
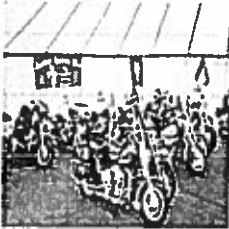


Tents, Canopies, Membrane Structures



USES OF TENTS

BFCA

Tents, Canopies, Membrane Structures



USES OF TENTS

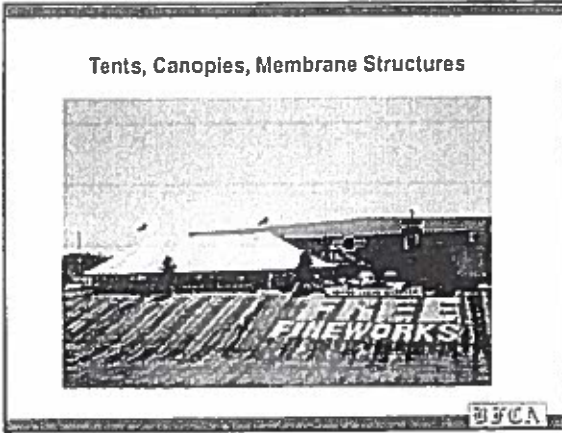
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Tents, Canopies, Membrane Structures

USES OF TENTS

BFCA



Tents, Canopies, Membrane Structures
TEMPORARY TENTS AND MEMBRANE STRUCTURES 2403

- ◆ Approval required 2403.2
 - In excess of 400 square feet
 - Exceptions
 - Tents for recreational camping
 - Open on all sides:
 - Maximum 700 square feet
 - Aggregate area without a 12 foot fire break
 - Minimum clearance to all other structures - 12 feet

(Note: A yellow circle with a cross is drawn to the left of this section.)

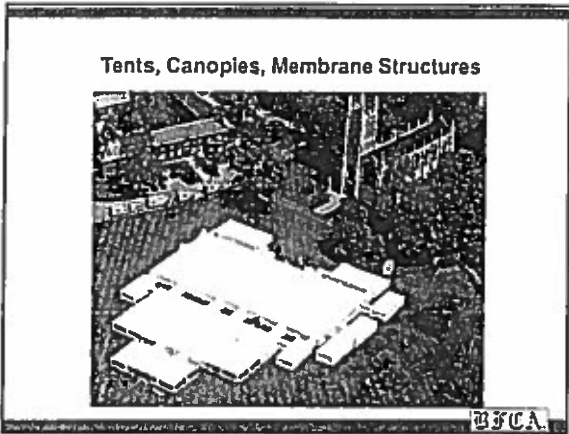
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Tents, Canopies, Membrane Structures

Separation Required
 20 feet

NFPA - Maximum 75% of the premises
 L.S.C. - 10 feet separation (less if approved by AHJ)

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Tents, Canopies, Membrane Structures

- Places of assembly examples – circus, carnivals, tent shows, theater, skating rink, dance hall,

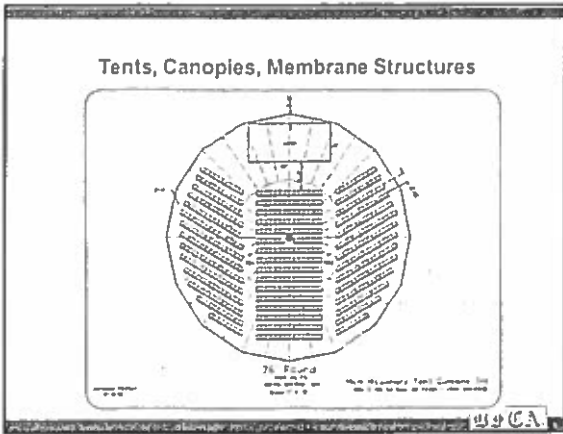
Other places of assembly in or under which persons gather for any purpose

