Tents and temporary structures permit requirements

Introduction

Tents and membrane structures must meet requirements for:

- Structural strength
- Fire safety
- Means of exit
- Accessibility
- Light
- Ventilation
- Sanitation

Minnesota State Codes may require the following permits for tents. The applicant must get all required permits.

- Building permit
- Electrical permit
- Mechanical permit
- Plumbing permit
- Special event permit
- Temporary use permit

Read Minnesota State Fire Code, Chapter 31
Read Section 3103 of the Minnesota State Building Code and the Minnesota Electrical Code

Definitions

Tent: Any structure, enclosure or shelter, with or without side walls or drops, constructed of fabric or pliable material, supported by any manner except by air or contents that it protects.

Air-inflated structure: A structure that uses air-pressurized membrane beams, arches or other elements to enclose a space. People in the tent do not occupy the pressurized areas.

Air-supported structure: The shape of the structure is achieved by air pressure. People in the tent can be within the elevated pressure area.

Membrane-covered frame structure (canopy). The structure is made from a rigid framework. This supports the membrane. The membrane creates a weather barrier.

Membrane-covered cable structure. A mast and cable system provides support and tension to the membrane. The membrane provides stability.

How to submit your application

Application and fees: Permit applications can be submitted to Minneapolis Development Review. All fees must be paid at the time of application.

- See the list of fees

Deadlines: Permit application must be submitted a minimum of five days before the event. Late fees may be charged.

Inspections: A site inspection prior to the event may be required after the structure(s) have been built, and all of the interior components are set-up.

Permits: Tents and membrane structures intended to be erected for less than 180 days must comply with the Minnesota State Fire Code and require a Special Event Permit from Fire Inspection Services. The requirements are listed below.

- See the Minnesota State Fire Code
- See the special event permit

The following also require a building permit even if they are built for less than 180 days:

- Structures on buildings, balconies, decks, raised floor systems or other structures
- Store-front systems
- Solid wall panels
- Thermal roof structures

You may be required to submit plans with the stamp/signature of a Minnesota licensed architect or civil engineer and a signed statement certifying that the tent installation meets the NFPA code requirements.

A separate permit is required for each of the following:

- Fireworks
- Bonfires
- Liquefied petroleum (LP) gas tanks
- Open flames

Accessibility, parking, seating, signage, entry and exiting for people with disabilities must be in compliance with Chapter 1341 of the Minnesota State Building Code.

Read Minnesota State Building Code Chapter 1341

Depending on the size and complexity of the structure, a fire watch may be required. This is determined by the Minneapolis Fire Inspection Services.

Permit application requirements

Include the following with your application.

1. Drawing information requirements: Attach a CAD site plan drawn to a minimum 1/8 inch scale with symbol legend and compass. Electronic media documents are allowed to be submitted. A minimum of three sets of plans must be submitted for review and approval. All documents must be of sufficient clarity to indicate the following:
    A. Plot plan showing boundaries of the property, location and dimensions of the tent on the property, location and distance to the nearest fire hydrant.
    B. Location of all buildings, structures, dumpsters, signs, surface materials and temporary food businesses, i.e., food trucks, in the vicinity, as applicable.
    C. Temporary fence and/or wall perimeters including height and type, entry and exit checkpoints, dimensions, openings, aisles, and exit routes to the public way including overhead pedestrian walkways.
    D. Street closures/barricades.
    E. Specific areas for parking of vehicles.
    F. The location, size, and intended use of all tents and temporary membrane structures, including vendor tents, booths, tables, displays, music venues, seating and standing room only (SRO)-capacities, stages and staging area(s).
    G. The location and number of cooking tents.
        a. Any cooking operation conducted requires an exhaust hood and fire extinguisher.
        b. A minimum 20-foot separation is required from other tents and membrane structures.
        c. Outdoor cooking operations that produce sparks or grease-laden vapors must be located a minimum of 20 feet from other tents and membrane structures.
        d. 20 Foot Exception: Distances may be reduced upon review and approval from the Fire Inspection Services Manager or designee.
    H. Detailed or scaled floor plans for tents or membrane structures having an occupant load of 50 or more must indicate the following:
        a. Locations and dimensions of tables
        b. Proposed seating arrangements and standing room only areas. Include seating capacity, maximum seating in each section, and aggregate seating at any one time
        c. Locations and type of all other interior obstacles (stages, furnishings, etc.)
        d. Locations and dimensions of exits
        e. Details of the means of exit; Locations of all emergency exit pathways must be maintained at all times. Means of exit must meet Chapter 3103.12.2 of the Minnesota State Fire Code.

