

## ELECTRICAL PLAN REVIEW REQUIREMENTS

### **ALL PLANS REQUIRE:**

- Compliance with currently adopted NEC and IECC
- Colorado professional engineer stamp and signature per RBC 106.1.3
- Scale and format per RBC106.1.1 (1/8" = 1'-0" minimum scale/ 1/8" minimum lettering)
- Grid lines and column lines coinciding with architectural pages
- Accessibility requirements must be met
- IECC calculations
- Complete one-line diagram (see below)
- Complete panel schedules (see below)
- Complete floor plan (see below)

### **ONE-LINE DIAGRAM**

- Conduit/conductor size, type and quantity beginning at the utility transformer to include all conductors in the chain of supply for the electrical equipment in the scope of work
- Electrical meters, disconnects, and panels clearly identified as new or existing
- Fault current information (SCCR, AIC, SCA) at all of the following locations. See FAULT CURRENT TERMS AND METHODOLOGIES section below.
  1. All new panelboards and switchboards
  2. All new transfer equipment
  3. All new industrial control panels
  4. All new air conditioning and refrigeration equipment
  5. At any of the above locations when refed
- Overcurrent protection showing compliance with NEC 215.10, 230.95, and 517.17
- Method of compliance with 240.87 NEC
- Method of compliance with 240.67 NEC beginning January 1, 2020
- Calculated load of service
- Multi-meter services must include a list of enumerated addresses on the one-line diagram

### **PANEL SCHEDULES**

- All information must be supplied and verified by engineer at time of plan submittal
- Disconnect and panel size
- Volt amps on all branch circuits and calculated load of panel
- Panelboard AIC rating
- Series rating information (AIC of the lowest rated OCPD must be specified) see 240.86(C) NEC

### **FLOOR PLANS**

- Footprint (site plan) showing all electrical service equipment and disconnects serving the structure
- Location of all electrical equipment
- Panel and circuit number on all electrical equipment (new and relocated)
- Elevator pit and machine room details showing all required circuits and disconnects (devices required to be 3R and installed above 30")
- Patient care areas must show compliance with 517.13 NEC
- Light fixture schedule including fixture type and lamp wattage
- Accessible units must be clearly identified.
- Dimension and partition of all meeting rooms per 210.71 NEC

### **FAULT CURRENT TERMS AND METHODOLOGIES**

- AIC - Ampere Interrupting Capacity
- SCA - Available Short Circuit Current
- SCCR - Short Circuit Current Rating
- At panelboards and switchboards AIC and SCA are required
  - For SCA that exceeds AIC, let-through current of current limiting fuses is not allowed for mitigating the excess fault current. Current limiting fuses are allowed as part of a tested combination to series rate the system to mitigate the excess fault current.
- At transfer equipment, control panels, and air conditioning and refrigeration equipment, SCA and SCCR are required
  - For transfer equipment, control panels, and refrigeration equipment current limiting fuse let-through current is acceptable for SCA that exceeds SCCR if fuse type is matched to fuse size and SCA per manufacturers current-limitation charts.

**SEE ELECTRICAL EQUIPMENT SCCR AND FUSE PROTECTION DOCUMENT [HERE](#)**