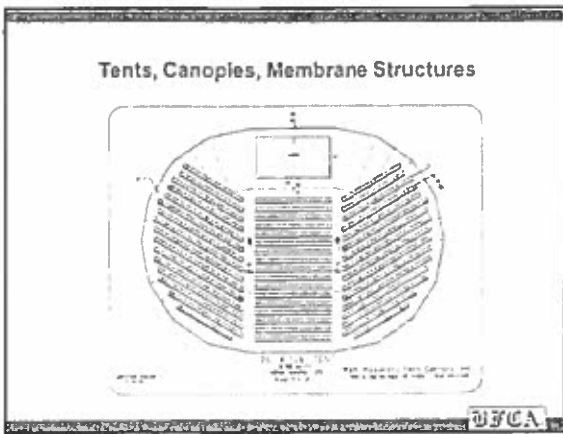
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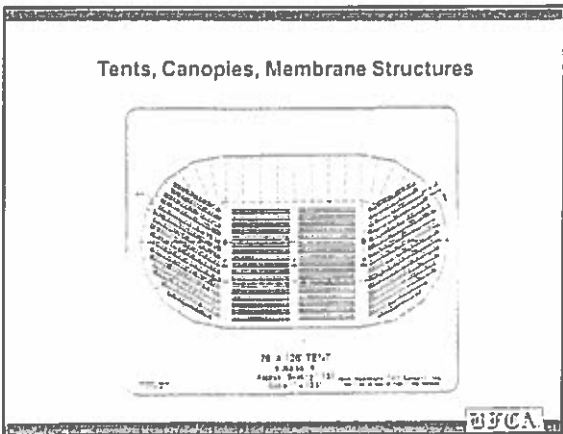
Tents, Canopies, Membrane Structures

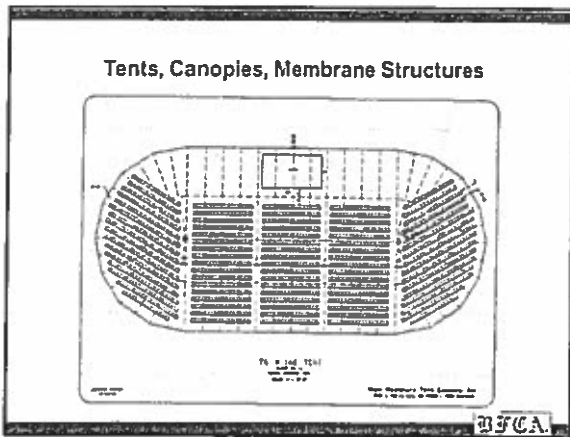
- Construction documents
Detailed site and floor plan with more than 50 occupants
Means of egress, seating
- Location of heating and electric equipment

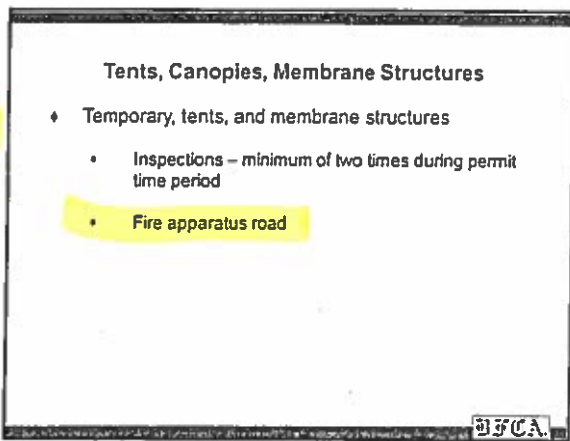
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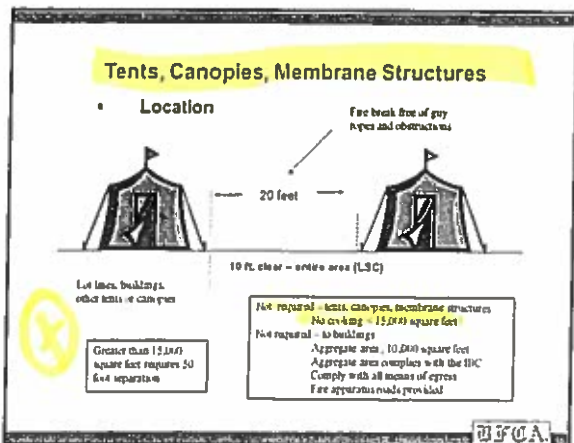










