

CHAPTER ELEVEN

Tents, Canopies and Temporary Membrane Structures

Contents

- Required Standpipe Applications
- Required Permits and Plan Submittals
- Design Specifications

Purpose:

To provide guidance for the users and installers of temporary tents, canopies, and membrane structures regarding plan submittals, installation and general requirements.



Tents, Canopies and Temporary Membrane Structures

Tents, canopies, and temporary membrane structures meeting the specifications indicated herein shall be in accordance with the International Fire Code (IFC) and the Tent Rental Division of the Industrial Fabrics Association International (IFAI). These provisions are regulated by the International Fire Code (IFC). The Town of Marana or Pima County may have more stringent requirements than those contained herein.

The Northwest Fire District is the agency responsible for conducting compliance inspections prior to granting a permit. It is the applicant's responsibility to follow the provisions contained herein prior to erecting tents, canopies, and temporary membrane structures within the District.

SCOPE

Any individual tent or similar structure or grouping of tents and/or similar structures having a total area more than 400 square feet or canopy or combined number of canopies covering more than 700 square feet on one site. For this document, the term "Structure" shall apply to tents, canopies, or other similar structures.

DEFINITIONS



Awning. An architectural projection that provides weather protection, identity or decoration and is wholly supported by the building to which it is attached. This document does not address the installation or use of any awnings. The International Building Code (IBC) regulates awnings.



Tent. A tent is a temporary structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents it protects.



Canopy. A canopy is a temporary 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 side walls or drops on 75 percent or more of the

perimeter.



Membrane Structure. A membrane structure is an air-inflated, air-supported, cable, or frame-covered structure as defined by the International Building Code, which is erected for fewer than 180 days and not otherwise defined as a tent, canopy, or awning.

Temporary Use. A period of not more than 180 days within a 12-month period on a single premise regulated by the International Fire Code (IFC).

IFAI – Industrial Fabrics Association International. A member owned, member driven association representing the global industrial fabrics industry.

TRD – Tent Rental Division. Represents companies in the commercial tent marketplace that promotes safety for the tent installer and the public and is a division of the IFAI.



PERMITTING AND FEES

A revocable permit from the Northwest Fire District Prevention and Safety Division is required prior to setting up a tent or group of tents or temporary membrane structures having a total area more than 400 square feet or a canopy or combined number of canopies covering more than 700 square feet on one site.

The permit application and plan packages are required to be submitted for review a minimum of 10 business days prior to the proposed start of the event. Once a permit has been issued, set up of the structures may begin. The permit must remain on site with the temporary structure at all times until after the dismantling of the structure.

Fees are required for permits and subsequent inspections. The fee amount is based on the current approved Fee Schedule which can be found online at <u>https://nwfdaz.gov/fire-prevention/</u>.

SPECIAL EVENT APPLICATIONS, EVENT MEDICAL AND SAFETY STAND-BY DEVICES

Special events permits are required to conduct, manage, or sponsor any organized special event. Special event permits, and associated fees are separate from the tent permit. Information on obtaining a Special Event Permit is available through contacting the Town of Marana or Pima County, depending on the location of the event. For events located within the Town of Marana visit: <u>Town of Marana Special Event Permits</u> or call 520-382-1946. For events located within Pima County, visit: <u>Pima County Special Event Permits</u> or call 520-724-2601.

Special Event Medical Services are important to ensure an event remains safe and healthful for all participants. For example, a small event, such as a street fair, that has little stress on its participants can be covered by a single Emergency Medical Technician (EMT) response unit. Larger gatherings like marathons or professional sports, require the development of a more comprehensive medical team plan which may include EMTs, paramedics, and Engine Companies. If you have questions about Special Event Medical Services, please call Northwest Fire District Emergency Medical Services at 520-887-1010 extension 3108.

Safety Stand-by Services utilizing one or more Fire Safety Officers may be required during an event when in the opinion of the Fire Code Official, circumstances or conditions exist, or there is potential for, a public safety concern. Some larger events may also require crowd control in compliance with the International Fire Code. Contact the Fire Code Official for details on crowd control requirements. Circumstances requiring Safety Stand-by Services may include but are not limited to: places of assembly or any other place where people congregate; exhibitions, displays, fireworks, contests or activities where there is a unique public safety concern. A fee will be charged for Safety Stand-by Services at the rate specified in the current fee schedule.



