

March 10, 2021

Mr. Elliott Frost
Senior Policy Analyst/Consultant
Leading Age New York
13 British American Blvd
Latham, New York 12110
Delivered via email only: efrost@leadingageny.org

Re: Tent Structures for Healthcare Facilities

Dear Mr. Frost:

As requested, The Chazen Companies (Chazen) has compiled the following requirements for tent structures to be used by healthcare facilities. The requirements below are taken from the 2012 Life Safety Code (NFPA 101), 2020 Building Code of New York State (2020 BCNYS), and the 2020 Fire Code of New York State (2020 FCNYS).

It should be noted that the requirements NFPA 101 below are shown with the assumption that the tent structures are part of a facility that is governed by New York State Department of Health (NYSDOH). This should be evaluated on a facility by facility basis, but at minimum the requirements of the 2020 BCNYS and FCNYS must be met.

2012 NFPA 101

Section 11.11 Tents:

1. 11.11.2: General.
 - a. Tents shall be permitted only on a temporary basis. Temporary is a building or structure that is intended to remain in place for less than 180 days.
2. 11.11.2: Flame Propagation Performance.
 - a. All tent fabric shall meet the flame propagation performance criteria contained in NFPA 701.
3. 11.11.3: Location and Spacing.
 - a. 11.11.3.1 There shall be a minimum of 10 ft (3050 mm) between stake lines.
 - b. 11.11.3.2 Adjacent tents shall be spaced to provide an area to be used as a means of emergency egress. Where 10 ft (3050 mm) between stake lines does not meet the requirements for means of egress, the distance necessary for means of egress shall govern.

- c. 11.11.3.3 Tents not occupied by the public and not used for the storage of combustible material shall be permitted to be erected less than 10 ft (3050 mm) from other structures where the authority having jurisdiction deems such close spacing to be safe from hazard to the public.
 - d. 11.11.3.4 Tents, each not exceeding 1200 ft² (112 m²) in finished ground level area and located in fairgrounds or similar open spaces, shall not be required to be separated from each other, provided that safety precautions meet the approval of the authority having jurisdiction.
 - e. 11.11.3.5 The placement of tents relative to other structures shall be at the discretion of the authority having jurisdiction, with consideration given to occupancy, use, opening, exposure, and other similar factors
4. 11.11.4: Fire Hazards.
- a. The finished ground level enclosed by any tent, and the finished ground level for a reasonable distance, but for not less than 10 ft (3050 mm) outside of such a tent, 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 tent. The premises shall be kept free from such flammable or combustible materials during the period for which the premises are used by the public.
5. 11.11.5: Fire-extinguisher Equipment.
- a. Portable fire-extinguishing equipment of approved types shall be furnished and maintained in tents in such quantity and in such locations as directed by the authority having jurisdiction.
6. 11.11.6 Services.
- a. 11.11.6.1.1 Only labeled fired heating devices shall be used.
 - b. 11.11.6.1.2 Fuel-fired heaters and their installation shall be approved by the authority having jurisdiction.
 - c. 11.11.6.2.1 Only labeled electric heaters shall be permitted.
 - d. 11.11.6.2.2 Electric heaters used inside a tent shall be approved

2020 BCNYS

Tents Erected for a Period of Less Than 180 Days:

2020 BCNYS Section 3103 Temporary Structures:

1. 3103.1: General.
 - a. Tents, umbrellas, and other structures erected for a period of less than 180 days shall comply with this section of the 2020 BCNYS and the applicable sections of the 2020 FCNYS. Structures erected for more than 180 days shall comply with all applicable provisions of the 2020 BCNYS.
 - b. 3103.1.1: Temporary structures shall conform to the structural safety, light, ventilation, and sanitary requirements of this code.
 - c. 3103.1.2: Structures over 120sf in floor area, including connecting areas or spaces with a common means of egress or shared entrance, or intended to be used as a gathering place with an occupant load over 10 people, shall require approval from the building code official before erection.
2. 3103.2: Construction Documents.
 - a. Construction documents shall be submitted for each installation of a temporary structure. These documents must include a site plan indicating the location of the temporary structure on the site and delineating the means of egress and occupant load of the structure.
3. 3103.3: Location.
 - a. Temporary structures shall be located in accordance with the requirements of Table 602 of the 2020 BCNYS based on the fire rated resistance of the exterior walls for the proposed type of construction.
4. 3103.4: Means of egress.
 - a. Temporary Structures shall conform to the means of egress requirements of chapter 10 of the 2020 BCNYS and shall have an exit access travel distance of 100ft or less.

2020 FCNYS Section 3103 Temporary Tents and Membrane Structures:

1. 3103.1: General.
 - a. Tents and membrane structures erected for a period of under 180 days shall comply with this section and section 3106 of the 2020 FCNYS.
2. 3103.2: Approval required.

