SOLICITATION

FOR PARTICIPATION IN

STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS

FOR

JACKSONVILLE, FL

SOLICITATION NUMBER 113-15

MANDATORY PRE-RESPONSE MEETING IN PERSON OR TELECONFERENCE

PRE-RESPONSE MEETING DATE: APRIL 19, 2016
PRE-RESPONSE MEETING TIME: 10:00 AM

PRE-RESPONSE LOCATION: JEA, 21 WEST CHURCH STREET, JACKSONVILLE, FL 32202

PRE-RESPONSE TELECONFERENCE DIAL IN NUMBER: 1.888.714.6484

PARTICIPATION CODE: 817050

RESPONSES ARE DUE ON MAY 10, 2016 BY 12:00 PM
AT JEA CUSTOMER
CENTER, 21 WEST CHURCH STREET, CUSTOMER CENTER
1ST FLOOR, ROOM 002, JACKSONVILLE, FL 32202

JEA WILL OPEN RESPONSES ON May 10, 2016 AT 2:00 PM AT JEA CUSTOMER
CENTER, 21 WEST CHURCH STREET, CUSTOMER CENTER
1ST FLOOR, ROOM 002, JACKSONVILLE, FL 322022

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1. SOLICITATION

1.1. INVITATION

1.1.1. SCOPE OF WORK

The Substation Material Packager Company (the "Company") will be contracted to provide structures and materials and other Engineered Equipment for future JEA substation projects, and/or small transmission projects that are incidental to substation projects. The Company shall then perform and provide as a single source of responsibility for all design, detailing, documentation, procurement, manufacturing, galvanization, scheduling, selections of equipment and materials, project management and associated services for complete ready-to-install set of substation structures and materials to allow JEA to construct improvements to the JEA electric system.

JEA intends to Award a Contract to the highest ranked Respondent to provide the following services of Material Procurement through Delivery for substation and transmission projects to JEA:

- Project Administration
- Material Procurement
- Manufacturing
- Fabrication
- Inspection
- Testing
- Storage (Marshalling)
- Delivery
- Staging
- Installation Support
- Project Closeout

During the Term of Contract, JEA will assign work on an as needed basis for individual projects. Additionally, where Design and Engineering scopes exceed the requirements of Florida Statute 287.055 for CCNA, these projects will be solicited independently of this contract in accordance with CCNA requirements.

This is a Five (5) year, fixed price contract, with Consumer Price Index (CPI) price adjustment annually.

A complete scope of work is provided in the attached Appendix A.

1.1.2. INVITATION TO NEGOTIATE

You are invited to submit a Response in response to the Invitation to Negotiate noted below:

Invitation to Negotiate (ITN) Title: STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS

To obtain more information about this ITN:

Download a copy of the Solicitation, PDF quality drawings (if applicable, and any required forms at jea.com.

JEA ITN Number: 113-15

Response Due Time: 12:00 P.M. - **ALL LATE RESPONSES WILL BE RETURNED UNOPENED.**

Response Due Date: May 10, 2016

All Responses must reference the ITN Title and Number noted above. All Responses must be made on the appropriate forms as specified within the ITN and placed in an envelope marked to identify the ITN and delivered or mailed to:

JEA Procurement, Bid Office, 21 West Church Street, Customer Center 1st Floor, Room 002, Jacksonville, FL 32202

The Respondent shall be solely responsible for delivery of its Response to the JEA Bid Office. **Please note, JEA employs a third party courier service to deliver its mail from the local U.S. Post Office (USPS) which could cause a delay of Response delivery if mailed through the USPS.** Therefore, JEA recommends direct delivery to the JEA Bid Office. Reliance upon the USPS, the courier service employed by JEA to make pick-ups from the local USPS, or public carriers is at the Respondent's risk.

Responses are due by the time and on the date listed above. **ALL LATE RESPONSES FOR WHATEVER REASON WILL BE RETURNED UNOPENED.**

1.1.3. OPENING OF RESPONSES

All Responses received shall be publicly announced and recorded at 2:00 PM on May 10, 2016 in the JEA Bid Office, 21 W. Church Street, Customer Center 1st Floor, Room 002, Jacksonville, FL 32202. At the opening of Responses, a JEA representative will publicly open each Response that was received prior to the due date and time, except for those Responses that have been properly withdrawn. JEA has the right to waive any irregularities or informalities in the Responses.

1.1.4. QUESTIONS

All questions must be submitted in writing to the JEA Buyer listed below at least five (5) business days prior to the opening date. Questions received within five (5) business days prior to the opening date will not be answered.

For Procurement Related Questions:
Buyer: RODNEY LOVGREN
E-mail: LOVGRD@JEA.COM

For Technical Questions:
Contact: RYAN SZOKE
E-mail: SZOKRM@JEA.COM

1.1.5. MANDATORY PRE-RESPONSE MEETING

There will be a mandatory Pre-Response meeting / Teleconference. All interested Respondents must attend the Pre-Response meeting in person or by telephone. Each Respondent will be required to sign in at the beginning of the meeting or have their attendance taken by the purchasing agent. A Respondent shall only sign in representing one company, unless otherwise specified by JEA. Respondents not attending the Pre-Response meeting shall have their Responses rejected returned unopened.

Respondents shall be on time to the Pre-Response meeting and Respondents must be present at the starting time of the meeting. Respondents not arriving on time for the meeting will have their Responses rejected and returned unopened.

Those attending by Telephone should email their; Name, Company Name, email address and Phone number in 24 hours prior to the meeting to facilitate roll call.

PLEASE BE AWARE DUE TO JEA SIGN IN AND/OR SECURITY PROCEDURES IT MAY TAKE UP TO FIFTEEN MINUTES TO OBTAIN ACCESS TO A JEA FACILITY. PLEASE PLAN ACCORDINGLY SO AS TO ARRIVE TO THE PRE-RESPONSE MEETING ON TIME.

Pre-Response Meeting Time: 10:00 AM

Pre-Response Meeting Date: April 19, 2016

Pre-Response Location: JEA, 21 WEST CHURCH STREET, JACKSONVILLE, FL 32202

1.1.6. OPENING OF RESPONSES

All Responses shall be publicly opened, read aloud and recorded at 2:00 PM on May 10, 2016 at the JEA Bid Office, 21 W. Church Street, Customer Center 1st Floor, Room 002, Jacksonville, FL 32202.

At the opening of Responses, a JEA Representative will publicly open and announce each Response that was received on time. Responses that have been properly withdrawn will not be opened. JEA has the right to waive any irregularities or informalities in the Response Document.

1.2. SPECIAL INSTRUCTIONS

1.2.1. MINIMUM QUALIFICATIONS FOR SUBMISSION

Respondent shall have the following Minimum Qualifications to be considered eligible to submit a Response in response to this Solicitation. **A Minimum Qualification Form which is required to be submitted with the Response Form is provided in Appendix B of this Solicitation.**

It is the responsibility of the Respondent to ensure and certify that it meets the Minimum Qualifications stated below. A Respondent not meeting all of the following criteria will have their Responses rejected:

- The Respondent shall have successfully self-performed three (3) similar projects in the past five (5) years, date ending January 31, 2016.
    - A similar project is considered to be a structure and material package project for a substation or transmission system of greater than $1,000,000 in value per project. Additionally, each project shall have contained the following project elements:
        - Fabrication or manufacturing of Engineered Equipment for substation or transmission structures
        - Staging (Marshalling of equipment to support construction schedule)
        - Inspection and test of design package

Please note, any Respondent whose contract with JEA was terminated for default within the last two (2) years shall have their Response rejected.

1.2.2. EVALUATION METHODOLOGY

1.2.2.1. EVALUATION AND NEGOTIATION PROCESS (ITN)

JEA intends to select a short list (the "Short-list") with which to commence negotiations. A selection committee (the "Selection Committee") will be appointed by the Chief Procurement Officer (CPO), or his designee, to review and evaluate each Response submitted for this ITN. The CPO's office will distribute to each member of the Selection Committee a copy of each Response and members of the Selection Committee will individually rank the Respondents using the Selection Criteria described in Section 1.2.3. JEA will use this ranking to develop the Short-list.

Prior to developing the Short-list, JEA may request that a Respondent provide additional information to clarify its submitted Response. JEA will NOT allow Respondents to change the projects submitted as past projects for purposes of meeting minimum qualifications. However, JEA may request clarification of the submitted documentation so that JEA may make an accurate assessment in developing the Short-list. JEA must be satisfied that the successful Respondent has the necessary technical expertise, experience, and resource capabilities to satisfactorily perform the Work described in this ITN.

JEA may elect to make an Award based on the Selection Committee's evaluation, if JEA deems that the submitted Responses demonstrate adequate competition, compliance and responsiveness to the Solicitation without presentations and negotiations or JEA may elect to proceed with negotiations with the Short–list.
If a Short-list is developed, the CPO, or his designee, will appoint a "Negotiating Team" to negotiate with one or more of the Short-listed Respondents. The "Negotiation Team" may be comprised of the same individuals as were members of the Selection Committee. Respondents are cautioned to propose their best possible offers in their initial Responses as failing to do so may result in them not being selected to proceed to negotiations. JEA reserves the right to negotiate concurrently or separately with Short-listed Respondents. JEA reserves the right to seek clarifications, to request Response revisions, and to request any information deemed necessary for proper evaluation of Responses. JEA reserves the right to incorporate value added services or industry standard innovations recommended by a Respondent into the scope of work required by the Contract.

A Short-listed Respondent may be required, at the sole option of JEA, to make an oral presentation, provide additional written clarifications to its Response, or JEA may require site visits to Respondent's facilities. Oral presentation hand-outs and written clarifications will be attached to the Respondent's Response and become a part of the Response as if originally submitted.

As a part of the Short-Listed Respondent presentation process, JEA may request the Respondent to cycle through a sample mailing process; demonstrating actual Letter, Postcard and bill mail delivery times from the proposed facility. If JEA elects to have Short Listed Respondents Present, after the presentations, JEA allow the evaluators review the Design Approach and revise scores, based on any presentation information. Additionally, each evaluator may add up to an additional 10 Points may be awarded to each Respondent for consideration in final ranking.

As a part of the negotiation process, JEA may contact the references provided to obtain independent verification of the information provided in the Response and to assess the extent of success of the projects associated with those references. JEA also reserves the right to contact references not provided by Respondents. Respondents may be requested to provide additional references. The results of the reference checking may influence the final negotiation and Award recommendation.

After the written clarifications, oral presentations and site visits, and any other negotiations deemed by JEA to be in its best interest. Short-listed Respondents will be given a deadline for submission of a "best and final" offer ("Best

and Final Offer"). The negotiation process will stop upon submission of the "Best and Final" offers and Respondents will not be allowed to make further adjustments to their offers or communicate further with JEA, except to respond to requests for clarification from the Negotiating Team. The Negotiating Team will develop final rankings, based on the Best and Final Offers. JEA does not anticipate reopening negotiations after receiving the Best and Final Offers, but reserves the right to do so if it believes doing so will be in the best interests of JEA. In the event that JEA reopens negotiations, any final rankings will be revised accordingly.

Negotiations will not be open to the public, but will be recorded. All recordings of negotiations and any documents and other materials presented at negotiation sessions are public record and can be released pursuant to a public records request after a notice of an intended decision is posted or thirty (30) days after the opening of the Responses, Best and Final Offers or final replies, whichever occurs earlier.

The Award recommendation of the Negotiating Team will be based upon the scoring of Best and Final Offers using the selection criteria described in Section 1.2.3 of this Solicitation. The Respondent with highest score will be submitted to the CPO for review before being recommended to the JEA Awards Committee for approval.

In its sole discretion, JEA reserves the right to withdraw this ITN either before or after receiving responses, to reject any and all responses either in whole or in part, with or without cause, to waive any ITN requirement informalities, deficiencies, in any response, and determine the qualifications and acceptability of any party or parties submitting responses to this ITN, if JEA determines such action is in the best interest of JEA. Issuance of the ITN in no way constitutes a commitment by JEA to make an Award.

Solicitation Schedule

ITN Step	Expected Lead time (Duration)
Issue Solicitation	**April 12, 2016**
Optional Pre-Response meeting (teleconference or in person)	April 19, 10:00 AM
Response Due Date	May 10, 2016
Distribute Responses to Selection Committee	1 Day
Develop Short-list – evaluate all Responses	15 business days (to run parallel to the minimum qualifications reference check)
Announce - Short-list provide current ranking	2 business day
Negotiation phase – if required	10 business days
Issue to Short-list a list of observations and concerns to address in the best and final submission – if required	1 business days
Short-listed Respondents prepare and submits Best and Final Offer	5 business days
Receive Best and Final Offers	1 day
Evaluate and determine final ranking	1 day

** Note the Durations listed above are subject to change **

1.2.2.2 ALTERNATE PROVISIONS AND CONDITIONS

Responses that contain provisions that are contrary to requirements found in this ITN, including, but not limited to, the Contract Terms and Conditions contained in Section 2 of this ITN, and any requirements found in the Technical Specifications attached as Appendix A to this ITN, are not permitted. If a Respondent has any questions or requests for changes to the requirements or terms and conditions of this ITN, such questions and requests shall be in writing and received by JEA at least five (5) business days prior to the date set by JEA for the opening of Responses. Including alternate provisions or conditions in a Response may result in the Response being deemed non-responsive to the ITN and disqualification of the Respondent (even if the highest evaluated). However, as this is an ITN, JEA reserves the right to negotiate the best terms and conditions if determined to be in the best interests of JEA.

In submitting a Response, a Respondent agrees to be bound by the Contract Terms and Conditions contained in Section 2 of this ITN. Respondents should assume that those terms will apply to the Contract, but JEA reserves the right to negotiate different terms and related price adjustments if JEA determines that it provides the best value to JEA.

1.2.3. COMPETITIVE SEALED RESPONSES

JEA will use the "Selection Criteria" listed below to evaluate the Responses. JEA may make its Award decision based solely upon the information submitted in the Responses. JEA may also choose to have one or more Respondent make presentations to representatives of JEA. It is always in the best interest of the Respondent to provide informative, concise, well-organized technical and business information relative to the Work, in both the initial submittal of its Response and in any subsequent submittals. **Please note, JEA may reject Responses that request material changes or take exceptions to JEA commercial terms and conditions.** Material changes to the commercial terms and conditions can only be made by JEA prior to public opening of the Responses.

1.2.4. SELECTION CRITERIA

1.2.4.1. QUOTATION OF RATES – 35 POINTS

Respondent shall provide its Total Bid Price, to perform the Work identified in the Technical Specifications by completing the Appendix B - Quotation of Rates on the Response Form. The Respondent's Total Bid Price shall be all inclusive and shall include all profit, taxes, benefits, travel, warehouse handling marshalling, and all other overhead items.

The various materials, services, and markups shown on the Response Form are further defined in Section 6 of the Technical Specifications in Appendix B. The Respondent should also consider the following when quoting its rates:

- The quantities that are shown on the Quotation of Rates Workbook are not intended to represent a "typical project", and therefore, the Respondent shall not assume that this particular distribution of quantities is representative of typical projects to be awarded under this Contract. The Respondent must list the Prices on the Quotation of Rates Workbook with the understanding that pricing is subject to adjustment based on the indexes and procedures stated in Solicitation and the Technical Specifications.

- Shipping Costs: All shipping costs are to be paid separately to the Respondent on a straight-pass-through basis without any markup. If the Respondent is the shipper, this straight-pass-through basis of payment will be strictly adhered to, shall be subject to audit, and shall be competitive with similar commercial services. JEA reserves the right to self-arrange shipping.

1.2.4.2. PAST PERFORMANCE - 27 POINTS

The Respondent shall provide information regarding three (3) similar projects completed in the past ten (10) years. The Respondent may use projects submitted in the Minimum Qualifications in this Section.

Each project should at a minimum list the following:

- Name of client/customer with contact information that should include:
  - Name and title of contact person

- Phone number and email address.
- Project Title
- Project Cost

- Brief project description (no more than two (2) pages), which should describe Respondent's approach in the following areas:
  - Expertise & approach for Substation Packagers.
  - Development of the Project Management Approach use on the JEA contract/project.
  - The Company's approach to meeting timeline, budgetary goals and delivery of substation packages

The JEA technical leads shall review and evaluate the submissions by the Respondents in response to the request information on the individual Response forms. The lead evaluator may call each submitted reference and ask questions regarding performance in project. The Lead Evaluator will then provide the responses to each evaluator to aid in their evaluation of this category.

1.2.4.3. MANUFACTURING PERSONNEL AND EQUIPMENT RESOURCES - 17 POINTS

Respondent shall provide the information requested on the Appendix B Response Form for review and evaluation in response to this section. The forms that shall be completed and submitted with the Response for this section are as follows:

- Staff Resources Form – Manufacturing & Other Craft
- Total Equipment Resources Form - Manufacturing

1.2.4.4. ABILITY TO PERFORM WORKPLANS - 10 POINTS

Respondent shall provide in free form format a "SURVEY OF PROJECT ABILITY". The specific instructions and documentation requested, to be provided by the Respondent will be graded on how well the Respondent executes the sample project. The Attachment D (sample project documentation) for the Survey of Project Ability is provided with this solicitation. The Respondent shall demonstrate in their Response (sample project), providing at a minimum the following documentation, schedules and drawings for the project where;

- That JEA shall procure all large, long lead-time items: All Power and Station Service Transformers, High Voltage and Medium Voltage Circuit Breakers, and all Protection and Control components that typically are installed into the control building or control cabinets of Large Equipment Items (Relays and Panels, Communications Equipment) in a manner that will support the Project in-service date.
- That the project construction commencement date is June 1, 2016, and the in-service date is March 1, 2017.
- Substation One-Line Diagram
- Substation Proposed Arrangement Drawing (Plan and Elevation)
- Project Schedule

Additional information regarding submission format, electronic requirements are described in the Instructions on the Response Form.

1.2.4.5. PROXIMITY 6 POINTS

Respondent shall provide the information requested on the Appendix B Response Form for review and evaluation in response to this section. The forms that shall be completed and submitted with the Response for this section are as follows:

- Proximity to JEA Form

1.2.4.6. JACKSONVILLE SMALL AND EMERGING BUSINESS (JSEB) - ITN

Maximum score for this criterion is: 5 POINTS

Bidder/Respondent shall indicate if it is certified as a Jacksonville Small and Emerging Business (JSEB) as defined by Jacksonville Ordinance 2004-602; Chapter 126, Part 6A and 6B.

If Bidder/Respondent is not a certified JSEB, the Bidder/Respondent shall list any JSEB certified subcontractors that it intends to utilize in the performance of this Work. The listing should include names of the JSEBs, the type of service they will provide, and the percentage of work being subcontracted. Points will be awarded based on the type and amount of work that will be conducted by JSEB firms.

The points will be awarded as follows:

Bidder/Respondent is a COJ/JEA certified JSEB = 5 pts;

Bidder/Respondent is not a JSEB but will subcontract Work to JSEBs:

Non-JSEB with JSEB partner:

Greater than or equal to 5% of work = 4 pts

Greater than or equal to 3%, but less than 5% of work = 3 pts

Greater than or equal to 2%, but less than 3% of work = 2 pts

Greater than or equal to 1%, but less than 2% of work = 1 pt

1.2.4.7. TIE

Ties shall be handled in accordance with Section 8.2 of JEA's Operational Procedures. The Operational Procedures are available online at jea.com.

1.2.5. NUMBER OF CONTRACTS TO BE AWARDED

JEA intends to Award ONE (1) Contract for the Work. JEA may exclude certain Work items, if JEA determines that it is in its best interest to do so.

1.2.6. JACKSONVILLE SMALL AND EMERGING BUSINESS (JSEB) PROGRAM REQUIREMENTS

1.2.6.1. OPTIONAL USE OF JACKSONVILLE SMALL AND EMERGING BUSINESS (JSEB) PROGRAM

It is at the Company's option as to whether it chooses to subcontract to a JSEB firm. JEA encourages the use of JSEB qualified firms; however, the Company is not required to utilize JSEB firms to be Awarded this Contract.

JSEB firms that qualify for this Contract are only those shown on the current City of Jacksonville JSEB directory appearing at www.COJ.net. Certification of JSEB firms must come from the City of Jacksonville. No other agency or organization is recognized for purposes of this Contract.

In no case shall the Company make changes to the JSEB firms listed in its Response, revise the JSEB Scope of Work or amount of Work as stated in its Response without prior written notice to the JEA Contract Administrator, and without subsequent receipt of written approval for the JEA Contract Administrator.

Any subcontractors of Company shall procure and maintain the insurance required of Company hereunder during the life of the subcontracts. Subcontractors' insurance may either be by separate coverage or by endorsement under insurance provided by Company. Note: Any JSEB firms identified by Respondents for this Solicitation are considered "Subcontractors" under the direct supervision of the Prime or General Contractor (herein referred to as Company in this Solicitation). Companies should show good faith efforts in providing assistance to JSEB firms in the securing of Subcontractors' insurance requirements stated in this section. Company shall submit subcontractors' Certificates of Insurance to JEA prior to allowing subcontractors to perform Work on JEA's job sites.

All question and correspondence concerning the JSEB program should be addressed to the following contact:

G. Nadine Carswell
JSEB Manager
JEA
21 W. Church Street, CC-6
Jacksonville, FL 32202
(904) 665-6257
carsgs@jea.com

1.2.7. INSURANCE REQUIREMENTS

Prior to JEA issuing a Purchase Order to the Respondent to begin the Work or Services, the Respondent shall submit a certificate of insurance (COI) that is in compliance with amounts and requirements as indicated in the Section herein entitled "Insurance Requirements". **Note that the COI shall specifically indicate JEA (and Florida Power and Light Company ("FPL"), if applicable) as additional insured(s) on all required insurance except Worker's Compensation and Professional Liability (if applicable). Furthermore, waiver of subrogation shall be provided for all required insurance in favor of JEA, FPL (if applicable), including their board members, officers, employees, agents, successors, and assigns.**

1.2.8. SAFETY QUALIFICATION REQUIREMENTS (ITN)

Respondent shall be approved as JEA Safety Qualified within ten (10) business days of receiving written notice from the JEA Response Office that it is the lowest responsive and responsible Respondent. If the Respondent fails to obtain JEA approval as a JEA Safety Qualified company by 4:00 p.m. Eastern time on the 10th business day, JEA will reject the company's Response, and proceed to Award to the next lowest responsive and responsible Respondent.

JEA Safety Qualification information is available online at jea.com. Please note that it may take up to five (5) business days for a company to be approved as JEA Safety Qualified. It is the Respondent's responsibility to ensure it is JEA Safety Qualified. A list of the JEA's Safety Qualified vendors can be found on jea.com. For additional information, contact Jerry Fulop at (904) 665-5810.

1.2.9. TIME

In computing any period of time prescribed or allowed by this solicitation, the day of the act, event, or default from which the designated period of time begins to run shall not be included. The last day of the period so computed shall be included unless it is a Saturday, Sunday, or JEA holiday, in which event the period shall run until the end of the next day which is neither a Saturday, Sunday, or JEA holiday.

1.2.10. REQUIRED FORMS TO SUBMIT WITH RESPONSE

To submit a Response in response to this Solicitation, all of the forms listed below must be completed and submitted as part of the Response. The Respondent must obtain the required forms, other than the forms provided in the solicitation, by downloading them from JEA.com. If the Respondent fails to complete or fails to submit one or more of the required forms, the Response shall be rejected.
The following forms are required to be submitted at the time of Response:

- Response Form (including acknowledgements of all addenda) - This form can be found in Appendix B
- Response Workbook (Quotation of rates)- This form can be found in Appendix B
- Minimum Qualifications Form - This form can be found in Appendix B
- List of JSEB Certified Firms (if any)
- List of Subcontractors/Shop Fabricators (if any)
- State of Florida license number

If the above listed forms are not submitted with the Response by the Response Due Time on the Response Due Date, JEA shall reject the Response.

JEA also requires the following documents to be submitted prior to execution of Contract. A Response will not be rejected if these forms are not submitted at the Response Due Time and Date. However, failure to submit these documents at the time of Contract execution could result in Response rejection.

- Conflict of Interest Certificate Form
- Insurance Certificate
- W-9
- Evidence of active registration with the State of Florida Division of Corporations (www.sunbiz.org)
- Any technical submittals as required by the Technical Specifications.

1.3. GENERAL INSTRUCTIONS

1.3.1. ADDENDA

JEA may issue Addenda prior to the Response opening date to revise, in whole or in part, or clarify the intent or requirements of the Solicitation. The Respondent shall be responsible for ensuring it has received all Addenda prior to submitting its Response and shall acknowledge receipt of all Addenda by indicating where requested on the Response Form. JEA will post all Addenda when issued online at jea.com. The Respondent must obtain Addenda from the JEA website. All Addenda will become part of the Solicitation and any resulting Contract Documents. It is the responsibility of each Respondent to ensure it has received and incorporated all Addenda into its Response. Failure to acknowledge receipt of Addenda may be grounds for rejection of a Response.

1.3.2. COMPLETING THE RESPONSE DOCUMENTS

Respondent shall complete and submit its Response with responses typewritten or written in ink. ALL RESPONSES SUBMITTED LATE TO THE JEA BID OFFICE WILL BE REJECTED.

When a blank is marked "optional" on the Response Form, the Respondent shall insert the words "No Price" in the space provided if the Respondent does not choose to submit a price for that item. Failure to complete each blank with either a price or the words "No Price" may disqualify the Response. The Respondent, or its authorized agent or officer, shall sign the Response. Failure to sign the Response may disqualify the Response. JEA approved erasures, interlineations or other corrections shall be authenticated by affixing in the margin, immediately opposite the correction, the handwritten signature of each person executing the Response. Failure to authenticate changes may disqualify the Response. JEA may disqualify any Responses that deviate from the requirements of this Solicitation, and those that include unapproved exceptions, amendments, or erasures.

1.3.3. SUBMITTING THE RESPONSE

The Respondent shall submit one (1) original of the Response, two (2) duplicates of the original and one (1) CD or thumb drive of the original Response. It is encouraged that all submitters include an electronic version with their hardcopy submittal.

JEA will not accept Responses transmitted via email. If electronic copies of the Response are submitted, they must be submitted on a CD or thumb drive with the hardcopies of the Response.

1.3.4. CALCULATION OF THE RESPONSE PRICE

JEA will use the Respondent's Total Response Price stated on the Response Form when making price comparisons for Award purposes.

1.3.5. SHIPPING, FREIGHT, AND TRAVEL--F.O.B. DESTINATION

The Respondent shall include the price for travel, in its pricing shown on the Response Form or Response Workbook unless otherwise stated herein. The shipment of all materials shall be F.O.B. Destination.

If the Solicitation allows for travel expenses to be billed separately, then all Respondents' travel expenses will be reimbursed in accordance with JEA's Contractor Travel Policy.

For The Shipment of Materials and Equipment the Shipping instructions provided in the Technical Specifications shall apply. Materials and Shipping shall be at Companies cost with no mark-up. Documentation and detailing of invoicing shall be in accordance with the invoicing instructions in the solicitation and as otherwise further detailed by the Technical Specifications.

1.3.6. MATHEMATICAL ERRORS

In the event of a mathematical error in calculation of the prices entered on the Response Form, the Unit Prices will prevail. The corrected Response Price utilizing the Unit Prices will be used to determine if the Company is Awarded the Work or the Services. Subsequently, the Unit Prices will be used throughout the term of the Contract.

1.3.7. CONFLICT OF INTEREST

A person or company who receives a Contract which was not procured pursuant to public bidding procedures to perform a feasibility study, or who participated in the drafting of an invitation to Response or request for Responses, or who developed a program for future implementation shall not be eligible to contract with JEA for any other contracts dealing with that specific subject matter.

Should JEA erroneously Award a Contract in violation of this policy, JEA may terminate the Contract at any time with no liability to Respondent, and Respondent shall be liable to JEA for all damages, including but not limited to the costs to re-solicit the Work. The purpose of this policy is to encourage the submittal of Responses and eliminate any actual or perceived advantage that one Respondent may have over another.

1.3.8. CONTRACT EXECUTION AND START OF WORK

Within thirty (30) days from the date of Award, JEA will present the successful Respondent with the Contract Documents. Unless expressly waived by JEA, the successful Respondent shall execute a Contract for the Work or Services within ten (10) days after receiving the Contract from JEA. If the Respondent fails to execute the Contract or associated documents as required, or if it fails to act on a JEA-issued Purchase Order (PO), JEA may cancel the Award with no further liability to the Respondent, retain the Response security or bond (if applicable), and Award to the next-ranked company.

Upon JEA's receipt of the executed Contract, certificate of insurance, and recorded Payment and Performance bonds (if applicable), JEA will issue a PO, in writing and signed by an authorized JEA representative as acceptance of the Response and authorization for the company to proceed with the Work, unless otherwise stated in the Contract or PO.

1.3.9. DEFINED TERMS

Words and terms defined in the Section entitled "Definitions" of this document are hereby incorporated by reference into the entire document.

1.3.10. EX PARTE COMMUNICATION

Ex Parte Communication is strictly prohibited. Ex Parte Communication is defined as any inappropriate communication concerning a Solicitation between a firm submitting a Response and a JEA representative during the time in which the Solicitation is being advertised through the time of Award. Examples of inappropriate communications include: private communications concerning the details of Solicitation in which a Respondent becomes privy to information not available to the other Respondents. Social contact between Respondents and JEA representatives should be kept to an absolute minimum during the solicitation process.

Failure to adhere to this policy will disqualify the noncompliant Company's Response. Any questions or clarifications concerning a Solicitation must be sent in writing via email to the JEA Buyer at least five (5) business days prior to the opening date. If determined by JEA, that a question should be answered or an issue clarified, JEA will issue an addendum to all Respondents.

For more information on Ex Parte communications, see JEA Procurement Code, Article 1-110, which is available at www.jea.com.

1.3.11. JEA PUBLICATIONS

Applicable JEA publications are available at jea.com.

1.3.12. PROHIBITION AGAINST CONTINGENT FEES

The Company warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Company, or an independent sales representative under contract to the Company, to solicit or secure a contract with JEA, and that it has not paid or agreed to pay any person, company, corporation, individual or Company, other than a bona fide employee working solely for the Company, or an independent sale representative under contract to the Company, any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the Award or making of the Contract. For a breach or violation of these provisions occurs, JEA

shall have the right to terminate the Contract without liability, and at its discretion, to deduct from the Contract Price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

1.3.13. RESERVATIONS OF RIGHTS TO JEA

The Solicitation provides potential Companies with information to enable the submission of written offers. The Solicitation is not a contractual offer or commitment by JEA to purchase products or services.

Responses shall be good for a period of ninety (90) days following the opening of the Responses.

JEA reserves the right to reject any or all Responses, or any part thereof, and/or to waive informalities if such action is in its best interest. JEA may reject any Responses that it deems incomplete, obscure or irregular including, but not limited to, Responses that omit a price on any one or more items for which prices are required, Responses that omit Unit Prices if Unit Prices are required, Responses for which JEA determines that the Response is unbalanced, Responses that offer equal items when the option to do so has not been stated, Responses that fail to include a Response Bond, where one is required, and Responses from Companies who have previously failed to satisfactorily complete JEA contracts of any nature or who have been scored by JEA as "Unacceptable" and as a result, are temporarily barred from Proposing additional work.

JEA reserves the right to cancel, postpone, modify, reissue and amend this Solicitation at its discretion.

JEA reserves the right to cancel or change the date and time announced for opening of Responses at any time prior to the time announced for the opening of Responses. JEA may Award the Contract in whole or in part. In such cases whenever JEA exercises any of these reservations, JEA will make a commercially reasonable effort to notify, in writing, all parties to whom Solicitations were issued. JEA may award multiple or split Contracts if it is deemed to be in JEA's best interest.

1.3.14. SUNSHINE LAW

General

Article I, Section 24, Florida Constitution, guarantees every person access to all public records and Chapter 119, Florida Statutes, provide a broad definition of public records. JEA is a body politic and corporate and subject to these laws and related statutes ("Florida's Public Records Laws"). All responses to this Solicitation are public records and available for public inspection unless specifically exempt by law.

Redacted Submissions

If a Respondent believes that any portion of the documents, data or records submitted in response to this Solicitation are exempt from Florida's Public Records Law, Respondent must (1) clearly segregate and mark the specific sections of the document, data or records as "Confidential," (2) cite the specific Florida Statute or other legal authority for the asserted exemption, and (3) provide JEA with a separate redacted copy of its response (the "Redacted Copy"). The cover of the Redacted Copy shall contain JEA's title and number for this Solicitation and Respondent's name, and shall be clearly titled "Redacted Copy." Respondent should only redact those portions of records that Respondent claims are specifically exempt from disclosure under Florida's Public Records Laws. If Respondent fails to submit a redacted copy of information it claims is confidential, JEA is authorized to produce all documents, data and other records submitted to JEA in answer to a public records request for such information.

In the event of a request for public records to which documents that are marked as confidential are responsive, JEA will provide the Redacted Copy to the requestor. If a requestor asserts a right to any redacted information, JEA will notify Respondent that such an assertion has been made. It is Respondent's responsibility to respond to the requestor to assert that the information in question is exempt from disclosure under applicable law. If JEA becomes subject to a demand for discovery or disclosure of Respondent's redacted information under legal process, JEA shall give

Respondent prompt notice of the demand prior to releasing the information (unless otherwise prohibited by applicable law.) Respondent shall be responsible for defending its determination that the redacted portions of its response are not subject to disclosure.

By submitting a response to this Solicitation, Respondent agrees to protect, defend and indemnify JEA from and against all claims, demands, actions, suits, damages, liabilities, losses, settlements, costs and expenses (including but not limited to reasonable attorney fees and costs) arising from or relating to Respondent's/Respondent's determination that the redacted portions of its response to this Solicitation are not subject to disclosure.

1.3.15. ESTIMATED QUANTITIES

On the Response Document, JEA sets forth anticipated quantities, or estimates of anticipated purchase volumes by JEA. JEA anticipates that these quantities are reasonable and will not be exceeded. During the Response process, if the Respondent finds any discrepancy greater than ten percent (10%) of the estimated quantity, the Respondent shall notify the JEA Representative in writing of the discrepancy. JEA will check the estimated quantity and if it is found to exceed ten percent (10%) of the estimated quantity, JEA will issue an Addendum to all Respondents.

After Award of the Contract, JEA will make payments upon the actual quantities of Work provided and JEA shall not be obligated, in any way, to pay any amounts for quantities other than those actually provided and authorized under this Contract, regardless of amount stated in the Solicitation. In the event that quantities or scope of work change after Award, the changes to price and/or scope shall be made in accordance with the terms and conditions stated in the Contract Document.

Any item not shown on the Response Document, but shown in the drawings or Technical Specifications section, that is required to perform the Work, or that is required as part of a complete and operable system, shall be included in the Response Price.

1.3.16. ETHICS (ITN)

By signing the Response Form, the Respondent certifies this Response is made without any previous understanding, agreement or connection with any other person, firm, or corporation submitting a Response for the same Work other than as a Subcontractor or supplier, and that this Response is made without outside control, collusion, fraud, or other illegal or unethical actions. The Respondent shall comply with all JEA and City of Jacksonville ordinances, policies and procedures regarding business ethics.

The Respondent shall submit only one (1) Response in response to this Solicitation. If JEA has reasonable cause to believe the Respondent has submitted more than one (1) Response for the same Work, other than as a Subcontractor or subsupplier, JEA shall disqualify the Response and may pursue debarment actions.

The Respondent shall disclose the name(s) of any public officials who have any financial position, directly or indirectly, with this Response by completing and submitting the Conflict of Interest Certificate Form available at jea.com. Failure to fully complete and submit the Conflict of Interest Certificate will disqualify the Response. If JEA has reason to believe that collusion exists among the Respondents, JEA shall reject any and all Responses from the suspected Respondents and will proceed to debar Respondent from future JEA Awards in accordance with the JEA Purchasing Code.

JEA is prohibited by its Charter from awarding contracts to JEA officers or employees, or in which a JEA officer or employee has a financial interest. JEA shall reject any and all Responses from JEA officers or employees, as well as, any and all Responses in which a JEA officer or employee has a financial interest.

In accordance with Florida Statutes Sec. 287.133, JEA shall reject Responses from any persons or affiliates convicted of a public entity crime as listed on the Convicted Vendor list maintained by the Florida Department of Management Services. JEA shall not make an Award to any officer, director, executive, partner, shareholder, employee, member, or agent active in management of the Respondent listed on the Convicted Vendor list for any transaction exceeding $35,000 for a period of thirty-six (36) months from the date of being placed on the Convicted Vendor list.

If the Respondent violates any requirement of this clause, the Response may be rejected and JEA may debar offending companies and persons.

1.3.17. MODIFICATION OR WITHDRAWAL OF RESPONSES

The Respondent may modify or withdraw its Response at any time prior to the Response Due Date and Time by giving written notice to JEA's Chief Procurement Officer. JEA will not accept modifications submitted by telephone, telegraph, email, or facsimile, or those submitted after the Response Due Date and Time. The Respondent shall not modify or withdraw its Response from time of Response opening and for a period of ninety (90) days following the opening of Responses.

1.3.18. AVAILABILITY OF RESPONSES AFTER RESPONSE OPENING

In accordance with the Florida Public Records Law, Florida Statutes, Chapter 119, copies of all Responses are available for public inspection thirty (30) days after the opening of Responses or on the date of Award announcement, whichever is earlier. Respondents may review opened Responses once they are available for public inspection by contacting the designated Buyer or JEA's Public Records custodian whose contact information can be found at jea.com. JEA will post a summary of the Response results immediately after the Response opening.

1.3.19. PROTEST OF RESPONSE AND AWARD PROCESS

Companies shall file any protests regarding this Solicitation in writing, in accordance with the JEA Purchasing Code, as amended from time to time. The JEA Purchasing Code is available online at jea.com.

1.3.20. SAMPLE CONTRACT DOCUMENTS AND FORMS

The reference to and/or inclusion of the sample Contract Documents and other Contract related forms in this Solicitation shall in no way be construed as an Award of the Work, or any portion thereof, or as an intention to award the Work. JEA reserves the right to alter, amend or delete any portion of these forms, to exclude any form, or to require additional forms not listed herein prior to execution of the Contract Documents. The forms are available for reference in the "Public Notices, Response Forms" section of JEA.com.