TEMPORARY SEASONAL SALES PERMITS

The Temporary Seasonal Sales Use Permit allows for short-term activities on private and public property with appropriate regulations so that such uses will be compatible with surrounding areas.

Temporary uses may include seasonal sales of merchandise including, but not limited to: Christmas trees, fireworks, flowers, produce and pumpkins and other seasonal sales.

Permits are valid for a maximum of 30 days from the date of issuance with the exception of fireworks sales regulated by Arizona Revised Statutes (A.R.S) 36-1601, 36-1606 and 36-1609. Fees for Seasonal Sales permits are in accordance with the currently adopted Permit and Fee Schedule found on our website at <u>https://nwfdaz.gov/fire-prevention/</u>.

A completed permit application is required to be submitted a minimum of 10 business days prior to the proposed start date of the event. Permit applications are available online at: <u>https://nwfdaz.gov/fire-prevention/</u>.

As a reminder, when temporary seasonal sales are held in a tent or canopy, a separate tent permit is required. Tent permits are valid for a period not to exceed 180 days.

PLAN SUBMITTAL REQUIREMENTS

In order for a permit to be issued, construction plans must be submitted to the Northwest Fire District Prevention and Safety Division for review and approval.

For projects located within the <u>Town of Marana</u>, plans shall be submitted to:

Town of Marana, Development Services Department, 11555 West Civic Center Drive, Marana, AZ 85653

For projects located in <u>Pima County</u> (outside of the Town of Marana), plans shall be submitted to:

Northwest Fire District Prevention and Safety Division, 13535 N. Marana Main Street, Marana, AZ 85653

The applicant must submit for approval a detailed drawing of the structure, its layout, location, separations from other structures, purpose (e.g., retail use, public assembly), and the permit application. When the submittal has been approved, the required fees will be collected, and an inspection may be scheduled. Permits are issued upon inspection approval.



PLAN SUBMITTAL REQUIREMENTS

The complete submittal package for a temporary structure shall contain the following documents:

- Completed permit application
- Signed installer certification
- Installer/User Certification
- Flammability certification(s) for the fabric/membrane of the temporary structure
- Site maps/diagrams including (minimum site plan size is 8½-x 11-inches):
- Overall site plan showing entire site and general locations of all temporary structures
- Detailed site plan to include the following:
- Locations 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
- 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
- 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
- Locations and types of any/all heating and/or cooking equipment
- Locations and types of all electrical equipment

The permit for the use of tents or temporary membrane structures on a single premise shall not exceed a period of 180 days within a 12-month period.

All temporary structures shall be removed prior to the expiration date documented on the issued permit.



COMPLIANCE WITH INDUSTRY STANDARDS

Contractors, installers, owners, and renters should make themselves familiar with the standards identified by the Tent Rental Division of the Industrial Fabrics Association International, including but not limited to the IFAI Procedural Handbook for the Safe Installation and Maintenance of Tentage, the International Fire Code, Chapter 31: Tents and Other Membrane Structures and IFAI Pullout Capacity of Tent Stakes. Tents, canopies, or membrane structures should be built in compliance with these standards.

COMPLIANCE WITH ENGINEERING STANDARDS

Contractors, installers, owners, and renters should make themselves familiar with the wind load standards identified by ASCE/SEI 7-05 Minimum Design Loads for Buildings and Other Structures. Tents, canopies, or membrane structures should be built in compliance with these standards. In calculating the anchorage load for tents, canopies, and membrane structures, the Northwest Fire District will only approve tent staking and ballasting plan in accordance with the IFAI Procedural Handbook for the Safe Installation and Maintenance of Tentage and the IFAI Pullout Capacity of Tent Stakes.

The tent or canopy owner or the Rental Company responsible for the structure and the installation must provide the installation instructions (documented in the IFAI Procedural Handbook for Safe Installation and Maintenance of Tentage) at the time of permit application. They must also provide documentation on how they plan to meet those requirements before the permit is approved and issued.



