

T. Division 16 - Electrical1. Approved Products and Systems

The following list of products and systems shall be used for electrical work. Other products may be considered.

- a. Panel boards (c/w bolt-on breakers), safety switches and disconnects - Square "D" power management capabilities. (ie, Powerlogic System) Energy monitoring accessories (Current Transducers) shall be provided for building load analysis (lighting, HVAC, misc.) or equals will be considered.
- b. Power contactors - Allen Bradley or Square "D" or Leviton.
- c. Wiring devices - Hubbell or Pass & Seymore specification grade. Use of commercial grade wall outlets and switches required.
- d. Lighting
 - 1) Types of Luminaries Typically Used
 - Indirect fluorescent - Peerless
 - Deep cell troffers - Lithonia; Am. Louver; Lightolier
 - Lensed troffers - Lithonia; Hubbell
 - Wrap-around surface fluorescent-Graybar; Hubbell
 - Fluorescent wall sconces - Royalyte
 - Vapor proof shower lights - Visioneering
 - Downlighting - Lithonia
 - 2) Parking Lot Lighting - Ruud; Holophane; Wide-Lite. System should include:
 - HID (HPS)
 - Automatic energy control system
 - Cut-off light distribution
 - 3) Ballasts
 - Those located in interior spaces should have an A sound rating. All ballasts should have a high power factor (over 95%) and low THD.

- Motorola or Advance Mark VII for electronic ballasts
 - Advance Mark III or GE optimizer for energy efficient magnetic ballasts
 - No PCB units permitted
- 4) Building Exterior Lighting
- High Pressure Sodium Lamps - Phillips or G.E.
 - Have automatic turn-on/turn-off
- 5) Provide dimmers for lights where practical - Lightolier; Lutron
- 6) Lamps - Philips
- Fluorescent lamps with CRI 80 or greater in occupied area
 - Color temperatures: General office - 3500 K, drafting areas - 4100 K lamps
 - Metal Halide lamps should have color consistency
 - High CRI for HPS lamps - GE "White Lucalox"
- e. Fire Alarm Systems - only non-proprietary systems
- f. Emergency exit lights (Green LED) - Yorklite, or Dual-Lite.
- g. Occupancy Sensors - Watt Stopper
- h. Feeders shall consist of copper conductors with XLPER90 insulation run in EMT or corresponding TECK or MIT type cable run on Unistruct channel or cable tray depending upon economics. Aluminum cable shall not be specified. Rust resistant coating is to be applied to all galvanized rigid conduit in direct contact with earth. Size feeders with 25% spare capacity for future. BX Flex conduit is not acceptable.
- i. Grounding
- Grounded conductor shall be larger than code minimum.
 - Ground rod connections shall be exothermic.
 - Dedicated ground required for AC supplied to telecom room.
- j. Fire alarm & Supervisory Systems - Supplier shall provide internal wiring diagrams and all information needed for owner maintenance of system.
- k. Motors: units must meet current high efficiency standards.