1.3.21. CERTIFICATION AND REPRESENTATIONS OF THE RESPONDENT

By signing and submitting a Response, the Respondent certifies and represents as follows:

A. That it has carefully examined all available records and conditions, including sites if applicable, and the requirements and specifications of this Solicitation prior to submitting its Response. Where the Respondent visits sites, no Work or other disturbance is to be performed while at the site without written permission by JEA in advance of the site visit. The Respondent shall comply with all safety requirements described in the Solicitation and shall be prepared to show proof of insurance

B. That every aspect of its submitted Response, including the Response Price and the detailed schedule for the execution of the Work, are based on its own knowledge and judgment of the conditions and hazards involved, and not upon any representation of JEA. JEA assumes no responsibility for any understanding or representation made by any of its representatives during or prior to execution of the

Contract unless such understandings or representations are expressly stated in the Contract and the Contract expressly provides that JEA assumes the responsibility.

C. That the individual signing the Response Documents is a duly authorized agent or officer of the firm. Responses submitted by a corporation must be executed in the corporate name by the President or Vice President. If an individual other than the President or Vice President signs the Response, satisfactory evidence of authority to sign may be requested by JEA. If the Response is submitted by a partnership, the Response must be signed by a partner whose title must appear under the signature. If an individual other than a partner signs the Response, satisfactory evidence of authority to sign may be requested by JEA. The corporation or partnership must be in active status at the Florida Division of Corporations at the time of contract execution.

D. That the firm maintains active status any and all licenses, permits, certifications, insurance, bonds and other credentials including, but not limited to, contractor's license and occupational licenses necessary to perform the Work. The Respondent also certifies that, upon the prospect of any change in the status of applicable licenses, permits, certifications, insurances, bonds or other credentials, the Respondent shall immediately notify JEA of status change.

E. That Respondent has read, understands these instructions and will comply with the Section titled Ethics.

1.3.22. UNABLE TO SUBMIT A RESPONSE

If you elect not to submit a Response in response to this Solicitation, please complete the Unable to Submit Response form, available for download at www.jea.com, or by obtaining a hardcopy from the JEA Procurement Department, Bid Office, 21 West Church St., Customer Center 1st Floor, Room 002, Jacksonville, FL 32202. The Respondent may contact the Bid Office by phone at (904) 665-6740.

Send the completed Unable to Submit Response Form to:

JEA Bid Office
JEA Procurement Services
21 West Church St.
Jacksonville, FL 32202
or fax the Unable to Submit Response Form to: (904) 665-7095.

Do not return the entire Solicitation package; simply return the Unable to Submit Response Form.

2. CONTRACT TERMS AND CONDITIONS

2.1. CONTRACT DOCUMENT AND TERMS AND CONDITIONS

Provided below are the Contract terms and conditions that will be incorporated by reference in the Contract Document executed by the Company and JEA. The Contract Document will incorporate by reference the terms contained in the Solicitation portion of this document provided in Section 1, the Contract Terms provided in Section 2; and the Technical Specifications provided in Section 3. An example of the Contract that the Company will be required to execute is available for review at jea.com.

2.2. DEFINITIONS

2.2.1. DEFINITIONS

Words and terms defined in this section shall have the same meaning throughout all parts of the Contract Documents. Where intended to convey the meaning consistent with that set forth in its definition, a defined word or term is marked by initial capitalization. The "Technical Specifications" part may define additional words and terms where necessary to clarify the Work. Unless otherwise stated in the Contract Documents, definitions set forth in the "Technical Specifications" shall apply only within the "Technical Specifications."

2.2.2. ACCEPTANCE

JEA's written notice by the Contract Administrator to the Company that all Work as specified in the Milestone, Purchase Order or Task Order has been completed to JEA's satisfaction. Acceptance is only applicable to the entirety of Work as specified in the Milestone, Purchase Order or Task Order. Acceptance does not in any way limit JEA's rights under the Contract or applicable laws, rules and regulations.

2.2.3. ADDENDUM/ADDENDA

A written change or changes to the Solicitation which is issued by JEA Procurement Services and is incorporated into the Solicitation as a modification, revision and/or further clarification of the intent of the Solicitation.

2.2.4. ANNIVERSARY DATE

The date which is twelve (12) months after the effective date of the Contract, and each date which is twelve (12) months after an Anniversary Date that occurs while the Contract is in effect.

2.2.5. AWARD

The written approval of the JEA Awards Committee that the procurement process for the purchase of the Work was in accordance with the JEA Procurement Code and Florida Statutes. Once an Award is approved, JEA will either issue a Purchase Order or execute a Contract with the successful Respondent or Respondent.

2.2.6. CHANGE ORDER

A written order issued after execution of the Contract to the Company signed by the Contract Administrator, or his designated representative, authorizing an addition, deletion, or revision of the Work, or an adjustment in the Contract Price or the Contract Time. Change Orders do not authorize expenditures greater than the monies encumbered by JEA, which is shown on the associated Purchase Order(s). An executed Change Order resolves all issues related to price and time for the Work included in the Change Order. A Change Order that involves a material change to the Contract may result in a Contract Amendment.

2.2.7. COMPANY

The legal person, firm, corporation or any other entity or business relationship with whom JEA has executed the Contract. Where the word "Company" is used it shall also include permitted assigns. Prime Contractor, Contractor, Vendor, Supplier and Company shall be considered synonymous for the purpose of the Contract.

2.2.8. COMPANY REPRESENTATIVE

The individual responsible for representing the Company in all activities concerning the fulfillment and administration of the Contract.

2.2.9. COMPANY SUPERVISOR

The individual, employed or contracted by the Company, to manage the Work on a day-to-day basis and ensure the Work is performed according to the Contract. The Company Supervisor may be authorized by the Company Representative to act on Contract matters. Such authorization shall be in writing and delivered to the Contract Administrator and shall clearly state the limitations of any such authorization. In the event that the Company Supervisor and the Company Representative is the same person, the Company shall notify the Contract Administrator of such situation.

2.2.10. CONTRACT

An agreement between JEA and the Company, signed by both parties, which incorporates all the Contract Documents. The Contract shall not be altered without an Amendment to the Contract and executed by JEA and the Company, or a JEA issued Change Order.

2.2.11. CONTRACT ADMINISTRATOR

The individual assigned by JEA to have authority to administer the Contract, including the authority to negotiate all elements of the Contract with the Company, authorize Change Orders within the maximum amount awarded, terminate the Contract, seek remedies for nonperformance including termination, and otherwise act on behalf of JEA in all matters regarding the Contract. The Contract Administrator may authorize JEA Representative in writing to make minor changes to the Work with the intent of preventing Work disruption.

2.2.12. CONTRACT DOCUMENTS

Contract Documents, also referred to as the "Contract" means the executed Contract, all Solicitation documents and Response Documents as further described in the Section of the Solicitation titled "Contract Documents", and any written Change Orders, amendments or Purchase Orders executed by JEA, and insurance and/or bonds as required by the Contract.

2.2.13. CONTRACT PRICE

The total amount payable to the Company under the Contract, as set forth in the Contract Documents. Also referred to as the Maximum Indebtedness.

2.2.14. CONTRACT TIME

The number of calendar days or the period of time from when the written Contract is executed and a Purchase Order is issued to the Company, to the date Company has agreed to complete the Work, as set forth in the Contract Documents.

2.2.15. CONTRACTOR

The legal person, firm, corporation or any other entity or business relationship with whom JEA has executed the Contract. Where the word "Contractor" is used it shall also include permitted assigns. Contractor and Company shall be considered synonymous for the purpose of the Contract.

2.2.16. DEFECT

Work that fails to meet the requirements of any required test, inspection or approval, and any Work that meets the requirements of any test or approval, but nevertheless does not meet the requirements of the Contract Documents.

2.2.17. DELIVERY

The time at which the completed Work is delivered to the JEA facility as indicated in the Purchase Order or Task Order.

2.2.18. HOLIDAYS

The following days: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve Day, and Christmas Day.

2.2.19. INVOICE

A document seeking payment to Company from JEA for all or a portion of the Work, in accordance with the Contract Documents, and including at a minimum the following items: the Company name and address, a description of the product(s) or service(s) rendered, a valid JEA PO number, the amount payable, the payee name and address, any associated JSEB forms and any other supporting documentation required by the Contract Documents.

2.2.20. JEA

JEA on its own behalf, and when the Work involves St. Johns River Power Park (SJRPP), as agent for Florida Power and Light Company (FPL). JEA and FPL are co-owners of SJRPP.

2.2.21. JEA REPRESENTATIVES

The Contract Administrator, Contract Inspector, Contract Administrator's Representative, JEA Engineer, Field Engineer, Project Manager, and other persons designated by the Contract Administrator as JEA Representatives acting in a capacity related to the Work or Contract under the authority of the Contract Administrator.

2.2.22. MILESTONE

A point in time representing a key or important intermediate event in the Work. A Milestone is to be capable of validation by meeting all of the items prescribed in a defining checklist as agreed to in writing by JEA.

2.2.23. PERFORMANCE - ACCEPTABLE PERFORMANCE/PERFORMER

The Company averages more than 2.80 and less than 4.0 across all performance scorecard evaluation metrics, and does not receive a score of less than 2.0 on any metric.

2.2.24. PERFORMANCE - TOP PERFORMANCE/PERFORMER

The Company averages 4.0 or more across all scorecard evaluation metrics and does not receive a score of less than 4.0 on any one metric.

2.2.25. PERFORMANCE - UNACCEPTABLE PERFORMANCE/PERFORMER

The Company averages less than 2.80 across all scorecard evaluation metrics, or scores a 1.0 on any one metric regardless of average, or receives a score of 2.0 on the same metric on two sequential performance evaluations.

2.2.26. RESPONSE

The document describing the Respondent's offer submitted in response to this Solicitation.

2.2.27. RESPONSE TOTAL PRICE

The total dollar amount of the Respondent's offer to successfully perform the Work or Services in accordance with the Contract Documents.

2.2.28. RESPONDENT

The respondent to this Solicitation.

2.2.29. PURCHASE ORDER (PO)

A Work authorization document issued by the JEA Procurement Department with the words "Purchase Order" clearly marked across the top, a PO number used for reference shown on the front of the document, a description of the Work or a listing of the applicable Contract Documents, an authorized JEA signature and states the dollar amount of the lawfully appropriated funds. The Purchase Order is the only document that authorizes changes to the total dollar amount of the Contract.

2.2.30. SOLICITATION

The documents (which may be electronic) issued by JEA's Procurement Department to solicit Responses from Respondents that includes, but is not limited to, the Response Documents, Response Form, Response Workbook, samples of documents, and associated Addenda.

2.2.31. SUBCONTRACTOR

A provider of services performing Work under contract for the Company.

2.2.32. TASK ORDER

A document that describes the Work or describes a series of tasks that the Company will perform in accordance with the Contract Documents. A Task Order may be issued as an attachment to a Purchase Order, but the Task Order is neither a Purchase Order, nor a Notice to Proceed. A “task Order” may also be referred to herein as “Work Order”.

2.2.33. TERM

The period of time during which the Contract is in force or until the Contract's Maximum Indebtedness is reached, whichever occurs first.

2.2.34. UNIT PRICES

The Respondent's charges, rounded to the nearest cent, to JEA for the performance of each respective unit of Work or Services as defined on the Response Document, Response Workbook, or Response Form for all items required for successfully performing the Work or Services through Acceptance by JEA.

2.2.35. WORK OR SCOPE OF SERVICES

Work includes as defined in the Contract Documents all actions, products, documentation, electronic programs, reports, testing, transport, administration, management, services, materials, tools, equipment, and responsibilities to be furnished or performed by the Company under the Contract, together with all other additional necessities that are not specifically recited in the Contract, but can be reasonably inferred as necessary to complete all obligations and fully satisfy the intent of the Contract.

2.3. CONTRACT DOCUMENTS

2.3.1. ORDER OF PRECEDENCE

The Contract shall consist of JEA's Contract and/or Purchase Order together with the Solicitation including, but not limited to, the executed Response Documents, which shall be collectively referred to as the Contract Documents. This Contract is the complete agreement between the parties. Parol or extrinsic evidence will not be used to vary or contradict the express terms of this Contract. The Contract Documents are complementary; what is called for by one is binding as if called for by all. The Company shall inform JEA in writing of any conflict, error or discrepancy in the Contract Documents upon discovery. Should the Company proceed with the Work prior to written resolution of the error or conflict by JEA, all Work performed is at the sole risk of the Company. JEA will generally consider this precedence of the Contract Documents in resolving any conflict, error, or discrepancy:

- Executed Change Orders / Amendments
- Executed Contract Document
- Purchase Order
- Addenda to JEA Solicitation
- Drawings associated with JEA Solicitation
- Exhibits and Attachments to JEA Solicitation
- Technical Specifications associated to JEA Solicitation
- JEA Solicitation
- Response Documents
- References

The figure dimensions on drawings shall govern over scale dimensions. Contract and detailed drawings shall govern over general drawings. The Company shall perform any Work that may reasonably be inferred from the Contract as being required whether or not it is specifically called for. Work, materials or equipment described in words that, so applied, have a well-known technical or trade meaning shall be taken as referring to such recognized standards.

2.4. PRICE AND PAYMENTS

2.4.1. PAYMENTS

2.4.1.1. PAYMENT METHOD – MILESTONE PAYMENTS

At the start of each project, the Company shall provide a milestone schedule for JEA's approval. The Milestone schedule shall account for equipment engineering, materials procurement, fabrication, delivery and storage (as required).

Upon Company's completion of and JEA's Acceptance of the completion of each predetermined Milestone, the Company shall submit to JEA an Invoice for the amount/percentage of the Work or Services completed corresponding to that Milestone.

JEA may elect to make a partial payment or no payment if JEA determines, at its sole discretion, and after due consideration of relevant factors, that either all, or part of the Work being invoiced is not in accordance with the Contract Documents.

JEA will pay the lesser of the Not to Exceed Unit Price (listed on the Quotation or Rates Workbook) or the Company cost (as competitively solicited per the Technical Specification requirements) + the appropriate Mark-up as defined in the Technical Specifications for the Work performed.

2.4.2. PRICE ADJUSTMENT ANNUALLY

All Mark-Up's (percentages) and Warehousing unit pricing and Galvanization unit pricing shall remain Fixed for the life of the Contract.

Contract prices (Not to Exceed Unit Prices for Steel and Fabrication) will remain firm through the first year of the Contract. Thereafter, the Company may request a Consumer Price Index (CPI) adjustment in accordance with the Index listed below, annually for the following Quotation of Rates items;

Row 1 - Raw (black) steel – WPU1012
Row 2 – Fabrication Price - PCU3312--3312—from NAICS - 331200 – steel product manufacturing

Each annual request for a CPI increase must be made within thirty (30) days prior to the Anniversary Date of the Contract. If Company fails to submit a timely CPI adjustment request, the Company may be denied the adjustment for the upcoming Contract year.

When a timely CPI request is received, JEA will recognize the CPI price adjustment within thirty (30) days after the Anniversary Date. No retroactive price adjustments will be allowed.

Unless the Company and JEA make other agreements, the annual price adjustment for the Contract shall be in accordance with the Consumer Price Index for all urban consumers published monthly by the U.S. Department of Labor, Bureau of Labor Statistics. The index used will be the unadjusted percent change for the previous twelve (12) months of the Company's written CPI adjustment request is received by JEA.

In the event the applicable price index publication ceases, the Company and JEA shall mutually agree on a replacement index. If the Company and JEA fail to agree on a replacement index, the Contract shall terminate effective on the next Anniversary Date.

2.4.3. INVOICING AND PAYMENT TERMS

Within sixty (60) days from completion of the Work, the Company shall submit all Invoices or Applications for Payment in accordance with the payment method agreed upon in these Contract Documents. Invoices shall be submitted to the following address:

JEA Accounts Payable
P.O. Box 4910
Jacksonville, FL 32201-4310

JEA will pay the Company the amount requested within thirty (30) calendar days after receipt of an Invoice from the Company subject to the provisions stated below.

JEA may reject any Invoice or Application for Payment within twenty (20) calendar days after receipt. JEA will return the Invoice or Application for Payment to the Company stating the reasons for rejection. Upon receipt of an acceptable revised Invoice or Application for Payment, JEA will pay the Company the revised amount within ten (10) days.

JEA may withhold payment if the Company is in violation of any conditions or terms of the Contract Documents.

In the case of early termination of the Contract, all payments made by JEA against the Contract Price prior to notice of termination shall be credited to the amount, if any, due the Company. If the parties determine that the sum of all previous payments and credits exceeds the sum due the Company, the Company shall refund the excess amount to JEA within ten (10) days of determination or written notice.

2.4.4. COST SAVINGS PLAN

During the term of this Contract, JEA and Company are encouraged to identify ways to reduce the total cost to JEA related to the Work provided by the Company. JEA and Company may negotiate Amendments to this Contract that support and allow such reductions in total costs including, but not limited to, the sharing of savings resulting from implementation of cost-reducing initiatives between JEA and Company. The decision to accept any cost savings plan shall be in the sole discretion of JEA, and JEA shall not be liable to Company for any cost that may be alleged to be related to a refusal to accept a Cost Savings Plan.

2.4.5. DISCOUNT PRICING

JEA offers any or all of the following option payment terms, one of which may be executed at the request of the Company by sending an email to the JEA Buyer listed in this Solicitation:

- 1% 20, net 30
- 2% 10, net 30
- 3% 5, net 30

Company may request alternate payment terms for JEA's consideration, however, alternate payment terms are not effective until acceptance by JEA in writing. Please note, all payment dates are calculated from the date of the Invoice receipt by JEA's Accounts Payable.

2.4.6. OFFSETS

In case the Company is in violation of any requirement of the Contract, JEA may withhold payments that may be due the Company, and may offset existing balances with any JEA incurred costs against funds due the Company under this and any other Company Contract with JEA, as a result of the violation, or other damages as allowed by the Contract Documents and applicable law.

2.4.7. TAXES

JEA is authorized to self-accrue the Florida Sales and Use Tax and is exempt from Manufacturer's Federal Excise Tax when purchasing tangible personal property for its direct consumption.

2.4.8. JSEB COMPLIANCE

2.4.8.1. JSEB - INVOICING AND PAYMENT

If the Company utilizes JSEB certified firms, regardless of whether these Contract Documents require or encourage the use of such firms, the Company shall Invoice for and report the use of JSEB certified firms according to the format and guidelines established by the City of Jacksonville.

2.5. WARRANTIES AND REPRESENTATIONS

2.5.1. PERFORMANCE OF THE WORK

The Company represents and warrants that it has the full corporate right, power and authority to enter into the Contract and to perform the acts required of it hereunder, and that the performance of its obligations and duties hereunder does not and will not violate any Contract to which the Company is a party or by which it is otherwise bound. The Company warrants that all items provided under the Contract shall be free from Defect and services shall be performed in a professional manner and with professional diligence and skill, consistent with the prevailing standards of the industry. The Company warrants that the Work will meet the functional and performance requirements defined in the Contract.

2.5.2. WARRANTY

The Company warrants that the goods furnished by the Company shall be free from defects in material and fabrication for a period of not less than three (3) years from the date of Delivery at the JEA site.

THE FOREGOING EXPRESSED WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES. COMPANY EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. JEA'S REMEDY FOR BREACH OF ANY WARRANTY MADE BY COMPANY IN CONNECTION WITH THE

PURCHASE OF ANY GOODS HEREUNDER shall be the right to require Company to repair or, at JEA's option, to replace, any defective goods. Company shall not be responsible for labor associated with disassembly, installation or replacement of goods unless the Company performed the original disassembly, installation or replacement of those goods.

JEA'S REMEDY FOR THE BREACH OF ANY WARRANTY MADE BY COMPANY IN CONNECTION WITH THE PURCHASE OF ANY SERVICES HEREUNDER shall be to require the Company to correct such Defect at Company's sole expense.

In the event that JEA determines the repair or replacement of the defective goods or the correction of the defective services is an ineffective remedy, JEA's remedy is the right to recover the amount paid to Company for the defective goods or services. JEA must return the defective goods to Company, if so requested by Company. Written notice specifying the particular defect in the goods or services must be given promptly by JEA to the Company.

If the Work includes items covered under a manufacturer's or subcontractor's warranty that exceeds the requirements stated herein, Company shall transfer such warranty to JEA. Such warranties do not in any way limit the warranty provided by the Company to JEA.

2.6. INSURANCE, INDEMNITY AND RISK OF LOSS

2.6.1. INSURANCE

Before starting the Work JEA, and without further limiting its liability under the Contract, Company shall procure and maintain at its sole expense, insurance of the types and in the minimum amounts stated below:

Workers' Compensation
Florida Statutory coverage and Employer's Liability (including appropriate Federal Acts); Insurance Limits: Statutory Limits (Workers' Compensation) $500,000 each accident (Employer's Liability).

Commercial General Liability
Premises-Operations, Products-Completed Operations, Contractual Liability, Independent Contractors, Broad Form Property Damage, Explosion, Collapse and Underground, Hazards (XCU Coverage) as appropriate; Insurance Limits: $1,000,000 each occurrence, $2,000,000 annual aggregate for bodily injury and property damage, combined single limit.

Automobile Liability
All autos-owned, hired, or non-owned; Insurance Limits: $1,000,000 each occurrence, combined single limit.

Excess or Umbrella Liability
(This is additional coverage and limits above the following primary insurance: Employer's Liability, Commercial General Liability, and Automobile Liability); Insurance Limits: $4,000,000 each occurrence and annual aggregate.

Professional Liability
Architects & Engineers; Insurance Limits: $3,000,000 each claim and $6,000,000 annual aggregate

Company's Commercial General Liability, Excess or Umbrella Liability, and Professional Liability policies shall be effective for two years after Work is complete. The Indemnification provision provided herein is separate and is not limited by the type of insurance or insurance amounts stated above.

Company shall specify JEA as an additional insured for all coverage except Workers' Compensation, Employer's Liability, and Professional Liability. Such insurance shall be primary to any and all other insurance or self-insurance maintained by JEA. Company shall include a Waiver of Subrogation on all required insurance in favor of JEA, its board members, officers, employees, agents, successors and assigns.

Such insurance shall be written by a company or companies licensed to do business in the State of Florida and satisfactory to JEA. Prior to commencing any Work under this Contract, certificates evidencing the maintenance of the insurance shall be furnished to JEA for approval. Company's and its subcontractors' Certificates of Insurance shall be mailed to JEA (Attn. Procurement Services), Customer Care Center, 6th Floor, 21 West Church Street, Jacksonville, FL 32202-3139.

The insurance certificates shall provide that no material alteration or cancellation, including expiration and non-renewal, shall be effective until thirty (30) days after receipt of written notice by JEA.

Any subcontractors of Company shall procure and maintain the insurance required of Company hereunder during the life of the subcontracts. Subcontractors' insurance may be either by separate coverage or by endorsement under insurance provided by Company. Note: Any JSEB firms identified by Respondents for this Solicitation are considered "Subcontractors" under the direct supervision of the Prime or General Contractor (herein referred to as "Company"). Companies should show good faith efforts in providing assistance to JSEB firms in the securing of the Subcontractors' insurance requirements stated herein. Company shall submit subcontractors' certificates of insurance to JEA prior to allowing Subcontractors to perform Work on JEA's job sites.

2.6.2. INDEMNIFICATION

2.6.2.1. LIMITATION OF LIABILITY (ENGINEERED EQUIPMENT)

Except as otherwise stated herein, in no event, whether as a result of breach of contract, indemnity, warranty, tort, strict liability or otherwise, shall either party's liability to the other for any loss or damage arising out of, or resulting from this Contract, or from its performance or breach, or from the products or services furnished hereunder: (i) exceed the two times the Contract Price, (ii) include any indirect, special, consequential, incidental or penal damages including, but not limited to, loss profit or revenues, loss of use of the products or any associated equipment, damage to associated equipment, cost of capital, cost of substitute products, facilities, services or replacement power, downtime costs, or claims of either parties' customers for such damages, or (iii) extend beyond the expiration of the applicable statute of limitations pursuant to Florida Statutes.

The preceding limitations of liability shall not be applicable to: (i) to the claims for personal injury to third parties or (ii) claims for damage to third party property, (iii) claims for liquidated damages to the extent specified in this Contract; or (iv) other claims to the extent they are required to be covered under the insurance or bonding provisions of this Contract.

JEA's liability is for tort claims shall also be limited in accordance with Section 768.28, Florida Statutes, and Section 13, Article X of the Florida Constitution, and JEA in no way waives the protections granted to it therein.

All limitations of liability set forth in this subsection or elsewhere in this Contract shall apply to the full extent permitted by law and shall survive termination of this Contract or completion of any services or products furnished hereunder.

2.6.2.2. MUTUAL INDEMNIFICATION (JEA)

Company shall hold harmless, indemnify, and defend JEA against any claim, action, loss, damage, injury, liability, cost and expense of whatsoever kind or nature (including, but not by way of limitation, reasonable attorney's fees

and court costs) arising out of injury (whether mental or corporeal) to persons, including death, or damage to property, to the extent caused by the negligence, recklessness or intentional wrongful misconduct of the Company and any person or entity used by Company in the performance of this Contract or Work performed thereunder. For purposes of this Indemnification, the term "JEA" shall mean JEA as a body politic and corporate and shall include its governing board, officers, employees, agents, successors and assigns. This indemnification shall survive the term of a Contract entered into pursuant to this solicitation, for events that occurred during the Contract term. This indemnification shall be separate and apart from, and in addition to, any other indemnification provisions set forth elsewhere in this Contract.

JEA shall likewise indemnify, hold harmless, and defend the Company against any claim, action, loss, damage, injury, liability, cost and expense of whatsoever kind or nature (including, but not by way of limitation, reasonable attorney's fees and court costs) arising out of injury (whether mental or corporeal) to persons, including death, or damage to property, to the extent caused by the negligence, recklessness or intentional wrongful misconduct of the JEA and any person or entity used by JEA while engaged in activities related to this Contract. Notwithstanding any other term or condition of this Contract, JEA's indemnification obligation shall be for tort claims only, subject to the provisions and limitations of Section 768.28, Florida Statutes.

In the event such damage or injury is caused by the joint or concurrent negligence of JEA and/or the Company, the loss or expense shall be borne by each party in proportion to its degree of negligence in accordance with Section 768.31 of the Florida Statutes, the Uniform Contribution Among Tortfeasors Act and subject to the Limitations of Liability defined within this section.

In the case of third party claims, either party will provide the other reasonable notice of any third party claims.

2.6.3. TITLE AND RISK OF LOSS

Ownership, risks of damage to or loss of the Work shall pass to JEA upon Acceptance. The Company shall assume all risk of loss or damage to the Work while items are in transit and/or in the Company's custody until such time that JEA issues written notice of Acceptance.

JEA's receipt or delivery of any equipment or other materials will not constitute JEA's Acceptance of the Work and will not constitute a waiver by JEA of any right, claim or remedy. In the event of loss or damage to the Work, the Company shall bear all costs associated with any loss or damage until Acceptance by JEA.

For equipment and materials removed from JEA sites or the Work locations for repairs, service or duplication, JEA will retain the title to equipment and materials removed.

2.7. ACCEPTANCE

2.7.1. ACCEPTANCE OF WORK - RECEIPT, INSPECTION, USAGE AND TESTING

The Contract Administrator will make the determination when Work, or specific Milestone, is completed and there is Acceptance by JEA. Acceptance will be made by JEA only in writing and after adequate time to ensure Work is performed in accordance with Contract Documents. JEA will reject any items delivered by Company that are not in accordance with the Contract, and shall not be deemed to have accepted any items until JEA has had reasonable time to inspect them following delivery or, if later, within a reasonable time after any latent defect in the items has become apparent. JEA may partially accept the Work items. If JEA elects to accept nonconforming items, it may in addition to other remedies, be entitled to deduct a reasonable amount from the price as compensation for the nonconformity. Any Acceptance by JEA, even if nonconditional, shall not be deemed a waiver, or settlement or acceptance of any Defect.

Items specifically required prior to Acceptance are: SEE TECHNICAL SPECIFICATIONS.

2.8. TERM AND TERMINATION

2.8.1. TERM

2.8.1.1. TERM OF CONTRACT-DEFINED DATES

The Contract shall commence on the effective date, and continue and remain in full force and effect as to all its terms, conditions and provisions as set forth herein for five (5) years, (the "Initial Term"), and one (1) year optional renewal or until the Contract's Maximum Indebtedness is reached, whichever occurs first. It is at JEA's sole option to renew the Contract.

This Contract, after the initial year, shall be contingent upon the existence of lawfully appropriated funds for each subsequent year of the Contract.

2.8.2. TERMINATION FOR CONVENIENCE

JEA shall have the absolute right to terminate the Contract in whole or part, with or without cause, at any time after the Award effective date upon written notification of such termination.

In the event of termination for convenience, JEA will pay the Company for all disbursements and expenses that the Company has incurred, or has become obligated prior to receiving JEA's notice of termination.
Upon receipt of such notice of termination, the Company shall stop the performance of the Work hereunder except as may be necessary to carry out such termination and take any other action toward termination of the Work that JEA may reasonably request, including all reasonable efforts to provide for a prompt and efficient transition as directed by JEA.

JEA will have no liability to the Company for any cause whatsoever arising out of, or in connection with, termination including, but not limited to, lost profits, lost opportunities, resulting change in business condition, except as expressly stated within these Contract Documents.

2.8.3. SUSPENSION OF WORK

JEA may suspend the performance of the Work by providing the Company with five days' written notice of such suspension. Schedules and compensation for performance of the Work shall be amended by mutual agreement to reflect such suspension. In the event of suspension of Work, the Company shall resume full performance of the Work when JEA gives written direction to do so. Suspension of Work for reasons other than the Company's negligence or failure to perform, shall not affect the Company's compensation as outlined in the Contract Documents.

2.8.4. TERMINATION FOR DEFAULT

JEA may give the Company written notice to discontinue all Work under the Contract in the event that:

- The Company assigns or subcontracts the Work without prior written permission;
- Any petition is filed or any proceeding is commenced by or against the Company for relief under any bankruptcy or insolvency laws;
- A receiver is appointed for the Company's properties or the Company commits any act of insolvency (however evidenced);
- The Company makes an assignment for the benefit of creditors;
- The Company suspends the operation of a substantial portion of its business;

- The Company suspends the whole or any part of the Work to the extent that it impacts the Company's ability to meet the Work schedule, or the Company abandons the whole or any part of the Work;
- The Company, at any time, violates any of the conditions or provisions of the Contract Documents, or the Company fails to perform as specified in the Contract Documents, or the Company is not complying with the Contract Documents;
- The Company attempts to willfully impose upon JEA items or workmanship that are, in JEA's sole opinion, defective or of unacceptable quality;
- The Company breaches any of the representations or warranties;
- The Company is determined, in JEA's sole opinion, to have misrepresented the utilization of funds or misappropriate property belonging to JEA; or
- Any material change in the financial or business condition of the Company.

If within fifteen (15) days after service of such notice upon the Company an arrangement satisfactory to JEA has not been made by the Company for continuance of the Work, then JEA may declare Company to be in default of the Contract.

Once Company is declared to be in default, JEA will charge the expenses of completing the Work to the Company and will deduct such expenses from monies due, or which at any time thereafter may become due, to the Company. If such expenses are more than the sum that would otherwise have been payable under the Contract, then the Company shall pay the amount of such excess to JEA upon receipt of notice of the expenses from JEA. JEA shall not be required to obtain the lowest price for completing the Work under the Contract, but may make such expenditures that, in its sole judgment, shall best accomplish such completion. JEA will, however, make reasonable efforts to mitigate the excess costs of completing the Work.

The Contract Documents shall in no way limit JEA's right to all remedies for nonperformance provided under law or in equity, except as specifically set forth herein. In the event of termination for nonperformance, the Company shall immediately surrender all Work records to JEA. In such a case, JEA may set off any money owed to the Company against any liabilities resulting from the Company's nonperformance.

JEA has no responsibility whatsoever to issue notices of any kind, including but not limited to deficient performance letters and scorecards, to the Company regarding its performance prior to default by Company for performance related issues.

JEA shall have no liability to the Company for termination costs arising out of the Contract, or any of the Company's subcontracts, as a result of termination for default.

2.9. PRELIMINARY MATTERS

2.10. CONFIDENTIALITY AND OWNERSHIP OF DOCUMENTATION

2.10.1. INTELLECTUAL PROPERTY

The Company grants to JEA an irrevocable, perpetual, royalty free and fully paid-up right to use (and such right includes, without limitation, a right to copy, modify and create derivative works from the subject matter of the grant of the right to sublicense all, or any portion of, the foregoing rights to an affiliate or a third party service provider) the Company's intellectual property (including, without limitation, all trade secrets, patents, copyright and know-how) that is contained or embedded in, required for the use of, that was used in the production of or is required for the reproduction, modification, maintenance, servicing, improvement or continued operation of any applicable unit of Work.

If the Work contains, has embedded in, requires for the use of any third party intellectual property, or if the third party intellectual property is required for the reproduction, modification, maintenance, servicing, improvement or continued operation of the Work, the Company shall secure for JEA an irrevocable, perpetual, royalty free and fully paid-up right to use all third party intellectual property. The Company shall secure such right at its expense and prior to incorporating any third party intellectual property (including, without limitation, all trade secrets, patents, copyright and know-how) into any Work, including, without limitation, all drawings or data provided under the Contract, and such right must include, without limitation, a right to copy, modify and create derivative works from the subject matter of the grant of the right and a right to sublicense all or any portion of the foregoing rights to an affiliate or a third party service provider.

Should JEA, or any third party obtaining such work product through JEA, use the Work or any part thereof for any purpose other than that which is specified herein, it shall be at JEA's sole risk.

The Company will, at its expense, defend all claims, actions or proceedings against JEA based on any allegation that the Work, or any part of the Work, constitutes an infringement of any patent or any other intellectual property right, and will pay to JEA all costs, damages, charges, and expenses occasioned to JEA by reason thereof. JEA will give the Company written notice of any such claim, action or proceeding and, at the request and expense of the Company, JEA will provide the Company with available information, assistance and authority for the defense.

If, in any action or proceeding, the Work, or any part thereof, is held to constitute an infringement, the Company will, within thirty (30) days of notice, either secure for JEA the right to continue using the Work or will, at the Company's expense, replace the infringing items with noninfringing Work or make modifications as necessary so that the Work no longer infringes.

The Company will obtain and pay for all patent and other intellectual property royalties and license fees required in respect of the Work.

2.10.2. PROPRIETARY INFORMATION

The Company shall not copy, reproduce, or disclose to third parties, except in connection with the Work, any information that JEA furnishes to the Company. The Company shall insert in any subcontract a restriction on the use of all information furnished by JEA. The Company shall not use this information on another project. All information furnished by JEA will be returned to JEA upon completion of the Work.

2.10.3. PUBLIC RECORDS LAWS

Access to Public Records

All Documents, data and other records received by JEA in connection with the Contract are public records and available for public inspection unless specifically exempt by law. The Company shall allow public access to all documents, data and other records made or received by the Company in connection with the Contract unless the records are exempt from Section 249(a) of Article I of the Florida Constitution or subsection 119.07(1), Florida Statutes. JEA may unilaterally terminate the Contract of the Company refuses to allow public access as required under the Contract.

Redacted copies of Confidential Information

If the Company believes that any portion of any documents, data or other records submitted to JEA are exempt from disclosure under Chapter 119, Florida Statutes, the Florida Constitution and related laws ("Florida's Public Records Laws"), Company must (1) clearly segregate and mark the specific sections of the document, data and records as "Confidential", (2) cite the specific Florida Statute or other legal authority for the asserted exemption, and (3) provide JEA with a separate redacted copy of the documents, data, or records (the "Redacted Copy"). The Redacted

Copy shall contain JEA's contract name and number, and shall be clearly titled "Redacted Copy". Respondent should only redact those portions of records that Respondent claims are specifically exempt from disclosure under Florida's Public Records Laws. If the Company fails to submit a redacted copy of documents, data, or other records it claims is confidential, JEA is authorized to produce all documents, data, and other records submitted to JEA in answer to a public records request for these records.

Request for Redacted Information

In the event of a public records or other disclosure request under Florida's Public Records Laws or other authority to which the Company's documents, data or records are responsive, JEA will provide the Redacted Copy to the requestor. If a Requestor asserts a right to any redacted information, JEA will notify the Company that such an assertion has been made. It is the Company's responsibility to respond to the requestor to assert that the information in questions is exempt from disclosure under applicable law. If JEA becomes subject to a demand for discovery or disclosure of the redacted information under legal process, JEA shall give the Company prompt notice of the demand prior to releasing the redacted information (unless otherwise prohibited by applicable law). The Company shall be responsible for defending it determination that the redacted portions of the information are not subject to disclosure.

Indemnification for Redacted Information

The Company shall protect, defend, and indemnify JEA from and against all claims, demands, actions, suits, damages, liabilities, losses, settlements, judgments, costs, and expenses (including but not limited to reasonable attorney's fees and costs) arising from or relating to the Company's assertion that all or any portion of its information is not subject to disclosure.

Public Records Clause for Service Contracts.

If, under the Contract, the Company is providing services and is acting on behalf of JEA as contemplated by subsection 119.011(2), Florida Statutes, the Company shall:

- Keep and maintain public records that ordinarily and necessarily would be required by JEA in order to perform service;
- Provide the public with access to public records on the same terms and conditions that JEA would provide the records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statues, or otherwise prohibited by law;
- Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and
- Meet all requirements for retaining public records and transfer, at no cost, to JEA all public records in possession of the Company upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically shall be provided to JEA in a format that is compatible with the information technology systems of JEA.

2.10.4. PUBLICITY AND ADVERTISING

The Company shall not take any photographs, make any announcements or release any information concerning the Contract or the Work to any member of the public, press or official body unless prior written consent is obtained from JEA.

2.11. LABOR

2.11.1. NONDISCRIMINATION

The Company represents that it has adopted and will maintain a policy of nondiscrimination against employees or applicants for employment on account of race, religion, sex, color, national origin, age or handicap, in all areas of employee relations, throughout the Term of this Contract. The Company agrees that on written request, it will allow JEA reasonable access to the Company's records of employment, employment advertisement, application forms and other pertinent data and records for the purpose of investigation to ascertain compliance with the nondiscrimination provisions of this Contract; provided however, the Company shall not be required to produce, for inspection, records covering periods of time more than one year from the effective date of this Contract.

The Company shall comply with the following executive orders, acts, and all rules and regulations implementing said orders or acts, which are by this reference incorporated herein as if set out in their entirety:

- The provisions of Presidential Order 11246, as amended, and the portions of Executive Orders 11701 and 11758 as applicable to Equal Employment Opportunity;
- The provisions of section 503 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA); and
- The provisions of the Employment and Training of Veterans Act, 38 U.S.C. 4212 (formerly 2012).

The Company agrees that if any of the Work of this Contract will be performed by a Subcontractor, then the provisions of this subsection shall be incorporated into and become a part of the subcontract.

