



Presidio Trust Fire Marshal's Office

1750 Lincoln Blvd. San Francisco, California 94129

Date: January 6, 2022

Revision: Sept 11, 2023

Standard: SES-002

Title: Tent and Awning

Approved By: Tomas Kaselionis

SCOPE:

This standard is intended to provide direction for plan submittal and to serve as guide for field inspection. Tents, canopies, and membrane structures shall conform to the provisions of this standard and shall meet the following code requirements:

- [California Mechanical Code \(2022\)](#)
- [International Building Code \(IBC\) \(2021\)](#)
- [International Fire Code \(IFC\) 2021](#)
- [International Mechanical Code \(2021\)](#)
- [National Fire Protection Association, NFPA 1, Fire Code](#)
- [National Fire Protection Association, NFPA 70, National Electrical Code](#)
- [National Fire Protection Association, NFPA 101, the Standard for Life Safety Code](#)
- [National Fire Protection Association, NFPA 701, Standard Methods of Fire Tests for Flame Propagation](#)
- [California Code of Regulations, Title 19, Division 1, Chapter 2, Article 1](#)

1. PERMIT

- 1.1. A [Fire Code Permit Application](#) must be obtained and completed for tents and membrane structures having an area in excess of 400 square feet.
- 1.2. A Temporary Tent shall not be erected, operated, or maintained for any purpose without first obtaining a permit and approval from the Presidio Trust Fire Marshal's Office (FMO).
- 1.3. Tents with no walls under 700 square feet will not require a permit.
- 1.4. The application should be submitted at least 14 days prior to the projected use date.

2. APPLICATION

The following information must be included in the Permit Application:

- 2.1. Site Plan "to scale":
 1. Period of Use – State dates of intended use.
 2. Location of installation – The area of tent(s) installation, including guy wires, support ropes and fire department access roads.
 3. Fire Hydrants – Nearest existing fire hydrant(s).
 4. Dimensions – To property lines, buildings, other tents.
 5. Parking – Automobile parking, including islands (if applicable).
 6. Heating Units – Location of heating units.
 7. LP-Gas – Location of LP-gas cylinders.

8. Wiring – Wiring routing on floors and how secured, protected, and/or ramped.
9. Generators – Location of generators.
10. Equipment – Location of other necessary equipment relating to this event (e.g., trailers, living quarters, vehicles, etc.).
11. Structural Requirements – Certification of structural requirements of tent, (may be required) by a structural, civil, or other qualified registered engineer.

2.2. Floor Plan “to scale” (Include the location(s) of following if applicable):

1. Tables, chairs, bleachers, grandstands, aisles, stages, switchboards, buffets.
2. Fire extinguishers.
3. Exits, exit signs, and exit lighting.
4. Occupant load sign.
5. Electrical power cord routes.
6. Audio/visual cord routes.
7. “No Smoking” signs.
8. Location and type of decorations, including potted plants, fake plants, Christmas Trees, etc., showing three (3) ft. clearance from all contents to fabric envelope.
9. Heaters. Provide information and manufacture cut sheets. No open flame allowed.
10. LP-gas cylinders.
11. Generators.
12. Cooking equipment and other associated equipment.

2.3. A copy of fire-retardant certificates- completely legible (front and back).

3. INSPECTIONS

- 3.1. **PRE-EVENT INSPECTION** – A site inspection is required after the structure has been erected and prior to the event. Contact the Presidio Trust Fire Marshal's Office at **415-561-4006** or **415-745-0319** to schedule an inspection.
 - 3.1.1. The pre-event inspection must be scheduled at least two (2) days prior to the event.
 - 3.1.2. If code compliance problems are found, time must be available for correction.
- 3.2. **CERTIFICATES** – A copy of fire-retardant certificate, completely legible, shall be available during an inspection.
 - 3.2.1. The tent(s) and all decorative materials used in the tent(s) shall be fire retardant material or treated.
 - 3.2.1.1. The California State Fire Marshal label shall be displayed.
 - 3.2.1.2. Proof of flame retardant treatment is required for all tenting, floor coverings, curtains, tablecloths, banners, etc.
- 3.3. **EVENT INSPECTION** – A fire inspection may occur anytime the event is open to the public.
- 3.4. **RE-INSPECTION FEE** – A re-inspection fee may be charged for missed appointments, failure to comply, or the person/s erecting the tent is unprepared for inspection.

