Procurement Department Bid Office
Customer Center 1st Floor, Room 002
21 W. Church Street
Jacksonville, Florida 32202

June 1, 2016

ADDENDUM NUMBER: ONE (1)

TITLE: RFQ 83716 Circuits 691/693 Renee Terrace Pole Replacement

BID DUE DATE: June 16, 2016

TIME OF RECEIPT: 12:00 PM EST

THIS ADDENDUM IS FOR THE PURPOSE OF MAKING THE FOLLOWING CHANGES OR CLARIFICATIONS:

1. Revision: Section 1.1.2. of the solicitation has an incorrect email listed for the technical contact. The correct email is CHMISM@JEA.COM

2. Revision: Section 1.4.1 of the Technical Specifications
   a. The pole Manufacturer is Summit Utility Structures
   b. The Contact person for the manufacturer will be Richard Delizza, until further notice:

   Richard DeLizza
   Electric Sales Associates, Inc.
   2121 N Commerce Pkwy
   Weston, FL. 33326
   Phone 954-385-8885
   Fax 954-385-3266

3. Revision: Section 2.7.6. part (a) of the technical specifications
   - The minimum and maximum forces will be 10,000 and 90,000 lbs respectively.

4. Revision: Section numbers on pages nine (9) thru twelve (12) of the technical specifications appear to be numbered incorrectly. These are being updated as are all the other comments in this addendum. Please find the attached revised Tech Specs.

5. Clarification: JEA will provide shop drawings for the steel poles as soon as they are available. The shop drawings are expected to be available by June 10th, 2016.

6. Clarification: During the Pre-bid meeting, JEA mentioned some safety information. Please visit the following link to learn more about safety related information: https://www.jea.com/About/Procurement/Become_a_Vendor/Contractor_Safety/
   - The winning bid contractor will need to become JEA safety Qualified at least 10 business days after the bid opening by submitting the Contractor Safety Qualification Questionnaire found in the link above.
   - The contractor employees need to be drug tested at least 30 days prior to starting work. JEA will request proof of the drug testing before the start of work.
   - The contractor employees will need to take safety orientation and/or training as described in the following link: https://www.jea.com/About/Procurement/Become_a_Vendor/Contractor_Safety/Safety_Orientation_Training/
   - For any questions regarding JEA's safety requirements, please contact Jerry Fulop (904 665-5810, 904-334-9041, fuloje@jea.com).

7. Question: During the site visit, a contractor asked if they could be provided with CAD drawings.

Answer: Yes, please see the attached Construction Drawings in Auto CAD 2010 format as well as the survey drawing in Auto CAD 2010 format.

- 83716 Addendum 1 CAD Survey
- 83716 Addendum 1 CAD Construction Drawings

8. Question: During the site visit, a contractor asked if they would be responsible for any structural damaged (cracking, etc.) to the houses at the worksite when they enter in-between them with their heavy equipment and machinery.

   Answer: Yes, the contractor will be responsible to any damage to the houses. Please refer to section 2.13.21 of the solicitation and sections 2.20.1 and 2.21 of Appendix A.

9. Question: During the site visit, a contractor asked if there are any septic tanks known to be present on the work site.

   Answer: No. To JEA's best knowledge there is no indication that any septic tanks are present on any of the properties within the worksite. All four (4) properties are connected to JEA's water and sewer mains. The contractor shall assume that there are no sceptic tanks present. In the event that septic tanks are found during construction, JEA will be responsible for the extra construction costs.

10. Question: During the site visit, a contractor asked if there are any Temporary construction easements that were purchased outside of the four properties on which work will be conducted (essentially south of the poles near the fence line).

    Answer: No. JEA did not purchase any additional Temporary construction easements. If the contractor feels that is necessary to obtain additional easements to perform this work feasibly, please mark the additional TCEs and the sizes of these TCEs. Please mark the needed easements on sheets four (4) and five (5) of the construction drawings as part of your bid.

11. Question: During the site visit, a contractor asked if they have to relocate the wooden shed on sheet five (5) of the construction drawings.

