

SECTION 16000

ELECTRICAL - GENERAL

1. GENERAL

1.01 NOTICE

- A. The General Conditions, Special Conditions and all other herein bound documents are part of these specifications and of the Contract. Submission of Proposal implies that the bidder is fully conversant with all requirements of all above mentioned documents.

1.02 SCOPE

- A. The work in this section consists of furnishing material, accessories, equipment, tools, transportation services, labor and performing all operations required to completely execute the Electrical Work for this project, all as indicated on the drawings, approved shop drawings, and as herein specified, provide all Electrical Work in this section in place complete.
- B. Included in this section is all Electrical Work for power, controls, underground cables, conduits, wiring and appurtenances for installation to limits shown on drawings and herein specified.

1.03 REGULATIONS, STANDARDS AND CODES

- A. All equipment, apparatus, and systems shall be fabricated and installed in complete accordance with the applicable codes and standards as indicated in Section 16025-General Electrical Procedures.
- B. Reference to Standards shall mean and intend the latest edition adopted, published and revised at the time of invitation to submit proposals.
- C. Give all required notices when inspections are required by State or Local Authorities.

1.04 CERTIFICATES

- A. All work included in this contract shall comply with all Federal and State Laws, rules and regulations. The

Contractor shall pay for and furnish to Engineer, all required certificates of inspection and approval as required.

1.05 PERMITS, INSPECTION AND TESTS

- A. Obtain and pay for all permits required for the execution of the work under this contract, and arrange for all tests and inspections of the work required by the authorities having jurisdiction, and pay for all costs thereof. Deliver certificates of all such permits and inspections to the Engineer.

1.06 EXAMINATION OF DRAWINGS AND SITE

- A. It shall be the responsibility of the Contractor to examine the drawings and specifications and visit the site and become familiar with the conditions and limitations applying to the Electrical Work. By the act of having submitted a bid, the Contractor will be deemed to have made such an examination and to have made allowance, therefore, in his contract.

1.07 ACCURACY OF DATA

- A. The information given herein and on the drawings is as exact as could be secured, but its extreme accuracy is not guaranteed. The Contractor must, therefore, examine the location carefully and verify all measurements, distances, levels, etc., before starting work. If any discrepancies occur between drawings and actual conditions, this Contractor shall notify the Engineer before starting the work.

2. PRODUCTS

2.01 MATERIALS

- A. The work in this section further consists of furnishing all materials, accessories, equipment, tools, transportation services, labor and performing all operations required to completely execute the Electrical work for this project. The equipment to be furnished shall consist of but not necessarily be limited to the following items. The Contractor will be required to determine for himself the actual quantities and items involved. The General Contractor is ultimately responsible for furnishing and installing a complete and

working system, in the opinion of the Engineers, the General Contractor may elect to have the electrical subcontractor furnish and install the following items indicated below and only make connections and/or install the other items indicated on the contract drawings.

In the LCPWD Bridlewood Reservoir pump room, install the following:

- One each install new 8-inch magnetic flow meter, Krohne Waterflux 3000 with Krohne IFC 100 electromagnetic flow converter, all in accordance with the manufacturer's instructions. Installation shall include grounding of the flow meter and flow converter, and flexible watertight conduit with approved cable, from the flow meter to the flow converter junction box, and 1-inch RGS heavy wall, threaded conduit with appropriate fittings and to the existing station control box located in the electrical room. All electrical connections at the flow meter detector shall be made by the electrical contractor, complete and ready to use.

- Five each, 120V "Rotork" valve operators (two position). Connect in accordance with the manufacturer's instructions complete and ready to use. Installation shall include fitting 120V circuit from the spare 20A, 1P breaker in panel LP, ¾-inch heavy wall RGS heavy wall, threaded conduit with appropriate fittings and ¾-inch watertight flexible conduit with 2-#12, #12GND THWN. Also 1-inch RGS heavy wall, threaded conduit with appropriate fittings / flexible watertight conduit from station control box to valve operator, with approved cable for signal. All complete and ready to use.

- Two each pressure transmitters, Rosemount Model 2088, 2088 gauge pressure transducer. Installation shall include transducer, mounting brackets, 1-2 conductor #16 shielded, twisted pair in ¾-inch flexible weatherproof conduit from the transducer to the flow meter detector junction box, 2-2 conductor #16 shielded, twisted pair (1 spare) in 1-inch RGS heavy wall, threaded conduit with appropriate fittings, from the flow meter detector junction box to the existing station control box located in the electrical room. All electrical connections at the pressure transducer shall be made by the electrical contractor. All complete and ready to use.

3. EXECUTION

3.01 PRODUCT HANDLING

- A. Protection: Use all means necessary to protect the work and materials of this Section before, during and after installation and to protect the work and materials of all other trades.

Failure on the part of the Contractor to comply with the above to the entire satisfaction of the Engineer shall be sufficient cause for the rejection of the particular piece of apparatus in question.

- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Engineer and at no additional cost to the Owner.

3.02 SUBMITTALS

- A. Submit shop drawings, operation and maintenance manuals, schedules, test reports, and as-built drawings in accordance with Section 16025-General Electrical Procedures.

END OF SECTION