation
- (b) The address of the principal place of business is: 31588 Progress Rd. Leesburg, FL 34748
- (c) The name of the corporate officers, or partners, or individuals doing business under a trade name are as follows:
Robert Apple, President; George Pita, Secretary; Darren Webb, VP; Mohamed Konate, VP - Operations;

Jason Kangas, VP Project Management; Paul Yeckley, Safety Manager, Devon King, Comptroller

If a Corporation, attach a copy of the most recent good standing certificate issued by the Secretary of State of Florida. See Attachment 4

Date 08/10/2022

Bidder: Energy Erectors, Inc.

By: Troy Janoske

Title: Project Manager

Mailing Address: 31588 Progress Rd.

Leesburg, FL 34748

END OF BIDDER'S QUALIFICATION QUESTIONNAIRE

BIDDER'S QUALIFICATION QUESTIONNAIRE
00310-6

Appendix 1 - Bidder Qualification Form

CONTRACTOR SAFETY FORM

At CITY, the safety of all personnel on site is of utmost importance. CITY is committed to achieving and maintaining an injury free work environment for their employees, the employees of its contractors and the public. CITY expects contractors to be responsible for the safety of their employees, their subcontractors and others who are on or near the job site.

As a contractor performing work for CITY, you, your employees and any subcontractors and their employees will be expected to work within all applicable federal, state and local safety laws and regulations including the Occupational Safety and Health Act and any applicable CITY safety guidelines. Any equipment supplied or brought on to CITY premises shall meet or exceed all existing OSHA requirements, all applicable federal, state and local safety laws and CITY standards. At CITY, we believe every person on our property or premises is entitled to expect a safe working environment. As a contractor your responsibilities to your employees are defined by the OSHA General Duty Clause and the Electric Utility HASP. No contractor or subcontractor shall require an employee to work in surroundings or under working conditions that are unsanitary, dangerous or hazardous to their health or safety. While your responsibilities to your employees are defined by federal law, your responsibilities to CITY, and our employees or to any other person on the job site are spelled out in your contract.

You must have a designated person on site, who is responsible for the prevention of accidents and administration of your safety program. You must report all injuries to CITY immediately. CITY may require a contractor to remove from the job site, any personnel or subcontractors who fail to obey any laws or regulations. CITY states in your contract that CITY may terminate the whole or any part of your contract for the contractor's failure to perform any of the contract obligations for health and safety.

All contractors must submit Contractor Corporate Safety Assessments.

Contractor Corporate Safety Assessment

Do you have a safety mission statement? _____ if yes, please state _____

Do you have annual safety goals? _____ If yes, your goals are: _____

OSHA 200 Safety history for the most recent 3 years.
Use the following formula for incident/accident rate:

$$\text{RATE} = \frac{\text{INJURIES X 200,000}}{\text{ACTUAL HOURS WORKED}}$$

	Year	21 YTD	20	19	18
1.OSHA recordable incident rate		_____	_____	_____	_____
2.Number of recordable injury cases.		_____	_____	_____	_____
3.Lost time accident rate.		_____	_____	_____	_____
4.Number of lost time accidents		_____	_____	_____	_____
5.Total number of hours worked		_____	_____	_____	_____
6.Number of fatalities		_____	_____	_____	_____
7.Your Experience Modification Rate (EMR) . .		_____	_____	_____	_____

Has your company received an OSHA citation within the last 3 years? _____ If yes, explain the nature of each citation and list the citation amount. (Attach extra sheet if needed.)

Does your company have safety meetings for field employees? _____

If so how often? _____

Do you conduct field safety inspections? _____ If so by whom? _____

How often? _____

Does your crew hold daily job briefings? _____ Are they recorded? _____

How many hours of safety training/orientation are conducted for field personnel? _____ How often?

Do you have a safety incentive program? _____

Do you maintain inspection records on your equipment? _____

Do you have a feedback system for safety concerns arising from hazard assessments/field inspections? _____

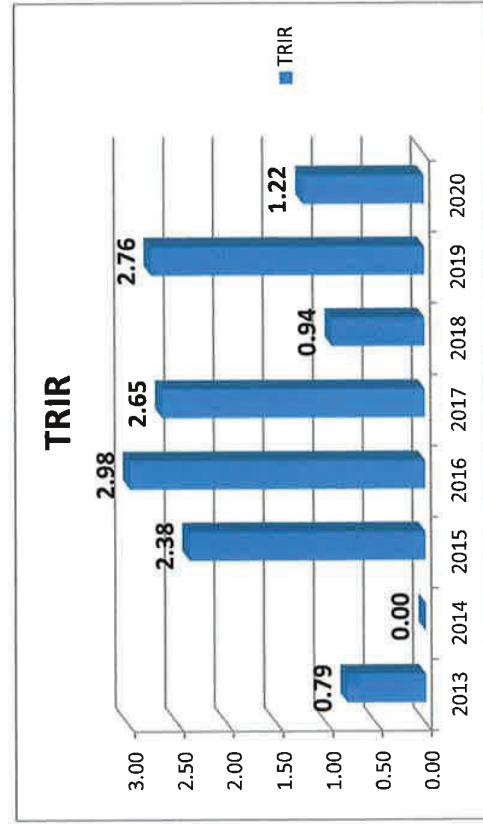
If yes, Please
explain: _____



Energy Erectors Injury and Illness Report

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Hours worked	252,156	192,393	251,277	336,124	377,871	427,542	435,256	490,397	449,045
OSHA Recordable injuries	1	0	3	5	5	2	6	3	4
DART injuries	1	0	0	2	2	1	3	2	0
LWD injuries	0	0	0	2	1	0	3	2	3
TRIR	0.79	0.00	2.38	2.98	2.65	0.94	2.76	1.22	1.78
DART rate	0.79	0.00	0.00	1.19	1.06	0.47	1.38	0.82	0.00
LTIR	0.00	0.00	0.00	1.19	0.53	0.00	1.38	0.82	1.34

TRIR	2013	2014	2015	2016	2017	2018	2019	2020
DART	0.79	0.00	2.38	2.98	2.65	0.94	2.76	1.22
LTIR	0.79	0.00	0.00	1.19	1.06	0.47	1.38	0.41
	0.00	0.00	0.00	1.19	0.53	0.00	1.38	0.82



Form approved OMB no. 1218-0172

Public reporting burden for this collection of information is estimated to average 35 minutes per response, including time to review the instruction, search existing data sources, gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. 1-5645. Have any comments about any aspect of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room V-3440, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Date _____

Log of Work-Related Injuries and Illnesses

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Energy Erectors Inc

City
Leesburg

State FL

Classify the case

Describe the case

Classify the case

Page totals

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 34 minutes per response, including time for reviewing the instruction, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any aspect of this data collection, including suggestions for reducing the burden, to Washington Headquarters Service, Paperwork Project (0192-0278), Washington, DC 20503. Do not send this collection of information to anyone who claims that it is unnecessary. An agency that uses this collection of information should follow the OMB instructions for reducing the burden. Send comments to this office.

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary. Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0." Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths 0 (G) Total number of cases with days away from work 2 (H) Total number of cases with job transfer or restriction 0 (I) Total number of other recordable cases 1 (J)

Number of Days

Total number of days away from work 33 (K) Total number of days of job transfer or restriction 192 (L)

Injury and Illness Types

Total number of .. (M)

(1) Injuries 3 (4) Poisonings 0
(2) Skin disorders 0 (5) Hearing loss 0
(3) Respiratory conditions 0 (6) All other illnesses 0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time for reviewing the instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.



Year 2020

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment information

Your establishment name Energy Erectors - All Locations

Street N/A

City N/A State FL ZIP -

Industry description (e.g., Manufacture of motor truck trailers)

Standard Industrial Classification (SIC), if known (e.g., SIC 3715) -

OR -

North American Industrial Classification (NAICS) if known (e.g., 336212) 238210

Employment information

(If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 127

Total hours worked by all employees last year 490,398

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

S. Smith
Company executive

Senior Vice President
Title

702-647-0059

01/07/21

Phone

Date

OSHA's Form 300

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Year 2020

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name: Energy Erectors - All Locations
City: N/A State: FL

Identify the person		Describe the case		Classify the case		Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one type of illness:									
(A) Case No.	(B) Employee's name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	CHECK ONLY ONE box for each case based on the most serious outcome for that case:		(M)									
						Remained at work											
						Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from work (K)	On job transfer or restriction (L)	Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
2020-2765		GROUNDMAN	06/22	Pad setting switches	Thumb / Right Side / Cut, Laceration / Manual Materials Handling-lifting /	☐	☐	☐	☒	0 days	0 days	☒	☐	☐	☐	☐	☐
2020-510		GROUNDMAN	02/05	plant yard	Foot/Ankle/Toes / Left Side / Fracture, Simple / Other /	☐	☒	☐	☐	15 days	153 days	☒	☐	☐	☐	☐	☐
2020-5290		GROUNDMAN	10/13	Beside transformer #3 pad	Upper Extremities-Finger (S) / Left Side / Fracture, Simple / Other /	☐	☒	☐	☐	18 days	39 days	☒	☐	☐	☐	☐	☐

Page Totals -> 0 2 0 1 33 192 3 0 0 0 0 0 0 0 0 0 0

Page 1 of 1

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspect of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-7644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed form to this office.

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary. Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0". Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths _____ Total number of cases with days away from work _____ Total number of cases with job transfer or restriction _____ Total number of other recordable cases _____

(G) 0 (H) 3 (I) 1 (J) 2

Number of Days

Total number of days away from work _____ Total number of days of job transfer or restriction _____

(K) 80 (L) 145

Injury and Illness Types

Total number of _____

(1) Injuries _____ (4) Poisonings _____ 0
(2) Skin disorders _____ 0 (5) Hearing loss _____ 0
(3) Respiratory conditions _____ 0 (6) All other illnesses _____ 1

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing existing data sources, gathering the data needed, and completing and reviewing the collection of information. Persons interested in reducing this burden should send comments to Washington, DC 20503. If you have any comments about this burden estimate or any other aspect of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-1044, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.



Year 2019

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment Information

Your establishment name Energy Erectors Inc.
Street 31588 Progress Rd

City Leesburg State FL ZIP 34748

Industry description (e.g., Manufacture of motor truck trailers)

Electrical Contractor

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)
238210

Employment Information

(If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 135
Total hours worked by all employees last year 435,286

Sign here

Knowing falsifying this document may result in a fine

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete

[Signature] Senior Vice President
Title

702-647-0059 01/07/2020
Phone Date

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary. Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths _____ Total number of cases with job transfer or restriction _____ Total number of other recordable cases _____

(G) 0 (H) 0 (I) 1 (J) 1

Number of Days

Total number of days away from work _____ Total number of days of job transfer or restriction _____

(K) 0 (L) 42

Injury and Illness Types

Total number of _____

(M)

(1) Injuries _____ (2) Skin disorders _____ (3) Respiratory conditions _____ (4) Poisonings _____ (5) Hearing loss _____ (6) All other illnesses _____

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing the instructions, searching existing data sources, gathering the data needed, reviewing the collection of information, reviewing the instructions, and completing the review of the collection of information. Please do not respond to this collection of information unless it is necessary to respond to a request for information. If you have any comments about this burden estimate or any other aspect of this data collection, including the collection of information, contact the Office of Management and Budget, Paperwork Project Director (0418-0182), Washington, DC 20503.

Establishment information

Your establishment name Energy Erectors
Street 315688 Progress Road
City Leesburg State FL ZIP 34748
Industry description (e.g., Manufacture of motor truck trailers)
Electrical Contractors
Standard Industrial Classification (SIC), if known (e.g., SIC 3715) 1731
OR
North American Industrial Classification (NAICS) if known (e.g., 336212) 238210

Employment information

(If you don't have these figures, see the instructions on the back of this page to estimate.)

Annual average number of employees 118
Total hours worked by all employees last year 427,542

Sign here X [Signature]

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

X Darven Webb SVP
Company official Title
702-647-0059 1-4-19
Phone Date

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

00500
AGREEMENT

THIS AGREEMENT is dated and will be effective on the _____ day of _____ in the year 20____, by and between the **City of Lake Worth Beach** (hereinafter called Owner) and **Energy Erectors, Inc.** (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1. WORK.

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: City of Lake Worth Beach Electric Utilities Canal Transmission Substation Construction and all else necessary for a complete and functional project that meet or exceeds all requirements of the City of Lake Worth Beach Electric Utilities.

The Project, of which the Work under the Contract Documents is a part, shall be referred to as: City of Lake Worth Beach City of Lake Worth Beach Electric Utilities Canal Transmission Substation Construction.

ARTICLE 2. ENGINEER

The Project has been designed by Power Engineers, Inc., 1060 Maitland Center Commons, Suite 110, Orlando, FL 32751 who is hereinafter called Engineer and who is to act as Owner's representative, assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIME.

3.1 The Work will be substantially completed within 475 days from the date when the Contract Time commences to run as provided in paragraph 4.01 of the General Conditions and shall be finally complete and ready for final payment in accordance with paragraph 15.06 of the General Conditions within 505 days from the date when the Contract Time commences to run.

3.2 All time limits for Milestones, if any, Substantial Completion and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

3.3 LIQUIDATED DAMAGES. Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with the Contract Documents. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a

penalty) Contractor shall pay Owner Two Thousand and Five Hundred 00/100 dollars (\$ 2,500.00) for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion if Contractor shall neglect, refuse or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner Two Thousand Five Hundred and 00/100 dollars (\$2,500.00) for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment.

3.4 In the Owner's sole discretion, a requested extension of time may be denied for delays resulting from normal weather conditions prevailing from normal weather conditions prevailing in the area as defined by the average of the last five (5) years of weather recorded or otherwise established by the Owner.

ARTICLE 4. CONTRACT PRICE.

4.1 Owner shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents, subject to adjustment as provided therein, in current funds as follows:

A. For all Work other than Unit Price Work, a lump sum of:

B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

TOTAL OF ALL UNIT PRICES Three Million Three Hundred FiftyTwo Thousand Six Hundred Ninety Dollars (\$ 3,352,690.00)

which is based on the unit price(s) in the Bid Form Unit Price Schedule.

ARTICLE 5. PAYMENT PROCEDURES.

Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

5.1 PROGRESS PAYMENTS. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, on or about the 10th day of each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values established in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided elsewhere in the Contract Documents.

5.1.1 Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with the General Conditions, less liquidated damages, if any.

AGREEMENT

00500-2

95% of Work completed.

95% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in the General Conditions).

5.1.2 Upon Substantial Completion, in an amount sufficient to increase total payments to Contractor to 98% of the Contract Price, less such amounts as Engineer shall determine, or Owner may withhold, in accordance with the General Conditions, less liquidated damages, if any.

5.2 FINAL PAYMENT. Upon final completion and acceptance of the Work in accordance with paragraph 15.06 of the General Conditions, and settlement of all claims, including liquidated damages, if any, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said paragraph 15.06.

ARTICLE 6. INTEREST.

6.1 All payments due and not made within the time prescribed by section 218.735, Florida Statutes, shall bear interest at the rate of 1 percent per month in accordance with section 218.735, Florida Statutes, as amended from time to time.

ARTICLE 7. CONTRACTOR'S REPRESENTATIONS.

In order to induce Owner to enter into this Agreement Contractor makes the following representations:

7.1 Contractor has examined and carefully studied the Contract Documents and any data and reference items identified in the Contract Documents.

7.2 Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress and performance of the Work.

7.3 Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress and performance of the Work.

7.4 Contractor has studied carefully all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical data in such reports and drawings, and (2) reports and drawings related to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical data in such reports and drawings. Contractor accepts the determination set forth in the Contract Documents of the extent of the technical data contained in such reports and drawings upon which Contractor is entitled to rely, if any.

7.5 Contractor has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies, if any, (in addition to or to supplement those referred to in paragraph 7.4 above) which pertain to the subsurface or physical conditions at or adjacent to the Site or otherwise may affect the cost,

AGREEMENT

00500-3

progress, performance or furnishing of the Work as Contractor considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.

7.6 Contractor has reviewed and checked all information and data shown or indicated on the Contract Documents, if any, with respect to existing Underground Facilities at or adjacent to the Site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by Contractor in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.

7.7 Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress and performance of the work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

7.8 Contractor has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents and based on the information and observations referred to above, the Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

7.9 Contractor has given Engineer written notice of all conflicts, errors or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor.

7.10 Contractor acknowledges that the Contract Documents are generally sufficient to indicate and convey an adequate understanding of all terms and conditions for performance and furnishing of the Work.

7.11 Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

7.12 Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

ARTICLE 8. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire Agreement between Owner and Contractor concerning the Work consist of the following:

8.1 This Agreement consisting of 11 pages.

8.2 Exhibits to this Agreement identified as:

- a. The Project Manual (pages 1 to 416, inclusive);
- b. Contractor's Bid (page 00300-1 to 00300-14, inclusive);
- c. Permits (pages ____ to ____, inclusive);
- d. Other: _____

8.3 Performance Bond and Payment Bond consisting of 3 pages (plus Power of Attorney Forms as applicable).

8.4 Notice of Award and Notice to Proceed.

8.5 General Conditions consisting of 72 pages.

8.6 Supplementary Conditions consisting of 6 pages.

8.7 Bid documents as listed in the table of contents of the Project Manual.

8.8 Project Specifications not attached hereto but incorporated by the reference consisting of 276 pages named IFB#22-110 Construction Specification with Appendix.

8.9 Drawings not attached hereto but are listed in Specifications.

8.10 Addenda numbers 1 to 2, inclusive.

8.11 Contractor's Bid consisting of 126 pages.

8.12 Documentation submitted by Contractor prior to Notice of Award.

8.13 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to the General Conditions.

8.14 The documents listed under Article 8 above are attached to this Agreement (except as expressly noted otherwise above).

8.15 Any other document attached hereto or incorporated herein by the Owner.

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in the General Conditions.

Governing Order of Contract Documents - The Contract Documents include various divisions, sections and conditions which are essential parts for the work to be provided by the Contractor. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, the following precedence will govern the interpretation of the Contract Documents prior to award of the contract.

- 1. Agreement
- 2. Addenda
- 3. Instructions to Bidders
- 4. Special Conditions

5. Supplementary Conditions
6. General Conditions
7. Technical Specifications
8. Details
9. City Standard Details
10. Drawings/Plans
11. Bid Form

After award, Work Change Directives, Change Orders, amendments and revisions to plans and specifications will take precedence over any of the above. In case of discrepancy among technical specifications, drawings and plans, the most restrictive shall govern. Detailed plans shall have precedence over general plans. In the event that any conflicts cannot be resolved by reference to this Governing Order of Contract Documents provision, then City shall resolve the conflict in any manner which is acceptable to City and which comports with the overall intent of the Contract Documents.

ARTICLE 9. MISCELLANEOUS.

9.1 *Terms.* Terms used in this Agreement will have the meanings indicated in the General Conditions.

9.2 *Assignment.* Unless expressly agreed to elsewhere in the Contract documents, no assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3 *Successors and assigns.* Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

9.4 *Severability.* Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replaced such stricken provision or part thereof with a valid and enforceable provisions that comes as close as possible to expressing the intention of the stricken provision.

9.5 *Public entity crimes.* A person or affiliate 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 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 be awarded or perform Work as a Contractor, Supplier, Subcontractor, or Consultant under a Contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for Category Two for a period of 36 months from the date of being placed on the convicted vendor list.

AGREEMENT

00500-6

9.6 *Inspector General.* In accordance with Palm Beach County ordinance number 2011-009, the Contract Documents may be subject to investigation and/or audit by the Palm Beach County Inspector General. Contractor should review such ordinance in order to be aware of its rights and/or obligations under such ordinance and as applicable.

9.7 *Waiver.* Failure of either party to enforce or exercise any right(s) under the Contract Documents shall not be deemed a waiver of either party's right to enforce said right(s) at any time thereafter.

9.8 *Waiver of jury trial.* TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THE CONTRACT DOCUMENTS.

9.9 *Independent Contractor.* The Contractor is, and shall be, in the performance of all Work under the Contract Documents, an Independent Contractor, and not an employee, agent, or servant of the Owner. All persons engaged in any of the Work performed pursuant to the Contract Documents shall at all times and in all places be subject to the Contractor's sole direction, supervision and control.

9.10 *Access and audits.* The Contractor shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the Work for at least five (5) years after final payment is made. The Owner shall have access to such books, records, and documents as required for the purpose of inspection or audit during normal business hours at the Contractor's place of business. Under no circumstances will Contractor be required to disclose any confidential or proprietary information regarding its products and service costs.

9.11 *Preparation.* The Contract Documents shall not be construed more strongly against either party regardless of who was more responsible for its preparation.

9.12 *Public Records Law.* Contractor shall comply with Florida's Public Records Laws, and specifically agrees to:

- a) Keep and maintain public records required by the Owner to perform the service.
- b) Upon request from the Owner's custodian of public records, provide the Owner 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 in Chapter 119, Florida Statutes or as otherwise provided by law.
- c) 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 Owner.
- d) Upon completion of the contract, transfer, at no cost, to the Owner all public records in possession of the Contractor or keep and maintain public records required by the Owner to perform the service. If the Contractor transfers all public records to the Owner upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall

AGREEMENT

00500-7

meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Owner, upon request from the Owner's custodian of public records, in a format that is compatible with the information technology systems of the Owner.

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 OR DESIGNEE AT: ATTENTION CITY CLERK, (561) 586-1660 OR CITYCLERK@LAKEWORTHBEACHFL.GOV OR 7 NORTH DIXIE HIGHWAY, LAKE WORTH BEACH, FL 33460.

9.13 *Enforcement costs.* If any legal action or other proceeding is brought for the enforcement of the Contract Documents, or because of an alleged dispute, breach, default or misrepresentation in connection with any provisions of the Contract Documents, the parties agree that each party shall be responsible for its own attorney's fees.

9.14 *Binding authority.* Contractor's representative below has full power, authority and legal right to execute and deliver these Contract Documents and perform all of its obligations under the Contract Documents. By signing the Contract Documents, the representative hereby represents to the Owner that he/she has the authority and full legal power to execute the Contract Documents and any and all documents necessary to effectuate and implement the terms of the Contract Documents on behalf of the party for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in the Contract Documents.

9.15 *Assignment of warranties.* Contractor shall assign to Owner all warranties extended to Contractor by material suppliers. If an assignment of warranty requires the material supplier to consent to same, then Contractor shall secure the material supplier's consent to assign said warranties to Owner.

9.16 *Contractor's certifications.* Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract Documents. For the purposes of this paragraph:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract Documents to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract Documents.

9.17 *Construction defects.* PURSUANT TO SECTION 558.005, FLORIDA STATUTES, ANY CLAIMS FOR CONSTRUCTION DEFECTS ARE NOT SUBJECT TO THE NOTICE AND CURE PROVISIONS OF CHAPTER 558, FLORIDA STATUTES.

9.18 *Delays; Contractor's remedies.* NOTWITHSTANDING ANY PROVISION ELSEWHERE IN THE CONTRACT DOCUMENTS, NO CLAIM FOR DAMAGES OR ANY CLAIM OTHER THAN FOR AN EXTENSION OF TIME SHALL BE MADE OR ASSERTED AGAINST OWNER BY REASON OF ANY DELAYS. Contractor shall not be entitled to an increase in the Contract Price or payment or compensation of any kind from Owner for direct, indirect, consequential, impact or other costs, expenses or damages, including, but not limited to, costs of acceleration or inefficiency, arising because of delay, disruption, interference, or hindrance, be it reasonable or unreasonable, foreseeable or avoidable or unavoidable. Contractor shall be entitled only to extensions of the Contract Time as the sole and exclusive remedy for such resulting delays, in accordance with and the extent specifically provided herein.

9.19 *Termination for failure to provide Public Construction Bond.* If a Public Construction Bond is required under the Construction Documents and the Contractor fails to provide the fully executed Public Construction Bond, including a certified copy of the Public Construction Bond as recorded in the Official Records for Palm Beach County, within fifteen (15) calendar days after the Contractor's and Owner's execution of this Agreement, the Owner may immediately terminate this Agreement upon written notice to the Contractor and the Owner shall have no further obligation to the Contractor under the Contract. In the event of such termination, the Contractor shall also forfeit its bid security to the Owner.

9.20 *E-Verify.* Pursuant to Section 448.095(2), Florida Statutes, beginning on January 1, 2021, the CONTRACTOR shall:

- a. Register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all CONTRACTORS (providing services or receiving funding under this Agreement) to register with and use the E-Verify system to verify the work authorization status of all the Contractors' newly hired employees;
- b. Secure an affidavit from all CONTRACTORS (providing services or receiving funding under this Agreement) stating that the CONTRACTOR does not employ, contract with, or subcontract with an "unauthorized alien" as defined in Section 448.095(1)(k), Florida Statutes;
- c. Maintain copies of all CONTRACTOR affidavits for the duration of this Agreement and provide the same to the City upon request;
- d. Comply fully, and ensure all CONTRACTORS comply fully, with Section 448.095, Florida Statutes;
- e. Be aware that a violation of Section 448.09, Florida Statutes (Unauthorized aliens; employment prohibited) shall be grounds for termination of this Agreement; and,
- f. Be aware that if the City terminates this Agreement under Section 448.095(2)(c), Florida Statutes, the CONTRACTOR may not be awarded a contract for at least 1 year after the date on which the Agreement is terminated and will be liable for any additional costs incurred by the City as a result of the termination of the Agreement.

9.21 *Scrutinized Companies.* CONTRACTOR certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the City may immediately terminate this Agreement at its sole option if the CONTRACTOR or any of its subcontractors are found to have submitted a false certification; or if the CONTRACTOR or any of its subcontractors, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of this Agreement.

- a) If this Agreement is for one million dollars or more, the CONTRACTOR certifies that it and its subcontractors are also not on the Scrutinized Companies with Activities in Sudan List, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaged in business operations in Cuba or Syria as identified in Section 287.135, Florida Statutes. Pursuant to Section 287.135, the City may immediately terminate this Agreement at its sole option if the CONTRACTOR, or any of its subcontractors are found to have submitted a false certification; or if the CONTRACTOR or any of its subcontractors are placed on the Scrutinized Companies with Activities in Sudan List, or Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or are or have been engaged with business operations in Cuba or Syria during the term of this Agreement.
- b) The CONTRACTOR agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under this Agreement.
- c) The CONTRACTOR agrees that the certifications in this section shall be effective and relied upon by the CITY for the term of this Agreement, including any and all renewals.
- d) The CONTRACTOR agrees that if it or any of its subcontractors' status changes in regards to any certification herein, the CONTRACTOR shall immediately notify the CITY of the same.
- e) As provided in Subsection 287.135(8), Florida Statutes, if federal law ceases to authorize the above-stated Contracting prohibitions then they shall become inoperative.

REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in four parts. Two counterparts have been delivered to Owner, and one counterpart each to Contractor and Engineer. All portions of the Contract Documents have been signed or identified by Owner and Contractor or by Engineer on their behalf.

CITY OF LAKE WORTH BEACH, FLORIDA

By: _____
Betty Resch, Mayor

ATTEST:

By: _____
Melissa Ann Coyne, City Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

By: _____
Glen J. Torcivia, City Attorney

APPROVED FOR FINANCIAL
SUFFICIENCY

By: _____
Bruce T. Miller, Financial Services Director

CONTRACTOR:

By: _____

[Corporate Seal]

Print Name: _____

Title: _____

STATE OF _____)
COUNTY OF _____)

THE FOREGOING instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization on this ____ day of _____, 2022, by _____, as the _____ [title] of _____ [vendor's name], a _____ [corporate description], who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONTRACTOR to the same.

Notary Public Signature

Notary Seal:

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

00501
OPINION OF ATTORNEY

This is to certify that I have examined the attached Contract Documents, that after such examination I am of the opinion that the execution of the Agreement, the Performance Bond and Payment Bond are in due and proper form.

Attorney for Owner

This the _____ day of _____, 20_____.

CITY OF LAKE WORTH BEACH
PAYMENT AND PERFORMANCE BOND
(Pursuant to secs. 255.05 and 337.18, Fla. Stat.)

Surety Bond No. _____

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR:

Name:

Principal Business Address:

Telephone Number:

SURETY:

Name:

Principal Business Address

Telephone Number:

OWNER:

City of Lake Worth Beach

7 North Dixie Highway

Lake Worth Beach, FL 33460

(561) 586-1600

CONTRACT:

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

This Bond is issued in favor of the City of Lake Worth Beach/Owner conditioned on the full and faithful performance of the Contract.

1. Contractor has entered into Project No. _____ with the City for the project titled “_____” (the “Contract”), with conditions and provisions as are further described in the aforementioned Contract, which Contract, including all of its attachments, exhibits and incorporated documents (hereinafter, collectively, the “Contract Documents”) is by reference made a part hereof for the purposes of explaining this bond.
2. Principal and Surety are bound to the Owner in the sum of the Contract Amount set forth above for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.
3. THE CONDITION OF THIS BOND is that if Principal:

a. Performs the Work required of and in accordance with the Contract Documents at the times and in the manner prescribed in the Contract Documents, which are made a part of this bond by reference; and

b. In accordance with sec. 255.05 and sec. 337.18, Florida Statutes, promptly makes payments to all persons, defined in sec. 713.01, Florida Statutes, who furnish labor, services or materials for prosecution of the work set forth in the Contract Documents described above; and

c. Pays Owner all losses, damages (including liquidated damages), expenses, costs, and professional fees, including but not limited to attorneys' fees, including appellate proceedings, that Owner sustains because of a default by Principal under the Contract Documents; and

d. Performs the warranty and guarantee of all work and materials furnished under the Contract Documents for the time specified in the Contract Documents, then this bond is void; otherwise it remains in full force.

4. Section 255.05, Fla. Stat., as amended, together with all notice and time provisions contained therein, is incorporated herein by reference.

5. Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in secs. 255.05(2) and (10), Fla. Stat., and those of sec. 337.18, Fla. Stat.

6. Any changes in or under the Contract Documents and compliance or noncompliance with any formalities connected with the Contract Documents or the changes does not affect Surety's obligation under this bond, and Surety waives notice of such changes.

7. Principal and Surety expressly acknowledge that any and all provisions relating to consequential, delay and liquidated damages contained in the contract are expressly covered by and made a part of this Performance, Labor and Material Payment Bond. Principal and Surety acknowledge that any such provisions lie within their obligations and within the policy coverages and limitations of this instrument.

8. Any action brought under this instrument shall be brought in the state court of competent jurisdiction in Palm Beach County, Florida, and not elsewhere.

Surety and Contractor, intending to be legally bound hereby, subject to the terms included herein and as required under Florida Statutes, do each cause this Performance and Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

Signed and sealed this _____ day of _____, 2022.

Witness

Principal

Title

(Corporate Seal)

Witness

Surety

Attorney-in-Fact
(Attach Power of Attorney)

Print Name

(Corporate Seal)

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

SECTION 00630
NOTICE OF COMPLIANCE WITH CHAPTER 556, FLORIDA STATUTES

The undersigned Contractor does hereby confirm to the Owner and Engineer that the Contractor has reviewed the provisions of Chapter 556, Florida Statutes, and has provided to "Sunshine State One-Call of Florida, Inc." the information required under F.S. 556.105 before the commencement of any excavation or demolition required for the Work.

Executed this _____ day of _____, 20____.

(name of Contractor)

(signature)

(print name)

(title)

END OF SECTION

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

00670
CONTRACTOR'S AFFIDAVIT TO OWNER

STATE OF FLORIDA
COUNTY OF _____

Before me, the undersigned authority, authorized to administer oaths and take acknowledgements, personally appeared _____, who, being by me first duly sworn, on oath depose(s) and say(s):

(1) He/she is/They are a (Corporation, Partnership or Individual) of _____ (State), doing business as _____ (Company Name), hereinafter called "Contractor".

(2) Contractor heretofore entered into a Contract with _____ hereinafter called "Owner" to do Work (furnish material, labor and services) for the construction of _____, located at _____ County, Florida.

(3) Contractor has fully completed construction in accordance with the terms of the Contract, and all lienors have been paid in full, except:

<u>NAME OF LIENOR</u>	<u>AMOUNT DUE AND UNPAID</u>
	\$

(4) All Workmen's Compensation claims have been settled and no liability claims are pending, in connection with, arising out of or resulting from the Contract.

(5) Receipt by the Contractor of the final payment, under the aforementioned Contract, shall constitute a full release and discharge by the Contractor to the Owner of any and all claims of the Contractor against the Owner, arising out of, connected with, or resulting from performance of the obligations of the Contractor pursuant to the Contract Documents.

(6) The term "lienor" as used in this affidavit means any person having a lien or a prospective lien, under the Mechanics Lien Law of Florida, on the land and property of the Owner referred to in paragraph (2) of this affidavit.

(7) This affidavit is given pursuant to the provisions of Florida Statutes Section 713.06 or Section 255.05, whichever is applicable.
Signed and sealed in the presence of:

(ENTITY)

By: _____

[Corporate Seal]

Print Name: _____

Title: _____

STATE OF _____)
COUNTY OF _____)

THE FOREGOING instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization on this ____ day of _____ 2022, by _____, as the _____ [title] of _____ [vendor's name], a _____ [corporate description], who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONTRACTOR to the same.