INSPECTIONS

All permitted tents, canopies, and membrane structures require an inspection and approval prior to the structure being used or occupied. Fire inspections are not required for tents that do not require a permit, however, you may still request a Fire Inspector to perform a fire safety inspection for smaller temporary structure installations. Associated fees may apply.

SCHEDULING INSPECTIONS

Advance notice of a minimum of two (2) business days is required for all inspections although it is strongly recommended that inspections be scheduled as far in advance as possible to ensure any desired inspection dates are met. Inspections may be scheduled by calling the Inspection line at 520-887-1010 extension 5051, or electronically at Contractor's Corner | Northwest Fire District (nwfdaz.gov) inspection request form, before 3:00 p.m. Monday through Friday. Inspection scheduling is subject to personnel availability.

Prior to the Fire Inspector's arrival for the inspection, the temporary structure shall be installed completely and compliant with all applicable fire code requirements and plan review comments. Set up includes all interior arrangements including, but not limited to: seating and table arrangements, aisles, exits, temporary power supplies, egress lighting, etc. A copy of the permit submittal package shall be available to the inspector.

The temporary structure installer as well as a representative of the noted structure user shall be present on site for the duration of the fire inspection. This is to ensure that all stakeholders are able to communicate necessary information at the same time.

Once the installation has been approved by the inspector, the inspector will sign the permit which then allows the temporary structure to be used.

COMPLIANCE INSPECTIONS DURING OCCUPANCY

Contractors, installers, owners, and renters should make themselves familiar with the submitted and approved construction documents, including any operation plans. Tents, canopies, and membrane structures should be operated in compliance with the plans. These structures may subject to inspections during occupancy to ensure compliance with the plans as well as the continued compliance with codes and standards.



GENERAL INSTALLATION REQUIREMENTS

LOCATIONS, SEPARATIONS AND CLEARANCES

Other than as excepted by Section 3103.8.2 of the 2018 International Fire Code, temporary structures shall not be located within 20 feet of property lines, buildings, other tents, parked vehicles, or other internal combustion engines. Support ropes and guy wires are considered to be part of the structure when determining required separations. Multiple structures may be connected or adjacent to each other provided the entire tent assembly is provided with sufficient exits to meet both the individual tent requirements and as a single large tent.

Heating and cooking equipment which produces sparks or grease laden vapors is not allowed inside, or within 20 feet of temporary structures. The installation of approved heating and cooking equipment inside shall not be within 10 feet of exits or combustible materials and shall be vented to the outside by approved means. Structures where cooking is performed shall be separated from other structures by a minimum of 20 feet. LP gas cylinders shall not be stored or used inside or within 10 to 25 feet of the temporary structure depending on tank size. Cylinders shall be secured in a manner to prevent movement or damage. Flammable and combustible liquids shall not be used within temporary structures and shall be stored a minimum of 50 feet from temporary structures. Refueling of internal combustion engines such as generators shall not occur within 20 feet of the structure. A minimum clearance of three (3) feet shall be maintained between the fabric of the structure and all contents located within the structure.

FLAME RESISTANCE

A label shall be permanently affixed to the structure identifying the flame-retardant properties of the material. Before a permit is granted, the tent contractor, owner or agent shall file a Certificate of Flame Resistance with the Prevention and Safety Division. The certificate shall be executed by an approved testing laboratory, certifying that all portions of the structure, as well as any tarpaulins, floor coverings (including sawdust), bunting, combustible decorative materials and effects are composed of flame-resistant materials or are treated with a flame retardant and meet the requirements of NFPA 701, and that such flame resistance is effective for the period specified by the permit.

OPEN OR EXPOSED FLAMES AND FIREWORKS

Open flame sources including any/all cooking appliances, candles, "Sterno" canisters, any/all heating appliances, flame effects and similar items may not be located inside or within 20 feet of structures unless specifically approved by the Fire Code Official. The use of fireworks, pyrotechnics and other similar effects are not allowed inside or within 100 feet of any temporary structure.



SMOKING

Approved No Smoking signs shall be posted throughout the temporary structure.







OCCUPANT LOAD

Occupant load signs shall be posted in a conspicuous place, near the main exit. Signs shall be of an approved, legible and permanent design.

