

NOVATO FIRE PROTECTION DISTRICT FIRE LOSS MANAGEMENT DIVISION



Developed by Forrest M. Craig
Forrest M. Craig, Fire Marshal
Approved by Jeffrey A. Weston
Jeffrey A. Weston, Fire Chief

Fire Protection Standard 119

Tents and Awnings

Date: 07/21/04

Revision: 12/7/05

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Scope: These standards shall apply to any temporary membrane structure, tent, or canopy, in accordance with the California Code of Regulations (CCR) Title 19 and California Fire Code (CFC).

Temporary membrane structures, tents, and canopies shall be used for a period of not more than 180 days within any 12-month period at a single facility unless approved by the local Building and Fire Official. A tent or temporary membrane structure having an area in excess of 200 square feet, or any canopy in excess of 400 square feet, shall have an inspection for approval.

The Fire District inspections will include, but not be limited to, the following: Tent flame resistance, exits, portable fire extinguishers, and sources of ignition, protection and security of portable LP-gas containers, generators and housekeeping. BBQ's and deep fat fryers will not be allowed in any tent, tent membrane structure, or canopy.

Permits:

A Novato Fire District Permit is required for all tents and temporary membrane structures having an area in excess of 200 square feet and canopies in excess of 400 square feet (see attached permit application).

Definitions:

For the purposes of this document, the following definitions shall apply:

Determining Area - Multiple tents and canopies next to each other will be reviewed as a single structure.

Canopy - A temporary structure, enclosure, or shelter constructed of fabric or pliable materials supported in any manner other than by air or the contents it protects, which is open, without side walls or drops on 75 percent or more of the perimeter.

Temporary membrane Structure - Any enclosure or shelter constructed of materials as described in the California Fire Code (CFC) and erected for a period of less than 180 days.

Tent - Any temporary structure, enclosure, or shelter constructed of fabric or pliable material supported in any manner other than by air or the contents it protects.

Access, Location, and Parking:

1. Fire apparatus access shall be provided as outlined in CFC §902.2. Access roads shall have an unobstructed width of not less than 20 feet with vertical clearance of not less than 14 feet.
2. Tents shall not be located within 20 feet of buildings, property lines, parked vehicles, internal combustion engines, or other temporary membrane structures, tents, or canopies.

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For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure, tent, or canopy.

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. The Fire Marshal may approve tents located in or adjacent to permanent buildings provided that such use does not constitute an undue hazard.

Structural Stability:

Temporary membrane structures, tents, and canopies and their appurtenances shall be adequately braced and anchored to prevent weather-related collapse. Documentation of structural stability shall be furnished to the Fire Chief upon request.

Flame Retardant Treatment and Standards:

1. Side walls, drops, and tops of temporary membrane structures, tents, and canopies shall be composed of flame-resistant material or shall be treated with a flame retardant in an approved manner. Floor coverings, bunting, combustible decorative materials and effects, including sawdust when used on floors or passageways, shall be composed of flame-resistant material or shall be treated with a flame retardant chemical as prescribed by the California State Fire Marshal.
2. The grounds within, outside and adjacent to, and within 30 feet of temporary membrane structures, tents, and canopies shall be kept free and clear of combustible wastes, tall grasses or any other flammable or combustible object materials.

Commercially manufactured and temporary membrane structures, tents, and canopies shall have a permanently-affixed label bearing the following information:

- a. Identification of temporary membrane structure, tent, or canopy, size and fabric or material type;
- b. Flame-resistant materials labeling;
- c. For flame-retardant treated materials, the date that the temporary structure, tent, or canopy and other combustible materials were last treated with an approved flame retardant;
- d. The trade name and type of flame retardant utilized in the flame retardant treatment;
- e. The names of the person and firm that applied the flame retardant.
- f. The seal of California State Fire Marshal.

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Maximum Occupant Capacity:

Occupant capacity requirements shall be in accordance with the provisions of Article 25 of the CFC, and shall be determined by the Fire Marshal once occupant capacity is determined, it shall be posted in a conspicuous location near each entrance and exits. Square feet per person shall be calculated at 7 sq ft without tables and 15 sq ft with tables.

