



**Alameda County Fire Department  
Bureau of Fire Prevention**

**INFORMATIONAL BULLETIN**

**Tents and Other Membrane Structures**

This Informational Bulletin has been developed by the Alameda County Fire Department to summarize the fire and life safety regulations relating to structures classified as tents or other membrane structures.

**Definitions:** **Tent** - A structure, enclosure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

**Membrane Structure** – An air-inflated, air supported, cable or frame-covered structure as defined by the International Building Code and not otherwise defined as a tent.

**Fire Code Regulations:**

1. A Fire Department permit is required to erect any tent or membrane structures having an area in excess of 400 square feet in floor area if it has one or more walls and 700 square feet if it has no walls. (2019 CFC 3103.2)
2. A tent may not be erected on any site for more than 180 days in any 12-month period. (2019 CFC 3103.5)
3. All tent fabric and interior decorative fabric used in tents or canopies is required to be flame retardant in accordance with NFPA 701. (2019 CFC 3104.2)

**Location Requirements:**

1. Tents and canopies must be separated from each other, property lines, other structures and vehicles, by a minimum clear width of 20 feet or by the required exit width, which ever is greater. Please check the Fire Code for exceptions to the separation distance. For purposes of required distances, support ropes and guide wires are considered part of the tent. (2019 CFC 3103.8.2)
2. Fire apparatus roadways shall be 20 feet wide with 13'-6" vertical clearance capable of supporting the imposed load of fire apparatus. (2019 CFC Sections 3103.8.1 & 503)

**Exiting Requirements:**

Exits from tents and canopies shall comply with the following table. (2019 CFC 3103.12.2)

**CFC TABLE 3103.12.2**

<b>OCCUPANT LOAD</b>	<b>MINIMUM NUMBER OF MEANS OF EGRESS</b>	<b>MINIMUM WIDTH OF EACH MEANS OF EGRESS (Inches) Tents</b>	<b>MINIMUM WIDTH OF EACH MEANS OF EGRESS(Inches) Membrane Structure</b>
<b>10 TO 199</b>	<b>2</b>	<b>72</b>	<b>36</b>
<b>200 TO 499</b>	<b>3</b>	<b>72</b>	<b>72</b>
<b>500 TO 999</b>	<b>4</b>	<b>96</b>	<b>72</b>
<b>1,000 TO 1,999</b>	<b>5</b>	<b>120</b>	<b>96</b>
<b>2,000 TO 2,999</b>	<b>6</b>	<b>120</b>	<b>96</b>
<b>OVER 3000</b>	<b>7</b>	<b>120</b>	<b>96</b>

1. Exit signs. Exits shall be clearly marked. Exit sign shall be installed at required exit doorways and where otherwise necessary to indicate clearly the direction of egress where the exit serves and occupant load of 50 or more. (2019 CFC 3103.12.6).
2. Exit signs shall be either listed and labeled in accordance with UL 924 as the internally illuminated type and used in accordance with the listing or shall be externally illuminated by luminaries. (2019 CFC 3103.12.6.1)
3. Aisles with a minimum width of 44 inches shall be provided for access to all exits. All portions of the interior of the tent or canopy shall be within 30 feet of an aisle. (2019 CFC 3103.12.5) The arrangement of aisles shall be subject to approval of the fire code official. Clear aisles shall be maintained at all times when the building is occupied. (2019 CFC 3103.12.5.1)

**Housekeeping and General Fire Safety Requirements:**

1. Flammable and combustible liquids the storage of flammable and combustible liquids and the use of flammable-liquid-fueled equipment shall be in accordance with Section 3107.14.1 through 3107.14.3. (3107.14)
2. The storage, handling and use of LP-gas and LP-gas equipment shall be in accordance with Sections 3107.13.1 through 3107.13.3. (2019 CFD 3107.13)
3. Combustible vegetation that could create a fire hazard shall be removed from the area occupied by a tent or membrane structure, and from areas within 30 feet (9144 mm) of such structures. (2019 CFC 3107.18)
4. Gas, liquid and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified in the California Fuel Gas Code and the California Mechanical Code. Such vents shall be equipped with approved spark arresters where required. Where vents or flues are used, all portions of the tent or membrane structure shall be not less than 12 inches (305 mm) from the flue or vent by means of an approved flue or vent. (2019 CFC 3107.12.2)
5. Fire extinguishers with a minimum rating of 2A-10BC shall be provided as follows: one extinguisher for tents and canopies up to 500 square feet in floor area; two extinguishers for 501 to 1,000 square feet; and one extinguisher for each additional 2,000 square feet of floor area or fraction thereof. (2019 CFC 906.3)
6. Open flame or other devices emitting flame, fire or heat or any flammable or combustible liquids, gas, charcoal or other cooking device or any other unapproved devices shall not be permitted inside or located within 20 feet (6096mm) of the tent or membrane structures while open to the public unless approved by the fire code official. (2019 CFC 3107.4)
7. Heating and cooking equipment shall be in accordance with Sections 3101.12.1 through 3107.4.7 of the 2019 CFC.

*If you have any questions or wish to apply for a permit to erect a tent or canopy, please contact the Fire Prevention Division for your area.*

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