

SECTION 16000

ELECTRICAL

NOTE: Use this Section for Electrical Work when you want to specify all work of this type in a single section.

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide electrical systems including:
 - 1. Standby emergency generator system.
- B. Include primary service, grounding, panels, wiring, conduits, raceways and all accessories.
- C. Modify and extend existing service to accommodate new work.
- D. Maintain fire alarm system in operation during construction.
- E. Coordinate with Owner's room uses to provide adequate system for all contract areas.
- F. Notify Owner prior to construction of conflicts, which cannot be resolved.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Arrangement of systems indicated on the drawings is diagrammatic, and indicates the minimum requirements for electrical work. Site conditions shall determine the actual arrangement of conduits, boxes, and similar items. Take field measurements before fabrication. Be responsible for accuracy of dimensions and layout.
- C. Comply with the National Electrical Code and applicable local regulations.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Conduit: Rigid galvanized metal conduit, intermediate metallic conduit, electrical metallic tubing for concealed interior raceways, flexible metal conduit, and rigid nonmetallic conduit as required.
- B. Exposed metal raceways by Wiremold, Walker Parkersburg or approved equal where wiring cannot be concealed.
- C. Boxes: Provide galvanized steel outlet, junction and pull boxes sized to meet requirements of National Electrical Code.
- D. Conductors and wiring: 600 volts insulation type THWN or THHN copper wiring for branch circuits. Conductors AWG No. 12 shall be solid. Conductors AWG No. 10 and larger stranded. Minimum conductor size AWG No. 12. Green ground conductor in all raceways. Other sizes as required by service intended.
- E. Panelboards as required by National Electrical Code.
- F. Emergency generator: Engine generator set rated for project requirements. The Owner has starting batteries, automatic transfer switch, annunciator panel, overcurrent protection.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and building code requirements.
- B. Comply with National Electrical Code and building code requirements. Maintain continuity of circuits required to supply new or existing equipment in service.
- C. Test all systems for proper operation. Restore damaged finishes. Clean and protect work from damage.
- D. Instruct Owner's personnel in proper operation of systems.

END OF SECTION