2.11.2. JEA ACCESS BADGES

If the scope of work described in this Contract requires a Company to access JEA facilities, each Company employee shall apply for a JEA access badge through JEA's Security Department. An appointment to obtain a JEA access badge can be made by contacting JEA Security at securitybadge@jea.com. Finally, JEA does not allow Company employees to share JEA access badges. A Company, whose employees are found to be sharing JEA access badges, will result in the Contract being terminated immediately for default. Additionally, JEA shall be notified within six (6) hours of a lost or stolen JEA security badge or when an employee leaves the Company. Report badge termination notifications to JEA Security at (904) 665-8200.

2.11.3. LEGAL WORKFORCE

JEA shall consider the Company's employment of unauthorized aliens a violation of section 274A(e) of the Immigration and Nationalization Act. Such violation shall be cause for termination of the Contract for default upon thirty (30) days' prior written notice of such termination, notwithstanding any other provisions to the contrary in the Contract Documents.

2.11.4. JEA CRITICAL INFRASTRUCTURE PROTECTION (CIP)

Pursuant to federal regulations, JEA is required to implement Critical Infrastructure Protection (CIP) and comply with NERC/FERC reliability standards for identified assets (collectively the "Assets"). Assets can be defined as either physical or cyber that are essential for JEA to maintain the integrity of the bulk electric system. Therefore, a Company that requires access to the Assets shall require that each of its employees, who require unescorted access apply for a JEA access badge through JEA's Security Department. Depending on which Assets a Company must access will determine the specific training and/or personal background screenings that will be required before a JEA badge can be issued. JEA will pay for reasonable costs associated with initial background screenings and training for required Company employees. However, if an initial screening is failed, the Company will be responsible for the

cost of that screening and for additional screening costs related to Company employee turnover. An appointment to obtain a JEA access badge can be made by contacting JEA Security at sercuritybadge@jea.com.

Finally, all badges are for assigned individual use only and JEA does not allow Company employees to share JEA access badges. A Company, whose employees are found to be sharing JEA access badges, may result in the Contract being terminated for default. Additionally, JEA shall be notified within six (6) hours of a lost or stolen JEA security badge or when an employee leaves the Company and Company should bear the cost of replacement security badge. Report badge termination notifications to JEA Security at (904) 665-8200.

The language in the above paragraphs shall also apply to Company's Subcontractors, and shall be included in Company's contracts with its Subcontractors for Work or Services to be performed at JEA or SJRPP Facilities

JEA reserves the right to modify these terms if the applicable regulations change or additional regulations become applicable. JEA will provide sufficient notice in advance for Company to adapt the updated regulations

2.11.5. PROHIBITED FUTURE EMPLOYMENT

It shall be unlawful and a class C offense for any person, who was an officer or employee of JEA, after his or her employment has ceased, to be employed by or enter into any contract for personal services, with a person or company who contracted with, or had a contractual relationship with JEA, while the contract is active or being completed, or within two years of the cessation, completion, or termination of the person's or company's contractual relationship with JEA, where (1) the contract with JEA had a value that exceeded $250,000, and (2) the officer or employee had a substantial and decision-making role in securing or negotiating the contract or contractual relationship, or in the approval of financial submissions or draws in accordance with the terms of the contract; except that this prohibition shall not apply to an employee whose role is merely as a review signatory, or to contracts entered into prior to January 1, 2008, or to contracts that have been competitively procured. With respect to this subsection a contract is competitively procured if it has been obtained through a sealed low Response award. A "substantial and decision-making role" shall include duties and/or responsibilities that are collectively associated with: (i) approving solicitation or payment documents; (ii) evaluating formal Responses and Responses; and (iii) approving and/or issuing award recommendations for JEA Awards Committee approval. The contract of any person or business entity who hires or contracts for services with any officer or employee prohibited from entering into said relationship shall be voidable at the pleasure of JEA. This prohibition shall not apply to any former officer or employee after two years from cessation from JEA employment.

2.11.6. HIRING OF OTHER PARTY'S EMPLOYEES

Each party recognizes that the other party has incurred or will incur significant expenses in training its own employees and agrees that it will not pursue or hire, without the other party's consent, the other party's employees or the employees of its subsidiaries for a period of two (2) years from the termination date of this Contract.

2.12. COMPANY'S RESPONSIBILITIES AND PERFORMANCE OF THE CONTRACT

2.12.1. COMPANY REPRESENTATIVES

The Company shall provide JEA with the name and responsibilities of the Company Representative, in writing after Award of the Contract and before starting the Work under the Contract. Should the Company need to change the Company Representative, the Company shall promptly notify JEA in writing of the change.

2.12.2. BACKGROUND CHECKS AND OTHER INFORMATION SECURITY POLICIES

The Company, at its expense, shall conduct appropriate background checks and screen each individual who will provide services to JEA as a part of the Work or who will have access to JEA's computer systems, either through

on-site or remote access. The minimum background screening process shall include, but not be limited to, the following checks:

1. Social Security Number (SSN) Trace;

2. Criminal Records (County and State Criminal Felony and Misdemeanor, National Criminal Database, Federal Criminal);

3. Background checks undertaken by JEA for its own employees who have duties similar to the duties of the Company's employee(s); and

4. Background checks which may be required pursuant to applicable background screening policies adopted by JEA from time to time.

The background screening must be conducted prior to the employee providing any services or performing any work for JEA. JEA has the right to require more regular background checks and has the right to require that the Company provide background check results to JEA. JEA shall have the right to audit the Company's background check process to ensure compliance with JEA standards. If, at any time, the Company discovers that an individual providing services to JEA as a part of the Work has a criminal record that includes a felony or misdemeanor, the Company shall immediately inform JEA and JEA will assess the circumstances surrounding the conviction, time frame, nature, gravity and relevancy of the conviction to the job duties. JEA, in its sole discretion, shall determine whether the individual will be placed on, or terminated from, a JEA assignment. Additionally, all individuals providing services to JEA shall have the responsibility to self-disclose any misdemeanor or felony conviction that occurs while assigned to JEA within three (3) business days of the conviction. If the Company learns of any such conviction, the Company shall notify JEA immediately. The Company shall comply with all applicable laws and regulations governing the conduct of background checks, including but not limited to the Fair Credit Reporting Act (FCRA). Failure of the Company to comply with the terms of this paragraph may result in immediate termination of its contract with JEA.

2.12.3. COMPANY REVIEW OF PROJECT REQUIREMENTS

The Company shall review the Work requirements and specifications prior to commencing Work. The Company shall immediately notify the Contract Administrator in writing of any conflict with applicable law, or any error, inconsistency or omission it may discover. JEA will promptly review the alleged conflicts, errors, inconsistencies or omissions, and issue a Change Order or Purchase Order as appropriate if JEA is in agreement with the alleged conflict, and issue revised specifications. Any Work the Company performs prior to receipt of approved Change Order will be at the Company's sole risk.

2.12.4. CONDITIONS OF PROVISIONING

The Company understands and agrees that it shall be solely responsible for providing everything necessary to perform the Work and to be in full compliance with the Contract Documents, except for those items specifically listed herein as being provided by JEA.

If Company's Scope of Work is to supply JEA with inventory items, the Company shall the identify inventory items that are in high demand and take appropriate steps to minimize delivery lead time in the event of demand spikes or emergency requirements.

Any use of JEA furnished items on non-JEA work is a breach of the Contract and a violation of the law. All JEA furnished items are the property of JEA when issued, stored by Company, and used in performance of the Work. The Company agrees that it shall use all JEA furnished items in a manner consistent with industry practice, codes,

laws, considering the condition of the JEA furnished item, the skills of the individuals using the JEA furnished item, and all environmental conditions. The Company understands and agrees that where JEA and the Company shall share JEA furnished items, JEA usage shall always have priority over Company usage, and the Contract Administrator shall have sole authority to resolve any usage dispute and such resolution shall not result in any claim by Company.

The Company agrees to return to JEA, and to the location as established by a JEA Representative, any unused or salvageable items prior to final payment. The Company agrees that JEA has the right to audit and investigate the Company at any time how the Company is using JEA furnished items. JEA will bill the Company for unaccountable JEA furnished material at the current JEA cost.

2.12.5. LICENSES

The Company shall comply with all licensing, registration and/or certification requirements pursuant to applicable laws, rules and regulations. The Company shall secure all licenses, registrations and certifications as required for the performance of the Work and shall pay all fees associated with securing them. The Company shall produce written evidence of licenses and other certifications immediately upon request from JEA.

2.12.6. DELIVERY DATE AND LOCATION

Delivery Date: DETERMINED ON A PROJECT BY PROJECT BASIS

Delivery Location: DETERMINED AT THE TIME OF PROJECT COMMENCEMENT

2.12.7. EXPEDITING SHIPMENT OR PRODUCTION OF GOODS

The Company shall allow the JEA Representative access to the Company's plants and to plants of the Company's suppliers to expedite production and shipment of goods. The Company shall, upon receipt of timely request, furnish schedules and progress reports for JEA use in expediting.

2.12.8. APPLICABLE STANDARDS AND CODES

The latest rules and regulations of the following organizations shall be considered a part of these Contract Documents. The Company shall perform all Work in strict accordance with applicable provisions thereof:

Institute of Electronic and Electrical Engineers (IEEE), Edison Electric Institute (EEI), National Electrical Manufacturer's Assoc. (NEMA), American Concrete Institute (ACI), American National Standards Institute (ANSI), National Electric Safety Code (NESC).

2.12.9. JEA CHANGES TO ORDER

JEA shall have the right to make changes to the Work at any time and the Company agrees to accept such changes. In the event such changes result in decreased or additional costs, JEA shall make an equitable adjustment in the purchase price provided the Company itemizes for JEA any additional costs.

2.12.10. OVERSHIPMENTS

JEA will reject any items that are attempted to be delivered but that JEA did not order, including excess quantities. The Company shall pay the cost of handling, packaging and transporting such equipment for return.

2.12.11. SAFETY AND PROTECTION PRECAUTIONS

The Company shall comply with all applicable federal, state and local laws, ordinances, all JEA procedures and policies including any orders of any public body having jurisdiction for the safety of persons or protection of

property. The Company understands and agrees that a violation of any provision of this clause is grounds for a Termination for Default, with no requirement to provide Company with a notice to cure. Additionally, the Company shall be responsible for all JEA damages associated with such termination.

The Company understands and agrees that JEA Representatives may stop Work at any time that JEA, at its sole discretion, considers the Company's Work to be unsafe or a risk to property, and to direct the Company to, at a minimum, perform as directed in such a way as to render the Work environment safe. The Company understands and agrees that it is responsible for paying all costs associated with providing a safe work environment including, but not limited to, any costs associated with any JEA directed safety improvements. The Company further understands and agrees that it is solely responsible for the safety of personnel and property associated with the Work, and that any actions taken by JEA to prevent harm to persons or damage to equipment does not, in any way, relieve the Company of this responsibility.

The Company Representative, or alternatively, the Company Supervisor, shall be designated as the Company's individual responsible for the prevention of accidents.

2.12.12. SHIPPING - FOB DESTINATION

Items are purchased F.O.B. destination. The Company shall ensure the following:

- Pack and mark the shipment to comply with the Contract Documents; or in the absence of specifications in the Contract Documents, prepare the shipment in conformance with carrier requirements;
- Prepare and distribute commercial bills of lading;
- Deliver the shipment in good order and condition to the point of delivery specified in the Contract;
- Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by JEA Representative at the delivery point specified in the Contract;
- Be responsible for obtaining any permits required for transportation to the installation site;
- Furnish a delivery schedule and designate the mode of delivering carrier; and
- Pay and bear all charges to the specified point of delivery.

2.12.13. SHIPPING AND PACKING INSTRUCTIONS

Insofar as transportation conditions will allow, the Company shall ship items complete and ready for installation or storage as appropriate for the items being supplied.

As applicable, should the size of the items prevent shipment fully assembled, the Company will separate the items into components to allow safe and convenient transportation.

The Contract Administrator's receipt or taking delivery of any items, in whole or in part, will not be deemed a waiver of any right, claim or remedy or Acceptance of JEA under the Contract or otherwise.

The Company shall pack, brace and load all items in such a manner as to prevent physical damage and damage from marine and climatic conditions. The Company shall identify any item that requires special precautions during shipping and storage by clearly marking necessary precautions on the outside of the shipping container and including specific instructions in a durable envelope attached to the container and suitably labeled.

The Company shall clearly and indelibly mark all packages, boxes, crates, bundles, and unpackaged components with the necessary shipping information. The Company shall apply the markings using a method suitable to the type of product and packaging involved. The Company's markings shall indicate: the destination address, the JEA

Purchase Order (PO)number or JEA Blanket Purchase Agreement (BPA) number and the Company's name; the material code numbers and other identification as specified by the PO or BPA; the Company's shipment identification number, numbering of packages, boxes, crates, components, or assemblies of the shipment; and the mass and sizes of each major component or assembly (if the lifting points are critical, they shall be clearly marked and identified). Where JEA marks or serial numbers are included as tags on the items being shipped, the Company shall also print the JEA marks or serial numbers on the shipping documents. A copy of the packing slip shall be mailed to the delivery address prior to shipping the items.

The Company shall enclose a detailed packing slip, listing each separate item, in a waterproof envelope, which shall be firmly attached to each shipping container. When conformance to an ISO Quality Program Standard is required, each packing slip shall include the following certification: "The equipment listed herein has been inspected by the Company and is in conformance with the Contract requirements and approved for shipment." Such certification shall be endorsed with the signature and the title of an authorized representative of the Company's Quality Control. For instruments, the Company shall also enclose a list showing JEA's mark numbers.

The Company shall be responsible for identifying opportunities and implementing practices to reduce or eliminate packaging and shall properly dispose of all packaging.

The Company shall seal all openings in equipment such as vessels, valves and pumps. Where necessary, the Company shall provide skids, hauling eyes, jacking plates, and sling hooks for unloading and field assembly. The Company shall notify JEA prior to shipping where pallets are required; JEA will provide pallets to the Company for shipping purposes. The Company will be liable for any pallets lost or damaged by the Company.

2.13. VENDOR PERFORMANCE EVALUATION

Use of Vendor Performance Evaluation Scorecards

JEA may evaluate the Company's performance using the evaluation criteria shown on the vendor scorecard available online at JEA.com.

Scores for all metrics shown on the evaluation range from a low of 1, meaning significantly deficient performance, to a high of 5, meaning exceptionally good performance. The Company's performance shall be classified as Top Performance, Acceptable Performance, or Unacceptable Performance, as defined herein. The evaluator will be a designated JEA employee. The evaluator's supervisor and the Chief Purchasing Officer will review deficient performance letters and Unacceptable Performance scorecards, as described below, prior to issuance. When evaluating the Company's performance, JEA will consider the performance of the Company's Subcontractors and suppliers, as part of the Company's performance.

Frequency of Evaluations

JEA may conduct performance evaluations and prepare scorecards in accordance with the procedures described herein at any time during performance of the Work or soon after the completion of the Work. JEA may conduct one or more evaluations determined solely at the discretion of JEA.

Unacceptable Performance

- If at any time, JEA determines, using the criteria described on the scorecard, that the performance of the Company is Unacceptable, the Contract Administrator and Chief Procurement Officer or his designated alternate will notify the Company of such in a letter. The Company shall have ten (10) days to respond to the Contract Administrator. Such response shall include, and preferably be delivered in-person by an officer of the Company, the specific actions that the Company will take to bring the Company's performance up to at least Acceptable Performance.

- Within thirty (30) days from date of the first Unacceptable Performance letter, the Contract Administrator and Chief Purchasing Officer or his designated alternate will notify the Company by letter as to whether its performance, as determined solely by JEA, is meeting expectations, or is continuing to be Unacceptable. If the Company's performance is described in the letter as meeting expectations, no further remedial action is required by the Company, as long as Company's performance continues to be Acceptable.
- If the Company's performance as described in the letter continues to be Unacceptable, or is inconsistently Acceptable, then the Company shall have fifteen (15) days from date of second letter to demonstrate solely through its performance of the Work, that it has achieved Acceptable Performance. At the end of the fifteen (15) day period, JEA will prepare a scorecard documenting the Company's performance from the start of Work, or date of most recent scorecard, whichever is latest, and giving due consideration to improvements the Company has made in its performance, or has failed to make. If the scorecard shows Company's performance is Acceptable, then no further remedial action is required by Company as long as Company's performance remains Acceptable. If the scorecard shows the Company's performance is Unacceptable, JEA will take such actions as it deems appropriate including, but not limited to, terminating the Contract for breach, suspending the Company from submitting a Response on any JEA related Solicitations, and other remedies available in the JEA Purchasing Code and in law. Such action does not relieve the Company of its obligations under the Contract, nor does it preclude an earlier termination.
- In the event that the Contract Term or the remaining Term of the Contract does not allow for the completion of the deficient performance notification cycles described above for those in danger of receiving an Unacceptable Performance scorecard, JEA may choose to accelerate these cycles at its sole discretion.
- If the Company receives five or more letters of deficiency within any twelve (12) month period, then JEA will prepare a scorecard describing the deficiencies and the Company's performance will be scored as Unacceptable.

Acceptable Performance

JEA expects the Company's performance to be at a minimum Acceptable.

Disputes

In the event that the Company wants to dispute the results of its scorecard performance evaluation, the Company must submit a letter to the Chief Procurement Officer supplying supplemental information that it believes JEA failed to take into account when preparing the scorecard. Such letter, along with supplemental information, must be submitted no later than ten (10) days following the Company's receipt of the scorecard. If the Chief Procurement Officer decides to change the scorecard, the Company will be notified and a revised scorecard will be prepared, with a copy issued to the Company. If the Chief Procurement Officer decides that no change is warranted, the decision of the Chief Procurement Officer is final. If the Company is to be suspended from consideration for future Award of any contracts, the Company may appeal to the Procurement Appeals Board as per JEA Procurement Code.

Public Records

There can be no expectation of confidentiality of performance-related data in that all performance-related data is subject to disclosure pursuant to Florida Public Records Laws. All scorecards are the property of JEA.

2.14. CHANGES IN THE WORK, CONTRACT TIME OR PRICE

2.14.1. DELAY IN ACCEPTANCE OR DELIVERY

JEA may delay Delivery or Acceptance of the Work in the event of any unforeseen event. The Company shall hold the Work pending JEA's direction, and JEA will be liable only for direct increased costs incurred by the Company by reason of JEA's instructions.

2.14.2. NO DAMAGE FOR DELAY

Damage, loss, expense or delay incurred or experienced by the Company in the prosecution of the Work by reason of unforeseen circumstances, unanticipated difficulties and obstructions, bad weather, or other mischances that are generally considered to be a part of the usual hazards associated with Work, shall be borne entirely by the Company and shall not be the subject of any claim for additional compensation or change in Approved Schedule.

The Company agrees that its sole remedy for any claims, damages or losses related to any delay, disruption or hindrance alleged to be caused by JEA or any of JEA's agents or other contractors, shall be an extension of the Contract completion date.

Any demand for equitable time adjustment must be served in writing to JEA within five days of the event giving rise to the delay, disruption or hindrance. Any request for an equitable time adjustment shall be accompanied by a logical time impact analysis, demonstrating the nature and magnitude of the event to the critical path.

Failure to strictly comply with these requirements shall be deemed a waiver of any right to seek equitable time adjustment.

In the event the "no damage for delay" clause is inapplicable, there shall be no recovery for home office overhead and any damages claimed shall be proven by discreet accounting of direct project costs and no theoretical formula or industry estimating reference manuals shall be permissible.

2.14.3. CHANGE IN THE WORK

To request or claim any change in the Work including, but not limited to change in scope, quantities, pricing, or schedules, the Company shall submit a letter to the Contract Administrator stating such request or claim. JEA shall have the right to approve or disapprove any request or claim for change as it deems necessary and in its best interests consistent with the other Contract requirements. Whether requested by the Company, claimed by the Company, or contemplated by JEA, no change shall be authorized unless made on a JEA Change Order signed by the Contract Administrator or through a formal written amendment to this Contract.

In the event of an emergency endangering life or property where it is appropriate for the Company to take action, the Company shall undertake such actions to preserve life and property. JEA and the Company will determine after emergency is concluded, the extent of out-of-scope work performed by Company, and the Contract Administrator will issue a Change Order or amend the Contract for such work, if any and as necessary.

All requests for changes filed by the Company shall be in writing delivered to the Contract Administrator within ten (10) working days of when the event that prompted the claim was discovered or should have been discovered. Upon receipt of the Company's claim notification, Contract Administrator will provide written direction as to the procedures that will be used to address the request. The Company's request shall be sufficiently detailed including itemized costs, condition and work descriptions and other information necessary to evaluate the merits of the claim. The Contract Administrator may reject requests providing insufficient supporting information. Any change in the Contract resulting from the request will be incorporated into the Contract via a Change Order or Purchase Order.

Where JEA and the Company are unable to reach a mutually acceptable resolution of request, JEA's determination will be final.

Where necessary, JEA will determine the value of work covered by a Change Order using one of the following methods:

- Where the work is covered by established Unit Prices contained in the Contract, the Unit Price will be applied to the quantity of work;
- By mutual acceptance of lump sum price;
- By actual cost and a mutually acceptable fixed amount for overhead and profit, or

Where Response Price was based on estimates quantities, prior to making final payment, JEA will determine actual quantities using sampling, surveying and other industry recognized means and prepare a Change Order adjusting the price to reflect actual volumes.

The Company shall immediately notify the Contract Administrator in writing of any unauthorized change in the scope of the Work or significant change in the quantities of the Work that may increase the Contract Price, require an extension of Work schedule, or negatively impact permitting or other regulatory requirements.

The Work schedule may be changed only by a Change Order or Purchase Order. The Company's request or claim for a Work schedule adjustment shall be in writing delivered to the Contract Administrator within five (5) working days following the discovery of the event that prompted the claim or when the event should have been discovered. Where accepted by JEA, changes to Work schedule will only adjust for critical path impacts. Failure to include the necessary critical path analysis with request shall be grounds for rejecting the claim. The path of critical events mentioned herein means the series of interdependent Work events that must be sequentially performed and that require a longer total time to perform than any other such series. Upon receipt of the Company's request for a change in the Work schedule, the Contract Administrator will provide any additional directions in writing detailing the procedures that will be used to resolve the request, including provision of time impact or manpower and equipment loading schedules. Where JEA and the Company are unable to reach a mutually acceptable resolution of request, JEA will make a commercially reasonable determination, made in accordance with JEA's Procurement Code, which shall be final.

All Work defined on Change Orders shall be subject to the conditions of the Contract, unless specifically noted on the Change Order.

2.14.4. FORCE MAJEURE

No party shall be liable for any default or delay in the performance of its obligations under this Contract due to an act of God or other event to the extent that: (a) the non-performing party is without fault in causing such default or delay; (b) such default or delay could not have been prevented by reasonable precautions; and (c) such default or delay could not have been reasonably circumvented by the non-performing party through the use of alternate sources, work-around plans or other means. Such causes include, but are not limited to: act of civil or military authority (including but not limited to courts or administrative agencies); acts of God; war; terrorist attacks; riot; insurrection; inability of JEA to secure approval, validation or sale of bonds; inability of JEA or the Company to obtain any required permits, licenses or zoning; blockades; embargoes; sabotage; epidemics; fires; hurricanes, tornados, floods; or strikes.

In the event of any delay resulting from such causes, the time for performance of each of the parties hereunder (including the payment of monies if such event actually prevents payment) shall be extended for a period of time

reasonably necessary to overcome the effect of such delay, except as provided for elsewhere in the Contract Documents.

In the event of any delay or nonperformance resulting from such causes, the party affected shall promptly notify the other in writing of the nature, cause, date of commencement and the anticipated impact of such delay or nonperformance. Such written notice, including Change Orders, shall indicate the extent, if any, to which it is anticipated that any delivery or completion dates will be thereby affected within seven (7) calendar days.

2.15. MISCELLANEOUS PROVISIONS

2.15.1. AMBIGUOUS CONTRACT PROVISIONS

The parties agree that this Contract has been the subject of meaningful analysis and/or discussions of the specifications, terms and conditions contained in this Contract. Therefore, doubtful or ambiguous provisions, if any, contained in this Contract will not be construed against the party who physically prepared this Contract.

2.15.2. AMENDMENTS

This Contract may not be altered or amended except in writing, signed by JEA Chief Procurement Officer, or designee and the Company Representative, or each of their duly authorized representatives.

2.15.3. APPLICABLE STATE LAW; VENUE; SEVERABILITY

The rights, obligations and remedies of the parties as specified under the Contract will be interpreted and governed in all respects exclusively by the laws of the State of Florida without giving effect to the principles of conflicts of laws thereof. Should any provision of the Contract be determined by the courts to be illegal or in conflict with any law of the State of Florida, the validity of the remaining provisions will not be impaired. Litigation involving this Contract or any provision thereof shall take place in the State or Federal Courts located exclusively in Jacksonville, Duval County, Florida.

2.15.4. CUMULATIVE REMEDIES

Except as otherwise expressly provided in this Contract, all remedies provided for in this Contract shall be cumulative and in addition to and not in lieu of any other remedies available to either party at law, in equity or otherwise.

2.15.5. ENTIRE AGREEMENT

This Contract constitutes the entire agreement between the parties. No statement, representation, writing, understanding, or agreement made by either party, or any representative of either party, which are not expressed herein shall be binding. All changes to, additions to, modifications of, or amendment to this Contract, or any of the terms, provisions and conditions hereof, shall be binding only when in writing and signed by the authorized officer, agent or representative of each of the parties hereto.

2.15.6. EXPANDED DEFINITIONS

Unless otherwise specified, words importing the singular include the plural and vice versa and words importing gender include all genders. The term "including" means "including without limitation", and the terms "include", "includes" and "included" have similar meanings. Any reference in this Contract to any other agreement is deemed to include a reference to that other agreement, as amended, supplemented or restated from time to time. Any reference in the Contract to "all applicable laws, rules and regulations" means all federal, state and local laws, rules, regulations, ordinances, statutes, codes and practices.

2.15.7. HEADINGS

Headings appearing herein are inserted for convenience or reference only and shall in no way be construed to be interpretations of text.

2.15.8. INDEPENDENT CONTRACTOR

Company is performing this Contract as an independent contractor and nothing in this Contract will be deemed to constitute a partnership, joint venture, agency, or fiduciary relationship between JEA and Company. Neither Company nor JEA will be or become liable or bound by any representation, act, or omission of the other.

2.15.9. LANGUAGE AND MEASUREMENTS

All communication between the Company and JEA, including all documents, notes on drawings, and submissions required under the Contract, will be in the English language. Unless otherwise specified in the Contract, the US System of Measurements shall be used for quantity measurement. All instrumentation and equipment will be calibrated in US System of Measures.

2.15.10. MEETINGS AND PUBLIC HEARINGS

The Company will, upon request by JEA, attend all meetings and public hearings as required, in any capacity, as directed by JEA.

2.15.11. NEGOTIATED CONTRACT

Except as otherwise expressly provided, all provisions of this Contract shall be binding upon and shall inure to the benefit of the parties, their legal representatives, successors and assigns. The parties agree that they have had meaningful discussion and negotiation of the provisions, terms and conditions contained in this Contract. Therefore, doubtful or ambiguous provisions, if any, contained in the Contract shall not be construed against the party who physically prepared this Contract.

2.15.12. NONEXCLUSIVE

Notwithstanding anything contained herein that may appear to be the contrary, this Contract is "non-exclusive" and JEA reserves the right, in its sole discretion, to retain other companies to perform the Work, and/or JEA may self-perform the Work itself.

2.15.13. NONWAIVER

Failure by either party to insist upon strict performance of any of the provisions of the Contract will not release either party from any of its obligations under the Contract.

2.15.14. REFERENCES

Unless otherwise specified, each reference to a statute, ordinance, law, policy, procedure, process, document, drawing, or other informational material is deemed to be a reference to that item, as amended or supplemented from time to time. All referenced items shall have the enforcement ability as if they are fully incorporated herein.

2.15.15. SEVERABILITY

In the event that any provision of this Contract is found to be unenforceable under applicable law, the parties agree to replace such provision with a substitute provision that most nearly reflects the original intentions of the parties and is enforceable under applicable law, and the remainder of this Contract shall continue in full force and effect. With regard to any provision in this agreement pertaining to damages, equitable or otherwise, it is the intent of the Parties that under no circumstances shall there be recovery for home office overhead. Any damages claimed shall be

proven by discreet accounting of direct project costs and no theoretical formula or industry estimating reference manuals shall be permissible.

2.15.16. SUBCONTRACTING OR ASSIGNING OF CONTRACT

Each party agrees that it shall not subcontract, assign, delegate, or otherwise dispose of the Contract, the duties to be performed under the Contract, or the monies to become due under the Contract without the other party's prior written consent.

The assignment of the Contract will not relieve either of the parties of any of its obligations until such obligations have been assumed in writing by the assignee. If the Contract is assigned by either of the parties, it will be binding upon and will inure to the benefit of the permitted assignee. The Company shall be liable for all acts and omissions of its assignee or its Subcontractor.

In the event the Company obtains JEA approval to use Subcontractors, the Company is obligated to provide Subcontractors possessing the skills, certifications, registrations, licenses, training, tools, demeanor, motivation and attitude to successfully perform the work for which they are subcontracted. The Company is obligated to remove Subcontractors from performing Work under this Contract when the Company recognizes that a Subcontractor is failing to work in a manner consistent with the requirements of this Contract, or when JEA notifies the Company that JEA has determined a Subcontractor is failing to work in a manner consistent with the requirements of this Contract.

2.15.17. SURVIVAL

The obligations of JEA and the Company under this Contract that are not, by the express terms of this Contract, to be performed fully during the Term, shall survive the termination of this Contract.

2.15.18. TIME AND DATE

Unless otherwise specified, references to time of day or date mean the local time or date in Jacksonville, FL. If under this Contract any payment or calculation is to be made, or any other action is to be taken, on or as of a day that is not a regular business day for JEA, that payment or calculation is to be made, and that other action is to be taken, as applicable, on or as of the next day that is a regular business day. Where reference is made to day or days, it means calendar days. Where reference is made to workday, workdays, business day, or business days, it means regular working days for JEA Procurement.

2.15.19. TIME OF ESSENCE

For every material requirement of this Contract, time is of the essence.

2.15.20. WAIVER OF CLAIMS

A delay or omission by JEA to exercise any right or power under this Contract shall not be construed to be a waiver thereof. A waiver by JEA under this Contract shall not be effective unless it is in writing and signed by the party granting the waiver. A waiver by a party of a right under or breach of, this Contract shall not be construed to operate as a waiver of any other or successive rights under, or breaches of, this Contract.

The Company's obligations to perform and complete the Work in accordance with the Contract shall be absolute. None of the following will constitute a waiver of any of JEA's rights under the Contract: approval of payments, including final payment; Certificate of Contract Completion; any use of the Work by JEA; nor any correction of faulty or defective work by JEA.

2.15.21. MERGER

During the term of this Contract and any extension thereof any invoice that may be issued by the Company to JEA shall be issued in accordance with and subject solely to the terms and conditions contained herein, notwithstanding any language to the contrary contained in such invoices. Any invoice issued during the Term and any extension thereof shall not modify or amend this Contract, unless such invoice is intended to modify or amend this Contract and does so in accordance with the terms of this Contract.

2.15.22. UNIFORM COMMERCIAL CODE

This is a Contract for the sale of goods and shall be construed and enforced in accordance with Chapter 672, Florida Statutes, as the same may be amended from time to time.

3. TECHNICAL SPECIFICATIONS/DETAILED SCOPE OF WORK

3.1. TECHNICAL SPECIFICATIONS/DETAILED SCOPE OF WORK (APPENDIX A)

Technical Specifications and a Detailed Scope of Work are located in Appendix A of this document.

4. FORMS

4.1. FORMS (APPENDIX B)

Forms required to be submitted with this solicitation are provided in Appendix B or can be obtained on the JEA website at www.jea.com.

113-16 APPENDIX A TECHNICAL SPECIFICATIONS
STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS

TABLE OF CONTENTS

I. SPECIFIC INSTRUCTIONS

1. INTRODUCTION & PURPOSE

JEA owns, operates and maintains the electric system for the greater Jacksonville Area in Florida. In keeping with its chartered responsibilities, JEA frequently administers improvements to its substation facilities including constructing new and renovating existing facilities within and without its service territories.

1.1. The Substation Material Packager Company (the "Company") will be contracted to provide structures and materials and other Engineered Equipment for any future JEA substation projects, and/or small transmission projects that are incidental to substation projects. The Company shall then perform and provide as a single source of responsibility for all design, detailing, documentation, procurement, manufacturing, galvanization, scheduling, selections of equipment and materials, management services, and associated services for complete ready-to-install set of substation structures and materials to allow JEA to construct improvements to the JEA electric system.

1.2. Nothing contained herein should be construed to limit JEA's ability to self-construct, self-engineer, or construct any of its facilities, nor will JEA be bound to use only the selected Company. JEA retains the right to continue separately and simultaneously all existing project delivery methods, and if deemed to be in the best interest of JEA, to issue and execute other contracts upon following the procedures established within the JEA Procurement Code.

2. LICENSING

JEA may request the Company to provide, within 48 hours of request, the following additional Licensing information, failure to provide may result in Response rejection:

2.1. Licensing: In those U.S. states where companies that perform engineering services are required to be licensed, the Company shall provide evidence the Company is licensed to provide Engineering services in the U.S. state of the Organization Business Address. Certain of the final drawings and documents submitted to JEA shall be signed and sealed by an engineer licensed in the same state.

2.2. If this information can be verified via a state Board of Professional Engineers website (or similar institution), then a paragraph referencing this site will suffice for the evidence.

2.3. If there is some reason why the licensure of the organization CANNOT be verified via State website, the Company will need to supply a copy of a license or a statement in writing from said board or institution.

2.4. In the event that the Company is not presently licensed to provide engineering services in the State of the Organization Business Address mentioned in the table, provide evidence, in the form of a copy of a written application, showing that the Company has applied for such license, and has the reasonable expectation of receiving such license timely.

3. TYPICAL PROJECT DESCRIPTION

3.1. JEA intends to utilize the Company for the "Dinsmore 230/26 kV Substation" Project as a possible first purchase under this RFP. JEA is providing a brief project description, including scope and schedule, for Companies to review and provide a response, in Attachment D.

3.2. The intent of this information is to provide Companies with an idea of the type and kind of work that JEA will expect to be performed under this Contract. JEA does not guarantee that this particular project, or any other project, will be awarded as a consequence of winning this RFP.

4. SCOPE OF SERVICES

4.1. Basic Products and Services: The Company's scope of services will vary for each project, but is expected to include any combination of the following items:

4.1.1. Identification of JEA requirements, to include review of new or existing drawings and documents, site visits, meetings, teleconferences, etc. This will include regularly scheduled administrative, technical, and project planning and review services on a monthly and quarterly basis as described further herein. The Company shall include, up to four (4) two-day trips to JEA facilities per year and monthly teleconferences with JEA, all provided by the Company as a part of the regular services, over the life of the Contract.

4.1.2. Any portion of the equipment engineering, raw materials procurement, quality control, manufacturing, galvanizing, testing, and other requirements for the Manufacturing of Structures as more thoroughly defined in a later Section of this Specification.

4.1.3. Any portion of the equipment engineering, substation equipment and material procurement, and other requirements for the packaging of substation material and equipment as more thoroughly defined in a later Section of this Specification.

4.1.4. Any portion of the equipment engineering, transmission material procurement, and other requirements for the packaging of Transmission material as may be defined and mutually agreed to in future Specifications.

4.1.5. The production and provision of all CADD drawings, documents, catalog cut sheets, approval drawings (and tracking thereof), in paper and electronic format as defined in the pertinent Sections of this Specification.

4.1.6. The marshalling, scheduling of shipping, handling, and generally all services required by JEA for the timely bundling and delivery of the order, as more thoroughly defined in a later Section of this Specification.

4.1.7. Any and all other basic services that is consistent with the provision of a complete and efficient package of structures and materials for the construction for an electrical substation, whether new or renovated.

4.1.8. Engineering Services (Equipment Engineering) that is incidental to any portion of a specific project, as defined in such future definition/scope of services for such project. In the event that any of the Engineering services work scopes need to be processed as independent Design RFP's, the work scope, for Projects that exceed $2.0M in construction value or exceed $35,000 in design engineering value, will not be performed under this contract and will be procured under a CCNA RFP

4.1.9. Miscellaneous incidental services as may be defined by JEA and as may be mutually agreed to by JEA and the Company.

5. ADDITIONAL QUALIFICATIONS

5.1. Qualifications of Staff – JEA may request, and the company shall provide, resumes of staff members to demonstrate that company employs the level of expertise requested.

5.1.1. The Company shall have the following Company staff with the levels of expertise described below for Project work.

5.1.1.1. Five (5) **Licensed Electrical Engineers** – An Electrical Engineer shall have a minimum of five (5) years of experience in engineering equipment for substation transmissions and distribution packaging projects. The engineer must possess an active license to perform Electrical Engineering in any U.S. state. The submitted resume shall include a minimum of five (5) years of work history on similar projects to demonstrate this experience.

5.1.1.2. Three (3) **Licensed Structural or Civil Engineers** – A Structural or Civil Engineer shall have a minimum of ten (10) years of experience in Engineering equipment

(structural based) for substation transmissions and distribution packaging projects. The engineer must possess an active license to perform Structural or Civil Engineering in any U.S. state. The submitted resume shall include a minimum of five (5) years of work history on similar projects to demonstrate this experience.

5.1.1.3. Five (5) **CADD Technical Staff** - A CADD staff member shall have a minimum of five (5) years of experience in CADD Design for engineered equipment for substation transmissions and distribution packaging projects. The individual must possess at least five (5) years of experience with Bentley Microstation or Autodesk AutoCAD software. The submitted resume shall include a minimum of five (5) years of work history on similar projects to demonstrate this experience.

6. *SHIPPING, MATERIALS, SERVICE & MARK-UP DESCRIPTIONS*

Price adjustment for materials, fabrication and warehousing shall be per the solicitation price adjustment clause.

6.1. Pricing of the categories of materials and work are described as follows:

6.1.1. **Raw Steel (Row 1 of Quotation of Rates)**: All raw shape steel (channel, square tube, angle, plate, etc.) and tubular steel (folded plate from raw steel) shall be priced at a not-to-exceed price per U.S. pound weight. The price entered here shall be in units of U.S. Dollars per pound of steel, with the Company assuming reasonably and taking all risks for, the cost differences associated with not knowing the precise mix of Steel Shapes.

