



MONTEREY COUNTY REGIONAL FIRE DISTRICT PREVENTION DIVISION

ASSEMBLY TENTS, CANOPIES AND TEMPORARY MEMBRANE STRUCTURES

(1997 California Fire Code Edition)

Scope

The provisions of this standard shall apply to any tent or temporary membrane structure having an area in excess of 200 square feet, or any canopy in excess of 400 square feet. (Section 3201)

EXCEPTIONS:

1. Tents, awnings or other fabric enclosures used to cover or enclose private swimming pools and similar facilities on the premises of private one and two-family dwellings.
2. Tents used to conduct committal services on the ground of a cemetery.
3. Tents, awnings or other fabric enclosures erected and used within a sound stage, or other similar structural enclosure which is equipped with an overhead automatic sprinkler system.
4. Tensioned membrane roof materials supported by rigid frames or installed on a mast and cable system, provided such structures conform to the requirements of one of the types of construction as described in the Uniform Building Code.
5. Fabric structures which are part of mobile homes, recreational vehicles, or commercial coaches governed by the provisions of Division 13, Part 2, Health and Safety Code (Department of Housing and Community Development).

Definitions

For the purpose of this standard, certain terms and words are defined as follows:

CANOPY is a temporary structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents it protects and is open, without sidewalls or drops, on 75 percent or more of the perimeter.(Section 3202.2)

TEMPORARY MEMBRANE STRUCTURE is any air-inflated, air supported, cable, or frame-covered structure as defined by Building Code Appendix Chapter 55 which is erected for less than 180 days and not otherwise defined as a tent, canopy or awning.(Section 221-T)

TEMPORARY STRUCTURE is any enclosure or shelter constructed of materials as described in this article and erected for a period of less than 180 days. (Section 221-T)

TENT is any temporary structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents it protects. (Section 221-T)

Information Requirement

The form on page 9 of this document shall be provided in order to process the tent/canopy permit.

Use Period

The use of any tent, canopy or temporary membrane structure shall not exceed a use period of 180 days within a 12-month period on a single premise.(Section 3203)

Access, Locations and Parking

- a) Fire apparatus access road shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall is located more than 150 feet from fire apparatus access as measured by an approved route around the exterior of the building or facility. (Section 902.2.1)
- b) More than one fire apparatus road shall be provided when it is determined by the chief that access by a single road might be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access. (Section 902.2.1)
- c) Fire Apparatus access roads shall have an unobstructed width of not less than 20feet and unobstructed vertical clearance of not less than 13 feet 6 inches. (Section 902.2.2.1)
- d) Temporary membrane structures, tents and canopies shall not be located within 20feet of property lines, buildings, temporary membrane structures, other tents and canopies, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guywires shall be considered as part of the temporary membrane structure, tents or canopies. (Section 3205.2)
 - * EXCEPTION: Separation distance between temporary membrane structures, tents and canopies, not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet.
- e) When approved by the Chief, tents may be located in or on permanent buildings provided such use does not constitute an undue hazard.
- f) The Chief may also approve the location of tents closer than that specified in this section if required passageways are provided and, in his/her opinion, adequate safety is afforded.

Structural Stability

Tents, canopies and temporary membrane structures and their appurtenances shall be adequately roped, braced and anchored to withstand the elements of weather against collapsing. Tents shall be adequately guyed, supported and braced to withstand a wind pressure or suction of 10 pounds per square foot. The poles and their supporting guys, stays, stakes, fastenings, and similar supporting members or devices shall be of sufficient strength and attached so as to resist wind pressure of 20 pounds per square foot of projected area of the tent. The Chief may require certification of the provisions of this section from a structural, civil or other qualified registered engineer. (Section 3206.1)

Air-supported and air-inflated structures shall have the design and construction of the fabric envelope, the method of anchoring and inflation systems in accordance with Uniform Building Code Appendix Chapter 31, Division II. (Section 3206.2)

Flame-Retardant Treatment and Standards

The sidewalls, drops and tops of all tents, canopies and temporary membrane structures shall be of flame-retardant material or shall be made fire retardant in an approved manner. All floor coverings, bunting, flammable decorations or effects, including sawdust when used on floors or passageways, shall be made fire retardant in an approved manner. (Section 3207)

In accordance with Title 19. California Code of Regulations, Article 4-335: each section of the top and sidewalls in large tents shall have a durable label, permanently affixed, bearing the following information:

1. The Seal of Registration
2. If treated fabric, the name and registration number of approved application concern and approved chemical used, and the date of treatment
3. If registered fabric, the trade name and registration number of the approved fabric, and the date of production.

