# Unit Price Contact Material

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### CONCRETE AND ASPHALT UNITS

001 3000# concrete, 18” or less, slab type foundations, per cubic foot

* Contractor shall install slab foundations for transformers, circuit breakers, and other substation equipment including additions to existing foundations. Price shall be per cubic foot and include all labor, equipment, and materials to excavate, form, rebar, and finish required foundations. Price shall include standard JEA Substation concrete testing procedures by an independent testing lab for strength including 7 day and 28 day break tests. Density tests shall be performed at approved locations around the area to be poured within 24 hours prior to pouring concrete. Concrete delivery from mixing plant must be within 45 minutes. Multiple truck pours shall be made within 20 minutes of each other.

002 3000# concrete, >18” to 24”, slab type foundations, per cubic foot

* Contractor shall install slab foundations for transformers, circuit breakers, and other substation equipment including additions to existing foundations. Price shall be per cubic foot and include all labor, equipment, and materials to excavate, form, rebar, and finish required foundations. Price shall include standard JEA Substation concrete testing procedures by an independent testing lab for strength including 7 day and 28 day break tests. Density tests shall be performed at approved locations around the area to be poured within 24 hours prior to pouring concrete. Concrete delivery from mixing plant must be within 45 minutes. Multiple truck pours shall be made within 20 minutes of each other.

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006 5000# concrete, >18” to 24”, slab type foundations, per cubic foot

* Contractor shall install slab foundations for transformers, circuit breakers, and other substation equipment including additions to existing foundations. Price shall be per cubic foot and include all labor, equipment, and materials to excavate, form, rebar, and finish required foundations. Price shall include standard JEA Substation concrete testing procedures by an independent testing lab for strength including 7 day and 28 day break tests. Density tests shall be performed at approved locations around the area to be poured within 24 hours prior to pouring concrete. Concrete delivery from mixing plant must be within 45 minutes. Multiple truck pours shall be made within 20 minutes of each other.

007 Concrete removal, slab type foundations, up to 20” below grade, per cubic foot

* Contractor shall remove existing concrete slab type foundations. Price shall be per cubic foot and include all labor, equipment, and materials to demo, remove, haul, and dispose.

008 Asphalt installation, 1-1/2” thickness, type S-1 per FDOT standards, per square foot

* Contractor shall install asphalt paving in existing substation environments. Most installations will be additions to existing paved areas or restoration to disturbed paved areas. Installation includes labor, equipment and materials and shall include required sub base materials and compaction.

009 Asphalt removal, 1-1/2” thickness, type S-1, per square foot

* Contractor shall remove asphalt paving in existing substation environments, Removals will be of existing paved areas in existing substations environments to allow for expansion of facilities. Removal includes labor, equipment, and materials to demo, remove, haul, and dispose.

### MANHOLE UNITS

010 Manhole installation, 6’ x 4’ x 6’

* Contractor shall install a 6’ x 4’ x 6’ (JEA ID: MANO001) manhole in substation yard. Installation includes transportation of equipment to and from job site and all labor and equipment to perform the work. Before installation contractor will excavate and Compact ground to 95% maximum density per AASHTO T180. Installation will include grounding manhole at two locations and tying in conduit. Manhole supplied by JEA; however, contractor to coordinate with supplier to ensure delivery to the jobsite.

011 Manhole installation, 12’ x 6’ x 7’

* Contractor shall install a 12’ x 6’ x 7’ (JEA ID: MANO002) manhole in substation yard. Installation includes transportation of equipment to and from job site and all labor and equipment to perform the work. Before installation contractor will excavate and Compact ground to 95% maximum density per AASHTO T180. Installation will include grounding manhole at two locations and tying in conduit. Manhole supplied by JEA; however, contractor to coordinate with supplier to ensure delivery to the jobsite.