    Answer: No. Please refer to note 6 on sheet five (5). The note states that the shed may be temporarily relocated. It is anticipated by JEA that the shed will be relocated because of access issues; however it may stay if the contractor wishes it to stay. However, JEA does require that the contractor mark this shed as being relocated as part of their bid if they wish to relocate it. JEW will reinstall the shed after construction back on its original location.

12. Question: During the site visit, a contractor asked if they can use the existing fencing to construct the temporary fencing at each property.

    Answer: Yes. The exiting fencing may be used to construct the temporary construction fencing. Please take note that on 6812 Renee Terrace (sheet 5 of the construction drawings), the proposed temporary fence needs to be at least 6 feet in height (near the pool) while the existing fencing is only 4 feet in height. All other temporary fencing is 4 feet in height and the existing fencing may be used to construct the temporary fencing at those locations.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM.

TECHNICAL SPECIFICATIONS
FOR
THE CIRCUITS 691/693 RENEE TERRACE
POLE REPLACEMENT

May 31st, 2016

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1. SCOPE OF WORK

1.1 Intent: The Contractor shall provide all equipment, labor and supervision to accomplish the work as specified herein and on the construction drawings. The source of materials to accomplish the work of this project is specified herein and on the construction drawings. The Contractor should take note that, while the actual delivery dates of these items are not precisely known at this time, the schedule provided is synchronized with the expected delivery schedule for certain materials, equipment, and etc. The Contractor is responsible to pick up, inspect, receive, unload and install these items at the job site.

1.2 Scope of Work Statement: Remove two (2) existing wooden transmission poles and replace them with taller new steel transmission poles. Transfer transmission conductors, shield wire, and fiber optic cable onto the new poles as indicated. Work will include removing/cutting and disposing of poles and all associated hardware. Work will also include the installation of new steel poles, insulators, and support hardware, miscellaneous attachments, and the transfer of existing conductors/wires.

1.3 Project Location: A vicinity map is shown on the cover of the construction drawings. The work will take place in Duval County, approximately six miles (6) miles southeast of downtown Jacksonville. Work will take place at a residential community, specifically at 6724, 6730, 6812, and 6818 Renee Terrace, Jacksonville, FL 32216.

1.4 General Description of Project: Install two (2) new directly embedded steel poles, STR #47 and STR #48, and all new associated hardware in place of existing wooden poles as shown on the construction drawings. Transfer existing transmission 556 ACSR conductors, 3#6 AW shield wire, and ADSS fiber optic cable onto the newly installed poles. Remove and dispose of existing wooden transmission poles #47 and #48.

1.4.1 Transmission Structures: There are two (2) steel poles to be installed for this project. These structures have been purchased by JEA and will be delivered to the construction site by the pole manufacturer, Summit Utility Strucutres, by Monday, September 12th, 2016. The contractor shall be responsible for coordinating delivery and offloading the poles at the project location according to the standard procedure. The contact person for the pole manufacturer will be Richard Delizza.

Richard DeLizza
Electric Sales Associates, Inc.
2121 N Commerce Pkwy
Weston, FL. 33326
Phone 954-385-8885
Fax 954-385-3266

1.4.2 Outages: All outages on the JEA Transmission System shall be granted by JEA Systems Operation and Control Center (SOCC) only. The contractor shall submit all requests (for an outage) to SOCC for approval and, provided the request is granted, cooperate (with SOCC) in the scheduling, timing, duration and termination.

1.5 Project Engineer:

JEA
Sebastian Chmist
21 West Church Street, T-09
Jacksonville, FL, 32202

Project Representative:

JEA
Greg Couture
21 West Church Street, T-09
Jacksonville, FL, 32202

Office: (904) 665-7016	Office: (904) 665-6016
Cell: (860) 995-0075	Cell: (904) 502-5925
Email: chmism@jea.com	Email: coutg@jea.com

1.6 Sequence of Work and Project Schedule: All work shall be performed in an orderly and workmanlike manner. Sequence of work may be scheduled at the discretion of the Contractor within the guidelines of these specifications. Note that construction will be scheduled when the outages are granted and this shall be determined by JEA (SOCC). It is anticipated that construction will begin on Monday, August 29th, 2016 to allow for site clearing. A proposed construction schedule is to be submitted with the bid

1.7 Overtime: Overtime may be allowed, but only at the discretion of the JEA project representative. However, all work must take place during day light hours. No night work is allowed.

