

Fire Egress Requirements for Single Family Residential Buildings

http://publicecodes.citation.com/st/ca/st/b200v07/st_ca_st_b200v07_10_sec019_par003.htm

Section 1019 number of exits and continuity

1019 2 buildings with one exit

Only one exit shall be required in buildings as described below:

1. Buildings described in Table 1019.2, provided that the building has not more than one level below the first story above grade plane. [applies to one and two story buildings]

2. **Buildings of Group R-3 occupancy.**

3. Single-level buildings with the occupied space at the level of exit discharge provided that the story or space complies with Section 1015.1 as a space with one means of egress.

Group R-3 http://publicecodes.citation.com/st/ca/st/b200v07/st_ca_st_b200v07_3_sec010.htm

Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-3.1, R-4 or I, including://

Townhouses not more than three stories above grade in height with a separate means of egress.

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[separate means: egress is not shared with another building]

Fire Egress Requirements for Multifamily Residential Buildings

The number of exits required is based on the floor area of each floor of a building which uses the same egress. The floor area includes the units and the corridor or walkway to access stairs or outside ground.

Occupant load is defined as one occupant per 200 sq ft (Table 1004.1.1). A floor with an Occupant Load greater than 10 must have two exits (Table 1015.1).

A floor area of 2,000 sf divided by 200 sf yields 10 occupants and precipitates the requirement for a second exit. Since a single family home rarely has 2,000 sf on a single floor, the requirement does not usually apply to singles. Since a ground floor unit can easily establish a second exit, the requirement mainly applies to upper stories of multiple unit buildings.

Example 1: Unit = 1,000 sq ft; units per floor = 6

unit gross sf = 6,000 sq ft

for corridor and walkway, add 10% or 660 sq ft

floor gross sq ft = 6,600

Occupant Load = $6600\text{sf} / 200\text{sf} = 33$, greater than 10, so 2 exits Required

Example 2: Unit = 896 sf; units per floor = 2

unit gross sq ft = 1,792

corridor and walkway = $4' \times 8' = 32$ sq ft

floor gross sq ft = 1,824 sq ft

Occupant load = $1,824 / 200 = 9.12$, so only one exit required.

General Building Code, Chapter 10: MEANS OF EGRESS:

Requirements for designing “means of egress” to get occupants out of a building in a safe and

expeditious manner during a fire or other emergency. A means of egress provides a continuous and unobstructed path from any occupied point in a building to a public way such as a street or alley for public use.

1002 : defines “means of egress” as a continuous, unobstructed path of vertical and horizontal exit travel from any occupied portion of a building or structure to public way. The requirements are driven by the occupancy type of the area and occupant load shown in Table 1004.1.1.

Egress Components are the exit access, the exit, and the exit discharge. They must be integrated with the requirements in Chapter 11 of the Code, the Americans with Disabilities Act (ADA), and local accessibility regulation. Some provisions may supersede Chapter 10.

1004.1 Design Occupant Load: Specifies that means-of-egress facilities are designed to accommodate the number of occupants in accordance with Table 1004.1.1 and Table 1015.1.1

Table 1004.1.1 – Maximum Floor Area Allowance Per Occupant; Function of Space:
Residential: **Floor Area in sq. ft. Per Occupant: 200 gross**

Section 1015 Exit and Exit Access Doorways:

1015.1 – Exit or Exit Access doorways required. Two exits or exit access doorways from any space shall be provided where one of the following exits:

1. The occupant load of the space exceeds the values in Table 1015.1

Table 1015.1 – Spaces With One Means of Egress for Occupancy: R (Residential)

Maximum Occupancy Load: 10