Notary Seal:

Notary Public Signature

00680
APPLICATION FOR PAYMENT NO. _____

Project: IFB #22-110 Canal Transmission Substation Construction

Application is made for payment, as hereinafter shown, in connection with this Agreement:

Total Work to Date - see attached schedule	\$ _____
Work performed from _____	(date) to _____ (date)
Total Material Suitably Stored - see attached schedule	\$ _____
Gross Amount Due	\$ _____
Less _____ % Retainage	\$ _____
Amount Due to Date	\$ _____
Less Previous Applications	\$ _____
Amount Due This Application	\$ _____
Original Contract Price	\$ _____
Net Change Orders	\$ _____
Current Contract Price	\$ _____
Value of Work Remaining to be Done	\$ _____

Contractor's Certification:

The undersigned Contractor certifies that (1) all previous progress payments received from Owner on account of Work done under the Agreement referred to above have been applied to discharge in full all obligations of Contractor incurred in connection with Work covered by prior Applications for Payment numbered 1 through _____, inclusive; and (2) title to all materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all liens, claims, security interests and encumbrances (except such as covered by Bond acceptable to Owner).

Dated _____, 20____

Contractor and Mailing Address

By _____
(Name and Title)

STATE OF _____)
COUNTY OF _____)

THE FOREGOING instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization on this ____ day of _____ 2022, by _____, as the _____ [title] of _____ [vendor's name], a _____ [corporate description], who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONTRACTOR to the same.

Notary Public Signature

Notary Seal:

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Power Engineers, Inc.

Date: _____

By: _____
(Name) (Title)

Date: _____

CITY OF LAKE WORTH BEACH
By _____
(Name) (Title)

00681

SCHEDULE OF VALUES AND WORK COMPLETED

PROJECT TITLE: **IFB #22-110 Canal Transmission Substation Construction**

CONTRACTOR _____

FOR PERIOD ENDING _____

TO ACCOMPANY APPLICATION NO. _____

ITEM	CONTRACTOR'S Schedule of Values			Work Completed	
	Unit Price	Quantity	Amount	Quantity	Amount
	\$		\$		\$
NOTE: CONTRACTOR SHALL PREPARE APPROPRIATE SCHEDULE WITH ALL CONTRACT ITEMS					
SHOWN FOR ATTACHMENT TO EACH APPLICATION FOR PAYMENT.					
			Total (Original Contract)		\$ _____
C.O. No. 1					
C.O. No. 1	NOTE: CHANGE ORDER(S) SHALL BE ITEMIZED AS APPLICABLE.				

TOTAL WORK TO DATE \$ _____

MATERIALS SUITABLY STORED

NOTE: CONTRACTOR TO ITEMIZE AND ATTACH APPROPRIATE INVOICES

TOTAL MATERIAL SUITABLY STORED \$ _____

Accompanying Documentation (Contractor to itemize):

SCHEDULE OF VALUES AND WORK COMPLETED

November 2018

00681

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

Copyright © 2013:

National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

The copyright for this document is owned jointly by the three sponsoring organizations listed above. The National Society of Professional Engineers is the Copyright Administrator for the EJCDC documents; please direct all inquiries regarding EJCDC copyrights to NSPE.

NOTE: EJCDC publications may be purchased at www.ejcdc.org, or from any of the sponsoring organizations above.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology	1
1.01 Defined Terms	1
1.02 Terminology	5
Article 2 – Preliminary Matters	6
2.01 Delivery of Bonds and Evidence of Insurance	6
2.02 Copies of Documents	6
2.03 Before Starting Construction.....	6
2.04 Preconstruction Conference; Designation of Authorized Representatives	7
2.05 Initial Acceptance of Schedules.....	7
2.06 Electronic Transmittals.....	7
Article 3 – Documents: Intent, Requirements, Reuse	8
3.01 Intent	8
3.02 Reference Standards	8
3.03 Reporting and Resolving Discrepancies	8
3.04 Requirements of the Contract Documents	9
3.05 Reuse of Documents	10
Article 4 – Commencement and Progress of the Work.....	10
4.01 Commencement of Contract Times; Notice to Proceed	10
4.02 Starting the Work	10
4.03 Reference Points	10
4.04 Progress Schedule	10
4.05 Delays in Contractor’s Progress.....	11
Article 5 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions.....	12
5.01 Availability of Lands.....	12
5.02 Use of Site and Other Areas	12
5.03 Subsurface and Physical Conditions	13
5.04 Differing Subsurface or Physical Conditions	14
5.05 Underground Facilities	15

5.06	Hazardous Environmental Conditions at Site.....	17
Article 6 – Bonds and Insurance		19
6.01	Performance, Payment, and Other Bonds	19
6.02	Insurance—General Provisions	19
6.03	Contractor’s Insurance	20
6.04	Owner’s Liability Insurance	23
6.05	Property Insurance	23
6.06	Waiver of Rights	25
6.07	Receipt and Application of Property Insurance Proceeds.....	25
Article 7 – Contractor’s Responsibilities.....		26
7.01	Supervision and Superintendence	26
7.02	Labor; Working Hours	26
7.03	Services, Materials, and Equipment.....	26
7.04	“Or Equals”	27
7.05	Substitutes.....	28
7.06	Concerning Subcontractors, Suppliers, and Others	29
7.07	Patent Fees and Royalties	31
7.08	Permits	31
7.09	Taxes.....	32
7.10	Laws and Regulations	32
7.11	Record Documents	32
7.12	Safety and Protection	32
7.13	Safety Representative	33
7.14	Hazard Communication Programs	33
7.15	Emergencies	34
7.16	Shop Drawings, Samples, and Other Submittals.....	34
7.17	Contractor’s General Warranty and Guarantee.....	36
7.18	Indemnification	37
7.19	Delegation of Professional Design Services	37
Article 8 – Other Work at the Site		38
8.01	Other Work.....	38
8.02	Coordination.....	39
8.03	Legal Relationships.....	39

Article 9 – Owner’s Responsibilities	40
9.01 Communications to Contractor	40
9.02 Replacement of Engineer	40
9.03 Furnish Data	40
9.04 Pay When Due	40
9.05 Lands and Easements; Reports, Tests, and Drawings	40
9.06 Insurance	40
9.07 Change Orders.....	40
9.08 Inspections, Tests, and Approvals	41
9.09 Limitations on Owner’s Responsibilities	41
9.10 Undisclosed Hazardous Environmental Condition	41
9.11 Evidence of Financial Arrangements	41
9.12 Safety Programs	41
Article 10 – Engineer’s Status During Construction	41
10.01 Owner’s Representative	41
10.02 Visits to Site	41
10.03 Project Representative	42
10.04 Rejecting Defective Work.....	42
10.05 Shop Drawings, Change Orders and Payments	42
10.06 Determinations for Unit Price Work	42
10.07 Decisions on Requirements of Contract Documents and Acceptability of Work	42
10.08 Limitations on Engineer’s Authority and Responsibilities.....	42
10.09 Compliance with Safety Program	43
Article 11 – Amending the Contract Documents; Changes in the Work.....	43
11.01 Amending and Supplementing Contract Documents.....	43
11.02 Owner-Authorized Changes in the Work	44
11.03 Unauthorized Changes in the Work	44
11.04 Change of Contract Price.....	44
11.05 Change of Contract Times	45
11.06 Change Proposals	45
11.07 Execution of Change Orders.....	46
11.08 Notification to Surety	47
Article 12 – Claims	47

12.01	Claims	47
Article 13 – Cost of the Work; Allowances; Unit Price Work		48
13.01	Cost of the Work	48
13.02	Allowances	50
13.03	Unit Price Work	51
Article 14 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work		52
14.01	Access to Work.....	52
14.02	Tests, Inspections, and Approvals	52
14.03	Defective Work.....	53
14.04	Acceptance of Defective Work.....	53
14.05	Uncovering Work.....	53
14.06	Owner May Stop the Work	54
14.07	Owner May Correct Defective Work	54
Article 15 – Payments to Contractor; Set-Offs; Completion; Correction Period.....		55
15.01	Progress Payments	55
15.02	Contractor’s Warranty of Title	58
15.03	Substantial Completion	58
15.04	Partial Use or Occupancy	59
15.05	Final Inspection	59
15.06	Final Payment.....	59
15.07	Waiver of Claims.....	61
15.08	Correction Period	61
Article 16 – Suspension of Work and Termination.....		62
16.01	Owner May Suspend Work	62
16.02	Owner May Terminate for Cause	62
16.03	Owner May Terminate For Convenience	63
16.04	Contractor May Stop Work or Terminate	63
Article 17 – Final Resolution of Disputes.....		64
17.01	Methods and Procedures.....	64
Article 18 – Miscellaneous.....		64
18.01	Giving Notice	64
18.02	Computation of Times.....	64
18.03	Cumulative Remedies.....	64

18.04	Limitation of Damages	65
18.05	No Waiver.....	65
18.06	Survival of Obligations.....	65
18.07	Controlling Law.....	65
18.08	Headings.....	65

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 Reference Standards

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 Reporting and Resolving Discrepancies

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
- 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
- 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 - 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 - 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
 1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
 1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds:* The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance:* If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions:* The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
 - B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
 - C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
- d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 - 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 - 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
 - 1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 - 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for

expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

00800
SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2013 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect. The General Conditions may also be supplemented elsewhere in the Contract Documents.

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract, EJCDC C-700 (2013 Edition) have the meanings assigned to them in the General Conditions.

PART 1 - MODIFICATIONS AND SUPPLEMENTS TO GENERAL CONDITIONS

SC-2.01 Delivery of Bonds and Evidence of Insurance

Delete paragraph 2.01 C. of the General Conditions in its entirety and insert the following in its place:

C. This subsection is not needed.

SC-3.03 Reporting and Resolving Discrepancies

Delete the paragraph 3.03 A.3 in its entirety and insert the following in its place:

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof or unless Contractor reasonably should have known of such conflict, error, ambiguity or discrepancy.

SC-4.01 Commencement of Contract Time; Notice to Proceed

Delete the last sentence of paragraph 4.01 A. of the General Conditions and insert the following in its place:

In no event will the Contract Time commence to run later than the 120th day after the day of the Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier, unless agreed otherwise by Owner and Contractor in writing.

SC-5.03 Subsurface and Physical Conditions

Delete paragraphs 5.03 A. and 5.03 B. in of the General Conditions in their entirety and insert the following in their place:

5.03 Subsurface and Physical Conditions

A. Reports and Drawings: Division 1: General Requirements of the Specifications shall identify those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the site and drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the site that have been utilized by Engineer in preparation of the Contract Documents. Contractor may rely upon the accuracy of any Technical Data contained in such reports that is specifically referenced in Division 1: General Requirements as Technical Data that can be relied on by Contractor. Except as indicated above, Contractor shall have full responsibility with respect to subsurface and physical conditions at the site.

B. Contractor may rely on the technical data as set forth in subsection A above, but such reports and drawings are not Contract Documents. Except for such reliance on Technical Data, Contractor may

not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. The completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. Any Contractor interpretation of or conclusion drawn from any Technical data or any such other data, interpretations, opinions, or information.

SC-5.06 Hazardous Environmental Conditions at Site

Delete paragraphs 5.06 A., 5.06 B. and 5.06 I. in of the General Conditions in their entirety and insert the following in their place:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. This subsection is not needed.
- I. This subsection is not needed.

SC-6.01 Performance, Payment and Other Bonds

Add the following language at the end of Paragraph 6.01 A.:

In accordance with section 255.05(1), Fla. Stat., as amended from time to time, before commencing the Work or before recommencing the Work after a default or abandonment, the Contractor shall execute and record in the public records of Palm Beach County a payment and performance bond with a surety insurer authorized to do business in the State of Florida, and the Contractor shall be required to provide to the Owner a certified copy of the recorded bond. The Owner may not make a payment to the Contractor until the Contractor has complied with section 255.05(1)(b), Fla. Stat.

SC-6.02 Insurance – General Provisions

Add the following language at the end of Paragraph 6.02 C.:

Contractor shall deliver the required certificates of insurance prior to the commencement of any Work at the site. All of the policies of insurance (or the certificates or other evidence thereof) required to be purchased and maintained by Contractor shall be "claims made" and contain the name of the Project.

SC-6.03 Contractor's Insurance

Delete the following language in Paragraph 6.03 G.:

G. *Additional insureds:* The Contractor's commercial general liability, ~~automobile liability~~, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

Add the following new paragraph immediately after Paragraph 6.03 J.:

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Worker's Compensation, and related coverages under Paragraphs 6.03 A.1. and 6.03 A.2. of the General Conditions:

State: Statutory

Applicable Federal (e.g. Longshoreman's and Harbor Workers' Compensation, Maritime, Jones Act, etc.): Statutory

Employer's liability:

Bodily injury, each accident \$1,000,000

Bodily injury by disease, each employee \$1,000,000

Bodily injury/disease aggregate \$1,000,000

2. Contractor's Commercial General Liability under paragraphs 6.03 B. and 6.03 C. of the General Conditions:

General Aggregate \$3,000,000

Products and Completed Operations Aggregate \$3,000,000

Personal and Advertising Injury \$1,000,000

Each Occurrence (Bodily Injury and Property Damage) \$1,000,000

3. Automobile Liability under paragraph 6.03 D. of the General Conditions:

Combined Single Limit of \$1,000,000

4. Excess or Umbrella Liability under paragraph 6.03 E. of the General Conditions:

Per Occurrence \$If applicable

General Aggregate \$If applicable

SC-6.04 Owner's Liability Insurance

Delete paragraphs 6.04 A. and 6.04 B. of the General Conditions in their entirety and insert the following in their place:

A. This Subsection is not needed.

B. This subsection is not needed.

SC-6.05 Property Insurance

Add the following language at the end of paragraph 6.05 C.:

The maximum deductible amount for any insurance required under paragraph 6.05 shall be \$5,000.00.

SC-6.06 Waiver of Rights

Delete paragraphs 6.06 B. and 6.06 C. of the General Conditions in their entirety and insert the following in their place:

- B. This Subsection is not needed.
- C. This subsection is not needed.

SC-7.01 Supervision and Superintendence

Add the following language at the end of paragraph 7.01 B.:

The superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.

SC-7.07 Patent Fees and Royalties

Delete paragraph 7.07 B. and insert the following in its place:

- B. This subsection is not needed.

SC-7.08 Permits

Add the following language at the end of paragraph 7.08 A.:

Contractor shall obtain and pay for the following permits:

1. City of Lake Worth Building Permit. Include in the bid amount a 3-percent of appropriate items permit fee based on the bid cost. This permit fee amount will be adjusted based on the actual fee charged and the difference credited, as applicable.
2. Any other applicable permits.

SC-7.18 Indemnification

Delete paragraph 7.18 A. and insert the following in its place:

- A. Contractor shall indemnify and hold harmless Owner and Engineer and their respective officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the Contract Documents. Compliance with any insurance requirements required elsewhere in the Contract Documents shall not relieve Contractor of its liability and obligation to hold harmless and indemnify the City as set forth in this section. It is the specific intent of the parties hereto that the foregoing indemnification complies with section 725.06, Florida Statutes. It is further the specific intent and agreement of the parties that all of the Contract Documents on this Project are hereby amended to include the foregoing indemnification and the required "Specific Consideration" therefore. Nothing contained in the Contract Documents shall be construed or interpreted as consent by the City to be sued, nor shall the Contract Documents be construed as a waiver of sovereign immunity beyond the waiver provided in section 768.28, Fla. Stat., as amended from time to time.

SC-10.03 Project Representative

Add the following new paragraph immediately after paragraph 10.03 A.:

- B. On this Project, by agreement with the Owner, Engineer will not furnish a Resident Project Representative to represent Engineer at the Site or assist Engineer in observing the progress and quality of the Work. However, if the Engineer does furnish a Resident Project Representative per

paragraph 10.03 of the General Conditions, the duties, etc. of the representative shall be as provided in the Listing of the Duties, Responsibilities and Limitations of Authority of the Resident Project Representative as included in the Project Manual. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity shall be presented at the Preconstruction Conference or as otherwise set forth in the Project Manual.

SC-10.04 Rejecting Defective Work

Add the following language at the end of paragraph 10.04 A.:

- A. Engineer also has the authority to disapprove or reject Work which Engineer believes will not produce a completed Project that conforms to the Contract documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

SC-11.04 Change of Contract Price

Delete paragraphs 11.04 C.2.c. and 11.04 C.2.e. in their entirety and insert the following in their place:

- c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the maximum allowable to Contractor on account of overhead and profit of all Subcontractors shall be fifteen percent;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to ten percent of such net decrease; and

SC-13.03 Unit Price Work

Delete paragraph 13.03 E. in its entirety and insert the following in its place:

- E. Contractor may not make a claim for additional expenses incurred as a result of a difference between final quantity of any item(s) of Unit Price Work and the estimated quantity of such item(s) in the Contract Documents, unless specifically allowed in the Bid Form. Any adjustments specifically allowed shall be made in accordance with directions in the Bid Form.

SC-16.03 Owner May Terminate for Convenience

Add the following new paragraph immediately after paragraph 16.03 B.:

- C. If a court of competent jurisdiction finds that the Owner wrongfully terminated this Contract, then in such event, this Contract shall be deemed terminated for convenience as provided for in this paragraph, and the Contractor shall not be entitled to loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination but may be entitled to all items as authorized herein.

SC-18.07 Controlling Law

Delete paragraph 18.07 A. in its entirety and insert the following in its place:

- A. This Contract is to be governed by the laws of the State of Florida. The venue for any and all legal action necessary to enforce the Contract Documents will be in Palm Beach County, Florida.

PART 2 - ADDITIONAL SUPPLEMENTARY CONDITIONS

1. ATTACHMENTS:

The following forms included in the Project Manual shall be used by Contractor for submittals required by the Contract Documents (unless Owner accepts other form):

- a. Construction Payment And Performance Bond (00620).
- b. Notice of Compliance with Chapter 556, Florida Statutes (00630).
- d. Contractor's Affidavit to Owner (00670).
- e. Form of Application for Payment (00680).

END OF SECTION

00820
SPECIAL CONDITIONS

CITY OF LAKE WORTH BEACH PROCUREMENT DIVISION REQUIREMENTS

SPC-1 APPROVAL OF ACCOUNTING SYSTEM

Except with respect to firm fixed-price contracts, no contract type shall be used unless the Purchasing Manager has determined in writing that:

- 1) The proposed contractor's accounting system will permit timely development of all necessary cost data in the form required by the specific contract type contemplated; and
- 2) The proposed contractor's accounting system is adequate to allocate costs in accordance with generally accepted cost accounting principles.

SPC-2 RIGHT TO INSPECT PLANT

The City may, at reasonable times, inspect any part of the plant, place of business, or work site of a contractor or subcontractor which is pertinent to the performance of any contract awarded or to be awarded by the City.

SPC-3 RIGHT TO AUDIT RECORDS

- 1) **Audit of Cost or Pricing Data:** The City may, at reasonable times and places audit the books, documents, papers and records of any contractor who has submitted cost or pricing data to the extent that such books, documents, papers and records are pertinent to such cost or pricing data. Any person who receives a contract, change order or contract modifications for which cost or pricing data is required, shall maintain such books, documents, papers and records that pertinent to such costs or pricing data for five (5) years from the date of the final payment under the contract.
- 2) **Contract Audit:** The City shall be entitled to audit the books, documents, papers and records of a contractor or a subcontractor at any tier under any negotiated contract or subcontract other than a firm fixed-price contract to the extent that such books, documents, papers and records are pertinent to the performance of such contract or subcontract. Such books, documents, papers and records shall be maintained by the contractor for a period of five (5) years from the date of final payment under the prime contract and by the subcontractor for a period of five (5) years from the date of final payment under the subcontract.
- 3) **Contractor Records:** If a contract is being funded in whole or in part by assistance from a federal agency, then the contract shall include provisions:
 - A) Requiring the contractor and subcontractor at any tier to maintain for five (5) years from the date of final payment under the contract all books, documents, papers and records pertinent to the contract; and

- B) Requiring the contractor and subcontractor at any tier to provide to the City, the federal grantor agency, the Comptroller General of the United States, or any of their duly authorized representatives access to such books, documents, papers and records for the purposes of examining. Auditing and copying them.

SPC-4 CONTRACTOR'S START OF WORK & CHANGE OF SCOPE

- 1) The Contractor shall not perform work without a Purchase Order.
- 2) The Contractor shall not work out of scope without a signed, issued change order to the purchase order, authorizing the additional work and any change to the period of performance (Construction Contract Time).

SPC-5 APPROPRIATION OF FUNDS

This project is subject to approval and appropriation of funds by the City of Lake Worth Beach City Commission.

SPC-6 BUILDING PERMIT FEE

A building permit fee equal to 3-percent of the accepted bid shall be included in the project costs. See Supplemental Conditions paragraph SC-7.08 for further details.

SPC-7 CONE OF SILENCE

All communications shall be in accordance with the City of Lake Worth Beach Code of Ordinances, Section 2-112(k), Cone of Silence.

SPC-8 ADDITIONAL AND SUPPLEMENTAL DISCLOSURE REQUIREMENTS

Any applicant coming before the City of Lake Worth Beach City Commission for an award of a contract with the City and who has made an election campaign contribution in an amount that is more than one hundred dollars (\$100.00) to any elected official of the City Commission, who is a current sitting member of the Commission, must disclose such election campaign contribution, verbally and in writing, during the application or bidding process and before the award of the contract in accordance with the City of Lake Worth Beach Code of Ordinances, Chapter 2, Article XII Code of Ethics, Section 2-101(2). All applicants shall complete the City's Campaign Contribution Statement.

00840
LISTING OF THE DUTIES, RESPONSIBILITIES AND
LIMITATIONS OF AUTHORITY OF THE
RESIDENT PROJECT REPRESENTATIVE

ENGINEER may furnish a Resident Project Representative (RPR), assistants and other field staff to assist ENGINEER in observing performance of the Work of the Contractor. RPR may only be part time on site, and CONTRACTOR shall coordinate with RPR as required in the Contract Documents.

Through on-site observations of the Work in progress and field checks of materials and equipment by the RPR and assistants, ENGINEER shall endeavor to provide further protection for OWNER against defects and deficiencies in the Work; but, the furnishing of such services will not make ENGINEER responsible for or give ENGINEER control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs, or responsibility for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

The duties and responsibilities of the RPR are limited to those of ENGINEER in ENGINEER's agreement with the OWNER and in the construction Contract Documents, and are further limited and described as follows:

A. GENERAL

RPR is ENGINEER's agent at the site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with ENGINEER and CONTRACTOR keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

B. DUTIES AND RESPONSIBILITIES OF RPR

1. **SCHEDULES:** Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.
2. **CONFERENCES AND MEETINGS:** Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
3. **LIAISON:**
 - a. Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent and assist in understanding the intent of the Contract Documents; and assist ENGINEER in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operations affect OWNER's on-site operations.
 - b. Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.
4. **SHOP DRAWINGS AND SAMPLES:**
 - a. Record date of receipt of Shop Drawings and samples.
 - b. Receive samples which are furnished at the site by CONTRACTOR, and notify ENGINEER of availability of samples for examination.

c. Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by ENGINEER.

5. REVIEW OF WORK, REJECTION OF DEFECTIVE WORK, INSPECTIONS AND TESTS:

a. Conduct on-site observations of the Work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.

b. Report to ENGINEER whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of Work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

c. Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record and report to ENGINEER appropriate details relative to the test procedures and startups.

d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to ENGINEER.

6. INTERPRETATION OF CONTRACT DOCUMENTS: Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by ENGINEER.

7. MODIFICATIONS: Consider and evaluate CONTRACTOR's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to CONTRACTOR decisions as issued by ENGINEER.

8. RECORDS:

a. Maintain at the job site or ENGINEER's office files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.

b. Record names, addresses and telephone numbers of all CONTRACTORS, subcontractors and major suppliers of materials and equipment.

9. REPORTS:

a. Furnish ENGINEER periodic reports as required of progress of the Work and of CONTRACTOR's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.

b. Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work.

c. Draft proposed Change Orders and Work Directive Changes, obtaining backup material from CONTRACTOR and recommend to ENGINEER Change Orders, Work Directive Changes, and Field Orders.

d. Report immediately to ENGINEER and OWNER upon the occurrence of any accident witnessed by RPR or that was otherwise made known to RPR.

10. PAYMENT REQUESTS: Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to

ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.

11. CERTIFICATES, MAINTENANCE AND OPERATION MANUALS: During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment for the Work.

12. COMPLETION:

- a. Before ENGINEER issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.
- b. Conduct final inspection in the company of ENGINEER, OWNER and CONTRACTOR and prepare a final list of items to be completed or corrected.
- c. Observe that all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance.

C. LIMITATIONS OF AUTHORITY

Resident Project Representative:

1. Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by ENGINEER.
2. Shall not exceed limitations of ENGINEER's authority as set forth in the Contract Documents.
3. Shall not undertake any of the responsibilities of CONTRACTOR, subcontractors or CONTRACTOR's superintendent.
4. Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
5. Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
6. Shall not accept Shop Drawing or sample submittals from anyone other than Contractor.
7. Shall not authorize OWNER to occupy the Project in whole or in part.
8. Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by ENGINEER.

END OF SECTION

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

00850
CAMPAIGN CONTRIBUTION STATEMENT

This solicitation is subject to Section 2-101 of the City of Lake Worth Beach Code of Ordinances regarding campaign contributions.

Sec. 2-101. - Additional and supplemental disclosures requirements.

- (a) Any elected official of the City of Lake Worth Beach, who is a current sitting member of the city commission and has accepted an election campaign contribution in an amount that is more than one hundred dollars (\$100.00) from an individual or business entity having an interest in a matter before the city commission in which the city commission will take action, must publicly disclose, both verbally and in writing, such contribution prior to any discussion or vote on the matter. The written disclosure must be submitted to the city clerk.
- (b) Any applicant coming before the city commission for an award of a contract with the city and who has made an election campaign contribution in an amount that is more than one hundred dollars (\$100.00) to any elected official of the city commission, who is a current sitting member of the commission, must disclose such election campaign contribution, verbally and in writing, during the application or bidding process and before the award of the contract.

Vendor to complete: Check which statement applies, fill in the requested information, if applicable, and sign below.

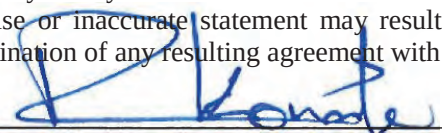
[X] Neither the undersigned business nor any of its owners or officers contributed more than \$100.00 to the campaign of a sitting City Commission member. [If you checked this statement, you are done and may sign below.]

[] The undersigned business or one or more of its owners or officers contributed more than \$100.00 to the campaign of a sitting City Commission member. All such contributions are listed below and on the attached sheet of paper (if more room is needed). [If you checked this statement, please fill in the information requested below and sign below.]

- 1. _____ contributed a total of \$_____ to the campaign of City Commission member _____.
- 2. _____ contributed a total of \$_____ to the campaign of City Commission member _____.
- 3. _____ contributed a total of \$_____ to the campaign of City Commission member _____.
- 4. _____ contributed a total of \$_____ to the campaign of City Commission member _____.

Signature:

I hereby certify that the above statements are true and correct to the best of my knowledge and I understand that a false or inaccurate statement may result in the rejection of this bid/proposal/submittal or the immediate termination of any resulting agreement with the City of Lake Worth Beach.

By:  _____

Print Name: Mohamed Konate

Print Title: Vice President of Operations

Print Name of Business: Energy Erectors, Inc.

Commissioner/Mayor to complete: Check which statement applies, fill in the requested information, if applicable, and sign below.

[☐] Neither the above referenced business nor any of its owners or officers contributed more than \$100.00 to my campaign. [If you checked this statement, you are done and may sign below.]

[☐] The above referenced business or one or more of its owners or officers contributed more than \$100.00 to my campaign. All such contributions are listed below and on the attached sheet of paper (if more room is needed). [If you checked this statement, please fill in the information requested below and sign below.]

_____ contributed a total of \$_____ to my campaign.

_____ contributed a total of \$_____ to my campaign.

_____ contributed a total of \$_____ to my campaign.

_____ contributed a total of \$_____ to my campaign.

Signature:

I hereby certify that the above statements are true and correct to the best of my knowledge and I understand that a false or inaccurate statement may result in the rejection of this bid/proposal/submittal or the immediate termination of any resulting agreement with the City of Lake Worth Beach.

By: _____

Print Name: _____

For City Clerk's Use Only.

THIS SECTION SHALL BE COMPLETED ONLY IF THERE IS A CAMPAIGN CONTRIBUTION LISTED ABOVE BY THE VENDOR OR COMMISSION MEMBER.

Applicable campaign contributions were disclosed in writing above, and prior to the award of the contract, the following statements were verbally made at the City Commission Meeting on the ____ day of _____, 20__.

Check all that apply.

_____ Commissioner/Mayor _____ verbally disclosed the campaign contribution(s) set forth above.

_____ Vendor, _____, verbally disclosed the campaign contribution(s) set forth above.

City of Lake Worth Beach
IFB #22-110
Canal Transmission Substation Construction

00851
SCRUTINIZED COMPANIES CERTIFICATION FORM

By execution below, I, Mohamed Konate, on behalf of Energy Erectors, Inc. (hereinafter, the "Contractor"), hereby swear or affirm to the following certifications:

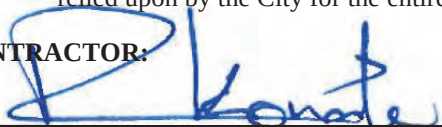
The following certifications apply to all procurements:

1. The Contractor has reviewed section 215.4725, Florida Statutes, section 215.473, Florida Statutes and section 287.135, Florida Statutes, and understands the same.
2. The Contractor is not on the Scrutinized Companies that Boycott Israel List nor is the Contractor engaged in a boycott of Israel.
3. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
4. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

If the contract awarded hereunder is for one million dollars or more, the following additional certifications apply:

1. The Contractor is not on the Scrutinized Companies with Activities in Sudan List.
2. The Contractor is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.
3. The Contractor is not engaged in business operations in Cuba or Syria.
4. If awarded a contract, the Contractor agrees to require these certifications for applicable subcontracts entered into for the performance of work/services under this procurement.
5. If awarded a contract, the Contractor agrees that the certifications in this section shall be effective and relied upon by the City for the entire term of the contract, including any and all renewals.

CONTRACTOR:

By: 

Name: Mohamed Konate Title: Vice President of Operations

Date: 08/10/2022

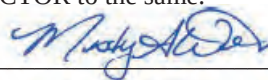
STATE OF Florida)

COUNTY OF Lake)

THE FOREGOING instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on this 15th day of August 2022, by Mohamed Konate, as the Vice President of Operations [title] of Energy Erectors, Inc. [vendor's name], a Florida Corporation [corporate description], who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONTRACTOR to the same.



Notary Seal:



Notary Public Signature



**INVITATION FOR BID
IFB 22-110
Addendum No. 1**

Canal Transmission Substation Construction

This addendum shall modify, clarify, change, or add information and clarification and become part of the above referenced RFP.

New Questions Deadline:

Questions Deadline has been extended to July 25, 2022 at 4 p.m.

Questions & Answers:

Question 1: I don't see anything that calls out substation steel and materials other than where the contractor is responsible for installation. Is there someone at CLWB that can tell us if a package is involved or if the contractors bidding the installation are supplying the S/S equipment/steel, etc.?

Answer 1: Please see section 2A2.2 for the list of Owner supplied material. Steel structures, Anchor bolts, and joining hardware for the structures will be provided by CLWB from Distran.

Question 2: Does the above project currently have an estimated value and mobilization date?

Answer 2: Mobilization is as soon as awarded, under contract, and PO cut. Expectation is October start. Estimated construction budget is approximately \$2,200,000.00.

Question 3: Looking at the canal substation RFB that is currently out – is the 2-mile 138kv t-line that ties to this already being built or will that be looking for a contractor soon as well?

Answer 3: 2 of the lines going in to the Transmission Switchyard are provided by FPL and only terminations from the awarded bidder from the last pole to the take off structure are included in this build. We have no knowledge of FPL bid operations. The 3rd transmission line is already existing from our Main Yard Substation to Canal and will only have a 4-pole

job to properly set the tap off this new 138kV station. The tap and poles are not included in this scope of work.

Question 4: Would you be interested in receiving a proposal from our company to shoot aerial photos by aircraft or by drone of this project?

Answer 4: This request is not part of the project.

Question 5: My name is Mary Ann Mazzella. I supply electrical connectors and other Electrical components. Is it possible for me to receive a list of the contractors so I can supply the best prices in the market? Thanks, I'm advance for your assistance.

Answer 5: Plan Holders list is attached to this Addendum.

Question 6: How do I get plans for this project that do not have Review written on it?

Answer 6: Please see instructions provided in document 00020 Invitation to Bid, second paragraph.

Question 7: Is it possible to leave the owner furnished material at the City's warehouse until needed on-site?

Answer 7: Yes, received material is safely stored until contractor is prepared to pick up and deliver to construction site.

Question 8: Are there any work hour restrictions? Can we work a 6 x 10 schedule?

Answer 8: Yes, this is a green site and will not require CLWB supervision as typical for live stations. A 6 X 10 is acceptable.

Question 9: Is it acceptable to use the spoils from the retention pond excavation as fill for low spots in the new yards?

Answer 9: It is assumed that contractor will bring in all new and clean fill for the yards. This should be priced in to the bid. It is possible but not guaranteed that some may be used but it is at the discretion of CITY.

Question 10: Can we have locked gate access for security?

Answer 10: Contractor may install their own fencing/gate and lock the site down when not present. The overall property has a locked gate and fence with shared access between FPU and CLWB for access to the propane station and our live substation. Contractor can't block access to these two stations. Contractor may chain their lock with the others at the main gate there as well.