6.1.2. The price that is entered by the Company in its Quotation of Rates is a not-to-exceed price. JEA will not necessarily pay this price, but will pay only the LESSER of the price, or the ACTUAL price of steel as shown on the Company's supplier's invoice. The Company is required to quote the price for two (2) reasons: 1) to allow JEA to compare with those of others, and 2) to provide JEA with a reasonable security against price increases of steel, as is established below.

6.2. **Structural Steel Fabrication Price (Row 2 of Quotation of Rates)**: The Company shall enter on the Quotation of Rates Workbook a cost, to be added to the actual cost per pound of raw steel, for the fabrication of steel. This amount is to include all work performed on the steel up to the point of hot-dip galvanization. This shall include, and not be limited to, all research, design, engineering, procurement, receiving, cutting, drilling, welding, testing, and any and all other work, effort, tooling, and other resources associated with the procurement and fabrication of the steel structures. Other requirements of the pricing include the following:

6.2.1. The Company should enter the best-approximation of actual costs. Markups are allowed for separately on the Quotation of Rates Form. Galvanization is also considered separately. The units for the Quotation of Rates item are U.S. Dollars per pound of raw steel (i.e. the Company's entry must be a numerical value followed by the symbol "$/lbf.").

6.2.2. The price per pound for the fabrication of steel shall be a strict U.S. Dollar amount per pound of steel and shall remain FIXED for the life of this Contract.

6.2.3. The Company shall provide only one (1) cost adder into the Quotation of Rates Workbook which shall be applied to both the shape steel (channel, square tube, angle, plate, etc.) and tubular steel (folded plate), that are fabricated by the Company, its Subcontractor, or subsidiary.

6.3. **Galvanization Price (Row 3 of Quotation of Rates)**: The Company shall enter the price for galvanization as a price per unit weight of raw steel.

6.3.1. The actual calculation of the costs to be paid to the Company by JEA shall be the product of galvanization price times the weight of the shape or structural steel.

6.3.2. The Company shall enter the best-approximation of the actual costs of galvanization per unit weight. Markups for profits are allowed for separately on the quotation of rates form. The units

for this item are price per unit weight (i.e. the Company's entry must be a numerical value followed by the symbol "$/lbf.").

6.4. **Fabricated Structure Markups (Row 4 of Quotation of Rates)**: The Company shall enter a percentage markup for the structural steel items that are fabricated by the Company.

6.4.1. This pricing for this commodity shall be a markup percentage, to be applied to the overall sum of the Steel Costs, (i.e. the sum of the raw steel costs, the fabrication costs, and the galvanization costs).

6.4.2. The basic formula for the application of the profit percentage shall be as follows:

6.4.2.1. (Steel Price + Structure Fabrication Price + Galvanization Price) * (1 + (Fabricated Structure Markup / 100%))

6.5. **Equipment and Material Markup (Row 5 of Quotation of Rates)**: JEA shall pay the Company the direct costs of all Equipment and Material Package components supplied to JEA, plus a percentage markup, as described below (this Quotation of Rates item is the Equipment and Material percentage markup):

6.5.1. The Equipment and Material Package does NOT include the structural steel.

6.5.2. Occasionally, the Company shall be requested to procure structural items that are fabricated by others, such as, steel supports for circuit switchers, prefabricated steel transmission structures, etc. These items will be priced as material items, and the markups of subcontracts of these Technical Specifications will apply.

6.5.3. Company's markups shall include all the costs of the basic project services outlined herein, including the research, design, engineering, CADD drawings, production of documentation, procurement and administrative costs, etc.

Warehousing Services: JEA shall, from time to time, require, as a condition of this Contract, that the Company provide storage of JEA's ordered materials in suitable warehousing facilities. The technical requirements of warehousing services are described more particularly elsewhere in this RFP. Warehousing services are defined in terms of several components and shall be Response on a per unit price for each component as described below:

Warehousing service costs shall include, in the price of the warehousing, any and all costs of moving into and out of the Company's warehousing facilities, of any JEA Project Structures and Materials being stored. Warehousing service costs shall also include the totality of all incidental costs to the Company, such as insurances, additional safety requirements (i.e. grounding of capacitive devices) that are necessary and prudent to perform warehousing services.

6.6. **Indoor Warehousing Storage Facilities (Row 6 of Quotation of Rates)**: JEA requires that the Company price Indoor Storage facilities on a U.S. Dollar per square foot-month basis. In every instance, the actual unit for indoor storage shall be in U.S. Dollars per eight cubic feet-month, where JEA shall require that the square foot of floor space INCLUDE clearance vertically of up to eight feet of height.

6.6.1. The Company may assume that reasonable configuration of items (i.e. palletized material) that does not approach the eight foot height but that is stacked as high as is prudent will be priced at the unit price Response herein. Further, where the Company provides separate floors or separately supported shelves or other mechanisms of warehousing vertically, the separate areas shall be added in the area count.

6.6.2. The Company may assume that the Warehousing Costs are the same for a whole or partial calendar month. Further, the Company may assume that JEA may call for all or any portion of the Structure and Materials to be shipped, at any time during storage, and that, upon the date specified

in that call (which shall normally be done by electronic mail) the Warehousing Cost accrual shall cease, regardless of actual ship date.

6.6.3. The Company shall enter the cost of Indoor Warehousing Storage Facilities on the Quotation of Rates Workbook, in units of U.S. Dollars per square foot area per month of storage, ($/[ft2*month]) as shown.

6.7. **Outdoor Warehousing Storage Facilities (Row 7 of Quotation of Rates)**: JEA requires that the Company price Outdoor Storage facilities on a U.S. Dollar per square foot-month basis. In every instance, the actual unit for outdoor storage shall be in U.S. Dollars per twenty cubic feet-month, where JEA shall require that the square foot of paved space INCLUDE clearance vertically of up to twenty feet of height.

6.7.1. The Company may assume that reasonable configuration of items (i.e. palletized material) that does not approach the height but that is stacked or otherwise configured as high as is prudent will be priced at the unit price Response herein.

6.7.2. There are certain requirements for outdoor storage that require action on the part of the Company, which must be included in the cost of warehousing. Please refer to the specific technical requirements regarding warehousing for further details.

6.7.3. The Company shall enter the cost of Outdoor Warehousing Storage Facilities on the Quotation of Rates Workbook as shown, in units of U.S. Dollars per square foot area per month of storage, ($/[ft2*month]) as shown.

6.8. **Subcontracts (Row 8 of Quotation of Rates)**: In the event JEA directs the Company to use a Subcontractor (which shall include any affiliate, parent company, or subsidiary) to perform any work in this Contract, then JEA will not necessarily pay the subcontract price, but will pay only the LESSOR OF any prices quoted in writing to JEA, or the ACTUAL cost of the services to the Company as established in the Company's accounting mechanisms, which shall be clearly substantiated by the Company and shall be subject to audit by JEA, plus the markup quoted herein. All Subcontract arrangements shall be subject to the following additional requirements:

6.8.1. The selection of every instance of use of a Subcontractor shall be subject to the approval of the JEA Project Manager. The Company shall submit information about the Subcontractor, including the costs to be incurred, and the Company's experience with the Subcontractor to the JEA Project Manager at least two (2) weeks in advance of need of approval/rejection. The Company shall not proceed to contract JEA's order without written approval of the JEA Project Manager.

6.8.2. The Company must be able to show that the price paid to any Subcontractor is equal to the lowest of three (3) competitive recent quotes from competitive suppliers that are offering equivalent Structures, Materials, or Services to the Company in an arms-length bidding process.

6.8.3. The Company can demonstrate that any payments made to an affiliate, parent company, or subsidiary are clear, actual payments, formulated and made as a simple subcontract, according to Generally Accepted Accounting Principles.

6.8.4. The Company shall not subcontract the services of Equipment Selection, Warehousing, and Marshalling. These services must be provided by the Company via regular, full-time employees and storage facilities that are under the Company's sole long-term operational control. The only costs anticipated as being subject to potential for subcontracting shall be the manufacture of steel structures and miscellaneous project services. However, standard project services that are associated with the normal development of a Structures and Material Package shall not be considered a subcontract for pricing purposes but shall be included into the Response price for the Equipment and Material Responses.

6.8.5. If a Company to this RFP desires to treat structures as a subcontract, the Company MUST also include, on the Quotation of Rates Workbook, prices for the steel as though the Company were manufacturing the steel at the Company's own facilities. Particularly, subcontracting the steel

requires that the Company Response a price for the raw steel, fabrication, galvanizing, and markup on the Quotation of Rates Workbook, as though the Company were manufacturing the steel at the Company's own facilities. This will allow JEA to accurately compare those Companies who wish to self-build these materials to those who subcontract the same.

6.8.6. The Company shall propose a total markup on subcontract services as a percentage of the Company's subcontract amount.

6.9. **Shipping Costs:** All shipping costs are to be paid separately to the Company on a straight-pass-through basis without any markup. If the Company is or becomes the shipper, this straight-pass-through basis of payment will be strictly adhered to, shall be subject to audit, and shall be competitive with similar commercial services. JEA reserves the right to self-arrange shipping.

6.10. **Marshalling Services**: The Company shall not price the Marshalling Services, since these services are part of the Basic Structure and Material Package Services. The Company's prices for Structures and Materials as they appear on the Quotation of Rates Workbook must include these costs that accrue to the Company.

(END OF SECTION I)

II. STRUCTURES

1. SCOPE

This Section covers the design, material, fabrication, and galvanized protective coating necessary to furnish and deliver to JEA all galvanized steel substation structures complete. Galvanized steel structures and associated hardware shall be shipped from the Company's steel structure supplier to the Company, who Marshalls the structure package for shipment to JEA's delivery site.

2. GENERAL

2.1. For the purposes of this Contract, the substation structures shall be one (1) of the following classes:

2.1.1. Class "A" structures are those intended for the support of high voltage equipment such as air switches, potential transformers, bus supports, and surge arresters.

2.1.2. Class "B" structures are those on which the deflections within the limits do not affect the performance of supported equipment such as dead end structures for terminating incoming overhead transmission circuits.

2.2. The type of steel required under this Specification shall be clearly identified on the Bill of Material.

2.3. In some instances, the Company shall be asked to match an existing substation for an addition. In this case, steel drawings from the original job shall be supplied to the Company for use in matching the design requirements.

2.4. All low profile 69kV, 138kV, and 230kV structures shall be either square tube or tapered tubular in design, unless otherwise specified. All dead end structures shall be tapered tubular in design. Tapered tubular structures shall be folded plate steel with a right, regular, polygonal cross section, having at least eight (8) sides.

2.5. The largest shape steel component shall be 12" square tube. When loading conditions require stronger structural components, the Company shall use a tapered tubular in design.

2.6. All square tube structures shall have a black-steel minimum wall thickness of ¼".

2.7. All low profile 26kV structures shall be square tube in design.

2.8. All high profile structures shall be lattice steel in design with all components constructed of standard angle shape steel and/or bar with all column angles turned inward.

2.9. Knee braces shall not be permitted on any structure.

2.10. All required field assembly of structures shall be by bolted connection only. There shall be no field welding except for aluminum bus work. The structures shall be supplied with all fasteners, nuts, bolts, washers, and anchor bolts needed to erect and assemble the structures.

2.11. All anchor rods shall be furnished with each structure, ready for "cast-in-place" installation during the structure foundation's construction. Post-installed anchors are not permitted. Anchor rod embedment sizing calculations shall be in accordance with ACI 318, Appendix D. Shop drawings shall show the minimum required foundation plan dimensions required to achieve the required anchor rod capacity. Anchor rods shall be straight, and provided with double nuts at the bottom for concrete embedment. Hooked bolts (i.e. J-bolts) are not permitted. Provide two (2) bottom nuts (embedded in foundation), one (1) leveling nut and two (2) top nuts for installation at top of anchor rod. Make allowances in anchor rod lengths so that anchor rod projections, above the foundation, accommodate a free air space between the foundation upper surface and the base plate lower surface of up to 3" maximum. The structure base plate

thickness, the washers, and the leveling nuts shall be capable of achieving such free air space with a minimum projection of at least 1" and a maximum of 3" of the anchor rod above the top of the upper nut. Tack welding or damaging threads to prevent top nut back-off shall not be permitted.

2.12. The nuts and the threaded portion of anchor rods plus a minimum of six (6) additional inches shall be galvanized in accordance with ASTM A153 or B695, Class 50, Type 1.

2.13. Anchor rods shall be shipped as preassembled clusters or shall have steel templates adequate to properly align the bolts for each individual base plate. For larger folded-plate structures (i.e. transmission pull-offs, lightning masts, etc.) the anchor rods shall be shipped as preassembled clusters only.

2.14. The 26kV pedestal structure which supports the station service transformers shall be capable of supporting three (3) pole-mounted transformers (1800lbs each) mounted 90 degrees to each other. The station service configuration is shown on the drawings. Provide symmetrically mounted steel channels for attaching either of the transformer sizes on either side of these structures, as is indicated in the attached reference drawings.

2.15. Structures shall be accurately fabricated to facilitate field installation by JEA Construction Company(s).

2.16. Structures shall be designed with consideration given to providing sufficient rigidity so that all equipment (e.g. air switches) will operate properly and so that deflections of members will not exceed the limits specified by the equipment manufacturer.

2.17. The structures shall be designed in order to accommodate the electrical and mechanical clearances indicated on the attached Reference JEA Standard Drawings, and to prevent interference with all structure mounted equipment. Panel mounting locations shall be determined by JEA's Conduit Plan. In addition, all structures shall be designed such that the final installation of the bus supports, switches, surge arresters, and voltage transformers meet or exceed NESC requirements for electric supply stations.

2.18. Structures shall be designed to withstand apparatus loads, dead loads, wind loads, and other specified loads. (See this Section, Subsections 5 through 7 for design, deflections, and loading requirements.)

2.19. Additionally, minor structure attachment requirements, such as mounting bracket details (typically, a simple piece of channel or wide flange) for miscellaneous items shall be indicated on the Structure Detail Approval Drawings by the JEA Project Manager.

2.20. All members shall be clearly marked to provide easy identification in the field. Markings shall be durable in nature and agree with Erection Drawings for each substation or structure.

2.21. Dead end structures shall have provisions for attaching luminaries, hand holes, and outlet frames as indicated on the drawings included with this Specification.

2.22. All open ends of structures shall be provided with screens to prevent birds from nesting inside the structures. Similarly, all openings of greater than 1" shall be screened. The screening material shall be similar to 9 gauge galvanized grating, shall have no opening greater than 3/8" in any direction, and shall be welded in place prior to galvanization.

3. APPLICABLE STANDARDS

All substation structures shall be manufactured to conform to the latest applicable revisions of the standards from the following institutes:

3.1. ACI - American Concrete Institute

3.2. AISC - American Institute of Steel Construction

3.3. ASTM - American Society for Testing of Materials

3.4. AWS - American Welding Society

3.5. ASNT - American Society of Nondestructive Testing

3.6. ASCE - American Society of Civil Engineers

3.7. NESC - National Electrical Safety Code

3.8. NEMA - National Electrical Manufacturers Association

4. MATERIALS

All material shall be steel and shall conform to the requirements as stated herein.

4.1. Reports and Test Samples: A copy of the certified mill test report for all steels, including impact properties, shall be submitted to JEA, if/as requested. Charpy V-notch impact tests shall be in accordance with ASTM A370, and test reports shall include the test temperature and energy value (ft-lbs) for each test specimen broken. Sufficient procedures will be required to demonstrate to JEA complete satisfaction that all material shall be traceable to the mill heat number shown on the mill test report.

4.2. Structural Steel Shapes: ASTM A992

4.3. Structural Plates and Bars: ASTM A36 or ASTM A572

4.4. Structural Steel Tubes (Round, Square, Rectangular): ASTM A500, or ASTM A501, or ASTM A618

4.5. Structural Steel Tubes (Tapered Polygonal): ASTM A572 or ASTM A575

4.6. Base Plates: ASTM A36 or ASTM A572 or ASTM A588

4.7. Connection Bolts: ASTM A307 or ASTM A325 or ASTM A394

4.8. Anchor Rods: ASTM F1554

4.9. Nuts: ASTM A563

4.10. Washers: ASTM F436

5. GENERAL DESIGN REQUIREMENTS

5.1. The structures shall be designed by a Professional Structural or Civil Engineer registered in the State where the design is performed and qualified by education and experience to perform the design. If the design services are provided by a corporation, the corporation shall have a valid Certificate of Authorization from the Board of Professional Engineers for the State where the Organization is performing the design.

5.2. The structures shall be designed to meet the more rigorous requirements of the specified codes and the loads and deflections specified herein. Multiple analyses may be necessary to verify compliance with the different specified codes and load cases.

5.3. The structures shall comply with a design wind speed of 120 MPH as a minimum.

5.4. Class “A” structures and all their components shall comply with the latest revision of the AISC “Load and Resistance Factor Design Specification for Structural Steel Buildings”.

5.5. Class “B” or dead end structures:

5.5.1. Comply with the latest revision of the ASCE “Design of Steel Transmission Pole Structures”. Overload Capacity Factors (OCF) shall be in accordance with the latest revision of the NESC.

5.5.2. Comply with the latest revision of the ASCE “Guidelines for Electrical Transmission Line Structural Loading”.

6. STRUCTURE DETAIL, ANCHOR BOLT PLAN, ERECTION, AND DRAWINGS & CALCULATIONS

6.1. The Company shall submit for JEA review, approval, and future use, a full set of Structure Detail Drawings. Drawings shall be scaled, 24” x 36”, and shall provide all of the following:

6.1.1. The Structure Detail Drawings shall provide the Project Labeling, as identified in the Project Scope Document, in a conspicuous place, such as in or immediately above the title block.

6.1.2. The Structure Detail Drawings shall provide a unique sheet number, structure number, and piece numbers for structures and pieces. Only one (1) structure shall be permitted per drawing, however, multiple pieces of that structure may be included.

6.1.3. The Structure Detail Drawings shall indicate and shall be drawn to scale. Differing scales on the same drawing shall be allowed when clearly indicated.

6.1.4. The Structure Detail Drawings shall provide a table of components for all pieces in each structure. Only one (1) such table per structure will be allowed, including the cases where one (1) structure or piece spans more than one (1) page. The table shall include, at a minimum, all of the following:

6.1.5. The component(s) of each structure with a Mark (to identify its detail on the drawing):

6.1.5.1. Quantity (per structure)

6.1.5.2. Type/description of raw steel

6.1.5.3. Cut lengths

6.1.5.4. Each Weight and Surface Area

6.1.5.5. Extended Weight and Surface Area

6.1.6. The Structure Detail Drawings shall be sufficiently detailed so as to provide for shop fabrication and field inspection by any competent steel fabrication shop. The Structure Detail Drawings shall indicate location, size, grade, and number of bolts for all connections.

6.1.7. After the approval of the drawings, the Company shall correct the drawings as needed and submit electronic copies of the Structure Detail Drawings to JEA for future use. The Company shall submit two (2) additional paper copies that are signed and sealed by a Professional Structural or Civil Engineer registered in the State where the design was performed. Reduced copies are also required for the Project Binders, as described elsewhere in this RFP.

6.2. The Company shall submit for JEA review, approval, and future use, a full set of Anchor Bolt Plan and Details Drawings. Drawings shall be scaled, 24” x 36”, and shall provide all of the following:

6.2.1. The Anchor Bolt Plan and Details Drawings shall provide the Project Labeling, as identified in Section VII of this Specification, in a conspicuous place, such as in or immediately above the title block.

6.2.2. The Anchor Bolt Plan and Details Drawings shall provide a unique sheet number for each sheet.

6.2.3. The Anchor Bolt Plan Drawings shall provide a scale. Differing scales on the same drawing shall be allowed when clearly indicated.

6.2.4. The Anchor Bolt Plan Drawings shall provide the location of anchor bolts for all structure base plates, in Plan View. The Anchor Bolt Plan Drawings shall reference the center of each anchor bolt pattern, relative to one (1) common point, which point shall be defined as the intersection of two (2) substation baselines, to be established by JEA. JEA shall also provide an actual plan orientation, to allow the Company to place a NORTH ARROW on the Anchor Bolt Plan, which shall appear on every Anchor Bolt Plan Drawing thereafter.

6.2.5. The Anchor Bolt Plan Drawing shall show, alongside of each Anchor Bolt Pattern, at a minimum, all of the following data:

6.2.5.1. A Mark that identifies the pattern for review on later drawings or tables.

6.2.5.2. A Mark that uniquely cross references the structure that mates to the specific pattern location of the bolt diameter.

6.2.6. The Anchor Bolt Details Drawing(s) shall provide a detail for each unique Base Plate and Anchor Bolt Pattern. These Anchor Bolt Patterns need not be precisely to scale. For very small projects, the contents of this drawing may be placed directly onto the Anchor Bolt Plan Drawing. Each Anchor Bolt Details Drawing shall provide all of the following as a minimum:

6.2.6.1. A Mark that identifies the pattern for cross reference to the Anchor Bolt Plan Drawing.

6.2.6.2. The Quantity of each unique Base Plate and Anchor Bolt Pattern.

6.2.6.3. The Base Plate Anchor Bolt hole diameter and actual bolt diameter.

6.2.6.4. The dimensions of the base plate, including the drainage hole (i.e. 6” x 6” square hole).

6.2.6.5. The rod placement relative to the center of the pattern.

6.2.6.6. Whenever anchor bolt patterns are rotated in the Plan View, a measure of the rotation will be clearly indicated on the drawings with an arced arrow and a degree measure.

6.2.7. Each Project shall include, on an Anchor Bolt Details Drawing, a table and generic sketch that clearly shows the anchor rod specifications for every rod. The Table shall reference a sketch that, though not to scale, will provide a clarification of all of the following table (column) entries which shall be provided for each unique anchor bolt (by row):

6.2.7.1. A Mark that identifies the pattern for cross reference to the Anchor Bolt Detail.

6.2.7.2. A Quantity showing the total Anchor Bolt Pattern Count for each unique pattern.

6.2.7.3. A Quantity showing the Count of the Anchor Bolts for each unique pattern.

6.2.7.4. A Quantity showing the total Anchor Bolt Count for each unique bolt by pattern.

6.2.7.5. A Mark that identifies the Anchor Bolt in the Bill of Materials. Each unique bolt type shall have a unique mark and a unique row entry in the Bill of Materials.

6.2.7.6. The Anchor Bolt Hardware and Diameter in inches (i.e. “5HHN, 2FW, 1” Dia”).

6.2.7.7. The Anchor Bolt overall length in feet and inches.

6.2.7.8. The Anchor Bolt top threaded portion in inches.

6.2.7.9. The Anchor Bolt bottom threaded portion in inches.

6.2.7.10. The Anchor Bolt intended projection (above foundation surface) in inches.

6.2.7.11. Whether or not the Anchor Bolts are supplied as a caged assembly.

6.2.8. The Anchor Bolt Details Drawing shall provide a separate drawing detail for any caged anchor bolt assemblies, showing a detail of the top and bottom plates. The top and bottom plate details will show the dimensions of the plate, the holes in the plate, and thickness of the plate.

6.2.9. After the approval of the drawings, the Company shall correct the drawings as needed and submit electronic copies of the Anchor Bolt Plan and Detail Drawings to JEA for future use. The Company shall submit two (2) additional paper copies that are signed and sealed by a Professional Structural or Civil Engineer registered in the State where the design was performed. Reduced copies are also required for the Project Binders, as described elsewhere in this RFP.

6.3. The Company shall submit for JEA review, approval, and future use, a full set of Structure Erection Drawings. Drawings shall be scaled, 24” x 36”, and shall provide all of the following:

6.3.1. The Structure Erection Drawings shall provide the Project Labeling, as identified in Section VII of this Specification, in a conspicuous place, such as in or immediately above the title block.

6.3.2. The Structure Erection Drawings shall provide a unique sheet number.

6.3.3. The Structure Erection Drawings shall provide a complete set of views, Plan and Section, to allow a reasonably astute person to determine how the structures are to be oriented and assembled on the site (from shipping pieces) and where structures and pieces are to be placed in the Substation Plan. To do so, the drawing plans and sections must use the same, consistent identification (Structure Number, Piece Number) as provided on the Structure Detail Drawings, the Structure Nameplates, and the Piece Identification Tags.

6.3.4. The Structure Erection Drawings shall have clearly marked scales, references to sections and drawing splits (i.e. “See sheet #”) and notes.

6.3.5. The Structure Erection Drawings shall include a hardware table that details the fastening hardware (bolts, nuts, flat washers, lock washers, etc.) required for the field assembly of each structure. This table shall include, at a minimum, all of the following information:

6.3.5.1. A Mark, consistent with the Structure Erection Drawings and Project Material List, which uniquely identifies the type and size of each bolt.

6.3.5.2. A Count, per structure, and an extended piece count.

6.3.5.3. A Torque Specification.

6.3.5.4. A note or detail specifying orientation order of assembly for bolts, nuts, flat washers, lock washers, etc.

6.3.5.5. A note specifying bolt up sequencing for bolt patterns, if necessary (“N/A” as the default entry).

6.3.6. After the approval of the drawings, the Company shall correct the drawings as needed and submit electronic copies of the Structure Erection Drawings for JEA use in the future. The Company shall submit two (2) additional paper copies that are signed and sealed by a Professional Structural or Civil Engineer registered in the State where the design was performed. Reduced copies are also required for the Project Binders, as described elsewhere in this RFP.

6.4. The Company shall submit for JEA review and use a full set of complete and detailed design calculations for each structure demonstrating the adequacy of each structure and component for each loading condition.

6.4.1. Calculations shall be provided in 8 ½" x 11" format and shall be bound in a flexible cover, with the words "Design Calculations for…" followed by the Project Labeling.

6.4.2. Calculations shall include a sketch (i.e. in the form of a Free-Body Diagram) showing the loadings and supporting reactions for every structure or component thereof. When computer programs are used, the design calculations report shall utilize a clear system of cross referencing to allow ease of correlation between the free-body diagram and the computer printout.

6.4.3. Included in the design calculations, for the purpose of JEA's convenience during review, shall be all of the following, presented in such a manner that a Professional Structural Engineer can readily review and check the design assumptions:

6.4.3.1. A Mark that identifies/cross references the structure to the General Arrangement and Structure Detail Drawings.

6.4.3.2. A table of all load-bearing tapered tube and shape steel components (i.e. angles, tubes, plates, etc.) used in the structure showing the maximum loads of each piece as calculated in the design.

6.4.3.3. For each raw shape steel component, anchor bolts, angles, etc., a copy of a reference or manufacturers cut sheet showing the maximum load that the structure can sustain while maintaining specified deflections, etc.

6.5. Unless otherwise directed, a minimum of three (3) sets of all of the above drawings and documents shall be submitted for JEA's review and approval, with one (1) thereby being returned as approved or noted. If additional copies need to be returned, the Company should increase count of submissions accordingly. All documents shall be signed and sealed by the Professional Engineer in accordance with the laws and regulations of the State where the design is performed. No fabrication shall be authorized until the detailed design calculations have been approved by JEA.

7. LOADINGS & DEFLECTIONS

7.1. The design loading of attached conductors and shields for all dead end structures required by these Specifications shall be provided to the Company in the preliminary design package.

7.2. For the purpose of this Specification, deflection shall be defined as the deviation of a structural member from its intended theoretical design position to its actual position under maximum loading conditions.

7.3. Dead end structures shall be sufficiently rigid to meet the deflection requirements without being "raked".

7.4. In Class "A" structures, the horizontal deflection of vertical members shall be limited to 1/100 of the vertical height of the structure. The vertical deflection of horizontal members shall be limited to 1/200 of the span. The horizontal deflection of horizontal members shall be limited to 1/200 of the span.

7.5. In Class "B" structures, the horizontal deflection of vertical members shall be limited to 1/50 of the vertical height of the structure. The vertical deflection of horizontal members shall be limited to 1/200 of the span. The horizontal deflection of horizontal members shall be limited to 1/100 of the span.

7.6. Each Class "A" structure shall be designed to perform according to the following conditions:

7.6.1. Loading Case I, High Winds: Structure to be loaded with all apparatus loads and the weight of the structure. A wind load of 25 psf. (on flat surface) shall be applied to the structure and apparatus mounted thereon, with wind load being applied in the most severe direction. Under this condition, structure stresses shall remain below allowable stresses as outlined by AISC Specifications. Under this loading condition, vertical deflections shall be limited to a maximum of 1/300 of the span and horizontal deflection to 1/200 of the span.

7.6.2. Loading Case II, Short Circuit: A horizontal loading of 100% of the cantilever strength of the insulator stack shall be applied at the bus elevation to represent a short circuit force. Wind loads shall also be applied per Loading Case I, except wind load need not be applied to the bus or insulators. Under this condition, there shall be no permanent deformation of the structure resulting from the yielding of the material. Deflections for Loading Case II shall be limited as outlined in Loading Case I for switch stands and rigid bus support structures. Deflection need not be considered on equipment stands which are not connected to rigid bus.

7.6.3. Loading Case III, Storm Load: Structure to be loaded with all apparatus loads and the weight of the structure. A wind load of 120 MPH (sea level) wind shall be applied to the structure and apparatus mounted thereon, with wind load being applied in the most severe direction. Under this condition, the structures and associated fasteners will survive the simulation, with no significant, non-elastic shear, bending, or twisting. In this case, JEA only requires that the resulting deflections not result in catastrophic damage to the structures or attached electrical apparatus.

7.7. Loading conditions for Class "B" structures. Loads shown will include NESC overload capacity factors. These structures shall be designed to be self-supporting with tension in one (1) direction only and shall withstand the following conditions:

7.7.1. Loading Case I:
Normal Condition
Temperature: 60 °F
No wind

Conductor and shield tensions as shown on the drawings.

Deflection Limitations: Vertical and horizontal deflections of horizontal supporting members shall be limited to 1/100 of the span. Vertical supporting members shall be so designed that they will not deflect more than 1/50 of the height of the structure.

7.7.2. Loading Case II:
Temperature: 30 °F
Wind on wires: 16 psf (on round shape)
Wind on flat surface: 25 psf

Conductor and shield tensions calculated for above conditions with pre-loading tensions as shown on the drawings.

7.7.3. Loading Case III, Heavy Wind:
Temperature: 60 °F
Wind on wires: Equivalent of 120 MPH at sea level

Conductor and shield tensions calculated for above conditions with pre-loading tensions as shown on the drawings.

8. FABRICATION

8.1. Fabrication for Class "A" structures shall conform to the requirements of the latest revision of AISC "Specification for Structural Steel Buildings".

8.2. Fabrication for Class "B" structures shall conform to the requirements of the latest revision of ASCE "Design of Steel Transmission Pole Structures".

8.3. All members shall be the manufacturer's standard shape of tapered steel or square tube construction as approved by JEA. The tapered poles shall have a uniform taper that will meet the design loading requirements.

8.4. No cutting of shape steel or folded plate steel using a torch shall be allowed, unless approved by the JEA Project Engineer. Holes in the base plates may be drilled, water-cut, or plasma burned. Torch cutting of the base plate holes shall not be permitted, unless approved by the JEA Project Engineer.

8.5. All structures shall be provided with bird exclusion screens, where required to prevent birds from nesting inside the structures. All openings of greater than 1" shall be screened. Bird exclusion screens shall be manufactured from 9 gauge galvanized grating material and welded in place.

8.6. The Company shall maintain records of all pertinent information of component parts through the fabrication process. This may take the form of a "traveler" on major components. The traveler generally shall contain such information as materials used, welding procedures, welder's identification number, inspectors test results, and records of all visual and nondestructive testing. Such records shall be subject to audit with and without notice by JEA, at the Company's office(s).

9. DESIGN DETAILS

9.1. Structures shall have the number of support points (legs) and general layout indicated.

9.2. All field connections shall use galvanized bolts and nuts as fasteners. No field welding shall be required. A lock washer or locknut shall be provided for each structure bolt whether field or factory installed. Furnish the greater of: two (2) sets of each fastener assembly (bolts with all nuts and washers) or five (5) percent spares of each size bolt, nut, washer, lock washer, locknut, etc., required for assembly.

9.3. All bolted shear connections shall be designed as bearing connections with the bolt threads in the shear plane or planes.

9.4. Base plates and anchor bolts shall be designed for structures to be supported by leveling nuts on the anchor bolts without grouting.

9.5. The Company shall design all structural members so that no pockets of air can accumulate without escaping during the Galvanization process, regardless of how the member is removed from the galvanization tank. In general, flat plates welded across the axis of a hollow tube, such as the case of a base plate or top plate, must include a circular-drain opening of not less than 33% of the area of the tube cross section. Similarly, the Company shall design all structural members so that moisture cannot accumulate inside the structure or any pockets thereon without draining such moisture, with the structure upright. Any water drain holes that are necessary due to the design shall be at least 1" in diameter.

9.6. Provide all drilling, punching, mounting plates, brackets, etc., for addition of minor future equipment on structures and for future extensions of structures as requested by the JEA Project Engineer. The JEA Project Engineer shall provide such minor details in the form of sketches on the Structure Detail Approval drawings, or earlier.

9.7. Provide all drilling, punching, mounting plates, brackets, etc., for all miscellaneous equipment to be mounted on the structures such as nameplates, fuse and terminal cabinets, phase identification tags, etc. The JEA Project Engineer shall provide such minor details in the form of sketches on the Structure Detail Approval drawings, or earlier.

10. WELDING

10.1. All welding of structural steel shall conform to the latest revision of the "Structural Welding Code," D1.1 of the AWS. All welding procedures and operators shall be qualified by an independent testing laboratory in accordance with the applicable provisions of the referenced AWS code. Accurate records of operator and procedure qualifications shall be available for review by JEA.

10.2. All welding shall be done in the shop by the electric-arc process using only those joint details which have a pre-qualified status when performed in accordance with the referenced AWS code.

10.3. All welds shall be continuous and shall develop the full strength of the member.

10.4. Components shall be thoroughly cleaned before welding and shall be accurately fitted and rigidly secured in position during welding to provide a sound, full-strength weld without distortion.

10.5. Weld surfaces shall be smooth and uniform and shall be thoroughly cleaned of all slag and flux before galvanizing.

10.6. Fillet welds to secure attachments shall be continuous around the periphery of the attachment and shall be neat, uniform fillets.

10.7. The use of back-up strips shall be limited. If used, they shall be completely sealed.

10.8. Visual blowholes shall not be permitted in any weld.

10.9. Nondestructive testing shall be provided in accordance with the requirements of the referenced AWS code, latest revision, regarding this testing.

10.10. Magnetic particle inspection or ultrasonic inspection shall be provided on tubular steel dead end structures at all circumferential welds and on all other critical welds. Test results shall be provided to the JEA Project Engineer prior to on-site inspection or shipment of the structures.

10.11. The Company shall subject each structure to a final inspection and evaluation, including a visual inspection of each structure, and a review of the test data for each structure. This inspection shall be performed by persons employed by the Company that are fully qualified by training and experience to inspect and evaluate the structures, and that are fully authorized by the Company to independently accept or reject the welds, galvanization, or any portion of the manufacturing of the structures. Copies of the test reports covering this inspection shall be furnished to JEA at time of shipment. Additionally, upon the call of JEA, the Company shall review with JEA the process for achieving the intentions of this paragraph.

11. GALVANIZING

11.1. After fabrication and before assembly, all structural shapes, plates, bars, and strips shall be galvanized in accordance with the latest revision of ASTM A-123 and A-143.

11.2. All components of all structures shall be hot-dip galvanized, after final assembly into shipping components. Shipping components are portions of whole structures that are knocked down for shipment and require no further welding or cutting for final field assembly, which shall be bolted assembly only. These shipping components shall be galvanized in such a way as to assure all of the following:

11.2.1. Only wet-process galvanization shall be permitted. Visible flux residue on the structure may subject the structure to rejection, due to the fact that JEA cannot determine if flux residue exists in non-visible parts of the structure.

11.2.2. No visible dross-related surface blemishes shall be allowed of more than two (2) square inches on any one (1) Shipping Component.

11.2.3. No visible white-rust related surface blemishes shall be allowed of more than two (2) square inches on any one (1) Shipping Component.

11.2.4. No visible delamination-related surface blemishes shall be allowed of more than two (2) square inches on any one (1) Shipping Component.

11.2.5. The Company shall carefully design joints and construction of the structure to avoid rust bleeding.

11.2.6. The Company shall carefully inspect for and shall remove any zinc spikes, for safety reasons, prior to shipping. Excessive (in the opinion of JEA) zinc splatter shall also not be acceptable.

11.2.7. The Company shall carefully inspect for and shall remove any zinc fill-in of holes that exceeds a reduction of hole diameter (in any direction) of $1/16^{th}$. The Company may correct such hole fill via zinc removal only after JEA's written approval of a means to protect the galvanized surfaces.

11.2.8. Surface blemishes of less than $1/16^{th}$ in the shortest dimension and less than four (4) inches in the longest direction may normally be ignored, but surface blemishes that imply defective/damaged/missing galvanization of not more than two (2) square inches total in not more than two (2) places on any one (1) Shipping Component shall be repaired only with zinc solder. This shall cover such things as minor repairs necessitated by touch points, surface preparation errors, weld blowouts, etc. This repair clause is for occasional use only - repeated and regular errors in the Galvanization process that require repair may be interpreted by JEA as being due to inadequate quality control, and may result in the Company being rejected from further work.

11.3. All bolts, washers and nuts for galvanized structures shall be galvanized in accordance with ASTM A-325 and A-153.

11.4. JEA may, at its option, inspect the galvanizing in progress, and accordingly, the Company may not subcontract to any Subcontractor that would prohibit JEA from sending engineers to inspect such processes.

11.5. JEA requires that, in every case, a durable, high-quality, smooth coating is required. JEA expects to expose the Galvanized components to the corrosive outdoor conditions typical of Florida, including such things as 40-50 inches of rain per year, high temperatures, occasional salt and/or soil spray, extra high solar incidence and duration, high relative humidity, animal and raptor wastes, and any combination of the former with wind. Accordingly, JEA expects the best available practices for the Galvanization.

11.6. Safeguards against embrittlement shall be made by following the recommended practices of ASTM A-143.

11.7. Grounds for rejection of structures, due to galvanizing defects, shall be as listed in Table II of the "Inspection Manual for Hot Dipped Galvanized Products" published by the American Zinc Institute, except that, in addition, excessive general roughness, pimples, lumpiness, and runs shall be cause for rejection. JEA shall have the final determination as to whether defects are excessive.

11.8. The Company may assume that JEA's Construction Companys are qualified to perform field repair of damage to the galvanized coating that occur during shipping and erection. A minimum of one (1) gallon of a suitable cold galvanizing compound shall be supplied for field repair.

12. TESTING

12.1. JEA, or their representative, shall have the right to arrange entry into the manufacturer's plant to inspect any part of the product.

