SECTION 16110D - RACEWAYS

A. DESCRIPTION

All wiring for lighting and power shall be installed in a metallic conduit system. Refer to specific specification section for description of wiring pertaining to other systems such as telephone, data, sound systems, etc.

B. SIZE

Minimum trade size for any conduit system is 3/4 inch.

C. USE AND LOCATION

Rigid Galvanized Steel Conduit:
- In parking garages for exposed work.
- Any exposed exterior work.
- In interior concrete slabs.
- In hazardous (NEC classified) areas.

Intermediate Metal Conduit:
- As a substitute for rigid galvanized steel conduit

Electrical Metallic Tubing:
- Runs above accessible ceilings.
- In walls of drywall, plaster, block.

PVC Coated Rigid Galvanized Steel Conduit
- Buried in earth.
- In exterior concrete slabs.
- In corrosive areas

Flexible Metal Conduit
- For final motor connections, length not less than 12 times the trade size diameter, but in no case, less than 12 inches.
- Maximum length - 6 Feet
- For connections to vibrating equipment.
- For final connections to transformers.
- Not to be used for exterior work.
Flexible Liquid-tight Metal Conduit

- For work described for flexible metal conduit, when used for exterior work.
- For interior work where subjected to wet environments.
- Used for motor connections inside fan units or subject to exposure to wet environments

Wireways

- NEMA 1 or NEMA 3R, size and length to be detailed on the drawings.
- Hinged front cover type.

D. Fittings

- Fittings shall be all steel, compression type with insulated throat. No pot metal or pressure cast type.
- Box connectors shall be insulated throat type.
- Couplings for threaded conduit shall be threaded type.

E. Installation

- Provide expansion couplings where conduit systems cross building expansion joints.
- Conduits penetrating walls within building spaces, or exterior walls above grade, shall be routed through steel sleeves extending 1 inch beyond finished surface of wall. Opening between conduit and sleeve shall be sealed, and if needed fire stopped with appropriate sealant.
- Conduits penetrating exterior walls of building, below grade, shall be sealed with LINK-SEAL expansion devices.
- Pull test mandrel followed with cleaning mop through each conduit system before installing wire.
- Conduit shall be installed parallel and perpendicular to building walls, and as close as possible to the structural ceiling.
- Conduits parallel to or crossing uninsulated hot piping must be separated from it by 12 inches, if parallel or 6 inches if crossing. Where these lines are insulated, conduit parallel to or crossing them must clear insulation surface by 2 inches. Conduit shall not be run directly under cold water lines and shall be separated from them in other directions by at least 3 inches.

END