Question 11: Can you please email me the most current plans holders list for the project mentioned above?

Answer 11: Plan Holders list is attached to this Addendum.

Question 12: We are respectfully requesting Q&A to remain open until Monday, July 25th - 5pm EST please.

Answer 12: See above new dedline.

Number	Company Name	Primary Contact	Primary Contact Email
IFB#22-110	CONDUCTOR POWER LLC.	Hali	halic@conductorpower.com
IFB#22-110	Custom Built Marine Construction	Robbie	Robbie@custombuiltmarine.com
IFB#22-110	Dennis J. Leavy & Associates, Inc.	Dave	survey@djlasurvey.net
IFB#22-110	Emerald Electrical Consultants LLC	Ryan	rtruit@emerald-power.com
IFB#22-110	Energy Erectors, Inc.	Elizabeth	ebrown@energyerectors.net
IFB#22-110	Engineered Power Products Inc	Michael	mike.albers@epprep.com
IFB#22-110	Hooper Corporation	Rosemary	bidepdf@hoopercorp.com
IFB#22-110	Kiewit Energy Group Inc.	Charisse	charisse.meier@kiewit.com
IFB#22-110	Power Grid Engineering	AJ	aj.khazami@qualusmail.com
IFB#22-110	Power Line Services, Inc.	Nicole	bids@powerlinesinc.com
IFB#22-110	Powerserve Technologies,inc.	Leonardo	LVELOSA@POWERSERVETECH.CO
IFB#22-110	The LE Myers Company	Raymond	rrichards@myrgroup.com



**INVITATION FOR BID
IFB 22-110
Addendum No. 2**

Canal Transmission Substation Construction

This addendum shall modify, clarify, change, or add information and clarification and become part of the above referenced RFP.

Questions & Answers:

Question 1: Will you please provide the camera and microwave pole dimensions, weight, and auger size and depth required for embedment?

Answer 1: Microwave pole installation will be completed under a separate contract and not included under this scope of work. Camera poles will be direct embedded ductile iron poles (55', ~2' diameter, 4,172 lbs, 8' embedment per pole)

Question 2: Will you please provide Station Single Line Drawing showing all electrical equipment to be tested?

Answer 2: Cable testing requirements are located in section 2F.4 of the specification. Equipment testing requirements are located in section 2I.4 & 2I.5. One line provided for relaying/P&C equipment (CTS-138-1L-002-1.PDF)

Question 3: Will you please provide P&C Drawings showing protection and control equipment?

Answer 3: P&C drawings will be provided after award. One line provided for relaying/P&C equipment (CTS-138-1L-002-1.PDF). All equipment inside the Relay Vault including relay panels will be wired by others. Contractor will only be responsible with terminating and connecting external cables to equipment inside the Relay Vault. Remote wiring diagrams will be provided after award.

Question 4: Will you please provide the Testing & Commissioning specifications?

Answer 4: One line provided for relaying/P&C equipment. Testing & commissioning shall include all necessary testing required for a fully functional substation. This includes but not limited to breaker trip/close, breaker failure, transmission line end-to-end testing, ect.

Testing & commissioning for the FPL lines will need to be coordinated with FPL for remote end stations.

Question 5: Does the P&C Scope include any SCADA, RTAC equipment testing?

Answer 5 SCADA testing to be completed by others and not included in this scope of work.

Question 6: Will there be a circuit schedule provided?

Answer 6: See attached circuit schedule (CTS-138-CBL-001-0).

Question 7: Did not see a spec. for the multi-conductor cable in the bid docs, will one be supplied?

Answer 7: See attachment.

Question 8: Is the contractor required to procure the 26KV fused disconnects?

Answer 8: No. These will be furnished by others and installed by the contractor.

1.1 GENERAL

Contractor shall furnish and install all connecting wires and cable in strict conformance with the applicable Drawings and Specification. The Contractor shall be responsible for all attachment materials to complete the installations. All materials and equipment to be used during installation of the wire and cable shall be stored so as to protect them from deterioration or damage. Electronic data cables for RS-232, RS-485, and COAX shall be provided and installed by the Contractor as indicated in the cable schedule.

1.2 MATERIALS

1.2.1 Wire type and size for above-grade and conduit run connections shall be determined as specified below unless otherwise designated on the Drawings.

1.2.1.1 Current circuits shall have a minimum size of #10 AWG.

1.2.1.2 Potential circuits shall have a minimum size of #10 AWG.

1.2.1.3 Multi-conductor control cable shall be insulated, with an overall jacket, tray cable rated and suitable for direct burial and wet/dry locations conforming to, NEMA WC-7, WC-8, IEEE-383 and the following specifications:

1.2.1.3.1 Conductor - Class B stranded soft copper.

1.2.1.3.2 Primary Insulation – PE or approved insulation material per ICEA S-73-532, 0.030" thick, 600V (min.).

1.2.1.3.3 Color code – All multi-conductor cable shall be color coded per ICEA S-73-532, Table E-1. Contractor shall reimburse the Owner for any and all engineering changes required to revise drawings to reflect any other color scheme.

1.2.1.3.4 Assembly - For three (3) conductors or more, fillers and polyester tape covering (ten percent (10%) minimum overlap) shall be applied to form a round cable.

1.2.1.3.5 Overall jacket - The multiconductor cable shall have a PVC or approved material conforming with ICEA S-73-532 outer jacket applied over the cabled assembly.

1.2.1.3.6 Marking - The overall jacket shall be ink printed with 1) number and AWG size of conductor(s), 2) 600V, 3) stranding, and 4) manufacturer's name.

1.2.1.4 Coaxial cable for power line carrier

1.2.1.8.1 Use RG8A/U for all applications. Cable shall meet the following criteria:

1.2.1.8.2 Dielectric material - Polyethylene.

1.2.1.8.3 Jacket material - black polyvinylchloride, non-contaminating, Type IIA, per MIL-C-17.

1.2.1.8.4 Center Conductor - bare copper.

1.2.1.8.5 Number of shields - one.

1.2.1.8.6 Shield braid - bare copper.

1.2.1.8.7 Max operating temperature range - -40° to +80 degrees C.

SHEET	LATEST REV.	SHEET	LATEST REV.	SHEET	LATEST REV.	SHEET	LATEST REV.	SHEET	LATEST REV.	SHEET	LATEST REV.	SHEET	LATEST REV.
1		16		31		46		61		76		91	
2		17		32		47		62		77		92	
3		18		33		48		63		78		93	
4		19		34		49		64		79		94	
5		20		35		50		65		80		95	
6		21		36		51		66		81		96	
7		22		37		52		67		82		97	
8		23		38		53		68		83		98	
9		24		39		54		69		84		99	
10		25		40		55		70		85		100	
11		26		41		56		71		86		101	
12		27		42		57		72		87		102	
13		28		43		58		73		88		103	
14		29		44		59		74		89		104	
15		30		45		60		75		90		105	

FOR BIDDING PURPOSES ONLY

REMARKS

REFERENCE DRAWINGS

CTS-138-LDWG-001-0 List of Drawings
CTS-138-CKT-001-0 Circuit Schedule

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD			
	DSGN	PEI	3/9/22	CITY OF LAKE WORTH BEACH LAKE WORTH BEACH, FLORIDA				JOB NUMBER	REV
	DRN	PEI	3/9/22	CANAL TRANSMISSION SUBSTATION				170415	0
	CKD	PEI	3/9/22	CIRCUIT SCHEDULE				DRAWING NUMBER	
				SCALE: NONE			CTS-138-CBL-001		

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	AC-1	Station Service Trans. Bank #1	Cnd. 48 Cable Trench	Transfer Panel	AC Supply	3	1/c 3B	3/0	90	
	AC-2	Station Service Trans. Bank #2	Cnd. 22, Cable Trench	Transfer Panel	AC Supply	3	1/c 3B	3/0	90	
	AC-3	ACLC	Relay Vault Cnd.	Transfer Panel	AC Supply	3	1/c 3B	3/0	10	
	AC-11	Pri. Batt. Charger	Relay Vault Cnd., House Tray	ACLC #1	AC Supply	1	2/c	10	40	
	AC-12	Sec. Batt. Charger	Relay Vault Cnd., House Tray	ACLC #1	AC Supply	1	2/c	10	40	
	AC-35	DS-M7031	Cond. 16, Cable Trench, House Tray	ACLC #1	AC Supply	1	3/c	10	270	
	AC-36	DS-M7032	Cond. 50, Cable Trench, House Tray	ACLC #1	AC Supply	1	3/c	10	180	
	AC-37	DS-M7033	Cond. 32, Cable Trench, House Tray	ACLC #1	AC Supply	1	3/c	10	130	
	AC-38	DS-M7034	Cond. 4, Cable Trench, House Tray	ACLC #1	AC Supply	1	3/c	10	230	
	AC-39	CB B7001	Cnd. 14, Cable Trench, House Tray	ACLC #1	AC Supply	1	5/c	10	175	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION				Sheet 2	Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	AC-40	CB B7002	Cnd. 25, Cable Trench, House Tray	ACLC #1	AC Supply	1	5/c	10	120	
	AC-41	CB B7003	Cnd. 42, Cable Trench, House Tray	ACLC #1	AC Supply	1	5/c	10	130	
	AC-42	CB B7003	Cnd. 28, Cable Trench, House Tray	ACLC #1	AC Supply	1	5/c	10	170	
	AC-44	ACLC #1	House Tray	Panel A6	AC Supply	1	2/c	10	50	
	B7001-1	CB B7001	Cnd. 12, Cable Trench House Tray	Panel A4	CT Leads	1	5/c	10	200	
	B7001-2	CB B7001	Cnd. 12, Cable Trench House Tray	Panel A1	CT Leads	1	5/c	10	185	
	B7001-3	CB B7001	Cnd. 12, Cable Trench House Tray	Panel A4	CT Leads	1	5/c	10	200	
	B7001-4	CB B7001	Cnd. 12, Cable Trench House Tray	Panel A1	CT Leads	1	5/c	10	185	
	B7001-5	CB B7001	Cnd. 13, Cable Trench House Tray	Panel A1	Control	1	12/c	10	200	
	B7001-6	CB B7001	Cnd. 13, Cable Trench House Tray	Panel A1	Control	1	12/c	10	185	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION				Sheet 3	Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	B7001-7	CB B7001	Cnd. 12, Cable Trench House Tray	Panel A1	Control	1	5/c	10	185	
	B7001-8	CB B7001	Cnd. 13, Cable Trench House Tray	Panel A4	Control	1	5/c	10	200	
	B7001-9	CB B7001	Cnd. 13, Cable Trench House Tray	Panel A1	Control	1	5/c	10	185	
	B7001-10	CB B7001	Cnd. 13, Cable Trench House Tray	Panel A4	Control	1	5/c	10	200	
	B7002-1	CB B7002	Cnd. 23, Cable Trench House Tray	Panel A2	CT Leads	1	5/c	10	220	
	B7002-2	CB B7002	Cnd. 23, Cable Trench House Tray	Panel A1	CT Leads	1	5/c	10	210	
	B7002-3	CB B7002	Cnd. 23, Cable Trench House Tray	Panel A2	CT Leads	1	5/c	10	220	
	B7002-4	CB B7002	Cnd. 23, Cable Trench House Tray	Panel A1	CT Leads	1	5/c	10	210	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION				Sheet 4	Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
			House Tray							
	B7002-5	CB B7002	Cnd. 24, Cable Trench House Tray	Panel A2	Control	1	12/c	10	220	
	B7002-6	CB B7002	Cnd. 24, Cable Trench House Tray	Panel A2	Control	1	12/c	10	220	
	B7002-7	CB B7002	Cnd. 23, Cable Trench	Panel A2	Control	1	5/c	10	220	
	B7002-8	CB B7002	Cnd. 24, Cable Trench House Tray	Panel A1	Control	1	5/c	10	210	
	B7002-9	CB B7002	Cnd. 24, Cable Trench House Tray	Panel A2	Control	1	5/c	10	220	
	B7002-10	CB B7002	Cnd. 24, Cable Trench House Tray	Panel A1	Control	1	5/c	10	210	
	B7003-1	CB B7003	Cnd. 40, Cable Trench House Tray	Panel A3	CT Leads	1	5/c	10	130	
	B7003-2	CB B7003	Cnd. 40, Cable Trench House Tray	Panel A2	CT Leads	1	5/c	10	125	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 5		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	B7003-3	CB B7003	Cnd. 40, Cable Trench House Tray	Panel A3	CT Leads	1	5/c	10	130	
	B7003-4	CB B7003	Cnd. 40, Cable Trench House Tray	Panel A2	CT Leads	1	5/c	10	125	
	B7003-5	CB B7003	Cnd. 41, Cable Trench House Tray	Panel A3	Control	1	12/c	10	130	
	B7003-6	CB B7003	Cnd. 41, Cable Trench House Tray	Panel A3	Control	1	12/c	10	130	
	B7003-7	CB B7003	Cnd. 40, Cable Trench House Tray	Panel A3	Control	1	5/c	10	130	
	B7003-8	CB B7003	Cnd. 41, Cable Trench House Tray	Panel A2	Control	1	5/c	10	125	
	B7003-9	CB B7003	Cnd. 41, Cable Trench House Tray	Panel A3	Control	1	5/c	10	130	
	B7003-10	CB B7003	Cnd. 41, Cable Trench House Tray	Panel A2	Control	1	5/c	10	125	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 6		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	B7004-1	CB B7004	Cnd. 26, Cable Trench House Tray	Panel A3	CT Leads	1	5/c	10	160	
	B7004-2	CB B7004	Cnd. 26, Cable Trench House Tray	Panel A4	CT Leads	1	5/c	10	165	
	B7004-3	CB B7004	Cnd. 26, Cable Trench House Tray	Panel A3	CT Leads	1	5/c	10	160	
	B7004-4	CB B7004	Cnd. 26, Cable Trench House Tray	Panel A4	CT Leads	1	5/c	10	165	
	B7004-5	CB B7004	Cnd. 27, Cable Trench House Tray	Panel A4	Control	1	12/c	10	165	
	B7004-6	CB B7004	Cnd. 27, Cable Trench House Tray	Panel A4	Control	1	12/c	10	165	
	B7004-7	CB B7004	Cnd. 26, Cable Trench House Tray	Panel A4	Control	1	5/c	10	165	
	B7004-8	CB B7004	Cnd. 27, Cable Trench House Tray	Panel A3	Control	1	5/c	10	160	
	B7004-9	CB B7004	Cnd. 27, Cable Trench House Tray	Panel A4	Control	1	5/c	10	165	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 7		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	B7004-10	CB B7004	Cnd. 27, Cable Trench House Tray	Panel A3	Control	1	5/c	10	160	
	CCVT-21	138kV Osborne Line AØ CCVT	Cnd. 44	138kV Osborne Line CCVT JB	Potential	1	5/c	10	30	
	CCVT-22	138kV Osborne Line BØ CCVT	Cnd. 44A	138kV Osborne Line CCVT JB	Potential	1	5/c	10	20	
	CCVT-23	138kV Osborne Line CØ CCVT	Cnd. 45	138kV Osborne Line CCVT JB	Potential	1	5/c	10	30	
	CCVT-24	138kV Osborne Line BØ CCVT	Cnd. 98, Cable Trench, House Tray	Line Tuning JB	Coax			RG58	10	
	CCVT-25	138kV Osborne Line Tuning JB	Cnd. 43, Cable Trench, House Tray	Panel A2	Coax			RG58	135	
	CCVT-26	138kV Osborne Line CCVT's JB	Cnd. 46, Cable Trench, House Tray	Panel A2	Potential	1	5/c	10	130	
	CCVT-27	138kV Osborne Line CCVT's JB	Cnd. 46, Cable Trench, House Tray	Panel A2	Potential	1	5/c	10	130	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 8		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	CCVT-31	138kV CDS Line AØ CCVT	Cnd. 30	138kV CDS Line CCVT JB	Potential	1	5/c	10	30	
	CCVT-32	138kV CDS Line BØ CCVT	Cnd. 30A	138kV CDS Line CCVT JB	Potential	1	5/c	10	20	
	CCVT-33	138kV CDS Line CØ CCVT	Cnd. 29	138kV CDS Line CCVT JB	Potential	1	5/c	10	30	
	CCVT-36	138kV CDS Line CCVT's JB	Cnd. 31, Cable Trench, House Tray	Panel A3	Potential	1	5/c	10	160	
	CCVT-37	138kV CDS Line CCVT's JB	Cnd.31, Cable Trench, House Tray	Panel A3	Potential	1	5/c	10	160	
	CCVT-41	138kV Main Line AØ CCVT	Cnd. 2	138kV Main Line CCVT JB	Potential	1	5/c	10	30	
	CCVT-42	138kV Main Line BØ CCVT	Cnd. 1A	138kV Main Line CCVT JB	Potential	1	5/c	10	20	
	CCVT-43	138kV Main Line CØ CCVT	Cnd. 1	138kV Main Line CCVT JB	Potential	1	5/c	10	30	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 9		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	CCVT-46	138kV Main Line CCVT's JB	Cnd. 3, Cable Trench, House Tray	Panel A4	Potential	1	5/c	10	230	
	CCVT-47	138kV Main Line CCVT's JB	Cnd.3, Cable Trench, House Tray	Panel A4	Potential	1	5/c	10	230	
	CCVT-51	138kV Ranch Line AØ CCVT	Cnd. 17	138kV Ranch Line CCVT JB	Potential	1	5/c	10	30	
	CCVT-52	138kV Ranch Line BØ CCVT	Cnd. 17A	138kV Ranch Line CCVT JB	Potential	1	5/c	10	20	
	CCVT-53	138kV Ranch Line CØ CCVT	Cnd. 18	138kV Ranch Line CCVT JB	Potential	1	5/c	10	30	
	CCVT-54	138kV Ranch Line BØ CCVT	Cnd. 19, Cable Trench, House Tray	Line Tuning JB	Coax			RG58	10	
	CCVT-55	138kV Ranch Line Tuning JB	Cnd. 20, Cable Trench, House Tray	Panel A1	Coax			RG58	235	
CLWB		CIRCUIT SCHEDULE	CANAL TRANSMISSION SUBSTATION				Sheet 10		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	CCVT-56	138kV Ranch Line CCVT's JB	Cnd. 19, Cable Trench, House Tray	Panel A1	Potential	1	5/c	10	240	
	CCVT-57	138kV Ranch Line CCVT's JB	Cnd. 19, Cable Trench, House Tray	Panel A1	Potential	1	5/c	10	240	
	CDS-1	Panel A4	House Tray, Cable Trench Cond. 53	Distr. Yard Bus Diff Panel		1	2/c	10	500	
	CDS-2	Panel A3	House Tray, Cable Trench Cond. 53	Distr. Yard Bus Diff Panel		1	2/c	10	500	
	CDS-4	Panel A4	House Tray, Cable Trench Cond. 53	Distr. Yard Bus Diff Panel		1	2/c	10	500	
	CDS-5	Panel A4	House Tray, Cable Trench Cond. 53	Distr. Yard Bus Diff Panel		1	2/c	10	500	
	COMM-1	Panel A1	House Tray	Panel A6	Communication	1	RS232		40	
	COMM-2	Panel A1	House Tray	Panel A6	Communication	1	RS232		40	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 11		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	COMM-3	Panel A1	House Tray	Panel A6	Communication	1	RS232		40	
	COMM-4	Panel A1	House Tray	Panel A6	Clock Signal	1	Coax	RG-58	40	
	COMM-5	Panel A2	House Tray	Panel A6	Communication	1	RS232		35	
	COMM-6	Panel A2	House Tray	Panel A6	Communication	1	RS232		35	
	COMM-7	Panel A2	House Tray	Panel A6	Communication	1	RS232		35	
	COMM-8	Panel A2	House Tray	Panel A6	Connunication	1	Coax	RG-58	35	
	COMM-9	Panel A3	House Tray	Panel A6	Communication	1	RS232		30	
	COMM-10	Panel A3	House Tray	Panel A6	Communication	1	RS232		30	
	COMM-11	Panel A4	House Tray	Panel A6	Communication	1	RS232		25	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 12		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	COMM-12	Panel A4	House Tray	Panel A6	Communication	1	RS232		25	
	LT1-1	ACLC #1	House tray, Cable Trench Cond. 59	WP1	AC Supply	1	2/c	10	80	
	LT1-2	WP1	Cond. 60	WP2	AC Supply	1	2/c	10	135	
	LT1-3	WP2	Cond. 61	WP3	AC Supply	1	2/c	10	90	
	LT1-4	WP3	Cond. 62	WP4	AC Supply	1	2/c	10	110	
	LT1-5	WP4	Cond. 63	WP5	AC Supply	1	2/c	10	125	
	LT2-1	ACLC #1	House tray, Cable Trench Cond. 64	WP9	AC Supply	1	2/c	10	155	
	LT2-2	WP9	Cond. 65	WP8	AC Supply	1	2/c	10	90	
	LT2-3	WP8	Cond. 66	WP7	AC Supply	1	2/c	10	110	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 13		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	LT2-4	WP7	Cond. 67	WP6	AC Supply	1	2/c	10	125	
	LT3-1	ACLC #1	House tray, Cable Trench Cond. 5	LT1	AC Supply	1	2/c	10	255	
	LT3-2	LT1	Cond. 5, Cable Trench, Cond. 15	LT2	AC Supply	1	2/c	10	200	
	LT4-1	ACLC #1	House tray, Cable Trench Cond. 49	LT3	AC Supply	1	2/c	10	155	
	LT4-2	LT1	Cond. 49, Cable Trench, Cond. 33	LT2	AC Supply	1	2/c	10	150	
	MET-1	CDS Met. CT AØ	Cnd. 38	CDS Met. CT JB	Pot. Supply	1	5/c	10	30	
	MET-2	CDS Met. CT BØ	Cnd. 37A	CDS Met. CT JB	Pot. Supply	1	5/c	10	5	
	MET-3	CDS Met. CT CØ	Cnd. 37	CDS Met. CT JB	Pot. Supply	1	5/c	10	30	
	MET-4	CDS Met. CT JB	Cnd. 39, Cable Trench, House Tray	Panel A3	Pot. Supply	1	5/c	10	150	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 14		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	MET-5	Panel A3	House Tray	Panel A5	Potential	1	5/c	10	25	
	MET-6	Panel A3	House Tray	Panel A5	Potential	1	5/c	10	25	
	MET-7	CDS Met. PT AØ	Cnd. 35	CDS Met. PT JB	Pot. Supply	1	5/c	10	30	
	MET-8	CDS Met. PT BØ	Cnd. 34A	CDS Met. PT JB	Pot. Supply	1	5/c	10	5	
	MET-9	CDS Met. PT CØ	Cnd. 34	CDS Met. PT JB	Pot. Supply	1	5/c	10	30	
	MET-10	CDS Met. PT JB	Cnd. 36, Cable Trench, House Tray	Panel A3	Pot. Supply	1	5/c	10	150	
	MET-11	CDS Met. PT JB	Cnd. 36, Cable Trench, House Tray	Panel A5	Pot. Supply	1	5/c	10	160	
	MET-12	CDS Met. PT JB	Cnd. 36, Cable Trench, House Tray	Panel A5	Pot. Supply	1	5/c	10	160	
	MET-21	Main Met. CT AØ	Cnd. 10	Main Met. CT JB	Pot. Supply	1	5/c	10	30	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 15		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	MET-22	Main Met. CT BØ	Cnd. 9A	Main Met. CT JB	Pot. Supply	1	5/c	10	5	
	MET-23	Main Met. CT CØ	Cnd. 9	Main Met. CT JB	Pot. Supply	1	5/c	10	30	
	MET-24	Main Met. CT JB	Cnd. 11, Cable Trench, House Tray	Panel A4	Pot. Supply	1	4/c	10	150	
	MET-25	Panel A4	House Tray	Panel A5	Potential	1	5/c	10	20	
	MET-26	Panel A4	House Tray	Panel A5	Potential	1	5/c	10	20	
	MET-27	Main Met. PT AØ	Cnd. 7	Main Met. PT JB	Pot. Supply	1	5/c	10	30	
	MET-28	Main Met. PT BØ	Cnd. 6A	Main Met. PT JB	Pot. Supply	1	5/c	10	5	
	MET-29	Main Met. PT CØ	Cnd. 6	Main Met. PT JB	Pot. Supply	1	5/c	10	30	
	MET-30	Main Met. PT JB	Cnd. 8, Cable Trench, House Tray	Panel A4	Pot. Supply	1	5/c	10	150	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 16		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	MET-31	Main Met. PT JB	Cnd. 8, Cable Trench, House Tray	Panel A5	Pot. Supply	1	5/c	10	160	
	MET-32	Main Met. PT JB	Cnd. 8, Cable Trench, House Tray	Panel A5	Pot. Supply	1	5/c	10	160	
	MO-1	DS M7034	Cond. 4, Cable Trench House Tray	Panel A4	Control	1	12/c	10	230	
	MO-2	DS M7033	Cond. 32, Cable Trench House Tray	Panel A3	Control	1	12/c	10	160	
	MO-3	DS M7032	Cond. 50, Cable Trench House Tray	Panel A2	Control	1	12/c	10	110	
	MO-5	DS M7031	Cond. 16, Cable Trench House Tray	Panel A1	Control	1	12/c	10	255	
	PDC-2	DCLC #1		Pri. Sta. Battery	DC Supply	1	1/c B	2	35	
	PDC-2A	DCLC #1		Pri. Sta. Battery	DC Supply	1	1/c B	2	35	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 17		Drawing Number CTS-138-CBL-001	

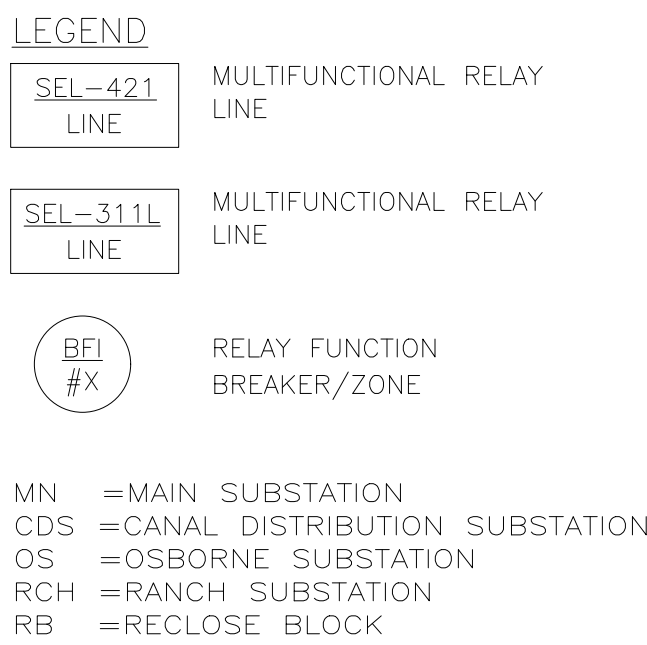
R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	PDC-3	Disc. Switch #4		DCLC #1	DC Supply	1	1/c B	2	20	
	PDC-3A	Disc. Switch #4		DCLC #1	DC Supply	1	1/c B	2	20	
	PDC-4	Disc. Switch #4	Cond. __, House Tray	Pri. Batt. Charger	DC Supply	1	1/c B	2	40	
	PDC-4A	Disc. Switch #4	Cond. __, House Tray	Pri. Batt. Charger	DC Supply	1	1/c B	2	40	
	PDC-5	Disc. Switch #3		DCLC #1	DC Supply	1	1/c B	2	30	
	PDC-5A	Disc. Switch #3		DCLC #1	DC Supply	1	1/c B	2	30	
	PDC-6	Disc. Switch #3	House Tray	Manual Transfer Sw.	DC Supply	1	1/c B	2	35	
	PDC-6A	Disc. Switch #3	House Tray	Manual Transfer Sw.	DC Supply	1	1/c B	2	35	
	PDC-9	DCLC #1	House Tray	Panel A1	DC Supply	1	2/c	10	50	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 18		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS	
						NO.	CND.	SIZE	APPROX LENGTH		
	PDC-10	DCLC #1	House Tray	Panel A2	DC Supply	1	2/c	10	35		
	PDC-11	DCLC #1	House Tray	Panel A3	DC Supply	1	2/c	10	35		
	PDC-12	DCLC #1	House Tray Panel A4	DC Supply	1 2/c 10	30					
	PDC-13	DCLC #1	House Tray	Panel A5	DC Supply	1	2/c	10	25		
	PDC-14	DCLC #1	Cond. 32, Cable Trench House Tray	DS M7033	DC Supply	1	2/c	10	280		
	PDC-15	DCLC #1	House Tray	Panel A6	DC Supply	1	2/c	10	20		
	PDC-16	DCLC #1	Cond. 4, Cable Trench House Tray	DS M7034	DC Supply	1	2/c	10	130		
	PDC-20	CB B7001	Cnd. 14, Cable Trench, House Tray	DCLC #1	DC Supply	1	2/c	10	185		
	PDC-21	CB B7002	Cnd. 25, Cable Trench, House Tray	DCLC #1	DC Supply	1	2/c	10	135		
	PDC-22	CB B7003	Cnd. 42, Cable Trench,	DCLC #1	AC Supply	1	2/c	10	140		
	PDC-23	CB B7003	Cnd. 28, Cable Trench, House Tray	DCLC #1	AC Supply	1	2/c	10	140		
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION				Sheet 19			Drawing Number CTS-138-CBL-001

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	SDC-2	DCLC #2		Sec. Sta. Battery	DC Supply	1	1/c B	2	40	
	SDC-2A	DCLC #2		Sec. Sta. Battery	DC Supply	1	1/c B	2	40	
	SDC-3	Disc. Switch #2		DCLC #2	DC Supply	1	1/c B	2	10	
	SDC-3A	Disc. Switch #2		DCLC #2	DC Supply	1	1/c B	2	10	
	SDC-4	Disc. Switch #2	House Tray	Sec. Batt. Charger	DC Supply	1	1/c B	2	60	
	SDC-4A	Disc. Switch #2	House Tray	Sec. Batt. Charger	DC Supply	1	1/c B	2	60	
	SDC-5	Disc. Switch #1		DCLC #2	DC Supply	1	1/c B	2	30	
	SDC-5A	Disc. Switch #1		DCLC #2	DC Supply	1	1/c B	2	30	
	SDC-6	Disc. Switch #1	House Tray	Manual Transfer Sw.	DC Supply	1	1/c B	2	35	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 20		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	SDC-6A	Disc. Switch #1	House Tray	Manual Transfer Sw.	DC Supply	1	1/c B	2	35	
	SDC-9	DCLC #2	House Tray	Panel A1	DC Supply	1	2/c	10	50	
	SDC-10	DCLC #2	House Tray	Panel A2	DC Supply	1	2/c	10	45	
	SDC-11	DCLC #2	House Tray	Panel A3	DC Supply	1	2/c	10	40	
	SDC-12	DCLC #2	House Tray	Panel A4	DC Supply	1	2/c	10	35	
	SDC-13	DCLC #2	House Tray	Panel A5	DC Supply	1	2/c	10	30	
	SDC-14	DCLC #2	Cond. 16, Cable Trench House Tray	DS M7031	DC Supply	1	2/c	10	280	
	SDC-16	DCLC #2	Cond. 50, Cable Trench House Tray	DS M7032	DC Supply	1	2/c	10	130	
CLWB		CIRCUIT SCHEDULE		CANAL TRANSMISSION SUBSTATION			Sheet 21		Drawing Number CTS-138-CBL-001	

R E V	CKT. NO.	FROM	VIA	TO	FOR	CABLE DESCRIPTION				REMARKS
						NO.	CND.	SIZE	APPROX LENGTH	
	RTU-1	Panel A3	House Tray	FPL RTU		1	2PR	16	50	
	RTU-2	Panel A4	House Tray	FPL RTU		1	2PR	16	50	
CLWB		CIRCUIT SCHEDULE	CANAL TRANSMISSION SUBSTATION				Sheet 22		Drawing Number CTS-138-CBL-001	



MN =MAIN SUBSTATION
CDS =CANAL DISTRIBUTION SUBSTATION
OS =OSBORNE SUBSTATION
RCH =RANCH SUBSTATION
RB =RECLOSE BLOCK



LAKE WORTH BEACH
Electric
Utilities
CITIZEN OWNED ENERGY

[illegible]



FINANCE DEPARTMENT
7 NORTH DIXIE HIGHWAY
LAKE WORTH BEACH, FL 33460

Posted: 9/1/2022

NOTICE OF INTENT TO AWARD

TO: All Interested Parties

FROM: Valentina Sustaita, Assistant Finance Director - Purchasing

DATE: September 1, 2022

REF: IFB #22-110 Canal Transmission Substation Construction

SUBJECT: Notice of Intent to Award

Based on the results and the thorough review of the proposals submitted in response to the above-referenced solicitation, the City of Lake Worth Beach has determined that **Energy Erectors, Inc** is of the best value to the City and is being recommended for award of this solicitation. The effective date of this posting is September 1, 2022.

The City will be advising you of the required documents needed so that contract documents can be completed and prepared for the Commission approval.

If you have any additional questions, feel free to contact me via email, at purchasing1@lakeworthbeachfl.gov. If you are unable to contact me via email, please call at (561) 586-1783.

Attachment: IFB #22-110 Canal Transmission Substation Construction Bid Tab

Document A310TM – 2010

Conforms with The American Institute of Architects AIA Document 310

Bond Number: 605106-Travelers-22-408

Bid Bond

CONTRACTOR:

(Name, legal status and address)

Energy Erectors, Inc.

