

COLORADO SPRINGS FIRE DEPARTMENT

# EXIT SIGNS & EMERGENCY LIGHTING

Information on the location and testing of exit and emergency lighting



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## PURPOSE

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Fire safety awareness, preparation and prevention are your best defense against a fire. The information provided in this guidance document is intended to improve your awareness of the fire safety features that you will encounter in various occupancies. Awareness of these features leads to identification when items may need fixing, maintenance, or corrective action.

## SCOPE

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Fire safety is a consideration given to many aspects of your daily life. Many of these aspects are inherent in the overall design and construction of your environment. This guidance document discusses the fire safety issues related to exit signs and emergency lighting.

The requirements discussed in this document apply to new construction and, in the extent applicable, existing facilities.

## DEFINITIONS

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**CSFD:** Colorado Springs Fire Department

**Emergency Lighting:** lighting that is a battery-powered device designed to switch on automatically in the event a building loses normal power/

**Exit Sign:** those required signs that will continually indicate the path of exit travel within the means of an egress system.

**IFC:** 2021 International Fire Code

**IBC:** 2021 International Building Code

**NEC:** 2020 National Electrical Code

## EXIT SIGN GUIDELINES

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Any room or space requiring two exits, or serving an occupant load of 50 or more, is required to have exit signs. The proper type and placement of these features is a major factor when considering the building occupants life safety needs during emergency egress.

### I. EXIT SIGN PLACEMENT.

Exit and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. In cases where the exit or path of egress travel is not immediately clear or visible to occupants, the path of egress travel to and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel. Intervening doors and changes of direction within exits shall be marked by exit signs.

Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet or the listed viewing distance for the sign, whichever, is less, from the nearest visible exit sign. Exit signs shall be illuminated, either internally or externally. This becomes important when laying out the locations of emergency lighting too, as discussed later.

There are some allowable exceptions where exit signs are not required or may be omitted. Refer to Section 1013 of either the IFC or IBC for details on these locations.

### II. FLOOR-LEVEL EXIT SIGNS.

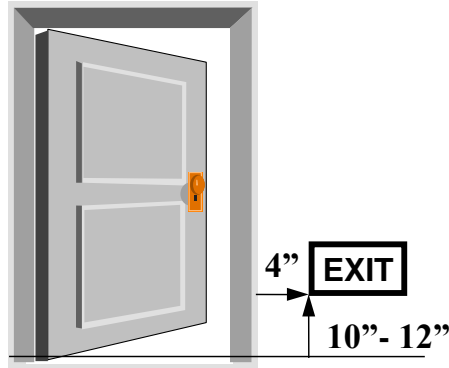
#### A. New Hotels.

Additional low-level exit signs shall be provided in all areas serving guest rooms in Group R-1

as smoke often obscures exit signs mounted at the ceiling. Low level exit signs allow for a back-up identification of the exit door. These signs are only required in areas leading from the guestroom areas, not throughout the hotel.

#### **B. Placement of Floor-level Exit Signs.**

The bottom of the sign shall not be less than 10-inches nor more than 12-inches above the floor level. The sign shall be flush mounted to the door or wall. Where mounted on the wall, the edge of the sign shall be within 4-inches of the door frame on the latch side.



#### **III. "NOT AN EXIT" SIGNS.**

The use of "NOT AN EXIT" signage is prohibited! This is because in the event of a fire and/or emergency, the only word that registers to people is "EXIT". Preferred signage shall read, "THIS DOOR BLOCKED".

#### **IV. GRAPHICS.**

The color and design of the lettering, arrows, and other symbols shall be in high contrast with their background. Words on the exit signs shall be in BLOCK letters six (6) inches in height with a minimum 3/4-inch stroke. The letters for the word "EXIT" shall be a minimum of 2-inches wide, with exceptions for the letter "I."

