

Appendix A Technical Specifications
1411799247 CCNA General Engineering Services For Electric Distribution

1. SCOPE OF WORK

- 1.1. The Engineering Firm shall provide professional consulting and engineering services in support of JEA's electric distribution projects including, but not limited to, cost and scheduling, construction support, planning and customer support activities.
- 1.2. Engineer is expected to offer creative and cost effective ideas and solutions which may involve new technology and a choice of approaches to problems.
- 1.3. Engineer's work may include all aspects of engineering design from the generating station to customer devices, including:
 - 1.3.1. Underground distribution design: Underground feeders with looped primary systems including manhole, conduit, cable and street light designs along major traffic corridors for safety, reliability, aesthetics and roadway improvement relocation efforts. Existing overhead primary, secondary, equipment and street lights may be converted to underground including the customer's service. Jack and Bore design for railroad crossings;
 - 1.3.2. Development Projects: Underground distribution designs to serve developments such as industrial parks, office parks, subdivisions, apartments and mobile home developments; Coordination with developers may be required;
 - 1.3.3. Recabling Projects: Includes replacing unreliable direct-buried cable, nonstandard or damaged equipment for the location types listed in 1.3.2. These projects will upgrade or replace existing development facilities to current standards;
 - 1.3.4. Overhead distribution design: Includes primary feeders, primary voltage conversions, street lighting, roadway improvement relocations and other special projects;
 - 1.3.5. General Service: Includes customer driven work such as new or upgraded services. Minor relocation work for safety or customers; distribution automation and pole maintenance design;
 - 1.3.6. Incidental Transmission and Substation design: Includes distribution design in coordination with Transmission and Substation projects; distribution design inside transmission corridors and substation properties;
 - 1.3.7. Fiber optic circuit design;
 - 1.3.8. Evaluation of vendor equipment and solutions.
- 1.4. Design work may include:
 - 1.4.1. Circuit and equipment load analysis; system planning issues and analysis, circuit and switch maps;
 - 1.4.2. Choice of routing; Project surveying for design and easement acquisition; Coordination and surveying of other utilities such as cable, telephone, fiber, gas, water and sewer;
 - 1.4.3. Street light designs according to government agency lighting grid pattern requirements;
 - 1.4.4. Development of construction plans, specifications, maintenance of traffic plans, permits and bid documents;
 - 1.4.5. Coordination of government agencies;
 - 1.4.6. System or customer specific power quality and reliability assessment and solution design;
 - 1.4.7. Acquiring customer agreements and information;
 - 1.4.8. Project and construction management;
 - 1.4.9. Other related tasks.

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- 1.5. All design work MUST be in compliance with standards approved by JEA engineering. All materials specified in a design must comply with JEA standards. Occasionally, all consultants will be required to take in-house training classes on JEA Standards.
 - 1.5.1. Examples of standards are the JEA Distribution, Transmission, Water, Wastewater and Fiber Optic Construction Standards, JEA Rules and Regulations for Electric Service, Distribution Engineering Reference Manual, NESC and NEC.
(https://www.jea.com/engineering_and_construction/electric_reference_materials/)
- 1.6. All drawing submittals must be compatible with Microstation V8.
- 1.7. All text submittals must be made in MS Word format approved in advance by JEA.
- 1.8. The Engineering firm shall provide project management in accordance with the following.
 - 1.8.1. Develop a detailed schedule which encompasses both the Design and Construction phase of the project which conforms to the overall project schedule as defined in scoping documents. The detailed schedule will be updated and submitted to JEA for review each month. The schedule shall include a project plan with sufficient task/milestone details along with critical path(s) to ensure on time completion. It will be the responsibility of the Engineering firm to provide contingency planning as required in order to maintain the original project schedule.
 - 1.8.2. Develop and submit a monthly report which details the cash flow requirements across multiple fiscal years if applicable during the design and construction phase as defined in scoping documents.
- 1.9. The Individual task authorizations will be capped as follows:
 - 1.9.1. Engineering Design Services will be capped at \$200,000.
 - 1.9.2. Engineering Studies will be capped at \$200,000.