

4.28 Fire Sprinkler System Coverage Requirements for Balconies and Terraces (2022)

Reference: 2022 NFPA 13, Sections 9.2.1.20, 9.2.3, 9.2.3.4, 9.3.19, 9.3.19.2 (as amended by CA Fire Code, Chapter 80); 2022 NFPA 13R; 2022 CFC Section 903.3.1.2.1

Purpose: To establish when balconies and terraces need to be provided with fire sprinkler protection for buildings of combustible and noncombustible construction.

- I. For systems installed in accordance with 2022 NFPA 13 (comply with NFPA 13, Section 9.2.3 except as modified below) the following conditions will require sprinkler protection of balconies and terraces if protected by an automatic sprinkler system throughout the building:
- a) The balcony or terrace deck is intended for human occupancy, which can lead to the potential for the storage of combustibles
 - b) The occupied balcony or terrace deck is more than 4' wide or more than 4' deep at any point along the deck.
 - c) An exterior projection (e.g. balcony, overhang, etc.) more than 2' deep at any point along the projection that is present at the next level or floor directly above an occupied deck per items a and b Exterior projection overhangs more than 2' deep and more than one level above the deck are exempt.
 - d) Sprinkler protection is required below tapered exterior projections at the location where the outer edge of the projection is more than 2' deep above an occupied deck per items a and b.
 - e) Sprinkler protection is not required below exterior projections more than 2' deep if an occupied balcony or terrace deck per items a and b is not located at the next level or floor directly below the projection (no occupied deck or occupied decks located at alternate levels or floors).
 - f) Sprinkler protection is required below ceilings extending more than 2' deep from the building exterior located above recessed occupied decks per items a and b.
 - g) The depth of the occupied balcony or terrace deck and the exterior projection shall be measured horizontally from the building exterior solid wall surface. Or from the face of the fixed glass panel with surrounding mullions or minor protrusions ignored. This is the location where storage of combustibles can accumulate. The face of any solid panel or glass doors can be ignored as the area in front of the doors would not provide a location where combustibles could accumulate.
 - h) The horizontal dimensions of the occupied balcony or terrace deck shall terminate at the vertical face of the guardrail, parapet, balustrade or other vertical surface immediately adjacent to the deck. This is the location where storage of combustibles can accumulate.
 - i) The horizontal dimensions of the exterior projection above the balcony or terrace deck shall terminate at the furthestmost point of the projection outer edge, regardless of whether or not the edge inclines inward or outward ("tiered" in or out).
 - j) An exterior projection or recessed ceiling more than 2' deep that is present at the next level or floor directly above a building entry where storage may be located or

combustibles may be present. Items c), d), f), g) & i) also apply. Exterior projection overhangs more than 2' deep and more than one level above the building entry are exempt.

- k) An exterior projection more than 4' deep that is present at the next level or floor directly above a building entry planter. Exterior projection overhangs more than 4' deep and more than one level above the building entry planter are exempt.
- l) Architectural or other design drawings of the balconies and terraces describing the conditions in items a) through k) shall be submitted for reference with the Fire Sprinkler Submittal per the SFFD AB 2.04
- m) The minimum listed sprinkler deflector elevation per 2022 NFPA 13 below the exterior projection must be maintained.
- n) For non-High rise buildings only, regardless of the conditions noted in items a) through m) above, fire sprinklers may only be omitted from balconies or terraces (occupied decks) per item a when the exterior projection located above the balcony or terrace is of non-combustible or limited-combustible construction.

II. For systems installed in accordance with 2022 NFPA 13R (comply with 2022 CFC, Section 903.3.1.2.1):

a) When balconies, terraces and patios are provided, regardless of the deck dimensions, sprinklers are required that cover the entire deck when the conditions in Section I items c), d), f) and i) are present.

b) The minimum listed sprinkler deflector elevation per 2022 NFPA 13 below the exterior projection must be maintained or as otherwise permitted per the 2022 CFC Section 903.3.1.2.1 for sidewall sprinklers.