- a. Tents and membrane structures having an area in excess of 400 square feet shall require approval of the fire code official before erection.
 - i. Except when the tent is open on all sides, has less than 700sf of floor area, and is spaced at least 12ft from other structures or tents.
3. 3103.4: Permits.
 - a. Permits are required as outlined in section 105.2 and 105.6 of the 2020 FCNYS.
4. 3103.5: Use Period.
 - a. Temporary tents shall not be erected for a period of more than 180 days within a 12-month period on a single property.
5. 3103.6: Construction documents.
 - a. A detailed site and floor plan for temporary tents with an occupant load over 50 people shall be provided for approval with each application. The plans shall include details of means of egress facilities, seating arrangements and locations/types of heating and electrical equipment.
6. 3103.7: Inspections.
 - a. The entire tent shall be inspected at regular intervals (at least 2 times per permitted use period) by the permittee, owner, or agent to determine that the installation is maintained in accordance with this chapter.
7. 3103.8: Access, location, and parking.
 - a. 3103.8.1: Fire apparatus access roads shall be provided in accordance with Section 503 of the 2020 FCNYS.
 - b. 3103.8.2: Tents or membrane structures shall not be located within 20 feet of lot lines, buildings, or membrane structures, parked vehicles, or internal combustion engines. For purposes of determining distances, support ropes and guide wires shall be considered as part of the temporary membrane structure or tent.
8. 3103.9: Structural stability and anchorage required.
 - a. Tents and their appurtenances shall be designed and installed to withstand the elements of weather and prevent collapse. Documents of structural stability shall be furnished to the building code official.
9. 3103.11: Seating arrangements.
 - a. Seating in tents or membrane structures shall be in accordance with Chapter 10 of the 2020 FCNYS.

10. 3103.12: Means of egress.

- a. 3103.12.1: Exits shall be spaced at approximately equal intervals around the perimeter of the tent. Exit access travel distance shall be 100ft or less from any point within the tent.
- b. 3203.12.2: The minimum number of exits and width of each individual means of egress shall be in accordance with table 3103.12.2 (below).

**TABLE 3103.12.2
 MINIMUM NUMBER OF MEANS OF EGRESS AND MEANS OF
 EGRESS WIDTHS FROM TEMPORARY MEMBRANE STRUCTURES AND TENTS**

OCCUPANT LOAD	MINIMUM NUMBER OF MEANS OF EGRESS	MINIMUM WIDTH OF EACH MEANS OF EGRESS (Inches)	
		Tent	Membrane Structure
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
Over 3,000 ^a	7	120	96

- c. 3103.12.3: Exit openings from tents shall remain open unless covered by a flame-resistant curtain.
- d. 3103.12.4: Exit doors shall swing in the direction of exit travel.
- e. 3103.12.6: Exit signs shall be clearly marked and installed at required exit doorways and where otherwise necessary to indicate the clear direction of exit travel.
 - i. Exit signs shall be illuminated and listed and labeled in accordance with UL 924.
- f. 3103.12.7: Means of egress shall be illuminated with light having an intensity of not less than 1 foot-candle the floor level while the structure is occupied.

2020 FCNYS Section 3104 Temporary and Permanent Tents and Membrane Structures:

- 1. 3104.2: Flame propagation performance treatment.
 - a. Before a permit is granted, the owner or agent shall file with the fire code official a certificate executed by an approved testing laboratory. The certificate shall conclude that the floor covering, tents, membrane structures and their appurtenances are composed of materials meeting the flame spread propagation performance of Test Method 2 of NFPA 701.
- 2. 3104.3: Label.
 - a. Tents shall have a permanently affixed label bearing the identification of size and fabric or material type.

3. 3104.4: Certification.

- a. An affidavit or affirmation shall be submitted to the fire code official and a copy retained on premises on which the tent is located. The names and addresses of the owners of the tents, date of the fabric treatment with flame retardant solution, name or kind of chemical used in treatment, name of firm who treated the material, and name of the testing agency shall be included in the affidavit.

Tents Erected for a Period of More Than 180 Days:

2020 BCNYS Section 3102 Membrane Structures:

1. 3102.1: General.

- a. Tents, umbrellas, and other structures erected for a period of more than 180 days shall comply with this section of the 2020 BCNYS and all other applicable sections of the 2020 BCNYS and 2020 FCNYS.

2. 3102.2: Tensile membrane structures and air-supported structures.

- a. Tensile and air-supported membrane structures, including temporary structures, shall be designed and constructed in accordance with ASCE 55.

3. 3102.3: Type of construction.

- a. Noncombustible membrane structures and noncombustible cable or frame supported structures (covered by an approved membrane per section 3202.3.1) shall be classified as Type IIB construction.
- b. 3102.3.1: Membrane and interior liners shall be either noncombustible as set forth in Section 703.5 or meet the fire propagation performance criteria of Test Method 1 or 2, per NFPA 701.

4. 3202.4: Allowable floor area.

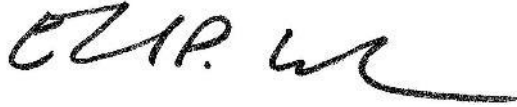
- a. The area of membrane structures shall not exceed the limitations specified in Section 506 of the 2020 BCNYS.

5. 3102.5: Maximum height.

- a. Membrane structures shall not exceed one story nor shall exceed the height limitations in feet per Section 504.3.

If you have any questions about the information provided, please feel free to contact our office at (518) 273-0055.

Sincerely,

A handwritten signature in black ink, appearing to read 'E.P. Larkin', with a long horizontal flourish extending to the right.

Edward P. Larkin, PE

Principal

Senior Director of Building Systems

EPL/ enc []

cc: Rachel Shaw, Chazen

File