012 Manhole installation, 12’ x 8’ x 7’

* Contractor shall install a 12’ x 8’ x 7’ (JEA ID: MANO003) manhole in substation yard. Installation includes transportation of equipment to and from job site and all labor and equipment to perform the work. Before installation contractor will excavate and Compact ground to 95% maximum density per AASHTO T180. Installation will include grounding manhole at two locations and tying in conduit. Manhole supplied by JEA; however, contractor to coordinate with supplier to ensure delivery to the jobsite.

013 Manhole installation, 16’ x 8’ x 8’

* Contractor shall install a 16’ x 8’ x 8’ (JEA ID: MANO004) manhole in substation yard. Installation includes transportation of equipment to and from job site and all labor and equipment to perform the work. Before installation contractor will excavate and Compact ground to 95% maximum density per AASHTO T180. Installation will include grounding manhole at two locations and tying in conduit. Manhole supplied by JEA; however, contractor to coordinate with supplier to ensure delivery to the jobsite.

014 Manhole installation, 9’ x 6’ x 7’

* Contractor shall install a 9’ x 6’ x 7’ (JEA ID: MANO006) manhole in substation yard. Installation includes transportation of equipment to and from job site and all labor and equipment to perform the work. Before installation contractor will excavate and Compact ground to 95% maximum density per AASHTO T180. Installation will include grounding manhole at two locations and tying in conduit. Manhole supplied by JEA; however, contractor to coordinate with supplier to ensure delivery to the jobsite.

015 Manhole installation, 10’ x 16’ x 7’

* Contractor shall install a 10’ x 16’ x 7’ (JEA ID: MANO009) manhole in substation yard. Installation includes transportation of equipment to and from job site and all labor and equipment to perform the work. Before installation contractor will excavate and Compact ground to 95% maximum density per AASHTO T180. Installation will include grounding manhole at two locations and tying in conduit. Manhole supplied by JEA; however, contractor to coordinate with supplier to ensure delivery to the jobsite.

### AGGREGATE UNITS

016 Rock installation, #5 Bluegray limestone, 4” depth, per cubic yard

* Contractor shall install listed type rock in existing substation environments. Installation includes labor, equipment, and materials to haul rock to job site, compact area, and lay required rock. Area of rock installation shall be treated with a soil sterilization herbicide.

017 Sand installation, A-3, per cubic yard

* Contractor shall Procure, deliver, and install A-3 sand in substation yard. Installation includes labor, equipment, and materials to haul sand to job site, lay required sand, and compact area. Installation also includes compaction to 95% of maximum density per AASHTO T180.

### CONDUIT UNITS

018 Conduit installation 1” – 2”, 18” depth, per linear foot

* Contractor shall install listed sizes of conduits 18” below grade in existing substation environments. Most installations will be in a rocked area. The 18” below grade does not include the 4” of rock encountered on the surface. Rock is to be removed, stored, and replaced to an undisturbed condition. Installation includes labor, equipment, and materials. Installation includes all conduit and fittings required for termination to above grade conduit. All conduit runs are to be labeled at both ends and at all entrance and exit points to the cable trench.

019 Conduit installation 3” – 4”, 18” depth, per linear foot

* Contractor shall install listed sizes of conduits 18” below grade in existing substation environments. Most installations will be in a rocked area. The 18” below grade does not include the 4” of rock encountered on the surface. Rock is to be removed, stored, and replaced to an undisturbed condition. Installation includes labor, equipment, and materials. Installation includes all conduit and fittings required for termination to above grade conduit. All conduit runs are to be labeled at both ends and at all entrance and exit points to the cable trench.

020 Conduit installation 5” – 6”, 18” depth, per linear foot

* Contractor shall install listed sizes of conduits 18” below grade in existing substation environments. Most installations will be in a rocked area. The 18” below grade does not include the 4” of rock encountered on the surface. Rock is to be removed, stored, and replaced to an undisturbed condition. Installation includes labor, equipment, and materials. Installation includes all conduit and fittings required for termination to above grade conduit. All conduit runs are to be labeled at both ends and at all entrance and exit points to the cable trench.