31588 Progress Road

Leesburg, FL 34748

OWNER:

(Name, legal status and address)

City of Lake Worth Beach

7 North Dixie Highway., 2nd floor

Lake Worth Beach, FL 33460

SURETY:

(Name, legal status and principal place of business)

Travelers Casualty and Surety Company of America

One Tower Square

Hartford, CT 06183-6014

State of Inc: Connecticut

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: Five Percent of Amount Bid (5%)

PROJECT:

(Name, location or address, and Project number, if any)

Canal Transmission Substation Construction
IFB No. 22-110

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 5th day of August, 2022

(Witness)

Misty A. Wilson, Office Manager

(Witness)

Camille Cruz, Surety Witness

Energy Erectors, Inc.

(Principal)

(Title)

(Surety)

(Title)

Ryan Collins

Travelers Casualty and Surety Company of America

Ana W. Oliveras, Attorney-in-Fact



Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bond Number: 605106-Travelers-22-408

Bid Bond

CONTRACTOR:

(Name, legal status and address)

Energy Erectors, Inc.

31588 Progress Road

Leesburg, FL 34748

OWNER:

(Name, legal status and address)

City of Lake Worth Beach

7 North Dixie Highway., 2nd floor

Lake Worth Beach, FL 33460

SURETY:

(Name, legal status and principal place of business)

Travelers Casualty and Surety Company of America

One Tower Square

Hartford, CT 06183-6014

State of Inc: Connecticut

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: Five Percent of Amount Bid (5%)

PROJECT:

(Name, location or address, and Project number, if any)

Canal Transmission Substation Construction
IFB No. 22-110

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 5th day of August, 2022

(Witness)

Misty A. Wilson, Office Manager

(Witness)

Camille Cruz, Surety Witness

Energy Erectors, Inc.

(Principal)

(Title)

Travelers Casualty and Surety Company of America

(Surety)

(Title)

Ana W. Oliveras, Attorney-in-Fact



TRAVELERS

Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Ana W. Oliveras of Palm Beach Florida, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 21st day of April, 2021.



State of Connecticut

City of Hartford ss.

By: Robert L. Raney
Robert L. Raney, Senior Vice President

On this the 21st day of April, 2021, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2026



Anna P. Nowik
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 5th day of August, 2022



Kevin E. Hughes
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.



August 10, 2022

City of Lake Worth Beach, City Hall

Financial Services Office - Procurement

7 North Dixie Hwy. 2nd floor

Lake Worth Beach, FL 33460

Lake Worth Beach, FL

Attn: Procurement Agent, Financial Services

RE: Canal Transmission Substation Construction Project RFP No. 22-110

Dear Procurement Purchaser,

Thank you for the opportunity to provide a Lump Sum Estimate for the Canal Transmission Substation Construction Project. We appreciate your interest in our services and trust you will find our proposal exceeds your expectations.

Energy Erectors, Inc. (EEI) offers the City of Lake Worth Beach (CLWB) fully integrated, in-house construction, engineering, procurement, and commissioning solutions. Innovation, hard work, and integrity are the keys to our success. Our experience is extensive in delivering world-class solutions to complex projects within the transmission and distribution market. The goal for every project is the same – deliver safe, high-quality services on schedule.

EEI is uniquely qualified to support your substation construction requirements. Our team will work closely with CLWB to ensure consistent, high-quality services in a strategic partnership relationship.

If you should have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Troy Janoske

Project Manager

Energy Erectors, Inc.

Cell: 352-267-3491

tjanoske@energyerectors.net

Misty Wilson

From: Mohamed Konate
Sent: Tuesday, August 9, 2022 7:47 AM
To: Misty Wilson
Cc: Ryan Collins
Subject: RE: Bid Bond Request - EEI 1550-MasTec_City of Lake Worth Beach - Canal Substation - \$3M-5%-\$150k_220808.pdf

Approved.

Sincerely,

Mohamed Konate
Vice President - Operations
[ENERGY ERECTORS, Inc](#)
[A Mastec-Company](#)
31588 Progress Road
Leesburg, FL 34748
P: 352-787-3878 x 9
C: 321-624-2446
F: 352-787-6407
mkonate@energyerectors.net
www.energyerectors.net
www.mastec.com

From: Misty Wilson <MWilson@energyerectors.net>
Sent: Monday, August 8, 2022 4:04 PM
To: Mohamed Konate <MKonate@energyerectors.net>
Cc: Ryan Collins <ryacollins@energyerectors.net>
Subject: FW: Bid Bond Request - EEI 1550-MasTec_City of Lake Worth Beach - Canal Substation - \$3M-5%-\$150k_220808.pdf

Mohamed,

Will you please provide signing authorization for Ryan on the Canal bid bond?

Thank you,

Misty Wilson

Office Manager
Energy Erectors Inc.
[A MasTec Company](#)
31588 Progress Road
Leesburg, FL 34748
Office: 352-787-3878
Direct Dial: 352-435-7505
www.energyerectors.net
www.mastec.com



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

1.0 QUALITY ASSURANCE / QUALITY CONTROL OBJECTIVE

The objective of this plan is to establish written procedures and inspection guidelines to assure that materials, component parts, apparatus, and equipment are ordered, received, stored, fabricated, installed, inspected, and tested in strict accordance with applicable plans, procedures, specifications, standards, and codes. This specification covers the minimum requirements for Quality Assurance & Quality Control.

The quality effort provided is to assure that quality levels are maintained by vendors, subcontractors, and field craft disciplines from time of order through installation and final testing. It is intended to have department supervision participate in the overall quality function and to have maximum coordination of efforts where specific quality requirements are involved. All inspection, testing and verification will be conducted in accordance with the specifications, applicable reference Codes, Procedures, and Standards, this plan or by specific instructions from Energy Erectors, Inc. (EEI). This Plan may be amended by deletions or additions as deemed necessary by EEI.

2.0 QUALITY SYSTEM

2.1 QA/QC Review by Management

The Management of EEI is responsible for implementing a documented quality system as a vehicle of ensuring that services performed meet the specified requirements. Procedures and work-related activities shall be reviewed by Management for proficiencies and completeness. Management will be responsible for the effective implementation of the quality system protocols and instructions and is held accountable for document view.

An annual audit by Management will disclose performance, compliance with codes and standards, Management's involvement, program components with or without any deficiencies, tracking and trending of any non-conformance issues, as well as training requirements necessary to complete.

2.2 Implementation

2.2.1 Quality Assurance / Quality Control Team

The Quality Assurance / Quality Control Team will consist of:

- Project Manager
- Department VP

Through field observation, analysis of the problem sources, and information imparted through the reporting system, the Quality Assurance & Control Team shall determine the accuracy, completeness, and acceptability of workmanship and materials on the jobsite.



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

2.2.2 Responsibilities of Project Manager (QA/QC Representative)

The Project Manager is responsible for the following:

- Implementing and carrying out the procedures of this Plan.
- Initiating and maintaining the reporting and record keeping system. He shall be sensitive to existing and potential problems in the field and various fabricator locations and shall report this to the appropriate EEI Department head.
- Assuring that all equipment, material and field construction efforts conform to Plans and Specifications.
- Accumulating and maintaining those records necessary for the accomplishments of the goals of the project. If deemed necessary by the Project Manager, he will distribute a copy of all reports and records to the client in a timely manner.
- Examinations to assure compliance with all applicable codes and design specifications. He will witness and/or review all test results in their entirety and sign-off on the appropriate records. Witnessing of tests by the Client, the mechanics of reporting the results of field examinations, and the establishment of sign-off procedures, etc., will be coordinated with the Client.

2.3 Records and Reporting

The Project Manager is responsible for keeping a complete file of all QA/QC records and reports and for making distribution of these records as designated in this plan to the appropriate individuals.

2.4 Quality for Subcontracting

A subcontractor is required to meet EEI's Quality Assurance & Control requirements. A copy of the EEI's Plan and applicable inspection forms will be given to the Subcontractor prior to bidding. If the Subcontractor has inspection forms that are more applicable than those provided by EEI, he shall submit these with his bid for EEI's approval.



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

In addition, all services performed and material supplied by a Subcontractor is subject to inspection by EEI to ensure that all QA/QC requirements are met. Non-conformances located by EEI will be reconciled in accordance with the procedures for non-conformances.

3.0 QA/QC PERSONNEL MINIMUM QUALIFICATIONS

3.1 General Requirements for Performing QA/QC Functions:

Qualification of QA/QC Inspectors shall be in accordance with the Customer's qualifications requirements and/or other applicable standards.

Any personnel performing or providing services supporting the project QA/QC Plan activities shall be qualified to do so through experience, education, training, and certification requirements for the specialized activities. It is the Project Manager's responsibility to ensure that these qualification requirements are met. Necessary training shall be scheduled accordingly.

Documentation of personnel qualifications shall be maintained and be reviewed frequently.

3.2 Contract Personnel Qualifications Documentation

Select off-site quality control activities may be subcontracted to an independent company. All subcontracted QA/C personnel must meet the minimum requirements stated in this Plan. Qualifications of contract personnel performing QA inspection and testing functions for EEI shall be reviewed at the start of the project or when the personnel come on site and then on an interval basis thereafter.

4.0 NON-CONFORMANCES / CORRECTIVE ACTIONS

4.1 Non-Conformance Action Report

This Plan is intended to ensure that equipment, materials, and services are in conformance with applicable plans, procedures, specifications, standards, and codes. Any minor non-conformance must be noted and the appropriate action taken. The Project Manager is responsible for ensuring that products of a non-conformance nature are not installed and that services of a non-conformance nature are not performed. Documentation of all non-conformances is maintained in accordance with the Corrective Action Plan (CAP). Refer to PJ042 for the Corrective Action Plan Investigative Form.

4.2 Non-Conforming Equipment, Materials, and Supplies

Non-conforming equipment, materials, and supplies shall be tagged with a Non-Conformance Hold Tag immediately and separated from acceptable products. A CAP Investigative Report must be filed immediately. It is the responsibility of the Project Manager to take necessary actions to ensure the use of conforming products only. These necessary actions may be:



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

- Reworked to meet specifications.
- Used as is, after consultation and written approval by the Project Engineer and Customer.
- Rejected or discarded.
- Sent back to vendor with Quality Assurance Team recommendations.

4.3 Non-Conforming Services

If during the daily monitoring of the construction activities, a minor non-conformance in the work in relation to the project drawings and specifications is discovered and immediate action to correct or remedy the situation is taken, it shall be noted on the appropriate Inspection Form. The problem and the verification of the corrective measure shall be documented. If the necessary corrective actions are not taken and/or the problems continue to reoccur, then a CAP Investigative Form must be issued. All major non-conformances in the work in relation to the project drawings and specifications shall be reported on the CAP Investigative Form.

4.4 Evaluation of Non-Conformance Occurrences

Non-conformances for purchased equipment and materials are processed through the Purchasing Department. The Purchasing Manager is responsible for evaluation of repetitive non-conformance items and the disposition as well.

Non-conformances for construction activities are processed through the Project Management Team. The Project Manager is responsible for evaluation of repetitive non-conformance items and the disposition as well.

The Project Manager will be responsible for coordinating a meeting to review Non-Conformance items in order to analyze product/equipment and service trends.

4.5 Corrective Action Plan (CAP)

The Project Manager shall coordinate, record, and monitor the effectiveness of the corrective action plan.

Corrective action plans are formatted by each department to specifically meet the demands of the job being performed. Departments/Companies required to submit the "CAP" is Purchasing, Engineering, and Project Management, whenever applicable.

A corrective action plan should include the following items:

- An investigative report determining the cause for non-conformance and corrective action to prevent recurrence.
- An analysis conducted on all processes including test records, inspections, complaints, and service reports, to determine and eliminate causes of equipment, materials, supplies, and deficiencies.
- Implementation and recording necessary changes in procedures resulting from



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

corrective action.

The Project Manager shall determine the accuracy, completeness, and acceptability of craftsmanship and materials on the jobsite. He shall provide information to the effective departments regarding standard operating procedures, processed, or job work orders that disrupted productivity or quality of service rendered. The Project Manager shall furthermore review and make recommendations for changes to the QA/QC Plan on annual basis.

5.0 FIELD EXECUTION OF THE QA/QC PLAN

5.1 General

This specification establishes an organized approach for execution of the Quality Assurance/ Quality Control Plan. It provides a QA/QC checklist, which specifies the minimum inspections to be performed, the minimum required acceptances of the work, and the formal documentation of these inspections and acceptances. Field Inspection Reports shall be completed and signed documenting that the work has been inspected for completeness in accordance with the project drawings and specifications. Also, refer to Attachments 1-4 for specific Quality Control Specifications.

Insofar as each project is different from all other projects, all activities described in the QA/QC Control Checklist may not apply to a given project, and some required activities for a particular project due to its technology and complexity may not be described in the QA/QC Checklist. The Project Manager shall determine if additional tests and inspections are required.

The requirements outlined in the QA/QC Checklist are based on general installation, testing, and inspection procedures. If required by applicable codes, industry standards, governmental standards and regulations, project drawings and specifications, and per Customer requests, additional tests and inspections may be necessary.

Some inspections specified require no documentation. The inspections are considered to be routine, non-critical inspections, which are performed while work is in progress, or are inspections which can be performed or verified at any stage during or after construction. Although no documentation is required, this in no way relieves the responsible parties of these inspections.

A "Certificate of Compliance" is a written document from a vendor, supplier, or contract stating that the materials used and/or methods employed are in compliance with the requirements of the applicable codes, project drawings and specifications. A "Certified Report" is a written document from a vendor, supplier, manufacturer or contractor stating the type of tests performed on an item and the results of those tests.

5.2 Field Inspection Reports



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

The field inspection report forms attached to this Plan shall be used to document the field inspection of the work and acceptance of the work by the Customer. The use of field inspection reports shall ensure compliance with codes, project drawings and specifications by requiring a written, signed and dated report, and provide a more accurate method of documenting work activities.

The Field Inspection Report PJ-021 is designed so that it can be used to record virtually any activity or inspection. Some of the major uses of this Field Inspection Report is to alert responsible personnel of problem areas and/or non-conforming items; record all successfully completed activities or inspection of an item (or group of similar items) performed on a given date/period in accordance with the particular checklist section; record in – progress and final inspections; record the satisfactory completion of work on a particular item or group similar items.

5.3 Records and Files

Minimum written records required shall be as specified in the QNQC Checklist. It is essential that all field inspection reports be neatly written, complete, concise and properly signed and dated.

Test reports, certificates of compliance, and field inspection reports shall be kept on file in the Project Manager's office. Copies shall be presented to the Client at the time of signature on the Energization Report

All documentation is to be maintained and protected from damage in filing cabinets kept in a central secure location at the work site. All records and reports shall reflect the applicable section of a checklist and shall be filed with other applicable documents including testing laboratory reports in the appropriate filing section.

6.0 QUALITY ASSURANCE / QUALITY CONTROL CHECKLIST

The minimum components of the QNQC for field construction are identified in this section. This section covers a wide range of field construction activities. The Project Manager / Engineer shall determine which specific sections apply for a given project. Also, refer to Attachments 1-4 for specific Quality Control specifications and procedures.

This section is broken down into disciplines to thoroughly understand the quality control requirements. Each discipline gives the requirements for scope of the document, testing and inspection documentation, and a checklist of discipline specific items that shall be addressed.

6.1 QUALITY CONTROL PLAN



Energy Erectors, Inc. Substation Services QUALITY ASSURANCE / QUALITY CONTROL PLAN



CITY OF LAKE WORTH BEACH CANAL TRANSMISSION SUBSTATION RFP NO. 22-110

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Reports</u>
EEI QC Plan	Review QC Plan and forms start of field work	—	Approval Letter
EEI QC Personnel	Review Project Manager's qualifications prior to start of field work	—	Approval Letter
EEI QC Files	Verify set-up of QC Files	Visual	None
<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Reports</u>
Independent Testing Laboratories	Approval required	—	Approval Letter
Punch Lists	Maintain and verify completion of Master Project Punch List	Visual	None
Final QA/QC	Project QA/QC Plan, inspection Calibration reports, Approval letters with backup, Electrical test packages incl. test reports, punch lists, specification sheets, drawings, red-lined as-built drawings, etc.	Visual	Transmit to Customer at end of Project

6.2 PROJECT INITIATION

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Reports</u>
Pre-Construction Meeting	Determine Job Scope, Site Info., Safety Requirements, etc.	—	PJ-003
Final QA/QC	Inspection Forms, Lab Reports, etc.	—	Transmit to Customer at end of Project

6.3 FENCING

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Reports</u>
Material	Fencing material and hardware	Visual	PJ-026
	Diameter of posts, width of gates	Dimensional	PJ-026
	Inspection of material prior to Installation	Visual	PJ-026
Installation	Fencing Installation Post Setting	Visual, Dimensional	PJ-026 PJ-026



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

	Location of Gates		PJ-026
	Gate and corner bracing		PJ-026
Material	Alignment and plumpness of wire	Visual, Dimensional	PJ-026
Final Acceptance	Overall type of work	Visual	PJ-026
	Completion of all punch list items	Visual	PJ-026, PJ-022
Final QA/QC	Inspection Forms, Reports, etc.		Transmit to Customer

6.5 FOUNDATIONS

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Reports</u>
General	Concrete mix designs submitted for approval	Engineering review	Approval Letter
Excavations & Shoring	Excavation to proper sub-grade or elevation Disposal of excavated material per Project Disposal Plan	Dimensional, Visual	PJ-024
Formwork	Placement, location, size & layout, Alignment and tightness, keyways, Bracing, cleanliness of formwork, Chamfer strips and finish concrete	Visual, Dimensional Elevation	PJ-024
Reinforcing Steel and Embedding items	Placement of reinforcing steel, location and layout of rebars, support method, size and grade of rebars, rebar splicing and lapping, rebar spacing, tie wire size, embedded items material, size finish, location, elevation, and securement	Visual, Dimensional	PJ-024
Concrete Placement	Preparation, placement, drop height Vibration method, slump measurements	Visual, Dimensional	PJ-024, PJ-025 Lab Tests
	Concrete test cylinders, cylinder testing, concrete finish, concrete curing		Lab Tests
Stripping of Forms	Method of repair, repair of defective areas, fins elimination	Visual	None
Rubbing of exposed	Uniform Finish	Visual	None



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

Concrete

Backfilling around Foundations	Final line and grade, installation compaction	Visual, Dimensional	None
Final Acceptance	Overall type of work Completion of all punch list items	Visual Visual	PJ-025 PF-022
Final QA/QC	Inspection Forms, Reports, etc.		Transmit to Customer at end of Project

A.0 PURPOSE

To define and establish the requirements for planning, controlling and documenting structural concrete work to ensure compliance with applicable specifications and standards.

B.0 SCOPE

This procedure applies to all form work and reinforcement steel replacement as well as concrete mixing, transporting, placement, curing and protection performed by Dashiell/Dacon in conjunction with concrete foundation or structure construction.

B.0 REFERENCES

- B.1 EEI Quality Assurance/Quality Control Plan
- B.2 Civil/Structural General Notes
- B.3 Client and Engineering Specifications
- B.4 National Standards

C.0 RESPONSIBILITIES

- C.1 Responsibility of the quality of concrete work is primarily the Project Manager's with assistance of the Project Construction Engineer and/or Construction Manager.
- C.2 The Construction Manager shall be responsible for performing all inspection and testing of general concrete activities and documenting inspections.
- C.3 Third party testing personnel shall perform assigned functions as directed by the Construction Manager

D.0 CONCRETE MIX DESIGNS

- D.1 The concrete supplier shall submit mix designs to Dashiell, LLC who shall submit to Engineering for initial approval. The basic mix designs may then be adjusted to meet field conditions upon approval by Engineer.
- D.2 See Engineering Standard which addresses several mix designs for various applications. Specifications for materials are found with this standard.

E.0 INSPECTIONS PROCEDURES

- E.1 Pre-pour Inspection – Refer to Forms QC-3 and QC-4



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

- E.1.1 Forms shall be inspected for the following:
 - a. Locations
 - b. Elevation
 - c. Dimensions
 - d. Bracing
 - e. Cleanliness
 - f. Chamfer Strips
 - g. Key Ways
 - h. Vapor Barrier
 - i. Water Stops
- E.1.2 Reinforcing Steel Shall be inspected for the following:
 - a. Type
 - b. Size
 - c. No. of bars
 - d. Proper lap & ties
 - e. Support
 - f. Clear Cover
 - g. Cleanliness
 - h. Arrangement
- E.1.3 Embedded items shall be checked against the project drawings and specifications for the following:
 - a. Type
 - b. Diameter
 - c. Length
 - d. Sleeves (if required)
 - e. Location
 - f. Anti-Freeze in sleeves and caps (during cold weather)
- E.1.4 Other embedded items such as sleeves, inserts, blockouts, hold-downs, piping and electrical conduit shall be checked for correct size, location and anchors.
- E.1.5 The pre-pour inspection as designed above, shall be recorded on the Foundation Pre-Pour Inspection Report (QC-3) and signed by the appropriate discipline.
- E.1.6 Concrete will not be poured until the pre-pour inspection designated above has been completed.
- E.1.7 Approval to pour concrete shall be designated on form QC-3 by the Construction Manager or designee.
- E.1.8 Drilled foundations shall be a continuous pour unless prior approval has been obtained from the Project Manager.
- E.2 Inspection and Testing of concrete
 - E.2.1 The concrete shall be inspected and sampled for testing at the point of placement. The test record shall accompany the concrete pour slip in project files. Inspection requirements shall include, but not be limited, to the following:
 - a. Verify that the correct class of concrete has been delivered.
 - b. Visually inspect the concrete as it is discharged from the truck to ensure that the concrete is thoroughly mixed.
 - E.2.2 Obtain samples of the concrete for determining slump, molding cylinders and check concrete temperature. Samples shall be obtained in accordance with ASTM C 173, Sampling Fresh Concrete. Testing of the samples shall be in accordance with the following:
 - a. Slump shall be determined in accordance with ASTM C 143, Slump of Portland Cement Concrete and/or specifications. Slump testes shall be performed at least one per pour or at least one every 100 cubic yards minimum, or fraction thereof of concrete placed, whichever is applicable. Spot checks may be performed, as required by the Construction Manager to insure continued consistency.
 - b. Test cylinders shall be made and tested per specifications. Refer to Form QC-4.
 - Samples shall be taken in random manner at the rate of one three-cylinder sample per 50 cubic yards of concrete, with a minimum of one sample for each foundation of 3 cubic yards volume or larger.
 - c. The temperature of the concrete shall be checked at the point of placement each time a slump test is made, and hourly during each placement. The minimum temperature of the concrete as placed



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

shall be 50 mean daily temp

- E.2.3 If for any reason a load of concrete does not comply with the specification requirements for temperature, slump or other factors, the Construction Manager shall make the necessary corrections, if possible, or reject the concrete if it is unusable.
- E.2.4 Collect concrete truck batch tickets and check for completeness and compliance with specifications.
- E.2.5 All Inspection and testing activities of freshly placed concrete shall be recorded on Form QC-4.
- E.3 Inspection During Placement
- E.3.1 The Construction Manager or his designee shall perform inspections surveillance as follows to ensure that the concrete is placed in accordance with specification requirements:
- Ensure that vibrators are being used under experienced supervision to obtain adequate consolidation without segregation. Vibrators shall not be used for transporting or moving concrete with forms.
 - Ensure that all steps and precautions possible have been taken to ensure that placing consolidating and finishing the concrete shall proceed without interruption for each pour.
 - Ensure that forms are maintained tight and in line and that movement does not occur during concrete placement. Ensure that adequate construction personnel are available to correct any movement that might occur.
- E.4 Post -Pour Inspection
- E.4.1 The Construction Manager or his designee shall ensure that the following requirements are met after each pour has been accomplished:
- Ensure that the removal of forms is in accordance with specification requirements.
 - Ensure that necessary patching is performed immediately after form removal in accordance with specification requirements. Ensure that concrete surfaces receive the proper finishes and treatments such as hardeners, curing compounds, sealers and dust proofing compounds.
 - Ensure that all concrete is cured in accordance with specification requirements.

F.0 DOCUMENTATION

The QA/QC Control Section shall maintain copies of all reports.

6.6 CONDUIT AND CABLE TRENCH

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Material size, type & rating	Visual, Dimensional	PJ-027
Excavating and Shoring	Excavate to proper sub-grade, line or elevation, shoring, disposal of excavated material	Visual, Dimensional	PJ-027
Installation	Bedding, exposed conduit ends protected, placement, pull strings, backfilling, compaction, final line and grade	Visual, Dimensional	PJ-027
Final Acceptance	Overall type work	Visual	PJ-027
	Completion of all punch list items	Visual	PJ-027, PJ-022



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

Final QA/QC Documentation	Inspection Forms, Reports, etc.	Transmit to customer at end of project
---------------------------	---------------------------------	--

6.7 GROUNDING (BELOW GRADE)

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Material size, type & rating	Visual, Dimensional	PJ-028
Excavating and Shoring	Excavate to proper sub-grade, line or elevation, shoring, disposal of excavated material	Visual, Dimensional	PJ-028
Installation	Bedding, exposed conduit ends protected, placement, pull strings, backfilling, compaction, final line and grade	Visual, Dimensional	PJ-028
Final Acceptance	Overall type work Completion of all punch list items	Visual Visual	PJ-028 PJ-028, PJ-022
Final QA/QC Documentation	Inspection Forms, Reports, etc.		Transmit to customer at end of project

6.8 STRUCTURAL STEEL

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Structural Steel material, members type, size and finish Bolting and fastener Material, type, size grade & finish Inspection or material damage Prior to Erection	Visual, Dimensional Visual Dimensional Visual	PJ-029 PJ-029 PJ-029 PJ-029
Erection	Structural steel erection Location and elevations Alignment and plumpness Size and washer requirements	Visual, daily Dimensional Visual Visual	None PJ-029 PJ-029 PJ-029
Final Acceptance	Overall type work Completion of all punch list items	Visual Visual	PJ-029 PJ-029, PJ-022
Final QA/QC Documentation	Inspection Forms, Reports, etc.		Transmit to customer at end



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

of project

6.9 INSULATORS

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Material, manufacturer, type, size and KV rating Inspection for material damage	Visual	PJ-030
Verify Insulator Placement	Verify placement by erection drawing review Verify stack components Assembly and alignment	Visual, daily Visual Visual	PJ-030 PJ-030 PJ-030
Final Acceptance	Overall type work Completion of all punch list items	Visual Visual	PJ-030 PJ-030, PJ-022
Final QA/QC Documentation	Inspection Forms, Reports, etc.		Transmit to customer at end of project

6.10 SWITCHES

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Electrical System Components Material, manufacturer, model, Type Inspection for damage prior to Installation	Visual Visual, Dimensional Visual	PJ-031 PJ-031 PJ-031
Installation	Setting of equipment Location of elevation and Orientation Blade, contact jaw, in open and Closed alignment	Visual, daily Dimensional Dimensional, Visual	None PJ-031 PJ-031
Final Acceptance	Overall type work Functional Check Completion of all punch list items	Visual Visual, Dimensional Visual	PJ-031 PJ-031, PJ-022
Final QA/QC Documentation	Inspection Forms, Reports, etc.		Transmit to customer at end of project

6.11 BUS



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Receiving	Material and Accessories in Compliance with specifications	Visual	Receiving Report
	Material, manufacturer, type, size and rating.	Visual	PJ-032
	Inspect for material damage Prior to inst.	Visual	PJ-032
Welding Approvals	Welding procedures specifications Welding procedure qualifications Records, Welder Performance Qualifications submitted for approval With completed FEWA Weld Map with welds selected	Engineering Review Field Approval	 PJ-032
Equipment	Determine type of welding Machine to be used	Visual	None
<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Base metal material, grade, size Schedule and thickness	Visual	None
	Filler metal material, manufacturer grade and size	Visual, Dimensional	PJ-032 Certified Report
Preparation	Verification of proper electrical clearances to ground and adjunct bus Welding Operation Joint Design Preparation and Alignment Welding process and procedure Welder Qualifications and ID Stamp Welding Procedure Used Welding Progression inter-pass and cleaning Inspect Root Pass	Visual, Dimensional Visual Visual, Dimensional Visual Visual Visual Visual Visual	PJ-032 None None PJ-032 PJ-032 None None None
Post Welding	Final weld quality, appearance, size Amount of reinforcement Profile, Finish, Application of Welder ID Stamp	Visual Dimensional Visual	None None None
Final Acceptance	Overall type work Completion of all punch list items	Visual Visual	PJ-032 PJ-032, PJ-022



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

Final QA/QC
Documentation

Inspection Forms, Reports, etc.

Transmit to customer
at end of project

6.12 CONTROL CABLE/FIBER OPTICS

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Material, manufacturer, type, size Size, insulation and rating Inspections and test for material Damage on spool	Visual Dimensional Visual	PJ-034 PJ-034, PJ-035 PJ-034 Test Report
Initial Conductor Inspection & Testing	Method of testing Inspect megger	Engineering Review Visual	Approval Letter PJ-034, PJ-035
Conduit and Cable Tray Systems	System Installation Size, type, material Location and elevation Support and Spacing Grounding Box Size and Clearance	Visual, daily Visual Dimensional Dimensional Visual Dimensional	None None None None None None
<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Conductor	Conductor Installation	Visual Remarks	None
Pulling and Installation	Wire and Cable pull Tension does not exceed manufactures Proper lubricant used	Visual	None
Terminations	Method and material Terminations	Engineering Review Visual, daily	Approval Letter PJ-034
Wire tagging and Name Plates	Color Code Equipment Junction Box	Visual Visual	None None
Final Acceptance	Overall type work Completion of all punch list items	Visual Visual	PJ-034 PJ-034, PJ-022
Final QA/QC Documentation	Inspection Forms, Reports, etc.		Transmit to customer at end of project

6.17 POLES/OVERHEAD CONDUCTOR



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Material	Material manufacturer	Visual	PJ-039
	Model, size, rating and finish		
	Conductor manufacturer	Visual, Dimensional	PJ-039
	Type, size, insulation and rating		
	Inspect and test conductor for Damage	Visual	PJ-039
Pole and Framing	Insulation Resistance, Hi-Pot		Technician Form
	Inspect Material for damage	Visual	PJ-039
	Prior to inst.		
Pole mounted Equipment	Pole line installation	Visual, daily	None
	Location & elevation of support	Visual, Dimensional	PJ-039
	Piling and pole framing members, Hardware and installation		
Stringing of Conductors	Location and elevation	Dimensional	PJ-039
	Mounting Details	Dimensional	PJ-039
	Conductor Installation	Visual, daily	None
	Cable Supports	Dimensional	PJ-039
	Sagging and Tension	Dimensional	PJ-039
	Splicing and termination	Visual, daily	None
<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Report</u>
Testing installed Conductors	Method of testing	Engineering Review	Approval
	Completion of inspections	Check Records	PJ-039
	Cable Hi-Pot Testing	Visual	Technician Form, PJ-039
Final Acceptance	Overall type work	Visual	PJ-039
	Completion of all punch list items	Visual	PJ-039, PJ-022
Final QA/QC Documentation	Inspection Forms, Reports, etc.		Transmit to customer at end of project

6.19 ENERGIZATION & TURNOVER

<u>Item</u>	<u>Inspection</u>	<u>Remarks</u>	<u>Written Reports</u>
Final Testing	Checks to be performed prior to Energization		PJ-045
Energization	Energizing of all apparatus		PJ-006



**Energy Erectors, Inc. Substation
Services**
**QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

Final Acceptance	Transfer of Care, Custody and Control	PJ-007
Final QA/QC	Inspection Forms, Reports, etc.	Transmit to Customer at end of Project

7.0 ATTACHMENTS (To Be Provided Upon Award)

Attachments	1-3	<u>Quality Control Specifications</u>
	PJ020-A1	Concrete QC Specs
	PJ020-A2	Structural Steel QC Specs
	PJ020-A3	Control Cable and Conduit QC Specs
QA/QC Forms		
	PJ021	Field Inspection Report
	PJ022	Field Punch List
	PJ023	Earthwork/Site Preparation Inspection Reports
	PJ024	Foundation Pre-Pour Inspection/Approval to Pour
	PJ025	Concrete Placement Record
	PJ026	Fencing Inspection
	PJ027	Conduit and Cable Trench Inspection Report
	PJ028	Grounding Inspection Report
	PJ029	Structural Steel Inspection List
	PJ030	Insulator Inspection Report
	PJ031	Switch Inspection Report
	PJ032	Bus Inspection Report
	PJ034	Control Cable/Fiber Optics Inspection Report
	PJ035	Control Cable/Fiber Optics Check List
	PJ037	Transformer Receiving Inspection
	PJ039	Pole/Overhead Conductor Inspection Report
	PJ041	Electrical Receiving Inspection



**Energy Erectors, Inc. Substation
Services
QUALITY ASSURANCE / QUALITY
CONTROL PLAN**



**CITY OF LAKE WORTH BEACH
CANAL TRANSMISSION SUBSTATION
RFP NO. 22-110**

PJ018	Non-Conformance Hold Tag
PJ042	Corrective Action (CAP) Investigative Form
PJ043	Equipment and Apparatus Damage Report
PJ044	Checks performed prior to final Walk-through
PJ045	Checks performed prior to Energization
PJ006	Energization Report
PJ007	Transfer of Care, Custody and Control
PJ003	Project Initiation Report
PJ049	Construction Field Checklist
PJ050	Order Entry Kick-Off Meeting
PJ051	QA Action Items List
PJ052	QA/QC Form Applicability Checklist

No problems found. Congratulations on the successful setup of your wireless printer.