The following table shall be used to determine the occupant load:

TABLE 1: OCCUPANT LOAD CALCULATIONS

Use/Occupancy of Temporary Structure	Occupant Load <u>Factor</u> (Floor area in sq. ft per occupant)
Assembly – Concentrated Use (Chairs only-not fixed)	7
Assembly – Unconcentrated Use (With tables and chairs)	15
Assembly – Standing space only ¹	5
Retail / Mercantile	30

When this <u>factor</u> is used, the entire space within the walls of the temporary structure must be free of tables, chairs, other furniture and related obstructions.

POSTING OF PERMITS AND NOTIFICATIONS

All permits and notifications must be posted on the property where the tents, canopies, and membrane structures are installed. The permits and notification must be visible to the public.

EXITS

The minimum number of and width of exits shall be as follows:



Capacity	Minimum # of Exits	Minimum Width per	Minimum Width per
	Required	Exit for Tents	Exit for Membrane
			Structures
10 to 199	2	72 inches	36 inches
200 to 499	3	72 inches	72 inches
500 to 999	4	96 inches	72 inches
1,000 to 1,999	5	120 inches	96 inches
2,000 to 2,999	6	120 inches	96 inches
Over 3,0002	72	120 inches ²	96 inches ²

TABLE 2: MINIMUM EXIT REQUIREMENTS

The total width of all exits shall not be less than the total occupant load multiplied by 0.2 inches per person. Exiting through other nearby tents is an <u>unacceptable</u> configuration.

EXIT DISTRIBUTION

Exits shall be spaced at equal intervals around the perimeter and located so no point within the tent is over 100 feet from an exit. This measurement is determined by the path of travel a person would be required to follow to reach the exit. Exiting from one tent into or through an adjacent tent is not an acceptable configuration.

EXIT COVERS

Openings in the structure shall remain open unless covered by a flame-resistant curtain. Curtains are to be free sliding on a metal support, and when open, shall not obstruct the exit width. Curtains shall be a color that contrasts with the tent.

AISLES

The minimum width of any public aisle is 44 inches. Aisles for employees only, may be 24 inches wide, but not less than the width required by the number of employees served. Aisles in seating areas shall progressively increase in width to provide, at all points, not less than 1 foot of width for each 50 persons served by such aisle at that point.

EXIT SIGNS AND ILLUMINATION

An exit sign shall be provided for each exit when the occupant load exceeds 50. Exit signs shall be illuminated by either an approved self-luminous type or shall be internally or externally illuminated by fixtures supplied in an approved manner. Means of egress shall be illuminated in an approved manner, with light having not less than 1 foot-candle at the floor level while the structure is occupied.

MAINTENANCE OF EXITS

The required clear width of all exits, aisles, and passageways to a public way shall be maintained free of any obstacles at all times. Support ropes, guy wires and other support members shall not cross a means of egress at a height of less than 8 feet over the entire clear width of the exit.



PORTABLE FIRE EXTINGUISHERS

A minimum of one (1) 2A:10BC extinguisher shall be provided for each tent, canopy and temporary membrane structure. Additional extinguishers shall be provided in compliance with Table 3 of this document. Fire extinguishers and other fire-protection appliances shall be provided in a conspicuous location. Fire extinguishers may not be removed from adjacent businesses to provide protection for the structure.

TENT, CANOPY or MEMBRANE STRUCTURE SIZE (Square Feet)	QUANTITY (each)
0-3000	1
3001-6000	2
6001-9000	3
9001-12000	4
or each additional 3000 square feet or fraction ther additional 2A:10BC extinguisher.	eof add one

TABLE 3: MINIMUM QUANTITY OF FIRE EXTINGUISHERS REQUIRED

A minimum of one (1) Class K rated fire extinguisher shall be provided at each location where cooking equipment utilizes solid fuels, vegetable, or animal fats. A minimum of one (1) 40-BC rated fire extinguisher shall be provided for each kitchen, mess hall, power generator, or transformer and at locations where flammable or combustible liquids are used, stored, or dispensed.

Additional extinguishers may be required based on higher hazard commodities located within the structure, i.e. fireworks, tires, etc. Contact Northwest Fire District for specific requirements.