In lieu of attached labels, the required information may be applied directly to the fabric by print, stamp or stencil.

Small tents shall have a permanently affixed label bearing the information stated above or shall comply with the provision specified in CPAI-84 (1975). (Title 19 Article 4-335)

Smoking and Open Flame

Smoking. Smoking shall not be permitted in any tent, canopy or temporary membrane structure or in any adjacent areas where hay, straw, sawdust or any other combustible materials are stored or used. NO SMOKING signs shall be conspicuously posted. (Section 3215.1)

Fireworks, Open Flames. No fireworks, open flame and devices capable of igniting combustible materials shall not be used in or adjacent to temporary membrane structure, tent, canopy, unless otherwise approved. (Section 3215.2)

Portable Fire Extinguishers and Other Fire Protection Appliances

Fire extinguishers and other fire protection appliances shall be provided in every tent, canopy and temporary membrane structure as follows: (Guide based on UFC Standard 10-1)

1. Minimum fire-extinguisher coverage shall be provided in every tent, canopy and temporary membrane structure as follows:
 - a) 200 to 500 square feet of floor area: One 2-A:10-B:C.
 - b) 501 to 1000 square feet of floor area: Two 2-A:10-B:C.
 - c) Each additional 2000 square feet of floor area or fraction thereof:
One 2-A:10-B:C.

2. Fire extinguishers shall be provided for each kitchen, mess hall, power generator or transformer, locations where flammable or combustible liquids are used, and other locations in accordance with Uniform Fire Code Standard No. 10-1.
3. At least one 40-B:C-type fire extinguisher shall be provided for each kitchen, mess hall, power generator or transformer and at locations where flammable or combustible liquids are used, stored or dispensed.
4. Other fire appliances shall be maintained at the site as may be required by the Chief.

Exits

Distribution. Exits shall be spaced at approximately equal intervals around the perimeter of the tent, canopy or temporary membrane structure and shall be so located that no point is more than 100 feet from an exit. (Section 3211.1)

Number. Exits shall be provided in accordance with Table No. 3211-A. (3211-A)

**TABLE NO. 3211-A
CAPACITY OF TENT,
CANOPY OR TEMPORARY MEMBRANE STRUCTURE**

CAPACITY	MINIMUM NUMBER OF EXITS	MINIMUM WIDTH EACH EXIT (In Feet)	
		Tent	Air-Supported Structure
Up to 199	2	6	3
200 to 499	3	6	6
500 to 999	4	8	6
1000 to 1999	5	10	8
2000 to 2999	6	10	8
Over 3000	7	10	8

Note: The total width of exits in feet shall be not less than the total occupant load served divided by 50. Such width of exits shall be divided approximately equally among the separate exits.

Openings. Exit openings from any tent shall remain open or may be covered by a flame-retardant curtain, provided: (Section 3211.3)

1. Said curtains shall be free sliding on a metal support. The support shall be a minimum of 8 feet above the floor level at the exit. The curtains shall be so arranged that, when open, no part of the curtains shall obstruct the exit.
2. Said curtains shall be of color, or colors, contrasting with the color of the tent.