### GROUNDING UNITS

021 19#8 Copperweld ground grid installation, 24” below grade, per linear foot

* Contractor shall install listed size cable 24” below grade in existing substation environments. Most installations will be in a rocked area. The 24” below grade does not include the 4” of rock encountered on the surface. Rock is to be removed, stored, and replaced to an undisturbed condition. Installation includes labor, equipment, and materials required to perform the work.

022 7#5 Copperweld equipment ground installation, up to 24” below grade, per linear foot

* Contractor shall install listed size cable up to 24” below grade in existing substation environments. Most installations will be in a rocked area. The 24” below grade does not include the 4” of rock encountered on the surface. Rock is to be removed, stored, and replaced to an undisturbed condition. This unit excludes equipment ground connections (see unit 23 for ground connectors). Installation includes labor, equipment, and materials required to perform the work.

023 Equipment ground connection, per connector

* Contractor shall furnish and install above-grade mechanical connector to 7#5 copperweld equipment ground. Installation includes labor, equipment, and materials required to perform the work.

024 Below grade Cadweld exothermic connection, per shot

* Contractor shall furnish and install below-grade Cadweld exothermic connections to 19#8 ground grid. Installation includes labor, equipment, and materials required to perform the work.

025 5/8” x 8’ ground rod installation, up to 50’ depth

* Contractor shall install copper ground rods coupled together to a depth of up to 50’. Installations may be in a rocked area. Installation includes labor, equipment, and materials. Installation includes connection to below grade ground grid conductor. Installation is per 8’ ground rod.

### MEDIUM/HIGH VOLTAGE BARE CONDUCTOR UNITS

026 Aluminum Jumper, 954 ACSR – 1590 ACSR, per linear foot

* Contractor shall install aluminum conductor steel reinforced cable, 954 ACSR - 1590 ACSR, in locations between high voltage electrical equipment within a high or low-profile substation. Cable shall be placed at the correct length between the equipment or bus. This unit excludes medium/high voltage connections (see unit XX for connectors). Materials furnished by JEA.

027 Aluminum Jumper, 1/0 AAC – 954 AAC, per linear foot

* Contractor shall install all aluminum cable, 1/0 AAC – 954 AAC, in locations between high voltage electrical equipment within a high or low-profile substation. Cable shall be placed at the correct length between the equipment or bus. This unit excludes medium/high voltage connections (see unit XX for connectors). Materials furnished by JEA.

028 Copper Jumper, 250CU – 1000CU, per linear foot

* Contractor shall install all copper cable, 250CU – 1000CU, in locations between high voltage electrical equipment within a high or low-profile substation. Cable shall be placed at the correct length between the equipment or bus. This unit excludes medium/high voltage connections (see unit XX for connectors). Materials furnished by JEA.

029 Medium and high voltage conductor termination, per connector

* Contractor shall terminate high/medium voltage conductor into substation equipment or bus work. Connections may be bolted or welded. Per connector includes cable spacers. Installation includes the labor, equipment, and material required to perform the work.

### LOW VOLTAGE CABLE UNITS

030 Low voltage control cable installation #8 - #18, per linear foot

* Contractor shall install listed sizes of cables in existing substation environment. Installations will be in an existing trench system or in below grade conduit and shall include runs up control house ladders and in control house overhead cable trays. Installation includes labor and equipment only. Cable will be furnished by JEA.

031 Low voltage power cable installation #8 - #18, per linear foot

* Contractor shall install listed sizes of cables in existing substation environment. Installations will be in an existing trench system or in below grade conduit and shall include runs from yard panels to equipment. Installation includes labor and equipment only. Cable will be furnished by contractor.

032 Low voltage power cable installation #1 - #6 RHW, per linear foot

* Contractor shall install listed sizes of cables in existing substation environments. Installations will be in an existing trench system or in below grade conduit and shall include runs up control house ladders and in control house overhead cable trays. Installation includes labor, equipment, and materials.