DIAGNOSTICS RESULTS

> Wi-Fi

-- Wi-Fi On	PASS
-- Wi-Fi Working	PASS
-- Signal Strength	Excellent
-- Signal Quality	Good

> Connectivity

-- Connected	PASS
-- Disconnect count total	51
-- Disconnect count (last hour)	0
-- Disconnect count (last 24 hours)	0

> Network

-- Network Name (SSID) Found	PASS
-- Other networks detected matching your network name (SSID)	No
-- Wireless Networks Detected	18

> Settings

-- Printer Settings Consistent with Wi-Fi Router Settings	PASS
-- No Filtering	PASS
-- Channel	6
-- Security	PASS

CURRENT CONFIGURATION

-- Network Name (SSID)	Cisco12109
-- Hardware Address (MAC)	14:cb:19:34:02:43
-- IP Address	10.1.10.133
-- Configuration Source	DHCP
-- Communication Mode	Infrastructure
-- Authentication Type	WPA or WPA2
-- Encryption	Automatic (AES or TKIP)
-- Internet	Connected

For additional help with troubleshooting, refer to the network troubleshooting help section provided with your HP printer.
For more information on your network configuration, print the Network Configuration Page.

Visit the HP Wireless Printing Center - www.hp.com/go/wirelessprinting.



Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan



Safety Plan

City of Lake Worth

Canal Substation

**4601 Davis Road
Lake Worth Beach, FL
33461**



Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan



TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page No</u>
<u>Intro</u>		4
<u>Project Overview</u>		5
A.	SAFETY RESPONSIBILITIES AND AUTHORIZED ENTRY	6
B.	CHAIN OF COMMAND FOR RESOLVING SAFETY ISSUES	6
C.	HAZARD ASSESSMENT PLAN / HAZARD ELIMINATION PROCESS	6
D.	EQUIPMENT HAZARD PLAN	6
E.	SAFE WORK STANDARDS AND REFERENCE DOCUMENTS	7
F.	LOGISTICS PLAN	7
G.	HOUSEKEEPING	7
H.	HEAT STRESS PLAN	7
I.	SAFETY MEETING PLAN	8
J.	EMERGENCY RESPONSE / ACTION PLAN AND FIRST AID PROCEDURES	9
K.	INCIDENT INVESTIGATION PLAN	13
L.	BLOOD BORNE PATHOGENS	15
M.	(PPE) PERSONAL PROTECTIVE EQUIPMENT	20
N.	FALL PROTECTION	24
O.	VEHICLES AND EQUIPMENT	27
P.	CONFINED SPACE ENTRY	30
Q.	MATERIAL HANDLING AND LIFTING	33
R.	LOCKOUT AND TAGOUT PROGRAM	38
S.	LADDERS / SCAFFOLDS	41
T.	INCLEMENT WEATHER	43
U.	HAZARD COMMUNICATION PROGRAM (HCP)	45
V.	SMOKING RESTRICTIONS	50
W.	SUBCONTRACTOR AWARENESS	50
X.	SITE SPILL PLAN	51



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



TABLE OF CONTENTS (continued)

Attachments

ATT. 1	ACCIDENT INCIDENT REPORT FORM
ATT. 2	CONFINED SPACE PERMIT
ATT. 3	CONSTRUCTION EQUIPMENT DAILY CHECK LIST
ATT. 4	CRITICAL LIFT CHECK LIST
ATT. 5	WEEKLY SAFETY FORM
ATT. 6	JOB SITE SAFETY AUDIT
ATT. 7	JOB SAFETY TASK ANALYSIS
ATT. 8	EXCAVATION CHECKLIST
ATT. 9	NEAR MISS REPORT



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



A. Introduction

Energy Erectors (EEI) places Safety Performance as the first of our five Global Principles.

Safety is a key element and paramount in the success of our company. EEI is relentless in our commitment that safety is #1 with the goal of an accident free work place. Our safety program is a living document under continuous scrutiny.

EEI has established a "Zero Accident / Zero Tolerance Culture" maintaining an expectation that all injury can be eliminated. The following is an overview of our program and the auditing methods used to maintain our organization as an industry leader.

One of the most important aspects of an effective safety program is the "New Hire Orientation". It provides the opportunity to make the employee feel part of the organization and communicate expectations and responsibilities.

Employees are our most valuable asset. Utilizing the experience / knowledge level of professionals within our company concerning what key elements are needed to be a leader in safety within the Electrical Substation Industry, we formulated the following core elements:

- Daily Tailboard / JSTA Meetings
- Field Safety Audits
- Job Task Analysis
- New Hire Mentoring Program
- New Hire Orientation / Testing
- On Going Training
- Post New Hire / Interview / Testing (60 days after initial employment)
- Project Specific Orientation
- Qualified Skilled Employees
- Safety Committee
- Skill Assessments
- Weekly Safety Meetings

Creating a "Zero Accident" Culture a safe work place is our culture. Our daily goal is to send each employee home to their families at the end of each day in the same healthy condition in which they arrived to work. The safety and health program is an aggressive approach developed from all input at all levels of the organization including executive management sponsorship. The program is a living document continuously under review to maintain an industry leading program.

- Employees are our most valuable asset
- Recognize employee's safety effort
- Special recognition awards
- Provide quality equipment / tools
- Training / educating workforce
- Safety Awards
- Safety Barbeques (family orientated / team building)
- Employee Safety Committee
- Employees take pride in building a quality product safely



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



PROJECT OVERVIEW

Scope of Work

Substation Construction Services located in the Canal Substation Project.

Location

Canal Substation
Lake Worth Beach, FL

Personnel on Project

Troy Janoske - Project Manager Email: tjanoske@energyerectors.net Cell: 352-267-3491
Mike Gneiting - Site Superintendent Email: mgneiting@energyerectors.net Cell: 352-396-6007
Paul Yeckley - Site Safety Rep Email: paul@energyerectors.net Cell: 352-267-7353

Emergency Information

Refer to **Section J** of this Safety Plan for addresses, telephone numbers and contact information for Ambulance, Air Ambulance, Hospital and Poison Control Center.
(Initial list provided, complete addresses and phone numbers will be added upon award of project)



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



A. Safety Responsibilities and Authorized Entry

1. MasTec / Energy Erectors we will use all personal protective equipment required by City of Lake Worth and OSHA, such as hard hats, steel toe work boots, hearing protection, fall protection and fire-retardant clothing, Traffic vest as needed and high visual FR vest shall be worn continuously while on the job site.
2. All drivers will have valid driver's license and DOT certification as required.
3. Employees and Subcontractors will attend required City of Lake Worth site-specific safety training.
4. All employees will be certified as drug free.
5. Authorized entry – will be designated by City of Lake Worth.
6. Sub-Contractor responsibility, site safety plan requirement and content.
7. CONSTRUCTION LOCKS SHALL BE PROVIDED FOR GATES AND STRUCTURES, FOR OFF WORK HOUR PROTECTION

B. Chain of Command for Resolving Safety Issues

A. Resolution of any hazard prevention issue that concerns the employee will be by listed title:

1. Foreman
2. Construction Manager
3. Project Manager
4. Safety Director

B. City of Lake Worth will be advised of any site-specific safety hazards.

C. Hazard Assessment Plan / Hazard Elimination Process

1. All employees are trained in the identification of fall protection needs, use of equipment, inspection and use of fall protection equipment.
2. Presence of high voltage lines is discussed prior to working on overhead work. Only competent trained employees will be allowed to work on or near energized circuits.
4. A job safety task analysis (JSTA) / job hazard analysis (JHA) shall be done before start of each new job task. The supervisor and workers that will perform the job will do this. All hazards must be identified with management steps discussed on the back of the form. Foreman/Supervisor must sign only after reading and updating or revising as necessary. 100% fall protection anchor points will be identified and noted on the JHA.

D. Equipment Hazard Plan

1. Equipment will be inspected daily.
2. GFCI's will be provided on all electrical outlets.
3. All tools will be inspected to determine that they are in good working order.
4. Equipment operators will have certifications that they are competent operators.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



E. Safe Work Standards and Reference Documents

All work will be covered by Safety, OSHA Standards, NFPA-70E, MasTec / Energy Erectors Safety Policies and City of Lake Worth Safety Standards.

F. Logistics Plan

1. MasTec / Energy Erectors will provide lockable containers for storage of tools and material.
2. Equipment will be parked on site or adjacent to the work area as required.
3. Spotters will be provided when moving equipment as required. Traffic cones will be placed around the equipment when it is stationary as required.
4. Material will be stored in an area, designated by City of Lake Worth.

G. Housekeeping

The work area must have good housekeeping, in order to eliminate the possible of trip hazards. If the work area is soft or wet, care must be taken to prevent slips and falls.

1. Temporary facilities, sanitation, industrial hygiene, etc. the sanitation units will be provided by MasTec / Energy Erectors each unit will be clean and service weekly or as needed.
2. Eating and food storage will be kept in the MasTec / Energy Erectors Offices or designated facilities.

H. Heat Stress Management

I. Purpose

To assist in minimizing employee risk of heat related illness and injury.

II. Levels of Heat Stress Severity

Heat Stress can be defined in three varying levels of severity – Heat Stress (mild), Heat Exhaustion (moderate), and Heat Stroke (severe). Below is a list of warning signs and treatment by degree of severity.

Levels	Warning Signs	Solution or Treatment
Heat Stress (Mild)	Sweating, Irritability, Mild dizziness, or weakness, muscle spasms/ cramps, prickly heat.	DO NOT TAKE SALT TABLETS, Rest in a cool, shady area, drink water/fluid *If symptoms persist or cramps occur, seek medical help.
Heat Exhaustion (Moderate)	Excessive sweating, dizziness or weakness, thirst, headache, nausea/loss of appetite, skin (cold, flushed, moist, pale) Pulse rapid and weak	Rest in a cool, shady area, cool off by rinsing the face, neck, and arms, hose down or stand under a shower. Do not go back to work immediately. * Contact your supervisor for medical evaluation.
Heat Stroke (Severe)	Lack of sweating, dizziness, headache, nausea, skin (hot, flushed, dry). Pulse rapid, weak, possibly irregular. Confusion, loss of consciousness, deep rapid breathing	If one or more of these signs are present, employee should call for emergency medical assistance.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



III. Steps you can take to prevent heat stress are as follows:

1. **Dress properly for weather conditions** – heavy clothing can increase body heat causing excessive sweating leading to the loss of body fluids. This will speed up the dehydration process.
2. **Drink plenty of fluids** – avoid drinking carbonated fluids. They can increase the risk of heat related problems. Use electrolyte replacement drinks which are low in sodium. Drink 3 cups of water to every 1 cup of electrolyte replacement drink.
3. **Eat reasonably** – Eat a good breakfast and lunch every day to help maintain a healthy energy level throughout the day. Do not eat heavy meals prior to working in the heat. Bananas are a good source of potassium and can help prevent muscle cramps.
4. **Avoid drugs and alcohol** – Use of drugs and/or alcohol can increase your risk to heat related problems. Your body will use its energy supply to rid itself of the foreign substance causing sweating, nausea, and/or vomiting. You become less likely to drink additional fluids and therefore, this greatly accelerates the process of dehydration.
5. **Keeping employees informed** – Make heat stress a part of your daily tailboard / job task analysis. Employees should be aware of how to prevent heat stress and what warning signs they should look for.
6. **WHEN IN DOUBT, SEEK MEDICAL ATTENTION IMMEDIATELY**

I. Safety Meetings

1. Safety Council

Safety Committees are an essential part of our Safety Program. The committee will be represented by employees from the field and management. Activities will include but not be limited to:

- Monthly meetings
- Review of near misses / accidents
- Development of safety topics for monthly use
- Track safety trends
- Review employee safety suggestions
- Review proposed safety policies and procedures
- Safety committee members will be rotated every six months

2. Weekly Safety Meeting

On the first day of each work week, a weekly safety meeting will be conducted prior to the start of work. General or specific topics will be selected based on the work activity or continuing employee safety awareness training. (Documented)

3. Daily Job Safety Task Analysis and Tail Board Meeting

- The crew leader shall be responsible for holding effective daily tailboard/ JSTA meetings
- Tailboards/JSTA briefing meetings shall be held to make each employee aware of hazards specific to the job they are performing before beginning work at the job site
- These meetings also shall be held when any part of the job changes or when there is a change in the crew
- Tailboard/JSTA briefing meetings shall be documented (including topics discussed and signature of attendees)



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



4. Field Safety Audit

Safety audits are a useful / valuable tool for measuring the success of the safety program and providing insight of what additional training would enhance safety efforts.

- Housekeeping
- PPE
- Assured grounding / EPZ Grounding
- First Aid Kit (properly stocked)
- Confined Spaces
- Hand tools / Power tools
- Fire Extinguishers
- Fork Lifts
- Cranes / Lift Trucks and rigging equipment
- Bucket Trucks
- Excavations / Access, Egress and surfaces
- Other Motorized Equipment
- HAZCOM / MSDS and storage
- LOTO (Lock Out – Tag Out)
- Material Handling and Storage
- Man lifts / aerial platforms
- Rubber gloves (test date)
- Scaffolds / ladders
- Work positions / Acts (Fall protection used in a proper manner)

J. Emergency Response / Action Plan and First Aid Procedures

Only trained personnel shall render First Aid / CPR and rescue to an employee or member of the public. All employees are trained by certified Instructors and are given CPR/First wallet cards, all Training and Certificates are kept on file with the safety department with re-training every 1 to 2 years.

- All MasTec / Energy Erectors and Subcontractors shall be familiar with the site emergency response and action plan.
- There shall be a First Aid kit in each job site trailer / vehicle.
- First Aid kit shall consist of adequate materials for the environment in which they will be used.
- First Aid kits shall be inspected weekly
- Provisions shall be made for prompt medical attention in case of injury
- Proper communication system for contacting necessary emergency services shall be provided
- In areas where 911 is not available, the telephone numbers of hospitals and emergency services shall be conspicuously posted
- First Aid will be available to all employees
- At any worksite with two or more workers, there will be two trained First Aid persons available
- The employer shall provide adequate washing facilities for quick drenching or flushing of eyes.

I. Pole Top Rescue

If a worker becomes incapacitated while working in the air, call 911 immediately then follow the steps below:

- The rescuer must be able to perform the rescue safely and trained to do so
- Survey the pole to ensure that the rescuer can safely climb to the victim



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- The rescue should be accomplished as quickly as possible to avoid the physical trauma of being suspended for long periods of time
- Ascend the pole and belt off
- Clear the victim from any electrical contact using tools that will keep the rescuer isolated from any source
- Ensure that the rope is properly wrapped around a cross arm to ensure a controlled rate of descent
- If the pole has no cross arm, rig into the pole itself by driving a screwdriver into the pole for support for the rescue rope and wrap the rescue rope around the pole above the screwdriver. Be sure the rope end used to control rate of descent is rapped above the end attached to the victim to avoid binding
- When you are absolutely sure that the victim is hooked into the descent device, free them from the safety strap by unsnapping / cutting it (Be sure to cut away from the victim)
- Lower the victim to the ground as quickly as possible
- If medical personnel have not arrived onsite, begin CPR and First Aid per training and continue until they arrive (Be mindful of spinal / neck injuries in caring for the victim)
- Once medical personnel are onsite, assist them in caring for the victim

II. Aerial Lift Rescue

If a worker becomes incapacitated while working from an aerial lift device and are not in immediate danger from fire / continuing electric current, call 911 immediately then follow the steps below:

- Ground personnel shall learn to follow the path taken to the work location. In the event of an emergency, the ground personnel shall lower the bucket to the ground, using the lower (override controls) reversing the path originally taken
- If so equipped, the bucket braking system shall be engaged so that the bucket is tilted at the proper angle for extraction when it reaches the ground
- The ground personnel will use any rescue device on the equipment to remove the injured employee from the bucket
- If equipment does not have a rescue device, ground personnel will lift the employee from the bucket in one smooth motion, laying the victim on a firm surface in preparation for CPR and First Aid
- Employees will administer CPR and First Aid until medical personnel arrive and take over

III. Structure Rescue

If a worker becomes incapacitated while working from a structure call 911 immediately then follow the steps below:

- The rescuer must be able to perform the rescue safely
- Survey the structure to ensure that the rescuer can safely climb to the victim
- The rescue should be accomplished as quickly as possible to avoid the physical trauma of being suspended for long periods of time
- Ascend the structure and belt off
- Clear the victim from any electrical contact using tools that will keep the rescuer isolated from any source
- Use the descent device or other method you have been trained on to prepare the victim for descent
- When you are absolutely sure that the victim is hooked into the descent device, free them from the safety strap by unsnapping / cutting it (Be sure to cut away from the victim)



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Lower the victim to the ground as quickly as possible
- If medical personnel have not arrived onsite, begin CPR and First Aid per training and continue until they arrive (Be mindful of spinal / neck injuries in caring for the victim)
- Once medical personnel are onsite, assist them in caring for the victim
- Ground personnel shall learn to follow the path taken to the work location. In the event of an emergency, the ground personnel shall lower the bucket to the ground, using the lower (override controls) reversing the path originally taken.

EMERGENCY INFORMATION

<u>Resource Needed</u>	<u>Resource Location</u>	<u>Telephone Number</u>
Ambulance / EMS		
911		911
Fire Department		
	(Prelim SSSP – to be updated upon award)	
Hospital / Clinics		
	(Prelim SSSP – to be updated upon award)	
WorkCare		1-888-449-7787
Police Department		
	(Prelim SSSP – to be updated upon award)	
Poison		
American Association of Poison Control		1-800-222-1222



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



Safety Incident Reporting

**Energy Erectors Safety
Energy Erectors Const. Manager
Energy Erectors Project Manager
FPL Site Rep
FPL Safety**

**Paul Yeckley
Mike Gneiting
Troy Janoske
TBD
TBD**

**Cell: 352-267-7353
Cell: 352-396-6007
Cell: 352-267-3491**

All employees need to be aware of this procedure

Note: During the tailboard / JSTA meeting make all employees aware of the location of the work site. In case of a medical emergency they will be able to direct the responding medical assistance unit to the incident site.

Emergency Procedures

Medical Injuries / Vehicle Accidents

If trained-provide emergency First-Aid to the individual until medical assistance arrives.

If you're not able to follow reporting procedures call 9-1-1

Medical Assistance Call 9-1-1

Provide the following information to the emergency center:

1. Your name and phone number.
2. Type of Incident-employee injury / Vehicle accident.
3. Location of the incident: Intersection / highway number and nearest milepost. If you have a GPS, provide Lat / Long.
4. How many individuals need medical assistance?



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



5. Extent of injuries.
6. Was the incident due to a fall, electrical contact, vehicle accident, other?
7. Stay on the line until 9-1-1 disconnects.

After notification has been made for medical assistance, contact the next level of management.

Note: If after normal hours you need medical attention contact

Contact: Paul Yeckley 352-267-7353

K. Incident Investigation Plan

- a. All incidents shall be reported to your Supervisor.
- b. MasTec / Energy Erectors Construction Manager.
- c. City of Lake Worth Site Rep.
- d. The MasTec / Energy Erectors Safety Director, site safety, and the construction team will perform a post incident Root Cause Analysis.
- e. City of Lake Worth will be provided a copy of the report.

The following accident / incident profile is to be used on all occurrences involving injury to employee or a member of the public.

Format

Name / Names of individuals Involved:

Date of Occurrence:

Location of Occurrence:

Description of Location:

This caption should describe briefly but concisely the scene of the accident with all surrounding pertinent landmarks, distances, grades, services, rural, business and residential areas and such other factors that are material to the accident under investigation.

Weather Conditions:

This should describe the weather conditions at the time of the incident. Temperature, wind speed and direction, precipitation, dust storm, thunderstorm, etc. should be described briefly but concisely. If weather isn't an issue in the cause of the accident, a brief description will suffice.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



Description of Accident:

This item should be a brief, composite, version of the facts of the accident based upon the statements and reports of all parties at interest. If the versions of the interested parties are directly opposed or in conflict, the investigator should express the versions of each separately. Avoid rambling generalities, unsupported conclusions and digressions from the facts on hand.

Diagrams and Photographs:

Use graph paper for diagrams of the scene of the accident. Measurements should be clearly marked with a permanent point of reference, i.e. buildings, fences, etc., and the diagram writing should be read from the bottom and right side of the page.

Photographs:

Each photograph should be numbered, dated, and a short description of what the photograph depicts.

Equipment Involved:

First describe in detail all company equipment involved i.e. electrical conductors, vehicles, cranes, trenchers, backhoes, etc. A detailed description should include manufactures model, year and serial number. Other equipment involved should be described in the same manner including owner's name and address. Use a paragraph for company property and one for the other property. Measurements and distances from permanent reference points should be identified by the type of equipment used to conduct the measurement as well as the individual / individuals who conducted the measurements.

Evidence:

In this item describe in detail all items in your custody as evidence pertaining to the accident. Also indicate evidence not in company possession.

Right of Way / Easements:

This is self-explanatory, but if we have no right of way or easement, state so. Only if this item has signs of becoming an issue do you need to elaborate or acquire the recorded plat or easement.

Other Party:

If there is more than one potential claim, make a separate file and subparagraph caption for each. State briefly in one or two sentences the other party's version of the happenings of the accident or damages. In cases involving juveniles furnish the given name of both father and mother not Mr. or Mrs., date of birth is very important.

Witnesses:

If more than one, make a subparagraph caption for each stating full name, social security number, age, address, place of employment and where located at the time of the accident / incident. Comment briefly in no more than a sentence or two on the witness's version of the facts of the accident.

If the witness is a transient, tourist or passerby, be sure to obtain the name and address of a person who would always know of the whereabouts of the witness.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



Make a determined effort to cultivate good will with your contacts with witnesses. Remember, they have nothing to gain or lose because of someone else's accident and their cooperation is entirely voluntary. Your approach and attitude will often determine if the witness will cooperate or not. They are doing you a favor at the expense of their time and convenience.

Official Reports:

Indicate the jurisdiction of the investigating officer, local police, county sheriff, highway patrol, etc. From the police report itself, comment on pertinent facts conveyed in the report.

Bodily Injury:

This section should indicate name of the injured party, age, address, occupation, social security number and marital status. Name of the spouse, parents and children should be listed. If it is a fatal accident, list the name of survivors and heirs.

List the name of the hospital the injured or deceased was taken to, name of the treating physician or medical examiner and how they were transported to the facility.

Employees on site:

Any employee who responds or is on site should be identified by name, payroll number and where the employee works. Additionally, any activities involving an employee relating to the investigation should also be noted on your report.

Root Cause Analysis:

Root Cause Analysis is a tool designed to help identify not only what and how an event occurred, but also why it happened. Understanding why an event occurred is the key to developing effective recommendations. The Root Cause Analysis is a four-step process involving the following:

- Data collection.
- Organize and analyze information gathered.
- Root cause identification.
- Recommendation generation and implementation.

L. Blood Borne Pathogens

The Occupational Safety and Health Administration (OSHA) of the Department of labor published the final rule: Occupational Exposure to Blood Borne Pathogens in the December 6, 1991 Federal Register. The effective date of this rule was March 6, 1992. OSHA has determined that workers face a significant risk as a result of occupational exposure to blood borne pathogens including hepatitis B virus (HBV) and human Immunodeficiency virus (HIV). OSHA further concludes that this exposure can be minimized or eliminated using a combination of engineering and work practice controls, protective clothing and equipment, training, medical surveillance, hepatitis B vaccination, signs and labels, and other provisions. Any questions regarding the Exposure Control Plan should be directed to your supervisor. All employees will have access to the Exposure Control Plan.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



1. Exposure Control Plan

Definitions

- "Blood" means human blood, human blood components, and products made from human blood.
- "Blood Borne Pathogens" means pathogenic microorganisms that present in present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B (HBV) and human immunodeficiency virus (HIV).
- "Clinical Laboratory" means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.
- "Contaminated Clothing" means clothing which has been soiled with blood or other potentially infectious materials.
- "Contaminated Sharps" means any contaminated object that can penetrate the skin including, but not limited to, knives or broken glass, etc.
- "Decontamination" means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, and disposal.
- "Engineering Controls" means controls (e.g., sheaths for knives, saw blades, portable cutting tools) that isolate or remove the blood borne pathogens hazard from the workplace.
- "Exposure Incident" means a specific eye, mouth, other mucous membrane, non-intact skin contact with blood or other potentially infectious materials that results from the performance employee's duties.
- "Hand Washing Facilities" means a facility / location providing an adequate supply of running portable water, soap and single use towel or hot air drying machines.
- "Universal Precautions" is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other blood borne pathogens.
- "Work Practice Controls" means controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

2. Occupational Exposure Determination

Exposure determination is made without regard to the use of personal protective equipment. Job classification in which all employees in those jobs have reasonably anticipated skin, eye, mucous membrane contact with blood or other potentially infectious materials that may result from the performance of an employee's duties are listed. Task and procedures performed by employees in these job classifications are described in each job classification. In addition, OSHA requires a listing of job classifications in which some employees may have occupational exposure. Not all employees in these categories are expected to incur exposure to blood or other potentially infectious materials. Task or procedures that would cause these employees to have occupational exposure must be listed. The job classification and specific tasks or procedures in which some employees may incur occupational exposure are listed.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



3. Exposure Determination

Job Classification	Exposure Group		Task
	All	Some	
Groundman	X		Using hand and power tools. Operating on or around machinery or equipment. Cutting, welding, grinding, chipping. Handling materials. Using electrical test equipment and working around energized circuits.
Apprentice Lineman	X		
Journeyman Lineman	X		
Lead Journeyman	X		
Working Foreman	X		
Foreman	X	X	
Equipment Operator		X	
Mechanic	X		
Shop Foreman		X	
Job Supervisor		X	

4. Universal Precautions

Medical history and examination cannot reliably identify all employees infected with HIV or other blood borne pathogens. Consequently, blood and body fluid precautions are consistently used for all employees. This approach previously recommended by the Centers for Disease Control and Prevention (CDC), and referred to as universal blood and body fluid precautions" or Universal precautions", is used in the care of all workers. Appropriate protective clothing or equipment is worn to prevent skin and mucous membrane exposure when contact with blood or other body fluids of any worker is anticipated.

5. Engineering and Work Practice Controls

Engineering and work practice controls are used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of the work practice controls, person protective equipment will be used. Engineering controls will be examined or replaced on a regular schedule to ensure their effectiveness. Engineering controls will be re-evaluated during the month of January each year.

- Hand washing facilities / locations are readily accessible to all employees.
- Hand cleansers, in conjunction with paper towels or antiseptic towelettes, are also available. When hand cleansers or towelettes are used, hands will be washed with soap and running water as soon as possible.
- Employees will wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.
- Employees will wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials. Eating, drinking, smoking or applying lip balm, and handling contact lenses are prohibited in work areas where there is reasonable likelihood of occupational exposure.
- Equipment, other than PPE, which during the course of work could become contaminated with blood or other potentially infectious materials should be checked routinely.
- Specimens of blood or other potentially infectious material will be put in leak proof bags for handling.
- All equipment or environmental surfaces shall be cleaned and decontaminated after contact with blood or other infectious materials, with a commercial body fluid disposal kit or like items.



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



6. Personal Protective Equipment

- All employees who are listed in the Occupational Exposure Determination section will be provide with all personal protective equipment needed.
- Personal protective equipment (PPE) is considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employees work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous members under normal conditions of use and for the duration of time which the protective equipment will be used.
- Appropriate PPE's are readily accessible.
- PPE's will be required or replaced as needed to maintain effectiveness.
- All employees who anticipate occupational exposure will put on the appropriate PPE prior to performing the task or procedure.
- If a garment is penetrated by blood or other potentially infectious materials, the garment will be removed immediately or as soon as possible.
- All PPE's will be removed prior to leaving the work area.
- PPE consists, but not limited to:
- Latex gloves
- Eye protection
- Face shield
- Impervious clothing
- Appropriate protective clothing will be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.
- Resuscitation devices are readily available and accessible to employees who can reasonably be expected to resuscitate an employee.

7. Housekeeping

- All equipment and working surfaces that could have been contaminated shall be cleaned with approved disinfectant.
- Contaminated work surfaces must be decontaminated with a disinfectant.

8. Hepatitis B Vaccination

- The hepatitis B vaccine will be offered to any employee who has encountered occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.
- The vaccine is administered by designated hospital or clinic.
- If the employee initially declines hepatitis B vaccination, but at a later date decides to accept the vaccination, the hepatitis B vaccination will be made available.
- Employees who decline to accept the hepatitis B vaccination will sign a declination statement.
- If a routine booster dose is recommended by the clinic at a future date, such booster dose (s) will be made available.

9. Post-exposure Evaluation

All employees are required to report all on-the-job injuries to their supervisor.

- The route (s) of exposure and the circumstances under which the exposure incident occurred will be documented.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- The name of the source individual will be documented unless identification is infeasible.
- The source individual's blood will be tested for HIV and HBV as soon as feasible and after consent is obtained (if deemed necessary) in order to determine HBV and HIV infectivity. (Texas law allows testing for HIV in exposure situations without consent).
- Results of the source individual's testing will be made available to the exposed employee, and the employee will be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.
- The exposed employee's blood will be collected as soon as feasible and tested for HBV and serological status after consent is obtained.
- If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample will be preserved for at least 90 days. If within 90 days of the exposure incident the employee elects to have the baseline sample tested, such testing will be done as soon as feasible.

10. Communication of Hazards to Employees

Labels and Signs:

- The biohazard labels will be fluorescent orange or orange-red or predominantly so with lettering or symbols in a contrasting color.
- Red tags will be utilized to dispose of any potentially infectious materials. They will be installed in first aid kit or in an accessible location should an incident arise.

Information and Training:

- Employees with occupational exposure will participate in a training program on transmission of bloodborne pathogens. The OSHA Blood borne Pathogens Standard, and the components of the Exposure Control Plan.
- Training will be provided at the time of initial assignment and at least annually thereafter.
- Additional training will be provided when changes such as modification of task or procedures or institution of new task or procedures affect the employee's occupational exposure.
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
- Information on the post-exposure evaluation and follow-up that the Company is required to provide for the employee following an exposure incident.
- An explanation of the signs and labels and / or color coding required by the regulations.
- An opportunity for interactive questions and answers with the person conducting the training session.

11. Recordkeeping:

- An accurate record of each employee with occupational exposure will be maintained for the duration of employment plus 30 years. This record will be kept confidential and will include.
- Name and social security number of the employee.
- A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccination and any medical records relative to the employee's ability to receive vaccination.
- A copy of all results of examination, medical testing, and follow-up information including the written medical opinion.
- Training records will be maintained for 3 years and will include:



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Dates of sessions.
- Contents or a summary of information presented.
- Names and job titles of all persons attending the sessions.
- Names and qualifications of persons conducting the training.
- Individual exposure records shall be made available upon request to such individuals, as the national Institute of Occupational Safety and Health Administration (NIOSH) Assistant Secretary and NIOSHA Director, for examination and copying. Medical records shall not be released without the written consent of the employee.
- The transfer of records shall comply with the following:
 - Should Energy Erectors Services cease to do business, all health, safety, and medical records shall be transferred to the successor employer, who shall maintain such records.
 - Should Energy Erectors Services cease to do business with no successor, all employees shall be notified at least three months prior to such cessation of their rights of access to the records.
 - Should Energy Erectors Services cease to do business no successor or desire to dispose of records which are required to be preserved for at least 30 years, they shall:
 - Transfer the records to the Director of NIOSHA or Notify the Director of NIOSHA in writing of the impending disposal at least three months prior to disposal of records

M. PPE Personal Protective Equipment

New hire orientation shall include training in the use of personal protective equipment. All newly issued personal protective equipment, employees will be orientated on its usage. The dates of the training will be recorded in MasTec / Energy Erectors training record. The training will be renewed as needed.

Field supervisors shall monitor the proper use of personal protective equipment. If the employee demonstrates improper use or a lack of understanding for the use of personal protective equipment then the supervisor shall review the use of the equipment with the employee.

Training shall cover head protection, eye protection, foot protection and hand protection and shall include but not be limited to the following subjects:

- What PPE is necessary for our type of work
- When PPE is to be worn
- Proper use of PPE
- The limitations of PPE
- The proper care of PPE

The MasTec / Energy Erectors will provide each employee with a hard hat, safety glasses, mono-goggles, work gloves, and FRC's fitted to the individual employee. Each employee will be responsible for the proper care of their personal protective equipment and maintain them in a sanitary and reliable condition. Employees are responsible for replacement of lost, stolen or left behind Energy Erectors issued PPE. Employees are required to provide their own safety toed work boot with a 1/2 inch heel, and prescription safety glasses. Employee PPE will be inspected by the lead man or foreman prior to the beginning of work each day and any defective or damaged personal protective equipment shall be immediately replaced. Employee owned PPE Is Not Permitted.

A JSTA (Job Safety Task Analysis), Certified Hazard Assessment shall be completed by the MasTec / Energy Erectors Supervisor and/or the MasTec / Energy Erectors Safety Risk Director or his designated person, prior to the start of each job. This form shall indicate the personal protective equipment necessary for the specific job. And the JSTA must be reviewed and signed by every worker present. And reviewed and signed by all visitors. If the work task changes and/or environment changes the changes must be added to the JSTA, review and signed



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



by all at the time of the change.

The use of high voltage personal protective equipment is covered in the, Electrical Operation and Arc Flash Protection sections of the MasTec / Energy Erectors Safety Manual.

