# **Required Work by Others to Accompany Modernization per Building Codes**

#### **Electrical Work**



**Lockable Main Line Disconnects** with rejection clips and RK5 fuses. Door should not open while disconnect is on. Must be located in sight of machine and controller.

**Car Light Disconnects** (110v) located in the machine room for each elevator.

**Machine room lighting** should provide a minimum of 19 foot candles of illumination. Overhead fixtures with protective covers.

**Pit lighting** should be moisture proof light fixtures in each pit with protective cover. Minimum 10 foot candles of illumination. Switch shall be within reach of the access door or 1<sup>st</sup> floor landing door.







GFCI receptacle in each Machine Room GFCI receptacle in each pit

**Dedicated earth ground:** Ensure that there is a dedicated earth ground already existing in the elevator machine room for the elevator equipment.





**Dedicated phone line** per elevator run into the machine room.

**Shunt Trip Breaker** (only if machine room or top of hoistway is sprinkled): The shunt trip breaker is used to allow the smoke/heat sensor to trip the breaker and remove power to the elevator system before the introduction of water through the sprinkler heads.



**Emergency Generator**: If one is existing, Feed the normal power disconnects. Dry, normally closed contacts on the transfer

switch shall terminate at the elevator controllers to give at least 20 second advanced notice prior to the application of emergency power.

# **Machine Room Air Conditioning Requirement**

Per code microprocessor elevator equipment must operate in a temperature and humidity controlled environment according to manufacturer's required specifications. Elevator controllers are designed to operate in temperatures between 45<sup>°</sup> to 95<sup>°</sup> F and to not exceed 85% relative humidity, non-condensing. The most common method to meet this code requirement is a split AC unit. (If the elevators run on emergency power then the A/C must also be connected to the emergency generator.) The BTU output of the elevator equipment can be provided by your Oracle Elevator representative.



### **Machine Room Doors**

Per code elevator machine room doors need to be:

- 1. Self closing and self locking.
- 2. Swing out from the machine room
- 3. Be fire rated 1.5 hour "B" labeled door.
- 4. Marked with a sign stating "Danger Authorized Personnel Only"

#### **Storage Options-** (discuss with Oracle Elevator representative)

Option 1- Storage during the modernization of the elevators provided by the owner in a dry and secure location near the elevators.
Option 2- A storage pod can also be provided by Oracle at an additional charge. (Storage pods will require two parking spaces)
Option 3- Oracle Elevator may be able to store the equipment at their local warehouse during the modernization project based upon the location, size, and duration of the project.



## **Fire Alarm Requirements**



Please consult with your current fire service vendor for required upgrades when modernizing your elevators.

The following items will be required for the elevator modernization to meet the fire recall requirements.

- 1. A smoke sensor at each landing near the elevator entrances. (A heat sensor is required in lieu of a smoke sensor if the floors open up to an open breezeway.
- 2. A smoke detector in the machine room.
- 3. Three contacts run from the fire alarm panel into the elevator machine room.
  - a. One contact for Primary Floor Recall
  - b. One contact for Alternate Floor Recall

c. One contact for Machine room smoke. This activates if the smoke detector in the machine room is activated to let the emergency personnel know that the fire is in the machine room.

d. One contact for Shunt when sprinklers are present.