033 Low voltage power cable installation 1/0 or 250MCM cable installation, per linear foot

* Contractor shall install listed sizes of cables in existing substation environments. Installations will be in an existing trench system or in below grade conduit and shall include runs up control house ladders and in control house overhead cable trays. Installation includes labor, equipment, and materials.

034 Low voltage cable removal, per linear foot

* Contractor shall de-terminate and remove any low voltage cable from equipment and conduits. Removal includes transportation of equipment to and from job site and all labor and equipment required to perform the work. Scrap cable shall be disposed at JEA scrap bin locations.

035 Low voltage cable terminations, per wire termination

* Contractor shall terminate low voltage conductor rated up to 600 volts into substation equipment. Installation includes the labor, equipment, and material required to perform the work.

### SUBSTATION EQUIPMENT UNITS

036 Breaker Removal, 230kV, 15,000 lbs. or greater

* Contractor shall remove 230kV breaker weighing above 15,000 pounds. Work shall include removal of the breaker, existing high and low voltage terminations, and grounding cable. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work. Removal may involve disassembly of breaker for transport.

037 Breaker Removal, 230kV, 15,000 lbs. or less

* Contractor shall remove 230kV breaker weighing less than 15,000 pounds. Work shall include removal of the breaker, existing high and low voltage terminations, and grounding cable. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work. Removal may involve disassembly of breaker for transport.

038 Breaker Removal, 138kV, 15,000 lbs. or greater

* Contractor shall remove 138kV breaker weighing above 15,000 pounds. Work shall include removal of the breaker, existing high and low voltage terminations, and grounding cable. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work. Removal may involve disassembly of breaker for transport.

039 Breaker Removal, 138kV, 15,000 lbs. or less

* Contractor shall remove 138kV breaker weighing less than 15,000 pounds. Work shall include removal of the breaker, existing high and low voltage terminations, and grounding cable. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work. Removal may involve disassembly of breaker for transport.

040 Breaker Removal, 69kV

* Contractor shall remove 69kV breaker. Work shall include removal of the breaker, existing high and low voltage terminations, and grounding cable. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work. Removal may involve disassembly of breaker for transport.

041 Breaker Removal, 26kV

* Contractor shall remove 26kV breaker. Work shall include removal of the breaker, existing high and low voltage connections, and grounding cable. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

042 Breaker installation, 230kV

* Contractor shall install a 230kV breaker in substation yard. Work shall include installation of the breaker onto existing concrete pad. Installation includes transportation of equipment to job site from either JEA commonwealth/West Side or other JEA storage site and all labor and equipment required to perform the work. Breaker furnished by JEA.

043 Breaker installation, 138kV

* Contractor shall install a 138kV breaker in substation yard. Work shall include installation of the breaker onto concrete pad. Installation includes transportation of equipment to job site from either JEA commonwealth/West Side or other JEA storage site and all labor and equipment required to perform the work. Breaker furnished by JEA.

044 Breaker installation, 69kV

* Contractor shall install a 69kV breaker in substation yard. Work shall include installation of the breaker onto concrete pad. Installation includes transportation of equipment to job site from either JEA commonwealth/West Side or other JEA storage site and all labor and equipment required to perform the work. Breaker furnished by JEA.

045 Breaker installation, 26kV

* Contractor shall install a 26kV breaker in substation yard. Work shall include installation of the breaker onto concrete pad. Installation includes transportation of equipment to job site from either JEA commonwealth/West Side or other JEA storage site and all labor and equipment required to perform the work. Breaker furnished by JEA.

046 Switch Removal, 230kV, high-profile, 3 phase set

* Contractor shall remove existing 230kV group operated switches in a high-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

047 Switch Removal, 138kV, high-profile, 3 phase set

* Contractor shall remove existing 138kV group operated switches in a high-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

048 Switch Removal, 69kV, high-profile, 3 phase set

* Contractor shall remove existing 69kV group operated switches in a high-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

049 Switch Removal, 26kV, high-profile, 3 phase set

* Contractor shall remove existing 26kV group operated switches in a high-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

050 Switch Installation, 230kV, high-profile, 3 phase set

* Contractor shall install 230kV group operated switches in a high-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch furnished by JEA.