        See the Minnesota State Fire Code

f. Locations and type of exit signs; Exit signs must be provided in accordance with the Minnesota State Fire Code.

See the Minnesota State Fire Code

g. Locations and type of emergency lighting, including proposed power source(s)
h. Locations of portable fire extinguishers
i. Type of floor surface proposed

I. Location and type of heating and electrical equipment. Electrical plans must show the power source, layout of lighting and power cords.
J. The change in grade for a minimum of 20 feet around perimeter of temporary structures or assembly areas (whichever is greater) in any exit route to the public way.
K. Location and width of all fire apparatus emergency entry and exit roadways.
L. Locations of any additional emergency equipment such as generators, electrical power or emergency power supplies if required.
M. Locations, types, and sizes of fire extinguishers. Properly tagged fire extinguishers must be placed in each tent. Proper signage must be verified. Fire extinguisher types include the following:
    a. Class ABC for ordinary combustible
    b. Minimum sizes 10A-60BC for ordinary hazard combustibles
    c. 40 lb. Class-K for deep fry units
N. Signed and stamped specifications and drawings for bleachers, platforms, risers, and performance areas, including occupancy, loads, and structural details for all imposed loads and anchorage points, if applicable.

2. Structural, Wind-uplift, Fire Resistance, Flame Spread and Smoke Data for Each Tent or Membrane Structures Requirements. Submit the following:
    A. Snow-load data
    B. Fire resistance, flame and smoke spread/development data
    C. Wind-uplift data
3. Material Safety Data Sheets, as applicable.
4. Severe Emergency Weather Plan Requirements. Provide the following:
    A. Emergency action plans for severe weather
    B. EMS action plan
    C. Fire action plan
    D. Sheltering in place for all exterior and interior venues
    E. Standard protocols for Internal venues follow standard protocols
5. Utility Plans Required.
    A. Identify all utility power supplies and/or electrical services, disconnects, grounded. GFCI protection is required on all 110 volt circuits, including lighting.
    B. Identify generator installation and grounding
    C. Emergency exit lighting is required in any an enclosed areas having an occupant load of 50 or more occupants.

D. Extension cords must be properly sized, trip hazard protection, and intact 3-prong plug on each end. Connections must be made above grade and protected.
E. State electrical permit(s) required.

See electrical permits through the State of Minnesota

6. Ushering and Security Training and Procedure Manual(s) Requirements. Provide the following:
   A. Procedures for handling overflow, overcrowding and maintaining exits
   B. Maximum attendance, maximum number seated and maximum standing room only
   C. Protocols for additional temporary or folding chairs; Indicate how many additional chairs
   D. Security procedures, timeframes and staff
   E. Handling procedures and protocols for Emergency Medical Situations (EMS)
   F. Procedures and protocols for Fire and EMS notifications.
7. Commercial Recycling Plans Required. Provide compliance details complying with the City of Minneapolis Code of Ordinance 174.435 which requires convenient sites for the deposit, collection and hauling of all recyclable materials.

Code requirements

Areas without fixed seating: The number of occupants must be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.2 of the Minnesota State Building Code. For areas without fixed seating, the occupant load must not be less than the number determined by dividing the floor area under consideration by the occupancy as listed below. If not listed below, the Fire Inspection Division must determine the square footage factor to be used to calculate the occupant load.

Read the table in the Minnesota State Building Code

Assembly areas without fixed seating
Concentrated (chairs only): 7 net
Standing space: 5 net
Concentrated (tables and chairs): 15 net
Anchorage required. Tents or membrane structures and their features must be adequately roped, braced, and anchored to withstand the elements of weather and prevent against collapsing.

Combustible materials: Hay, straw, shavings, or similar combustible materials must not be located within the tent or temporary membrane structure containing an assembly occupancy, except the materials necessary for the daily feeding and care of animals. Sawdust and shavings utilized for the public performance or exhibit must not be prohibited, provided the sawdust and shavings are kept damp. Combustible materials must not be permitted under stands of seats at any time.

Compressed gas cylinders: All compressed gas cylinders must be contained, secured and protected against tampering.