I. Hard Hats

All employees shall wear an approved (Class E) hard hat at all times whenever they are at work. The only exceptions are when employees are riding inside the cab of a vehicle or are within an office building. This rule applies to ALL employees.

II. Hearing Protection

- Hearing Protection must be worn where there is a possibility of hearing damage. (See chart).

Duration hrs/ day	Sound Level
8	90 dBA
6	92 dBA
4	95 dBA
3	97 dBA
2	100 dBA
1 ½	102 dBA
1	105 dBA
½	110 dBA
¼ or Less	115 dBA

- Specific areas where the noise level is above 85 dBA shall be identified and employees will be required to wear hearing protection when exposed beyond the posted limits.
- The appropriate hearing protection may consist of the following:
 - Ear plugs
 - Ear muffs
- Note: Plain cotton is not acceptable. Ear protective devices shall be worn properly in order to provide the maximum protection and be kept clean to reduce the possibility of an ear infection.
- Employees shall be trained in the proper use of hearing protectors.
- Copies of noise exposure procedures shall be made available to employees and posted at each job site.
- The MasTec / Energy Erectors shall administer a continuing effective hearing conservation program for all employees whenever employee noise exposures equal or exceed an 8 hour time weighted average (TWA) sound level of 85 decibels.
- All employees whose exposures equal or exceed an 8 hour time weighted average of 85 decibels shall be tested at no cost to the employee. Within 6 months of an employee's first exposure at or above the action level, the MasTec / Energy Erectors shall establish a valid baseline audiogram against which shall be proceeded by at least 14 hours without exposure to workplace noise. Hearing protection may be used to meet the requirements. Employees shall be notified to avoid high levels of noise. Annually after obtaining the



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



- baseline audiogram, the MasTec / Energy Erectors shall obtain a new audiogram for each employee exposed at or above 8 hour time weighted average of 85 decibels.
- Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing within 21 days of the determination. The use of hearing protection shall be re-evaluated and / or refitted and, if necessary, a medical evaluation will be required.
- MasTec / Energy Erectors shall evaluate hearing protection for the specific noise environments in which the protector will be used.
 - **Note:** Due to the transient nature of the business, we rely on our customer when work is located on a power generation site to monitor noise levels and install appropriate warning signs as required.
- MasTec / Energy Erectors shall maintain accurate records of all employee exposure. Records shall be maintained as follows:
 - Noise exposure measurement records shall be retained for two years.
 - Audiometric test records shall be retained for the duration of the affected employee's employment.
 - All records shall be made available to employees, former employees, representatives designated by the individual employee.

III. Eye Protection

Suitable eye protection equipment, such as goggles and face shields shall be worn to prevent eye injuries. ANSI Z87 approved safety glasses with side shields must be worn at all times when on the job site. Some of the jobs that require the use of additional eye/face protection equipment include grinding, chipping, buffing, welding, cracking concrete, handling chemicals; some electrical work where arc rated face shields would afford protection against electric flash, and any other task that may introduce additional hazards to eyes and face. Contact lenses are not to be worn on the jobsite.

IV. Foot Protection

Employees are to wear approved safe footwear, steel or safety toed work boots, solid leather upper with 1/2 inch heel. (Must meet current ASTM footwear standard)

V. Hand Protection

Leather work gloves furnished by MasTec / Energy Erectors are considered a part of the personal protective equipment and shall be worn at all times when required by the nature of work being performed.

Exceptions

- When doing work in or around energized lines of equipment, appropriate rubber gloves with leather protectors shall be worn.
- When working with hazardous materials (such as acids, concrete and other solutions that require such protection), appropriate nonelectrical rubber or chemical resistant gloves shall be worn.
- Wear approved cut resistant gloves to help prevent and injury while performing work using a knife.



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



VI. Respiratory Protection

Job Duties that require the use of employee respirators shall follow manufacturer's instruction or the specific instructions of supervision. Work requiring the use of the respirators shall be assigned only to trained and certified individuals. All respirators needs shall be supplied by MasTec / Energy Erectors as the job duties demand.

- Employee's required to use a respirator shall be instructed on the proper use, maintenance, and limitations of the respirator by the program administrator Chuck Desrosiers (Executive Director of Risk Management).
- When not in use, respirators shall be stored in a clean/ sanitary location.
- All employees must receive training on proper selection, fit testing, and maintenance prior to initial use of the respirator, and trained annually as required and/or needed.
- All respirators shall be selected as to the exposed hazards. With the selections based on NIOSH Standards and Certifications.
- All employees required to wear respirators will be clean shaven.
- Tight face pieces will be conducted by qualitative or quantitative methods
- In the event of seal breakage on any respirator, the employee shall evacuate the work area immediately.
- In the event a cartage type respirator is used the employee must evacuate the hazard area to change cartages.
- Medical evaluations shall be kept confidential.
- Prior to fit testing it will be conducted during normal work hours convenient and understandable and the employee given the chance to discuss the results with a physician or other licensed professional.

Note: No employee shall be allowed to work in an IDLH (Immediate Danger to Life and Health) atmosphere, without the approval of the Energy Erectors Safety Director and Vice President.

VII. Hair Protection

Employees with hair at a length that could be hazardous when working around equipment/ machinery shall contain their hair in a net or other suitable means to prevent entanglement.

VIII. Fire Retardant Clothing

- Wear approved fire-retardant clothing (FRC) on all jobs during which the client or the nature of the work require FRC clothing. 100% FRC (HRC-2) is required at all times in an energized Substation and/or when working on an energized Transmission Line ROW. Certain electrical work tasks require the wearing of properly rated fire-retardant clothing. (See the Arc Flash Protection Section of this handbook for more information)
- When work is being performed in a street or highway, crossing a street or highway, or working within 20 feet of the edge of a roadway, it is necessary to use traffic control devices (cones, warning signs) and employees working on the ground must wear a minimum of a DOT Class 2 reflective safety vest or clothing.



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



N. Fall Protection

I. Statement

The Company is committed to 100% fall protection for our employees. Each employee who is required to climb or work at elevated heights must complete fall protection program at local area contractor's safety council or the company training program. Completion of the fall protection training program shall certify the individual as qualified and competent to determine the type of fall protection required for the specific job.

II. Requirements

A full body harness and shock-absorbing lanyard are required when working on elevation of six feet or more above grade or floor except when proper facilities exist. This includes working in motorized lifts, crane suspended baskets, truck trailers or on portable ladders. When conventional fall protection is not used, these locations must be identified and classified as controlled access zones. Control access zones shall be approved by and a site-specific fall protection plan developed by the Safety Department.

III. Fall Protection Equipment Requirement

A. Personal fall protection equipment shall consist of the following:

➤ **Full Body Harness**

- A full body harness is required to properly distribute forces to minimize injury to the body in the event of a fall. Such harness must be made of polyester in order to resist damage from possible contact with chemicals.

➤ **A polyester lanyard, maximum of six (6) feet in length**

- The lanyard must be able to support a minimum of 5,000 pounds and include a shock absorbing device. The lanyard shall be equipped with snap hooks on each end. Each snap hook is to be of double locking design to prevent accident disengagement.

➤ **Anchor Point**

- The anchor point is the tie-off connected device to which the free end of the harness/lanyard is attached. It may be either a pre-engineering device such as an installed eye bolt, slide rail or cable arrangement, or existing structure, pipe. Anchor points must be designed to safely support a minimum of 5,000 pounds per worker.

B. Purchasing of Personal Fall Protection Equipment

Only equipment approved by Energy Erectors Safety coordinator will be purchased. This equipment must meet all applicable ANSI and ASTM requirements.



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



D. Inspection of Fall Protection Equipment

All safety harnesses and lanyards must be visually inspected by the user prior to use. All anchorage systems including lifelines and rope grabs should be visually inspected at the beginning of each work shift. Each quarter a visual inspection will be documented via color code tape if device meets requirements of visual inspection noted below.

If any defective conditions are found, remove the item from service immediately and notify your foreman and/or supervisor.

All safety harnesses and lanyards must be visually inspected by the user prior to use. All anchorage systems including lifelines and rope grabs should be visually inspected at the beginning of each work shift. Each month a visual inspection will be documented on monthly form if device meets requirements of visual inspection noted below.

If any defective conditions are found, remove the item from service immediately and notify your foreman and/or supervisor.

1. Webbing

When inspecting the harness and lanyards check for worn, cut, frayed or burned fibers in the harness webbing. Carefully check the webbing where attached to buckles and "D" rings for excessive wear, cut or torn fibers or other visible damage. Also inspect the shock absorbing section of the lanyard.

Heat: Fibers become brittle, turn brown in color, shrivel and break down when flexed.

Chemicals: Fibers change color and texture similar to a brownish smudge or smear and will become less elastic with cracks resulting from bending.

Paint and Solvents: Paint can penetrate into the harness weaving and dry, causing the webbing to become hard, brittle and to eventually break.

Dirt and Grit: Foreign particles can work into the harness weave and cut and fray fibers.

Ultraviolet Light: Exposure to excessive sunlight could deteriorate the harness webbing.

2. Buckles and D Rings

Inspect for rough or sharp edges, burns, cracks, dents or distortion. All parts of the buckle should be straight.

3. Snap Hooks

All snap hooks must operate smoothly and open/close completely. Inspect snap hook body for sharp edges, burns, distortion, cracks, or pitted surfaces. Rivets should be checked for cracks, broken or bent conditions. Gate locking keepers should be free from distortion or bending and seat properly against the snap hook nose and body. The gate keeper springs should have sufficient tension to close firmly.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



4. Labels

All labels must stay attached to the harness and they must be easy to read.

E. Personal Fall Protection Equipment Maintenance

1. Cleaning

Wipe only with a wet sponge then wash with a soapy sponge, using a brisk back and forth motion. Rinse with clear water and hang to air dry away from exposure to high heat, steam or long durations of sunlight.

2. Storage

Harness should be hung in a clean, dry area.

F. Training

All personnel performing elevated work or the supervisor of personnel performing the work shall:

- Attend Energy Erectors Fall Protection Training Program or the fall protection program at local area contractor's safety council
- Demonstrate competency in initial training
- Attend refresher training as required in the work place.

IV. Work Practice

A. Climbing

- Climbing to reach an elevated position should be a last resort, when approved ladders, motorized lifts, or scaffolds are not practical or available. Test footing and support conditions before progressing.
- When circumstances dictate, at least two people should be present during climbing activities (i.e. until the top of a ladder is tied off).
- Do not carry tools or other materials in your hands while using ladders. Tools and materials shall be carried in a tool belt or lifted by the use of a securely fastened rope.
- Take special precautions when wet or other slippery conditions exist, avoid where possible.
- Climb stairs such that at least one hand is free to use the hand rails. Do not use both hands to carry materials.
- Climbing on equipment such as pumps, exchangers, valve hand wheels, transformers, electric motors, handrails, structures, or other facilities not specifically designed for climbing should be avoided. Climbing on conduit, cable trays, or other equipment not cable of supporting body weight is not permitted. Climbing on vertical beams is not permitted.
- Access to an elevated position shall be as close as possible to the work area to minimize fall exposure.
- Do not climb a ladder while another person is on the same ladder.
- When walking on pipe racks, make sure there is adequate support to provide a safe walking surface without damage to the piping, insulation, or tracing. Minimize walking on insulated pipe.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



B. Lanyards and Anchor Points

1. When not in use, lanyards should be wrapped around the body and attached to the harness to prevent tripping or snagging. Do not drag the lanyard.
2. Attach the lanyard to the best available anchor point, preferably an engineered anchor point. Do not attach to any piping smaller than 4 inches in diameter (individual). If multiple people secure to the same pipe, it must be six inches or greater in diameter. (DO NOT ATTACH LANYARD TO CONDUIT),
3. Choose an anchor point where attachment and detachment can be done without causing loss of balance or a body position that would increase risk of a fall.
4. Anchor points should be at least shoulder high to reduce fall distance.
5. Anchor points should be free of sharp edges to avoid cutting the lanyard. When securing around a beam or other edged anchor point, a protective edge guard or beam wrap should be used to prevent abrasions.
6. Do not tie knots in a lanyard while the lanyard is in use. This will reduce the strength of the lanyard.

O. Vehicles and Equipment

I. Management Leadership

- Management acknowledges that Motor Vehicle Transportation is an essential part of the business. The goal of management is to eliminate all preventable accidents.
- The following criteria shall be the basis of this program:
- Driver selection
- Accident record keeping, reporting and analysis
- Vehicle inspection and maintenance
- Driver training
- Loss control program audit
- The Safety Director shall be responsible for implementing the program, monitoring each driver, and reporting the results to department Management.

II. Driver Qualifications

- The following qualifications shall be a minimum when selecting drivers to participate in the program:
- The driver shall have in his possession at all times a valid driver's license when driving a Company vehicle. (A commercial driver's license when operating DOT vehicles).
- The driver shall be qualified to operate the specific type of vehicle to which he is assigned.
- The driver shall confirm his driving skills by taking a DOT road test, and physical examination, if required.
- Each driver's motor vehicle record shall be reviewed annually to evaluate the observance of traffic laws.
- Past driving experience of new employees shall be reviewed through reference checks with previous employers.

III. Vehicle Inspection and Maintenance

A vehicle maintenance file shall be created for each Company motor vehicle. Each employee assigned a



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



Company vehicle is responsible for the inspections and maintenance of that vehicle. A maintenance report shall be placed in the vehicle file.

IV. Driver Training

- Training shall be provided both in the vehicle and the classroom.
- This training shall consist of the following:
 - Company policy and procedures
 - Equipment familiarization
 - Applicable government regulations
 - Cargo handling and load securement
 - Emergency procedures
 - Accident reporting
 - Specific, trend-identified exposures

V. Vehicles and Equipment General Safety Procedures

1. Fueling

Dispensing gasoline and diesel should be done through a pump and hose. If this is not possible, approved safety cans with flexible spouts must be used. Safety cans must be approved containers for flammable liquids by Underwriters Laboratory (UL) or Factory Mutual (FM). No plastic cans shall be allowed.

- All skid tanks containing flammable liquids shall be properly grounded.
- Storage tanks and/or approved safety cans shall be properly labeled identifying their contents, "Gasoline-Diesel", etc.
- Gasoline/Diesel dispensing tanks shall not be equipped with "automatic" nozzles. Rather, the nozzle should always have to be hand held when filling.
- Gasoline/Diesel dispensing tanks should have the following signs posted:
 - No smoking or open flames
 - Contents in tank "Gasoline or Diesel", etc.
 - Turn off engine while re-fueling
- A fire extinguisher (20# dry chemical) shall be hung or placed no closer than 25ft and no further than 75ft from storage tanks.
- Smoking and cell phone use is prohibited during re-fueling operations.
- Avoid overfilling any fuel tank. In the event of a spill, wipe up and allow time for vapors to disperse before starting equipment engine.
- Prior to fueling from skid tanks bond vehicle to storage container using available bonding clamp. Make sure hose nozzle makes contact with tank while filling. This will prevent static spark.
- Metal safety cans are not to be refilled while being stored in the back of a pickup truck. Take the containers off of the truck, place containers on the ground, refill, and then replace the containers.

2. Operation of Motor Vehicles and Other Mobile Equipment

- Drivers shall not permit unauthorized persons to drive, operate or ride in or on a Company vehicle or equipment.
- Where seat belts are provided, they shall be used by all passengers.
- Drivers shall know and obey all state and local motor vehicle laws that apply to them.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Employees shall not let anyone ride on the running boards, fenders, or any part of a motorized vehicle except on the seat or inside the body walls. Passengers shall not stand in moving vehicles. Rather, they should sit where no part of their body protrudes beyond the extent of the vehicle top or sides.
- Employees shall not ride on loose material or equipment carried on trucks.
- Employees shall not ride on trailers (unless equipped with a secured seat).
- Employees shall not jump on or off the vehicles in motion.
- All employees shall stay clear of pressurized oil or air which is escaping from a ruptured line or fitting. No attempt shall be made by an employee to stop or slow a leak by using his hands, feet, or other part of his body. The pump, compressor or engine shall be stopped as soon as the leak is detected.

3. Inspection

- All brakes shall be tested by the driver at the start of each day. Drivers will be responsible to report any defects which may have developed during the day. If brakes are not working safely, they shall be adjusted or repaired by a qualified mechanic before the vehicle is put in operation.
- Lights and other signaling devices shall be inspected daily, if found defective, they shall be repaired before the vehicle is placed in operation. No motor vehicle shall be operated at night, unless properly equipped with head lights, tail lights, and other necessary safety devices as required by law.

4. Operation

- The operator of the motor vehicle shall clearly indicate his intentions of passing, stopping or turning.
- Driver shall be prepared to stop, and the right of way shall be yielded, in all instances where necessary to avoid an accident.
- Drivers following other vehicles shall stay at a safe distance behind (4 to 6 seconds) so they can stop in the clear distance ahead.
- Drivers shall keep a sharp lookout for children, especially in school zones or where they are playing and be prepared for an immediate stop.
- Trucks or trailers stopped on any public roadway shall be protected by red flags, proper warning lights or reflectors in accordance with legal requirements.
- Vehicles shall not be parked on bridges or culverts except where necessary for work. (If it is necessary to work in these places, the vehicle should be adequately protected by activating four way emergency flashers, using a flagman and incorporating such items as "Men Working" signs, traffic cones, etc.).
- Trucks shall not be operated with tailgates hanging or dangling.
- Before backing a vehicle, a driver shall definitely determine that the space he needs is clear, and he shall back slowly, keeping a constant lookout the entire time he is backing. When backing trucks and another employee is available, he shall be so stationed that he can warn the driver of approaching danger and assist him in maneuvering the vehicle. It is preferable to station a guide on the left hand side of the truck so that he may be seen by the driver when looking into his left hand mirror.
- When entering or leaving any building or enclosure, or to or from an alley where vision is obstructed, a complete stop shall be made, sound the horn and proceed with caution.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Trucks on which derricks or booms are erected above traveling heights shall not be moved except under the immediate direction of a designated employee; who shall give his undivided attention to the movement.
- All ignition systems shall be turned off and no smoking shall be permitted during refueling.
- Load limits of booms, derricks and other hoisting equipment shall not be exceeded.
- When proceeding down grade, the clutch shall not be disengaged. Trucks, especially heavily loaded ones shall be in low gear on steep grades. When stopped on inclines, drivers shall be sure that the brakes are properly applied, the vehicle is in gear, where possible, and the wheels are at an angle against the curb, where possible. This applies whether vehicle is facing up or down grade.

5. Loading and Hauling

- Materials and equipment shall be so loaded that they may not cause hazard by shifting. Heavy equipment and materials shall be securely fastened and checked periodically according to Federal, State and local requirements.
- Timbers, pipe, ladders, etc., shall be loaded parallel to the length of the truck and properly secured.
- Red flags during the day and red lights at night shall be attached to equipment or material that extends more than 4' from the back of the vehicle. Red flags or approved clearance lights shall be attached to materials extending 2' in front of the vehicle.
- Tools, materials or equipment shall not be permitted to extend beyond the permanent fixtures provided on the sides of the truck.

6. Leaving Equipment

- No vehicle or equipment shall be left running or unattended at any time.
- Overnight, or when work ceases: all outriggers, booms and buckets shall be lowered and keys removed from the ignition switches of Company owned or leased vehicles and equipment.

P. Confined Space

I. Purpose

To increase the understanding of the potential hazards of confined spaces and to provide skill-training for each person entering a confined space.

II. Definition

"Confined Space" means a space that is large enough and configured that an employee can bodily enter and perform assigned work. It has limited or restricted means for entry or exit such as electrical manholes, oil circuit breakers, transformers and excavations that may contain hazardous atmosphere or engulfment

III. Training

Each employee that may be required to supervise, enter or attend (hole watch) a confined space must be trained. Training must be completed prior to the initial assignment and again prior to a change in assigned



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



duties, and in cases where a new hazard has been created or special deviations have occurred. This will be accomplished by a recognized training facility, for all new hires and annually thereafter. Employees will also receive a company confined space training program including new hazards or new procedures. All Field Service Technicians, Supervisors, and Subcontractors will receive training in the requirements for supervision, entrant, and attendant and be familiar with the use and limitations of the air monitoring equipment. Confined Space Entry training will be reviewed annually or after any regulated revision. Duties will be assigned to each employee by the Construction Manager, Lead Technician or Supervisor before any confined space entry is made. No attendant will be assigned to more than one confined space at a time and no outside company employees may be inside at the same time except for rescue purposes. Company training and attendance documentation will be maintained in the safety office.

Emergency rescue of entrants will be performed by qualified personnel. Requirement for emergencies and first aid situations will be made at the beginning of each job and documented on the job safety task analysis and the confined space entry permit.

Any violation of the requirements of the confined space procedure or permit will cause an immediate review of the confined space entry program. This review and any procedural changes, if needed, will be completed prior to any subsequent entries into any confined space.

IV. Duties and Responsibilities

A. Management

Provide the equipment and personnel necessary to maintain the program.

B. Energy Erectors/ MasTec Safety Committee

- Prepare and approve the "Confined Space Program".
- Review space entry permit violations and submit its findings and recommendations to management.
- Keep management informed of the activities of the "Confined Space Program".

C. Entry Supervisors

- Has the responsibility for issuing "Confined Space Entry Permits."
- If an Entry Supervisor has to leave the job site, while confined space work is still in progress, he must transfer his duties and responsibilities to another qualified Entry Supervisor
- The new Entry Supervisor shall sign the Confined Space Permit.
- Must know and be aware of the hazards associated with the confined space. (All hazards shall be mediated i.e. LOTO all electrical hazards, all hazardous gases must be disconnected from source. For example, Nitrogen and SF6 gases)
- Verify that all tests have been conducted, all procedures complied with, all required equipment is in place and the confined space is safe to enter before endorsing the entry permit. Discuss the permit process and review the completed permit with all affected employees including but not limited to equipment calibration, potential hazards and results of the monitoring, continuous ventilation, continuous air monitoring, emergency rescue and evacuation procedures, and the signing of the permit.
- Terminate or cancel an entry permit if and when conditions warrant such action.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Verify that communication means are available and operable between the entrant and attendant.
- Verify that rescue services are available and the means for summoning them are operable.
- Remove any unauthorized and untrained individuals.
- When work in the confined space is completed, terminated or cancelled the Entry Supervisor shall verify that all entrants have vacated the confined space before terminating or canceling the confined space entry permit.
- Verify that all Entrants and Attendants have been trained.
- Responsible for returning all "Confined Space Entry Permits" into the Safety Department after termination or cancellation of the permit.

D. Authorized Entrant

- Must know the hazards that may be encountered in the confined space.
- Be able to recognize signs or symptoms of exposure and understand the consequences of exposure to the hazard.
- Know how to properly use any needed or required equipment to detect, eliminate and/or minimize the hazard.
- Within high traffic areas there will be a spotter to notify any external hazards including but not limited to pedestrians and vehicles.
- Communicate with the attendant as necessary to enable the attendant to alert the entrant of the need to evacuate the permit space.
- Alert the attendant whenever a hazardous condition develops within the permit space.
- Understand and interpret the conditions of the confined space entry permit.
- Exit a permit space as quickly as possible whenever an order is given by the attendant.

E. Attendant

- Know the hazards that may be faced in the confined space including how exposure occurs and the signs, symptoms and consequences of exposure.
- Be aware of behavioral effects of hazard exposure in authorized entrants.
- Maintain a continuous count and identification of the entrants in the confined space.
- Remain outside the confined space until properly relieved.
- Communicate with authorized entrants as necessary to monitor entrant status.
- Assist with non-entry rescue. If non-entry rescue is not possible, summon help from emergency services as stated on the permit. DO NOT ENTER the confined space.
- Warn unauthorized personnel to stay clear of the permit space.
- Inform the Authorized Entrant and Entry Supervisor if unauthorized persons have entered the permit space.
- Perform no duties that might interfere with the Attendant's primary duty to monitor and protect Authorized Entrants.
- Understand and interpret the conditions of the confined space permit.
- Must hold current certifications in CPR and first aid.

V. Rescue and Emergency Services

- Should conditions arise such that an entrant cannot escape unaided from the permit space, onsite rescue personnel must be immediately summoned.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- If there are no onsite rescue personnel, outside help must be obtained by calling 911 or the local or plant emergency number. At least one member of the rescue team must hold current certifications in both CPR and first aid. If offsite rescue personnel are to be used they must be contacted and given an opportunity to examine the entry site, practice rescue if desired, and be given the opportunity to decline their services or must take complete responsibility for all rescue procedures prior to issuance of the confined space permit.
- Individuals not authorized or trained in dealing with confined space rescues are to be prevented from attempting a rescue.
- The Attendant must not enter the confined space.
- Rescue personnel are to be informed of the permit space hazards.
- Rescue personnel are to be provided access to all permit spaces from which rescue may be needed.
- Rescue personnel may enter the permit space to remove the entrants OR they may remain outside the space and pull them out.
- Currently we do not work in confined spaces where (IDLH) conditions are present.

VI. Confined Space Entry Permit Procedure

- No employee shall enter any work space deemed to be classified as a "Confined Work Space" without obtaining a properly executed "Confined space Entry Permit" from a Company Supervisor.
- The Entry Supervisor must perform or personally witness the test for oxygen and combustible gases, in the confined work space, before approving and signing the "Confined Space Entry Permit." The air monitoring equipment will have a copy of the latest calibration test results with the equipment at all times.
- When forced ventilation is required inside all confined spaces. Forced air can be by fans or by certified breathing air. You shall demonstrate that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry.
- Air monitoring equipment must remain in any occupied confined space.
- The "Confined Space Entry Permit" shall be posted near the confined space entrance and clearly visible to all entrance and attendance personnel.
- A confined space Attendant shall not leave his assigned work space unless properly relieved by another qualified attendant assigned by the Entry Supervisor.

Q. Material Handling & Lifting

I. Manual Handling of Material

- Inspect the object that you are going to lift to determine its size and weight, and to see if there are nails or splinters or other items that might cause injury.
- When lifting, assume a proper position, close to and facing the load. Avoid cramped or twisted body positions. Bend the knees and lift gradually using your leg muscles. Keep feet on the same level and do not jerk or twist.
- An employee shall obtain assistance when handling bulky or heavy objects at 50 lbs. or more. Use power lifting equipment whenever available.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Pre-arranged lifting and lowering procedures will be decided prior to handling heavy objects that require two or more persons.
- When two or more persons are carrying one object, each employee, if possible, should face the direction in which the object is being carried.
- When changing direction of travel, do not twist the body, but turn the entire body, including the feet.
- Proper work gloves shall be worn when handling and lifting materials.
- Anytime a worker is on a truck trailer he/she shall be 100% tied off. Anchor points for fall protection shall meet the requirements of OSHA, MasTec / Energy Erectors Safety Policies.

II. Hoisting by Mechanical Means

- Cranes, winch trucks, digger trucks and other material handling mechanisms shall be operated only by trained and authorized personnel following load chart recommendations. Operators shall carry a qualification card for the equipment they are authorized to operate. Operator cards will only be issued after the training and performance evaluation requirements are met. Refresher training and/or performance evaluations shall be at least 3 years. (Crane operators with NCCCO certification must meet and maintain medical qualifications as required by certification program.)
- One employee shall give all hand signals to the operator of the crane, winch truck, etc. The operator shall only move as directed by the designated trained and qualified signal person. The operator, however, shall obey the stop signal given by anyone.
- No employee shall be under a suspended load, inside the angle of a winch line, nor shall he stand or work near a table, chain or rope under tension unless the nature of his work requires it.
- Winch lines, ropes, wires, etc., shall not be guided by hand when standing in reach of the drum or sheave.
- Wire rope loops shall be made by proper splicing or mechanical clamping of the tail section. (The "oil field splice" is preferred over the use of clamps.).

NOTE:

- The correct method of clamping wire rope loops is to have the "u" bolts of the clamp on the short end of the rope. This leaves the live ends not distorted. All of the clamps should face the same direction.
 - The use of a thimble is recommended whenever a wire rope loop is being secured around a sharp object or a small object which might tend to cut the strands of the rope.
- No employee shall ride on a cable, ball, chain, sling, or any other hoisting attachment or on the material being moved by means of a winch line or crane truck, etc.
 - When mobile hoists, crane trucks, winch trucks, booms or similar lifting devices are used near or in close proximity to energized lines or equipment, the following safety rules will apply. (For minimum approach distances refer to "Electrical Operations" Section).
 - Work will not start until the primary voltage conductors or other energized equipment is adequately covered.
 - The equipment which is lifting the steel, poles, etc., adjacent to this energized hazard shall be adequately grounded by means of a cable attaching the frame of the equipment to a ground such as a driven rod or the pole ground on a utility pole.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- All employees shall be instructed not to touch the equipment at any time while the load, boom, or cables are in close proximity to electrical hazards. Employees who are already on top of or in mobile equipment which has come into contact with a high voltage source should stay where they are.
- Operators will never leave the cab of cranes, crane trucks, hoists or other lifting devices while the load is still suspended.
- Load charts shall be securely fixed in a location clearly visible to the operator of cranes, crane trucks, winch trucks, derrick trucks or similar lifting devices.
- Cranes, crane trucks, winch trucks, derrick trucks or similar lifting devices shall be inspected daily prior to use. Daily inspections sheets shall be turned in to the main office for follow up and filing. Additional periodic inspections shall be made at least annually or as recommended by the manufacturer. Inspection records of such equipment will be maintained in the main office.
- A 5 lbs. dry chemical or equivalent fire extinguisher shall be kept in the crane cab or vicinity of the crane.
- No employee shall ride on a cable, ball, chain, sling, or any other hoisting attachment or on the material being moved by means of a winch line or crane truck, etc.

III. Forklifts

Forklifts shall only be operated by trained and authorized personnel. Before permitting an employee to operate a forklift (except for training purposes), each operator must successfully complete the company training requirements.

- Trainees may operate a forklift only:
 - Under the direct supervision of their supervisor, a qualified designee or other qualified trainer.
 - Where such operation does not endanger the trainee or other employees.
- Training must consist of classroom training (such as, video tape, lecture, written material, operator manual, Q&A), practical hands on training, and an evaluation of the operator's performance. Reevaluation must be performed within 3 years.
- Training must be specific to the type of forklift to be operated and must cover the topics outline in the OSHA regulations.
- Upon successful completion of the company's training and evaluation requirement the operator will be issued a card authorizing the holder to operate the specific forklift listed.
- Retraining shall be performed when:
 - The operator has been observed to operate the vehicle in an unsafe manner.
 - The operator has been involved in an accident or near-miss incident.
 - The operator has received an evaluation that reveals that the operator is not operating the truck safely.
- The operator is assigned to drive a different type of truck.
- A condition in the workplace changes in a manner that could affect safe operation of the truck.
- Forklifts shall be inspected before being placed in service, and shall not be placed in service if the inspection shows any condition adversely affecting the safety of the vehicle. Such inspections shall be documented at least daily (each shift).
- Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.
- Only loads within the rated capacity of the truck shall be handled.
- While negotiating turns, speed shall be reduced to a safe level.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- The driver shall be required to look in the direction of, and keep a clear view of the path of travel.
- When a forklift is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.
- No person shall be allowed to stand or pass under the elevated portion of any forklift, whether loaded or empty.

IV. Rigging

Employees of the Company shall comply with the manufacturer's specifications applicable to the operation of any and all cherry pickers, cranes, motor cranes and other hoisting equipment. Attachments used with this equipment shall not exceed the capacity rating or scope recommended by the manufacturer. The manufacturer rated load capacities, and recommended operating speeds, special hazard warnings, or instruction, shall be conspicuously posted on all equipment. Instructions or warnings shall be visible to the operator while he is at his control station.

A. Competent Person

A competent person or persons shall be assigned the task of organizing and conducting all "large" or "heavy" lifts. It will be the superintendent's or the general superintendent's responsibility to find and assign such a person. On some especially large or heavy lifts or where clearances are close, it might be advisable to obtain an outside "expert" or consultant. Personnel involved in rigging shall be trained in the basics of rigging and be familiar with basic rigging techniques, hardware, slings and safety issues associated with rigging. When rigging equipment is not in use it shall be removed from the immediate work area.

- Performing Inspections

All required inspections shall be performed:

1. Before use
 2. Before equipment is returned to service following any repairs
 3. Before equipment is used after any incident which can be reasonably suspected to have caused damage
 4. At intervals not to exceed 3 months
- A thorough check list type of inspection should be made of all hoisting equipment prior to the "lift".
 - Defective Wire rope shall be taken out of service.
 - In running ropes, 6 randomly distributed broken wires in one lay or 3 broken wires in one strand in one lay
 - Wear of 1/3 the original, diameter of outside individual wires. Kinking, crushing, bird caging, or any other damage resulting in distortion of the rope structure
 - Evidence of any heat damage from any cause
 - Noticeable reductions in nominal diameter of rope
 - In standing ropes, more than 2 broken wires in one lay in sections beyond end connections or more than one broken wire at an end connection



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane. Accessible areas within the radius of a load being lifted shall be barricaded in such a manner as to prevent personnel from entering the area during a lift.
- A person shall be designated to observe clearance of the equipment and give timely warning for all operations where it is difficult for the operator to maintain the desired clearance by visual means.
- At no time shall the boom, lines or load come closer than the required minimum safe approach distance of any transmission or distribution electric lines or poles except where these lines have been de-energized and visibly grounded at point of work or where insulating barriers, not part of or an attachment to the equipment, have been erected or installed to prevent physical contact with the lines. (See the Safe Work Clearance Section for more information)
- Any overhead wire shall be considered to be an energized line unless and until the person owning such line or the electrical utility authorities indicate that it is not an energized line and it has been visibly grounded.
- Any equipment operating near electrical sources or potential electrical sources shall have an electrical grounding cable attached and secured to an adequate ground.
- A crane's capacity is only as good as the footing and ground on which it is standing. Adequate footing shall be maintained at all times.