051 Switch Installation, 138kV, high-profile, 3 phase set

* Contractor shall install 138kV group operated switches in a high-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch furnished by JEA.

052 Switch Installation, 69kV, high-profile, 3 phase set

* Contractor shall install 69kV group operated switches in a high-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch furnished by JEA.

053 Switch Installation, 26kV, high-profile, 3 phase set

* Contractor shall install 26kV group operated switches in a high-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch furnished by JEA.

054 Switch Removal, 230kV, low-profile, 3 phase set

* Contractor shall remove existing 230kV group operated switches in a low-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

055 Switch Removal, 138kV, low-profile, 3 phase set

* Contractor shall remove existing 138kV group operated switches in a low-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

056 Switch Removal, 69kV, low-profile, 3 phase set

* Contractor shall remove existing 69kV group operated switches in a low-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

057 Switch Removal, 26kV, low-profile, 3 phase set

* Contractor shall remove existing 26kV group operated switches in a low-profile substation location, work shall include removal of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

058 Switch Installation, 230kV, low-profile, 3 phase set

* Contractor shall install new 230kV group operated switches in a low-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch, conductor, and connectors furnished by JEA.

059 Switch Installation, 138kV, low-profile, 3 phase set

* Contractor shall install new 138kV group operated switches in a low-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch, conductor, and connectors furnished by JEA.

060 Switch Installation, 69kV, low-profile, 3 phase set

* Contractor shall install new 69kV group operated switches in a low-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch, conductor, and connectors furnished by JEA.

061 Switch Installation, 26kV, low-profile, 3 phase set

* Contractor shall install new 26kV group operated switches in a low-profile substation location, work shall include installation of switch live parts, operator bearing insulators, operator bearings, and outboard bearing. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Switch, conductor, and connectors furnished by JEA.

062 Motor Operator Removal

* Contractor shall remove an existing motor operator in substation yard. Work shall include removal of existing motor operator, low voltages connections, and grounding. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

063 Motor Operator Installation

* Contractor shall install a new motor operator in substation yard. Work shall include installing the motor operator and making proper adjustments as necessary to complete the installation. Installation includes transportation of equipment to job site from JEA Commonwealth/ West Side locations and all labor and equipment required to perform the work. Motor Operator to be furnished by JEA.

064 PT removal, 230kV

* Contractor shall remove an existing 230kV potential transformer in a high or low-profile substation located on a pedestal type of stand or lattice gantry in that substation. Work shall include removal of PT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

065 PT removal, 138kV

* Contractor shall remove an existing 138kV potential transformer in a high or low-profile substation located on a pedestal type of stand or lattice gantry in that substation. Work shall include removal of PT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

066 PT removal, 69kV

* Contractor shall remove an existing 69kV potential transformer in a high or low-profile substation located on a pedestal type of stand or lattice gantry in that substation. Work shall include removal of PT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

067 PT removal, 26kV

* Contractor shall remove an existing 26kV potential transformer in a high or low-profile substation located on a pedestal type of stand or lattice gantry in that substation. Work shall include removal of PT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

068 PT installation, 230kV

* Contractor shall install a 230kV potential transformer in a high or low-profile substation either on a pedestal type of stand or lattice gantry in that substation. Work shall include installation of PT. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. PT, conductor, and connectors furnished by JEA.

069 PT installation, 138kV

* Contractor shall install a 138kV potential transformer in a high or low-profile substation either on a pedestal type of stand or lattice gantry in that substation. Work shall include installation of PT. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. PT, conductor, and connectors furnished by JEA.

070 PT installation, 69kV

* Contractor shall install a 69kV potential transformer in a high or low-profile substation either on a pedestal type of stand or lattice gantry in that substation. Work shall include installation of PT. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. PT, conductor, and connectors furnished by JEA.