Display of motor vehicles.: The display of motor vehicles must meet the following:

1. Batteries must be disconnected in an appropriate manner.
2. Vehicles or equipment must not be fueled or defueled within the tent, or membrane structure.
3. Fuel in the fuel tank must not exceed one-quarter of the tank capacity or five gallons, whichever is less.
4. Fuel systems must be inspected for leaks.
5. Fuel tank openings must be locked and sealed to prevent the escape of vapors.
6. The location of vehicles or equipment must not obstruct means of exit.
7. When a compressed natural gas (CNG) or liquefied petroleum gas (LP-gas) powered vehicle is parked inside a place of assembly, all the following conditions must be met:
    A. The quarter-turn shutoff valve or other shutoff valve on the outlet of the CNG of LP-gas container must be closed and the engine must be operated until it stops. Valves must remain closed while the vehicle is indoors.
    B. The hot lead of the battery must be disconnected.
    C. Dual fuel vehicles equipped to operate on gasoline and CNG or LP gas must comply with this section and sections CFC, Chapter 24 for gasoline powered vehicles.

    Read the CFC, Chapter 24

8. Liquid and gas fueled vehicles and equipment used for competition or demonstration within a tent or temporary membrane structure must comply with the following:
    A. Fuel for vehicles or equipment must be stored in approved containers in an approved location outside of the structure no less than 50 feet from tents or canopies.
    B. Refueling must be performed outside of the structure no less than 20 feet from tent or canopies.
    C. Fuel spills must be cleaned up immediately.

Doors: Exit doors must swing in the direction of exit travel.

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

Exit sign illumination: Exit signs must be either listed and labeled self-luminous type or must be internally or externally illuminated by luminaries supplied in the following manner:

1. Two separate circuits, one of which must be separated from all other circuits, for occupant loads of 300 or less; or
2. Two separate sources or power, one of which must be an approved emergency system, must be provided when the occupant load exceeds 300. Emergency systems must be

supplied from storage batteries or from the onsite generator set, and system must be installed in accordance with the Minnesota Electrical Code. The emergency system provided must have a minimum of duration of 90 minutes when operated at full design demand.

Flame resistance: All tents manufactured for sale, sold, rented, offered for sale, or used in Minnesota must be made from non-flammable material or one of the following flame-resistant fabrics or materials approved by the State Fire Marshal. Tents and Membrane structures must have a permanently affixed label bearing the identification of size fabric or material type. A certificate of flame resistance/retardant are often included with the tent or can be obtained from the manufacturer.

1. Fabrics complying with the State Fire Marshal's requirements for flame resistance for exterior use.
2. Fabrics complying with the flame-resistance required set forth in CPAI-84 (A Specification for Flame Resistance Materials Used in Camping Tentage).

Flammable and Combustible Liquids: The storage of flammable and combustible liquids and the use of flammable-liquid-fueled equipment must comply with the following:

1. Use: Flammable-liquid-fueled equipment must not be used in tent or membrane structures.
2. Flammable and combustible liquid storage: Flammable and combustible liquids must be stored outside in an approved manner not less than 10 feet from tents and temporary membrane structures or any ignition source.
3. Refueling: Refueling must be performed in an approved location not less than 20 feet from tents and membrane structures.

Generators: Generators and other internal combustion power sources must be separated from tents or temporary membrane structures by a minimum of 20 feet and must be isolated from contact with the public by fencing, enclosure, or other approved means. The generator and electrical must be in accordance with the following:

1. System must be isolated from the public by fencing, or other approved method.
2. All electrical controls, breakers, fuses and switches must be enclosed in approved enclosures.
3. All electrical systems must be properly grounded.
4. Extension cords must be of a grounded type and approved for exterior use. Extension cords on the ground or in areas traveled by the public must be placed in trenches or protected by approved covers (i.e., electrical bridges).
5. Generators must not be refueled during event hours. Extra fuel must not be stored during event hours.
6. Smoking and open flames must be prohibited within 25 feet of refueling operations.
7. Each generator must be provided with a fire extinguisher with a minimum 40B:C rating. The extinguisher must be located near the generator and accessible at all times.