1.8 Electrical Clearances (Outages): A five (5) day continuous outage on Circuits 691 and 693 will be granted simultaneously to complete all work. The outage will start on Monday, September 12th and last until Friday, September 16th, 2016.

1.9 Recall of Line Clearances or Hold Tags: In the event that a transmission or distribution hold tag on an energized or de-energized line must be recalled due to a system emergency, as determined by the JEA, the contractor shall complete only the work necessary to clear the line or equipment, clear his personnel, and release his hold tag as quickly as possible. Any recall shall not constitute a just cause by the contractor for a claim for extras.

1.10 Material Availability: Materials supplied by JEA (excluding poles) will be made available at the beginning of the project, following the pre-construction meeting. Poles will be made available as described in subsection 1.4.1 above.

2. CONDITIONS FOR PERFORMING THE WORK

2.1 Drawings and Details: The drawings entitled "CONSTRUCTION DRAWINGS FOR THE CIRCUITS 691/693 RENEE TERRACE POLE REPLACEMENT", which detail the construction of the transmission work, along with these written specifications, plating, standards, pole Installation guidelines, and pole drawings detail the work to be performed.

2.2 Structure Locations: Coordinates for the pole locations are shown on the Construction Drawings. The contractor shall employ a State of Florida Registered Land Surveyor to perform the staking of new structure locations using the coordinates provided on the construction drawings. In addition, where new structures are in, along, or adjacent to Public Right-of-Way, the surveyor will mark the Right-of Way lines adjacent to each structure with 2 stakes 6' apart centered on the structure and place survey ribbon between the stakes. Work shall be done under the direct supervision of a State of Florida Registered Land Surveyor. The accuracy of this operation is critical to the success of this project. Therefore, prior to setting or relocating structures on this project, the Contractors' Construction Superintendent Chief shall be prepared to meet on the jobsite with the Project Engineer (JEA) to discuss and exchange data for the staking operation and thereby ensure effective communication has occurred. The horizontal and vertical datum(s) shall be the North American Datum (NAD) 1983 and North American Vertical Datum (NAVD) 1988 respectively. Any exceptions must be approved by JEA prior to the commencement of work. All work will be required to adhere to the following standards.

2.2.1 Vertical: Work shall be Third Order, as outlined in the Federal Geographic Data Committee (FGDC) Geospatial Positioning Accuracy Standards, Part 4: Standards of Architecture, Engineering, Construction (A/E/C) and Facility Management.

2.2.2 Horizontal: Work can be done using either standard surveying techniques or Global Positioning Satellite (GPS) system. If standard surveying techniques are used, all horizontal work shall comply with Third Order Class II, as outlined in the Federal Geographic Data Committee (FGDC) Geospatial Positioning Accuracy Standards, Part 4: Standards for Architecture, Engineering, Construction (A/E/C) and Facility Management. If GPS is used, the relative horizontal accuracy shall conform to the Federal Geographic Data Committee (FGDC) Geospatial Positioning Accuracy Standards, Part 2: National Standard for Spatial Data Accuracy.

2.3 As-Built Drawings: The contractor shall note any changes, revisions or corrections, in red, on a copy of the Construction Drawings and provide these "as-builts" to JEA. In addition, the contractor shall employ a State of Florida Registered Land Surveyor to determine and record on the "as-builts" the appropriate State Plane Coordinate System (SPCS) and Zone (latest adjustment), for all new structures. The contractor shall also record the ground rod resistance measurements and the number of ground rods used for each structure on these "as-builts".

2.4 Permits: There are no permits required for this work. JEA is exempt from obtaining City of Jacksonville permits, and so are the contractor's contracted under JEA to perform the work. JEA will notify the City of Jacksonville of any work that will be taking place during construction. In the event that unforeseen permits are required, JEA will reimburse the contractor the cost of any permit plus 10% for administrative fees.