The locations of these hazards shall be in accordance with location guidance found elsewhere in this document as well as applicable codes and standards. Fire extinguishers shall be located no closer than 10 feet to a hazard and no further than 75 feet from the hazard. All fire extinguishers shall be mounted at approximately waist high. Final locations and heights will be determined by the Fire Inspector.

HOUSEKEEPING

Weeds, combustible vegetation and other combustible waste shall be removed from and kept free from inside and within 30 feet of the structure. Such waste shall be stored in approved containers until removed from the premises. If the structures are placed over grasses, the grasses shall be live, watered and cut to a length of no more than 4 inches in height.

Hay, straw, trash, and other combustible materials shall not be stored within 30 feet of the tent without prior approval from the fire inspector unless being used for the care and daily feeding of animals. Sawdust/shavings utilized for public performance or exhibits shall not be used within structures unless the sawdust/shavings are kept damp.



WHAT'S WRONG WITH WATER BARRELS?

When you mention water barrels within earshot of tent safety experts or insurance representatives, they noticeably cringe. Why is that? For the insurance folks, it's about liability. If a tent manufacturer's instructions don't include water barrels as an option for anchoring a tent, and a water-barreled tent comes down, there is no question that the rental store is liable. Historically, tent manufacturers have instructed customers to stake tents into the ground to anchor them. Instructions specified the number and size of stakes to use, and the stakes themselves may have been included when the tent was purchased. Recently, however, some manufacturers have begun indicating required holding power for their tents in terms of weight. Since water is essentially weight, doesn't that mean water barrels are adequate for anchoring tents? For tent safety experts, it's a matter of mathematics.

Experts recommend installing tents so that the holding power is 1½ to 2 times the forces imposed on the tent. In 45 mile-per-hour wind – much less than that produced during a severe thunderstorm – a tent withstands about nine pounds of force per square foot of area. For a 20-foot by 20-foot frame tent, that's 400 square feet and 3600 pounds of force, so the minimum holding power needed is 5400 pounds. A gallon of water weighs 8.34 pounds, so a plastic 55-gallon barrel full of water weighs approximately 480 pounds, including the barrel itself. So, how many barrels would it take to achieve a holding power of 5400 pounds – 11, right? Nope. As a fairly smooth material, plastic's friction coefficient is only .4, so the effective weight of a full water barrel is only 40 percent of its actual weight, or 192 pounds. The number of barrels needed for our example tent increases to 28, but we're not done yet.

When tents are staked, the guy lines are attached close to the ground. When they're attached at a height of three feet, as with water barrels, the anchors lose about a third of their holding power. You need a third more barrels to secure the tent, or a total of 37 in our example. Sure, water barrels are adequate for securing tents, if you're willing to use enough of them. But if you must use weight instead of stakes, consider concrete – a block the same size as a water barrel weighs 3600 pounds and has double the friction coefficient of plastic.

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DIGGING OR STAKING

If you will be using hand tools or mechanized equipment to dig or install stakes on public or private property, obtaining an 811 ticket is required to locate and mark underground utilities prior to installation or digging on site in compliance with Arizona State law. After utilities are located, work with caution around paint, flags, or other marks you see on the ground. Examples of event-related work that would require an 811 ticket:

- Installing stakes to secure outdoor tents, "bounce houses" or other large inflatable items or canopies
- Using a shovel, post-hole digger/auger or other tools to install temporary signage, fencing, or barricades
- Using tools to pound or drive posts into the ground
- Any other activity defined as "excavation" by Arizona law

Gas pipelines, electric or telecommunications cables, water or sewer lines can be buried just about anywhere in Arizona: beneath golf courses, parks, fields, resort and country club grounds, vacant lots – in rural or urban areas – as well as commercial and residential areas. Arizona law does not guarantee utilities will be located at a specific depth, meaning underground utilities might be just a few inches or several feet below the surface. Accidentally striking a buried utility can result in serious injury, service outages and costly repairs for which you could be liable.