Read more about generators

Heating and cooking equipment. Heating and cooking equipment must be in accordance with the following sections:

1. Installation: Heating or cooling equipment, tanks, piping hoses, fittings, valves, tubing, and other related components must be installed as specified in the Minnesota Building /Mechanical Code.
2. Venting: Gas, liquid and solid fuel burning equipment designed to be vented must be vented to the outside air as specified in the Minnesota Building/Mechanical Code. Where vents or flues are used, all portions of the tent or temporary membrane structure must be not less than 12 inches from the flue or vent.
3. Location: Cooking and heating equipment must not be located within 10 feet of exits or combustible material.
4. Operations: Operations such as warming of foods, cooking demonstrations and similar operations that use solid flammables, butane or other similar devices which do not pose an ignition hazard, must be approved.
5. Cooking tents: Tents where cooking is performed must be separated from other tents and temporary membrane structures by a minimum of 20 feet.
6. Outdoor cooking: Outdoor cooking that produces sparks or grease laden vapors must not be performed within 20 feet of a tent or temporary membrane structure.
7. Electrical heating and cooking equipment: Electrical cooking and heating equipment must comply with the Minnesota Electrical Code.

Maintenance of means of exit. The required width of exits, aisles, and passageways must be maintained at all times to a public way, or safe dispersal area. Guide wires, guide ropes, and other support members must not cross a means of exit at a height of less than eight feet. The surface of means of exit must be maintained in an approved manner.

Means of exit illumination. Means of exit must 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 exit illumination must be supplied from a separate circuit or source of power. Means of exit illumination must be provided for 50 or more persons.

Membrane structures on buildings. Membrane structures that are erected on buildings, balconies, decks or other structures must be regulated as permanent membrane structure in accordance with Section 3102 of the Minnesota State Building Code.

Posting of occupant load. Every room or space that is assembly occupancy must have that occupant load of the room posted in a conspicuous place.

Open flames. Open flame or other devices emitting flame, fire, or heat or any flammable or combustible liquids, gas, charcoal or other cooking device or any other unapproved devices must not be permitted inside or located within 20 feet of the tent or temporary membrane structure while open to the public unless approved.

Portable fire extinguishers. Provide one minimum 2A:10B:C fire extinguisher every 75 feet of travel distance. The top portion of the portable fire extinguishers must be mounted between three and five feet above the floor. All fire extinguishers must be serviced and tagged annually by a licensed contractor.

Pyrotechnic displays. Fireworks or special effects must not be used within 100 feet of tents and temporary membrane structures. A separate application is required.

Seating arrangements. Seating in tents or other membrane structures must be in accordance with Chapter 10 of the Minnesota State Fire Code. Detailed plans must be part of your application.

See the Minnesota State Fire Code

Table 3103.12.2 - Minimum Number of Means of Exit and Means of Exit Widths from Temporary Membrane Structures and Tents

Capacity (inches)	Occupant Load	Minimum Number of Means of Exit	Minimum Width of Each Means of Exit
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
Capacity (inches)	**Occupant Load**	**Minimum Number of Means of Exit**	**Minimum Width of Each Means of Exit**
Over 3,000	7	120	96

When the occupant load exceeds 3,000, the total width of the means of exit (inches) must not be less than the total occupant load multiplied by 0.2 inches per person.

Setup and teardown.

1. Permits must be obtained by installing contractor
2. Identify installers, State License numbers
3. Post Start and End Dates
4. Display Permit Holder Information

Smoking. Smoking must not be permitted in tents or temporary membrane structures. Approved “no smoking” signs must be conspicuously posted throughout the structure.

Spot lighting. Spot or effect lighting must only be by electricity, and all combustible construction located within six feet of such equipment must be protected with approved noncombustible insulation not less than 9.25 inches thick.

Standby personnel. When, in the opinion of the Fire Inspections Division, it is essential for public safety in a tent or temporary membrane structure used as a place of assembly or any other use where people congregate, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity, the owner, agent, or lessee must employ one or more qualified persons, as required and approved, to remain on duty during the times such places are open to the public, or when such activity is being conducted.

1. Before each performance or the start of such activity, standby personnel must 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 occur and assist in the evacuation of the public from the structure.
2. There must be trained crowd managers or crowd manager supervisors at a ratio of one crowd manager/supervisor for every 250 occupants.

Vegetation removal. Combustible vegetation must be removed from the area occupied by a tent or temporary membrane structure, and from areas within 50 feet of such structure.

Contact us

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