



INFORMATION BULLETIN / PUBLIC - BUILDING CODE

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EXIT ILLUMINATION AND EXIT SIGN LIGHTING SYSTEMS

This is intended to provide information on exit illumination and exit sign lighting system requirements in all occupancies covered by the Los Angeles Municipal Codes (Building Code, Electrical Code and Fire Code). These requirements are necessary for uniform application of the codes by the Department of Building and Safety and the Los Angeles Fire Department staff and to help the public apply the codes correctly.

In general, Section 91.1003 and Table 10-A of the Los Angeles Building Code (LABC) and Sections 57.33.15 and 57.33.16 of the Los Angeles Fire Code require every stairway, exit passageway, exterior exit balconies, hallway, corridor and exit court used for egress in any building to be provided with exit illumination and exit signs, and in some occupancies low level pathway marking systems.

The following requirements shall be interpreted to comply with the Building Code, Electrical Code and Fire Code as they relate to the use, location, type of equipment and power sources for exit signs and exit illumination.

1. EXITING SYSTEMS

All buildings requiring an exiting system to safely evacuate building occupants shall be provided with exit illumination and exit signs, and in some cases low-level pathway markings. For the purposes of enforcement of LABC Section 91.1003 and the Fire Code, the term "exiting system" shall be defined as areas providing means of egress to the occupants of the building. An exiting system consists of the exit access, the exit and the exit discharge which include but not limited to stairways, exit passageways, exterior exit balconies, hallways, corridors, exit courts, stairs, and exit pathways of single or multiple tenant buildings. An exit pathway, for the purpose of requiring emergency exit lighting, shall mean an exit required by:

- a. The Los Angeles Fire Code for occupancies regulated by the State Fire Marshal (Title 19 occupancies).
- b. The Los Angeles Building Code for all other occupancies (non Title 19 buildings).

2. EXIT ILLUMINATION

All exiting systems shall be provided with lights having an intensity of not less than one footcandle at any point on the floor level to enable all persons to readily find, distinguish and use such ways of egress at any time the building or portion of a Title 19 building is occupied. For buildings with occupant loads of 100 or more and within individual tenants with an occupant load of 100 or more and in all Group I, Division 1.1 and 1.2, Group R, Division 2.1 and 2.2, and in other Title 19 buildings with a room or an area that requires two or more exits, exit access doorways, or combination thereof, emergency exit illumination

shall be required.

The requirements for types of emergency power sources for exit illumination are specified in Section 6 below. Emergency lighting located in any area shall be designed and installed so that the failure of any individual lighting element, such as the burning out of a light bulb, cannot leave any space which requires emergency illumination in total darkness. The design of an exit illumination system shall also take into account that the brightness and location of lights in the exit path provides a clear delineation of exit by giving a clear, unambiguous and conspicuous indication of the path of exit with adequate illumination coverage, glare control and shadowing effect.

3. EXIT SIGNS

The path of exit travel to and within exits in a building shall be identified by exit signs conforming to the requirements of Section 1003.2.8 of the LABC. Exit signs are required to be installed in rooms or areas that require two or more exits or exit access. An exit signs shall be readily visible from any direction of approach. Exit signs shall be located in the exit or in the path of exit as necessary to clearly indicate the direction of egress travel. No point shall be more than 100 feet from the nearest visible sign. Required exit signs may be internally or externally illuminated as required per Section 1003.2.8.4 of the LABC.

The requirements for types of emergency power sources for exit signs are specified in Section 6 below.

4. FLOOR LEVEL EXIT SIGN AND PATH MARKING

Floor level exit sign and path marking systems are required in occupancies noted in Section 91.1007 of the LABC. When exit signs are required in a building, Floor-Level exit signs and in some cases, Path Markings may also be required per Los Angeles Building Code. Path markings are required to be installed in all interior rated exit corridors of un-sprinklered Group A or Group R, Division 1 occupancies. The path marking shall be either installed at the floor level or no higher than 8 inches above the floor level. The path marking shall be continuous except for interruptions by doorways, corridors or other architectural features. It shall provide a visible delineation along the path of travel.

Approved exit path marking shall be provided at all corridors or pathways leading from such occupancies.

5. SPECIAL OCCUPANCIES OR USES

In addition to the requirements of Section 2 above the following additional requirements apply:

- A. Retail sales and Assembly areas. In retail sales and assembly occupancies there shall be no less than one emergency lighting fixture for every 800 square feet or fraction thereof an area.

