



City of Willowick Bureau of Fire Prevention

30435 Lakeshore Blvd. • Willowick, OH 44095 • Phone: 440-585-1202 • Fax: 440-585-4112
Fire Marshal, Terry Simonian

CODE COMPLIANCE GUIDELINE Tents, Canopies and Membrane Structures

PURPOSE

To provide information on plan submittal and other general requirements regarding the use of tents, canopies and membrane structures according to the 2007 Ohio Fire Code (OFC). **Note: Because of the unique circumstances created by cooking operations in or adjacent to temporary tents, canopies or membrane structures, a separate bulletin has been created. Please refer to Willowick Bureau of Fire Prevention Information Bulletin "Cooking Guidelines for Outdoor Special Events".**

DEFINITIONS

Air Supported Structure. A structure wherein the shape of the structure is attained by air pressure and occupants of the structure are within the elevated pressure area.

Canopy. A structure, enclosure or shelter constructed of fabric or pliable materials supported by any manner, except by air or the contents it protects, and is open without sidewalls or drops on 75 percent or more of the perimeter.

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. See Chapter 31 of the International Building Code.

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.

GUIDELINES

1. *When is approval required to set-up, operate or maintain a tent, canopy, or membrane structure?*

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 receiving approval from the Willowick Zoning Official, Willowick Fire Code Official and Lake County Building Code Official.

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies open on all sides which comply with all of the following:
 - 2.1. Individual canopies having a maximum size of 700 square feet.
 - 2.2. The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet, not exceeding 700 square feet total.
 - 2.3. A minimum clearance of 12 feet to all structures and other tents.

2. *Once I have determined that approval is required, what are the steps I need to take to obtaining it?*

- (1) Your first step will be to visit the local zoning official and apply for a "Zoning Certificate". Contractors not registered with the City will be required to do so at this time.
- (2) Once approved by zoning, you will be required to visit the local fire department and complete a Temporary Structure(s) Application.
- (3) After steps one and two have been completed, you will need to apply for a building permit through the Lake County Building Department. In order for a building permit to be issued, construction plans must be submitted for review and approval. It is highly recommended that you review the **Specific Fire Code Requirements** contained within this document prior to the preparation of construction documents. Having

the required information on your plans at the time of submittal will avoid any unnecessary delays associated with deficient documents.

3. *What information / documentation will be required when applying for the building permit?*

- (1) A copy of the Zoning Permit from the Willowick Zoning Official.
- (2) A completed building permit application including set up, duration and dismantling dates.
- (3) Flammability certification(s) for the fabric/membrane of the temporary structures.
- (4) Five copies (5) of a detailed site map/diagram(s) (4 copies to Lake County Building Department and 1 copy to Willowick Fire Department) including:
 - Location and dimensions of all temporary structures
 - Locations and dimensions of lot lines within 50 feet of all sides of the temporary structure
 - Uses within all temporary structures (e.g. cooking, dining, games, first aid, etc.)
 - Proposed locations of any furniture (tables, chairs, stages, etc.) or related items
 - Locations of all fire extinguishers
 - Locations and dimensions of all required aisles and exits (for occupant loads of 50 or more).
 - Locations and distances to all permanent structures within 50 feet of all sides of the temporary structures
 - Locations of all adjacent vegetation and/or other combustible materials
 - Locations of fire lanes/fire department access roads
 - Locations, sizes and types of any flammable/combustible liquid/gas tanks (e.g. propane tanks)
 - Locations and types of any/all heating equipment
 - Locations and types of all electrical equipment

4. *Once approved, who will be issued the building permit?*

The building permit will be issued to the general contractor who must be registered with the Lake County and City of Willowick Building Departments.

SPECIFIC FIRE CODE REQUIREMENTS

1. Fire Access Roads (Fire Lanes): *When are they required?*

If any rides, concession stands, or other structures are greater than 150' from a dedicated road or street, then a fire apparatus road shall be provided. The intent of this requirement is to provide the fire department sufficient access to buildings to enable efficient fire suppression and rescue operations.

Fire access roads shall have an unobstructed width of 20' and an unobstructed vertical clearance of 13' 6". Fences or barricades must be approved in advance by the fire code official.

2. **Location of Temporary Structures: Do tents, canopies or membrane structures have to be separated from other temporary structures and/or buildings?**

Yes, but there are exceptions. In general, tents, canopies or membrane structures shall be separated by a minimum of 20 feet from lot lines, buildings, other tents, canopies or membrane structures, parked vehicles or internal combustion engines. When determining the required distances, support ropes and guy wires shall be considered as part of the structure. By requiring 20 feet of clear ground around the structure, you are reducing the likely-hood that flying embers created by a fire would endanger other structures or public traffic ways.

Exceptions to the separation requirements are as follows:

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 and 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 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.