4. REQUIREMENTS

- 4.1. **USE PERIOD** – Tents and canopies shall be used for a period of not more than 180 days within a 12- month period for a single premises.
- 4.2. **FIRE APPARATUS ACCESS** – Fire apparatus access shall be capable of supporting the fire apparatus load of 50,000 pounds, have an all-weather driving surface, a minimum 20-foot width, a minimum 13-½ foot vertical clearance, and a minimum center lane 35 foot turning radius.
 - 4.2.1. Fire apparatus access shall be provided in accordance with Section 503 of the International Fire Code.
- 4.3. **LOCATION OF TENTS** – Tents shall not be located within 20 feet 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 guy wires shall be considered as part of the temporary membrane structure, tent or canopy (>15,000 sq. ft. square feet).
 - 4.3.1. Any tent or combination of tents having a floor area in excess of 1,500 square feet, but less than 15,000 square feet shall be located no less than 30 feet (9,144 mm) from any real property line or building.
 - 4.3.2. Any tent or combination of tents having a floor area in excess of 15,000 square feet shall be located no less than 50 feet (15,240 mm) from any real property line or building.
 - 4.3.3. Tents shall be arranged to exit independently of each other. Such tents may, however, be joined together by means of corridors, and such corridors shall be open to the sky.
 - 4.3.3.1. On each side of such corridor and directly opposite each other, there shall be provided openings equivalent to the width of the corridor.
 - 4.3.3.2. These openings shall be equipped with sliding curtains or left entirely open and clear of any obstruction.
 - 4.3.4. An unobstructed passageway no less than 12 feet in width and free from guy ropes or other obstructions shall be maintained on all sides of all tents. (International Fire Code 3103.8.2)
- 4.4. **STRUCTURAL STABILITY** – Temporary membrane structures, tents and canopies and their appurtenances shall be adequately braced and anchored to prevent weather related collapse. Certification of structural stability may be required from a structural, civil, or other qualified registered engineer (International Fire Code 3103.9). Stakes are not to be used on the Presidio Trust unless specifically approved by the Trust.
- 4.5. **FLAME RETARDANT TREATMENTS** – The sidewalls, 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.
 - 4.5.1. Floor coverings, bunting, combustible decorative materials, and effects (curtains, tablecloths, banners, etc.), 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.
 - 4.5.2. Temporary membrane structures, tents or canopies shall have a permanently affixed label bearing the following information:
 - 4.5.3. Identification of temporary membrane structure, tent or canopy, size and fabric or material type.
 - 4.5.4. For flame-resistant materials, the necessary information to determine compliance with this article.
 - 4.5.5. For flame-retardant-treated materials, the date that the temporary membrane structure, tent or canopy and other combustible materials were last treated with an approved flame retardant.
- 4.6. **MAXIMUM OCCUPANT LOAD** – Each room having an occupant load of 50 or more shall have the capacity of the room posted in a conspicuous place on an approved sign near the main exit from the room.
- 4.7. **SEATING ARRANGEMENTS** – Seating arrangements shall be per Chapter 10, Section 1004.6 of the International

Fire Code, and International Building Code.

5. EXITING

- 5.1. Exits shall be in accordance with NFPA 101, Chapter 7 Means of Egress.
- 5.2. Exits shall be spaced at approximately equal intervals around the perimeter of the temporary membrane structure, tent, or canopy and shall be located such that all points are 100 feet or less from an exit.
- 5.3. Every tent and temporary membrane structure, or usable portion thereof, shall have at least one (1) exit and not less than the number of exits required by the following table:

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

OCCUPANT LOAD	MINIMUM # OF EXITS	MINIMUM WIDTH OF EACH MEANS OF	
		x 25.4 for mm	
		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	7	120	96

- 5.4. Exit openings from tents shall remain open during hours of occupation unless the exit opening is provided with a flame-resistant curtain, and:
 - 5.4.1. Curtain is free sliding on a metal support. The support shall be a minimum of eight (8) feet above the floor level at the exit. The curtains shall be so arranged that, when open, no part of the curtains obstructs the exit; and
 - 5.4.2. Curtain is of a color, which contrasts with the color of the tent. (International Fire Code 3103.12.3).
- 5.5. Aisles shall have a minimum width of 44 inches from all exits. Aisle widths shall be increased, based on the occupant load of the tent, to not less than 1 foot of aisle width for each 50 persons served by such aisle at that point (International Fire Code 3103.12.5).
- 5.6. The slope of ramped aisles shall not be more than 1 unit vertical in 8 units horizontal (12.5 % slope) or less.
- 5.7. Handrails shall comply with the height, size, and shape dimensions set forth in the International Building Code, Chapter 10- Means of Egress, Section 1014: Handrails; NFPA 5000, Building Construction and Safety Code.

