

**CITY OF SANDUSKY APPLICATION  
 TEMPORARY OCCUPANCY  
 MEMBRANE STRUCTURE (As described in OBC Section 3102)  
 Department of Engineering Services, Building Division**

Submit one application for each building or structure. Please print or type. All sections must be completed.

Tents and membrane structures having an area in excess of 200 square feet (19 m<sup>2</sup>) and canopies in excess of 400 square feet (37 m<sup>2</sup>) shall not be erected, operated or maintained for any purpose without first receiving plan approval in accordance with the provisions of Chapter 1 of the Ohio Building Code.

**In order to obtain a Temporary Certificate of Occupancy:**

1. Project must have full plan approval from the Building Division, Planning and Zoning Division and Department of Engineering Services unless otherwise approved by the Building Official.
2. A site plan showing the location of the membrane structure is required with this application. If electric is being used, show the source and all applications on the plan. If any other fuel source is being used, that must be shown and a full description of the use submitted.
3. Once the application is approved, requests for inspections must be made by calling 419-627-5940.
4. A Temporary Certificate of Occupancy will be issued after all necessary inspections have been approved.
5. **A Temporary Certificate of Occupancy is only valid for 90 days or a pre-approved time period requested.**
6. A Temporary Certificate of Occupancy may be extended upon written request ten (10) days in advance of expiration date.

|  |  |   |          |                                    |  |
|--|--|---|----------|------------------------------------|--|
| <b>1</b>   | CPA NUMBER<br><i>(Office use only)</i>   | Complete all sections of this application. A copy of floor plans for the area which the Temporary Occupancy is requested, must accompany the application. A Temporary Certificate of Occupancy will be issued after all necessary inspections have been approved. |          |                                    |  |
| <b>2</b>   | Name of Project:   |   |          |                                    |  |
|  | Exact Address of Project:  |   |          |                                    |  |
| <b>3</b>   | Name of Submitter:   |   |          |                                    |  |
|  | Address:   |   | City:    | ST:      Zip:                      |  |
|  | Phone: (      )  |   |          |                                    |  |
| <b>4</b>   | List the dates and times the Temporary Occupancy is requested for and the specific use for which Temporary Occupancy is being requested.   |   |          |                                    |  |
|  |  |   |          |                                    |  |
| Square footage of requested temporary occupancy: |  |   |          |                                    |  |
| <b>5</b>   | Check which inspections will be required:  |   | <b>6</b> | <b>FEES TO BE PAID</b>             |  |
|  | <input type="checkbox"/> Building/Fire Safety  |   |          | Total items checked in Section 5 X |  |
|  | <input type="checkbox"/> Electric  |   |          | \$25.00 each                       |  |
|  | <input type="checkbox"/> Plumbing  |   |          | 3% B B S fee                       |  |
| <input type="checkbox"/> Mechanical              |  | <b>Total</b>  |          |                                    |  |
| <b>7</b>   | Fees paid by <input type="checkbox"/> Cash <input type="checkbox"/> Check <input type="checkbox"/> Credit Card   List check number here _____<br>Make checks payable to: <b>City of Sandusky</b>   |   |          |                                    |  |
| <b>8</b>   | I hereby certify that I am the (select one) <input type="checkbox"/> <b>Owner</b> <input type="checkbox"/> <b>Agent for the Owner</b> and that all information contained in this application is true, accurate and complete to the best of my knowledge, and that all official correspondence in connection with this application should be sent to my attention at the address shown above. |   |          |                                    |  |
| _____  |  | _____   |          |                                    |  |
| Signature  |  | Date  |          |                                    |  |
| _____  |  |   |          |                                    |  |
| Print or type the name of signer                 |  |   |          |                                    |  |
| <b>9</b>   | <b>THE AREA BELOW IS FOR OFFICIAL USE ONLY</b>   |   |          |                                    |  |
| Date received:                                   |  | Processed by:   |          |                                    |  |
| Date Approved:                                   |  | Approved by:  |          |                                    |  |

## **MEMBRANE - SECTION 3102 - MEMBRANE STRUCTURES**

### **3102.1 General.**

The provisions of this section shall apply to tents, air-supported, air-inflated, membrane-covered cable and membrane-covered frame structures, and tensioned membrane structures, collectively known as membrane structures including circus and carnival tents, entertainment, recreational and food service establishments and other similar structures. Membrane structures covering water storage facilities, water clarifiers, water treatment plants, sewage treatment plants, greenhouses and similar facilities not used for human occupancy, are required to meet only the requirements of Sections 3102.3.1 and 3102.7.

#### **3102.1.1 Approval required.**

Tents and membrane structures having an area in excess of 200 square feet (19 m<sup>2</sup>) and canopies in excess of 400 square feet (37 m<sup>2</sup>) shall not be erected, operated or maintained for any purpose without first receiving plan approval in accordance with the provisions of Chapter 1.

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Canopies open on all sides which comply with all of the following:
  - 2.1. Individual canopies having a maximum size of 700 square feet (65 m<sup>2</sup>).
  - 2.2. The aggregate area of multiple canopies placed side by side with a minimum clearance of less than 12 feet (3658 mm), not exceeding 700 square feet (65 m<sup>2</sup>).
  - 2.3. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.

#### **3102.1.2 Construction requirements.**

Construction shall comply with this code and the applicable provisions of Chapter 24 in the fire code.

### **3102.2 Definitions.**

The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein:

**AIR-INFLATED STRUCTURE.** A building where the shape of the structure is maintained by air pressurization of cells or tubes to form a barrel vault over the usable area. Occupants of such a structure do not occupy the pressurized area used to support the structure.

