

Tents, Canopies and Other Membrane Structures

PERMIT REQUIREMENTS

- ◆ Tents and membrane structures having an area in excess of 200 square feet and canopies in excess of 400 square feet shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official.

USE PERIOD

- ◆ Temporary tents, air-supported, air-inflated or tensioned membrane structures and canopies shall be used for a period of not more than 180 days within a 12 month period on a single premise.

CONSTRUCTION DOCUMENTS

- ◆ A detailed site and floor plan for tents, canopies or membrane structures with an occupant load of 50 or more shall be provided with each application for approval. The tent, canopy or membrane structure floor plan shall indicate details of the means of egress facilities, seating capacity, arrangement of the seating and location and type of heating and electrical equipment.

INSPECTIONS

- ◆ The entire tent, air-supported, air-inflated or tensioned membrane structure system shall be inspected at regular intervals, but not less than two times per permit use period, by the permittee, owner or agent to determine that the installation is maintained in accordance with this chapter.
Exception: Permit use periods of less than 30 days.

ACCESS, LOCATION AND PARKING

- ◆ Fire apparatus access roads shall be provided in accordance with the following:
 1. Fire apparatus access road shall extend to within 150 feet of all portions of the structure as measured by an approved route around the exterior of the structure.
 2. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches.
 3. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

LOCATION

- ◆ Tents, canopies or membrane structures shall not be located within 20 feet of lot lines, buildings, other tents, canopies or membrane structures, parked vehicles or internal combustion engines. 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.

Exceptions:

1. Separation distance between membrane structures, tents and canopies not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet.
2. Membrane structures, tents or canopies need not be separated from buildings when all of the following conditions are met:
 - 2.1. The aggregate floor area of the membrane structure, tent or canopy shall not exceed 10,000 square feet.
 - 2.2. The aggregate floor area of the building and membrane structure, tent or canopy shall not exceed the allowable floor area including increases as indicated in the *International Building Code*.
 - 2.3. Required means of egress provisions are provided for both the building and the membrane structure, tent or canopy, including travel distances.
 - 2.4. Fire apparatus access roads are provided.

FIRE BREAK

- ◆ An unobstructed fire break passageway or fire road not less than 12 feet wide and free from guy ropes or other obstructions shall be maintained on all sides of all tents, canopies and membrane structures unless otherwise approved by the fire code official.

ANCHORAGE REQUIREMENTS

- ◆ Tents, canopies or membrane structures and their appurtenances shall be adequately roped, braced and anchored to withstand the elements of weather and prevent against collapsing. Documentation of structural stability shall be furnished to the fire code official on request.

SEPARATION OF GENERATORS

- ◆ Generators and other internal combustion power sources shall be separated from tents, canopies or membrane structures by a minimum of 20 feet and shall be isolated

from contact with the public by fencing, enclosure or other approved means.

VEGETATION REMOVAL

- ◆ Combustible vegetation shall be removed from the area occupied by a tent, canopy or membrane structure, and from areas within 30 feet of such structures.

SMOKING

- ◆ Smoking shall not be permitted in tents, canopies or membrane structures. Approved "No Smoking" signs shall be conspicuously posted in accordance with Section

COMBUSTIBLE MATERIALS

- ◆ Hay, straw, shavings or similar combustible materials shall not be located within any tent, canopy or membrane structure containing an assembly occupancy, except the materials necessary for the daily feeding and care of animals. Sawdust and shavings utilized for a public performance or exhibit shall not be prohibited provided the saw dust and shavings are kept damp. Combustible materials shall not be permitted under stands or seats at any time. The areas within and adjacent to the tent or air supported structure shall be maintained clear of all combustible materials or vegetation that could create a fire hazard within 20 feet from the structure. Combustible trash shall be removed at least once a day from the structure during the period the structure is occupied by the public.

FIREWORKS

- ◆ Fireworks shall not be used within 100 feet of tents, canopies or membrane structures.

FIRE EXTINGUISHERS

- ◆ Portable fire extinguishers shall be provided in accordance with the following:

For every 1,500 square feet - One 2- A:10B:C rated fire extinguisher.

Travel distance to any extinguisher shall not exceed 30 feet.

At least one 40B rated fire extinguisher shall be provided for each kitchen, generator, transformer or location with flammable or combustible liquids.

MEANS OF EGRESS

- ◆ Exits shall be spaced at approximately equal intervals around the perimeter of the tent, canopy or membrane structure, and shall be located such that all points are 100 feet or less from an exit.

MINIMUM NUMBER OF MEANS OF EGRESS AND MEANS OF EGRESS WIDTHS FROM TEMPORARY MEMBRANE STRUCTURES, TENTS AND CANOPIES

| OCCUPANT LOAD | MINIMUM NUMBER OF MEANS OF EGRESS | MINIMUM WIDTH OF EACH MEANS OF EGRESS (Inches) | MINIMUM WIDTH OF EACH MEANS OF EGRESS (Inches) |
|-------------------------|-----------------------------------|--|--|
| | | Tent or Canopy | Membrane Structure |
| 10 to 199 | 2 | 72 | 36 |
| 200 to 499 | 3 | 72 | 72 |
| 500 to 999 | 4 | 96 | 72 |
| 1,000 to 1,999 | 5 | 120 | 96 |
| 2,000 to 2,999 | 6 | 120 | 96 |
| Over 3,000 ^a | 7 | 120 | 96 |

EXIT SIGNS

- ◆ Exits shall be clearly marked. Exit signs shall be installed at required exit doorways and where otherwise necessary to indicate clearly the direction of egress when the exit serves an occupant load of 50 or more.

MEANS OF EGRESS ILLUMINATION

- ◆ Means of egress shall be illuminated with light having an intensity of not less than 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.

FLAME-RESISTANT TREATMENT

- ◆ Before a permit is granted, the owner or agent shall file with the fire code official a certificate executed by an approved testing laboratory, certifying that the tents, canopies and membrane structures and their appurtenances, sidewalls, drops and tarpaulins, 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 in an approved manner and that such flame resistance is effective for the period specified by the permit.

- ◆ Membrane structures, tents or canopies shall have a permanently affixed label bearing the identification of size and fabric or material type.

- ◆ An affidavit or affirmation shall be submitted to the fire code official and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to the following information relative to the flame resistance of the fabric:

1. Names and address of the owners of the tent, canopy or air-supported structure.
2. Date the fabric was last treated with flame-resistant solution.
3. Trade name or kind of chemical used in treatment.
4. Name of person or firm treating the material.
5. Name of testing agency and test standard by which the fabric was tested.

HEATING AND COOKING EQUIPMENT

- ◆ Cooking and heating equipment shall not be located within 10 feet of exits or combustible materials.

Tents where cooking is performed shall be separated from other tents, canopies or membrane structures by a minimum of 20 feet.

- ◆ Outdoor cooking that produces sparks or grease-laden vapors shall not be performed within 20 feet from a tent, canopy or membrane structure.

LP GAS

- ◆ Portable LP-gas containers with a capacity of 500 gallons or less shall have a minimum separation between the container and structure not less than 10 feet. Portable LP-gas containers with a capacity of more than 500 gallons shall have a minimum separation between the container and structures not less than 25 feet.

WASTE MATERIAL

The floor surface inside tents, canopies or membrane structures 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.

Temporary Membrane Structures, Tents and Canopies

Fire Marshal's Offices

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