Doors. Exit doors from air-supported structures shall swing in the direction of exit travel. To avoid hazardous pressure loss, all such doors shall be automatic closing against operating pressures. Opening force at the door edge shall not exceed 15 pounds. (Section 3211.4)

Aisles. Aisles leading to required exits shall be provided from all portion of buildings. Aisles located within an accessible route of travel shall also comply with the Building Code for accessibility. (Section 2501.9)

Aisle widths shall be provided in accordance with the following:

1. In areas serving employees only, the minimum aisle width may be 24 inches but not less than the width required by the number of employees served.
2. In assembly occupancies without fixed seats, the minimum clear aisle width shall be 36 inches where seats, tables, counter, furnishings, displays and similar fixtures or equipment are placed on one side of the aisle only and 44 inches when such fixtures or equipment are placed on both sides of the aisle.

The arrangement of aisles shall be approved by the chief.

Maintenance of Exit Ways

Obstructions. The required width of exits, aisles and passageways shall be maintained at all times to a public way.

Guywire, guyrope or other support members shall not cross any means of egress at a height of less than 8 feet. The surface of means of egress shall be maintained in an approved manner. (Section 3212)

Exit Illumination

Exits shall be illuminated at any time the structure is occupied with light having an intensity of not less than one foot-candle at floor level. Fixtures required for exit illumination shall be supplied from a separate circuit or sources of power where these are required for exit signs in the following section. (Section 3213)

Exit Signs

When Required. Exit signs shall be installed at required exit doorways and where otherwise necessary to clearly indicate the direction of egress when the exit serves an occupant load of 50 or more. (Section 3214.1)

Illumination. Exit signs in tents, canopies and temporary membrane structures with occupant loads over 100 persons shall be of an approved self-luminous type or shall be internally or externally illuminated by fixtures supplied in the manner specified below. (Section 3214.2)

1. Two separate circuits, one of which shall be separate from all other circuits, for occupant loads of 300 or less.
2. Two separate sources of power, one of which shall be an approved emergency system, shall be provided when the occupant load exceeds 300. Emergency systems shall be supplied from storage batteries or on-site generator set, and the system shall be installed in accordance with the requirements of the Electrical Code.

Maximum Occupant Load

Occupant load requirements shall be in accordance with the provisions of Article 25, Division I.

Seating Arrangements

The seating arrangements and aisle spacing shall be in accordance with Article 25 of the Uniform Fire Code.

Heating and Cooking Equipment

General. Cooking and heating equipment, tanks, piping, hoses, fittings, valves, tubing and other related components shall be approved or in accordance with the Mechanical Code. (Section 3216.1)

EXCEPTION: Operation such as warming of foods, cooking demonstrations and similar operations which do not present an ignition hazard.

Ventilation. Cooking and heating equipment shall be vented to the outside air by approved means. Where vents or flues are used, all portion of the temporary membrane structure, tent, or canopy shall be no less than 12 inches from the flue or vent. Solid-fuel-burning equipment shall be equipped with spark arrestors having openings not exceeding $\frac{1}{4}$ inch wire mesh. (Section 3216.2)

Location. Cooking and heating equipment shall not be located within 10 feet of exits or combustible materials. (Section 3216.3.1)

Tents where cooking is performed shall be separated from temporary membrane structures, other tents and canopies by a minimum of 20 feet. (Section 3216.3.2)

Outdoor cooking that produces spark or grease-laden vapors shall not be performed within 20 feet from a temporary membrane, tent or canopy. (Section 3216.3.3)

LP- Gas.

General Equipment such as tanks, valves, tubing and other related components shall be approved and in accordance with Article 82 and the Mechanical Code. (Section 3216.4.1)

Location of containers. All gas, solid or liquid-fuel-fired comfort heating equipment and fuel supplies shall be located outside of the tent, a minimum of 10 feet away, with heated air ducted from the equipment to the inside of the tent. (Section 8204-A)

Safety release valves shall be pointed away from the temporary membrane structure, tent or canopy. (Section 3216.4.2)

Protection and security. Portable LP-gas containers, piping, valves and fittings which are located outside and are being used to fuel equipment inside a temporary membrane structure, tent or canopy shall be adequately protected to prevent tampering, damage by vehicles or other hazards and shall be located in an approved location. (Section 3216.4.3)

