

## TENT AND MEMBRANE STRUCTURES



KELLER FIRE-RESCUE

FIRE MARSHAL'S OFFICE

These guidelines shall be followed when a group, facility, residential subdivision, or multi-family dwelling unit, within the City of Keller, requests the use of a temporary structure. A temporary structure shall be a tent, canopy, air-supported, air-inflated or tensioned membrane structure.

All Tent and Membrane Structures for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2021 International Fire Code. This guide does not replace, nor supersede any codes and/or ordinances adopted by the City of Keller, or determinations and positions of the Fire Chief or Fire Marshal.

### When Required.

A permit is required when the tent or membrane structure has an area in excess of 400 sq. ft. Section 105.6.24 and 3103.

### Definitions:

**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 or canopy.

**Tent:** A structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

### Tent/Membrane Structure Requirements.

1. A minimum of 20 ft. clear width shall be provided around the tent, and shall be no closer than 20 ft. to lot lines, buildings, other temporary structures, vehicles. Support ropes and guy wires are not included.
2. Anchoring shall be by staking, **water barrels are not permitted for tents or canopies over 400 sf.**
3. The structure shall not be located within a fire lane or public street.
4. Fire apparatus access roads shall be provided.
5. Smoking, cooking or use of open flames in the tent shall not be permitted.
6. Approved "No Smoking" signs shall be conspicuously posted.
7. Exits, with a minimum width of 6 ft. each, shall be provided and kept clear at all times. The number of exits shall be determined by the occupant load and Table 3103.12.2. Exit signs shall be self-luminous or shall be internally or externally illuminated.
8. A minimum of a 12 foot "fire break" shall be provided around the exterior of the tent/membrane structure that is free of guy ropes or other obstructions.
9. Certification or affirmation of the following shall be provided from the manufacturer or providing agency:
  - a. Fire resistance rating provided
  - b. Date last treated
  - c. Type of chemical
10. Hay, straw, shavings or similar combustible materials shall not be located within any tent or air-supported structure. Open flame or other devices emitting flames, fire or heat or any flammable or combustible liquids, gas, or charcoal shall not be permitted under the tent or located within 20 ft., unless specifically approved and permitted.
11. Warming of foods and similar operations using solid flammables or other similar devices that do not pose a fire hazard, shall be permitted.
12. If heating and cooking devices are approved, they shall not be located within 10 ft. of an exit or combustible materials. **For cooking underneath a tent, the tent shall have a fire rating tag affixed to the tent by the manufacturer indicating compliance with NFPA 701. All frying processes shall included a "K" Class Fire Extinguisher.** A minimum of 3 ft. clearance shall be provided from the inside material of the tent, canopy or membrane structure and the interior contents.
13. An affidavit or affirmation shall be submitted to the fire code official and a copy retained on the premises on

which the tent structure is located. The affidavit shall attest to all of the following information relative to the flame propagation performance criteria of the fabric. [Reference 2021 IFC Section 3104.4] Certificate shall include the following information:

- Names and address of the owners of the tent or air-supported structure
- Date the fabric was last treated with flame-retardant solution
- Trade name or kind of chemical used in treatment
- Name of person or firm treating the material
- Name of testing agency and test standard by which the fabric was tested

All applicable requirements of Chapter 31, Tents, Temporary Special Event Structures and Other Membrane Structures shall be met.

To expedite the plan review and inspection processes, please refer to the information listed below.

#### **Submittal Requirements:**

14. Installation, fabrication or otherwise construction of the system is prohibited without approved plans and permit.
15. Each submittal shall have a completed Keller Fire-Rescue Plan Review/Permit Application.
16. Plans approved by the Fire Marshal's Office give authorization for construction. Final approvals are subject to field verification.
17. A detailed site and floor plan shall include the following information:
  - Indicate details of the means of egress
  - Seating or occupancy capacity
  - Exits and exit pathways indicated on the floor plan
  - Use of the tent or membrane structure
  - Will cooking or heating devices be within or near the tent? If so, information regarding the cooking operation shall be submitted concurrent with the permit review
  - Locations of fire extinguishers
  - Fire Department access route and nearest fire hydrants
  - Additional information based upon use and hazards

**Submittals that do not conform to the minimum above requirements will not be approved.**

#### **General Requirements.**

18. Any approval issued by the Fire Marshal's Office does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances relating to the event.
19. All installations must concur with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office.
20. All fire department inspection forms and permits shall be kept in a permit packet on the job site until final inspection.

#### **Inspection Requirements.**

1. The permit shall be valid only for the dates specifically requested and indicated on the issued permit.
2. Installation personnel shall be present for the inspection.
3. Verification of compliance and inspection by the Fire Department shall be required PRIOR to use.
4. All required exits shall be available and kept clear.
5. Fire extinguishers must be kept in place and operable.
6. Fire resistance label legible and affixed to the tent by the manufacturer.
7. No combustibles or heating/cooking devices within the tent, unless specifically requested, approved and permitted by code.
8. Additional inspections based upon the use and hazards.