12.2. Load testing of dead end or Class "B" structures shall be in accordance with ASCE manual number 72 "Design of Steel Transmission Pole Structures".

12.3. The Company shall make or furnish adequate tests, records or inspections to establish that the material furnished is in accordance with these Specifications.

12.4. JEA may inspect and accept or reject the material made under these Specifications, either at the Company's plant or at the point of delivery.

12.5. The Company shall cooperate to satisfy JEA that the structures are being furnished in accordance with this Specification.

12.6. Material rejected by JEA, or their representative, shall be repaired or replaced free of charge by the Company and the process of fabrication altered as may be necessary to avoid cause for further rejection.

12.7. Test reports, together with certifications, including tests in accordance with the Specifications, shall be available to JEA for a period of one (1) year after shipment of the order.

13. GROUNDING

13.1. A grounding attachment shall be welded near the base of each structure leg. The ground attachment shall normally be located one (1) foot from the bottom of the base plate, oriented to either the north or the east when practical.

13.2. Every ground attachment shall consist of a small piece of Channel (i.e. C 4 x 5.4, 3" in length) welded to the structure, with one (1) centered-hole suitable for bolting an Anderson grounding connector.

13.3. Provide a ground connector for each structure leg for below grade grounding. This connector shall be sized for 7#5 copperweld conductor.

13.4. Provide ground attachments and connectors for vertical runs up each structure, where required on drawings, at 4' intervals. The ground connector shall be sized for 7#5 copperweld conductor.

13.5. For high profile lattice steel structures, all connectors required to terminate the JEA supplied 3#6 alumoweld conductor between goatheads and vertical ground conductor shall be furnished by the Company.

13.6. For low profile tapered tubular dead end structures, all connectors required to terminate JEA supplied 3#6 alumoweld conductor between ground conductors shall be furnished by the Company.

13.7. For all structures, all connectors that support arrestors, switches, cable terminators, instrument transformers, or other components that require current carrying grounds, the Company shall include on the structure those grounding attachments as needed to assure that a continuous ground riser conductor may be attached to the structure at four (4) foot intervals and shall be continued to allow the continuous ground riser conductor to pass within two (2) feet of each device grounding pad. A connector shall also be provided to form the junction of the equipment grounding cable with the continuous ground riser conductor. For structures with two (2) or more legs, the ground connectors shall allow routing of a continuous ground riser conductor up one (1) leg, across the structure and down the other leg, without cutting the continuous ground riser conductor.

14. STANDARD LIGHT & PROBE POLES

The design of the poles shall meet or exceed the latest editions of the NESC and the ASCE "Design of Steel Transmission Pole Structures". The design, fabrication, coating, and other provisions of this Subsection shall apply to the light and probe poles.

14.1. Fabrication

For specific details and dimensions, refer to the drawings included with this Specification, if applicable.

14.1.1. The poles shall be direct embedded tapered tubular steel poles complete with cap plate and accessories. The poles shall be hot dip galvanized.

14.1.2. The length of the probe pole shall be as specified per drawings.

14.1.3. Lighting attachments shall be fabricated at a height of 30' from the ground line. The pole shall also include grounding attachments along the full height of the pole, that meet the requirements of the grounding Subsection of this Section of these Specifications.

14.1.4. The poles shall be designed to eliminate the need for vibration dampening.

14.1.5. One (1), 4" X 6 1/2" hand hole shall be welded into each pole two (2) feet from the base. A weatherproof flat cover shall be provided for flush mounting to the hand hole.

14.1.6. One (1) single gang outlet frame shall be welded in each pole three (3) feet from the base as shown on the drawings. The outlet frame must have a flat surface for installation of a standard duplex outlet and cover plate.

14.1.7. Four (4), 2" pipe couplings shall be welded in each pole as shown on the drawings and shipped with removable caps.

14.1.8. Four (4), 2" pipe plugs shall be supplied with each pole.

14.1.9. A 2" diameter lightning probe five (5) feet in length, pointed on one (1) end, and threaded on the other, shall be supplied for installation in the top cap of the probe poles. The top cap on the pole shall be drilled and tapped to accept the lightning probe.

14.1.10. A grounding pad, drilled and tapped, as shown on the drawings will be provided. Ground connectors shall be, Anderson type VL4D-41-4-H.

14.1.11. Luminaire supports shall be fabricated as indicated in Section "B-B" the probe pole detail as shown on the drawings. The 2" diameter arms shall be threaded at the open end for luminaire mounting. The luminaires shall be provided by JEA.

14.1.12. The quantities of luminaire supports are listed on the Bill of Materials and shown on the drawings, where applicable.

14.1.13. After galvanizing, ensure that the threaded taps for the lightning probe and the luminaire supports are free of excess galvanizing. Ensure luminaire supports and lightning probe will thread into the pole.

14.1.14. Vangs for static wire pull-off shall be as shown on the drawings, designed for the pull-off tension(s) and direction(s) specified.

14.1.15. All structure openings shall be designed to be plugged or covered during final field installation.

14.2. Quantity: The exact quantity of light and probe poles to be furnished shall be indicated on the drawings and Bill of Materials.

15. PIECE IDENTIFICATION TAGS & STRUCTURE NAMEPLATES

15.1. PIECE IDENTIFICATION TAGS: JEA requires that the Company furnish and attach to each piece of each structure a temporary label that clearly identifies each piece of each structure. The purpose of this temporary label is to assure correct identification of the pieces when being off-loaded, moved, and assembled at the project site. The piece label shall meet the following requirements:

15.1.1. The label shall be securely tied to each piece with steel wire, #20 AWG or better, such that wire cutters will be required to remove the piece. The label shall be tied near an end of the structure if at all practical, preferably through a bolting hole.

15.1.2. The label and the marking method shall be manufactured of material that can survive one (1) year of outdoor exposure to inclement weather, such as is typical of Northeast Florida, without significant deterioration or loss of print.

15.1.3. The label shall include the following markings, as a minimum with block printed text 1/8" in height:

<Company Name & Location> (e.g. ABC Substations, Prague, Germany)
JEA <Project Name and Number>
<Company> JOB # 12345 – JEA PO #12435
Date <Manufacturing Date>, DWG #<Manufacturers Drawing Number>
STR# <Structure Number>, PIECE #<Piece Number>
APPROX. WT. THIS PIECE <Pounds> LBF.

15.2. STRUCTURE NAMEPLATES: Additionally JEA requires that the Company furnish and attach a permanent nameplate to each whole structure, one (1) per completed structure. The purpose of this nameplate is to allow JEA to readily identify any structure in the field, for the life of the structure.

15.2.1. Each structure shall contain at least one (1) such plate, attached to a piece of channel, similar to the means for attaching the ground connector to the structure, and similar in location (different face).

15.2.2. Each plate shall be fabricated of stainless steel, approximately 1/16" thick. Each corner shall be rounded to a radius of 1/4". All lettering shall 1/8" tall block text and shall be engraved. Each plate shall be rectangular, sized approximately 4" x 3" and shall include four (4) holes, approximately 3/16", in each corner, located to provide at least 1/8" of metal around the hole. Text shall be spaced at least 1/8" away from any edge or hole.

15.2.3. Each plate shall be fastened to the channel in an approved method after structure galvanization.

15.2.4. The Company shall identify the location of the nameplate on the Structure Detail Drawings. The Company shall include with every set of Structure Detail Drawings a complete nameplate detail sheet showing the nameplate, its dimensions, and text, excepting that text that changes from structure to structure.

15.2.5. The label shall include the following text, as a minimum with block printed text 1/8" in height:

<Company Name & Location> (e.g. ABC Substations, Prague, Germany)
JEA <Project Name and Number>
<Company> JOB # 12345 – JEA PO #12435
Date <Manufacturing Date>, DWG #<Manufacturers Drawing Number>
STR# <Structure Number>, PIECE #<Piece Number>
APPROX. WT. THIS PIECE <Pounds> LBF.

16. SHIPPING REQUIREMENTS

16.1. All lattice trusses and columns shall be shipped completely assembled. All sections shall be properly prepared for shipment so that no damage will occur during transit. Particular care shall be used in placing suitable separators between heavy pieces and extra-long pieces. General use of non-abrading dunnage materials shall be carefully used to prevent damage to zinc coating in transit.

16.2. All bolts, washers, lock washers, and nuts shall be shipped in a metal weatherproof keg, properly labeled in accordance with the "Bill of Material".

16.3. Pickup points designed into the structure shall be placed such that the structure can be safely off-loaded.

16.4. All structures shall be shipped to the job site F.O.B. point of destination, freight prepaid and allowed.

16.5. The Company shall supply a shipment schedule, preferably in the form of a spreadsheet, for each substation structure and material shipment. The master shipment schedule shall provide, at a minimum, the following information for each item in the shipment:

16.5.1. No./Structure No./Piece # (as shown on the Material List)

16.5.2. Description

16.5.3. Quantity

16.5.4. Weight of shipment and weight of heaviest piece

16.5.5. Delivery Date (The date of arrival in Jacksonville, Florida)

16.5.6. Manufacturer's Shipping Representative

16.5.7. Phone No. of Shipping Representative

16.5.8. Substation Packager's Job No.

16.5.9. JEA Project Name and Project Number

The shipment schedule shall be submitted to the JEA Project Engineer via electronic mail at least one (1) day prior to shipping any items.

17. CORRECTIONS

17.1. Field services representatives of the equipment and materials shall be provided in a timely manner to correct errors, discrepancies, or omissions in the structures furnished, as required by JEA.

17.2. Corrections of errors, discrepancies, or omissions shall be made immediately upon notification from JEA in order to prevent delay of construction. All corrections resulting from errors, discrepancies, shipping damage, etc., approved by JEA to avoid delay of construction and required for the installation and proper use of the structures, shall be paid for by the Company.

17.3. The Company shall be contacted prior to field corrections. However, if time is critical, JEA reserves the right to decide to correct the member or have a replacement member furnished.

(END OF SECTION II)

III. EQUIPMENT & MATERIALS

1. SCOPE

This Section covers the selection and furnishing of electrical substation equipment associated with the galvanized steel structures to be provided by the Company, as detailed elsewhere in these Specifications. In addition, control and instrumentation cable may be required to be furnished as described in other Sections.

2. EQUIPMENT

It is the Company's responsibility to provide the exact quantity of items necessary for the complete installation of the substation steel and its associated equipment including, but not limited to, bus connectors, bus clamps, insulators, switches, potential transformers, surge arresters, and cable. Information typically provided will be the substation Single Line Diagram and JEA's typical plan and elevation views for the desired or a similar substation package order. The Company shall be responsible for development of a substation Bill of Materials for each particular substation for which a P.O. is issued. All shipments should be crated and palletized for transportation. The packaging shall clearly identify the component, the Company's name with the JEA P.O. number, and JEA substation name.

3. POTENTIAL TRANSFORMERS

3.1. The potential transformers for metering and relaying applications in nominal voltages of 69kV (ratio 350/700:1:1), 138kV (ratio 700/1200:1:1), and 230kV (ratio 1200/2000:1:1) shall be oil immersed with a single primary and two (2) secondary windings, 0.3% w, x, y, z, and zz burdens. The design shall comply with IEEE C57.13.

3.2. The potential transformers for 26kV service shall be of the single primary bushing type, dry type, 150kV BIL, 14,400 primary voltage, voltage ratio of 120:1, 0.3% w, x, y, z, and zz burdens.

3.3. The following is a list of approved potential transformers for substation application:

Nominal System Voltage	Manufacturer and Model Number
26kV	ABB 7525A96G02
69kV	ABB 350V0691AS Alstom OTEF 72 Trench Electric UT5-350-69
138kV	ABB 650V1381AW Alstom OTEF 145 Trench Electric UT5-650-138
230kV	ABB 900V2301AC (or 900V2301AE) Alstom OTEF 245 Trench Electric UT5-900-230

3.4. Each potential transformer shall be equipped with a stainless steel nameplate permanently mounted on each unit. The nameplate shall be stamped with the following information:

3.4.1. Manufacturer's Name

3.4.2. Manufacturer's Type and Catalog Number

3.4.3. Rated Primary Voltage

3.4.4. Ratios

3.4.5. Basic Impulse Insulation Level

3.4.6. Rated Frequency

3.4.7. Thermal Burden Ratings at Ambient Temperature

3.4.8. Accuracy Rating

3.4.9. Manufacturer's S.O. or J.O. Number

3.4.10. Serial Number

4. SURGE ARRESTERS

4.1. GENERAL

4.1.1. All arresters covered by this Specification shall be standard duty, MOV (gapless metal oxide varistor) with ANSI-70 gray polymer housing and shall be designed, manufactured, and tested according to the latest edition of ANSI/IEEE Standard C62.11 for Metal-Oxide Surge Arresters and IEEE 62.22 application guide.

4.1.2. All arresters shall be of a single unit design. Grading rings shall be provided as recommended by the manufacturer.

4.1.3. The arrester housing shall be a flame resistant grey polymer with UV and anti-tracking inhibitors added for long-life. EPDM arresters must be suitable for high pressure washing.

4.1.4. The arresters shall also be mechanically strong enough to withstand wind loads of 120 MPH.

4.1.5. All arresters shall be designed to operate in an average ambient temperature of up to 104 $^{\circ}$F and a daily maximum temperature of 140 $^{\circ}$F. They shall have a minimum rated ultimate cantilever moment of 20,000 in-lbs and unless otherwise noted shall be suitable for vertical mounting.

4.1.6. All arresters shall be station class with a minimum withstand fault current capability of 80kA. They shall have a minimum single shot energy rating of 4.6Kj/KV MCOV.

4.1.7. Arresters shall be station class and equipped with a tin-platted NEMA 4-hole pad line terminal on the high side that will accommodate aluminum or copper conductor diameter sizes from 1/4" inches to 1.15". The base of each arrester shall be equipped with a factory installed casting which provides a 10" diameter bolt circle and allows for 1/2" diameter bolts. Note that all arresters to be used on systems with voltage 69kV or greater shall accept a connector that terminates a 4", NEMA 4-hole pad onto the arrester pad.

4.1.8. All arresters shall be suitably packaged to prevent damage during shipping and storage.

4.2. CHARACTERISTICS

All arresters must conform to the minimum requirements outlined in the following table:

JEA ITEM ID ARRST-	HEIGHT IN INCHES (WITH TOP SPADE CONNECTOR)	VOLTAGE RATING (KV)	MCOV (KV)	MINIMUM CREEPAGE DISTANCE (INCHES)	MAXIMUM 0.5 µsec VOLTAGE (KV CREST) *	MAXIMUM SWITCHING SURGE (@500amps) (KV CREST)	MAX. DISCHARGE VOLTAGE (KV CREST) USING A 8X20 µsec CURRENT WAVE	
							10kA	20 kA
3	14 +/- 1	3	2.55	10	8.8	6.2	7.9	8.8
11	14 +/- 1	10	8.4	16	28	20.4	25.7	28.3
17	21 +/- 2	21	17	33	56.3	41.3	51.8	57
18	21 +/- 2	21	17	/33	56.3	41.3	51.8	57
42	31 +/- 2	54	42	64	144.4	104	131.3	145.3
43	31 +/- 2	54	42	64	144.4	104	131.3	145.3
86	57 +/- 2	108/54	84/42	140/77	289/145	208/104	263/132	291/145
89	57 +/- 2	108	84	117	288.9	208	262.6	290.7
145	85 +/- 3	180	144	191	476	354	438	482

*Must use a 10kA impulse current wave which produces a voltage wave cresting in 0.5 µSEC.

4.3. APPROVED MANUFACTURER'S/PRODUCT FOR LISTED STATION CLASS SURGE ARRESTERS

4.3.1. ARRST003: 4.16KV CLASS; 3KV DUTY CYCLE; 2.55KV MCOV

4.3.1.1. CPS UHAA003002A0845A11; GE 9L11XPA003S; OB 314003-3001

4.3.2. ARRST011: 13.2KV CLASS; 10KV DUTY CYCLE; 8.4KV MCOV

4.3.2.1. CPS UHAA010008A1045A11; GE 9L11XPA010S; OB 314009-3001

4.3.3. ARRST017: 26.4KV CLASS; 21KV DUTY CYCLE; 17KV MCOV

4.3.3.1. ABB Q021SA017A; CPS UHAA021017A1845A11; GE 9L11XPA021S; OB 314017-3001

4.3.4. ARRST018: UNDERHUNG 26.4KV CLASS; 21KV DUTY CYCLE; 17KV MCOV

4.3.4.1. OB 315017-3001; CPS UHAA021017A1845C11

4.3.5. ARRST042: 69KV CLASS; 54KV DUTY CYCLE; 42KV MCOV

4.3.5.1. ABB Q054SA042A; CPS UHAA054042A3045A11; GE 9L11XPA054S; OB 314042-3001

4.3.6. ARRST043: UNDERHUNG 69KV CLASS; 54KV DUTY CYCLE; 42KV MCOV

4.3.6.1. ABB Q054SA042AUH; OB 315042-3001; CPS UHAA054042A3045C11

4.3.7. ARRST089: 138KV CLASS; 108KV DUTY CYCLE; 84KV MCOV

4.3.7.1. ABB Q108SA084A; CPS UHAA108084A6045A11; GE 9L11XPA108S; OB 314084-3001

4.3.8. ARRST145: 230KV CLASS; 180KV DUTY CYCLE; 144KV MCOV

4.3.8.1. ABB Q180SA144B; CPS USAA180144A8645A11; OB 314144-3001

4.4. TYPICAL INSTALLATION: For purposes of corona avoidance, unless otherwise noted, arresters shall be installed with conductor sizes as indicated below. Note that when there are other uses of conductors on the project that are near to these sizes (Outside Diameter +/- 10%), the Company may substitute the available size:

SYSTEM VOLTAGE	CONDUCTOR SIZE
26KV	1/0 AWG
69KV	4/0 AWG
138KV	400 KCM
230KV	1000 KCM

4.5. Each arrester shall be equipped with a stainless steel nameplate permanently mounted on a base. The nameplate shall be stamped with the following information:

4.5.1. Manufacturer's Name

4.5.2. Manufacturer's Type and Catalog Number

4.5.3. Arrester Classification

4.5.4. Duty Cycle Voltage of the Arrester

4.5.5. MCOV Rating of the Arrester

4.5.6. Pressure Relief Current Rating (for intermediate and station arresters)

4.5.7. Year of Manufacture

4.5.8. Serial Number

5. GROUP-OPERATED AIR SWITCHES

5.1. General: This specification covers the technical requirements for the design and manufacturer of three pole, group operated vertical break or double end break air disconnect switches rated 14.4KV through 230KV, 600A through 3000A continuous current. The switches shall be supplied complete with mounting channels, post-type insulators, and control mechanisms, including inter-phase operating pipes, vertical operating pipes, gear devices, outboard bearings, and all other parts required to make up the operating mechanisms.

5.2. Standards: All equipment and materials shall be designed, manufactured, and tested in accordance with the latest edition of all applicable codes and standards (NEMA, ANSI, OSHA, and EPA) including but not limited to those listed below. In the event of a conflict between referenced standards and this specification, requirements of this specification shall govern.

5.2.1. ANSI A58.1: Minimum Design Loads for Buildings and Other Structures

5.2.2. ANSI C29.1: Electrical Power Insulators, Test Methods

5.2.3. ANSI C29.9: Wet-Process Porcelain Insulators

5.2.4. ANSI C37.34: Test Code for High Voltage Air Switches

5.2.5. ANSI/ASQ A9000-2000: Quality Management Standards.

5.2.6. NEMA: The switches shall be designed and furnished in accordance with NEMA standards in effect prior to the 1971 revisions. In particular, all switches shall be designed for 30 ^{0}C temperature rise rather than the 53^{o}C currently allowed. For switches that have been tested at 53^{o}C, JEA will consider those as meeting the 30 ^{0}C as long as they are de-rated a minimum of 27%.

5.2.7. ANSI/NEMA MG1: Motors and Generators

5.2.8. STM A153: Zinc Coating (Hot Dip) on Iron or Steel Hardware

5.3. SERVICE CONDITIONS:

5.3.1. The switches shall be suitable for use in an ambient temperature range of -30^{o}C to +40^{o}C.

5.3.2. The switches, structure, material, fittings, and hardware shall be suitable for use in a seacoast marine environment.

5.4. SWITCH CONSTRUCTION:

5.4.1. GENERAL:

5.4.1.1. STRENGTH: The mechanical strength of the switch shall be designed to withstand all stresses to which they will be subjected.

5.4.1.2. DESIGN LIFE: The switch shall be designed for maintenance-free operation in severe environmental and operating conditions with a design life minimum of 40 years. Note that contact replacements shall not be considered defects as long as they last a minimum of 15 years.

5.4.1.3. CONTACTS: All contacts shall be silver to silver and designed to prevent damage or contact welding under normal and fault conditions. Make-break contacts shall be designed so that wiping action is accomplished with minimum wear and without galling of either contact surface.

5.4.1.4. MOUNTING: Detailed steel structural drawings will be supplied by purchaser with the request for quotation showing the required mounting position, mounting height, and phase spacing of the switches on the request. Manufacturer shall custom engineer the operating mechanism arrangement for each switch to fit its specific structure.

5.4.1.5. DISSIMILIAR METALS: There shall be no stainless to aluminum connections in moving joints, pivot points or where long term preventive maintenance will be performed. Stainless steel helical inserts are acceptable where stainless steel screws will be used.

5.4.2. BLADE: Blades shall be hard drawn bus copper or aluminum tubing with silver current transfer surfaces having a minimum silver thickness of 0.001". Bolted blade contacts shall have a minimum thickness of ½".

5.4.3. HINGE ASSEMBLY:

5.4.3.1. COUNTERBALANCE: All vertical break switch blades rated 69KV and above and 2000 amps and above shall be furnished with counterbalances to provide smooth, thoroughly controlled movements of the blades from the full closed to the full open position and vice versa. The required operating effort to open and close the switch shall not exceed 35 lbs. Counterbalance springs (and plunger where applicable) shall be insulated maintenance-free coated carbon steel or tectile coated steel (stainless steel is acceptable). The housing shall be galvanized steel, bronze, stainless steel or aluminum housing to protect against dirt and corrosives.

5.4.4. JAW ASSEMBLY:

5.4.4.1. CONTACTS: The contacts shall be high pressure contacts backed by stainless steel springs located outside of the current path. The design will be a reverse loop or tulip design to provide superior contact during faults. Current transfer shall be via copper contact fingers having silver current transfer surfaces with a minimum of 10 mils silver. The contact fingers shall be field replaceable and where applicable, interchangeable with the hinge contact fingers. The jaw for double end break switches shall be designed to allow for substantial deflection without diminishing contact pressure of effectiveness of current transfer.

5.4.4.2. ARCHING HORNS: Movable and stationary arching horns suitable for interruption of line charging and transformer magnetizing currents shall be supplied as standard equipment unless the request for quotation specifies that load break interrupters are required. The arcing horn shall be stainless steel or bronze.

5.4.5. INSULATORS:

5.4.5.1. TYPE: Insulators shall be wet process station post single porcelain units that have an ANSI/IEEE 70 light gray finish. Approved manufacturers are Lapp, NGK-Locke, and Newell. Minimum BIL, leakage distance, and other ratings shall be as defined below:

KV	BIL (KV)	LEAKAGE DISTANCE	Bolt Circle Diameter
13.8	110	15”	3”
34.5	200	18”	3”
34.5	200	18”	5”
69	350	72”	3”
69	350	72”	5”
138	650	116”	5”
230	900	165”	5”

At 69KV and below the selection of either 3 inch bolt circle insulators or 5 inch bolt circle insulators will be determined by the switch manufacturer based upon the switch’s requirements for the specific KV and amperage rating required.

5.4.5.2. JACKING BOLTS: For 69KV switches and above, galvanized steel jacking bolts and hardware shall be provided to level all insulator stacks. Shims are not acceptable for leveling.

5.4.5.3. BEARINGS: The rotating insulator stack bearing shall be a sealed maintenance free double bearing assembly. Acceptable types shall be stainless steel ball type, bronze ball type, Timken tapered roller type, or sealed automotive ball type as selected by the

manufacturer for the KV rating and amperage rating of the switch. All bearing seals shall be rubber or felt – plastic (nylon) is not acceptable.

5.4.6. BASE: The base shall be welded structural steel channel (single or double channel as determined by the manufacturer based on the KV and amperage rating of the switch) and hot dipped galvanized after fabrication. The channel shall be webbed and rolled. Double channel bases may be bolted together after fabrication. The switch base shall be sufficiently rigid to operate properly under all loading conditions without dependence on the supporting structure. All switch bases shall have mounting holes custom punched to fit the support structure upon which they will be installed. Excessive holes for additional mounting options are not acceptable as they tend to decrease the strength of the base. Provide mounting brackets and other hardware as required for upright horizontal mounting or vertical mounting on substation switch structures.

5.4.7. OPERATING MECHANISM: The operating mechanism for the switches shall be defined in the request for quotation and shall be either a manual worm gear operator or a motor operator. The operator shall come complete with all necessary operating rods, attachment hardware, etc. for a complete installation in accordance with the contract drawings. Except for vertically mounted switches, the operating mechanism shall be connected to the B phase with linkages to the A and C phase. The mechanism shall provide smooth, continuous motion with minimal operating effort suitable for motor or manual operator.

5.4.7.1. INDICATOR AND LOCKING DEVICE: An all metal OPEN and CLOSED position indicating device shall be provided at or near the operating device. Provisions for padlocking the switch in the OPEN and CLOSED positions shall be provided. Holes shall be ½" minimum.

5.4.7.2. PIPE (INTER-PHASE, DRIVE, and OPERATING): Linkages shall be designed such that they will not deteriorate or become hard to operate with the passage of time. No lubrication, adjustments or maintenance of any kind should be required. The vertical control pipe shall be 2". All other pipes shall be sized as required by the manufacturer to accommodate the specific installation requirements and to prevent excessive deflection and pipe sag. Where permitted by the structure design the drive pipe shall be connected to the center phase of the switch. All linkage pipe shall be threaded to allow easy adjustments – punched holes are not acceptable.

5.4.7.3. CLEVIS: Clevises shall be galvanized steel or high strength silicone bronze. Pin for clevis, flat washer and cotter key shall be stainless steel (303 or 316).

5.4.7.4. GROUNDING: A flexible tin-platted copper strap with clamp type connectors shall be furnished for connecting the lower end of the vertical operating shaft (rod) to the structure ground. The conductor's current carrying capability shall not be less than 4/0 AWG copper conductor.

5.4.7.5. OUTBOARD BEARING: The outboard bearing shall be a sealed maintenance free stainless steel bearing or high molecular weight polyethylene bushing. The housing shall be galvanized, bronze, or aluminum.

5.4.7.6. MANUAL OPERATOR: All switches shall come with a manual worm gear operator with a 30:1 gear ratio and permanently lubricated gears. It shall be adjustable from 90 degrees rotation to 180 degrees rotation and pad-lockable in both the open and closed positions. The operator shall require a maximum operating effort to open or close the switch of 35 lbs. of force. There shall be a minimum of 6" from back of housing to the center-line of the vertical pipe for simplicity of mounting brackets. Coupling shall be as necessary for the manufacturer's designed vertical pipe.

5.4.7.7. MOTOR OPERATOR:

5.4.7.7.1. ENCLOSURE: The enclosure shall be NEMA 3R powder coated corrosion resistant aluminum housing (minimum thickness of 1/8") with stainless steel handle hardware. It shall include a sloped top and front access door. The handle shall have provisions for a padlock. The door shall be removable for easier access to all components. The bottom shall have plate covered openings for three 2" conduits. The enclosure shall have provisions for grounding the cabinet with a #2 copper conductor. Painted motor operator cabinets are not acceptable.

5.4.7.7.2. LIGHTING: Provide a 120V conventional light socket and bulb in the mechanism housing.

5.4.7.7.3. MOTOR: The motor shall be a single phase high torque electric motor rated for 125VDC.

5.4.7.7.4. HEATER CIRCUIT: Provide a 120V single phase heater with thermostat.

5.4.7.7.5. CONTROLS: The motor operator shall be solid state and shall include local/remote selector switch, open-close-stop pushbuttons, reversing contactor, and an 8 stage auxiliary switch.

5.4.7.7.6. PROTECTION: Provide thermal overload protection for the motor and fused pullouts to protect the motor/ control circuit and the heater circuit.

5.4.7.7.7. WIRING: Provide a power terminal block for incoming source supply leads.

5.4.7.7.8. HAND CRANK: A manual hand crank (insertion of which shall automatically disconnect the motor circuit) shall be provided and stored on the inside of the cabinet door for security purposes. The unit shall include a de-coupler with manual swing handle - the ability to re-couple in the incorrect position shall be positively prevented.

5.4.7.7.9. ADJUSTMENTS: The motor operating mechanism shall be capable of rotational adjustments from 30 degrees to 330 degrees (but shall be factory set with the proper output rotation for the switch it is to operate).

5.4.7.7.10. DOCUMENTATION: The unit shall include an instruction book with applicable drawings. A pocket shall be provided on the inside of the front door to store drawings and instruction book.

5.4.8. INTERRUPTERS: Interrupters to provide full load-break capabilities are required on all switches used in buss-tie applications. One interrupter shall be provided per phase.

5.4.9. MISCELLANEOUS:

5.4.9.1. OPERATOR PLATFORM: All group operated switches shall be supplied with an operator platform as shown on the drawing "Typical Operator Platform Detail". The platform may be provided by a third party such as a substation packager. The manufacturer shall provide ground connectors for attaching the platform at one location to the structure and two separate locations to the station ground grid. The platform shall be designed in accordance with recommendations of IEEE-80 pertaining to touch potentials.

5.4.9.2. MECHANICAL STOPS: Adjustable non-breakable stops shall be provided at both the operating mechanism and the rotating insulators.

5.4.9.3. TERMINAL PADS: All pads shall be finished on the top surface to provide a smooth connection point for terminal connectors to transfer current. The pads shall be tin platted 4-hole NEMA pad suitable for bolted aluminum or copper connectors with standard hole spacing of 1 ¾ inches x 1 ¾ inches.

5.4.9.4. GREASE: All grease shall be high temperature synthetic grease.

5.4.9.5. DOUBLE END BREAK SWITCHES: These switches may only be used when the completed assembly will require the same spacing as vertical break switches.

5.4.10. SPECIAL REQUIREMENTS FOR ALUMINUM SWITCHES:

5.4.10.1. CONTACTS: Silver contacts shall be applied to a base of copper and then electro-tin plated or hot dip tinned to prevent the wash of copper salts over aluminum parts. Silver applied directly to aluminum is not acceptable.

5.4.10.2. STAINLESS STEEL SCREWS: In order to prevent aluminum growth from seizing screws, there shall be no direct interconnection of stainless steel screws to aluminum.

5.5. SHIPPING:

5.5.1. On switches rated 138KV and below the individual switch phases shall be shipped fully assembled and adjusted on insulators, thus minimizing field installation time required. At 230KV the individual switch phases shall be shipped with the live parts bolted to the switch bases (due to transportation height limitations) and the insulators shipped packaged separately for field installation on the switch phases.

5.5.2. During transportation, switch contacts must be protected to prevent any wear down of the silver contact area.

5.5.3. The switch shall be crated in wood. The inter-phase pipes and operating pipes required for each switch shall be bundled together on a per switch basis. All remaining hardware shall be packaged in water proof cartons on a per switch basis.

5.5.4. The switch shall be shipped F.O.B. point of destination with freight prepaid to:

JEA

Commonwealth Service Center

6674 Commonwealth Ave

Jacksonville, Fl.

5.6. MISCELLANEOUS:

5.6.1. The structure/switch shall be provided with a stainless steel nameplate with Aluminum or Stainless steel rivets in a convenient location. The nameplate shall include: Manufacturer Name, Switch type and catalog number, rated voltage, rated continuous and short circuit current, BIL, and manufacturer S.O. number or J.O. number.

5.6.2. Deviations or exceptions to this specification may or may not be permitted depending upon JEA's judgment on whether or not such a change would be critical to system long term performance. Any approved modifications must be acknowledged by a written letter of acceptance from the JEA design engineer.

5.7. SPARE PARTS: No spare parts shall be purchased initially as the switches must be essentially maintenance-free devices. Manufacturer's drawings shall have a bill of materials which would allow Purchaser to identify any desired spare parts, allowing them to be requested for quotation by specifying exact part numbers and quantities desired.

5.8. WARRANTY: The manufacturer shall warrant the complete switch to be free from defects in design, material and workmanship for a period of 1 year after commissioning. If any components fail during the warranty period, manufacturer shall be responsible for furnishing parts and all transportation, supervision, labor and other cost of dismantling and installing the new or repaired part. In addition, the manufacturer shall provide an additional 9 years of warranty for parts only. The warranty shall include parts and components of other suppliers which are an integral part of the switch.

5.9. SWITCH RATINGS: All ratings shall be based on ANSI C37.30 and tested in accordance with ANSI C37.34. Minimum ratings are shown below but these ratings shall be exceeded when necessary to accommodate anticipated mechanical or electrical loads.

KV	FULL LOAD AMPS	SHORT CIRCUIT	BIL
34.5	2000	61Ka	200
34.5	3000	100Ka	200
69	1200	61Ka	350
69	2000	70Ka	350
138	1600	70Ka	650
138	2000	100Ka	650
230	1600	70Ka	900
230	2000	100Ka	900

5.10. SUBMITTALS: All drawings and documentation to be furnished shall be in the English language. Manufacturer shall furnish approval drawings in Micro-station (AutoCAD is also acceptable) format via e-mail. The purchase order will designate the name and e-mail address of the individual that the drawings are to be forwarded to. If there are no comments to the approval drawings, purchases will respond via e-mail that drawings are approved as submitted with no changes. If comments are required, one copy of the drawings will be returned to manufacturer within 5 business days from the date of transmittal marked "approved with comments as noted". Manufacturer shall furnish 3 hardcopies of the final drawings and a CD of these drawings in AutoCAD format. Manufacturer shall furnish 3 copies of each applicable instruction book. These instruction books shall be transmitted to the same individual that the final drawings are to be sent to unless otherwise instructed by purchaser.

5.11. APPROVED MANUFACTURER REQUIREMENTS: Only manufacturers that are pre-qualified may be used. Manufacturers wishing to get pre-qualified should submit the information listed in section 12. Listed below are the existing pre-qualified manufacturers and switches.

5.11.1. Joslyn - RF2

5.11.2. Southern states – wag

5.11.3. PASCOR ATLANTIC – TTR8 (modified)

5.11.4. CLEAVELAND/PRICE –V2-C

5.12. DOCUMENTATION REQUIRED FOR PREQUALIFICATION: Manufacturers who wish to be added to the pre-qualified approved manufacturers list should contact Barry Marquart @ (904) 665-7498 to give a formal presentation. They should also submit the following information.

5.12.1. GENERAL INFORMATION:

5.12.1.1. Manufacturer's history and location of design/fabrication facilities.

5.12.1.2. Users list with contact numbers.

5.12.1.3. Deviations, if any, from this specification.

5.12.2. SWITCH INFORMATION:

5.12.2.1. Switch drawings along with budgetary cost and approximate lead times for the various switches.

5.12.2.2. Instruction manual with maintenance procedures.

6. HOOK-OPERATED DISCONNECT SWITCHES

6.1. This Specification covers the electrical characteristics and mechanical features of 26kV and 69kV, hookstick-operated, air disconnect switches with continuous current ratings of 600, 1200, and 2000 amperes.

6.2. All hook-operated disconnect switches are to be furnished complete with bases, insulators, and terminals. The switch shall be designed, manufactured and tested in accordance with current ANSI, IEEE, and NEMA standards.

6.3. Current rating shall be based on a 30 °C temperature rise. The continuous current (RMS) shall be based on a limit of observable temperature rise as specified in Clause 5 of IEEE standard 37.30, when tested in accordance with Clause 6 of IEEE standard C37.34.

6.4. The rated maximum voltage shall be based on dielectric tests in accordance with Clause 4 of IEEE standard C37.34.

6.5. The rated peak-withstand currents and rated short-time (symmetrical) withstand currents shall be based on Section 5.5 of IEEE standard C37.30.

6.6. Outdoor air switches in either the open or closed position shall withstand the dielectric test voltages between live parts and ground in accordance with ANSI, IEEE, and NEMA standards.

6.7. Outdoor air switches when new and clean and when tested at the point of manufacture shall be capable of meeting the limits of radio-influenced voltage at the test voltage specified in IEEE standard C37.34, Clause 5, latest revision. The design of the switch including nuts, bolts, pins, and other conducting parts shall prevent radio or telephone interference with the switch in either the open or closed position.

6.8. Insulators shall be supplied with the switch and shall be of the station post type. The station post insulators shall be porcelain, solid core, ANSI-70 gray in color and manufactured by Lapp, NGK-Locke, or Newell.

6.9. Terminal pad drilling for each switch shall consist of standard NEMA 4-hole pad, ground-smooth finished and tin-plated. Transition plates for copper to aluminum connections are not allowed.

6.10. Connection to each switch shall be clamp type or weld type connectors to fit the conductor to be attached to the switch. Each connector shall be attached to the switch with a minimum of four stainless steel bolts.

6.11. All switches are to be furnished with live parts made of high conductivity copper and the blade of hard drawn high conductivity copper.

6.12. Vertical mounted switches shall have blade stops so that the maximum travel of the blade is 90 degrees.

6.13. Where a 60 degree underhung switch is specified, supply USCO type HH6V-3412-60. All other hook-operated disconnect switches shall be USCO (HH6-3412), Southern States (PBO-1-341200), or Joslyn (55303).

6.14. The hinge and blade contact shall be silver plated. The hinge contact shall maintain connection throughout the complete open and close cycle of operation.

6.15. Acceptable methods of silver applications are listed below. No solder shall be employed in the application of silver.

6.15.1. Brazed overlay of fine silver (Commercial Purity 99.90%) with a minimum thickness of .010".

6.15.2. Brazed inlay of fine silver (Commercial Purity 99.90%) with a minimum thickness of .010".

6.15.3. Approved silver flame-spray application (Metco or equivalent), coined, with a minimum thickness of .010" (Commercial Purity 99.90%).

6.16. All silver-to-silver contacts shall be made of silver having differing hardness, preferably of two (2) different types of silver applications. Contacts shall be designed so that wiping action is accomplished with minimum wear and without galling of either contact surface. Wear of contacts shall be such that after 1000 operations, the mating parts will still have adequate surface material to meet electrical nameplate requirements.

6.17. Hookstick-operated switches shall be furnished with a latch for positive lock-in on closing. Latch position shall be easily seen from ground level. A large hook eye shall be furnished for ease of operation. The blade pry-out mechanism device that imparts an easy opening motion to the switch blade when the operating ring is pulled should be designed such that any downward lever action will apply pressure directly on top of, and in line with, the insulator stack and also spread the jaw blades.

