

SECTION 16180 - EQUIPMENT WIRING SYSTEMS

GENERAL

1.1 SECTION INCLUDES

- A. Electrical connections to mechanical systems equipment.
- B. Electrical connections to the elevator.

1.2 RELATED WORK

- A. Division 14 - Elevator.
- B. Division 15 - Motors, pumps, hot water heaters, air distribution equipment.
- C. Section 16111 - Conduit.
- D. Section 16123 - Building Wire and Cable.
- E. Section 16130 - Boxes.
- F. Section 16441 - Disconnect Switches.
- G. Section 16481 - Motor Starters

1.3 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.

PRODUCTS

2.1 DISCONNECTING MEANS

- A. Provide disconnect switches according to Section 16441.

EXECUTION

3.1 INSPECTION

- A. Verify that equipment is ready for electrical connection, wiring, and energization.

3.2 PREPARATION

- A. Review Equipment submittals prior to installation and electrical rough-in. Verify location, size, and type of connections. Coordinate details of equipment connections with supplier and installer.

3.3 ELEVATOR CONNECTIONS

- A. Provide power wiring and disconnect means for elevator controllers. Provide a fused disconnect switch in the Elevator Machine Room for the elevator controller. Provide a separate fused disconnect switch for elevator control power.
- B. Interlock elevator control system with the fire alarm system as specified in Section 16721.

3.4 MECHANICAL SYSTEMS EQUIPMENT CONNECTIONS

- A. Except where provided as an integral element by the equipment manufacturer, provide a combination type magnetic motor starter for all 208-volt or 480-volt air handling units, pumps and 3-phase exhaust fans. Mount starters locally at equipment item as shown on Drawings. Starters shall be as specified under Section 16481.
- B. Except where provided as an integral element by the equipment manufacturer, provide a SPST manual motor starter switch for all 120-volt motors that are part of mechanical systems equipment items. Mount manual switches locally at motors. Manual switches shall be as specified under Section 16481.
- C. Except where provided as an integral element by the equipment manufacturer, provide an unfused disconnect switch at all packaged mechanical systems equipment items that include factory installed motor starters. Mount disconnect switches within 10 feet of equipment items. Disconnect switches shall be as specified under Section 16441.
- D. Provide an emergency cut-off boiler switch at each door of the Boiler Room and interlock switches such that turning off either switch shall shut off both boilers.
- E. Provide a duplex GFIC receptacle outlet in a weatherproof box at all Roof-top HVAC equipment items. Circuit with #12 AWG conductors as indicated on the Contract Drawings.
- F. Provide electrical connections to heat trace systems that are provided under Division 15. Make all necessary connections including supply power and thermostat controls.

\*\*\*END OF SECTION\*\*\*