

SECTION 26 05 05

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.01 SCOPE

A. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete as shown on the drawings and/or specified herein. Work includes, but is not necessarily limited to the following:

1. Examine all other Sections for work related to those other Sections and required to be included as work under this Section.
2. General provisions and requirements for electrical work.

1.02 SUBMITTALS (ADDITIONAL REQUIREMENTS)

A. Submit product data sheets for all outlet boxes, wiring devices, and boxes.

PART 2 - PRODUCTS

2.01 OUTLET AND JUNCTION BOXES

A. Flush or concealed outlet and junction boxes: Pressed steel, hot-dip galvanized, knockout type with conduit entrances sized to match conduits. Provide boxes of proper code size for the number of wires or conduits passing through or terminating therein, but in no case shall box be less than 4 inches square by 2½-inches deep, unless specified elsewhere or noted otherwise on the drawings. Provide extension rings on flush outlets to finish flush with finished surfaces.

B. Surface mounted outlet boxes: Cast iron type FS or FD, with threaded hubs as required. Provide plugs in all unused openings. Provide weatherproof gaskets for all exterior boxes.

2.02 SHEET STEEL PULL BOXES

A. Sizes as indicated on the drawings and in no case of less size or material thickness than required by the Governing Code.

1. General purpose sheet steel pull boxes: Install only in dry protected locations with removable screw covers. Manufacturer's standard baked enamel finish.
2. Weatherproof sheet steel pull boxes: Fabricate of code gauge, hot-dip galvanized steel with gasketed weathertight cover of same material. Manufacturer's Standard baked exterior enamel finish.

2.03 CONCRETE PULL BOXES

- A. Boxes shall be reinforced precast concrete with galvanized steel angle iron frames and galvanized bolt down covers.

2.04 STRUCTURAL AND MISCELLANEOUS STEEL

- A. Structural and miscellaneous steel used in connection with electrical work and located out-of-doors or in damp locations, to be hot-dip galvanized unless otherwise specified. Included are underground pull box covers and similar electrical items. Galvanizing average 2.0 ounce per square foot and conform to ASTM A123.

PART 3 - EXECUTION

3.01 OUTLET AND JUNCTION BOXES

- A. Accurately place boxes and securely fasten to structural members.
- B. Boxes above accessible ceilings shall be attached to structural members. Where boxes are suspended, they shall be supported independently of conduit system by means of preformed steel channels. Boxes shall be supported independently of all piping, duct work, equipment, ceiling hanger wires and suspended ceiling grid system.
- C. Where surface exposed conduit is connected to an outlet box, the outlet box shall be surface mounted.
- D. Surface mounted outlets shall be attached to concrete or masonry walls by means of expansion shields.
- E. Provide pullboxes, pulling ells, junction boxes, and condulets on metallic conduit runs whose total number of bends is 360 degrees or greater. Pulling and splicing enclosures shall be located in accessible ceiling spaces unless noted otherwise.

3.02 GROUNDING (ADDITIONAL REQUIREMENTS)

- A. Grounding shall be executed in accordance with all applicable codes and regulations, both of the State of California and local Authorities Having Jurisdiction.
- B. Each pull box or any other enclosure in which several ground wires are terminated shall be equipped with a ground bus secured to the interior of the enclosure. The bus shall have a separate lug for each ground conductor. No more than one conductor shall be installed per lug.
- C. The maximum resistance to ground shall not exceed 25 ohms.
- D. Provide #3/0 AWG copper bonding jumper between the metal frames of adjacent relocatable buildings.

END OF SECTION