

General Requirements for the Use of Temporary Stage Canopies, Tents, and Temporary Membrane Structures On Iowa State University Property

General Information

Iowa State University (ISU) is subject to the *2015 International Fire Code (IFC)*. Environmental Health and Safety (EH&S) uses this document as well as the *IFAI Procedural Handbook for the Safe Installation & Maintenance of Tentage* as a reference for inspections. All temporary structures erected on ISU campus property will adhere to these codes and standards. No temporary structure shall not be erected on Iowa State University property, operated or maintained for any purpose without first obtaining a permit and inspection approval from the Iowa State University EH&S Fire Safety Officer. *IFC 3103.2*

Temporary Structures Affected

- Tents or awning structures that are 400 square feet in size or larger.
- Stages or platforms that are 24 inches or more above ground level or having an awning or canopy.
- Inflatables or membrane structures.
- Amusement occupancies such as escape rooms, and haunted houses.

Definitions *Chapter 2 IFC 2015*

1. Authority Having Jurisdiction (AHJ) – The Environmental Health and Safety Fire Safety Officer or other designated authority charged with the administration and enforcement of the code or a duly authorized representative.
2. Membrane Structure – An air inflated, air-supported, cable or frame-covered structure as defined by the *International Building Code (IBC)* and not otherwise defined as a tent. See Chapter 31 of the *International Building Code*.
3. Noncombustible Material – A material that, in the form in which it is used and under the conditions anticipated will not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat. Tents will have a testing certification tag of noncombustibility.
4. Temporary – Any structure not meant for use for more than 180 days within a 12 month period on a single premises.
5. Temporary Stage Canopy – A temporary ground supported membrane-covered frame structure used to cover stage areas and support equipment in the production of outdoor entertainment events.
6. Tent – A structure, enclosure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

Permitting Requirements

1. Tents and membrane structures will be designed to meet the requirements in *IFC 2015* as prescribed in this document.
2. Submit the [Request for Temporary Structure Permit](#) form for AHJ approval. The request must be submitted to EH&S not less than five business days in advance of erecting any structure on Iowa State Property. An approval for the event from the Event Authorization Committee EH&S representative will not be given until the request has been filed.
3. Temporary structures meeting all pre-approved design requirements will be inspected by the AHJ or a designated representative for permitting prior to use or occupancy. The installation contractor must contact the inspector 30 minutes before leaving the site and stand by to meet the inspector until the structure is cleared for occupancy. To fulfill their contractual requirements they will be expected to make the structure code compliant before the Inspector signs off on the installation. It is the responsibility of the event planner to ensure that the contractor is aware of this requirement.
4. A Temporary Certificate of Occupancy signed by the AHJ along with a copy of all original documents will be maintained at EH&S for the duration of the structure's use.

Installation and Use Requirements for Contractors and Event Users

1. The placement of tents relative to other structures shall be at the discretion of ISU Facilities Planning and Management and the AHJ with consideration given to occupancy, use, opening, exposure, and other similar factors.
2. No portion of any temporary structure may obstruct sidewalks, drive lanes, fire lanes, or pedestrian walkways.
3. Heating devices intended to be used inside tents or membrane structures must be noted on the permit application and approved by the AHJ. Gas, liquid and solid fuel-burning equipment designed to be vented
4. The electrical system and any equipment shall be isolated from the public by proper guarding, and all electrical fuses and switches shall be enclosed in the approved enclosures. Unprotected cables shall not be on placed on the ground in areas traversed by the public creating trip hazards or electrical shock. All wiring shall comply with *NFPA 70, National Electric Code*. Planned electrical equipment will be noted on the approval application for review.
5. Membrane structures shall be limited to one story in height. However, height shall not be limited in number of feet unless otherwise ruled by the AHJ.
6. Tents or membrane structures and their appurtenances shall be adequately roped, braced, and anchored to withstand the elements of weather and prevent against collapsing up to 40 MPH winds and 1" snow load as prescribed by the *IFAI Procedural Handbook for the Safe Installation & Maintenance of Tentage* Documentation of structural stability shall be furnished to the AHJ upon request. *IFC 3103*

Note: The *IFAI Procedural Handbook for the Safe Installation & Maintenance of Tentage* should be adhered to and used as the standard for all tent installations on ISU campus property.

7. Exits shall be spaced at approximately equal intervals around the perimeter of the tent or membrane structure, and shall be located such that all points are 100 feet or less from an exit. *IFC 3103.12.1*
8. Exit doors shall swing in the direction of exit travel. *IFC 3103.12.4*
Note: See *IFC 3103.12.4* for further specifications on doors in air supported membrane structures.
9. 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. *IFC 3103.12.6.*
10. The number of exits and exit width and location for all enclosed tents shall be approved by the AHJ
11. All tents greater than 400 square feet shall have at least one 5 pound (minimum 2A10BC), multipurpose (ABC) fire extinguisher for each 3,000 SF or portion thereof. *IFC 3104.12*
12. Heating and cooking equipment shall be used and installed in accordance with sections 3104.15.1 through 3104.15.7 *IFC 3104.15*
13. All cooking equipment must be attended at all times.
14. Outdoor cooking that produces sparks or grease laden vapors shall not be performed within 20 feet of a tent or membrane structure. *IFC 3104.15.6*
Specifically (*Wood fires - Gas Grills - Charcoal Grills - Turkey fryers*)
15. Operations such as warming of foods, cooking demonstrations, and similar operations that use solid flammables, butane or other similar devices that do not pose an ignition hazard are approved. *IFC 3104.15.4*
16. Heating and cooking equipment shall not be located within ten feet of exits or combustible materials. Tents with sidewalls or drops where cooking is performed shall be separated from other assembly tents or membrane structures by not less than 20 feet. *IFC 3104.15.5*
17. The storage, handling and use of LP-gas and LP-gas equipment shall be in accordance with *IFC 3104.16, Sections 3104.16.1 through 3104.16.3.*
18. Generators and other internal combustion power sources shall be separated from tents or membrane structures by not less than 20 feet and shall be isolated from contact with the public by fencing, enclosure or other approved means. *IFC 3104.19*
19. Combustible waste shall be stored in approved containers and be removed from the premises at least once a day during the period the structure is occupied by the public. *IFC 3104.22*
20. Smoking, ground, and/or open pit fires to include burn barrels are prohibited on ISU grounds.