071 PT installation, 26kV

* Contractor shall install a 26kV potential transformer in a high or low-profile substation either on a pedestal type of stand or lattice gantry in that substation. Work shall include installation of PT. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. PT, conductor, and connectors furnished by JEA.

072 CT Removal, 230kV

* Contractor shall remove an existing 230kV current transformer in a high or low-profile substation. Work shall include removal of CT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

073 CT Removal, 138kV

* Contractor shall remove an existing 138kV current transformer in a high or low-profile substation. Work shall include removal of CT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

074 CT Removal, 69kV

* Contractor shall remove an existing 69kV current transformer in a high or low-profile substation. Work shall include removal of CT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

075 CT Removal, 26kV

* Contractor shall remove an existing 26kV current transformer in a high or low-profile substation. Work shall include removal of CT and existing high and low voltage cable terminations. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

076 CT Installation, 230kV

* Contractor shall install a 230kV current transformer in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. CT, conductor, and connectors furnished by JEA.

077 CT Installation, 138kV

* Contractor shall install a 138kV current transformer in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. CT, conductor, and connectors furnished by JEA.

078 CT Installation, 69kV

* Contractor shall install a 69kV current transformer in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. CT, conductor, and connectors furnished by JEA.

079 CT Installation, 26kV

* Contractor shall install a new 26kV current transformer in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. CT, conductor, and connectors furnished by JEA.

080 Arrestor removal, 230kV

* Contractor shall remove an existing 230kV arrestor in a high or low-profile substation. Work shall include removal of the arrestor and existing high voltage cables and grounding. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

081 Arrestor removal, 138kV

* Contractor shall remove an existing 138kV arrestor in a high or low-profile substation. Work shall include removal of the arrestor and existing high voltage cables and grounding. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

082 Arrestor removal, 69kV

* Contractor shall remove an existing 69kV arrestor in a high or low-profile substation. Work shall include removal of the arrestor and existing high voltage cables and grounding. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

083 Arrestor removal, 26kV

* Contractor shall remove an existing 26kV arrestor in a high or low-profile substation. Work shall include removal of the arrestor and existing high voltage cables and grounding. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

084 Arrestor installation, 230kV

* Contractor shall install a new 230kV arrestor in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Arrestor, conductor, and connectors furnished by JEA.

085 Arrestor installation, 138kV

* Contractor shall install a new 138kV arrestor in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Arrestor, conductor, and connectors furnished by JEA.

086 Arrestor installation, 69kV

* Contractor shall install a new 69kV arrestor in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Arrestor, conductor, and connectors furnished by JEA.

087 Arrestor installation, 26kV

* Contractor shall install a new 26kV arrestor in a high or low-profile substation. Installation includes transportation of equipment to job site from JEA Commonwealth/West Side locations and all labor and equipment required to perform the work. Arrestor, conductor, and connectors furnished by JEA.

088 Cap Switcher/ VBM removal

* Contractor shall remove existing cap switcher or VBM. Work shall include removal of the Cap switcher/VBM existing high and low voltage terminations, and grounding cable. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work. Removal may include the supporting VBM/Cap switch structure.

089 Cap Switcher installation, 230kV

* Contractor shall install a 230kV cap switcher in substation yard. Installation includes transportation of equipment to job site from either JEA commonwealth/West side or other JEA storage site and all labor and equipment required to perform the work. Installation may include the construction of the cap switch support or field modification of the existing support structure to accommodate the new cap switch. Cap switch, structure, conductor, and connectors furnished by JEA.

090 Cap Switcher installation, 138kV

* Contractor shall install a 138kV cap switcher in substation yard. Installation includes transportation of equipment to job site from either JEA commonwealth/West side or other JEA storage site and all labor and equipment required to perform the work. Installation may include the construction of the cap switch support or field modification of the existing support structure to accommodate the new cap switch. Cap switch, structure, conductor, and connectors furnished by JEA.