Exits:

1. Exits shall be spaced at equal intervals around the perimeter of the temporary membrane structure, tent or canopy and shall be located such that from any point the distance to an exit is no more than 100 ft.
2. Exits shall be provided in accordance with the following table:

**CFC TABLE 3211-A
 MINIMUM NUMBER OF EXITS AND EXIT WIDTHS FOR
 TEMPORARY MEMBRANE STRUCTURES, TENTS AND CANOPIES***

Occupant Load	Minimum Number Of Exits	Tent or Canopy Exit Opening	Air-supported Structure Exit Opening Size
up to 199	2	72 in.	36 in.
200 to 499	3	72 in.	72 in.
500 to 999	4	96 in.	72 in.
1,000 to 1,999	5	120 in.	96 in.
2,000 to 2,999	6	120 in.	96 in.
Over 3,000	7	120 in.	96 in.

*The total width of means of egress in inches shall not be less than the total occupant load served by a means of egress multiplied by 0.2. Such widths of means of egress shall be divided approximately equally among the separate means of egress.

3. Exit openings from tents shall remain open unless covered by a flame-resistant curtain as follows:
 - a. Curtains shall be free sliding on a metal support. The support shall be a minimum of eight (8) feet above the floor level at the exit. Curtains shall be so arranged that, when open, no part of the curtains obstruct the exit; and
 - b. Curtains shall be of a color, or bear markings that will contrast with, the color of the tent.

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Doors:

Exit doors shall swing in the direction of exit travel. To avoid hazardous pressure loss from air supported structures, such doors shall be automatic closing against operating pressures. Opening force at the door edge shall not exceed 7lbs of pressure.

Maintenance of Means of Egress:

1. The required width of exits, aisles and passageways shall be maintained at all times to a public way.
2. Guy wires, guy ropes, and other support members shall not cross a means of egress at a height of less than eight (8) feet.
3. The surface of means of egress shall be maintained consistent with compliance with ADA requirements.

Exit Illumination and Signage:

1. Means of egress shall be illuminated with light having an intensity of not less than one(1)foot-candle at floor level while the structure is occupied. Fixtures required for means of egress illumination shall be supplied from a separate circuit or source of power when occupant load exceeds 300.
2. 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.
3. Exit signs in temporary membrane structures, tents, and canopies with occupant loads of more than 100 persons shall be of an approved self-luminous type or shall be internally or externally illuminated.

Seating Arrangements and Aisle Spacing:

1. Seating arrangements and aisle spacing shall be in accordance with Article 25 of the Uniform Fire Code and the following:
 - a. For situations without fixed seats, the minimum clear aisle width shall be 36 inches, and where seats, tables, counters, furnishings, displays, and similar fixtures or equipment are placed on one side of the aisle only. A minimum of 44 inches shall be maintained when such fixtures or equipment are placed on both sides of the aisle.
 - b. Aisles shall terminate at a cross aisle, foyer, doorway, or vomitory. Aisles shall not have a dead end greater than 20 feet in length.

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- c. When seating rows have 14 or fewer seats, the minimum clear width between rows shall not be less than 12 inches measured from the back of one seat to the nearest projection of the seat behind. The clear width may be increased as follows:
 - i. For rows of seating served by aisles or doorways at both ends, there shall be no more than 100 seats per row. A minimum clear width of 12 inches between rows shall be increased by 0.03 inch for every additional seat beyond 14, but the minimum clear width need not exceed 22 inches.
 - ii. For rows of seating served by an aisle or a doorway at one end only, the minimum clear width of 12 inches between rows shall be increased by 0.06 inch for every additional seat beyond seven, but the minimum clear width need not exceed 22 inches. In addition, the distance to the point where the occupant has a choice of two directions of travel to an exit shall not exceed 30 feet from the point where the occupant is seated.
- d. When there are more than 300 seats, loose seats, folding chairs, or similar seating facilities that are not fixed to the floor they shall be bonded together in groups of three or more. Bonding of chairs is not required when tables are provided for dining or similar purposes.

Smoking and Open Flames:

Smoking is prohibited in any temporary membrane structure, tent or canopy, or in any adjacent areas where hay, straw, or any other combustible materials are stored or used unless approved by the Fire Marshal. Approved "NO SMOKING" signs shall be conspicuously posted.