WARNING: At no time shall the equipment's lifting capacity, as set by the manufacturer, be exceeded.

- Tag lines shall be used and at no time shall any employee be allowed to be under a suspended load. Two or more tag lines may be required to control long or large loads. Use as many tag lines needed to maintain complete control of the load.
- All hooks attached to hoisting equipment shall be equipped with a safety latch, in good condition.
- When 2 or more cranes are used to lift a load, one (1) qualified person shall be in charge of and responsible for the entire operation.
- The person in charge of the "lift" shall ensure that the operator does not leave the controls while the load is suspended.
- If there is any doubt whatsoever concerning either the techniques or equipment being used in a large or heavy "lift", the operation should be stopped until an expert can be consulted or pertinent information can be procured from the "Rigging Handbook."
- After personal safety, the prime concern of the superintendent and supervisors shall be the safety of the load and hoisting equipment.
- At no time shall choker cables or slings be in direct contact with the steel of a vessel which could collapse, or be in contact with other items which could cut or damage the cable. Suitable wood padding of adequate thickness shall be used between the cable/choker and the steel of the item being lifted.
- There shall be an updated 5 lb. CO2 or dry chemical fire extinguisher kept in or within the vicinity of the crane during operations.
- Any location requiring medical qualifications of operator will be addressed upon area requirements.
- Personnel shall be in a position to receive a load, during steel erection, that will not put them under a suspended load or in the line of fire should the load swing out of control. A load shall not be lifted by a crane or boom until everyone is in a safe location.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



V. Critical Lift Criteria

Purpose

This procedure provides the minimum precautions to ensure safety of personnel and prevent equipment damage when performing major lifts that meet the Critical Lift criteria

Definitions

Critical Lift applies to any of the following:

- Any lift in which the combination of weight and lift radius will exceed 75% of manufacturer's load chart-rated capacity or any lift of major apparatus.
- Any lift of major apparatus
- Any lift over 10,000#'s
- A lift is being made over energized power lines.
- A lift being made over "live" or operating equipment including live pipe racks.
- Any lift, regardless of weight or crane capacity, when there is questionable footing (e.g. near excavations).
- Any two crane lifts where one or both cranes meet the above criteria.
- Any lift which would be 90% or more of the crane's chart should be avoided.

Procedure

- Obtain permission for a critical lift as follows:
- If lift exceeds 75% of the crane capacity, MasTec / Energy Erectors Safety approval is required.
- If lift is over live "hazardous" process equipment, MasTec / Energy Erectors Safety and Client approval is required.
- If lift is over live power lines, MasTec / Energy Erectors Safety and Client approval is required.
- Review Critical Lift Guidelines.
- Complete Critical Lift Checklist. Engineered lift plans may be required for some heavy lifts.
- MasTec / Energy Erectors Supervisor shall review the lift procedure and any special precautions with all personnel involved.
- Notify appropriate client personnel that the lift is starting.
- Complete the lift operation.

NOTE: These critical lift precautions should only be implemented by trained personnel using calibrated instruments where required.

R. Lock-Out Tag-Out (LOTO)

I. Purpose

This program establishes the minimum requirements for the lockout and tag out of energy isolating devices. It shall be used to ensure that the equipment is isolated from all potentially hazardous energy, locked out and tagged out before employees perform any servicing or maintenance activities where the unexpected



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



energization, start-up or release of energy could cause injury or death. The Safety Director or his designee shall periodically or at least annually and document, conduct an audit of the lockout/tag out procedure to ensure that the requirements of this section are being followed.

II. Training

Each employee shall receive training in the Company lockout/tag out policies.

Such training shall be conducted at the time of employment and annually thereafter, and shall be documented and signed. Training shall include the following:

- The purpose and use of the energy control procedure.
- Recognition of when and where to use lockout/tag out systems.
- Recognition of the limitations of tags; that they are actually warning
- Devices and do not provide physical restraint.
- Recognition of hazardous energy sources.
- Recognition regarding the types and magnitudes of energy available.
- Methods and means necessary for energy isolation and control.
- Recognition of the fact that a tag is not to be removed without authorization, nor is it to ever be ignored or defeated in any way.
- Retraining shall be done when there is a change in job assignments and energy control procedures.

III. Preparation for Lockout and/or Tagout

Make a survey to locate and identify all isolating devices to be certain which switch(s), valve(s) or other energy isolating devices apply to the equipment to be locked and tagged out. More than one energy source (electrical, mechanical, hydraulic, pneumatic, chemical, and thermal or others) may be involved. LOTO will be performed with a minimum of two employees verifying that the system is de-energized prior to installing their locks and grounds. The following partial list of equipment may or may not be involved with each system.

- Line Switch
- Breaker Disconnect Switch
- Transformer High Side Disconnect Switch
- Breaker Bypass Switch
- Capacitor Ground Switch
- Vacuum Circuit Breaker
- Air Disconnect Switch
- Oil Disconnect Switch
- AC and DC Panel
- AC or DC Knife Switch
- Instrument and Service Transformers
- Control Circuits

IV. Sequence of Lockout or Tag out System Procedure:

- Notify all affected employees that a lockout and tag out system is going to be utilized. The authorized employee shall know the type and magnitude of the energy that the equipment utilizes and shall understand the hazards thereof.
- If the equipment is operating, shut it down by the normal disconnecting procedure.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Lockout and tag out the energy isolating devices with assigned individual lock(s) and tag(s).
- After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.
- CAUTION: Return operating control(s) to "neutral" or "off" position after the test.

V. Restoring Machines or Equipment to Normal Production Operations

- After the servicing and/or maintenance are complete and equipment is ready for normal production operations, check the area around the machine or equipment to ensure that no one is exposed.
- The authorized person shall verify that all tools and ground leads have been removed from the equipment and that all employees are in the clear. The authorized person can then remove all lockout and tag out devices.

VI. Procedure Involving More Than One Person

In the preceding steps, if more than one supervisory person is required to lockout or tag out equipment, each shall place his/her own personal lockout device or tag out device on the energy isolating device(s). When an energy-isolating device cannot accept multiple locks or tags, a multiple lockout or tag out device (hasp) may be used.

VII. Basic Rules for Using Lockout or Tag out System Procedure

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy-isolating device where it is locked or tagged out.

VIII. Lockout and Tag out Policy

- A. This policy conforms to OSHA Regulation 1910.147, The Control of Hazardous Energy. (Lockout/Tag out) The following items are the procedures under which the Company personnel will operate regarding Lockout/Tag out.

- The authorized person as referred to in the Lockout and Tag out Procedure is defined as one of the following:
 - a. MasTec / Energy Erectors Construction Manager
 - b. MasTec / Energy Erectors Line Foreman
 - c. MasTec / Energy Erectors Project Manager
 - d. MasTec / Energy Erectors Field Service Supervisor
 - e. MasTec / Energy Erectors Lead Field Service Technician
 - f. MasTec / Energy Erectors Job Foreman

When more than one department is involved, the overall Lockout and Tag out responsibility will be assigned to the authorized person that can effectively coordinate the work and ensure continuity of protection.

B. Procedure

- A Company "Lockout & Tag out" form must be completed and approved by the authorized person and the responsible customer prior to de-energizing and isolating the equipment or the performance of any work. The procedure form shall list the equipment that is to be



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



isolated. The form shall also list in detail each step necessary to de-energize and isolate the equipment from all energy sources. The same form shall also list all of the necessary steps to safely re-energize the equipment.

- After the Lockout & Tag out form has been approved and signed, the equipment is to be isolated according to the procedure outlined on the form. This form shall list in sequence the switches, breakers, valves, etc. to be tagged and locked open in order to safely isolate the equipment from all energy sources.
- The authorized employee shall install all locks and tags. The locks, when installed, will hold the energy isolating devices in the off or safe position. The use of tags only on electrical equipment is not recommended.
- Tags will be issued at the office. Tags must be secured with nylon tie-wraps. No string or wire ties will be allowed. The authorized person will include all information, such as equipment number, equipment description, date, signature, and work performed, on his tags.
- If the equipment being secured is incapable of receiving a lock for lockout purposes, then Other means of securing the equipment must be employed (i.e. disconnecting cables, Physical removal, pull fuses, etc.).
- Before the work begins on the equipment that has been locked or tagged out the authorized employee is responsible for verifying that the equipment is safely isolated from all energy sources and that all stored energy has been relieved, disconnected, or grounded. Verification of isolation shall be continued until the servicing or maintenance is completed.
- Safety locks used to secure equipment shall be fitted with only two (2) keys. No locks or set of locks may have more than two keys. One of the two keys for each lock will be secured in the home office, the other key along with the lock will be assigned to the authorized person for lockout purposes.
- One or more tags and locks may be required to safely isolate equipment. Each energy source (electrical, mechanical, or otherwise) that could affect the equipment being isolated must be secured by a tag and lock at the switch, valve or other isolating device nearest the equipment being isolated.
- When work is completed and the equipment is ready to be placed back in service, the authorized person who installed the locks and tags shall verify that the equipment is ready to be energized and that all personnel, tools, excess materials, ground leads, and etc. are free and clear before removing his/her locks and tags. Everyone shall be made aware that the equipment is to be energized. The equipment can then be energized.
- No person shall remove another person's locks and tags. Should the person who installed the locks and tags leave the job, he may, before leaving, turnover his lock and tag responsibility to another person provided that second person installs his own locks and tags. If the person who has installed the locks and tags is not available when the equipment is ready to be re-energized, NO person other than Company Management may remove the locks and/or tags. The Management shall, after making a thorough investigation to verify that the work is complete and the equipment is ready to be re-energized, assume the responsibility for removing the locks and tags. The circumstances for removing another person's lock and tag must be well documented.
- After the locks and tags have been removed, follow the switching sequence listed on the Company "Lockout & Tag out" form to safely re-energize the equipment.
- Distribution of the Lockout/Tag out form must be distributed as indicated on the form. (See Lockout & Tag out Procedure Form)

S. Ladders & Scaffolds

I. Ladder General



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



- A. An employee shall not use a ladder (any ladder) that has broken, loose or cracked rungs, side rails, or braces.
- B. When ascending or descending a ladder, an employee shall have hands free, grip the sides or rungs with both hands, and face the ladder.
- C. Under no circumstances shall an employee ascend or descend a ladder using only one hand. This is extremely dangerous. A secured hand line will be used to raise and lower equipment and tools.
- D. Boxes, crates, chairs, or equipment should never be used as a substitute for ladders.
- E. Only one employee shall work from a ladder at a time.
- F. Ladders shall be inspected before each use and replaced when found to be defective.
- G. Metal or wooden ladders shall not be used.
- H. Only approved pre-inspected ladders shall be used by employees.
- I. No ladders will be painted.
- J. All required inspections shall be performed:
 - Intervals: Not to exceed 3 months.
- K. All ladder rungs will be uniformly spaced to meet OSHA and ANSI specifications.
- L. Anytime a worker is on a ladder 6' or more off the ground, he/she shall be 100% fall protected. Anchor points for fall protection shall meet the requirements of OSHA, MasTec / Energy Erectors Safety Policies.

II. Straight Ladders

- A. All ladders shall be in good condition and equipped with approved safety shoes.
- B. The horizontal distance from the foot of the ladder to the support it rests against should equal 1/4 the length of the ladder.
- C. An employee shall not work or stand on the top two rungs of the ladder.
- D. All straight ladders shall have a short length of rope for tying off the top of the ladder. Ladders shall extend 3' above landing.
- E. A ladder shall never be placed against an unsafe support.
- F. Ladder feet shall always be placed on a substantial base.
- G. An employee must hold the base of the ladder stationary whenever the climber is ascending or descending if the ladder is not secured at the top. The ladder should not be used as a scaffold platform.

III. Step Ladders

- A. Employees shall not work on the top two steps of a ladder. (This rule does not apply to safety platform ladders)
- B. Step ladder legs shall be fully spread.
- C. Step ladders shall not be used as straight ladders.

IV. Job-Made Ladders

- A. The use and manufacturing of ladders on a job site is strictly prohibited.

Scaffolds

I. General

- A. Scaffolds shall be erected, moved, dismantled or altered only under the supervision and direction of a competent person qualified in scaffold erection, moving, dismantling, or alteration.



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



- B. Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each work shift, and after any occurrence that could affect a scaffold's structural integrity.
- C. Work on or from scaffolds is prohibited during storms or high winds unless a competent person has determined that it is safe for employees to be on the scaffold and those employees are protected by a personal fall arrest system.
- D. Make shift devices such as but not limited to boxes and barrels shall not be used on top of scaffold platforms to increase the working level height of employees.
- E. Proper fall protection will be worn by personnel when working on or from scaffolds.
- F. Scaffolds shall not be moved horizontally while employees are on them.
- G. The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement.
- H. Unstable objects such as barrels, boxes, loose brick, or concrete blocks shall not be used to support scaffolds or planks.
- I. Guardrails and toe boards shall be installed on all open sides and ends of platforms more than 10' above the ground. Guardrails should all be 2 x 4 inches or the equivalent. The guardrails installed shall be no less than 36" or not more than 45" high, with a mid-rail, when required, of 1 x 4-inch lumber or equivalent. Supports should be at intervals not to exceed 10'. Toe boards shall be a minimum of 3-1/2" in height.
- J. Training will be provided on Scaffolds and their components shall be capable of supporting without failure at least four times the maximum intended load. Training will also include hazards such as fall, electrical, falling objects. Fall protection use and load capacity.
- K. Scaffolds shall not be loaded in excess of the working load for which they have been intended.
- L. Nails or bolts used in the construction of scaffolds shall be of adequate size and in sufficient number at each connection to develop the design strength of the scaffold. Nails shall not be subjected to a straight pull and shall be driven full length.
- M. All planking or platforms shall be overlapped (minimum 12") or secured from movement.
- N. An access ladder or equivalent safe access shall be provided.
- O. Scaffold planks shall extend over their end supports not less than 6" or more than 18".
- P. The poles, legs, or uprights of scaffolds shall be plumb, and securely and rigidly braced to prevent swaying and displacement.
- Q. Materials being hoisted onto a scaffold shall have a tag line.
- R. Each employee required to work on or from scaffolding must be trained, by a qualified person, in the recognition and avoidance of unsafe conditions and the regulations applicable to their work environment. Retraining shall be performed when and if new hazards are introduced or when the need is indicated by employees' performance.
- S. When scaffolding is inspected, by a competent person, a tag shall be hung. The date of the inspection and the initials of competent person shall be documented on the tag at the beginning of each shift.
 - A green tag indicates the scaffold is "OK" to use and meets OSHA standards.
 - A red tag indicates "danger" and that the scaffold shall not be used.
 - A yellow tag indicates the scaffold is "incomplete" and does not meet OSHA standards. Personal fall protection (harness and lanyard) is required.
 - Scaffolds with missing tags or tags with no inspection by a competent person for each shift shall not be used.

NOTE: The client's scaffold tagging system may be required in some cases. Employees must be familiar with the tagging system being used.

T. Inclement Weather

I. General



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



The normal hurricane season in the United States is from June 1st to November 1st, with the peak period of activity ranging from August through October. Conditions for tornadoes in the United States can occur at any time, but they are most common in spring and least common in winter.

MasTec / Energy Erectors has the responsibility to eliminate the chance of injuries to personnel and to minimize damage to property in the event of the occurrence of a hurricane/ tornado or severe weather system.

Each job site should evaluate their individual circumstances and take whatever additional steps are necessary. It is the company's intention to both minimize the possibility of property damage and maximize the safety of their employees during a hurricane/ tornado or other inclement weather emergencies.

Hurricane/ tornado emergency planning is structured to coincide with the U. S. Weather Service warning system and client communications. The states are as follows:

- Tornado Watch
 - Tornadoes are likely to occur in the watch area. Be ready to act quickly and take shelter, and check supply kits. Monitor radio and television stations for more information.
- Tornado Warning
 - Imminent threat - A tornado has been sighted in the area or has been indicated by radar. Take shelter immediately.

II. Tornado Preparedness and Response

Preparedness involves a continuous process of planning, equipping, training and exercising. Planning for tornadoes requires identifying a place to take shelter, being familiar with and monitoring your community's warning system, and establishing procedures to account for individuals in the building. Employers may need to obtain additional equipment and/or resources (e.g. Emergency Supply Kits) identified in the plan. In addition, workers need to be trained and plans need to be practiced to ensure that personnel are familiar with what to do in the event of a tornado.

- Planning
 - Identifying Shelter Locations
 - An underground area, such as a basement or storm cellar, provides the best protection from a tornado. If an underground shelter is unavailable, consider the following:
 - Seek a small interior room or hallway on the lowest floor possible
 - Stay away from doors, windows, and outside walls
 - Stay in the center of the room, and avoid corners because they attract debris
 - Rooms constructed with reinforced concrete, brick or block with no windows and a heavy concrete floor or roof system overhead
 - Avoid auditoriums, cafeterias and gymnasiums that have flat, wide-span roofs.

Personnel should also be aware of what to do if caught outdoors when a tornado is threatening. Seek shelter in a basement or a sturdy building. If one is not within walking distance, try to drive in a vehicle, using a seat belt, to the nearest shelter. If flying debris is encountered while in a vehicle, there are two options: 1) staying in the vehicle with the seat belt on, keeping your head below the windows and covering it with your hands or a blanket, 2) if there is an area which is noticeable lower than the roadway, lie in that area and cover your head with your hands.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Accountability procedures
 - Daily Rosters shall be maintained to know who is on site in the event of an emergency.
 - The Emergency Action Plan must be in place and adhered to.
- Equipping
 - Place emergency supply kits and in shelter locations
 - A basic emergency supply kit should include the following:
 - Water
 - Food (non-perishable)
 - Battery powered or hand crank radio and NOAA Weather Radio and extra batteries
 - Flashlight
 - First aid kit
 - Whistle
 - Dust mask
 - Moist towelettes, garbage bags and plastic ties for personal sanitation.
- Training and Exercises
 - Ensure that all employees know what to do in case of an emergency
 - Practice shelter –in-place plans on a regular basis
 - Update plans and procedures based on lessons learned from exercises.

In the event tornado procedures are required to be put into action, the MasTec / Energy Erectors project manager and/or designee shall coordinate the activities. It will be the project manager's and/or designee's responsibility to notify the main office of proposed action, anticipated costs, and degree of risk. The project manager and/or designee will also coordinate activities to conform to any special client requirements.

U. Hazard Communication

I. Introduction

- An HCP will be maintained for hazardous substances used on all jobsites for the health and safety of our employees. Safety Data Sheet (SDS) book is located and maintained at each job site. Such information shall be maintained and readily accessible in each work area and shall always be readily available, upon request, to employees, their designated representative.
- Our HCP organizes, for the employee, information regarding hazardous substances that may be encountered on the jobsite. The information includes Safety Data Sheets (SDS). The HCP program provides for labeling each container of hazardous substances. The label must contain certain information. Labels shall be legible and in English.
- The HCP provides for methods of informing and training our employees on hazardous substances they may encounter on the jobsite. Due to the hazardous nature of our business, employees must be proficient in both speaking and writing the English language.
- Each Contractor and Subcontractor is required under OSHA 1910.1200 to have its own HCP program. The Corporate Office will maintain a master file of the SDS for each hazardous substance which may be encountered on all Energy Erectors projects. The SDS must be readily accessible to our employees.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- SDS for hazardous substances that may be purchased for the projects should be procured by Energy Erectors. If the SDS is delivered with the substance, the foreman will forward the SDS to the corporate office.
- All SDS must be given to the corporate office for entry into the master HCP. All SDS will be organized in the HCP binder by trade name of the chemical substance or by the chemical name, if there is no trade name. Each employee shall be responsible for notifying the foreman if a substance is labeled hazardous and if the SDS is not provided with a delivery. If the foreman discovers that the SDS was not received prior to the delivery, then they shall immediately request the SDS from the supplier.
- The corporate office shall be responsible for updating the SDS in the HCP binder as the same are updated by the supplier. Under separate cover is a current list of chemicals for which SDS sheets are on file.

II. What information should the SDS contain?

- The identity used on the label, and:
 - The chemical name and common name, if a single substance, or
 - The chemical and common name(s) of the ingredients, if a mixture, or
 - The chemical and common name(s) of the ingredients if a mixture has not been tested as a whole, to the extent required by OSHA
- Physical and chemical characteristics.
- Physical hazards of the substance(s).
- Health hazards and medical conditions which are generally recognized as being aggravated by exposure to the substance.
- The primary route (s) of entry.
- The exposure limit that may be recommended by the manufacturer.
- If the substance is a carcinogen.
- Precautions for safe handling and use.
- Control measures.
- Emergency and first-aid procedures.
- The most current date of issue.
- The name, address and telephone number of the manufacturer, who can provide additional information on the substance and appropriate emergency procedures.

III. What should be labeled?

- Each container of hazardous substances entering the workplace must be labeled, tagged or marked with the following information:
 - Identity of the hazardous chemical.
 - Appropriate hazard warnings, and name and address of the supplier.
 - Example of an acceptable label.
- Acceptable alternatives to the labeling procedure:
 - For solid metal (such as structural steel, miscellaneous iron, ornamental metal, hollow metal, etc.), the label may be given to us only with the initial shipment or with the SDS. If the label is revised thereafter, then we should receive a new label (Note: This does not include any hazardous substances used in conjunction with the solid material, such as cutting fluids, lubricants, touch-up paint or other preparatory substances.)



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



- Portable containers, into which hazardous substances from labeled containers are transferred, need not be labeled or transferred intends to use the chemical immediately.
- A sign may be acceptable for stationary containers (concrete pumps, motor mixers, etc.).
****Never remove a label**

IV. Employee Information and Training:

A. Employee Information

- Each new employee, prior to performing any work task, will be informed / trained on Energy Erectors HCP program.
- That an HCP program is in effect for all work.
- Information about the HCP, including the location of the HCP binder, the organization of the SDS within the HCP, the availability of the SDS for their use, and what information they contain; the manner in which hazardous substances are labeled, and the list of hazardous substances that may be encountered at the jobsite.
- Any operations in their work area where hazardous substances are present.
- We rely on visual appearance or odors reported by those on the project to detect a presence or release of a substance. Inform the employee to immediately report the same to his appropriate supervisor.
- Inform the employee regarding physical and health hazards of chemicals in the work area and protection measures to be utilized to prevent exposure, appropriate work practices, and emergency procedures and proper PPE (Personal Protective Equipment) to be used.
- Explain to the employee the details of the hazard communication program, including the labeling system and the SDS sheets.
- Various substances that may be encountered may cause physical and health hazards. Inform the employee to consult the SDS or their foreman if he feels it is necessary.
- Each Contractor and Subcontractor has its own list of hazardous substances and SDS maintained as part of its HCP.

B. Training of Employees:

- The Project Manager will inform the employees of any new substances that are being introduced to the project.
- The project supervisor will inform and document the employee training at the job site. Note: Training documentation to be returned to the corporate office.
- Further details of the hazards of certain substances.
- New methods that might be employed to detect releases.

C. Appropriate work practices for certain substances:

- The significance of the labels.
- Emergency procedures (if necessary).
- Personal Protection Equipment to be used.
- Employees will be trained Prior to new hazard of non- routine task.
- The hazards associated with chemicals contained in unlabeled pipes.

Note: The project Manager will remind employees how our HCP is executed (i.e., where the binder is located, the information contained on a SDS, who to ask if there are any questions).



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



D. Who is required to have an HCP?

- All contractors
- All subcontractors

E. How do we coordinate our HCP program?

- The other employers should be notified that our HCP is located in our Corporate Office and contains the list of hazardous substances, SDS, and information on our labeling system. We should also request the same information from all other employers.

V. SDS (Safety Data Sheets)

The SDS is obtained from the hazardous substance manufacturer or supplier. You should become familiar with information on this sheet to avoid injury to yourself and fellow employees. Following is a description of the SDS's principle sections. Not all sections are relevant to your safety, but brief descriptions will be provided.

Section 1 Identification of Product

This identifies the chemical name, trade name or synonym, manufacture's name, chemical formula, and emergency phone number for more detailed information concerning the product.

Section 2 Hazardous Ingredients

Hazardous ingredients are those substances which have been defined as hazardous due either flammability characteristics or to their potential to have adverse health effects on the worker. The percentage of each hazardous ingredient in the product is provided, as well as the Threshold Limit Value.

Section 3 Composition/Information

This includes information on chemical ingredients, trade secrets.

Section 4 First aid measures

Includes important symptoms/effects, acute ,delayed; required treatment

Section 5 Fire and Explosion Hazard Data

In this section, data is provided which describes the ability of the substance to burn or explode. The method for extinguishing a fire involving the substance is also provided. Pertinent data in this section is:

- Flash Point-This is the lowest temperature at which the liquid gives off sufficient vapor to form an ignitable mixture with air and produce a flame when an ignition source is brought near the surface of the liquid.
- Extinguishing Media-The type of fire extinguishing material to be used when a particular substance is burning.
- Special Fire Fighting Procedures-These procedures describe the firefighting equipment needed if the substance is involved in a fire. Some substances can give off toxic gases when burning; therefore, a



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- special piece of personal protection equipment would be worn by persons fighting the fire. Talk to your supervisor regarding your actions in the event of a fire involving a hazardous substance.
- Unusual Fire and Explosion Hazards-This section provides information on substance incompatibility or its ability to react with other substances to create a flammable atmosphere.

Section 6 Accidental release measures

Lists emergency procedures, protective equipment; proper methods of containment and cleanup

Section 7 Handling and Storage

Lists precautions for safe handling and storage, including incompatibilities.

Section 8 Exposure controls/personal protection

This section list's OSHA's permissible Exposure limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment(PPE)

Section 9 Physical and chemical properties

This section list chemicals characteristics

Section 10 Stability and reactivity

Lists chemical stability and possibility of hazardous reactions.

Section 11 Toxicological information

Includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12 Ecological information

(Non Mandatory) includes ecotoxicity (aquatic and terrestrial, where available); persistence and degradability; mobility in soil and other ecological information.

Section 13 Disposal considerations

(Non Mandatory) description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

Section 14 Transport information

(Non Mandatory) This section includes UN number transport hazard class(es); enviromental hazards(e.g., marine pollutant (Yes/ NO) and other transport information

Section 15 Regulatory information

(Non mandatory) safety, health and environmental regulations specific for the product in question.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



Section 16 Other information

Includes the date of preparation or last revision.

V. Job Site Smoking

Will be allowed in (Designated Areas Only)

W. Subcontractor Awareness

I. Introduction:

MasTec / Energy Erectors accepts the responsibility to provide a safe and healthful workplace and believes that Safety must always be first in preventing work related injuries, occupational illnesses, and property damage.

MasTec / Energy Erectors will provide the following to all sub-contractor employees:

- Overview of project to be constructed.
- Electrical Safety Awareness (working in proximity to high voltage power lines).
- OSHA 10 / or 30 hour training.
- How to compose a daily documented tailboard safety meeting.
- Preparing a documented Task Hazard Analysis.
- Conducting a documented employee skill assessment.
- Preparing an emergency medical plan.
- First-aid / CPR training.
- Material Safety Data Sheets (MSDS).
- Conducting an incident / accident investigation.

II. Sub-Contractor Expectations:

Comply with all safety rules and regulations. The Occupational Safety and Health Act (OSHA) is the minimum standard for safety and must be fully complied with at all times. Federal, State and local laws govern work activities, as well as industry codes and specific contract conditions. Every sub-contractor employee must become familiar with and adhere to all these safe work practices. The sub-contractor will designate a representative for safety matters reviewing the sub-contractors safety activities throughout the contract.

The Sub-Contractor will provide the following:

- Employee orientation concerning site specific safety procedures.
- Daily or more frequent if needed documented daily tailboard meeting.
- Attend the weekly general safety meeting held by the contractor.
- Inform the contractor immediately of all incidents / accident.
- Complete and provide the contractor a documented accident report within 48 hrs. after the incident.



Energy Erectors City of Lake Worth Canal Transmission Substation Site Safety Plan



- Provide all necessary safety related tools and equipment for their work crews.
- Maintain a neat, clean, and orderly worksite.
- Any employees who are required to have certification for specialized equipment operation shall present the proper documentation to the contractor prior to performing work on the project.
- Provide and require employees to use appropriate personal protective equipment (PPE) for the work being performed.
- All employees shall observe the posted speed limits on the project site.
- Maintain a Hazard Communication Program, which includes employee training.
- All employees shall observe all posted signs including "No Smoking", No Open Flames".
- Employees will be furnished adequate potable water, and sanitation facilities.
- A competent person shall be at all excavation worksites who is capable of identifying existing and predictable hazards and authorized to take prompt corrective action.
- Maintain an effective confined space entry procedure which complies with OSHA standards.
- Develop and provided to the contractor a documented "Task Hazard Analysis".
- Develop and train employees in "Emergency Fire Plan".
- Maintain the required working distance from overhead energized electrical power lines for material, equipment and personnel.
- Document and provide the contractor with all training provide to employees on this project.
- TRIR, EMR, DART and Fatality will be reviewed

X. Site Spill Plan

It is Mastec/Energy Erectors intent to set forth environmental rules which must be adhered to by all MasTec/Energy Erectors employees, subcontractors, and vendors. These rules are designed in a manner to protect the environment and the health and safety of employees, contract workers, neighbors, customers, and others.

PETROLEUM AND WASTE SPILLS

- A. MasTec / Energy Erectors employees will not intently perform any work that will result in the discharge of hydrocarbons or waste of any kind to the ground soil, storm water collection system, or the environment.
- B. In the event of a spill to the ground, water, or environment which was not anticipated or identified in the project scope of work, MasTec / Energy Erectors will immediately stop all work and take immediate action to minimize any adverse effect to human health or the environment that is within MasTec / Energy Erectors capability and control.
- C. MasTec / Energy Erectors will immediately notify the Entergy Cameron contract coordinator or the company shift supervisor on duty if a spill of any kind does occur.

STORAGE OF CONTAINERIZED LIQUIDS

- A. MasTec / Energy Erectors will not store hazardous substance liquids in areas draining to uncontaminated storm water sewer collection systems unless a secondary containment is provided for at 110% capacity of the contents in the largest single container managed in the containment area.



**Energy Erectors
City of Lake Worth
Canal Transmission Substation
Site Safety Plan**



- B. MasTec / Energy Erectors will monitor and inspect all secondary containment to ensure that they are maintained in proper condition and that rainwater is promptly removed. The removal of rainwater from secondary containment areas will be coordinated with Mid-American contract coordinator.
- C. Warning labels shall be placed in such a manner to properly identify tank contents and comply with the hazardous warning label requirements of 29CFR 1910.1200.

EQUIPMENT MAINTENANCE AND SERVICING

- A. All equipment to be brought onto Entergy property will be cleaned and inspected by MasTec/Energy Erectors for leaks and shall be repaired prior to being brought onsite. Inspections will be performed daily for leaks, frayed hoses, and potential leaks.
- B. Maintenance and servicing of equipment will be done in an area away from marshland outfalls at a Entergy designated off-site area with the prior approval from the Entergy contract coordinator. Personnel performing this work will be aware that no spillage can occur and have absorbent pads and drip pans, as necessary to prevent spillage.
- C. Storage of mobile equipment will be per the Entergy contract coordinator's directions.
- D. Absorbent booms and pads will be located at the jobsite. Small drip pans will be provided for all equipment with the potential for leakage.



TROY JANOKSE

Project Manager

36 Years of Service

PROFILE

With thirty-six (36) years with EEI, Mr. Janoske's current duties include the continued experience/training and learned skill in the electrical profession regarding substations & power plants within the utility divisions. This position requires a thorough knowledge of technical specifications, and an ability to read & understand project blueprints. Responsible for on-site personnel, field book & knowledge of OSHA safety & health standards necessary for project accountability. Experience with site costs, manpower, ordering tools, equipment, material & quality control inspection. A fundamental skill to this position is the ability to communicate effectively whether on a technical or non-technical matter. In addition to above duties Mr. Janoske has experience all phases of 500kV Subs. construction & is licensed to operate heavy equipment

CONTACT

CORPORATE OFFICE:
31588 Progress Road
Leesburg, Florida 34748
Tel: 352-435-7513
Fax: 352-787-6407
Cell: 352-267-3491
WEBSITE:

www.energyerectors.net

EMAIL:

tjanoske@energyerectors.net

WORK EXPERIENCE

Falcon Substation, Vero Beach, FL – June 2022 – Current – \$5M
Owner – FPL Voltage: 230kV
OUC Split Oak, Orlando, FL – Jan. 2022 – Current – \$4.7M
Owner – Orlando Utilities Voltage: 69kV
Siemens – FPL Alton GIS - Nov. 2021 – Current – \$2M
Owner – FPL Voltage: 69kV
Hennis Substation, Port St. Lucie – Oct. 2021 – Jan. 2022 – \$2.5M
Owner: FPL Voltage: 230kV
Mustang Distribution, Alva, FL – Feb. 2021 – Nov. 2021 – \$2M
Owner: FPL Voltage: 230kV
Dueffe Solar Subs., Parrish, FL – March 2021 – Current – \$1M
Owner: EPC Voltage: 69kV
Kestrel Substation, Okeechobee, FL – Oct. 2020 – Current – \$5M
Owner: FPL Voltage: 230kV
Hayward Substation, Fellsmere, FL – Oct. 2020 – March 2021 – \$3M
Owner: FPL Voltage: 230kV
Karson Substation, Arcadia, FL – Aug. 2020 – Feb. 2021 – \$2M
Owner: FPL Voltage: 230kV
Plum Substation, Lake Butler, FL – May 2020 – Dec. 2020 – \$2M
Owner: FPL Voltage: 230kV
Dueffe Substation, Parrish, FL – July 2019 – April 2020 – \$3M
Owner: FPL Voltage: 230kV
Parrott Substation, Vero Beach, FL – July 2019 – May 2020 – \$5M
Owner: FPL Voltage: 230kV
RCID Substation, Orlando, FL – Aug. 2018 – April 2019 – \$3M
Owner: Reedy Creek Voltage: 69kV
Ft. Drum Subs., Okeechobee, FL – June 2017 – June 2018 – 12M
Owner: FPL Voltage: 500kV

EDUCATION & CERTIFICATIONS

First Aid and Adult CPR, OSHA 30, NCCO Crane Operator, Fall Safety, Rigging/Signal person, Lift Truck Operator, course completed for installation of low voltage products, Raysulate and 15kv terminations and splices.