Usually, we see red or green exit signs used. The colors, however, are not specifically designated within the code. The code allows for some latitude on this issue; however, the letter colors must be of high contrast with the background. If an alternative color scheme is planned, it is recommended you discuss it with CSFD to ensure compliance with the adopted codes and standards.

#### **V. ILLUMINATION AND EMERGENCY POWER.**

Internally and photoluminescent (glow in the dark) exit signs shall be listed to UL 924.

Externally illuminated exit signs shall be provided with a light intensity of at least 5 footcandles on the face of the exit sign.

Exit signs shall be illuminated continuously. In the case of primary power loss, the emergency power shall be capable of continued illumination of the exit sign for a duration no less than 90 minutes.

## **EMERGENCY LIGHTING**

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The entire means of egress, (open plan spaces, aisles, corridors, passageways, stairways, doors, and exit discharge, etc.), shall be illuminated at all times the building space is occupied.

For example: if exiting from an apartment clubhouse through the pool area, the means of egress would continue until exiting through the pool exit gates. As such, emergency lighting would be required outside along the means of egress.

The level of illumination shall be not less than 1 foot candle (1 lux) at the walking surface, under normal power. This is approximately the same lighting levels as found outdoors at twilight, or enough light to still see your feet. All portions must be illuminated by artificial lighting when that space is occupied. The lights may be turned off in a portion of the building when that portion is unoccupied.

### **I. EMERGENCY POWER.**

The power supply for a means of egress illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, an emergency electrical system shall automatically illuminate all, but not limited to, the following areas:

1. Aisles
2. Corridors
3. Exit access stairways and ramps.

The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27 of the International Building Code.

### **II. LUMINOUS EGRESS PATH MARKINGS.**

Approved luminous egress path markings delineating the exit path shall be provided in high-rise buildings of Groups A, B, E, I, M and R-1 occupancies in accordance with Section 1025. These markings are permitted to be made of any material, including paint, provided an electrical charge is not needed to maintain the required luminance. Such materials shall comply with either UL 1994 or ASTM E2072 as specified in the adopted codes.

Photoluminescent exit path markings shall be provided with not less than 1 footcandle of illumination for not less than 60 minutes prior to periods when the building is occupied and continuously during occupancy to ensure proper performance. Be sure lamps with the proper wattage to achieve this "recharge" standard are specified and installed.

## **ADDITIONAL REQUIREMENTS**

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Depending on individual conditions or circumstances, CSFD reserves the right to require modifications to ensure an appropriate level of fire and life safety is maintained.

Regardless of the occupant load, when an exit access pathway is not easily identifiable from an area of a building, additional exit signs, lights, emergency lights or markings may be required.

In a building, room, or area that does not require two exits, but there are obstructions to exits or where the exits are not visually clear to the occupants, additional exit signs and/or emergency lighting units may be required.

## **TESTING EXIT SIGNS & EMERGENCY LIGHTING**

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These systems are required to be fully tested. Full power drop tests will be performed by the CSFD prior to approving fire finals for occupancy.

## **FREQUENTLY ASKED QUESTIONS**

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1. If I install exit signs voluntarily, do they need to illuminate continuously and operate on battery back-up? **Yes, under the scoping provisions of the adopted fire code, all installed exit signs must meet code requirements, even if they are voluntarily installed.**
2. Do I have to install additional exit signs and/or emergency lights if the ones I have do not meet the current code requirements? **Yes. Section 1031 requires exit signs in existing**

**buildings to comply with the same requirements as a new building. At the time of inspection, the inspector will verify the placement of all exit signs. If additional devices are required, the inspector will let you know.**

3. During an inspection, can I test my exit signs and emergency lighting using the “test” button? **No, the inspector will ask the electrician to “drop” normal power to simulate a power failure. All exits and emergency lighting must illuminate on back-up power.**
4. If my building is equipped with a generator, will the inspector still require testing of the exits and emergency lighting on battery back-up? **No, the inspector may accept maintenance reports that verify when the devices were last tested. However, if new devices are being installed, the inspector may want to witness their functionality.**