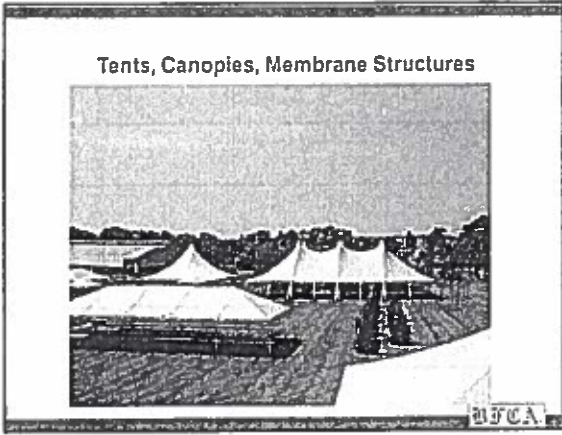


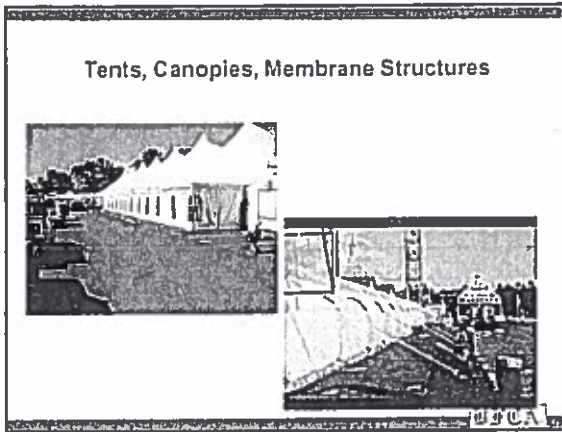
Fuel loads

exits

Remove hazards

Electric cord protection (GFCI, trip hazard grounded)





Tents, Canopies, Membrane Structures

- Membrane structure on a permanent building – comply as permanent
- Connecting corridors allowed
 - Exit doors at both ends
 - Openings at each end – opposite each other – minimum 12 feet wide
 - Fire break required 12 feet on all sides with no obstructions
 - Properly anchored with documentation submitted to the FCO

IFCA

Tents, Canopies, Membrane Structures

- ◆ Temporary, air inflated or air supported 2401.3
 - Door operation limited in high winds or snow
 - Fabric comply with ASI 77 – Architectural Fabric Institute
 - Places of assembly
 - Two blowers each with complete capacity
 - > 200 occupants generator or 4 engine driven blower

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Tents, Canopies, Membrane Structures

- Seating per Chapter 10
- Means of egress
 - Evenly spaced
 - Maximum travel 100 feet
 - Number and width per Table 2403.12.2
 - Total width, occupants times .2

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Tents, Canopies, Membrane Structures

Table 2403.12.2

Occupant Load	Minimum Number of Means of Egress	Minimum Width of Each Means of Egress (Inches)	
		Tent or Canopy	Membrane Structure
10 to 100	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*	7	120	96

When the occupant loads exceeds 3,000, the total width of means of egress shall not be less than the total occupant load multiplied by 0.2 per person

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Tents, Canopies, Membrane Structures

- Exit openings open unless a flame resistant curtain
 - Free sliding curtain on metal track
 - Minimum 80 inches above the floor level, not obstruct opening
 - Contrasting color
- Doors
 - Swing in direction of travel
 - Air supported – self closing

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Tents, Canopies, Membrane Structures

- Aisles
 - Employees – minimum 24 inches – sized by occupant load
 - Public areas – smooth unobstructed – minimum 44 inches
 - Increase in width – minimum 1 foot of width for each 50 occupants