REFERENCES/ADDITIONAL INFORMATION AVAILABLE UPON REQUEST



ENERGY ERECTORS INC.

a MasTec Company

PROFILE

Mike Gneiting has over twenty (20) years' experience in the electrical industry and in the two years employed with EEI, Mike has proven determination to increase his skills & knowledge within the electrical field. Within the utility division/ he has developed experience necessary for substation construction from ground to completion. His current position requires a daily awareness of materials, manpower, cost & quality contract on site to maintain project accountability. His ability to communicate work requirements to crew members; and to work alongside in a successful & effective manner with owner's representatives, have made him a valuable resource for Energy Erectors, Inc.

CONTACT

CORPORATE OFFICE
31588 Progress rd.
Leesburg, Florida 34748
Tel: 352-787-3878
Fax: 352-787-6407
Cell: 352-396-6007
WEBSITE:

www.energyerectors.net

EMAIL:

mgneiting@energyerectors.net

MIKE GNEITING

Foreman

WORK EXPERIENCE

ENERGY ERECTORS, INC.

Siemens – FPL Alton GIS - Nov. 2021 – Current - \$2M

Owner – FPL

Voltage: 69kV

Mustang Substation, Alva, FL – Feb. 2021 – Nov. 2021 - \$2M

Owner: FPL

Voltage: 230kV

Karson Substation, Arcadia, FL – Aug. 2020 – Feb. 2021 - \$2M

Owner: FPL

Voltage: 230kV

Plum Substation, Lake Butler, FL – May 2020 – Dec. 2020 - \$2M

Owner: FPL

Voltage: 230kV

McPHEE ELECTRIC

Garvins Substation, Bellow Falls, NH – Oct. 2016 – Dec. 2019 - \$1M

Owner: Eversource Energy

Voltage: 115kV

Everett Substation, Everett, MA – Sept. 2016 – Dec. 2019 - \$1.5M

Owner: National Grid

Voltage: 115kV

Harriman Switchyard, Whittingham, VT – March 2016 – Dec. 2019 - \$4M

Owner: National Grid

Voltage: 115kV

EDUCATION & CERTIFICATIONS

Hartford State Technical College

Electrical Apprentice Program

CT Licensed Electrician, E-1; NFPA 70E Electrical Safety Training First Aid & Basic Life Support, OSHA 30, Fall Safety

REFERENCES/ADDITIONAL INFORMATION AVAILABLE UPON REQUEST



ENERGY ERECTORS INC.

a MasTec Company

PROFILE

In the twenty-five (25) years with the company, Mr. Forbes has proven determination to increase his basic skills/knowledge within the electrical field. He has an established/current project history which indicate an acute sense of accountability for his actions & those of his crew. Within the utility division/electrical field he has developed experience necessary for substation construction from ground to completion (all phases); and to date, all low voltage with no project over 500kV. His current position requires a daily awareness of materials, manpower, cost & quality control, etc. to maintain project accountability. His ability to communicate work requirements to the crew members & work in a successful & effective manner with owner's representatives, have made him a valuable resource for Energy Erectors, Inc.

CONTACT

CORPORATE OFFICE
31588 Progress Rd.
Leesburg, Florida 34748
Tel: 352-787-3787
Fax: 352-787-6407
Cell: 352-279-4125
WEBSITE:
www.energyerectors.net

ROBERT FORBES

Foreman

26 Years of Service

WORK EXPERIENCE

Falcon Subs., Vero Beach, FL April – Current - \$5M
Owner: FPL Voltage: 230kv

OUC Split Oak, Orlando, FL – Jan. 2022 – April 2022 - \$4.7M
Owner: OUC Voltage: 69kv

Mustang Substation, Alva, FL – Aug. 2021 – Dec. 2021 - \$2M
Owner: FPL Voltage: 230kv

Kestrel Substation., Okeechobee, FL – October 2020 – July 2021 - \$5M
Owner: FPL Voltage: 230kv

Plum Substation, Lake Butler, FL – May 2020 – Dec. 2020 - \$2M
Owner: FPL Voltage: 230kv

Holden-Pershing Substation, Orlando, FL – Dec. 2019 – May 2020 - \$1M
Owner: Orlando Utilities Voltage: 115kv

Little Manatee Substation, Ruskin, FL – Dec. 2019 – May 2020 - \$4M
Owner: FPL Voltage: 230kv

Parrott Substation, Vero Beach, FL – July 2019 – May 2020 - \$5M
Owner: FPL Voltage: 230kv

Hansel Substation, Kissimmee, FL – May 2019 – Aug. 2019 - \$1M
Owner: Kissimmee Utility Authority Voltage: 115kv

Citrus Ridge Solar Subs., Winter Garden, FL – Oct. 2019 – July 2019 - \$1M
Owner: DEPCOM Voltage: 69kv

Lake Nona-Azalea Subs., Orlando, FL – Oct. 2018 – July 2019 - \$2M
Owner: Orlando Utilities Voltage: 115kv

Bearcat Substation, Lake City, FL – Aug. 2018 – Feb. 2019 - \$3M
Owner: FPL Voltage: 138kv

Floritam Substation, Volusia Co., FL – Aug. 2018 – Feb 2019 - \$3M
Owner: FPL Voltage: 230kv

Overbrook Substation, Englewood, FL – March 2018 – Nov. 2018 - \$3M
Owner: FPL Voltage: 230kv

Ft. Drum Substation., Okeechobee, FL – June 2018 – June 2017 - \$12M
Owner: FPL Voltage: 500kv

EDUCATION & CERTIFICATIONS

First Aid and Adult CPR, OSHA 30, NCCCO Crane Operator, Fall Safety, Rigging/Signalperson, Lift Truck Operator, course completed for installation of low voltage products, Raysulate and 15kv terminations and splices

REFERENCES/ADDITIONAL INFORMATION AVAILABLE UPON REQUEST



September 14, 2021

Mr. Andres Llop
Senior Director, Corporate Risk Management
MasTec, Inc.
800 Douglas Road – Penthouse
Coral Gables, FL 33134

Re: Energy Erectors, Inc. (a subsidiary of MasTec North America, Inc.)

Dear Andy,

The Experience Modification Rating factor of Energy Erectors, Inc. has been calculated as follows:

Effective 9/15/2021: .70

If you have any additional questions or concerns, please feel free to contact me at kristin.adams@aon.com or (857) 260-2066 to discuss further.

Sincerely,

Kristin Adams, M.Sc.
Regional Business Services Leader
Aon | Construction Services Group
53 State Street | 22nd Floor | Boston, MA 02109
t +1.617.457.7706 | f +1. 847.953.4385 | kristin.adams@aon.com
Proprietary & Confidential



Randi Nowell CPCU ARM
Vice President

Marsh USA Inc.
3560 Lenox Road
Suite 2400
Atlanta, GA 30326
+1 404 995 3102
randi.nowell@marsh.com

August 19, 2020

Mr. Andres Llop
Director, Corporate Risk Management
MasTec, Inc.
800 Douglas Road – Penthouse
Coral Gables, FL 33134

Re: Energy Erectors, Inc. (a subsidiary of MasTec North America, Inc.)

Dear Andy,

The Experience Modification Rating factor of Energy Erectors, Inc. has been calculated as follows:

Effective 9/15/2020: .68

If you have any questions, please do not hesitate to call me directly at 404-995-3102.

Sincerely,

Randi Nowell, CPCU, ARM
Vice President, Global Risk Management
Two Alliance Center, 3560 Lenox Rd., Ste. 2400, Atlanta, GA 30326
404 995 3102 | Fax 404 995 3103 | Cell 404 713 9534
Randi.Nowell@marsh.com



Randi Nowell CPCU ARM
Vice President

Marsh USA Inc.
3560 Lenox Road
Suite 2400
Atlanta, GA 30326
+1 404 995 3102
randi.nowell@marsh.com

August 12, 2019

Mr. Andres Llop
Director, Corporate Risk Management
MasTec, Inc.
800 Douglas Road – Penthouse
Coral Gables, FL 33134

Re: Energy Erectors, Inc. (a subsidiary of MasTec North America, Inc.)

Dear Andy,

The Experience Modification Rating factor for the continuing operations only of MasTec North America, Inc. (parent company of Energy Erectors, Inc.) has been calculated for the years noted below:

Effective 9/15/2019: .71

This calculation excludes MasTec's subsidiary, Advanced Technology, as this is not a construction entity and therefore does not reflect MasTec's true construction experience. Nor does the calculation include any MasTec discontinued operations as these would have no impact on MasTec's continuing operations.

If you have any questions, please do not hesitate to call me directly at 404-995-3102.

Sincerely,

A handwritten signature in blue ink that reads 'Randi Nowell'. The signature is fluid and cursive, with the first name 'Randi' being more prominent.

Randi Nowell, CPCU, ARM
Vice President, Global Risk Management
Two Alliance Center, 3560 Lenox Rd., Ste. 2400, Atlanta, GA 30326
404 995 3102 | Fax 404 995 3103 | Cell 404 713 9534
Randi.Nowell@marsh.com



Randi Nowell CPCU ARM
Vice President

Marsh USA Inc.
3560 Lenox Road
Suite 2400
Atlanta, GA 30326
+1 404 995 3102
randi.nowell@marsh.com

August 18, 2018

Mr. Andres Llop
Director, Corporate Risk Management
MasTec, Inc.
800 Douglas Road – Penthouse
Coral Gables, FL 33134

Re: Energy Erectors, Inc. (a subsidiary of MasTec North America, Inc.)

Dear Andy,

The Experience Modification Rating factor for the continuing operations only of MasTec North America, Inc. (parent company of Energy Erectors, Inc.) has been calculated for the years noted below:

Effective 9/15/2018: .71

This calculation excludes MasTec's subsidiary, Advanced Technology, as this is not a construction entity and therefore does not reflect MasTec's true construction experience. Nor does the calculation include any MasTec discontinued operations as these would have no impact on MasTec's continuing operations.

If you have any questions, please do not hesitate to call me directly at 404-995-3102.

Sincerely,

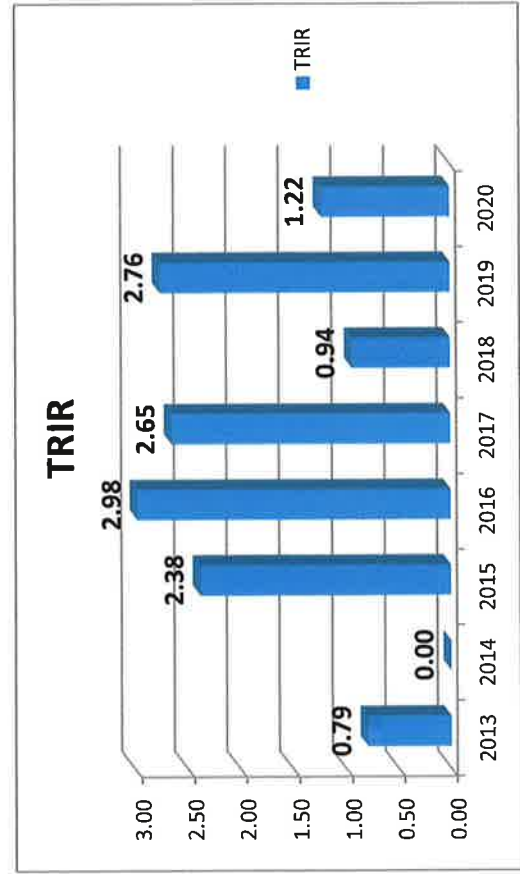
Randi Nowell, CPCU, ARM
Vice President, Global Risk Management
Two Alliance Center, 3560 Lenox Rd., Ste. 2400, Atlanta, GA 30326
404 995 3102 | Fax 404 995 3103 | Cell 404 713 9534
Randi.Nowell@marsh.com



Energy Erectors Injury and Illness Report

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Hours worked	252,156	192,393	251,277	336,124	377,871	427,542	435,256	490,397	449,045
OSHA Recordable injuries	1	0	3	5	5	2	6	3	4
DART injuries	1	0	0	2	2	1	3	2	0
LWD injuries	0	0	0	2	1	0	3	2	3
TRIR	0.79	0.00	2.38	2.98	2.65	0.94	2.76	1.22	1.78
DART rate	0.79	0.00	0.00	1.19	1.06	0.47	1.38	0.82	0.00
LTIR	0.00	0.00	0.00	1.19	0.53	0.00	1.38	0.82	1.34

TRIR	2013	2014	2015	2016	2017	2018	2019	2020
DART	0.79	0.00	2.38	2.98	2.65	0.94	2.76	1.22
LTIR	0.79	0.00	0.00	1.19	1.06	0.47	1.38	0.41
	0.00	0.00	0.00	1.19	0.53	0.00	1.38	0.82



Summary of Work-Related Injuries and Illnesses

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
(G)	(H)	(I)	(J)
0	3	0	1

	Total number of days away from work	Total number of days of job transfer or restriction
1. Number of days	1	1
2. Number of workers	1	1
3. Number of days	1	1
4. Number of workers	1	1
5. Number of days	1	1
6. Number of workers	1	1
7. Number of days	1	1
8. Number of workers	1	1
9. Number of days	1	1
10. Number of workers	1	1
11. Number of days	1	1
12. Number of workers	1	1
13. Number of days	1	1
14. Number of workers	1	1
15. Number of days	1	1
16. Number of workers	1	1
17. Number of days	1	1
18. Number of workers	1	1
19. Number of days	1	1
20. Number of workers	1	1
21. Number of days	1	1
22. Number of workers	1	1
23. Number of days	1	1
24. Number of workers	1	1
25. Number of days	1	1
26. Number of workers	1	1
27. Number of days	1	1
28. Number of workers	1	1
29. Number of days	1	1
30. Number of workers	1	1
31. Number of days	1	1
32. Number of workers	1	1
33. Number of days	1	1
34. Number of workers	1	1
35. Number of days	1	1
36. Number of workers	1	1
37. Number of days	1	1
38. Number of workers	1	1
39. Number of days	1	1
40. Number of workers	1	1
41. Number of days	1	1
42. Number of workers	1	1
43. Number of days	1	1
44. Number of workers	1	1
45. Number of days	1	1
46. Number of workers	1	1
47. Number of days	1	1
48. Number of workers	1	1
49. Number of days	1	1
50. Number of workers	1	1
51. Number of days	1	1
52. Number of workers	1	1
53. Number of days	1	1
54. Number of workers	1	1
55. Number of days	1	1
56. Number of workers	1	1
57. Number of days	1	1
58. Number of workers	1	1
59. Number of days	1	1
60. Number of workers	1	1
61. Number of days	1	1
62. Number of workers	1	1
63. Number of days	1	1
64. Number of workers	1	1
65. Number of days	1	1
66. Number of workers	1	1
67. Number of days	1	1
68. Number of workers	1	1
69. Number of days	1	1
70. Number of workers	1	1
71. Number of days	1	1
72. Number of workers	1	1
73. Number of days	1	1
74. Number of workers	1	1
75. Number of days	1	1
76. Number of workers	1	1
77. Number of days	1	1
78. Number of workers	1	1
79. Number of days	1	1
80. Number of workers	1	1
81. Number of days	1	1
82. Number of workers	1	1
83. Number of days	1	1
84. Number of workers	1	1
85. Number of days	1	1
86. Number of workers	1	1
87. Number of days	1	1
88. Number of workers	1	1
89. Number of days	1	1
90. Number of workers	1	1
91. Number of days	1	1
92. Number of workers	1	1
93. Number of days	1	1
94. Number of workers	1	1
95. Number of days	1	1
96. Number of workers	1	1
97. Number of days	1	1
98. Number of workers	1	1
99. Number of days	1	1
100. Number of workers	1	1

Total number of...
(M)

	(1) Injury	(2) Skin Disorder	(3) Respiratory Condition	(4) Poisoning	(5) Hearing Loss	(6) All Other Illnesses
	4	0	0	0	0	0

Public reporting burden for this collection of information is estimated to average 38 minutes per response, including time to review the instruction, search existing data sources, gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. You have two comments about any aspect of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the comments forms to this office.

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no 1218-0176

Establishment name	Energy Erectors Inc

Leesburg State FL

Describe the case

Classify the case

(A) Case No.	(B) Employee's Name	(C) Job Title (e.g. Welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g. Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch)	CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Check the "injury" column or choose one type of illness:							
						Death	Days away from work	Job transfer or restriction	Remained at work	Away From Work (days)	On job transfer or restriction (days)						
						(G)	(H)	(I)	(J)	(K)	(L)	(1)	(2)	(3)	(4)	(5)	(6)
121		Supervisor	1/18/21	plant building	Laceration left hand												
221		Groundman	2/24/21	substation yard	amputation tip of middle finger r hand	x			x	15	18		x				
321		Labor	10/13/21	trench	tear ligament knee dirt	x				79			x				
421		Sub Tech	10/29/21	trench	broke pelvis trench cave fall in	x				63			x				
						0	1	0	1	157	18		4	0	0	0	0
						Page totals											

Page totals

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Page 1 of 1

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
(G) 0	(H) 2	(I) 0	(J) 1

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
(K) 33	(L) 192

Injury and Illness Types

Total number of ... (M)	(1) Injuries	(2) Skin disorders	(3) Respiratory conditions	(4) Poisonings	(5) Hearing loss	(6) All other illnesses
(N)	3	0	0	0	0	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. Send any comments regarding this burden estimate or any other aspect of this data collection, contact: US Department of Labor, OSHA, Office of Statistics, Room N-3604, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name Energy Erectors - All Locations
Street N/A
City N/A State FL ZIP -
Industry description (e.g., Manufacture of motor truck trailers)

Standard Industrial Classification (SIC), if known (e.g., SIC 3715) -

OR
North American Industrial Classification (NAICS) if known (e.g., 336212) 238210

Employment information

(If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 127

Total hours worked by all employees last year 490,398

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature]
Company executive
Title Senior Vice President

Phone 702-647-0059 Date 01/07/21

OSHA's Form 300

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Year 2020

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name: Energy Erectors - All Locations
City: N/A State: FL

Identify the person			Describe the case		Classify the case		Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one type of illness:							
(A) Case No.	(B) Employee's name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	CHECK ONLY ONE box for each case based on the most serious outcome for that case:		Away from work (K)	On job transfer or restriction (L)	(M)						
						Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Injury	Skin disorder	Respiratory condition	Poisoning	Hearing loss	All other illnesses	
2020-2765		GROUNDMAN	06/22	Pad setting switches	Thumb / Right Side / Cut, Laceration / Manual Materials Handling-lifting /	☐	☐	☐	☒	0 days	☒	☐	☐	☐	☐	☐
2020-510		GROUNDMAN	02/05	plant yard	Foot/Ankle/Toes / Left Side / Fracture, Simple / Other /	☐	☒	☐	☐	15 days	☒	☐	☐	☐	☐	☐
2020-5290		GROUNDMAN	10/13	Beside transformer #3 pad	Upper Extremities-Finger (S) / Left Side / Fracture, Simple / Other /	☐	☒	☐	☐	18 days	☒	☐	☐	☐	☐	☐

Page Totals -> 0 2 0 1 33 192
 Injury 3 0 0 0 0 0 0
 Skin disorder 0 0 0 0 0 0 0
 Respiratory condition 0 0 0 0 0 0 0
 Poisoning 0 0 0 0 0 0 0
 Hearing loss 0 0 0 0 0 0 0
 All other illnesses 0 0 0 0 0 0 0

Page 1 of 1

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA, Office of Statistics, Room N-1644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0".

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths _____ Total number of cases with job transfer or restriction _____ Total number of other recordable cases _____

(G) 0 (H) 3 (I) 1 (J) 2

Number of Days

Total number of days away from work _____ Total number of days of job transfer or restriction _____

(K) 80 (L) 145

Injury and Illness Types

Total number of _____

(1) Injuries _____ (4) Poisonings _____ 0
(2) Skin disorders _____ 0 (5) Hearing loss _____ 0
(3) Respiratory conditions _____ 0 (6) All other illnesses _____ 1

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time to review the instructions, search existing data sources, gather the data needed, and complete and review the collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing the burden, to Washington, DC 20503. Send all other correspondence to the Office of Management and Enterprise Services, Paperwork Project, Room 1010, U.S. Department of Labor, Washington, DC 20503.



Year 2019

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment information

Your establishment name Energy Erectors Inc.

Street 31588 Progress Rd

City Leesburg State FL ZIP 34748

Industry description (e.g., Manufacture of motor truck trailers)

Electrical Contractor

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)

238210

Employment information

(If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 135

Total hours worked by all employees last year 435,256

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature]

Senior Vice President

Company executive

Date

702-647-0059

Phone

01/07/2020

Date

Log of Work-Related Injuries and Illnesses



U.S. Department of Labor

Form approved OMB no. 1218-0176

Locations - All Locations

City: Leesburg

Check the "Injury" column or choose one type of illness:

1804

☒

100

[illegible]☒☐ ☐ ☐ ☐ ☐

0
0
0
0
0

Page Totals -	0	5	1	2	80	145
Letters	5	0	0	0	0	0
Skim drawers	0	0	0	0	0	0
Regularity cyclopedia	0	0	0	0	0	0
Polioening	0	0	0	0	0	0
Heating hose	0	0	0	0	0	0
All orders in letters	0	0	0	0	0	0

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35. In OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
(G) 0	(H) 0	(I) 1	(J) 1

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
(K) 0	(L) 42

Injury and Illness Types

Total number of (M)

(1) Injuries	2	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 56 minutes per response, including time to review the instructions, search existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing the burden, to Washington, DC 20503. Do not send this collection of information to the Office of Management and Budget, Paperwork Project (0434-0188).



Year 2018

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment Information

Your establishment name Energy Erectors
Street 315688 Progress Road

City Leesburg State FL ZIP 34748

Industry description (e.g., Manufacture of motor truck trailers)

Electrical Contractors

Standard Industrial Classification (SIC), if known (e.g., SIC 3711)

1731

OR

North American Industrial Classification (NAICS) if known (e.g., 336212)

238210

Employment Information

(If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 118

Total hours worked by all employees last year 427,542

Sign here X [Signature]

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

X Darwin Webb SVP
Company official Title

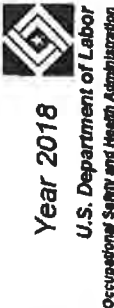
702-647-0059 1-4-19

Form

OSHA's Form 300

Log of Work-Related Injuries and Illnesses

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Fill in two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.



Form approved OMB no. 1218-0176

Attention: This form contains information relating to employer health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Establishment name: Energy Erectors
City: Leesburg State: FL

Identify the person			Describe the case		Classify the case		Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness:		
(A) Case No.	(B) Employee's name (e.g., <i>Weldert</i>)	(C) Job Title (e.g., <i>Welder</i>)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g., <i>Loading dock north end</i>)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., <i>Second degree burns on right forearm from acetylene torch</i>)	CHECK ONLY ONE box for each case BASED ON THE MOST KNOWN CAUSE FOR THAT CASE		(H)		(I)	
						Remained at work		Away from work		On job transfer or restriction	
						(1) Death	(2) Days away from work	(3) Job transfer or restriction	(4) Other recordable cases	(5) Injury	(6) Illness
2018-448			02/22		Upper Extremities-Finger (S) / Right Side / Fracture /	☐	☐	☐	☒	☒	☐
2018-819		WIREMAN	04/10		Upper Extremities-Finger (S) / Left Side / Crushing / Unsafe Act /	☐	☐	☒	☐	☒	☐

Page Totals -> 0 0 0 1 1 1 2 0 0 0 0 0

Page 1 of 1

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search existing data sources, gather the data needed, review and revise the collection of information, and provide the information to the reviewing agency. Send comments regarding this burden estimate or any other aspect of this data collection, including suggestions for reducing the burden, to Washington, DC 20503. Do not send this information to the office.

EEI EQUIPMENT LIST

TYPE	Vehicle Description
FORKLIFT	78 Clark C500Y Forklift
TRAILER	94 L&J Trailer
WELDER	97 L&J Trailer w/ 07 Miller Welder
TRAILER	00 Bobcat 20' Trailer
TRAILER	00 Utility Trailer 5x8
TRAILER	00 Bobcat Trailer 16'
TRAILER	6X12 Utility Trailer
TRAILER	02 Crosley Trailer
TRAILER	40' Van Trailer (Semi trailer)
SKID STEER	05 Cat 247B
FORKLIFT	05 Cat H330 Forklift
FORKLIFT	04 CAT FORKLIFT
MINI EX	07 CAT 303 MINI EXCAVATOR
WELDER	07 MILLER WELDER W/ TRAILER
TRAILER	06' DIAMOND CARGO TRAILER
TRAILER	09 DIAMOND CARGO TRAILER
MULE	08 KAWASAKI MULE
TRAILER	11 BENDRON TRAILER Box
TRAILER	11 PAMU TRAILER
TRAILER	11 PACE TRAILER (Tool Trailer)
TRUCK	14 DODGE RAM
TRAILER	15 FREEDOM TRAILER
TRAILER	15 Arising 24' Encl.Tool Trailer
TRUCK	14 DODGE RAM 3500
TRAILER	16 FREEDOM TRAILER 36FT
TRUCK	16 Ford F150 Crew Cab (LEASED)
TRUCK	16 CHEVY CREW 4X4 (LEASED)
TRUCK	16 CHEVY (LEASED)
TRUCK	16 FORD F150 CREW (LEASED)
TRUCK	16 FORD F150 (LEASED)
TRAILER	16 ASPIRING TRAILER
TRAILER	16 ASPIRING TRAILER
TRUCK	16 FORD F350 4X4 (LEASED)
TRUCK	17 FORD F250 4X4 (LEASED)
TRUCK	16 FORD F350 4X4 (LEASED)
TRUCK	15 FORD F250 XL 4X2 (LEASED)
TRUCK	15 FORD F250 4X4 CREW (LEASED)
TRUCK	15 FORD F350 CREW XL 4X4 (LEASED)
TRUCK	15 FORD F450 4X2 FLATBED (LEASED)

TRUCK	15 FORD F450 4X2 FLATBED (LEASED)
DUMP TRUCK	07 INT'L DUMP TRUCK - AIR BRAKES
DUMP TRUCK	08 Int'l Dump Truck 4300 4x2, 10'Bed, 7yd cap.
	06 45FT PLACER BUCKET
BACKHOE	06 JD310SG 4X4 BACKHOE
BACKHOE	06 JD310SG 4X4 BACKHOE
MINI EX	06 KUBOTA MINI EX
DITCH WITCH	05 DITCH WITCH TRENCHER
WELDER	99 WELDER MILLER
TRAILER/WELDER	95 BUTLER WELD TRAILER
TRAILER	15 36FT ENC PACE TRAILER
TRAILER	15 36FT ENC PACE TRAILER
TRAILER	96 TOP LINE TRAILER
TRAILER	00 CUSTOM 10FT TRAILER
TRAILER	05 Hooper 25FT Equipment Trailer
TRAILER	06 Hudson HTD Equipement Trailer
TRAILER	11 PJ Tilt Equipment Trailer
TRAILER	14 TAIBERT EQ TRAILER
TRAILER	98 MASTER REEL TRAILER
TRAILER	01 PACE CARGO TRAILER
TRUCK	11 FORD F150 XLT
MULE	17 KAVVASKI MULE
	Sterling Driller
TRUCK	17 FORD F250 4X4 (LEASED)
TRAILER	18 28FT ENCLOSED TRAILER
TRUCK	19 Ford F350 4 x 4
TRUCK	19 Ford F350 4 x 4
TRUCK	19 Ford F350 4 x 4
TRUCK	19 Ford F350 4 x 4
TRAILER	20 28' Enclosed Trailer
TRAILER	20 28' Enclosed Trailer
TRAILER	20 28' Enclosed Trailer
WELDER	Miller 400 Welder on trailer TRL-30525
TRUCK	19 Dodge Ram 4500
TRAILER	2021 VCM Enclosed Trailer
TRUCK	21 Ford Truck F550 Flatbed
TRUCK	21 Ford Truck Ford 150 XL
TRAILER	21 Enclosed Cargo Trailer
TRUCK	21 Ford Truck F150 Crew Cab
TRAILER	22 Utility Trailer w/ welder WEL-30519
TRUCK	21 Chev Truck Silverado 1500
TRUCK	22 Dodge Ram 3500
TRUCK	21 Dodge Ram 1500

TRUCK	20 Ford Ranger
TRUCK	22 Ford F250
TRUCK	22 Ford F250
TRAILER	88 Pettibone B68
TRAILER	82 Great Dane Van Trailer
TRAILER	16 ASPIRING TRAILER 6X12
TRUCK	ECSOURCE TRUCK LEASED
TRUCK	ECSOURCE TRUCK LEASED/2017 F150
TRUCK	15 Ford F 250 Leased
TRUCK	ECSOURCE TRUCK LEASED
TRUCK	FORD F150 (#468)

State of Florida

Department of State

I certify from the records of this office that ENERGY ERECTORS, INC. is a corporation organized under the laws of the State of Florida, filed on February 12, 2001, effective February 24, 1993.

The document number of this corporation is P01000016220.

I further certify that said corporation has paid all fees due this office through December 31, 2022, that its most recent annual report/uniform business report was filed on April 16, 2022, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Third day of August, 2022*




Secretary of State

Tracking Number: 6605640679CU

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>



Ron DeSantis, Governor

Halsey Beshears, Secretary



STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ELECTRICAL CONTRACTORS LICENSING BOARD

THE ELECTRICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

KANGAS, JASON

ENERGY ERECTORS, INC
31588 PROGRESS ROAD
LEESBURG FL 34748

LICENSE NUMBER: EC13004074

EXPIRATION DATE: AUGUST 31, 2022

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.





**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

ELECTRICAL CONTRACTORS LICENSING BOARD
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto www.myfloridalicense.com. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!



STATE OF FLORIDA DEPARTMENT
OF BUSINESS AND PROFESSIONAL
REGULATION

EC13004074
CERTIFIED ELECTRICAL CONTRACTOR
KANGAS, JASON
ENERGY ERECTORS, INC

ISSUED: 05/29/2020

Signature
LICENSED UNDER CHAPTER 489, FLORIDA STATUTES
EXPIRATION DATE: AUGUST 31, 2022

Ron DeSantis, Governor

Halsey Beshears, Secretary

**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ELECTRICAL CONTRACTORS LICENSING BOARD**

LICENSE NUMBER: EC13004074

EXPIRATION DATE: AUGUST 31, 2022

THE ELECTRICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

KANGAS, JASON
ENERGY ERECTORS, INC
31588 PROGRESS ROAD
LEESBURG FL 34748



ISSUED: 05/29/2020

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

THIS CERTIFIES THAT

MasTec, Inc.

* Nationally certified by the: **NATIONAL MINORITY SUPPLIER DEVELOPMENT COUNCIL, INC.[®]**

and its Growth Initiative

*NAICS Code(s): 237110:237120:237130:334220

* Description of their product/services as defined by the North American Industry Classification System (NAICS)

03/31/2022

Issued Date

US0002

Certificate Number

12/31/2022

Expiration Date

CEO and President, Ying McGuire

By using your password (NMSDC issued only), authorized users may log into NMSDC Central to view the entire profile: <http://nmsdc.org>

Certify, Develop, Connect, Advocate.

* This MBE is certified by an Affiliate of the National Minority Supplier Development Council, Inc.[®]





March 31, 2022

Mr. Jose Mas
CEO
MasTec, Inc.
800 Douglas Road, 12th Floor
Coral Gables, FL 33134

Dear Mr. Mas,

Congratulations! Your recent certification as a minority-public company (MPC) by NMSDC's Growth Initiative program has been approved.

The Growth Initiative certification was created to provide an opportunity for MBEs to scale while maintaining the leverage of their certification. By leveraging the growth initiative, your firm has demonstrated its ability to become a Tier I supplier. Should any aspect of ownership, board of directors or management of the company change, you are obligated to notify NMSDC immediately so we can determine the eligibility of your firm to meet the requirements of the MPC certification.

Attached is your certificate that will expire on December 31, 2022. You will be notified 90 days prior to the expiration date of your MPC recertification.

Please contact Constance Y. Jones, Senior Director, Field Services, at (212) 944-2430 should you have any questions regarding your certification.

Sincerely,

Ying McGuire
CEO and President