Electrical heating and cooking equipment. Electrical cooking and heating equipment shall be in accordance with the Electrical Code and Article 85. (Section 3216.5)

Flammable or Combustible Liquids and Liquefied Petroleum Gas

General. Flammable-liquid-fueled equipment shall not be used in temporary membrane structures, tents or canopies. (Section 3217.1)

Flammable and Combustible Liquid Storage. Flammable and combustible liquids shall be stored outside in an approved manner not less than 50 feet from temporary membrane structures, tents and canopies. Storage shall be in accordance with Article 79. (Section 3217.2)

Refueling. Refueling shall be performed in an approved location not less than 20 feet from temporary membrane structures, tents, and canopies. (Section 3217.3)

Liquid and Gas-fueled Vehicles and Equipment

Displays.

Batteries. Batteries shall be disconnected in an approved manner. (Section 2505.2.2).

Fueling. Vehicles or equipment shall not be fueled or defueled within the building. (Section 2505.2.3.1)

Quantity Limit. Fuel in the fuel tank shall not exceed one quarter of the tank capacity or 5 gallons whichever is less. (2505.2.3.2)

Inspection. Fuel system shall be inspected for leaks. (Section 2505.2.3.3)

Closure. Fuel-tank openings shall be locked and sealed to prevent the escape of vapors. (Section 2505.2.3.4)

Location. The location of vehicles or equipment shall not obstruct or block means of egress. (Section 2505.2.4)

Competitions and Demonstrations.

Fuel storage. Fuel for the vehicles or equipment shall be stored in approved containers in an approved location outside of the building. (Section 2505.3.2)

Fueling. Refueling shall be performed outside of the building at an approved site. (Section 2505.3.3)

Spills. Fuel spills shall be cleaned up immediately. (Section 2505.3.4)

Generators.

Generators and other internal combustion power sources shall be separated from temporary membrane structures, tents and canopies by a minimum of 20 feet and be isolated from contact with the public by fencing, enclosure or other approved means. (Section 3219)

Housekeeping

Vegetation Removal. All weeds and flammable vegetation shall be removed from the area occupied by any tent, canopy or temporary membrane structure and from areas adjacent to or within 30 feet of any such structure. (Section 3221.2)

Flammable Material Storage. Hay, straw, trash and other flammable material shall be stored not less than 30 feet outside of tents, canopies and temporary membrane structures. (Section 3221.3)

EXCEPTION: Hay, straw and similar combustible materials treated with a flame retardant in an approved manner.

Waste Materials. The floor surface inside a temporary membrane structure, tent or canopy and the grounds outside and within a 30 foot perimeter shall be kept clear of combustible waste. Such waste shall be stored in approved containers until removed from the premises. (Section 3221.4)

Standby Personnel

Qualified persons necessary to safeguard the premises shall be provided as required and approved by the Chief. (Section 2501.18)

Tents, Canopies and Temporary Membrane Structures Information Form

Address of event: _____

Contact Person: _____ Phone No.: _____

Mailing Address of Contact Person: _____

1. Date of event: _____ Hours of operation: _____

2. Date tent being erected: _____ Date down: _____

3. Size of tent: _____

4. Number of people anticipated: _____

5. Type of event: _____

6. Entertainment - what type: _____

7. Is admission being charged: _____

8. Liquor served (charging?): _____

9. Cooking (how prepared): _____

10. Will there be dancing? _____

11. If so, records, tapes or band? _____

12. Source of power: _____

13. Source of heat: _____

14. Ground cover: _____

15. A plot plan indicating the tent and/or canopy dimensions, and distances from other tents and/or canopies, buildings, vehicle parking areas and roadways shall be provided.

16. A seating arrangement plan, if applicable, indicating the number of seats, seat spacing, aisle locations and widths, exit widths/locations and exit sign locations shall be provided on a floor plan.

17. A table arrangement plan, if applicable, indicating number of tables, table dimensions and locations, aisle locations and widths shall be provided on the floor plan.

18. Number, type, rating and locations of portable fire extinguishers shall be indicated on the floor plan.