6.18. All bolts, pins, nuts, washers, and lock washers used on conducting parts shall be stainless steel.

6.19. The switch shall be designed such that a reasonable buildup of industrial or salt contaminates shall not prohibit the successful operation of the switch.

6.20. Each switch shall be equipped with a stainless steel nameplate permanently mounted on base. The nameplate shall be stamped with the following information:

6.20.1. Manufacturer’s Name

6.20.2. Manufacturer’s Type and Catalog Number

6.20.3. Rated Voltage

6.20.4. Rated Maximum Voltage

6.20.5. Rated Continuous Current

6.20.6. Rated Short Circuit Current

6.20.7. Rated Impulse Withstand Voltage

6.20.8. Manufacturer’s S.O. or J.O. Number

6.20.9. Serial Number

6.21. The manufacturer shall perform all tests and inspections necessary to show full compliance with this Specification.

6.22. Provide the following test data:

6.22.1. The continuous overload capability in amps of the switch at 0, 10, 20, and 40 °C rise above ambient temperature in moving air at 2ft./sec. A maximum hot spot temperature of 90 °C at the contacts (jaw or hinge end) shall not be exceeded.

6.22.2. The emergency (six hour) overload capability in amps of the switch at 0, 10, 20, and 40 °C rise above ambient temperature in moving air at 2ft./sec. A maximum hot spot temperature of 90 °C at the contacts (jaw or hinge end) shall not be exceeded.

6.23. Switches shall be shipped completely assembled with insulators unless specified otherwise.

7. FUSED DISCONNECT SWITCHES

7.1. The fused disconnect switches used for station service and potential transformer application, shall be 26kV, 150kV BIL, S&C Electric Company, type SMD-40, catalog number 192323-SP-Z1, with 34.5-kV NEMA TR-210 Insulators.

7.2. The associated S&C Electric Company type SMU-40 Power Fuse Units shall be as follows:

7.2.1. 15E amp (S&C, No. 823015)

7.2.2. 10E amp (S&C, No. 823010)

7.2.3. 5E amp (S&C, No. 823005)

7.2.4. 1E amp (S&C, No. 823001)

7.3. Provide with tin-plated copper terminals.

8. INSULATORS

8.1. All bus support and switch insulators shall be standard strength, post type insulators complying with the latest revision of pertinent ANSI, IEEE, and NEMA standards. The insulators shall be porcelain, solid core, ANSI-70 gray in color. Where bus length and design require the substitution of a high strength insulator, supply the same height as the associated standard strength insulator. The following is a listing of the applicable insulators:

Nominal System Voltage	TR No.	Height of stack (inches)	BIL
14.4kV	205	10	110
34.5kV	210	18	200
69kV	216	30	350
138kV	288	54	650
230kV	304	80	900

8.2. In certain substation additions, the matching cap and pin replacement insulator may be specified. The specific TR number of the applicable insulator will be given on the Bill of Materials.

8.3. All insulators shall be Lapp, NGK-Locke, Victor, or Newell.

8.4. Units shall be shipped in wooden, wire-bound crates and palletized with all packaging clearly identified with manufacturer's name, substation name, and JEA P.O. number.

8.5. Tapped holes in insulators are to be filled with rust-inhibitive grease and have plastic caps inserted.

9. BUSES (TUBULAR)

9.1. Unless otherwise specified, all aluminum and copper rigid bus shall be schedule 40. The aluminum bus shall conform with the latest revisions of ASTM B-345. The alloy shall have the physical properties or superior to that of aluminum alloy 6063-T6. Copper bus shall meet the latest revision of ASTM B188.

9.2. Bus size shall be 4" IPS aluminum for 69kV and above and 2" IPS aluminum for 26kV. Other sizes may be required to match existing bus sizes currently used in substations that are being expanded, in which case the JEA Project Manager shall work with the Company to identify an acceptable bus size.

9.3. The ends of each length of pipe shall be ground smooth.

9.4. Except for length, variations from the specified dimensions shall not exceed the permissible variations prescribed in ANSI H35.2.

9.5. Pipe shall be supplied in the mill finish and shall be of uniform quality and temper, sound, and free from injurious defects.

9.6. All 45° or 90° radius bends to 2" or larger copper or aluminum pipe shall be made with prefabricated short radius connectors.

9.7. Bus spacing and overhead clearances shall comply with JEA standards and the latest revision of ANSI C37.32 and NEMA SG6. It is the Company's responsibility to insure that all energized equipment and bus are within minimum design tolerances as set forth in the NESC and all other applicable standards for phase-phase and phase-ground clearances.

9.8. For purposes of Aeolian damping, the Company shall supply a length of conductor for insertion inside of horizontal bus runs greater than 8' in length that consist of tubing of 2" diameter or larger.

9.9. Provide rigid, slip and expansion fittings as required to permit expansion resulting from ambient temperature variation.

9.10. Provide with suitable expansion joints or flexible connections where required to relieve stress from equipment bushings and insulators due to expansion or differential foundation settlement of up to ¼".

9.11. Provide corona-free and watertight welded end covers on all exposed ends.

9.12. Provide instructions and details for the field installation, by others, of weep holes in low points for ventilation and drainage of possible moisture accumulation.

9.13. Design for all future connections and extensions as indicated.

9.14. Furnish in bulk to be fabricated to the correct length and shapes, by others, with shipping lengths to give a minimum number of field welds in any section of bus except as required for tap connections. Provide a cutting schedule for bulk bus and indicate on the drawings where each length is to be used.

9.15. Only one (1) bus splice is permitted between any two adjacent supports.

9.16. Each piece of bus tubing shall be individually protected for shipment. All bus tubing shall be shipped in a truck loaded in such a manner that tubes cannot rub against each other or any portion of the trailer. Trailers shall utilize open top design to facilitate unloading by crane.

9.17. The bus shall be shipped F.O.B. point of destination with freight prepaid and allowed to the job site.

9.18. Each shipping container shall be marked with the manufacturer's name, JEA P.O. number, size, schedule number, substation name, and producer's trademark.

10. SUBSTATION CONNECTORS AND HARDWARE

10.1. All necessary connectors shall be provided to terminate or couple bus, cable, equipment, switches, etc.

10.2. All connectors for aluminum bus and aluminum current carrying cable shall be weldment type connectors unless otherwise specified by the JEA Project Manager. All copper cable connectors shall be bronze bolted and tinned connectors unless otherwise specified.

10.3. All NEMA 2-hole and 4-hole flat connectors shall have a ground-smooth surface for terminating. NEMA 3", 4-hole pads shall be used for buswork and cables operating at 26kV and below. NEMA 4", 4-hole pads shall be used for buswork and cables operating above 26kV. NEMA 2-hole pad connectors may be used in 26kV applications that do not carry significant steady-state currents (i.e. potential transformers and arresters) or in specific applications involving multiple braided connections, etc.

10.4. Bolted pad-to-pad connector arrangements shall be provided for all cable connectors to large equipment to allow the removal of the connector from the equipment it is terminated to without disturbing the connection between the connector and the cable.

10.5. For bolted electrical pad connections, provide the following per required bolt: one (1) stainless steel bolt, two (2) stainless steel flat washers, one (1) stainless steel Bellville washer, and one (1) silicon bronze nut. Provide approximately 5% construction spares of all, but not less than two (2) spares. Belleville washers shall have a minimum compression rating of 4,000 pounds. Bolt lengths shall be sized to provide minimal projection beyond hexnut to prevent excessive noise due to corona but entire hexnut must be engaged.

10.6. All bronze connectors shall be tinned where connected to aluminum.

10.7. Provide electrical joint compound for all aluminum-to-aluminum and aluminum-to-copper connections. Furnish "Alcoa Filler Compound" for application in conductor dead-end bodies and Alcoa No. 3 Electrical Joint Compound (Alnox), or approved equal for aluminum connections. Furnish 5% overage of all filler compounds furnished.

10.8. All JEA supplied breakers and transformers are furnished with NEMA 4-hole pads. Provide NEMA 4-hole pad- to-cable connectors to complete these terminations.

10.9. The Company shall furnish all connectors with center formed pads.

10.10. The Company shall furnish ground studs for tubular bus which shall be weldment type and shall be installed horizontal.

10.11. The Company shall furnish only Hubbell-Anderson, Gibbons, Homac, or SEFCOR connectors unless approved in writing by the JEA Project Manager.

10.12. The Company shall furnish tubular aluminum welded splicing sleeves for necessary splices in aluminum tubing.

10.13. For connections between aluminum tubing and cable, the Company shall furnish a welded, tubing-to-terminal, non-transverse type pad connector and a weldment type cable-to-terminal pad connector on the end of the cable. The Company shall furnish All Aluminum Conductor to function as the jumper cabling, unless approved in writing by the JEA Project Manager.

10.14. When buswork connects directly to switches, the Company shall furnish expansion terminals using expansion-type connectors with internal ball-type alignment guides. The preferred method of establishing a current-carrying connection between buswork and major equipment is via a jumper constructed of cabling and connectors as shown in the table below. When connections are to be made via jumpers that do not fit the categories, below, the Company shall recommend a means for connection and request approval of such means from the JEA Project Manager.

Equipment	Voltage Class	Cables	Connectors
Power Transformers	Primary, >26kV	954 AAC / Phase	Weldment
Power Transformers	Secondary, 26kV	(2) 954 AAC / Phase	Double Weldment, with 4” cable spacers
Breakers and Switches	26kV	(2) 954 AAC / Phase	Double Weldment, with 4” cable spacers
Breakers and Switches	>26kV	(2) 954 AAC / Phase	Double Weldment, with 4” cable spacers
Current Transformers and Combined Metering Units	Similar to Breakers		
All Other	Contact JEA Project Manager for further direction.		

10.15. Bus support clamps for rigid bus shall be fixed or slip type as required to firmly support the bus but allow for temperature expansion and contraction.

10.16. Static eliminator spring on bus support connectors shall be permanently fixed to the bus support.

10.17. It shall be the Company’s responsibility to furnish all materials so as to have mechanical and electrical ratings, types, sizes, etc., coordinate with adjacent hardware and fittings. All hardware furnished shall be static-free type.

10.18. Provide wire guides and bundle conductor spacers as required to maintain adequate clearance and support on cable jumpers, connections, and overhead lines.

10.19. All connectors shall be subject to approval by the JEA Project Manager. Catalog cuts shall be submitted for approval for all connectors.

10.20. Tin-plated bronze ground connectors shall be furnished for each structure. All grounding connectors in contact with galvanized structure shall be tinned bronze material.

10.21. All connectors shall be shipped in a durable weatherproof container with the contents clearly labeled according to the "Bill of Material".

11. STRAIN BUS

11.1. For the purposes of this Subsection, a strain bus is defined as a system of conductors and supports which, but for the fact that they lie entirely within the substation boundary, would normally be considered to be a Transmission Line. Transmission lines (in the JEA system) cross the substation boundary, and furnishing and termination of such conductors are outside of the scope of the substation package.

11.2. Strain bus shall normally be single conductor per phase, and shall normally consist of 954 AAC. Strain bus shall be provided with all required connectors, including either bolted quad clamp type connectors for mechanical termination (route the current-carrying cable through the clamp to the substation pad termination) or compression type dead end body connectors. The Company shall furnish all structures, hardware and suspension insulators. Suspension insulators shall be non-ceramic (composite) design with integral corona ring.

11.3. Jumpers on the Strain bus, if any, shall be AAC. If supplying multiple conductors per phase to meet ampacity requirements, provide the associated cable spacers and all hardware.

11.4. Overhead shield wires shall be a minimum 3 No. 6 Alumoweld.

11.5. All conductor, connectors, hardware, and suspension insulators shall match JEA Transmission standard material. These Transmission Standards are available at http://www.jea.com/business/services/Company/standards.asp.

12. INSTRUMENT CABLE & CONTROL CABLES

12.1. The Company shall, in addition to meeting the equipment and material requirements specified in this Section, provide instrument and control cables meeting the requirements as described below. JEA will specify the quantities required at the time of issuance of a JEA P.O.

12.2. DESCRIPTION

This Specification covers single and multiple conductor control cable to be used in control houses, generating stations, and substations where a multiple conductor cable of maximum service reliability is required for remote control of motors, circuit breakers and miscellaneous power equipment, relays, switches, light systems, and similar types of automatic or control circuits. Cable shall be suitable for 0-600 Volt A-C or D-C operations, for installation in wet or dry locations, in conduits or ducts, direct buried and as open wiring indoors, and for continuous operation at conductor temperature up to 75ºC.

12.3. SPECIFICATIONS

Cable shall meet or exceed all applicable requirements of the latest edition of ICEA - NEMA Standards for thermoplastic insulated wire and cable.

12.4. CONDUCTOR

The conductors shall consist of soft or annealed, stranded, uncoated copper, unless otherwise specified, meeting the requirements of ASTM B-3, ASTM B-8, and ICEA - NEMA Standard S-61-402. If coating is required it shall conform to ASTM B-33 or ASTM B-189, for tin or lead-tin alloy. The stranding shall be Class B meeting the requirements of ASTM B-8.

12.5. INSULATION

12.5.1. Each individual conductor shall be insulated with a free stripping, 20 mil thick of clear or natural high molecular weight polyethylene, meeting the requirements of ICEA S-61-402, NEMA WC-5, Part 3.

12.5.2. A nominal 10 mil jacket of color coded polyvinyl chloride shall be extruded tightly over the insulation.

12.6. ASSEMBLY

The required number of conductors shall be assembled into a round cable with a suitable length of lay, the direction of lay alternating for each layer with the outer layer in a left hand direction. Fillers shall be used only when necessary to assure a round cross section. The assembly shall comply with the requirements of ICEA S-61-402, NEMA WC-5, Part 5, Paragraph 5.2. A suitable binder tape shall be helically applied over the assembly.

12.7. SHIELDING

Whenever shielded cable is supplied, the shielding shall be a corrugated 5 mil nominal copper tape either helically or longitudinally applied with a minimum overlap of fifteen (15) percent of its width. The overlap seam shall be sealed with a sealant type adhesive. At least one (1) #16 AWG or larger copper drain wire shall be included in each cable on the inside of the copper shielding tape and remain in electrical contact with the copper shield tape.

12.8. COLOR CODING

The jacket over the individual conductors shall be permanently color coded according to NEMA Publication WC 30, Method 1, Table K-1. The jacket over the individual conductors shall be permanently color coded according to the following table. Tracer stripes shall be continuous and spirally wound.

Conductor	Background or Base	Tracer Color
1	Black	-
2	White	-
3	Red	-
4	Green	-
5	Orange	-
6	Blue	-
7	White	Black
8	Red	Black
9	Green	Black
10	Orange	Black
11	Blue	Black
12	Black	White
13	Red	White
14	Green	White
15	Blue	White
16	Black	Red
17	White	Red
18	Orange	Red
19	Blue	Red
20	Red	Green
21	Orange	Green

12.9. OUTER COVERING

12.9.1. A jacket of polyvinyl chloride shall be extruded over the taped assembly to protect the insulation. The jacket shall meet the requirements of ICEA S-61-402, Part 4, and be sufficiently flexible for installation in cold weather.

12.9.2. Cable identification shall be surface printing applied to the outer jacket at a maximum of 24" intervals and shall include the manufacturer's name or trademark, type of cable, number and size of conductors, and rated voltage.

12.9.3. Cable sheathing shall also include a length marking which can be readily used to determine the length of the cable to within two (2) foot increments which remains on a spool or is installed in a specific run. In the event that the marking is a serial marking on the sheath which does not start from zero, the manufacturer shall note the starting and ending numbers on both the reel tag and on the reel itself.

12.10. REELS

Cable shall be shipped on non-returnable wooden reels marked with the cable identification, the JEA P.O #, the total footages, and the starting and ending numbers of the cable, as discussed above. The cable shall be shipped with lengths of 5000', except in the case of the 21 conductor cable, which shall be shipped on reels of 2,500'. Reels shall be allowed with these lengths +/- 10%. Reels shall be built in accordance with NEMA WC-26. Minimum arbor diameter shall be 3".

12.11. QUALIFICATIONS

JEA ITEM ID #	CONDUCTOR SIZE	# CONDUCTORS	SHIELDED/ UNSHIELDED	REEL SIZE
CAI CN 001	#10 STR/B	2	UNSHIELDED	NRC32.24
(NONE)	#10 STR/B	2	SHIELDED	NRC32.24
CAI CN 002	#10 STR/B	4	UNSHIELDED	NRC32.24
CAI CN 004	#10 STR/B	8	UNSHIELDED	NRC40.24
CAI CN 008	#14 STR/B	7	UNSHIELDED	NRC32.24
CAI CN 009	#10 STR/B	21	UNSHIELDED	NRC58.32
CAI CN 010	#14 STR/B	4	UNSHIELDED	NRC32.24
CAI CN 015	#12 STR	1	UNSHIELDED	500FT/BOX
CAI CN 016	#10 STR/B	4	SHIELDED	NRC32.24
CAI CN 017	#10 STR/B	8	SHIELDED	NRC40.24
CAI CN 018	#10 STR/B	21	SHIELDED	NRC58.32

12.12. CABLE SAMPLES

Upon request, the Company shall provide cable samples of each type specified. Cable samples shall be of similar construction to that proposed by the manufacturer for subsequent delivery to JEA.

12.13. APPROVED MANUFACTURERS

Listed below are the current approved cable manufacturers:

- Alcatel Wire & Cable
- Lake Cable, LLC
- Okonite
- Tamaqua

13. GENERAL ARRANGEMENT DRAWINGS, BILL OF MATERIAL

13.1. The Company shall submit for JEA review, approval, and future use, a full set of General Arrangement Drawings. Drawings shall be scaled, 24" x 36", and shall provide all of the following:

13.1.1. The General Arrangement Drawings shall provide for the proper configuration, combination, and interconnection of all materials by a typical Substation Construction Company.

13.1.2. The General Arrangement Drawings shall provide the Project Labeling, as identified in the JEA Scope Document, in a conspicuous place in the title block. At time of JEA P.O. Issuance, the JEA P.O. number will also be included on the drawing.

13.1.3. The General Arrangement Drawings shall provide a unique sheet number. The first set of General Arrangement Drawings shall each contain a date and revision number and shall be identified as "Revision 1" (or similar fashion). Subsequent revisions shall be tracked in the revision block with a date and brief description of revisions (e.g. "Rotate PT for Secondary Box"). The revision block shall allow for up to six (6) revisions.

13.1.4. The General Arrangement Drawings shall provide a scale. Differing scales on the same drawing shall be allowed when clearly indicated.

13.1.5. The General Arrangement Drawings shall provide marks which reference all components in the Bill of Materials. Where materials are repeatedly applied in a similar pattern in differing places in the project, the Company may use typical plan views or sections to express the placement of such materials only if such typical plan views or sections are precisely similar throughout.

13.1.6. The Company shall include the following design work as a part of the development of the General Arrangement Drawings:

13.1.6.1. The Company shall perform a study to determine the support loading to assure all supporting insulators and other devices have sufficient strength (e.g. cantilever strength) to resist forces induced by wind load or fault load. The general report format, requirements, wind-loading and fault loading study shall mimic those studies that are performed for (and shall be an input to) the studies and report for the loading design of the steel structures (see the Section of this Specification for "Structures"). The fault currents shall be as follows in the table below, unless stated otherwise by the JEA Project Manager.

13.1.6.2. The Company shall perform a review of steady state current ratings to assure that the buswork, connectors, insulators, switches, and all other components are sufficient to meet the ratings in the table below, unless stated otherwise by the JEA Project Manager.

13.1.6.3. The Company shall perform a review of the bus expansion stresses. Based on this review, the Company shall select and include connectors and/or other items that allow for the thermal expansion of buswork, according to the temperature requirements of the table below unless stated otherwise by the JEA Project Manager.

Voltage Range	Steady State Ampacity	Fault Ampacity	Surface Temperature	Wind Load
26kV and below	1200A	20kA	10 °F - 140 °F	120 MPH
69kV and above	2000A	50kA	10 °F - 140 °F	120 MPH

13.1.6.4. The Company shall perform a review of all electrical clearances, (i.e. phase-to-ground, phase-to-phase, and phase-to-grounded parts) to assure that the design meets all standards as identified in ANSI / IEEE C37.

13.1.7. The General Arrangement Drawings shall be generated iteratively, by working with the JEA Project Manager. This process shall normally create 2-3 different revisions of the drawings, which revisions shall be tracked onto the drawing (perhaps including the non-printing portion of the drawing) for JEA and the Company records keeping purposes.

13.1.8. The General Arrangement Drawings shall be submitted to JEA for approval. As different revisions arise, JEA shall approve each revision timely. After final drawings approval, the Company shall correct the drawings as needed and submit electronic copies (CADD and PDF) of the General Arrangement Drawings to JEA for future use. The Company shall submit three (3) additional paper copies that are signed and sealed by a Professional Electrical Engineer in the State where the design was performed.

13.2. The Company shall supply a Bill of Material that describes in detail all of the materials to be supplied for each project. The Bill of Materials shall contain the Project Title as defined by JEA and the Company, and a revision number. A preliminary Bill of Material shall be provided with the original budget Quotation Letter and shall be identified as "Revision 0". Subsequent revisions shall be marked accordingly but only the latest revision number and date shall be shown.

13.2.1. The Company shall supply the Bill of Material in the form of a Microsoft Office Word table, except that the "Revision 0" may be in the form of an Adobe PDF format. The Bill of Material shall normally be formatted as a multipage table in a Microsoft Office Word format (a copy of which is included in the attachments of this RFP), 8.5" x 11", landscape print, including automatic pagination, with the header row repeated on each page. The Company shall provide columns for all of the following on each Bill of Material:

13.2.1.1. Owner Item ID, to agree with JEA Storeroom numbering, when available.

13.2.1.2. A Mark that references the General Arrangement Drawings. The Company shall propose a sensible and uniform means of permanently assigning these marks, to remain consistent across all JEA Projects.

13.2.1.3. Quantity

13.2.1.4. Manufacturer Name

13.2.1.5. Manufacturer Full Part Number

13.2.1.6. Description – this description should be sufficient to clearly and uniquely describe slightly different components that are used in the same project, including minor differences that are significant when choosing which component to install in which location in the JEA Substation (e.g. "for vertical mounting" versus "underhung mounting").

13.2.1.7. JEA Cost, before Markup, and extension. This item shall be provided only in the final copy of the Bill of Material.

13.2.2. The Company may waive the first two (2) datum above when constructing the "Revision 0" version of the Bill of Material. All subsequent revisions will need to include this datum.

13.2.3. The Company shall assure that each item in the Bill of Material appears exactly once. Repeated entries for the same bolt, the same switch, or connector, etc., are not acceptable to JEA.

13.2.4. The Company shall list every structure on the Bill of Material separately, by structure number. The Structures shall be listed as whole structures, not as pieces of structures (the breakdown of structures shall be listed on the drawings for the steel).

13.3. The Company shall provide copies of the manufacturer's data sheets (Catalogue "Cut Sheets") for all items in the General Arrangement Drawings and Material Lists, for approval by the JEA Project Manager.

13.4. The Company shall provide final copies of the General Arrangement Drawings, the bus loadings report, and the Bill of Material, and manufacturer's data sheets, in the format specified elsewhere for these drawings.

14. SHIPPING REQUIREMENTS

14.1. All large equipment items shall be properly prepared for shipment so that no damage will occur during transit. Particular care shall be used in placing suitable separators between heavy and large pieces using pallets, securing with straps, use of non-abrading dunnage materials, etc. The Company shall take full responsibility for any damaged equipment or materials resulting from inadequate preparation for shipping.

14.2. All equipment that includes a bushing of any kind shall be shipped with heavy, tightly fastened protective materials that will withstand the strike of a stone at Highway Speeds (such as those that occasionally occur during highway transport). Such materials shall be selected so that they will withstand at least thirty (30) days of on-site storage, and can be removed with a standard box-cutting knife.

14.3. All equipment and materials shall be shipped to the job site specified by the JEA Project Manager as F.O.B. point of destination, freight prepaid and allowed.

14.4. The Company shall supply a shipment schedule, preferably in the form of a spreadsheet, for each substation structure and material shipment. The master shipment schedule shall provide, at a minimum, the following information for each item in the shipment:

14.4.1. No./Structure No./Piece # (as shown on the Material List)

14.4.2. Description

14.4.3. Quantity

14.4.4. Weight of Shipment and Weight of Heaviest Piece

14.4.5. Delivery Date (date of arrival in Jacksonville, Florida)

14.4.6. Manufacturer's Shipping Representative

14.4.7. Phone No. of Shipping Representative

14.4.8. Substation Packager's Job No.

14.4.9. JEA Project Name and Project Number

14.5. The shipment schedule shall be submitted to the JEA Project Manager via electronic mail at least one (1) day prior to shipping any items.

(END OF SECTION III)

IV. PROJECT SERVICES

1. ADMINISTRATION OF SERVICES - INTRODUCTION

1.1. The intent of JEA is to issue "Projects" to the Company for work under this contract. JEA shall normally issue one (1) Project per Purchase Order, although there may be more than one (1) Purchase Order or revisions to Purchase Orders per Project. Every Project shall include a JEA Project name and number, and upon notification to proceed, a Purchase Order Number, for the life of the project.

1.2. JEA requires that the Company perform certain duties regarding each project and all projects that shall be issued by JEA to the Company as a result of being awarded work under this RFP. This section of the RFP provides some details regarding these services and which of these services are required to be included in the Company's base project price.

1.3. This Section also provides information regarding standard practices that will be expected of the Company as a part of these services. Items not clarified herein shall be addressed by negotiation and mutual agreement.

2. ADMINISTRATIVE PERSONNEL

2.1. JEA and the Company shall each designate, upon execution of this Contract, a single Contract Administrator. Such Contract Administrator shall be the primary contact person for administering those broad, general matters that affect any and all projects that are ordered under this Contract.

2.1.1. Contract Administrators of JEA and the Company shall each have the necessary knowledge, skills and abilities to administer their respective responsibilities under this Contract. Each shall serve their organizations in a supervisory or managerial position.

2.1.2. The purpose of the Contract Administrators of JEA and the Company is to provide a single point of responsibility for the overall administration of the terms and conditions, both technical and commercial, under the Contract that is executed between JEA and the Company. Accordingly, each shall be familiar with, and have access to, each respective organization's engineering and financial records and shall at all times be cognizant of all ongoing activities under this Contract.

2.1.3. The Contract Administrators of JEA and the Company shall maintain regular availability during office hours. Each shall be a regular, full-time employee of the respective organization.

2.1.4. JEA and the Company shall each have the means to change the identity of the Contract Administrators by serving written notice at least five (5) days in advance of such change. Such notice shall be executed by a certifying officer of the organization. The Company shall also be required to submit a resume with such proposed change.

2.2. JEA and the Company shall each designate, upon issuance of any project to the Company, a single Project Manager for each project. Such Project Manager shall be the primary contact person for administering the matters that affect each specific project.

2.2.1. Each Project Manager of JEA and the Company shall each have the necessary knowledge, skills, authority and abilities to administer their respective responsibilities for each project. Each shall serve their organizations in a technical or engineering position, and shall additionally have sufficient commercial skills to administer each specific project.

2.2.2. The purpose of the Project Manager of JEA and the Company is to provide a single point of responsibility for the overall administration of the terms and conditions, both technical and commercial, for each assigned project. Accordingly, each shall have access to each respective organizations engineering and financial records and shall at all times be cognizant of all ongoing activities of the respective project.

2.2.3. More specifically, the JEA Project Managers shall have the authority of all technical issues on each project, including the authority to change the scope, schedule, and budget (to the limit of the purchase order) and generally make any and all decisions that are necessary to manage the assigned project.

2.2.4. The Project Managers of JEA and the Company shall maintain regular availability during office hours. Each shall be a regular, full-time employee of the respective organization.

2.2.5. The Contract Administrators of JEA and the Company shall assign, review, and maintain a list of Project Managers, as assigned to each project. JEA and the Company shall each have the means to change the identity of the Project Managers by serving written notice at least five (5) days in advance of such change. The Company shall also be required to submit a resume with such proposed change.

3. OVERALL ADMINISTRATION

3.1. The Contract Administrators of JEA and the Company shall be responsible for maintenance of this Contract via regular communication as follows:

3.2. JEA and the Company shall hold a monthly teleconference with the Contract Administrators and all Project Managers present to review the status of all projects. This meeting shall be the primary means of coordination between JEA and the Company. Accordingly, the Company shall, as a part of this Contract, and within the cost of the Company's markups, perform all of the following:

3.2.1. The Company shall schedule, begin, and pay for the monthly teleconferences. The teleconference shall be arranged at a consistent day and time per month.

3.2.2. The Company shall notify the Contract Administrators and Project Managers for this Contract approximately one (1) week in advance of such teleconference via a meeting notification, sent via Microsoft Outlook as a recurring meeting, which software shall be the responsibility of the Company.

3.2.3. The Company shall develop an Agenda and record the minutes of each teleconference. Minutes shall be sent to each person attending the meeting and shall be approved or changed prior to the next meeting.

3.3. The Company shall develop, maintain, and issue a monthly Project Summary Workbook to JEA. The Project Summary Workbook shall contain three (3) separate spreadsheets (with tabs labeled as follows):

3.3.1. Prospective Projects: These are projects for which no JEA Purchase Order has yet been issued. These projects are discussed to assist JEA and the Company to stage resources that may be required to perform the work in a timely fashion, if JEA authorizes the commencement of work via a JEA Purchase Order.

3.3.2. Projects Underway: These are projects that have an active Purchase Order issued to the Company by JEA.

3.3.3. Projects Completed: These are projects that meet both of the above requirements and that have been shipped complete, and that have been paid for in full by JEA, and for which the JEA Project Manager has requested to be considered complete.

3.4. The Project Summary Workbook shall include the following basic information as a minimum:

3.4.1. In the header of each worksheet, the name of the Company, the JEA Contract Purchase Agreement number (CPA#) (to be assigned by JEA), the month of issuance, and the remaining balance on the CPA# (the difference of the original CPA award amount less all Purchase Orders issued to date). This information will benefit both Contract Administrators in the maintenance of the Contract.

3.4.2. In the first column, the JEA Project Number (this will be issued at Project Conception by JEA).

3.4.3. In the second column, the Company's Project Number or Job Number, etc.

3.4.4. In the third column, the JEA Purchase Order number.

3.4.5. In the fourth column, the Project Name (this will be issued at Project Conception by JEA).

3.4.6. In the fifth column, a brief statement of progress. This column will contain text which substantially but very briefly reports the status of the project. Specific items would include the present schedule milestone status and date – for a sample list of milestones, see the table on the "SURVEY OF PROJECT SCHEDULING ABILITIES" Subsection in Section VIII.

3.4.7. In the last column, the listing of JEA and the Company Project Manager's names and telephone numbers.

4. INDIVIDUAL PROJECT ADMINISTRATION

4.1. The basic project administration shall take place as outlined below:

4.2. **Step 1** - Prospective Project Scope, Scheduling, and Budget: In this step, the JEA Project Manager and the Company's Project Manager shall develop a scope, schedule, and budget for each project. This step of the project will be provided to JEA by the Company at absolutely no charge to, nor obligation of JEA.

4.2.1. The JEA Project Manager and the Company's Project Manager shall exchange project identification information in the form of an electronic mail to include:

4.2.1.1. JEA Project Name and Project Number (by JEA)

4.2.1.2. Company's Project Number and Job Number, etc. (by the Company)

4.2.1.3. Brief, one (1) page description of the project (by JEA)

4.2.1.4. JEA and the Company's Project Manager's contact information. The preferred means for this is via a Microsoft Outlook Contact file, with all fields appropriately populated.

4.2.2. Project Scope, Schedule, and Milestones: Next, the JEA Project Manager and the Company's Project Manager shall transmit the following information:

4.2.2.1. The JEA Project Manager shall transmit a single line diagram that shows the work to be performed, existing facilities, etc. For new substations, the JEA Project Manager shall also provide copies of a rough plan view of the substation (possibly as basic as a simple sketch), and for existing substations, the JEA Project Manager shall also provide copies of existing drawings.

4.2.2.2. The JEA Project Manager shall transmit a list of critical delivery dates, to include, at a minimum the following (the parenthetical time periods will be considered the default expectations of JEA):

Due date when the first (+/- 25%) budget quote letter is due to JEA (two weeks).

Due date when the first revision of the General Arrangement Drawings and the Bill of Materials are due to JEA (see the appropriate section of this RFP for details of these drawings – 6-8 weeks).

Due date when the Anchor Bolt Plan and all calculations are due to JEA (see the appropriate section of this RFP for details of these drawings – 8-10 weeks).

Due date when the Erection Diagrams and Structure Detail drawings are due to JEA (8-10 weeks).

Due date when the Anchor Bolts are due to JEA (specified by the JEA Project Manager).

Due date when the Steel Structures are due to JEA (specified by the JEA Project Manager).

Due date when the remaining materials are due to JEA (specified by the JEA Project Manager).

The Company shall develop a standard form, preferably including an editable Microsoft Word table that allows the JEA Project Manager to provide these dates to the Company. The Company shall then include this table in the quotation letter discussed hereafter.

4.2.2.3. The Company shall then transmit a quotation letter to JEA containing all of the information below, including tables, etc. This Quotation shall include an additional amount for cost variances, supplemental work (when ordered by JEA), and to cover price escalations that are normal and customary in this type of early quotation. This additional amount shall normally be between 10% and 25% of the total estimate, and shall be discussed with and agreed to by the JEA Project Manager prior to issuing the written quotation. Upon sending this quotation, the Company has completed *Step 1* of this process.

4.2.2.4. JEA shall then choose whether or not to proceed with this project, and if so, JEA shall issue a Purchase Order to the Company. Upon issuance of a Purchase Order, the project will transition to the next step.

4.3. **Step 2 – Engineered Equipment Only:** This step is optional and serves JEA to perform certain accounting functions when a project thus far has not been fully funded. Work performed in this step will be paid for by JEA, however, when working within this step, the Company must assume that the project may be discontinued at any time, with no further obligation of JEA other than payment for the Engineered Equipment Services work performed prior to notification of project cancellation.

The work of this step will only occasionally be broken out as a separate step. Otherwise, the work of this step will be included within *Step 3* (shown below).

4.3.1. In this step, JEA shall issue a Purchase Order for 10% of the budget amount quoted earlier.

4.3.2. The Company shall commence the development of all drawings (see the other sections of this specification for details) and material lists. These drawings and material lists shall be submitted to the JEA Project Manager for approval. The normal approval time on JEA Approvals shall not exceed three (3) calendar weeks.

4.3.3. The Company shall commence the performance of all studies and calculations to assure that the documents mentioned above will meet all of JEA Specifications. These studies and calculations shall include all design and engineering calculations as specified in other sections of this RFP.

4.3.4. The Company shall then re-submit all drawings and material lists in both paper and electronic format. The requirements of these drawings and material lists are called out elsewhere in these specifications.

4.3.5. The Company shall also submit copies of product specifications / catalog cut sheets for all items that are to be procured by the Company as a part of the Substation Package. These product specifications / catalog cut sheets shall be submitted to the JEA Project Manager for approval. The normal approval time on JEA Approvals shall not exceed three (3) calendar weeks.

4.3.6. After the verifications/approvals mentioned above, the Company shall produce and transmit a new (refined, +/- 5%) estimate of the costs, and shall forecast monthly invoices, all based upon the delivery dates that are agreed to by the Project Managers of JEA and the Company. This Second Quotation Letter shall be valid for 90 calendar days, during which JEA shall make a decision to proceed, delay, or cancel the project.

4.3.7. The Company shall issue monthly invoices for and JEA shall pay monthly for this work as the work is performed. However, because all services mentioned herein are required to be provided as a part of the overall Substation Package, JEA shall receive a full credit, for these payments made, toward future invoices for materials delivered on this project within 24 months of the first Purchase Order issued for this project.

4.3.8. The Company shall not procure any equipment or materials for JEA on this project during this step, and the Company shall not under any circumstance perform work in excess of the amount on the face of the JEA Purchase Order. Instead, the Company shall await a new, increased Purchase Order that will initiate the next step of the project.

4.4. **Step 3 - Procurement & Manufacturing:** This step may or may not be combined with, and will include all work from the previous step. This step will also include the actual procurement, manufacturing, inspections, testing, marshalling, warehousing, shipping and invoicing as follows:

4.4.1. JEA will issue a Purchase Order in such a way that the total on the face of the Purchase Order equals the most recent budget quote. This begins this step and fully authorizes the Company to proceed with the remaining work.

4.4.2. The Company shall work with the JEA Project Manager to review and develop a shipping schedule, paying special attention to long lead time items. For the purpose of this Contract, any and all items requiring longer than twelve (12) weeks to procure and ship, shall be considered long lead time items. It is at this point that JEA and the Company shall agree to a firm shipping schedule.

4.4.3. The Company shall procure, manufacture, and marshall all Structures and Materials to meet the requirements of JEA as outlined by the JEA Project Manager. Marshalling is defined in a later subsection of this specification.

4.4.4. The Company shall create two (2) binders for the project with paper copies of all the recent quotes from vendors and clearly mark the lowest qualifying Response for each item. Also, the Company shall submit electronic copies of the entire quotes in original electronic file format.

4.4.5. The Company shall allow JEA Staff to inspect the Structures and Materials at the Company's site during the Marshalling Period. JEA shall have the right, but not the obligation, to inspect any or all of the Structures and Materials at the Company's site. Details of the inspections are provided in the Marshalling and Warehousing subsection of this specification section.

4.4.6. The Company shall have all Structures and Materials complete a minimum of two (2) weeks PRIOR to the date(s) of the firm shipping schedule. The Company shall await instructions from JEA before shipping.

4.4.7. Upon instruction of JEA, the Company shall then commence shipping and invoicing of the Structures and Materials. It is not unusual for JEA to continue to order very small items, or to request assistance in working with manufacturers, during *Step 3* of the work. The Company shall include this service as a normal part of the work Materials shipped shall be added to the project and treated as an initial item in the project). This shall include the Company having staff available to expedite small matters on a daily basis to work directly with JEA field personnel. Certain JEA field personnel shall be identified by the JEA Project Manager as having authority equivalent to the JEA Project Manager to perform these minor order modifications and additions as the field construction progresses. The Company shall identify, and make available, equivalent personnel who can work with JEA field personnel to quickly resolve minor field issues quickly and fairly.

