1. The scope of this document is to provide requirements for low voltage switchgear.
2. For these guidelines, Switchgear design is defined as the use of draw out breakers.
3. Switchgear design shall be used when high reliability and ease of maintenance of the installation is required for the facility being served and requires approval of the Project Manager.
4. See section 26 2116 Electrical Service Entrance for guidelines governing design of building low voltage service entrance.

DESIGN GUIDELINES:

1. Switchgear shall be designed, to provide ease of maintenance and testing without service interruption.
2. The assembly and location shall allow for future additions and modifications.
3. All switchgear shall be located in a dedicated, lockable electrical room.
4. Enclosure
   - 4.1. It shall be a vertical free standing rigid metal enclosure with "compartments" used for additions and removal of circuit breakers and other equipment devices.
   - 4.2. Shall be floor mounted with front & rear access with hinged doors.
   - 4.3. Assemblies shall have barriers between all breakers. All trip indications, trip resets and metered the assemblies without removal of any cov
   - 4.9. Assembly temperature ratings
     - 4.9.1. Ambient: -30˚C minimum ,40˚C ma
     - 4.9.2. Full load rise of 65˚C maximum abo
     - 4.9.3. Full assembly shall achieve rated ca ventilation.
   - 4.10. Infrared inspection windows shall be pro connections.
5. Electrical
   - 5.1. All bus bar (phase, neutral, and ground) sh
   - 5.2. Copper bus current density shall not exceed 1,000 amperes per square inch.
   - 5.3. Main/Source busing shall be fully insulated.
   - 5.4. Neutral bus bar shall be fully rated (100% of phase bus bars).
   - 5.5. All power and ground lugs shall be compression-type, long-barrel double –hole, copper type lugs.