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Tents, Canopies, Membrane Structures

- Exit signs when over 50 occupants
 - Illumination – Internal of self-luminous - UL 924
 - < 300 – two separate circuits
 - 300 – two separate sources of power
 - Minimum 90 minutes
- Egress illumination required
 - One foot candle when occupied
- Egress clear of guy ropes for 8 feet in height
 - Surface maintained in an approved manner

IFCA

Tents, Canopies, Membrane Structures

- ♦ Temporary or Permanent Tents and Membrane Structures
 - Temporary per this section
 - Permanent per the International Building Code
 - Flame resistant or treated – per NFPA 701
 - Permanent label

IFCA

Flame retardant

Tents, Canopies, Membrane Structures

- Certification with appropriate information
 - Owner name and address / Date of last fabric treatment
 - Trade name of chemical / Name of person doing the treatment
 - Name of test agency and standard
 - Compliance with NFPA 701 for flame propagation performance period

IFCA

Flame retardant

Tents, Canopies, Membrane Structures

- Combustible materials not inside except feed
- Sawdust and shavings if keep damp
- No combustibles under grandstands
- Minimum 20 foot separation from combustibles and vegetation
 - NFPA 101 – Indicates minimum 10 feet
- No smoking

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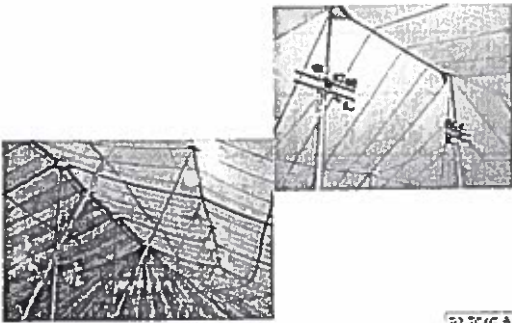


Tents, Canopies, Membrane Structures

- No open flame or cooking within structure or within 20 feet of structure
- No fire works within 100 feet
- Spot lighting
 - Electric only
 - Protected by non-combustible material

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Tents, Canopies, Membrane Structures



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Tents, Canopies, Membrane Structures

- Safety motion picture film
- Three foot separation between fabric and inside contents
- Portable extinguishers per Section 906
- Occupant loads per Chapter 10

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Tents, Canopies, Membrane Structures

- Heating and cooking 2404.15
 - Per the appropriate code – IMC or IFGC
 - Approved by the fire code official
 - All devices vented
 - 12 inch clearance between flue or vent and the fabric
 - Electric cooking per the electric code

BFC

Electric cooker
for outside use

Tents, Canopies, Membrane Structures

- Heating and cooking 2404.15 - Continued
 - 10 foot clearance to exits and combustibles
 - Food warming and cooking demonstrations with approval
 - Cooking in a separate tent with a minimum 20 foot separation
 - Outdoor cooking 20 feet separation (sparks or grease laden fumes)

BFC

No hood for skillet
cooking producing grease-laden vapors. Per Mike Mann

Tents, Canopies, Membrane Structures

- LP Gas – 2410.16
 - Per the International Fuel Gas Code
 - Locate outside
 - Safety valve away from tent
 - < 500 gallons – 10 foot separation
 - 500 gallons – 25 foot separation
 - NFPA 60 inches

BFC

Tents, Canopies, Membrane Structures

- LP Gas – 2410.16
- Outside tank storage
 - Approved location
 - Secured
 - Protected from vehicles and tampering

IFCA

Tents, Canopies, Membrane Structures

- Flammable and combustible liquids 2404.17
 - Not allowed inside
 - Outside storage 50 foot separation
 - Refueling
 - Approved location
 - Minimum 20 foot separation

IFCA

Tents, Canopies, Membrane Structures

- Generators
 - 20 foot separation
 - Isolated from public contact
- Standby personnel
 - When required by the fire code official
 - Trained crowd manager – ratio 1 : 250
- All vegetation removed within 30 feet
- Waste material – removed within 30 feet

IFCA