4.4.8. Final shipment and invoicing of all Structures and Materials shall conclude *Step 3* of the work.

4.5. **Step 4 - Project Closeout:** In this step, the project shall be closed out and all documentation transmitted to JEA in an orderly fashion as follows:

4.5.1. JEA shall notify the Company when the construction is complete and the project is in-service. This will normally be 90-180 days after final shipment.

4.5.2. The Company shall confirm or deny (in writing - electronic mail is sufficient) that final invoices have been submitted to and paid by JEA.

4.5.3. The Company shall submit electronic copies of all project drawings and documents saved onto CD-ROM format (MS Windows OS). The Project Disk shall be labeled with the project information as follows:

4.5.4. The Company shall create three (3) binders for the project with paper copies of all the items mentioned above. The Binder shall be similar to the binders required by this Response, with all materials neatly punched and inserted. The Binder shall contain a table of contents, the original quotation letter, a copy of the final JEA Purchase Order, and all final-revision copies of all of the following documents and drawings (each separated by tabs):

4.5.4.1. The Bill of Materials

4.5.4.2. All Product Specifications / Catalog Cut sheets

4.5.4.3. The General Arrangement Drawings (11 x 17 and book folded)

4.5.4.4. The Structure Erection Drawings (11 x 17 and book folded)

4.5.4.5. The Structure Detail Drawings (11 x 17 and book folded)

4.5.4.6. The Engineering Studies and Documents (as described elsewhere in this RFP)

4.5.4.7. CD-ROM disc or USB Flash Drive with electronic copies of all of the above, labeled as indicated herein, and inserted into a holder appropriate for the binder

4.5.4.8. Other minor additional information as the Project Manager may reasonably direct

4.5.5. The catalog cut sheets shall be printed as color copies, and shall be saved electronically in PDF formatted files, with filenames that include the JEA Project Number and ITEM ID from the material list.

4.5.6. Upon shipping of the Binder, the project shall be deemed closed and shall be shown as a "Completed Project" on the Project Summary Workbook.

5. WAREHOUSING, MARSHALLING & SHIPPING PROCEDURES

5.1. The Company shall provide for the Warehousing, Marshalling, and Shipping of the Structure and Material Package. Costs for Marshalling must be included in the Company's markups for Structures and Materials. The Costs for Warehousing are to be Response on the Response form, and the costs of shipping are to be charged to JEA by the Company on a Straight-Pass-Through basis.

5.2. Marshalling: For the purposes of this contract, Marshalling shall be defined as the following processes:

5.2.1. Receiving all project Structures and Materials at the Company's Marshalling facility at least two (2) weeks prior to the firm schedule date(s) mentioned earlier. The Marshalling facility shall be the same as the Warehousing facility (as defined below).

5.2.2. Checking the material for damage, quantity, and catalog number correctness.

5.2.3. Storing these items at the Company's facility in suitable conditions until such time as to deliver the material to the JEA project site (but not to exceed thirty days beyond the firm schedule date(s) mentioned earlier).

5.2.4. Making the Structures and Materials available for inspection. The Company shall notify the JEA Project Manager at least two (2) weeks prior to all materials being available at the Marshalling facility, for JEA inspection. The Company shall also make available one (1) complete set of final drawings and documents to the JEA Project Manager at the Marshalling facility for convenience during inspection.

5.2.5. Marshalling shall also include packaging items from various manufacturers into efficient shipping units and arranging for direct shipment from the Company's facility to the JEA project site and received by an authorized JEA representative.

5.3. If JEA has not requested shipping of any portion of the Structures and Materials within three (3) weeks of the firm shipping date(s), the Company shall immediately notify JEA in writing of the need for JEA to provide instructions whether to commence shipment or Warehousing. If JEA requests Warehousing, Warehousing shall commence and Warehousing fees shall begin to accrue for that portion of the Structures and Materials thirty (30) days after the passing of the firm shipping date(s). If JEA does not respond timely to the Company's request, Warehousing shall automatically begin for that portion not requested for shipping by JEA.

5.4. Whenever Warehousing shall become necessary, it shall be an automatic obligation of the Substation Packager, and JEA shall incur additional costs according to the monthly rates. JEA shall not require the Company to provide Warehousing for longer than six (6) calendar months beyond the thirty (30) days beyond the firm shipping date(s) after which the Company may commence shipment and full invoicing with or without further notice to JEA.

5.5. The Company shall provide Warehousing and JEA shall pay a monthly fee for Warehousing that is composed of two (2) cost components:

5.5.1. The Company's reasonable storage costs for storing Structures and Materials at the Warehousing facilities is as follows: one (1) rate per square foot of indoor storage and one (1) rate for outdoor storage, as priced on the Response form. Should JEA take a partial shipment that reduces the Warehousing space required, the Company shall likewise reduce the monthly square area to be charged accordingly.

5.5.2. The Company's approximate cost of money for the investment in the Structures and Materials shall be based on the cost of the order to JEA, as a simple monthly percentage. If JEA makes a partial payment of the Structures and Materials, thereby reducing the cost of money for investment of the Company, then the Company shall likewise reduce the amount of cost to be multiplied by the monthly percentage in the subsequent bill(s).

5.5.3. JEA shall refuse any and all handling fees for Warehousing. Handling (in and out, Warehouse hours, etc.) is a part of the Marshalling process, and therefore is to be assumed as included within the basic scope of services, and therefore, within the costs of the Company's Response.

5.5.4. All invoices that include fees for Warehousing shall include a form, created by the Company for this purpose, detailing all of the elements mentioned above.

5.6. The Company shall remain in care, custody, and control of the Structures and Materials during the Warehousing period, and the Company shall be fully responsible for same.

5.7. The Company shall make a best effort to protect and keep whole all of the components of the Structures and Materials package, both to assure that JEA has access to same for shipment on reasonable notice, and to assure the Company's own protection from loss. This shall include the following basic requirements:

5.7.1. **Structure Storage:** Structures may be stored outside but must be cribbed away from earth to protect the galvanized surfaces. Cribbing shall be chosen in such a way that the Structures will not be stained or damaged by the cribbing.

5.7.2. **Major Material Storage:** Large items that are shipped in crates suitable for long-term storage may be stored indoors or outdoors at the discretion of the Company. Included in this set, but not limited to, are Cable Spools, Switches, Insulators, and Potential Transformers (on pallets, etc.). If the shipping crates or pallets fail due to outdoor storage, the Company shall replace or repair same to the satisfaction of JEA. Should equipment damage occur during shipping due to failed packaging, the Company shall be fully responsible to repair or replace the damaged item(s).

5.7.3. **Minor Material Storage:** Smaller items, loose structural pieces, connectors, all tubular bus, unprotected cable spools, items which are shipped in cardboard containers, and other such items must be stored indoors. The reasons for indoor storage include the assurance that the shipping materials do not fail due to weathering, as well as assuring that the Original Equipment Manufacturer's intentions for long-term storage are followed. Failure of the Company to adhere to this paragraph shall be grounds for the JEA to reject acceptance of these items.

6. INVOICING & PAYMENT

All purchases made by JEA from the Company under this agreement shall be made as follows (there are four (4) classifications of services and materials):

6.1. **Structures Manufactured by the Company:** All Structures Manufactured by the Company shall be billed at a cost plus markup as follows:

6.1.1. The Cost shall be based on a "Cost of Steel", which shall be the most raw material cost that the Company can identify (i.e. the cost of actual material that is delivered into the possession of the Company at time of manufacturing commencement). This shall typically mean Black Steel, such as shape steel and flat plate that is received by the Company. The Company shall submit, with an invoice, copies of original invoices from the Company's Steel Vendor(s) to substantiate this portion of the cost.

6.1.2. JEA shall accept invoices for "Cost of Steel" for actual steel shipped, plus steel lost due to cutting from standard lengths (when such cutting waste cannot be reasonably avoided), and less reasonable credits for scrap recovery of steel lost due to cutting.

6.1.3. The Company shall add to the Cost of Steel a "Cost of Galvanization", on a price per pound of steel basis. This adder shall be Response, calculated, and invoiced as a dollar-per-pound adder to the cost of the raw steel.

6.1.4. The Company shall also add to the Cost of Steel a "Cost of Fabrication", which is a Response item under this Contract, and shall remain constant for the life of this Contract. This cost shall include the Company's cost for design, engineering, and general administration of the project, plus fabrication of steel structures, starting from raw steel units. This adder shall be Response, calculated, and invoiced as a dollar-per-pound adder to the cost of the raw steel. The price for this is Response on the Response form and remains FIXED for the life of this Contract.

6.1.5. The Company shall then add a "Structure Profit", as a percentage of the three (3) items mentioned above (i.e. sum of the Cost of Steel, Cost of Galvanization, and Cost of Fabrication). It is intended that this cost shall include the Company's actual markups that are required for profit margin, although JEA is not requesting a justification of the quoted price. This adder shall be Company's price, calculated, and invoiced as a flat percentage adder to be calculated on the sum of the previous three (3) items. The percentage for this amount is Response on the Response form and remains FIXED for the life of this Contract.

6.1.6. Every component that is manufactured by the Company shall be Response, calculated, and invoiced in the manner directed above.

6.1.7. Whenever the Company is directed by JEA to manufacture specialized components of non-ferrous metals, or that require specialized machining, JEA and the Company will attempt to reasonably construct a pricing mechanism that follows the above-listed procedure as closely as practical.

6.1.8. Whenever the Company is directed by JEA to procure, but not manufacture, steel that is supplied by others, the steel shall be paid for similar to the way that materials are treated. Refer to that subsection of this specification for that treatment.

6.2. **Other Materials Supplied by the Company:** All remaining materials ordered by JEA and supplied to JEA by the Company shall be billed at a cost plus markup, as follows:

6.2.1. The Company shall provide copies of invoices from the Original Equipment Manufacturer that shows plainly the actual costs to the supplier for the materials. This invoice shall be net of any discounts to the Company, and JEA shall have the right to audit the records of the Company to assure that the costs are actuals.

6.2.2. The Company shall then add a "Material Markup", as a percentage of the costs mentioned above. It is intended that this cost shall include the Company's actual markups that are required tocover all overhead costs , plus a profit margin, although JEA is not requesting a breakdown of these individual component costs. This adder shall be the Company's price, calculated, and invoiced as a flat percentage multiplier to be calculated on the sum of the previous item.

6.3. **Shipping:** All shipping of all Materials is to be invoiced separately on a straight-pass-through basis. The Company shall attach copies of original invoices to the separate invoice for shipping. JEA understands and agrees that the following is a superset of the possible shipping that may or may not take place on any specific order, as directed by the JEA Project Manager.

6.3.1. The shipping of raw steel to the Company's manufacturing facility.

6.3.2. The subsequent shipping of fabricated raw steel to the Galvanizer.

6.3.3. The subsequent shipping of galvanized steel to the Marshalling / Warehousing facility.

6.3.4. The shipping of substation material to the Company's Marshalling / Warehousing facility.

6.3.5. The subsequent shipping of finished galvanized steel and of substation material to the specified JEA location.

6.4. **Invoice Summary Sheet:** With each invoice other than shipping invoices (which shipping is separated from all other invoices), the Company shall include a summary sheet, immediately following the front page of the invoice, that provides a summary of the calculation of the various costs mentioned previously. This summary sheet shall be of a format to be developed for and approved by the JEA Contract Administrator, and shall be held to for the life of the Contract.

6.5. **Site Audit:** JEA shall have the right, but not the obligation, to come on site to audit the procedures herein upon reasonable notice to the Company. JEA shall respect the privacy of the records of the Company when JEA is on the site of the Company, but should disputes arise regarding the application of these requirements, JEA shall have the right to require copies of supporting documents, which, upon being passed to JEA, shall become public record.

6.6. **Other Invoicing Procedures:** JEA shall require other invoicing procedures as outlined in this specification and as may be reasonably modified at a future date. Particularly, in addition to all invoicing matters mentioned previously, the Company shall follow all additional invoicing requirements shown in the Commercial Section of this RFP.

(END OF SECTION IV)

V. ATTACHMENTS

1. ATTACHMENT D – SAMPLE PROJECT "DINSMORE 230/26 KV SUBSTATION"

PROJECT SCOPE

Background:

The Dinsmore substation site is located adjacent to the 230 kV transmission lines in the Northwest Planning Zone approximately 5 miles west of the existing Garden City substation. With a somewhat reviving economy, plans have been announced for two new developments in the area. The Thomas Creek development will be a mix of residential and commercial development with the most notable tenant being a data center that will require a high level of reliability. The other announced development will be the Lem Turner Industrial Park which will be located near I-295 and Lem Turner Road. Two circuits in this area, Garden City 497 and Pickettville 418, are heavily loaded. The two new developments will add significant load to Garden City 498, and will create N-1 violations for loss of circuits 497, 498, Pickettville 418, or loss of a transformer at Garden City. In order to meet this growth and eliminate N-1 violations, a new substation, (Dinsmore), is needed to add capacity and maintain N-1 tie-out capability. This substation will also significantly shorten feeders in this area reducing exposure and greatly improving power quality which will be critical for the data center and the industrial park. The engineering, procurement, and construction of the Transmission Line terminations are not part of this Project.

Scope of Work:

In this Invitation for Bids, no substation materials will be ordered by JEA. It is the intention of JEA to (eventually) award a Purchase Order for the entire structure and material package for this project to the successful bidder of this IFB. Should that happen, JEA tentatively expects to issue a purchase order in July/August of 2016 for the entire substation package. Instead, only a subset of the Documents are requested, as part of the overall bid package. Particularly, only the documents and drawings for one (1) high-side section are requested. Instructions on how to create these documents are included elsewhere in the invitation for bids, but the documents listed in the following table are to be reviewed and scored:

Table 1: Scope of Work / Deliverables

Item	ID	Appx Qty.	Description
Quote Letter #1	Letter	1	Typical for JEA Project Scope Documents but NOT REQUIRED OR SCORED IN THIS INVITATION FOR BIDS
Bus & Structure Calculations	Report	8 x 11	A document showing the assumptions, formulas, and modeling of the bus and components under wind and fault current loading (one calculation each, not simultaneously applied), indicating the application for these loads for selection of insulators, selection of Anchor Bolts, and selection of structure steel.
Material Selection – Cut Sheets	Report	8 x 11	Notes regarding the selection of non-structural materials, including bus, connectors, arrestors, PTs,
Reaction Load Calculations	Report	8 x 11	When not included in the “Bus & Structure Calculations”, a separate report that includes free-body diagrams,

Material List	Word Table	8 x 11	Completion of the attached Material List, to show all materials needed, with prices, quantities, and item IDs as described further in other sections of this IFB.
General Arrangement Drawing(s)	CADD Drawing	11 x 17	Draft in CADD the refined, redesigned, existing CADD Drawing of the elevation of the sample breaker bay (string) and Draft in CADD a Plan view for this breaker bay (string) only. Drawings must be submitted in form and format as specified elsewhere in this IFB.
Structure Detail Drawing(s)	CADD Drawing	11 x 17	Draft in CADD the Shop manufacturing details for all structures in this the sample breaker bay (string).
Structure Erection Drawing(s)	CADD Drawing	11 x 17	NOT REQUIRED OR SCORED IN THIS INVITATION FOR BIDS
Steel Structures	A1-A10	0	Typical for JEA Project Scope Documents but NOT REQUIRED OR SCORED IN THIS INVITATION FOR BIDS
Buswork, switches, etc.	B1 & Up	0	Typical for JEA Project Scope Documents but NOT REQUIRED OR SCORED IN THIS INVITATION FOR BIDS
Control Cables	C10 – C15	0	Typical for JEA Project Scope Documents but NOT REQUIRED OR SCORED IN THIS INVITATION FOR BIDS

Other Project Information:

An initial set of project drawings and documents is attached as a part of this project scope document, including;

1. A Single Line Diagram
2. Electrical Plans and Sections
3. Preliminary Project Schedule

The Contractor should refer to these drawings in the development of the documents mentioned in Table 1 of this Project Scope Document. The following general project information is provided for the Contractor's development of Quotation Letter #1 (not required in the response to this Initiation for Bids). The First three rows also constitute the "Project Labeling" and will appear on The Contractor's Documents according to the applicable JEA Specifications;

Table 2: Project Labeling & Information

Project Name	Structure and Material Contract
JEA Project #	JXF-001-17
JEA Purchase Order #	JXF-001-17
JEA Project Manager	Michael Short, P.E. 21 West Church St., T-9 Jacksonville, FL 32202 shorml@jea.com (w) 904-665-7048 (c) 904-236-9665

Table 3: Design Electrical/Structural Parameters

Bus Voltage(s)	230 kV_{LL}
Bus Currents (Steady State/Fault)	2000/50 kA
Weather Assumptions	Wind 120 (mph) Ice (none) Seismic (none)
Schedule and Delivery Information	
Delivery Address / Off-Load Coordinator	Michael Short, P.E. 21 West Church St., T-9 Jacksonville, FL 32202 shorml@jea.com (w) 904-665-7048 (c) 904-236-9665

Building Community℠

ABC SUBSTATION PACKAGING, INC.

DINSMORE 230/26 kV SUBSTATION

PRELIMINARY/DRAFT SUBSTATION PACKAGE MATERIAL LIST – REV0

GENERAL NOTES:

1. THIS MATERIAL LIST IS A PARTIAL DRAFT LIST OF THE STRUCTURES AND MATERIALS THAT WILL NEEDED FOR THE CONSTRUCTION OF THE SUBJECT SUBSTATION AND ASSOCIATED FACILITIES. THE RESPONDENT TO THE IFB SHALL BE RESPONSIBLE FOR DEVELOPING AND REFINING THE MATERIAL LIST ACCORDINGLY.
2. THE RESPONDENT TO THIS IFB SHOULD DEVELOP/COMPLETE THIS LIST OF MATERIAL SOLELY FOR THE ONE BREAKER BAY (OR STRING) AS MENTIONED IN THE INSTRUCTIONS FOR THIS MATERIAL LIST AND IN THE SCOPE DOCUMENT. A MATERIAL LIST FOR THE ENTIRE PROJECT IS NOT REQUESTED AS A PART OF THIS IFB.
3. THE MATERIAL LIST TO BE DEVELOPED HEREIN IS A SAMPLE LIST, INTENDED TO ALLOW THE RESPONDENT TO THIS IFB TO DEMONSTRATE HIS ABILITY TO DESIGN, SELECT, AND PACKAGE SUBSTATION STRUCTURES AND MATERIALS. THE RESPONDENT TO THIS IFB SHOULD FOLLOW CLOSELY THE INSTRUCTIONS TO THIS SECTION IN DEVELOPING HIS SUBMITTAL.
4. THE COLUMN LISTED AS “ITEM ID#” CORRESPONDS TO THE ITEM CIRCLES SHOWN ON THE SUBSTATION PACKAGER’S DRAWINGS. THESE DESIGNATIONS SHALL BE DEVELOPED IN A MANNER THAT IS EASILY FOLLOWED, AND IS HELD CONSTANT AND UNIQUE THROUGHOUT THE GENERAL ARRANGEMENT DRAWINGS, STEEL DETAIL DRAWINGS, MATERIAL LISTS, ETC.

DATE: 4/29/2015

ITEM ID	ITEM QTY	MFG ID	MFG PART NO.	ITEM DESCRIPTION	EACH PRICE	EXTENDED
AB1-01				ANCHOR BOLTS:		
AB1-02				ANCHOR BOLTS:		
AB1-03				ANCHOR BOLTS:		
AB1-04				ANCHOR BOLTS:		
AB1-05				ANCHOR BOLTS:		
S1		ABC Substations	S1	STRUCTURE, A-FRAME DEAD END, STEEL, GALVANIZED, FOLDED PLATE, 55' HEIGHT AT PULLOFF		
S2				STRUCTURE, LOW BUS SUPPORT, STEEL, GALVANIZED		
S3				STRUCTURE, SWITCH SUPPORT, STEEL, GALVANIZED		
S4				STRUCTURE, PT SUPPORT, STEEL, GALVANIZED		
S5				STRUCTURE, ARRESTOR SUPPORT, STEEL, GALVANIZED		
				BOLT, GALVANIZED STEEL, 5/8" x 2"		
				BOLT, GALVANIZED STEEL, 5/8" x 2"		
				WASHER, FLAT, …		
				WASHER, LOCKING TYPE, …		

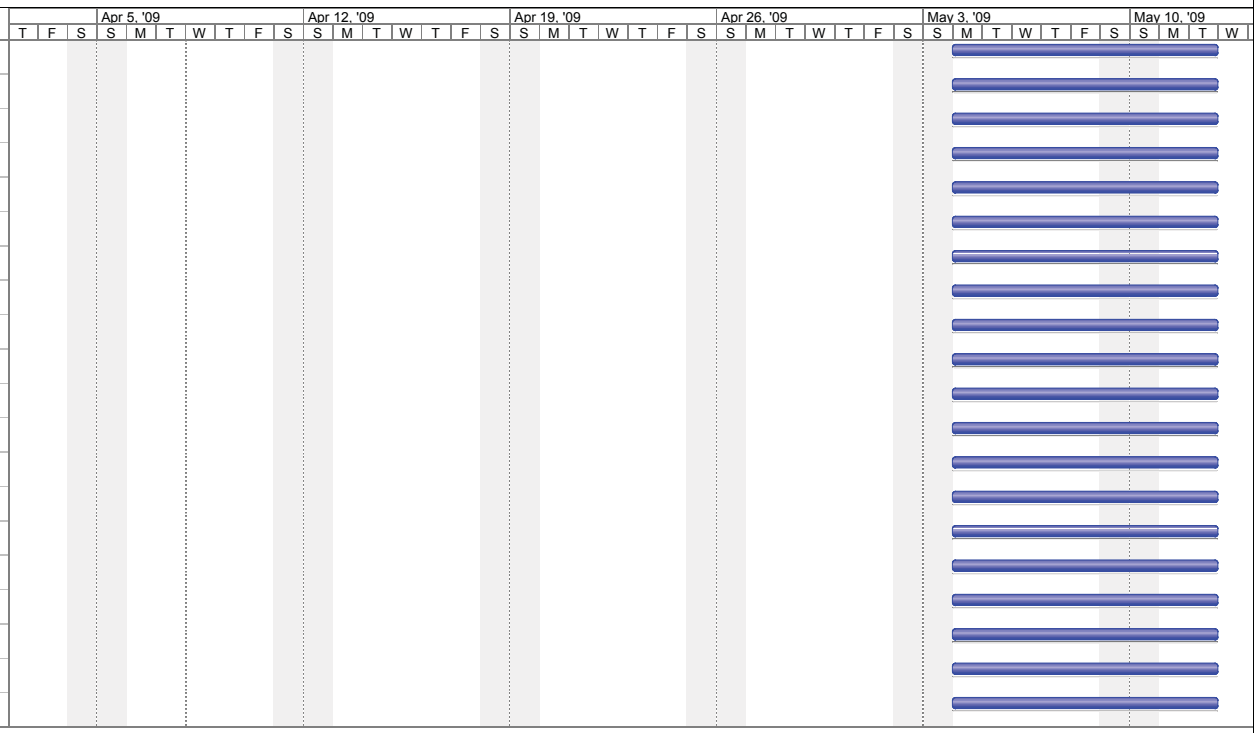
ITEM ID	ITEM QTY	MFG ID	MFG PART NO.	ITEM DESCRIPTION	EACH PRICE	EXTENDED
				NUT, HEX, …		
	1 Lot	BY OTHERS	BY OTHERS	INCOMING PHASE CONDUCTORS, STATIC WIRE, AND CONNECTORS, UP TO THE FOUR WHOLE PAD ON THE VERTICAL 4" BUS. NOT PART OF THIS CONTRACT.		
				BUS, CIRCULAR TUBE, 4"IPS ALUMINUM SCHEDULE 40, ALLOY 6063-T6, 40' PIECES (LINEAR FEET)		
		LAPP		INSULATOR: 230KV, POST, GREY, TR-???		
				BUS SUPPORT, 4"IPS ALUMINUM TO 5"B.C		
				CONNECTOR, TEE, 15 DEGREE ANGLE, 4" IPS ALUMINUM MAIN TO 3" IPS TAP, WELDMENT		
				CONNECTOR, TERMINAL, 4"IPS ALUMINUM TO 4 HOLE PAD @ 90 DEGREES, CENTER-FORMED, WELDMENT		
				CONNECTOR, TERMINAL, 954 ACSR TO 4 HOLE PAD (PT), BOLTED, FOR LOW CURRENT JUMPERS		
		AE	ATCC-1313	TEE CONNECTOR, BOLTED, 954 ACSR MAIN AND TAP		
		AE	W2CF-129D	TERMINAL CONNECTOR, (2) 954 ACSR TO 4 HOLE PAD (CIRCUIT SWITCHER)		
		AE	WCI-3030	SPLICE CONNECTOR, 4"IPS ALUMINUM END TO END, WELDMENT		

ITEM ID	ITEM QTY	MFG ID	MFG PART NO.	ITEM DESCRIPTION	EACH PRICE	EXTENDED
		AE	APCS-13-6	CONNECTOR, CABLE SPACER, (2)954 AAC ON 6" CENTERS		
		AE	GC-141A-G2-TP	GROUND CONNECTOR, 4/0 COPPER TO FLAT STEEL		
		AE	GC-143A-G2-TP	GROUND CONNECTOR, (2)4/0 COPPER TO FLAT STEEL		
		PASCOR(A)	TTR8-AC	SWITCH: 3PST, 230 KV, 2000 AMP, VERTICAL BREAK. ALUMINUM LIVE PARTS, 4-HOLE TERMINAL PADS, TINNED. TO INCLUDE ARCING HORNS, POSITION INDICATOR. WORM GEAR. VERTICAL MOUNTING.		
		PASCOR(A)	TTR8-AC	SWITCH: 3PST, 230KV, 2000 AMP, VERTICAL BREAK. ALUMINUM LIVE PARTS, 4-HOLE TERMINAL PADS, TINNED. TO INCLUDE INTERLOCKING GROUND SWITCH, ARCING HORNS, WORM GEAR AND POSITION INDICATOR. VERTICAL MOUNTING.		
				TERMINAL CONNECTOR, 4"IPS ALUMINUM TO SWITCH PAD. CENTERED FORMED		
				TERMINAL CONNECTOR, (2)954 ACSR TO SWITCH PAD, WELDED		
	1	BY JEA	BY JEA	BREAKER, 230KV COMPLETE WITH 4 HOLE PADS		
		AE	VL4S-41-4-H	GROUND CONNECTOR, WIRE TO TANK GROUND PAD		

ITEM ID	ITEM QTY	MFG ID	MFG PART NO.	ITEM DESCRIPTION	EACH PRICE	EXTENDED
		AE		TERMINAL CONNECTOR, (2)954 ACSR TO 4 HOLE PAD AT 90 DEGREES		
		TRENCH	UT5-900-230			

JEA Preliminary Project Schedule
IFB JXF-035-09
21 West Church Street
Jacksonville, Florida 32202

ID	Task Name	Duration	Start	Finish	Predecessors
1	Anchors Delivered	7 days	Mon 5/4/09	Tue 5/12/09	
2	Bus Material Delivered	7 days	Mon 5/4/09	Tue 5/12/09	
3	Fab Steel Galvanizing	7 days	Mon 5/4/09	Tue 5/12/09	
4	Final GA/ML Files	7 days	Mon 5/4/09	Tue 5/12/09	
5	JEA 10% Purchase Order	7 days	Mon 5/4/09	Tue 5/12/09	
6	JEA GA/ML Approvals	7 days	Mon 5/4/09	Tue 5/12/09	
7	JEA Scope	7 days	Mon 5/4/09	Tue 5/12/09	
8	JEA Steel Detail Approvals	7 days	Mon 5/4/09	Tue 5/12/09	
9	JEA Steel Erection Approvals	7 days	Mon 5/4/09	Tue 5/12/09	
10	JEA Supplement Purchase Order	7 days	Mon 5/4/09	Tue 5/12/09	
11	Material Engineering & Selection	7 days	Mon 5/4/09	Tue 5/12/09	
12	Material Marshalling	7 days	Mon 5/4/09	Tue 5/12/09	
13	Material Procurement	7 days	Mon 5/4/09	Tue 5/12/09	
14	Quote Letter #1	7 days	Mon 5/4/09	Tue 5/12/09	
15	Quote Letter #2	7 days	Mon 5/4/09	Tue 5/12/09	
16	Raw Steel Fabrication	7 days	Mon 5/4/09	Tue 5/12/09	
17	Raw Steel Procurement	7 days	Mon 5/4/09	Tue 5/12/09	
18	Structure Engineering	7 days	Mon 5/4/09	Tue 5/12/09	
19	Structure Marshalling	7 days	Mon 5/4/09	Tue 5/12/09	
20	Structures Delivered	7 days	Mon 5/4/09	Tue 5/12/09	



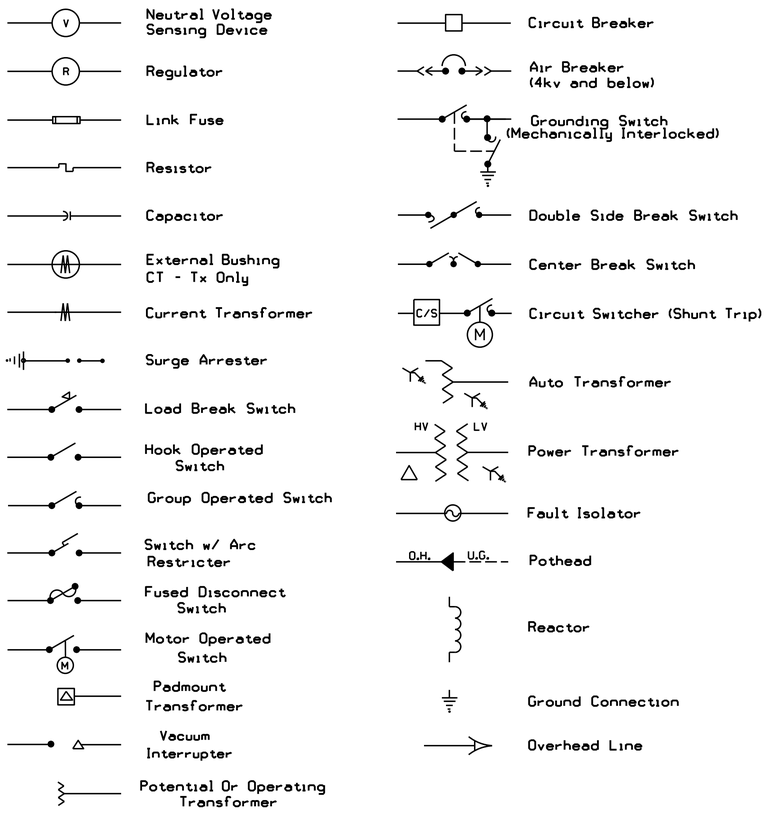
Project: Project1
Date: Wed 4/8/09

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

ABC Packaged Substations
12345 Fictitious Corporate Way
Snowshoe, Florida 12345-6789

ONE LINE SCHEMATIC DIAGRAMS TRANSMISSION AND DISTRIBUTION SUBSTATIONS

SYMBOLS



BREAKER CODES

TRANSMISSION

SYMBOL	SYSTEM VOLT.	AMPS	KA*	TYPE
A	240 KV	2000	40	SF-6
B	240 KV	1600	40	SF-6
C	240 KV	1600	40	OIL
D	240 KV	1600	30	AIR
E	240 KV	1600	30	OIL
F	138 KV	2000	40	SF-6
G	138 KV	1600	40	SF-6
H	138 KV	1600	40	OIL
I	138 KV	2000	40	OIL
J	240 KV	2000	50	SF-6
K				
L	69 KV	2000	40	SF-6
M	69 KV	2000	40	OIL
N	138 KV	2000	50	SF-6
P	69 KV	1200	40	OIL
S	69 KV	1200	29	OIL
T	69 KV	2000	31.5	SF-6
U				
V	69 KV	1200	21	OIL
W	69 KV	2000	37	OIL
X				
Y				
Z				

* APPROXIMATE INTERRUPTING RATING OF THE BREAKER. FOR ACTUAL RATING SEE BREAKER NAMEPLATE.

DISTRIBUTION

SYMBOL	SYSTEM VOLT.	AMPS	KA *	TYPE
a	25 KV	2000	23	SF-6
b	25 KV	1200	11	SF-6
b1	34.5 KV	1200	25	SF-6
c	25 KV	1200	34	OIL
d	25 KV	1200	17	OIL
e	25 KV	1200	23	OIL
f	34.5 KV	1200	20	VAC
f1	28 KV	1200	20	VAC
f2	28 KV	1200	25	VAC
g	25 KV	1200	11	OIL
h	38 KV	1200	20	SF-6
h1	38 KV	1200	20	OIL
i	38 KV	1200	20	VAC
j	38 KV	2000	20	VAC
j1	38 KV	1200	40	VAC
j2	38 KV	2000	40	VAC
k	25 KV	600	11	OIL
l	25 KV	600	6	OIL
m	13 KV	1200	30	AIR MAG
n	13 KV	1200	40	AIR MAG
o	13 KV	1200	20	AIR MAG
p	13 KV	1200	20	OIL
q	13 KV	2500	30	AIR MAG
r	13 KV	4000	60	OIL
s	13 KV	3000	30	AIR MAG
t	13 KV	2000	30	AIR MAG
u	13 KV	1200	20	VAC
v	13 KV	3000	60	OIL
w	13 KV	3000	40	AIR MAG
x	13 KV	2000	30	VAC
y	13 KV	1200	40	OIL
z	13 KV	1200	30	VAC
z1	13 KV	2000	20	VAC
z2	13 KV	1200	20	SF-6
z3	13 KV	3000	36	VAC
z4	13 KV	1200	40	VAC

DISTRIBUTION

SYMBOL	SYSTEM VOLT.	AMPS	KA *	TYPE
z5	13 KV	1200	36	VAC

NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED
1	INITIAL ISSUE	M.L.S.	05/27/15	M.L.S.

ENGINEERING	BY	DATE
DESIGNED	M.L.S.	05-27-15
CHECKED		
APPROVED		
DRAFTING	**BY**	**DATE**
PRELIMINARY		
FINAL DESIGN		
AS BUILT		

IFB FOR STRUCTURES AND MATERIALS – DINSMORE SUBSTATION

SINGLE LINE LEGEND

230kV LOW PROFILE

JEA BUILDING COMMUNITY

SCALE: NO SCALE

PROJECT DESIGN SEGMENT 20410

IFB NO.: 113-15

DESIGN FILENAME: DI152SLL

DRAWING NO.: DI-230-15

SHEET NO.: 01 OF 01

NOTES:

1. THIS DRAWING PERTAINS ONLY TO THIS INVITATION FOR BIDS (IFB). ONLY THAT PORTION OF THIS DRAWING THAT IS SHOWN IN CLOUDS WILL BE INCLUDED IN THE IFB RESPONSE.
2. FOR FURTHER INFORMATION, REFER TO THE OTHER DRAWINGS AND SPECIFICATIONS IN THIS INVITATION FOR BIDS.

230kV LINE TO WESTLAKE
955
PH-1 23
9640G
9641
2-2000/5
955
2-2000/5
9642
3-P.T.'S 138kV 115/67V
PH-1 23
230kV BUS1
PH-1 23
9CST1
C/S
600/5 1200/5 2000/5
WAUKESHA T-1 230-230/27kV 30/40/50 MVA Z= %
H1 H3
L1 L3
1200/5
2-1200/5
PH-1 23
1200/5
25T1
1200/5
5624
PH-1 23
27kV MAIN BUS1
PH-1 23
5630
25C1
VBM
V
CAP BANK C1 5.4 MVAR
223B
1200/5
223
1200/5
223L
223T
27kV TRANSFER BUS1
PH-1 23
223
3-P.T.'S 14400V 120V
5625
PH-1 23
222B
1200/5
222
1200/5
222L
222T
222
STATION SERVICE-1 100 kVA/50 kVA 120/240V
5626
PH-1 23
221B
1200/5
221
1200/5
221L
221T
221
SPARE
9643
PH-1 23
2-2000/5
9T1T2
2-2000/5
PH-1 23
9644
PH-1 23
25MS
M
(N.O.)
5631
(N.O.)
3-P.T.'S 14400V 120V
5627
PH-1 23
220B
1200/5
220
1200/5
220L
220T
220
SPARE
STATION SERVICE-2 100 kVA/50 kVA 120/240V
5628
PH-1 23
219B
1200/5
219
1200/5
219L
219T
219
230kV LINE TO SJRPP
937
PH-1 23
9645G
9646
2-2000/5
937
2-2000/5
9647
3-P.T.'S 138kV 115/67V
PH-1 23
230 KV BUS2
PH-1 23
9CST2
C/S
600/5 1200/5 2000/5
WAUKESHA T-2 230-230/27kV 30/40/50 MVA Z= %
H1 H3
L1 L3
1200/5
2-1200/5
PH-1 23
1200/5
25T2
1200/5
5629
PH-1 23
27kV MAIN BUS2
PH-1 23
5632
25C2
VBM
V
CAP BANK C2 5.4 MVAR
218B
1200/5
218
1200/5
218L
218T
27kV TRANSFER BUS2
PH-1 23
218

NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED

ENGINEERING	BY	DATE
DESIGNED	M.L.S	05-26-15
CHECKED		
APPROVED	-	-
DRAFTING	**BY**	**DATE**
PRELIMINARY	M.L.S.	05-26-15
FINAL DESIGN		
AS BUILT		

JEA STRUCTURES AND MATERIALS – DINSMORE SUBSTATION

SINGLE LINE DIAGRAM

230kV /26kV LOW PROFILE SUBSTATION

JEA BUILDING COMMUNITY

SCALE: NONE

PROJECT DESIGN SEGMENT 20410

IFB NO: 113-15

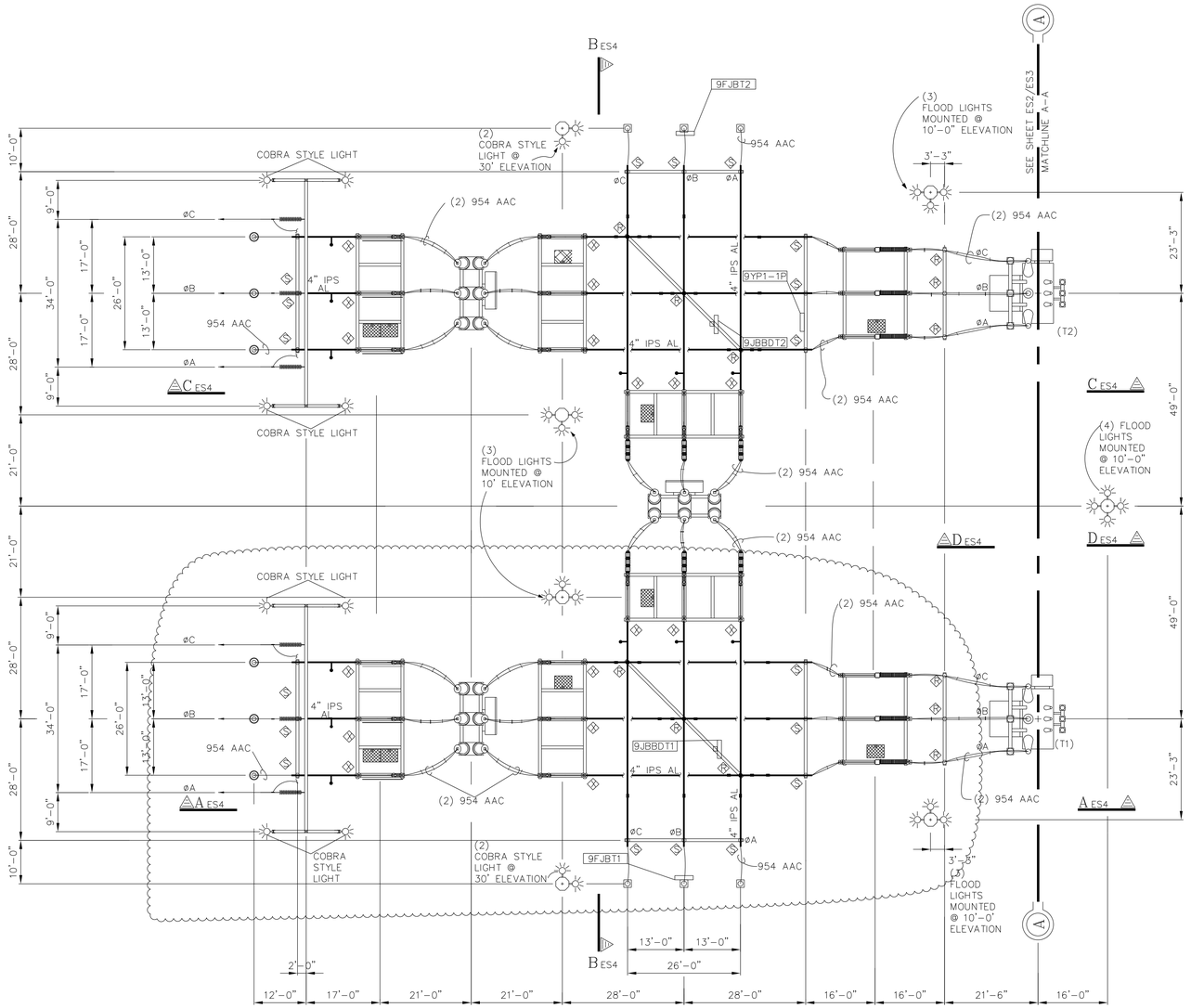
DESIGN FILENAME: DI152SL1

DRAWING NO: DI-23027-15

SHEET NO: 1 OF 1

$FILE$ $DATE$

NORTH



NOTES:

1. THIS DRAWING PERTAINS ONLY TO INVITATION FOR BIDS JXF-035-09. ONLY THAT PORTION OF THIS DRAWING SHOWN IN (CLOUDS) ARE PART OF THIS INVITATION FOR BIDS. FOR FURTHER INFORMATION. REFER TO THE OTHER DRAWINGS AND SPECIFICATIONS IN THIS INVITATION FOR BIDS.
2. ALL RUNS OF 4 INCH TUBULAR BUS LONGER THAN 10 FEET IN LENGTH SHALL HAVE 954 AAC CONDUCTOR INSTALLED INSIDE OF TUBE FOR DAMPING. WEEP HOLES AT POINT OF MAXIMUM DEFLECTION.
3. RIGID BUS SUPPORT IS ALUMINUM WELDMENT BUS SUPPORT TACK WELD TO BUS.
4.