3. **Fire Breaks: When do I have to provide a fire break?**

When the fire code official determines that a tent, canopy or membrane structure presents a significant or unusual life or fire hazard, a fire break passageway of not less than 12 feet shall be created and maintained on all sides of the temporary structure. The intent of this provision is to provide easy access for emergency personnel and/or to create an open space into which flaming embers or other debris can fall without endangering other structures or public traffic ways. (See Code Compliance Guideline "Cooking Regulations for Outdoor Special Events").

4. **Anchorage Requirements: Why is anchorage required and who is responsible for assuring that tents, canopies or membrane structures are installed and anchored properly?**

The fire and building codes require that tents, canopies or membrane structures and their appurtenances 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. Normally, this information should be made available by your tent purveyor and/or general contractor.

5. **Smoking: Can the occupants of a tent, canopy or membrane structure smoke?**

No. Smoking is not to be permitted in tents, canopies or membrane structures. Allowing occupants to smoke within the structure creates an ignition hazard that cannot be easily controlled or monitored. Because smoking is prohibited, approved "No Smoking" signs shall be conspicuously posted in all structures where the public can be expected to gather and or other areas where an ignition hazard exists. In areas where smoking is permitted, suitable noncombustible ash trays or match receivers shall be provided on each table and at other appropriate locations.

6. **Open or Exposed Flames: What does this requirement refer to and how does it regulate what I'm allowed to do within or near a tent, canopy or membrane structure?**

This requirement addresses open flame or other devices emitting flame, fire or heat or any flammable or combustible liquids, gas, charcoal or cooking device or any other unapproved devices. Devices of this type are not permitted inside or located within 20 feet of the tent, canopy or membrane structures while open to the public unless approved by the fire code official.

7. **Fireworks: Are there specific requirements for the use of fireworks?**

The only time fireworks are permitted is when they are part of a pre-approved firework exhibition. Separate permits are required.

8. **Spot Lighting: Can spot lights or lighting effects be used within tents, canopies or membrane structures?**

Yes, provided that the device(s) are electric and all combustible construction located within 6 feet of such equipment is protected with approved noncombustible insulation not less than 9.25 inches thick. Spotlights can generate considerable heat and must be protected accordingly to prevent them from becoming an ignition hazard.

9. **Portable Fire Extinguishers General (i.e. those not used for protection of cooking equipment): Where are fire extinguishers required and what type?**

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

- For every 3,000 square feet – provide one 2A:20BC (ABC) rated fire extinguisher.
- Travel distance to any extinguisher shall not exceed 75 feet.
- At least one 40 B rated fire extinguisher shall be provided for each generator, transformer or location with flammable or combustible liquids.
- Fire extinguishers shall be located in conspicuous locations where they will be readily accessible and immediately available for use.
- Fire extinguishers for cooking operations are addressed in a separate document. (See Code Compliance Guideline "Cooking Regulations for Outdoor Special Events").

10. **Flammable and Combustible Liquids: What regulations apply to the storage, handling and use of flammable and combustible liquids in tents, canopies or membrane structures?**

Because of the unique nature of the structures regulated, it is vital that the storage, handling and use of hazardous materials in or around such structures be carefully regulated. With that said, the use of flammable-liquid-fueled equipment shall not be permitted in tents, canopies or membrane structures. Flammable and combustible liquids shall be stored outside in an approved manner not less than 50 feet from tents, canopies or membrane structures. Refueling of equipment shall be performed in an approved location not less than 20 feet from the structures.

11. **Electrical: What requirements need to be met for electrical installations and/or appliances?**

All outside electrical receptacles, switches, and associated equipment shall be of the type approved for damp or wet locations and installed in accordance with NFPA 70 National Electric Code. Separate permits through the Lake County Building Department are required.

12. **Generators: Do generators require any special separation distances and do they need to be isolated from the public?**

The answer to both questions is yes. Generators and other equipment driven by internal combustion engines must be kept separate from the membrane structure by a minimum of 20 feet to minimize fire hazards should the generator or other equipment fail and catch fire. The isolation requirement is intended to keep both the public from coming in contact with hazardous equipment and protect the equipment from vandalism or accidental damage by the public.

13. *Waste Material: What are the housekeeping requirements for tents, canopies or membrane structures?*

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 and/or vegetation. Combustible waste shall be stored in approved containers until removed from the premises.



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Bureau of Fire Prevention**

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TEMPORARY STRUCTURE APPLICATION Form

General Information

(All entries must be made by the applicant, typed or in ink.)
Location, ownership and detail must be correct, complete and legible.

This permit does not authorize installation of any electrical or mechanical systems. Separate permits are required.

Set-up Address
Number & Street : _____

Location on Property (parking lot, etc.): _____

Owner : _____ Ph. _____
Name Street Address City State Zip

Contractor : _____ Ph. _____
Name Street Address City State Zip

Description of Work: _____

Name or Type of Event: _____

Sponsor/Owner: _____

Contact Person: _____ Phone No. _____

Date(s) of Event: _____ Time(s): _____

Cooking in Tents: Yes No
Using Electricity: Yes No
(If yes, Electrical Permit is Required from Lake County Building Dept.)