6. MAINTENANCE OF EXIT

- 6.1. The required width of exits, aisles and passageways shall be maintained at all times in a public way.
 - 6.1.1. Guy wires, guy-ropes, and other support members shall not cross a means of egress at a height of less than 8 feet.
 - 6.1.2. The surface of means of egress shall be maintained in an approved manner.
 - 6.1.3. Exits, aisles and passageways shall not be blocked or have their minimum clear width obstructed in any manner including by persons for whom seating is not available.
- 6.2. 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 (International Fire Code 3103.12.7).
- 6.3. 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.

6.3.1. Exit signs shall have minimum 6-inch-high letters with 3/4-inch stroke above each exit. (International Fire Code 3103.12.6).

6.4. Exit signs in temporary membrane structures, tents and canopies with occupant loads of 50 or more persons shall be of an approved self-luminous type or shall be internally or externally illuminated by fixtures supplied in the following manner:

6.4.1. Two separate circuits, one of which shall be separate from all other circuits, for occupant loads of 300 or less; or

6.4.2. 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 Electrical Code, NFPA 70.

7. SOURCES OF IGNITION

7.1. **SMOKING** – Smoking shall not be permitted in temporary membrane structures, tents, and canopies or in adjacent areas where hay, straw, sawdust, or other combustible materials are stored or used.

7.1.1. NO SMOKING signs shall be conspicuously posted.

7.2. **OTHER SOURCES OF IGNITION** – Fireworks, Open Flames (Candles) and Hot Objects capable of igniting combustible materials shall not be used in or adjacent to a temporary membrane structure, tent, or canopy, unless otherwise approved.

8. HEATING AND COOKING

8.1. Cooking and heating shall be in accordance with NFPA 1 and IFC Sections 3107.12 & 3107.12.1. Cooking and heating equipment, tanks, piping, hoses, fittings, valves, tubing, and other related components shall be approved and in accordance with the International Mechanical Code and be approved by the FMO.

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

8.2. **VENTILATION** – Cooking and heating equipment shall be vented into the outside air, as specified in the California Mechanical Code. Where vents or flues are used, all portions of the temporary membrane structure, tent, or canopy shall be no less than 12 inches from the flue or vent.

8.2.1. Solid-fuel-burning equipment shall be equipped with spark arresters having openings not exceeding 1/4-inch wire mesh.

8.3. **LOCATION** – The following scenarios shall assist in determining the location of the ignition source:

8.3.1. Comfort heating equipment shall not be located within 10 feet of exits, aisles, or passageways.

8.3.2. Comfort heating equipment shall be rigidly supported to prevent overturning and guards shall be provided to protect against ignition of clothing and other combustible material.

8.3.3. All other gas: solid- or liquid-fuel-fired appliances, including, but not limited to, forges, kitchen ranges and stoves, and water heaters, shall be located not less than 50 feet from any tent used as a place of public assemblage.

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

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

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

9. LP GAS

- 9.1. General equipment such as tanks, valves, tubing, and other related components shall be approved and in accordance with IFC Chapter 61, Liquefied Petroleum Gas.
- 9.2. LP-gas containers shall be located outside and in accordance with table 6104.3 of the IFC.
- 9.3. Safety release valves shall be pointed away from the temporary membrane structure, tent, or canopy (International Fire Code 3107.13).
- 9.4. 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.
- 9.5. Electrical cooking and heating equipment shall be in accordance with NFPA 70 and (IFC 3106.6).

10. FLAMMABLE AND COMBUSTIBLE LIQUIDS

- 10.1 Flammable-liquid-fueled equipment shall not be used in temporary membrane structures, tents, or canopies (IFC 3107.14).
- 10.2 Flammable and combustible liquids shall be stored outside in an approved manner not less than 50 feet from temporary membrane structures, tents, and canopies.
- 10.3 Refueling shall be performed in an approved location not less than 20 feet from temporary membrane structures, tents, and canopies.

11. GENERATORS

- 11.1. Generators shall be installed not less than 10 feet from combustible materials and shall be isolated from the public by physical guard, fence or enclosure installed not less than 3 feet away from the internal combustion power source.
 - 11.1.1. Generator fuel shall be stored in an approved safety can away from any source of ignition or combustible materials.
 - 11.1.2. Refueling of generators shall only be done with the machine off and cooled down.

12. ELECTRICAL INSTALLATIONS

- 12.1. Electrical extension cords shall not cross aisles or exit passageways at any time.
 - 12.1.1. Temporary wiring shall be attached to the structure in an approved manner and not extend across aisles, exists or passageways.
 - 12.1.2. Temporary wiring/extension cords shall be supported and protected against physical and accidental damage.