2.5 Pole Weights: Contractor shall be responsible for providing all necessary equipment capable of performing the work. The overall estimated pole weights (excluding insulators and attachment hardware) are as follows:

Structure #47: Estimated weight is 5,600 lbs +/- 10%
Structure #48: Estimated weight is 5,600 lbs +/- 10%

2.6 Identification of Pole Components: Each major component includes an identification tag welded to the pole member. The last four digits of the pole assembly number are stamped on each tag. The pole "SHOP DRAWINGS" section in Appendix A show the location of each tag, the identification number of each tag, and a list of all parts required for each pole. These pole identification instructions are based on the assumption that Valmont Newmark will be the pole manufacturer. If Valmont Newmark is not the pole manufacturer, the pole shop drawings shall be used for correct identification of pole components.

2.7 Pole Assembly: Poles are being provided in sections that have to be assembled by slip joints in the field as dictated by the following. These pole assembly instructions are based on the assumption that Valmont Newmark will be the pole manufacturer. If Valmont Newmark is not the pole manufacturer, the pole shop drawings shall be used for correct instructions regarding pole assembly.

2.7.1 Since these poles utilize embedded base installation, typically the bottom (embedded) section of each pole is to be installed in the ground first. The specified embedment depth of each pole is shown in the "CONSTRUCTION DRAWINGS" section of Appendix A. Care should be taken to assure that the bottom section is vertical before proceeding with the erection of the rest of the pole since there is no

adjustment to this type of installation as there is with leveling nuts on anchor type foundations. Care must be taken to prevent dirt, stones, etc. from getting trapped between the mating surfaces of the pole sections.

2.7.2 The proper alignment of the pole sections is facilitated by the location of the identification tags. These are positioned on the sections so that aligning them on the same side for the entire pole length will assure proper orientation of all conductor points, attachments, etc.

2.7.3 To facilitate the assembly of the slip joints, mating surfaces may be lubricated. Care should be taken not to use a lubricant that will leak from the joint and stain the pole. Soapy water is recommended and should be used for this purpose.

2.7.4 Each identification tag is positioned to indicate maximum splice. The mating sections should never exceed this position. In addition, this tag can be used to determine if minimum splice has been achieved.

2.7.5 A sound slip joint depends on the application of the necessary force to achieve a tight joint. Although the method selected may depend upon the size of the pole sections, the type of pole design and the equipment available to the contractor, it is required that a hydraulic jacking device be used. Any hydraulic jacking device used must be compatible with the manufacturer's poles.

2.7.6 A tight, sound, slip joint is determined by:

a) The force used in assembly is at least the minimum specified on the pole "SHOP DRAWINGS" section of Appendix A, but should not exceed the maximum force specified. The minimum and maximum forces are estimated to be 10,000 lbs and 90,000 lbs.

b) Any additional force applied to the joints does not result in additional movement of the joint.

c) The overlap length achieved is at least the minimum and not more than the maximum specified on the pole "SHOP DRAWINGS".

d) The joint shows no more than small gaps (which can be caused by slight mismatch in the shapes of the mating sections).

e) Forces should be applied in a slow steady pull and the assembly be facilitated by oscillating the advancing section with the supporting crane or by striking the pole in the area of the joint with a hammer using a cushioning block of wood.

2.8 Pole Corrosion Protection and Storage: After assembly, any damage to the protective coating on the structure must be repaired (corrocote will be provided and delivered by the pole manufacturer). When storing poles, all stored pole sections should be kept well ventilated. Sections need to be blocked off the ground and separated if sections or stacked on top of each other. Wooden blocks should be non-treated wood (wood treatments can be caustic to steel) and metal blocking should be coated (rusting steel will stains sections). Remove all packing and shipping materials to avoid finish deterioration through holding moisture against the surface. Provide adequate drainage so water, including any caused by condensation inside the pole, does not accumulate inside the pole or on outside surfaces.

2.9 Pole Erection: Prior to lifting the structure, any slipover joint below the crane attachment point should be securely lashed to prevent any possibility of separation during lifting. The lifting crane must be attached:

a) Above the center of gravity of the entire assembly including the weight of all equipment mounted on the structure before erection.

b) To maintain pole member(s).

c) As high as possible since higher attachment will result in more nearly vertical alignment of the assembly while suspended.