091 Cap Switcher installation, 26kV

* Contractor shall install a 26kV cap switcher in substation yard. Installation includes transportation of equipment to job site from either JEA commonwealth/West side or other JEA storage site and all labor and equipment required to perform the work. Installation may include the construction of the cap switch support or field modification of the existing support structure to accommodate the new cap switch. Cap switch, structure, conductor, and connectors furnished by JEA.

092 Geo-Web, 4”, per square yard

* Contractor shall install Geo-Web material over a properly compacted area suitable for placing substation rock and capable of handling vehicular traffic in a low-profile substation location. Work shall include grading and compacting the required are and placement of the materials. It will also include treatment of the area with a soil sterilization herbicide and filling of the cells as per manufacturer’s instructions with #5 white limestone tock to at least 1” above top of cells. Materials furnished by contractor.

093 AC Yard Panel installation, single phase

* Contractor shall install a new single phase, 3 wire, 120/240V, 225A, solid neutral surface mounted panelboard with 42 single pole breakers. Work includes installation of the panel, wire connections, and grounding. Yard panel will be NEMA 4X stainless steel enclosure with a lockable piano hinged style door. Installation includes all labor and equipment required to perform the work. Materials furnished by contractor.

### LOW VOLTAGE AUXILIARY UNITS

094 AC Yard Panel installation, three phase

* Contractor shall install a new three phase, 3 wire, 120/240V, 225A, solid neutral surface mounted panelboard with 42 single pole breakers. Work includes installation of the panel, wire connections, and grounding. Yard panel will be NEMA 4X stainless steel enclosure with a lockable piano hinged style door. Installation includes all labor and equipment required to perform the work. Materials furnished by contractor.

095 Junction box Removal

* Contractor shall remove an existing junction box in substation yard. Work shall include removal of the junction box, relevant low voltage connections, and grounding. Removal includes transportation of equipment from job site and all labor and equipment required to perform the work.

096 Junction box Installation

* Contractor shall install a new junction box in substation yard. Work shall include installation of the junction box, terminal boards, fuse blocks, and heaters. Junction Box will be NEMA 4X stainless steel enclosure with a lockable piano hinged style door. Installation includes all labor and equipment required to perform the work. Enclosure furnished by contractor remaining materials furnished by JEA.

### LABOR UNITS

101 Superintendent, straight time

* Cost to JEA for services rendered on job site.

102 Superintendent, 1.5 x straight time

* Cost to JEA for services rendered on job site beyond normal workday.

103 Foreman, straight time

* Cost to JEA for services rendered on job site.

104 Foreman, 1.5 x straight time

* Cost to JEA for services rendered on job site beyond normal workday.

105 Lineman, straight time

* Cost to JEA for services rendered on job site.

106 Lineman, 1.5 x straight time

* Cost to JEA for services rendered on job site beyond normal workday.

107 Journeyman, straight time

* Cost to JEA for services rendered on job site.

108 Journeyman, 1.5 x straight time

* Cost to JEA for services rendered on job site beyond normal workday.

109 Journeyman apprentice, straight time

* Cost to JEA for services rendered on job site.

110 Journeyman apprentice, 1.5 x straight time

* Cost to JEA for services rendered on job site beyond normal workday.

111 Helper, straight time

* Cost to JEA for services rendered on job site.

112 Helper, 1.5 x straight time

* Cost to JEA for services rendered on job site beyond normal workday.

Bid

BID DESCRIPTION – All rates are hourly unless stated otherwise.

### EQUIPMENT UNITS

120 Truck, pick-up

* Cost to JEA for contractor use of equipment for job.

121 Truck, flatbed 14’-16’

* Cost to JEA for contractor use of equipment for job.

122 Truck, dump, 6 yards

* Cost to JEA for contractor use of equipment for job.

123 Truck, dump, 16 yards

* Cost to JEA for contractor use of equipment for job.

124 Truck, bucket, 42 foot working height

* Cost to JEA for contractor use of equipment on job site.