13. HOUSEKEEPING

- 13.1. Vegetation Removal. 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 structures.
- 13.2. Waste Material. 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.
 - 13.2.1. Such waste shall be stored in approved containers until removed from the premises.

14. PORTABLE FIRE EXTINGUISHERS

- 14.1. Portable fire extinguishers shall be provided in accordance with NFPA 1 and NFPA 10.
- 14.2. **Size and Type.** Extinguishers shall have a minimum of 2A:10 BC rating with the State Fire Marshal tags denoting service within the date of service.
 - 14.2.1. All fire extinguishers shall be mounted with approved brackets or as deemed acceptable by the inspecting officer.
 - 14.2.2. A responsible person capable of operating a fire extinguisher shall always be present during the event.
 - 14.2.3. Additional fire extinguishers may be required by the Authority having Jurisdiction (AHJ).

15. FIRE WATCH – STANDBY PERSONNEL

- 15.1. In the opinion of the FMO, when it is essential for public safety in a place of assembly or any other place where people congregate- due to the number of persons, or the nature of the performance, exhibition, display, contest, or activity- the owner, agent or lessee shall employ one or more qualified Fire Watch persons, as required and approved, to be on duty at such place.
 - 15.1.1. Such individuals shall always be subject to the FMO's orders when so employed, shall be in uniform, and remain on duty during the times such places are open to the public, or when such activity is being conducted.
 - 15.1.2. Before each performance or the start of such activity, such individuals shall inspect the required fire appliances provided to see that they are in proper place and in good working order. The individual shall keep diligent watch for fires during the time such place is open to the public or such activity is being conducted and take prompt measures for extinguishment of fires that may occur.
 - 15.1.3. Such individuals shall not be required or permitted, while on duty, to perform any other duties than those specified herein (IFC 3305.5).

16. PUBLIC SAFETY PLAN

- 16.1. The Fire Marshal's Office may require an Emergency Plan to augment required Standby Personnel or Fire Watch.

DEFINITIONS:

2A:10 BC Rating – Fires are categorized into four groups: A- common combustible fires (including burning paper, wood, etc.); B- flammable liquid fires (gasoline, cooking oil, etc.); C- electrical fires; and D- flammable metal fires (including magnesium, sodium, etc.). These numbers are a UL/ULC rating that indicates the amount of firefighting capacity with the square feet covered for the type of fire. Therefore, a 2A:10 BC extinguisher means 2.5 gallons of water (firefighting capacity) for 10 square feet covered for a BC Type fire.

AHJ – Authority having Jurisdiction

Canopy – Any fixed roof-like structure that is self-supporting in whole or in part, but having no sidewalls or curtains other than valances not exceeding 18 in. (455 mm) in depth.

Fire Apparatus Access – A vehicle designed to be used under emergency conditions to transport personnel and equipment or to support the suppression of fires or mitigation of other hazardous situations.

Fire Retardant – A liquid, solid, or gas that tends to inhibit combustion when applied on, mixed in, or combined with combustible materials

Fire Marshal's Office – Fire Marshal's Office.

Flame Retardant Treatment – A treatment to material or apparatus constructed in such a manner that the object will not support flame.

Guy Ropes - Ropes for tensioning, to give stability to free-standing structures used in industry and leisure. These strong ropes are typically made of wire or synthetic mixes design to keep their original length and prevent stretching.

Heat Unit – An appliance that produces heat.

Membrane Structure – A thin layer of construction material; A building or portion of a building incorporating an air-inflated, air-supported, tensioned-membrane structure; a membrane roof; or a membrane-covered rigid frame to protect habitable or usable space.

Tent – A temporary structure, the covering of which is made of pliable material that achieves its support by mechanical means such as beams, columns, poles, or arches, or by rope or cables, or both

RELATED REFERENCES:

[California Mechanical Code \(2022\)](#)

[International Building Code \(IBC\) \(2021\). Chapter 10 Means of Egress, Section 1014: Handrails](#)

[International Mechanical Code \(2021\)](#)

[International Fire Code \(IFC\) \(2021\). Chapter 9 Fire Protection and Life Safety Systems. Section 906 Portable Fire Extinguishers](#)

[International Fire Code \(IFC\) \(2021\). Chapter 31 Tents, Temporary Special Event Structures, and other Membrane Structures](#)

[International Fire Code \(IFC\) \(2021\). Chapter 33 Fire Safety During Construction and Demolition. Section 3305 Precautions Against Fire: Fire Watch](#)

[International Fire Code \(IFC\) \(2021\). Chapter 61 Liquefied Petroleum Gases](#)

[Uniform Fire Code Permit Application Temporary Tents, Canopies & Membrane Structure Permit Application](#)