2.10 Pole Details: Overall pole lengths, embedment depths, and details of attachments and their locations are shown on the "CONSTRUCTION DRAWINGS" and "TRANSMISSION STANDARDS" sections of Appendix A.

2.11 Pole Dimensions: Detailed pole dimensions containing outside diameters, tapers, etc. are shown in the "SHOP DRAWINGS" section of Appendix A.

2.12 Pole Installation: Contractor shall install the poles by use of an auger having a drill with a minimum diameter of eighteen (18) inches larger than the butt diameter of the pole (The butt diameters of all poles will be no more than 30 inches, therefore a 48 inch auger is recommended). The Contractor shall dewater each pole location. The residual water shall be captured by a pumping tanker truck as the pole is set. The Contractor shall dispose of the collected water in accordance with all Local, State and Federal requirements. The setting depth of the poles shall be as indicated on the Construction Drawings. The pole shall be marked for the required setting depth, placed in the hole, and made plumb. Contractor shall use matting to enter wetlands or hard to access areas for pole installation.

2.13 Material Provided by JEA: All hardware provided by JEA will be issued at JEA's Commonwealth Service Center, 6674 Commonwealth Avenue, Jacksonville FL. Only the hardware shown on the "PLATING" section of Appendix A will be issued. Immediately following the pre-construction conference, the contractor shall arrange for pick up, inventory, and properly store all hardware provided by JEA. The contractor shall make a thorough check for quantities of pieces received and sign a Bill of Material indicating the amount consigned and shall be responsible for replacement of all material lost, stolen, or damaged thereafter. Contractor shall provide JEA a list of material not issued within one (1) week of initial pickup or one (1) week before the start of construction, whichever occurs first. Contractor shall provide all equipment needed for loading and transporting of material to the job site.

2.14 Material Provided by Contractor: Material provided by the contractor shall be good quality and meet all standards and codes governing the material for the type of use of the material. Miscellaneous material such as inhibitors, cleaning solvents, grout, paint, rope, etc., required for construction shall be supplied by the contractor.

2.15 Material Requested by JEA: When requested by JEA, Contractor may be required to provide material not furnished by JEA. The contractor will be reimbursed direct cost of material plus 10%.

2.16 Return of Excess Material and Conductor Reels: Contractor shall return to Commonwealth Service Center or other JEA designated facilities all excess material and all conductor reels. Contractor shall provide all equipment needed for unloading and return of materials and reels.

2.17 Access to the Work: Access to perform all work is the responsibility of the Contractor. The Contractor shall display all signs and follow all Florida Department of Transportation (FDOT), City of

Jacksonville and CSX Railroad rules and regulations when gaining access to the work. Flagmen shall be used, if required. Access to the worksite will be through private property W/ Temporary Construction Easements.

2.17.1 Structure #47 and #48 are both located on private property, currently with no access. JEA has purchased temporary construction easements to gain access to these structures. Access to structure #47 must take place off of Renee Terrace, in-between the two (2) houses located at 6724 and 6730 Renee Terrace, Jacksonville FL, 32216. Access to structure #48 must take place off of Renee Terrace, in-between the two (2) houses located at 6812 and 6818 Renee Terrace, Jacksonville FL, 32216.

2.17.2 Any access arrangements crossing private property not mentioned above in section 2.17.1 will be the responsibility of the Contractor.

2.17.3 The Contractor shall repair any damage to all roads, R/W's and adjacent property (not located at 6724, 6730, 6812, or 6818 Renee Terrace, Jacksonville FL, 32216) to as-is condition, and as directed by and to the satisfaction of JEA

2.18 Access thru Wetlands: Vehicle or equipment access to Structures located in, around or near Wetland areas shall only be by way of temporary matting installed by the Contractor. No fill will be allowed.

2.19 Security: Contractor shall be responsible at all times for providing their own security to the work site, equipment and materials. In addition, the contractor shall provide site security for contractor work safety at their discretion.

2.20 Clearing/Side Trimming / Site Preparation: The Contractor is responsible for all clearing/side trimming, mowing and removal of all debris/obstacles from R/W which may be required to install new structures, foundations, temporary structures, or for permanent operation of the lines at structures #47 and #48.

