OFFICE OF UNIVERSITY BUILDING OFFICIAL
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Electrical Review Tips

1. **Arc Flash**: Provide arc-flash assessment and labels indicating flash hazard category (or incident energy values) and PPE required in accordance with NEC 110.16 and NFPA 70E.

2. **Selective Coordination**: Emergency systems overcurrent devices shall be selectively coordinated with all supply side overcurrent protective devices. *(NEC 700.32)*

3. **Transformers**: Provide disconnect ahead of and within sight of transformer. If using a disconnecting means in a remote location, it must be lockable, and its location must be identified on the transformer. *(NEC 450.14)*

4. **Fire Rated Assemblies**: Indicate fire-resistance rating of walls/partitions on all plans. Provide approved penetration firestop details with associated UL number for all penetrations in rated assemblies. *(USBC 109.3)*

5. **Calculations**: Provide point-by-point site lighting and interior lighting (normal and emergency) foot candle calculations, short circuit, building load, feeder voltage drop and generator load calculations with CD submittal.

6. **Identification of systems**: Components of all normal, standby and emergency electrical systems shall be identified with permanent marking. Emergency systems shall have permanent and readily identifiable labels - with red paint dot on lighting fixtures, red device body for receptacles etc. *(NEC - 700.10A)*

7. **Energy efficiency**: Occupancy sensors shall be used in rooms such as restrooms, single person offices, storage rooms, custodial closets, conference rooms**,** classrooms and corridors. In areas with glazing, occupancy sensors are to have an integral light level sensor. *(VECC C405.2)*

8. **Wiring**: All power and fire alarm wiring shall be in conduit. Minimum conduit size shall be ¾" EMT. Permitted maximum length of flexible metal conduit or MC Cable is 6 ft. Minimum power and lighting circuit conductors shall be #12 AWG. Minimum control wires shall be #14 AWG.