**AIR-SUPPORTED STRUCTURE.** A building wherein the shape of the structure is attained by air pressure and occupants of the structure are within the elevated pressure area. Air-supported structures are of two basic types:

**Double skin.** Similar to a single skin, but with an attached liner that is separated from the outer skin and provides an airspace which serves for insulation, acoustic, aesthetic or similar purposes.

**Single skin.** Where there is only the single outer skin and the air pressure is directly against that skin.

**CABLE-RESTRAINED, AIR-SUPPORTED STRUCTURE.** A structure in which the uplift is resisted by cables or webbings which are anchored to either foundations or dead men. Reinforcing cable or webbing is attached by various methods to the membrane or is an integral part of the membrane. This is not a cable-supported structure.

**CANOPY.** For the purposes of this chapter, a canopy is 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 -COVERED CABLE STRUCTURE.** A nonpressurized structure in which a mast and cable system provides support and tension to the membrane weather barrier and the membrane imparts stability to the structure.

**MEMBRANE -COVERED FRAME STRUCTURE.** A nonpressurized building wherein the structure is composed of a rigid framework to support a tensioned membrane which provides the weather barrier.

**NONCOMBUSTIBLE MEMBRANE STRUCTURE.** A membrane structure in which the membrane and all component parts of the structure are noncombustible.

**TENT.** A structure or shelter constructed of fabric or other pliable material supported by any manner except by air or the contents that it protects.

#### **3102.3 Type of construction.**

Noncombustible membrane structures shall be classified as Type IIB construction. Noncombustible frame or cable-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type IIB construction. Heavy timber frame-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type IV construction. Other membrane structures shall be classified as Type V construction.

Exception: Plastic less than 30 feet (9144 mm) above any floor used in greenhouses, where occupancy by the general public is not authorized, and for aquaculture pond covers is not required to meet the fire propagation performance criteria of NFPA 701.

#### **3102.3.1 Membrane and interior liner material.**

Membranes and interior liners shall be either noncombustible as set forth in Section 703.4 or meet the fire propagation performance criteria of NFPA 701 and the manufacturer's test protocol.

Exception: Plastic less than 20 mil (0.5 mm) in thickness used in greenhouses, where occupancy by the general public is not authorized, and for aquaculture pond covers is not required to meet the fire propagation performance criteria of NFPA 701.

#### **3102.4 Allowable floor areas.**

The area of a membrane structure shall not exceed the limitations set forth in Table 503, except as provided in Section 506.

#### **3102.5 Maximum height.**

Membrane structures shall not exceed one story nor shall such structures exceed the height limitations in feet set forth in Table 503.

Exception: Noncombustible membrane structures serving as roofs only.

#### **3102.6 Mixed construction.**

Membrane structures shall be permitted to be utilized as specified in this section as a portion of buildings of other types of construction. Height and area limits shall be as specified for the type of construction and occupancy of the building.

#### **3102.6.1 Noncombustible membrane.**

A noncombustible membrane shall be permitted for use as the roof or as a skylight of any building or atrium of a building of any type of construction provided it is at least 20 feet (6096 mm) above any floor, balcony or gallery.

##### **3102.6.1.1 Membrane.**

A membrane meeting the fire propagation performance criteria of NFPA 701 shall be permitted to be used as the roof or as a skylight on buildings of Type IIB, III, IV and V construction, provided it is at least 20 feet (6096 mm) above any floor, balcony or gallery.

#### **3102.7 Engineering design.**

The structure shall be designed and constructed to sustain dead loads; loads due to tension or inflation; live loads including wind, snow or flood and seismic loads and in accordance with Chapter 16.

##### **3102.8 Inflation systems.**

Air-supported and air-inflated structures shall be provided with primary and auxiliary inflation systems to meet the minimum requirements of Sections 3102.8.1 through 3102.8.3.

#### **3102.8.1 Equipment requirements.**

This inflation system shall consist of one or more blowers and shall include provisions for automatic control to maintain the required inflation pressures. The system shall be so designed as to prevent over pressurization of the system.

##### **3102.8.1.1 Auxiliary inflation system.**

In addition to the primary inflation system, in buildings exceeding 1,500 square feet (140 m<sup>2</sup>) in area, an auxiliary inflation system shall be provided with sufficient capacity to maintain the inflation of the structure in case of primary system failure. The auxiliary inflation system shall operate automatically when there is a loss of internal pressure and when the primary blower system becomes inoperative.

##### **3102.8.1.2 Blower equipment.**

Blower equipment shall meet the following requirements:

1. Blowers shall be powered by continuous-rated motors at the maximum power required for any flow condition as required by the structural design.
2. Blowers shall be provided with inlet screens, belt guards and other protective devices as required by the building official to provide protection from injury.
3. Blowers shall be housed within a weather-protecting structure.
4. Blowers shall be equipped with backdraft check dampers to minimize air loss when inoperative.
5. Blower inlets shall be located to provide protection from air contamination. The location of inlets shall be approved.

##### **3102.8.2 Standby power.**

Wherever an auxiliary inflation system is required, an approved standby power-generating system shall be provided. The system shall be equipped with a suitable means for automatically starting the generator set upon failure of the normal electrical service and for automatic transfer and operation of all of the required electrical functions at full power within 60 seconds of such service failure. Standby power shall be capable of operating independently for a minimum of 4 hours.

##### **3102.8.3 Support provisions.**

A system capable of supporting the membrane in the event of deflation shall be provided for in air-supported and air-inflated structures having an occupant load of 50 or more or where covering a swimming pool regardless of occupant load. The support system shall be capable of maintaining membrane structures used as a roof for Type I construction not less than 20 feet (6096 mm) above floor or seating areas. The support system shall be capable of maintaining other membranes at least 7 feet (2134 mm) above the floor, seating area or surface of the water.