2.20.1 It is anticipated that the contractor will need to remove numerous obstacles/improvements to facilitate the installation of the transmission structures. The contractor may remove obstacles on 6724, 6730, 6812, and/or 6818 Renee Terrace, Jacksonville FL, 32216. All obstacles that are to be removed must be disposed of by the contractor. It is not the contractor's responsibility to replace these obstacles/improvements unless otherwise indicated on the construction drawings.

The following obstacles may be removed and disposed of or removed and relocated at the discretion of JEA.

a) Fences
b) Trees
c) Sheds
d) Flora and Fauna
e) Pavement / paving
f) Sod/grass/ vegetation
g) Landscaping
h) Other installations

The following obstacles may not be removed and must remain undamaged:

a) Buildings (houses)
b) Pool(s)

c) Pool decking
d) Antenna(s)
e) Shed with well and pump

2.21 Protection of Existing improvements: Contractor shall exercise proper care not to destroy or otherwise damage any existing improvements (utilities, houses, pools, etc.) in the work area that are to remain. Any damage to such improvements shall be immediately repaired by the Contractor at no additional cost to JEA.

2.22 Restoration: After the transmission construction has been completed, JEA will coordinate the restoration to the work sites damaged by the transmission construction to the satisfaction of the property owners at 6724, 6730, 6812, and/or 6818 Renee Terrace, Jacksonville FL, 32216..As part of the bid, the contractor must markup sheets four (4) and five (5) of the Construction Drawings, depicting the existing obstacles/improvements, located under the "Construction Drawings" section of appendix A, and indicate what obstacles will be removed or damaged during construction. Within two (2) weeks of the bid opening, the contractor must be prepared to meet with JEA to discuss the removal of these obstacles with JEA and JEA's landscape architect. The purpose of this meeting is to provide JEA with the information needed to develop a landscape plan needed to restore the worksites. The meeting will be scheduled by JEA and will take place at the JEA tower, 21 West Church Street, Jacksonville FL, 32202.

2.22.1 On sites other than 6724, 6730, 6812, and/or 6818 Renee Terrace, Jacksonville FL, 32216, the contractor shall, at his expense, restore any vegetative areas damaged during construction to conditions that existed prior to starting the project. The contractor will be required to restore area to proper grade, properly amend soil and install vegetation that matches surrounding and/or pre-existing conditions. Contractor shall water area as necessary to permanently establish new vegetation. All restoration shall be done per the latest edition of the COJ standards. All the standards can be found in the latest edition of JEA's Underground Electric Distribution Standards, under sections III and VIII. The standards can be found in the following link:

https://www.jea.com/Working_With_JEA/Engineering_and_Construction/Reference_Materials/Underground_Electric_Distribution_Standards.aspx

2.23 Temporary Protection: The Contractor is responsible for providing any and all temporary protection to existing distribution lines and any existing improvements above or below ground which may be affected by the work.

2.24 Bolts: Contractor shall be responsible for determining that bolts supplied by JEA for attachment of all equipment are of sufficient length to permit attachment of the equipment and extend a minimum of one and one-half inches (1-1/2") past the last nut. The Contractor will not claim extras for failure to make this check prior to start of work.

2.25 Backfill Around Poles: Contractor shall backfill around all poles with FLA DOT#57 crushed stone. The fill material shall be continuously compacted from the bottom of the hole to the ground line using multiple Long Stemmed Vibrators.

2.26 Backfill of Pole Holes (Pole Removal): Where poles are removed the Contractor shall cut the exiting poles two (2) feet below ground level and then backfill the remaining hole with a suitable clean fill material approved by the JEA Inspector. The fill material shall be continuously compacted from the bottom of the hole to the ground line.

2.27 Grounding:

2.27.1 All transmission hardware (bolts, brackets, dead-end tees, etc.) shall be electrically connected to the structure ground. Steel poles are furnished with ground inserts located near areas where hardware is to be installed. A number 4 copper wire shall be run from all hardware to the nearest grounding insert. Fiber optic hardware will not be grounded.

2.27.2 It may be necessary to install ground rods by two different methods. Rods may be installed by conventional methods using an air compressor and air hammer. In areas where "hard-pan" exists, rods will have to be installed by the deep well method using a well drilling rig. The deep well method shall only be used at the direction of the JEA Engineer.

