



**FIRE PREVENTION DIVISION  
PUBLIC SAFETY BUREAU**

**AIR SUPPORTED AND AIR INFLATED STRUCTURES  
PLANS SUBMITTAL CHECKLIST  
FFPC- NFPA 1 AND NFPA 101 (2007 EDITION)**

The following Air Supported and Air Inflated Structures Plans Submittal Checklist is required information for Air Supported and Air Inflated Structures permit review. Use of the form does not guarantee that plans will be accepted on the first submittal, but will aid in reducing the number of re-submittals required due to the lack of information or conflicting information being provided. **This checklist should not be considered to be all-inclusive. Additional information may be required. Requirements are based on NFPA 101 the Life Safety Code, as included in the Florida Fire prevention Code (FFPC).**

For issuance of the air supported/air inflated structures permit and prior to any installation and inspection request, the following items shall be completed, submitted and/or approved.

- An air supported and air inflated structures permit application**
- Three (3) sets of site plans (must show entire property with location of the air supported and or air inflated structure and all other manmade or natural structures, barriers and roads.**
- If applicant is not the property owner of location where the air supported and or air inflated structure is to be placed, proof of permission from the owner or owner's representative to locate the structure on the property must be provided.**
- Payment of permit fees.**

**Any material installed or work performed prior to the issuance of a permit will be subject to two times the permit fee and/or required to be removed. A hard copy of the permit and an approved set of plans are required to be maintained on the job site at all times and must be on site prior to any worked being performed unless a limited early start request has been granted. Limited early start requests are considered on a case by case basis, are required to be submitted in writing on letter head and are not automatically granted.**

#### **11.10 Temporary Membrane Structures.**

##### **11.10.1 Application.**

**11.10.1.1 General.** The provisions of Section 11.1 shall apply.

**11.10.1.2 Required Approval.** Membrane structures designed to meet all the requirements of Section 11.10 shall be permitted to be used as temporary buildings subject to the approval of the authority having jurisdiction.

**11.10.1.3 Alternative Requirements.** Temporary tensioned membrane structures shall be permitted to comply with Section 11.11 instead of Section 11.10.

- 11.10.1.4 Roof Covering Classification.** Roof membranes shall have a roof covering classification, as required by the applicable building codes, when tested in accordance with NFPA 256, *Standard Methods of Fire Tests of Roof Coverings*; ASTM E 108, *Standard Test Methods for Fire Tests of Roof Coverings*; or UL 790, *Test Methods for Fire Tests of Roof Coverings*.

##### **11.10.1.5 Flame Propagation Performance.**

- 11.10.1.5.1** All membrane structure fabric shall meet the flame propagation performance criteria contained in NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*.

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- 11.10.1.5.2** One of the following shall serve as evidence that the fabric materials have the required flame propagation performance:

(1) The authority having jurisdiction shall require a certificate or other evidence of acceptance by an organization acceptable to the authority having jurisdiction.

(2) The authority having jurisdiction shall require a report of tests made by other inspection authorities or organizations acceptable to the authority having jurisdiction.

**11.10.1.5.3** Where required by the authority having jurisdiction, confirmatory field tests shall be conducted using test specimens from the original material, which shall have been affixed at the time of manufacture to the exterior of the structure

**11.10.2 Fire Hazards.**

- 11.10.2.1** The ground enclosed by any temporary membrane structure, and the ground for a reasonable distance but for not less than 10 ft (3050 mm) outside of such a structure, shall be cleared of all flammable or combustible material or vegetation that is not used for necessary support equipment. The clearing work shall be accomplished to the satisfaction of the authority having jurisdiction prior to the erection of such a structure. The premises shall be kept free from such flammable or combustible materials during the period for which the premises are used by the public.

- 11.10.2.2** Where prohibited by the authority having jurisdiction, smoking shall not be permitted in any temporary membrane structure.

- 11.10.3 Fire-Extinguishing Equipment.** Portable fire extinguishing equipment of approved types shall be furnished and maintained in temporary membrane structures in such quantity and in such locations as directed by the authority having jurisdiction. A minimum of (1) 2A10BC extinguisher, properly tagged by a licensed fire extinguisher contractor shall be furnished.

