

**1.1 RELATED WORK**

1. Basic Electrical Materials & Methods Section 16050
2. Conduit Section 16111
3. Circuit Breakers Section 16182

**1.2 SUBMITTALS**

1. Submit shop drawings in accordance with Section 16050.
2. Drawings shall include electrical detail of panel, branch breaker type, quantity, ampacity and enclosure dimension.

**1.3 PLANT ASSEMBLY**

1. Install circuit breakers in panelboards before shipment.
2. In addition to CSA requirements, manufacturer's nameplate shall show fault current that panel, including breakers, has been built to withstand.

**2.1 PANELBOARDS**

1. Panelboards: to CSA C22.2 No. 29-M1989.
2. Panelboards shall be product of one manufacturer throughout project.
3. 250V branch circuit panelboards: bus and breakers rated for 10 kA symmetrical interrupting capacity minimum or as indicated.
4. 250V CDP panelboards: bus and breakers rated for 25 kA symmetrical interrupting capacity, unless otherwise indicated. CDP panels shall be complete with doors.
5. Sequence phase bussing such that circuit breakers shall be numbered vertically in consecutive order. Each breaker shall be identified by permanent number identification as to circuit number.
6. Panelboards: mains, number of circuits, and number and size of branch circuit breakers as indicated.
7. Two keys for each panelboard and key panelboards alike.
8. Copper bus with full size neutral.
9. Flush or surface-mounted tubs as shown.
10. Finish trim and door baked grey enamel.
11. All panelboards and CDP's shall have "sprinklerproof" enclosures.

**2.2 BREAKERS**

1. Breakers to Section 16182.
2. Breakers with thermal magnetic tripping in panelboards, except as indicated otherwise.
3. Main breaker: mounted on top or bottom of panel to suit cable entry.
4. Lock-on devices for 5% of 15A branch breakers installed as indicated. Turn over unused lock-on devices to Contract Administrator.
5. Lock-on devices for fire alarm, emergency, door supervisory, intercom, stairway, exit light, and nightlight circuits.
6. Branch circuit breakers shall be 15A single-pole, unless otherwise indicated on drawings.

**2.3 EQUIPMENT IDENTIFICATION**

1. Provide equipment identification in accordance with Section 16050.
2. Size 4 nameplate for each panelboard and CDP to indicate panel designation and voltage.
3. Size 3 nameplate for each breaker in CDP panelboards engraved to indicate load being supplied.
4. Complete circuit directory with typewritten legend showing location and load of each circuit.

**2.4 MANUFACTURERS**

1. Acceptable manufacturers: Cutler Hammer, Federal Pioneer, Square D, and Siemens.

**3.1 INSTALLATION**

1. Locate panelboards as indicated and mount securely, plumb, true and square, to adjoining surfaces.
2. Install surface-mounted panelboards on U-channels. Where practical, group panelboards on common length of U-channel.
3. Mount panelboards to height indicated in Section 16050, unless otherwise indicated.
4. Connect loads to circuits as indicated.
5. Mount panelboard such that the top is 6'-0" (1.83m) above finished floor.

**END OF SECTION**