Tent Set-up Date: _____ Tent Set-up Completion Time: _____

FIRE INSPECTION IS REQUIRED

Approved by: _____ Date: _____

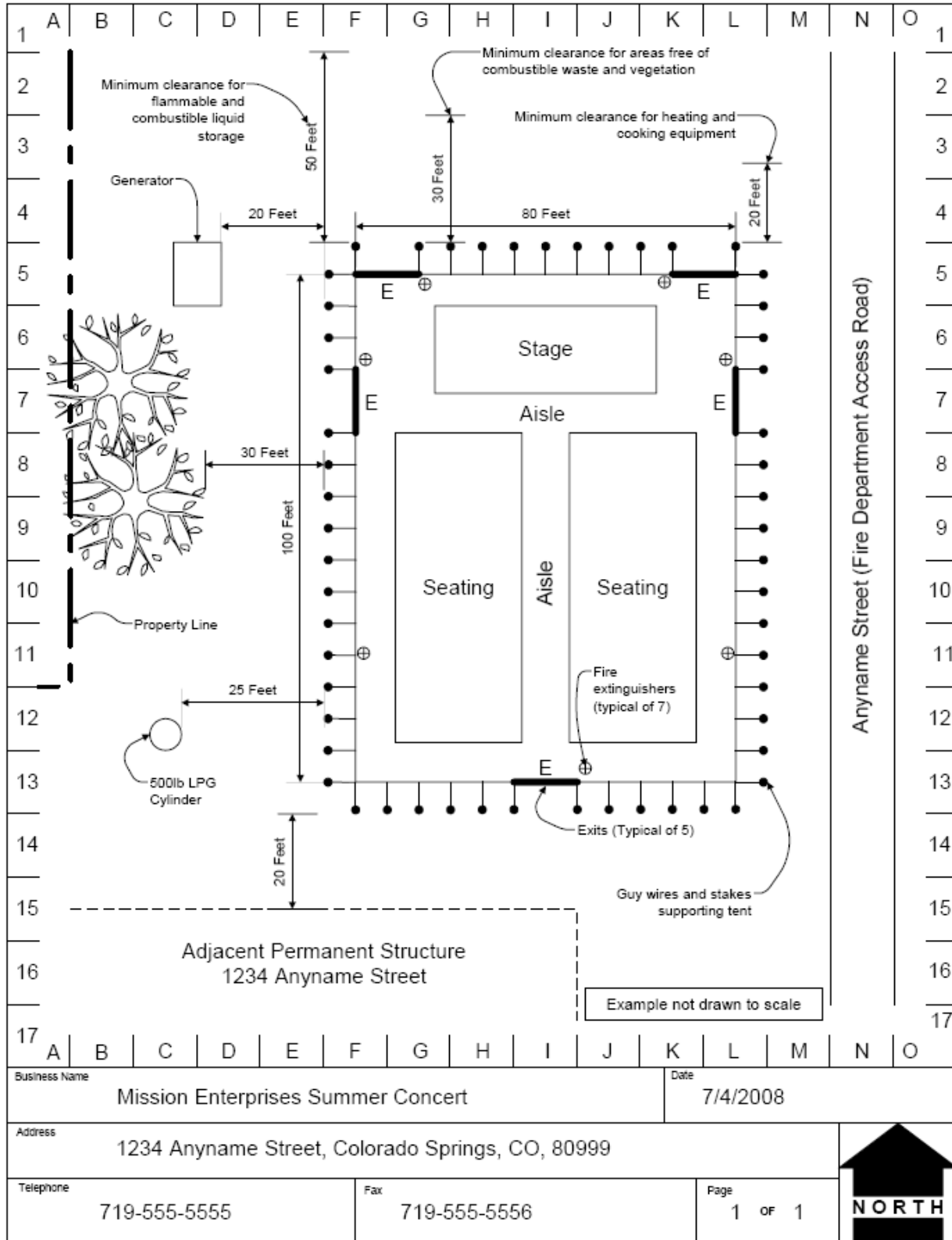
IN CONSIDERATION OF GRANTING OF THIS PERMIT, I, or we agree to hold the City of Willowick, harmless from any and all damages. I, or we, do hereby covenant and agree to construct said work in all respects in compliance with the provisions of the Statutes of Ohio and the Ordinances of the City of Willowick, and that all statements as made are correct and true, and that all orders of the Fire Prevention Bureau will be complied with.

Signature of Owner


Signature of Contractor or Authorized Agent

A COPY OF THIS APPLICATION SHALL REMAIN ON SITE ALONG WITH THE PERMIT


Sample Site-Plan



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|--|--|--|--|----------------------------|--|--|--|-----------------------|--|-------------------------|--|
| Business Name Mission Enterprises Summer Concert | | | | | | | | | | Date 7/4/2008 | |
| Address 1234 Anyname Street, Colorado Springs, CO, 80999 | | | | | | | | | | | |
| Telephone 719-555-5555 | | | | Fax 719-555-5556 | | | | Page 1 of 1 | | | |



Site Plan

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