**11.10.4 Tensioned-Membrane Structures.**

- 11.10.4.1** The design, materials, and construction of the building shall be based on plans and specifications prepared by a licensed architect or engineer knowledgeable in tensioned-membrane construction.

- 11.10.4.2** Material loads and strength shall be based on physical properties of the materials verified and certified by an approved testing laboratory.

**11.10.4.3** The membrane roof for structures in climates subject to freezing temperatures and ice buildup shall be composed of two layers separated by an air space through which heated air can be moved to guard against ice accumulation. As an alternative to the two layers other approved methods that protect against ice accumulation shall be permitted.

**11.10.4.4** Roof drains shall be equipped with electrical elements to protect against ice buildup that can prevent the drains from functioning. Such heating elements shall be served by on-site standby electrical power in addition to the normal public service. As an alternative to such electrical elements, other approved methods that protect against ice accumulation shall be permitted.

**11.10.5 Air-Supported and Air-Inflated Structures.**

**11.10.5.1 General.** In addition to the general provisions of 11.10.1, the requirements of 11.10.5 shall apply to air supported and air-inflated structures.

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- 11.10.5.2 Pressurization (Inflation) System.** The pressurization system shall consist of one or more operating blower units. The system shall include automatic control of auxiliary blower units to maintain the required operating pressure. Such equipment shall meet the following requirements:
- (1) Blowers shall be powered by continuous-rated motors at the maximum power required.
  - (2) Blowers shall have personnel protection, such as inlet screens and belt guards.
  - (3) Blower systems shall be weather protected.
  - (4) Blower systems shall be equipped with back draft check dampers.
  - (5) Not less than two blower units shall be provided, each of which has capacity to maintain full inflation pressure with normal leakage.
  - (6) The blowers shall be designed to be incapable of over pressurization.
  - (7) The auxiliary blower unit(s) shall operate automatically if there is any loss of internal pressure or if an operating blower unit becomes inoperative.
  - (8) The design inflation pressure and the capacity of each blower system shall be certified by a professional engineer.

**11.10.5.3 Standby Power System.**

- 11.10.5.3.1** A fully automatic standby power system shall be provided. The system shall be either an auxiliary engine generator set capable of running the blower system or a supplementary blower unit that is sized for 1 times the normal operating capacity and is powered by an internal combustion engine.
- 11.10.5.3.2** The standby power system shall be fully automatic to ensure continuous inflation in the event of any failure of the primary power. The system shall be capable of operating continuously for a minimum of 4 hours.
- 11.10.5.3.3** The sizing and capacity of the standby power system shall be certified by a professional engineer.

**11.10.6 Maintenance and Operation.**

**11.10.6.1** Instructions in both operation and maintenance shall be transmitted to the owner by the manufacturer of the tensioned-membrane, air-supported, or air-inflated structure.

**11.10.6.2** Annual inspection and required maintenance of each structure shall be performed to ensure safety conditions. At least biennially, the inspection shall be performed by a professional engineer, registered architect or individual certified by the manufacturer.

**11.10.7 Services.**

**11.10.7.1 Fired Heaters.**

**11.10.7.1.1** Only labeled heating devices shall be used.

**11.10.7.1.2** Fuel-fired heaters and their installation shall be approved by the authority having jurisdiction

- 11.10.7.1.3** Containers for liquefied petroleum gases shall be installed not less than 60 in. (1525 mm) from any temporary membrane structure and shall be in accordance with the provisions of NFPA 58, *Liquefied Petroleum Gas Code*.
- 11.10.7.1.4** Tanks shall be secured in the upright position and protected from vehicular traffic.

**11.10.7.2 Electric Heaters.**

**11.10.7.2.1** Only labeled heaters shall be permitted.

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**11.10.7.2.2** Heaters used inside a temporary membrane structure shall be approved.

- 11.10.7.2.3** Heaters shall be connected to electricity by electric cable that is suitable for outside use and is of sufficient size to handle the electrical load.

**I attest that all required and applicable information noted above has been provided for review and approval and understand that inadequate or incorrect content is cause for permit denial.**

\_\_\_\_\_  
Signature of Contractor or Contractor's Representative

\_\_\_\_\_  
Date