Flammable or Combustible Liquids and Liquefied Petroleum Gas (LPG):

1. Flammable-liquid-fuel equipment shall not be used inside temporary membrane structures, tents, or canopies.
2. Flammable and combustible liquids shall be stored outside in an approved manner not less than 50 feet from temporary membrane structures, tents, or canopies.
3. LPG shall be located outside the tent/awning and in accordance with Article 82 Uniform Fire Code. Safety release valves shall be pointed away from temporary membrane structures, tents, or canopies.
4. Refueling shall be performed in an approved location not less than 20 feet from temporary membrane structures, tents, or canopies.
5. Separate permits are required by the Fire District for LPG, Flammable and Combustible liquids, and candles or open flame.

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6. Portable Propane Containers: Each container must be kept outside of the temporary membrane structure, tent or canopy, 10 feet from any combustibles, secured and protected from tampering, tipping over or other hazard or damage.
7. Generators: Generators or other internal combustion power sources must be separated from each temporary membrane structure, tent or canopy by a minimum of 20 feet and be isolated from contact by the public by fencing, enclosure or other approved means and shall have a minimum of a 2A40BC extinguisher per generator. Increased separation distances may be required based on generator fuel tank size.

Housekeeping:

1. Combustible vegetation shall be removed from the area occupied by a temporary membrane structure, tent, or canopy, and from areas within 30 feet of such a structure.
2. Hay, straw, trash, and similar combustible materials shall not be stored inside or within 30 feet of a temporary membrane structure, tent, or canopy (Exception: Hay, straw, and similar combustibles treated with a flame retardant in an approved manner), with prior written approval of the Fire District material testing and flame retardant treatment verification will be required.

Portable Fire Extinguishers: Each temporary membrane structure, tent or canopy must have a fire extinguisher with a minimum rating of 2A:10B:C. The extinguisher must have a current State Fire Marshal's tag attached indicating that it has been serviced within one year of the date listed on the tag. Extinguishers must be placed in a location that is readily available and not blocked in any manner. **Pressurized water fire extinguishers having a 2A rating will be required for solid fuel fired BBQ's in addition to the 2A:10B:C.**

Portable Fire Extinguishers and Other Fire Protection Appliances:

1. Minimum fire extinguisher coverage shall be provided in every temporary membrane structure, tent, or canopy as follows:
 - a. 200 to 500 square feet of floor area: one 2A:10B:C extinguisher;
 - b. 501 to 1,000 square feet of floor area: two 2A:10B:C extinguisher;
 - c. Each additional 2,000 square feet of floor area or fraction thereof: one 2A:10B:C extinguisher.
2. At least one 40B: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.
3. Other fire appliances shall be maintained at the site as may be required by the Fire Marshal.

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4. Electrical: Extension cord use should be kept to a minimum. Fused power strips to plug in appliances are required. Zip cords will not be allowed.
5. A “K” class fire extinguisher is required on site for all deep fat fryers.

Heating and Cooking Equipment:

1. Cooking equipment may be permitted inside tents used exclusively for the cooking of food. No other uses such as public assembly, sales, displays, etc. are permitted. (Exception: The warming of food, cooking demonstrations, or similar activities where the equipment and operations involved do not present an ignition hazard as approved by the Fire Marshal.)
Reference: Novato Fire Protection Standard 119.
2. Only comfort-type heating equipment is permitted. All fuel-fired comfort heating equipment shall be located on the exterior of the temporary membrane structure or tent a minimum of 10 feet away. Heated air shall be ducted from the equipment to the temporary membrane structure or tent. Separate fuel supplies that are in use for comfort-heating equipment shall be located a minimum of 20 feet from the temporary membrane structure or tent. Stored fuel shall be located a minimum of 50 feet from the tent.
3. Heating and cooking equipment shall not be located within 10 feet of exits, exit pathways, tent or canopy fabric, or other combustible materials.
4. All cooking and heating equipment, tanks, piping, hoses, fittings, valves, tubing, and other related components shall be approved and in accordance with the Mechanical Code and listed for such use.

Other Referenced Standards: Events and Outdoor Cooking.