125 Truck, bucket, 65 foot working height

* Cost to JEA for contractor use of equipment on job site.

126 Truck, bucket, 90 foot working height

* Cost to JEA for contractor use of equipment on job site.

127 Truck, centermount

* Cost to JEA for contractor use of equipment on job site.

128 Crane, 15 ton, hydraulic

* Cost to JEA for contractor use of equipment on job site.

129 Crane, 40 ton

* Cost to JEA for contractor use of equipment on job site.

130 Crane, 70 ton

* Cost to JEA for contractor use of equipment on job site.

131 Backhoe, Case 580C or equal, w/transport

* Cost to JEA for contractor use of equipment on job site.

132 Backhoe, Case 780C or equal, w/transport

* Cost to JEA for contractor use of equipment on job site.

133 Tractor and mower, bush hog, w/transport

* Cost to JEA for contractor use of equipment on job site.

134 Trencher, Davis 40+4 or equal, w/transport

* Cost to JEA for contractor use of equipment on job site.

135 Excavator, ¾ yard bucket, w/transport

* Cost to JEA for contractor use of equipment on job site.

136 Mini-Excavator, w/transport

* Cost to JEA for contractor use of equipment on job site.

137 Trailer, material/equipment, 6 wheel

* Cost to JEA for contractor use of equipment for job.

138 Trailer, material/equipment, enclosed

* Cost to JEA for contractor use of equipment for job.

139 Trailer, semi

* Cost to JEA for contractor use of equipment for job.

140 Tractor, semi

* Cost to JEA for contractor use of equipment for job.

141 Trailer, lowboy

* Cost to JEA for contractor use of equipment for job.

142 Welder, portable, capable of steel or aluminum welding. If separated equipment, use highest priced equipment.

* Cost to JEA for contractor use of equipment on job site.

143 Compactor, vibratory plate type, gas, 24” plate or equal

* Cost to JEA for contractor use of equipment on job site.

144 Compactor, jumping jack type

* Cost to JEA for contractor use of equipment on job site.

145 Compactor, roller, 2 drum, 2000lb or equal

* Cost to JEA for contractor use of equipment on job site.

146 Whitney punch, hydraulic

* Cost to JEA for contractor use of equipment on job site.

147 Pump, single diaphragm, 3”, w/hose

* Cost to JEA for contractor use of equipment on job site.

148 Pump, 4” discharge, w/hose

* Cost to JEA for contractor use of equipment on job site.

149 Pump, 6” discharge, w/hose

* Cost to JEA for contractor use of equipment on job site.

150 Wellpoint system, 6” discharge, price per day

* Cost to JEA per day for contractor use of equipment on job site. Price includes 20-40 well points.

151 Additional well points, above 40 included in item 148, price of each additional, per day

* Cost to JEA per day for contractor use of equipment on job site.

152 Generator, 1.5-3KW, 3 phase, 120/240V, price per day

* Cost to JEA per day for contractor use of equipment on job site.

153 Vibrator, concrete

* Cost to JEA for contractor use of equipment on job site.

154 Air compressor, 250 cfm or higher

* Cost to JEA for contractor use of equipment on job site.

155 Cutting torch, including gas

* Cost to JEA for contractor use of equipment on job site.

156 Hammer, pneumatic, 80 lb, or equal

* Cost to JEA for contractor use of equipment on job site.

157 Oil pump and filter press, 40 gpm, or equal

* Cost to JEA for contractor use of equipment on job site.

158 Oil tanker, 1800 gallon, or equal, price per day

* Cost to JEA per day for contractor use of equipment on job site.

159 Man lift, price per day

* Cost to JEA per day for contractor use of equipment on job site.

160 Water truck, price per day

* Cost to JEA per day for contractor use of equipment on job site.

161 Markup for JEA-directed subcontractor, if required

### MATERIAL REIMBURSEMENT UNITS

162 Material Reimbursement

* Reimbursement for materials acquired by the contractor for materials not already included in units. This unit is a percentage markup.