BUS HEIGHT	230kV
HIGH BUS	32'-0"
LOW BUS	20'-0"

5.

SPACING	230kV
PHASE TO PHASE	13'-0"
MINIMUM METAL TO METAL	7'-5"
MINIMUM METAL TO GROUND	5'-11"
RECOMMENDED METAL TO GROUND	6'-4"

6.

TOWER	T/L
CONDUCTOR TENSION PER PHASE PER NESC EXTREME WINDS	1590 ACSR AT 6508 LBS AT 5° AT 55'-0"
SHIELD WIRE TENSION	3#6 ALUMOWELD AT 2249 LBS AT 70'-0"
PHASE TO PHASE WIRE SPACING	17'-0"
TOWER WIDTH	52'-0"

7. PROBE POLE HEIGHT SHALL BE 70 FEET WITH LIGHT FIXTURES MOUNTED AT 30 FEET.

LEGEND:

- SECTION VIEW - SEE OTHER DRAWINGS
- POTENTIAL TRANSFORMER
- POTENTIAL TRANSFORMER WITH PT FUSE BOX
- SA SURGE ARRESTER
- STRUCTURE WITH COBRA HEAD LIGHT ATTACHMENTS
- RIGID BUS FITTING
- SLIP BUS FITTING
- EXPANSION BUS FITTING
- OPERATING MECHANISM

NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED
1	INITIAL ISSUE	M.L.S	050615	M.L.S

ENGINEERING	BY	DATE
DESIGNED	M.L.S	050615
CHECKED		–
APPROVED		–
DRAFTING	BY	DATE
PRELIMINARY		–
FINAL DESIGN		–
AS BUILT		

JEA STRUCTURES AND MATERIALS – DINSMORE SUBSTATION

230kV ELECTRCIAL PLAN VIEW

230kV / 26kV LOW PROFILE SUBSTATION

JEA BUILDING COMMUNITY

SCALE: 1/16" = 1'-0"

PROJECT DESIGN SEGMENT 20410

JEA JOB NO.: 113 -15

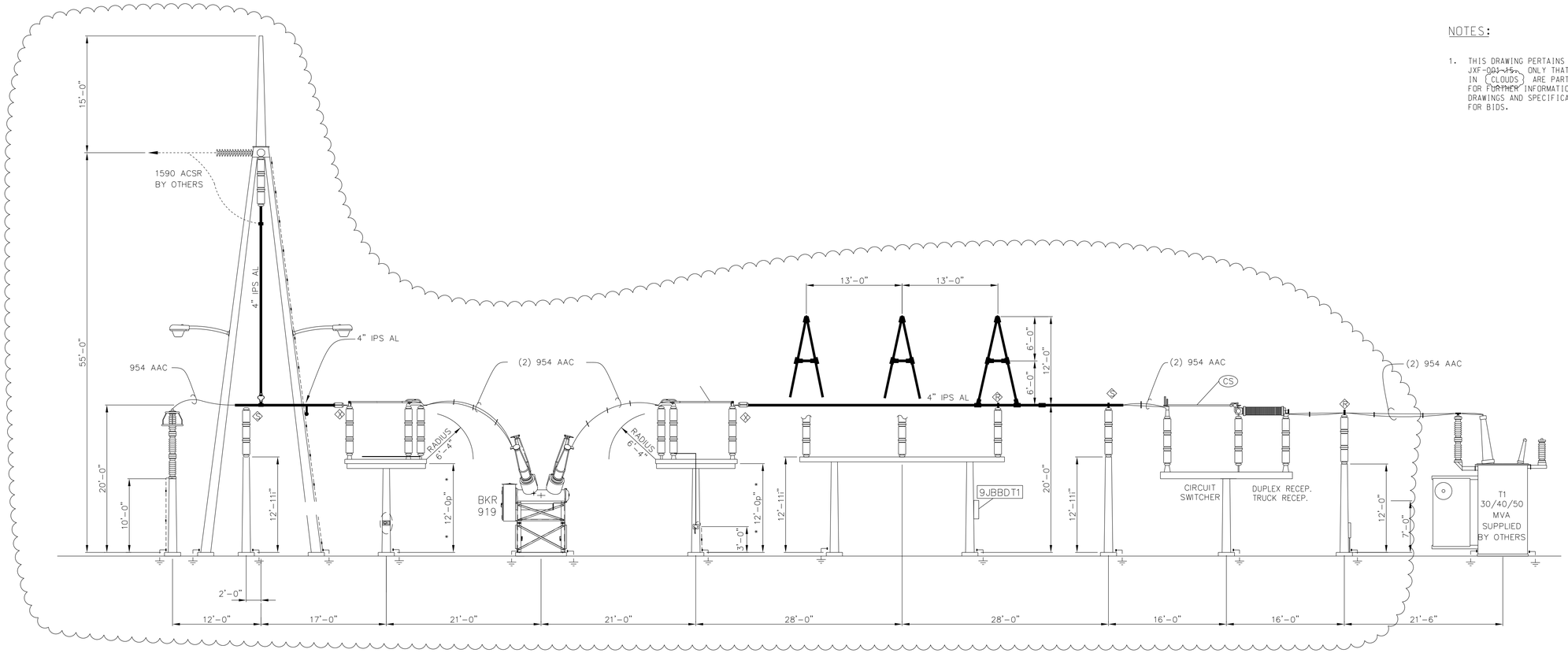
DESIGN FILENAME: DI152EP1

DRAWING NO.: DI-23027-15

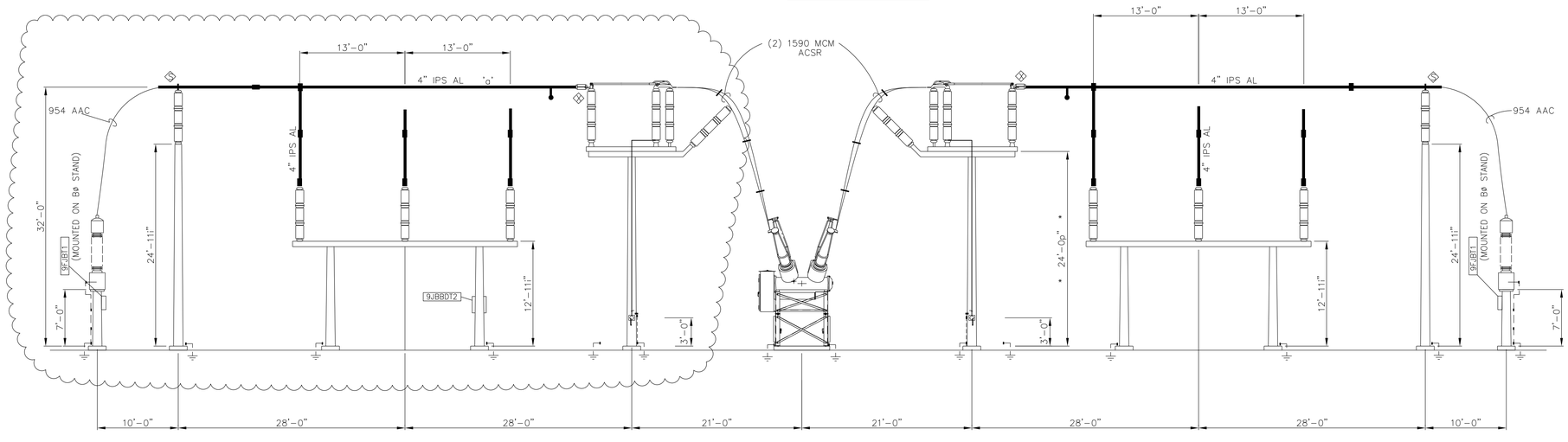
SHEET NO.: 3 OF 7

NOTES:

1. THIS DRAWING PERTAINS ONLY TO INVITATION FOR BIDS JXF-003-15. ONLY THAT PORTION OF THIS DRAWING SHOWN IN (CLOUDS) ARE PART OF THIS INVITATION FOR BIDS. FOR FURTHER INFORMATION, REFER TO THE OTHER DRAWINGS AND SPECIFICATIONS IN THIS INVITATION FOR BIDS.



SECTION A ES1



SECTION B ES1

NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED

ENGINEERING	BY	DATE
DESIGNED	M.L.S	05/26/15
CHECKED	–	–
APPROVED	–	–
DRAFTING	BY	DATE
PRELIMINARY	–	–
FINAL DESIGN	–	–
AS BUILT		

IFB FOR STRUCTURES AND MATERIALS – DINSMORE SUBSTATION

ELECTRICAL SECTIONS A & B

230kV / 26kV LOW PROFILE SUBSTATION

JEA BUILDING COMMUNITY

SCALE: NONE

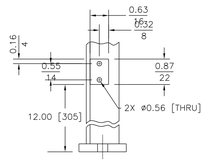
PROJECT DESIGN SEGMENT 20410

IFB. NO.: 113 – 15

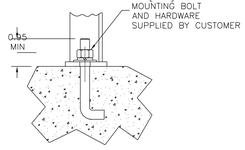
DESIGN FILENAME: DI152E91

DRAWING NO.: DI-23027-15

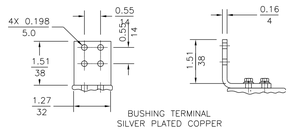
SHEET NO.: 1 OF 1



VIEW B–B
GROUND PAD
TYP. (2) PLCS.

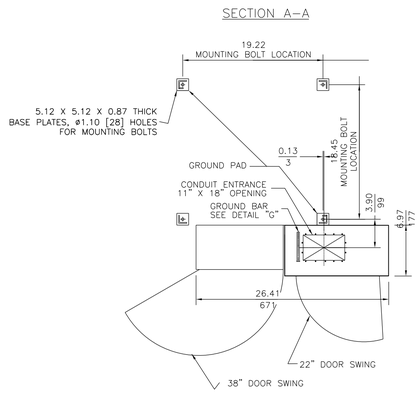


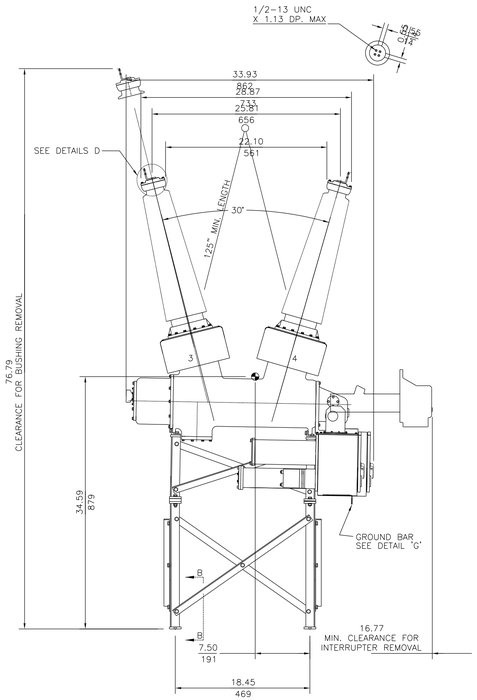
DETAIL C
TYP. (4) PLCS.



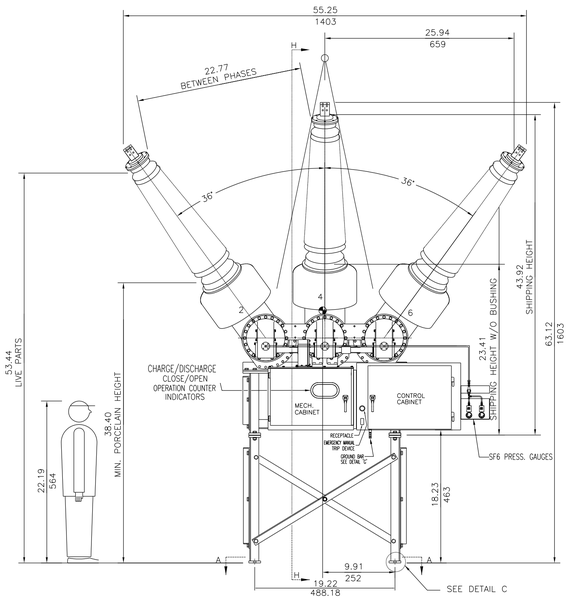
DETAIL D

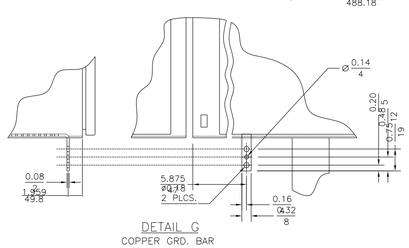
SECTION A–A





SECTION H–H





DETAIL G
COPPER GRD. BAR

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES

1. TOTAL BREAKER WEIGHT: 11905 lb [5400 kg]
2. TOTAL SF6 WEIGHT: 175 lb [79.4 kg]
3. BUSHING L–PADS: FIELD ASSEMBLED
4. ⊕ INDICATES CENTER OF GRAVITY.
5. RATINGS

RATED MAXIMUM VOLTAGE:	245 kV
RATED CONTINUOUS CURRENT:	3000 A
RATED SHORT–CIRCUIT CURRENT:	50 kA
RATED LOW FREQUENCY WITHSTAND VOLTAGE (60–50 Hz):	425 kV
RATED FULL WAVE IMPULSE WITHSTAND VOLTAGE:	900 kV
RATED GAS PRESSURE AT 20°C [68°F]:	0.55 MPa [80 PSIG]

6. BUSHING DATA:
   CREEPAGE: MIN.156.00 in [3960 mm]
   STRIKE: 60.43 in [1535 mm]
   HEIGHT: 66.96 in [1700 mm]
7. SURFACE TREATMENTS
   SUPPORT STRUCTURE: HOT DIP GALVANIZED PER ASTM A123
   CONTROL CABINET: UNFINISHED ALUMINIUM
   MECH. CABINET: UNFINISHED ALUMINIUM
   MECHANISM COMPONENTS: PAINT ANSI 70 LIGHT GRAY
   SF_6 GAS ENCLOSURE: UNFINISHED ALUMINIUM
   BCT COVER: UNFINISHED ALUMINIUM
   PORCELAIN: GLAZE ANSI NO.70 LIGHT GRAY
8. MECHANICAL LOADING
   WIND LOAD: ⩽ 120 MPH
   ICE LOAD: 0
   SEISMIC LOAD: 0
   TERMINAL LOAD:
   STATIC HORIZONTAL LONGITUDINAL FORCE: ⩽ 281 lb [127.5 kg]
   STATIC HORIZONTAL TRANSVERSE FORCE: ⩽ 225 lb [102 kg]
   STATIC VERTICAL FORCE: ⩽ 281 lb [127.5 kg]
9. FOUNDATION LOADS
   (INCLUDES OPERATIONAL LOADS, 300 lbs LINE LOADS AND 120 MPH WIND LOADS)
   OVERTURN MOMENT: 134104 lbf•ft [18540 kg•m]
   TOTAL SHEAR: 18890 lbf [8568 kgf]
   TOTAL COMPRESSION: 17175 lbf [7790 kgf]
10. MAXIMUM ANCHOR BOLT LOADS
    TENSION: 10480 lbf [4753 kgf]
    SHEAR: 4722 lbf [2141 kgf]
    PAD COMPRESSION: 655 PSI [46 kgf/cm²]

THIS GCB MEETS THE REQUIREMENTS OF IEEE, ANSI, IEC, NEMA AND NESC

HS245 A 50
SPRING/SPRING MECHANISM
STD. PORCELAIN BUSHING

SIGNATURES	DATE	
DRAWN BY: S.FABRE	03/24/15	Hitachi HVB, Inc. Suwanee, Ga.
CHECKED		TITLE: OUTLINE 245kV/50kA/3000A
ENGRD BY:		
APPROVALS		CUSTOMER: JEA
		HVB REQ:
		HVB SO: 111310 CUST. P.O: 141768
		SUBSTATION: CECIL COMMERCE CENTER 230–26KV
		SIZE D | FSCM NO. | DWG. NO. HS245A5D0116 | REV. 0
		SCALE: NTS | CONT. ON SHT. END SHT NO. 1

NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED
1	INITIAL ISSUE	M.L.S.	05/27/15	M.L.S.

ENGINEERING	BY	DATE
DESIGNED	M.L.S.	05-27-15
CHECKED		
APPROVED		
DRAFTING	**BY**	**DATE**
PRELIMINARY		
FINAL DESIGN		
AS BUILT		

IFB FOR STRUCTURES AND MATERIALS – DINSMORE SUBSTATION

230 KV BREAKER OUTLINE

230kV LOW PROFILE

JEA BUILDING COMMUNITY

SCALE: NO SCALE

PROJECT DESIGN SEGMENT 20410

IFB NO.: 113 –15

DESIGN FILENAME: DI154OL1

DRAWING NO.: DI–230–15

SHEET NO.: 01 OF 01

113-15 APPENDIX B MINIMUM QUALIFICATIONS FORM

STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS

GENERAL

THE MINIMUM QUALIFICATIONS SHALL BE SUBMITTED ON THIS FORM. IN ORDER TO BE CONSIDERED A QUALIFIED BIDDER BY JEA YOU MUST MEET THE MINIMUM QUALIFICATIONS LISTED BELOW, AND BE ABLE TO PROVIDE ALL THE SERVICES LISTED IN THIS SOLICITATION.

THE RESPONDENT MUST COMPLETE THE BIDDER INFORMATION SECTION BELOW AND PROVIDE ANY OTHER INFORMATION OR REFERENCE REQUESTED. THE RESPONDENT MUST ALSO PROVIDE ANY ATTACHMENTS REQUESTED WITH THIS MINIMUM QUALIFICATIONS FORM.

PLEASE SUBMIT THE ORIGINAL AND THREE (3) COPIES OF THIS FORM AND ONE (1) CD OR THUMB DRIVE AND ANY REQUESTED ADDITIONAL DOCUMENTATION WITH THE BID SUBMISSION.

BIDDER INFORMATION

COMPANY NAME:_____

BUSINESS ADDRESS:_____

CITY, STATE, ZIP CODE:_____

TELEPHONE:_____

FAX:_____

E-MAIL:_____

PRINT NAME OF AUTHORIZED REPRESENTATIVE:_____

SIGNATURE OF AUTHORIZED REPRESENTATIVE:_____

NAME AND TITLE OF AUTHORIZED REPRESENTATIVE:_____

MINIMUM QUALIFICATIONS:

- The Company shall have successfully self-performed three (3) similar projects in the past five (5) years, date ending January 31, 2016. A similar project is considered to be a structure and material package project for a substation or transmission system of greater than $1,000,000 in value per project. Additionally, each project shall have contained the following project elements:
    - Fabrication or manufacturing of Engineered Equipment for substation or transmission structures
    - Staging (Marshalling of equipment to support construction schedule).
    - Inspection and test of design package

113-15 APPENDIX B MINIMUM QUALIFICATIONS FORM

STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS
REFERENCE 1

Reference Name_____

Reference Phone Number_____

Reference E-Mail Address_____

Contract Year/Amount _____

Project Title _____

Address of Work _____

Description of Project _____

113-15 APPENDIX B MINIMUM QUALIFICATIONS FORM

STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS
REFERENCE 2

Reference Name _____

Reference Phone Number _____

Reference E-Mail Address _____

Contract Year/Amount _____

Project Title _____

Address of Work _____

Description of Project _____

113-15 APPENDIX B MINIMUM QUALIFICATIONS FORM

STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS
REFERENCE 3

Reference Name _____

Reference Phone Number _____

Reference E-Mail Address _____

Contract Year/Amount _____

Project Title _____

Address of Work _____

Description of Project _____

Evaluator			
Company Being Evaluated			
MINIMUM QUALIFICATIONS			
TECHNICAL LEAD - Contact each submitted Reference and ask set list of min. qual. Questions to demonstrate compliance to Min. Qual		Criteria for Min. Qual Pass / Fail	Need 1 Pass for Each Reference
Reference 1	Call Back 1 -	In Order to get a Pass for Each Reference, contact must be made with each company and each min. qual bullet, dollar amount and peformance date must be met	Pass
	Call Back 2 -		
	Email		
Reference 2	Call Back 1 -		Fail
	Call Back 2 -		Fail
	Email		Pass
Reference 3	Call Back 1 -		Fail
	Call Back 2 -		Pass
	Email		
Does Proposer meet Minimum Qualifications and all of the Requirements on APPENDIX A?			Go / No Go
SOLICITATION RFP CRITERIA GROUPING	PROPOSAL FORM SUBMISSION FORM GROUPING	From Scoring Instrument or Workbook or Proposal	Points
QUOTATION OF RATES - LOWEST PRICES GETS FULL POINTS, REDUCED THEREAFTER	Low Bidder = 35 pts Other bidders points = 35*(Low bidder/Bidder, based on Quotation of Rates workbook)	Up to 35 Points	35
PAST PERFORMANCE	PROJECT 1	VERY GOOD 7-9 GOOD 5-6 AVERAGE 3-4 POOR 1-2 NO INFORMATION 0	9
	PROJECT 2	VERY GOOD 7-9 GOOD 5-6 AVERAGE 3-4 POOR 1-2 NO INFORMATION 0	9
	PROJECT 3	VERY GOOD 7-9 GOOD 5-6 AVERAGE 3-4 POOR 1-2 NO INFORMATION 0	9
RESOURCES - FACTORY PERSONNEL AND EQUIPMENT RESOURCES	TOTAL STAFF RESOURCES FORMS – MANUFACTURING & OTHER CRAFT	Up to 9 Points	9
	TOTAL EQUIPMENT RESOURCES FORMS – MANUFACTURING	Up to 8 Points	8
ABILITY TO MEET THE DESIGN APPROACH REQUIREMENTS	SURVEY OF PROJECT DESIGN ABILITIES" SUBMISSION FORMAT	Up to 10 Points	10
PROXIMITY TO JEA	PROXIMITY TO JEA	Up to 6 Poitns	6
JSEB (OPTIONAL)	JSEB (5 Points) This may be Optional and Not required	Up to 5 Points	5
Totals			**100**
	PRESENTATION		**15**
	FINAL EVALUATION TOTAL		**115**

		Lead evaluator document reference 1 response here
1	Was the Proposer able to provide Engineered Equipment that met the Project Design	
2	Was the Project Management Approach sufficient to Delivery Project on Time	
3	Was the project completed on time	
4	Were there any Deliverable Warranty Claims	
5	Are there any outstanding issues with the equipment selected and installed?	

Lead evaluator document reference 2 response here	Lead evaluator document reference 3 response here

Each evaluator will grade the response on the below scale		Reference 1 The total in the box below must equal 2 or less 9
Project fully Met	2	2
Project mostly met	1	
Project partially or did not meet	0	
Project fully Met	2	2
Project mostly met	1	
Project partially or did not meet	0	
Project fully Met	2	2
Project mostly met	1	
Project partially or did not meet	0	
Project fully Met	2	2
Project mostly met	1	
Project partially or did not meet	0	
Project fully Met	1	1
Project mostly met	0.5	
Project partially or did not meet	0	

Reference 2	Reference 3
The total in the box below must equal 2 or less	The total in the box below must equal 2 or less
9	9
2	2
2	2
2	2
2	2
1	1

113-15 STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS

PROPOSAL FORM

Responding Organization Name and Address (Enter EXACTLY one corporate identity, which must be the same on all forms).	
Organization Business Address (a physical address, for the primary place of business of the above-listed organization).	
Organization City, State, Zip Code.	
Name, Address, Phone, and Email, of Interim Project Manager who will be responsible for this Proposal during Evaluation.	
Name (and address if other than above) of Chief Executive Officer.	
Name (and address if other than above) of Corporate Registered Agent.	
P.E. License Number / State / Web Address for validation (or additional letter documentation for verification or evidence of application).	
QUOTATION OF RATES – from the Quotation of Rates Workbook	

Respondent's Certification

By submitting this Response, the Respondent certifies (1) that the Respondent has read and reviewed all of the documents pertaining to this ITN and agrees to abide by the terms and conditions set forth therein, (2) that the person signing below is an authorized representative of the Respondent, and (3) that the Respondent is legally authorized to do business and maintains an active status, in the State of Florida. The Company certifies that its recent, current, and projected workload will not interfere with the Respondent's ability to Work in a professional, diligent and timely manner.

The Respondent certifies, under penalty of perjury, that it holds all licenses, permits, certifications, insurances, bonds, and other credentials required by law, contract or practice to perform the Work. The Respondent also certifies that, upon the prospect of any change in the status of applicable licenses, permits, certifications, insurances, bonds or other credentials, the Respondent shall immediately notify JEA of status change.

We have received addenda _____through_____

_____ _____

Signature of Authorize Officer of Respondent or Agent Date

_____ _____

Printed Name & Title Phone Number

PAST PERFORMANCE

The Respondent shall provide information regarding three (3) similar projects completed in the past ten (10) years. The Respondent may use projects submitted in the Minimum Qualifications in this Section.

Each project should at a minimum list the following:

- Name of client/customer with contact information that should include:
  - Name and title of contact person
  - Phone number and email address.
  - Project Title
  - Project Cost
- Brief project description (no more than two (2) pages), which should describe Respondent's approach in the following areas:
  - Expertise & approach for Engineered Equipment.
  - Development of the Project Management Approach use on the project.
  - The companies approach to meeting timeline, budgetary goals and delivery

The JEA technical leads shall review and evaluate the submissions by the Respondents in response to the request information on the individual proposal forms.

STAFF RESOURCES FORM – MANUFACTURING & OTHER CRAFT

1. Organization Manufacturing and Other Craft Staff Statistics:

   The Respondent shall list the total number of employees and other statistics as shown in the following table (subject to the following):

   1.1. Each employee in these statistics must be a non-managerial employee.

   1.2. Each employee in the statistics shall have maintained regular, full-time employment unless listed as non-full-time.

   1.3. Certifications shall include only the following:

      1.3.1. State authorized Licenses and Certificates for Apprenticeship/Journeymen training programs or

      1.3.2. In those States not sponsoring "Journeyman" status for certain categories (e.g. Welder), an equivalent program of training and experience. Respondent shall provide training programs, any certificates and experience upon request from JEA.

Responding Organization Name and Address (Enter EXACTLY one corporate identity, which must be the same on all forms)			
Employee Category	Number of Full-Time Employees in this Category	Average Length of Continuous Employment with Respondent (Years)	Percentage Holding State-Issued Certifications or Licensure Relative to the Work
Machinists			%
Welders			%
Transport Equipment Operators (Fork Lift, Crane, etc.)			%
Truck Drivers			%
Certified Crane/Heavy Haul Equipment Operators			%
Other than Regular, Full-Time Employees, including subcontractors, temporary employees, part-time employees, etc. currently in use by the Respondent to fill these positions.	**N/A**	**N/A**	% of total number of employees

TOTAL EQUIPMENT RESOURCES FORM – MANUFACTURING

1. Organization Construction Equipment Statistics:

   The Respondent shall list the total number of equipment components and other statistics as shown in the following table (subject to the following):

   1.1. Each piece of equipment must be wholly owned or under a lease of at least a two (2) year duration.

   1.2. Each piece of equipment must be in sufficient condition to be immediately placed in-service.

   1.3. For vehicles, each piece of equipment must be covered with proper insurances and licenses for traversing roadways in the State where located.

Responding Organization Name and Address (Enter EXACTLY one corporate identity, which must be the same on all forms)			
Equipment Category	Number of Equipment Items in this Category	Average Age of Equipment in this Category	Average Distance from Office mentioned above (miles)
Lulls, Fork Lifts, Loading Equipment (Capacity at least 3 Ton)			
Long Haul Vehicles (Tractor/Trailer)			**N/A**
Overhead Cranes (at least 10 Ton, fixed or mobile)			%
Automated Steel Cutting, including Plasma Arc Cutters, Programmable Punching equipment, and water cutting equipment.			%
Steel Plate Automatic folding system for manufacture of tubular structures.			
Automated Welding Systems, including Seam Welder, etc.			

ABILITY TO PERFORM WORKPLANS

"SURVEY OF PROJECT DESIGN ABILITIES" SUBMISSION FORMAT

1. "Attachment D" has a Single Line Diagram and associated legend, an Outline (Circuit Breaker) Drawing, General Arrangement Drawings (Plan and Elevation), an incomplete Material List, and a preliminary Project Schedule. The Respondent shall utilize these documents and drawings to perform the Structures and Materials Packager engineering services for this Project. In preparing the submission for JEA's consideration, the Respondent should adhere to the following requirements:

   1.1. The Respondent shall submit a complete set of engineering documents and drawings for ONLY THE STRUCTURES AND MATERIALS BACKCIRCLED PORTION OF THE "ELECTRICAL PLAN VIEW" Drawing. Particularly, the scope of work for this submittal shall be limited to the structures, and materials (less circuit breakers, which are to be provided by JEA), beginning at (and including) the anchor rods and including all bus, structures, insulations, switches, potential transformers, arrestors, pull-off towers with insulators (do not include transmission conductors or their termination ends or dead end insulators or connectors) and all other necessary materials UP TO (but not including) the aluminum tubing of the East Bus and West Bus.

   1.2. A table follows to lists the elements of the engineering that will be reviewed and scored in this RFP, in alphabetical order (listed below):

SUB TASK NAME (shortened)	Format	Size	Definition of Description
Bus & Structure Calculations	Report	8" x 11"	A document showing the assumptions, formulas, and modeling of the bus and components under wind and fault current loading, indicating the application of these loads for selection of insulators, selection of anchor bolts, and selection of structure steel.
Material Selection – Cut Sheets	Report	8" x 11"	Notes regarding the selection of non-structural materials, including bus, connectors, arrestors, potential transformers, etc
Reaction Load Calculations	Report	8" x 11"	When not included in the "Bus & Structure Calculations", a separate report that includes free-body diagrams.
Material List	Word Table	8" x 11"	Completion of the attached Material List, to show all materials needed, with prices, quantities, and Item IDs as described further in other Sections of this RFP.
General Arrangement Drawing(s)	CADD Drawing	11" x 17"	Draft in CADD the refined, redesigned, existing CADD drawing of the elevation of the sample breaker bay (string) and draft in CADD a plan view for this breaker bay (string) only. Drawings must be submitted in form and format as specified elsewhere in this RFP.

Structure Detail Drawing(s)	CADD Drawing	11" x 17"	Draft in CADD the Shop manufacturing details for all structures in this the sample breaker bay (string

1.3. Structure Erection Drawings, which are required on a typical JEA project, will not be accepted or graded for this RFP.

1.4. Additionally, there is a one (1) page word form that asks two (2) brief questions and asks for comments. The Respondent should also complete this form and submit with this RFP Response.

1.5. The Respondent should submit paper copies with this Bid Submission. The electronic files must be submitted in the formats specified elsewhere in this RFP. Other submission formats must be ignored due to scoring effort requirements.

2. The Respondent may assume the following:

2.1. The information that appears on the sample Single Line Diagram, General Arrangement Plan View, General Arrangement Elevation, Material List (Preliminary), Project Schedule Instructions, and Scope Document are all true, correct, FIXED, and represent engineering constraints that result in a tractable engineering problem.

2.2. Where information is not provided, the Respondent shall have wide latitude but must work within all specification of this RFP in determining how to proceed, and will be scored in a manner that recognizes good utility practice and efficiency.

2.3. The Respondent shall assume that the foundation system will consist of 3000 LBF concrete of sufficient quantity, cover, and reinforcement to support ALL necessary reaction loads to the anchor rods.

2.4. Ampacity requirements, wind-load and fault-duty requirements, as well as other requirements of the work are provided in union of the scope document and other Sections and Materials in this RFP.

3. With the following constraints, please submit all drawings and documents:

3.1. All drawing and document submitted in response to this RFP will be scored for accuracy, completeness, efficiency, and adherence to the Specifications for such drawings and documents as discussed elsewhere in this RFP. The Respondent is advised to thoroughly review all of this RFP prior to and during the creation of these drawings and documents.

3.2. All drawing and document submittals will be paper copies and electronic formats that meet the requirements of electronic submissions as discussed elsewhere in this RFP.

3.3. Print the drawings on 11" x 17" paper in a format similar to the drawings provided. Print the documents on 8" x 11" paper in a format similar to the scope provided.

3.4. The Respondent shall also provide a cover sheet that forms a table of contents, similar to the one (1) provided for "Attachments D". The Respondent shall use a logical ordering of the items and shall include the Project Scope.

3.5. Attach the form "SURVEY OF PROJECT DESIGN ABILITIES" with the submission.

113-15 STRUCTURES AND MATERIALS PACKAGER FOR JEA SUBSTATION AND TRANSMISSION PROJECTS

PROXIMITY TO JEA FORM

The Respondent shall include the information mentioned in the following form as shown below, for JEA's consideration and scoring. All addresses must be physical addresses and must include the entity name, street, city, county, state, and zip code.

Responding Organization Name and Address (Enter EXACTLY one corporate identity, which must be the same on all forms).	
Address of the Design / Engineering office of the Respondent that will perform this work and approximate distance to JEA offices	
Address of the manufacturing facility of the Respondent that will provide manufactured square-tube structures for this work. Also provide the approximate distance, in miles, from the Address of the Design / Engineering office mentioned above.	
Address of the manufacturing facility of the Respondent that will provide manufactured tubular folded-plate structures for this work. Also provide the approximate distance, in miles, from the Address of the Design / Engineering office mentioned above.	
Address of the manufacturing facility of the Respondent that will provide galvanization of the structures for this work. The Respondent may list up to two (2) Galvanizing facilities. Also provide the approximate distance, in miles, from the Address of the Design / Engineering office mentioned above.	
Address of the facility of the Respondent that will provide the Marshalling and Warehousing of the package. Also provide the approximate distance, in miles, from the Address of the Design / Engineering office mentioned above.	
Are all Senior Staff that will perform this work able to attend JEA's Facilities for a full business day (8AM – 5PM) with not more than one (1) overnight stay?	**YES/NO**
If within four (4) hours driving distance of JEA offices, provide the mileage and time requirements for traveling to JEA Offices. If not within four (4) hours driving distance of JEA, write "N/A".	

JACKSONVILLE SMALL AND EMERGING BUSINESS (JSEB) - RFP

Respondent shall indicate if it is certified as a Jacksonville Small and Emerging Business (JSEB) as defined by Jacksonville Ordinance 2004-602; Chapter 126, Part 6A and 6B.

If Respondent is not a certified JSEB, the Respondent shall list any JSEB certified subcontractors that it intends to utilize in the performance of this Work. The listing should include names of the JSEBs, the type of service they will provide, and the percentage of work being subcontracted. Points will be awarded based on the type and amount of work that will be conducted by JSEB firms.

The points will be awarded as follows:

Respondent is a COJ/JEA certified JSEB = 5 pts;

Respondent is not a JSEB but will subcontract Work to JSEBs:

Non-JSEB with JSEB partner:

Greater than or equal to 5% of work = 4 pts

Greater than or equal to 3%, but less than 5% of work = 3 pts

Greater than or equal to 2%, but less than 3% of work = 2 pts

Greater than or equal to 1%, but less than 2% of work = 1 pt