2.27.3 The top of the first (ground) rod is to be at least six (6) inches below natural grade. The Contractor shall install five (5) ground rods at each structure locations by the following method. Contractor shall install three (3) ground rods and if a ground resistance reading of 10 ohms is obtained, then the remaining two (2) ground rods will not be installed. If a ground resistance reading of 10 ohms is not obtained, then the remaining two (2) ground rods will be driven and a ground resistance reading taken. If all five (5) rods have been installed and a ground resistance of 10 ohms is not obtained, the Contractor shall installed additional ground rods, provided by JEA, until a satisfactory reading is obtained as judged by the JEA Field Representative. The labor and equipment required to install the additional ground rods will be supplied by the Contractor.

2.27.4 Driving of all ground rods shall be witnessed by the JEA Field Representative and a record kept by the Contractor of the number of rods driven and the resistance readings. This information shall be submitted to the Engineer, in report form, at the completion of the project. The ground rod resistance measurements shall be made with a "ground megger". The tests shall be performed as recommended by the manufacturer for the instrument used.

2.27.5 Deep well grounds, if required, shall be installed by auguring a hole by means of a casing pipe and well drilling bit, approximately 1½ inches in diameter. The drill shaft and bit shall be augured to such a depth until a satisfactory ground resistance is obtained. After a satisfactory ground resistance is obtained, the drill shaft and bit shall be withdrawn and ground rods shall be coupled together and placed in the hole to full depth formally achieved by the drill bit. In the event the top ground rod projects above the ground after placement in the hole, the rods shall be driven deeper so that the top of the top rod is at least six (6) inches below natural grade. Contractor's base bid shall reflect ground rod installation by the conventional driven method. If the deep well method must be used, the Contractor shall be compensated by the current approved JEA L.E.M. method.

2.27.6 Ground rods shall be installed immediately after the structure is erected. The ground connection between the structure and the ground rod shall be installed immediately thereafter.

2.27.7 Contractor shall stencil the letter “G” on each transmission pole three (3) feet above grade directly above the location of the driven ground rods. This letter shall be six (6) inches high and black in color.

3. OTHER ITEMS

3.1 When raising the conductors by installing the new poles, it is possible that the ahead/back span structures (#46 and #49) may need to have insulators re-plumed and/or placed in rollers. It is not anticipated that this will be needed, but it should be accounted for within the bid price. Sagging of the conductors/wires is not required and should not take place.

3.2 Only the materials and hardware (along with the steel poles as shown on the “SHOP DRAWINGS”) shown within the “PLATING” section will be provided. No temporary construction equipment will be provided

3.3 The contractor will be responsible for all Maintenance of Traffic (MOT) during construction. JEA will reimburse the contractor for the cost of MOT plus 10% for administrative fees.

3.4 Temporary Construction Easements: TCEs has been purchased by JEA to allow for the installation of structure #47 and #48. The Easements are shown on the survey and in the construction drawings. Please see the “SURVEY” section in Appendix A.

4. SEQUENCE OF WORK

Below is a recommended and anticipated sequence of work, however final discretion is left to the Contractor:

4.1 Mobilize

4.2 Prepare site for Transmission construction / remove obstacles

4.3 Pickup materials and hardware

4.4 De-energize / ground Circuits 691 and 693

4.5 Receive, unload, and spot steel poles

4.6 Set and frame new structure #47

4.7 Transfer existing 556 ACSR conductors, 3#6 AW shield wire, and ADSS fiber optic cable onto new structure #47

4.8 Remove and dispose of existing transmission framing on existing structure #47, then cut/dispose of existing pole two (2) feet below existing grade.

4.9 Set and frame new structure #48

4.10 Transfer existing 556 ACSR conductors, 3#6 AW shield wire, and ADSS fiber optic cable onto new structure #47

4.11 Remove and dispose of existing transmission framing on existing structure #48, then cut/dispose of existing pole two (2) feet below existing grade.

4.12 Remove grounds and energize circuit 691 and 693

4.13 Return and/or dispose of material as indicated

4.14 Demobilize and allow for JEA hired landscaper to restore worksites