Exception: Less than one emergency lighting fixture per 800 square feet may be installed in assembly areas with fixed seating or retail sales areas with permanent fixed furniture or display provided illumination of one foot candle at floor level is maintained at any point in the defined path of travel at all times the building is occupied by obtaining an administrative approval (variance)

from the Department of Building and Safety with concurrence from the Fire Department (Title 19 occupancies only).

- B. Parking garages. In parking garages no portion of the garage shall be more than 70 feet, measured horizontally, from an emergency light fixture. This provision applies to both covered garages and the top portion of a building used for parking purposes.

Exception: When an administrative approval (variance) is granted by the Department of Building and Safety, emergency lighting may be spaced apart greater than 140 feet and may be installed more than 70 feet from any point in the garage, provided a minimum of one foot candle at floor level is maintained at floor level in all driving areas, excluding marked parking spaces, and any marked walkways or other areas not used for parking.

- C. Emergency lighting requirements in existing buildings. Existing buildings containing emergency lighting systems that are properly maintained shall be permitted to have their use continued in accordance with existing non-conforming rights provisions of the Los Angeles Municipal Code. Where additions or alterations or a change of occupancy occurs in an existing buildings, and the addition, alteration or new occupancy requires emergency lighting in accordance with the aforementioned sections of the code, they shall be installed as noted in those code sections.

Exception: For existing high rise buildings permitted prior to July 1974 and other buildings which contain legally installed unit equipment for exit illumination and exit sign lighting, the Department of Building and Safety may grant an administrative appeal with concurrence from the Fire Department, to permit additions of the same type of equipment to be used for these modifications.

- D. Emergency lighting unit equipment requirements. Unit equipment may be permitted without obtaining administrative approval from the Department of Building and Safety in all occupancies except the following:
1. New high rise buildings permitted subsequent to July 1974.
 2. Buildings where the code specifically requires an emergency generator.
 3. All health care facilities when required by Title 24 of the California Code of Regulations or Article 517 of the National Electrical Code.
 4. All assembly occupancies and the exiting system from those occupancies to the exterior of the building where a single assembly occupancy, room, or area has 500 or more occupants, except when the total occupant exiting and Fire Department access time is determined to be less than 90 minutes.

6. POWER SUPPLIES

Emergency power supplies for exit illumination shall be required for all buildings or individual tenants as

specified in section 2 above.

Emergency power supplies for exit signs shall be required in all buildings requiring emergency power as specified in Section 91.1003 of the LABC and section 3 above.

Depending on the type of occupancies being served, the following emergency power supplies shall be permitted.

1. Emergency generator(s).
2. Central battery system(s) in accordance with City of Los Angeles Electrical Code (LAEC) Section 700-12.
3. Unit equipments as specified in Section 5D above.

Compliance with the electrical code requirement for testing and annual inspection shall be met.

For applications not clearly covered in the sections noted above, consult the Los Angeles Fire Department for occupancies covered under the State Fire Marshal regulations (Title 19) and the Department of Building and Safety for all other occupancies.

7. WIRING METHOD

The intent of both the Los Angeles Building and Electrical Codes is to ensure continuous operation of emergency loads such as exit signs and exit illumination during emergencies. This is accomplished by a redundant wiring method, utilizing two independent power sources and wiring for these loads. One circuit is to be supplied from a premises wiring supplied by a normal power source and the other circuit from an alternate power source classified for emergency power by the LAEC, Article 700.

An emergency system is defined by the LAEC, Articles 700-1 and 700-12. These systems are intended to automatically supply illumination or power, or both to designated areas and equipment in the event of failure of the normal supply.

The wirings supplied from an emergency system are considered and treated as emergency circuits. When powered through a transfer switch, the conductors on the load side of a transfer switch are emergency feeders and branch circuits. The emergency wiring system is required to be designed and located to minimize the hazards such as flooding, fire, icing, vandalism, corrosive environment, or other adverse conditions which could be achieved by physical separation of the normal and emergency circuits by means of wiring methods and equipment approved by code.

The wirings of both systems shall run independently from each other, and the conductors from normal and emergency systems shall not occupy the same raceway, box or enclosure. An exception is allowed where both systems terminate in an outlet box, attached to or is a part of a listed equipment, for the supply of emergency lights/exit signs. Another exception to this requirement is in the use of fixtures which are listed with a separate wiring compartment, provided that there are separate and independent conduit entries into the fixtures for each system. This will ensure uninterrupted lighting in areas used for egress

during emergencies.

For a high rise building or an assembly occupancy where the occupant load is more than 1,000 persons, the system is required to be protected against fire by one of the approved methods described in Section 700-9(d) of LAEC.