ATTACHMENTS

- Tent and Canopies Permit Application Checklist
- Installer and User Certification
- Temporary Structure Worksheet
- Site Plan Example
- Blank Site Plan
- Temporary Structure Set-up Checklist



Application	for Tents, Canopies and Other Membrane Structures
7	e the entire form. Incomplete applications and submittals will be returned. t be submitted a minimum of 10 business days prior to the start of the event.
Date of Application:	
Event Location:	
SPONSORING ORGANIZATION I	IFORMATION
Agency Name:	
Address:	
Contact Name:	
Phone:	Email:
APPLICANT INFORMATION	
Applicant Name:	
Address:	
Phone:	Email:
Applicant is: Contractor	O Sponsor O Other:
EVENT INFORMATION	
Event Name:	
Description of Event:	
Event Start Date:	Event Start Time:
Event End Date:	Event End Time:
Hours of Operation:	Expected Number in Attendance:
COMPANY PROVIDING TENTS,	ANOPIES and MEMBRANE STRUCTURES
Company Name:	Phone:
Contact Name:	Contact Phone:
Set-up Start Date:	Date of Tear Down:
Size of Tent, Canopy or Membr	ane Structure(s):
Call 5	20-887-1010 extension 5051 to schedule an inspection.
	ections require advance notice of a minimum of 2 business days.
	All tents, canopies and other membrane structures are permitted for a maximum of 180 days,



TENT PERMIT APPLICATION CHECKLIST

The following information must be included with the completed application and requirements shall be met before the permit will be issued. All parties, included tent owner and end user, must understand these requirements prior to occupying the tent, canopy or membrane structure. Air supported or air inflated structures have additional requirements that will be provided when requested.

Plans shall be to scale or shall indicate all measurements.

Provide a detailed site and floor plan indicating the following:

- Size of the tent, canopy or membrane structure
- Location of the tent, canopy, or membrane structure in relation to property lines, buildings, accessory buildings, vehicle parking, internal combustion engines, and proximity to other tents, canopies, or membrane structures
- Arrangement of seating and aisles, with seating capacity. All aisles shall be arranged in straight lines to the exits and means of egress
- Locations of heating, electrical equipment, and generators
- Location, width, and type of exits
- Location of exit signs, No Smoking signs, fire extinguishers, emergency egress lighting
- Location of cooking operations and equipment, appliance placement, fuel type and storage. Additional permits may be required from the Pima County Health Department.
- Location of flammable and combustible liquid storage, if applicable
- Location of emergency vehicle access
- Location and type of anchorage. Documentation of structural stability shall be furnished upon request of the fire code official.

Provide a copy of all manufacturer's specifications and certification of flame propagation treatment complying with NFPA 701 for each tent or membrane structure greater than 400 square feet and any canopy or combined number of canopies covering more than 700 square feet on one site.

Certification shall include the owner's name, address, date of last fabric treatment, chemical name or kind, person or company treating the material, and agency and test standard by which the fabric was treated.

"NO SMOKING" signs shall be conspicuously posted in all tents, canopies, and membrane structures.

Floor surfaces inside and on the ground outside within a 30-foot perimeter shall be kept free from combustible waste, combustible storage, and combustible vegetation.

Exit openings from tents shall remain open unless covered by a flame-resistant curtain. Curtains shall be a color that contracts the color of the tent and shall be free sliding on a support a minimum of 80 inches off the floor.



INSTALLER CERTIFICATION OF COMPLIANCE

_____ I will install the temporary structure in full conformance with the installation requirements as outlined in the NWFD Tents, Canopies, and Temporary Membrane Structures Handbook and the International Fire Code (IFC).

_____I will Instruct the user of the tent or canopy on the daily use of the Tent Installation Checklist. I will document this instruction by obtaining User install the temporary structure in full conformance with the installation requirements as outlined in the NWFD Tents, Canopies, and Temporary Membrane Structures Handbook and the International Fire Code (IFC).

USER CERIFICATION OF COMPLIANCE

I have read and understand the installation and periodic surveillance requirements as outlined in the NWFD Temporary Membrane Structures, Tents and Canopies document as well as the International Fire Code.

_____ I agree to abide by codes, standards and polices as outlined in the NWFD Temporary Membrane Structures, Tents and Canopies document and the International Fire Code.

_____ I agree to conduct, or have conducted by a designated employee, a daily self-inspection of the tent installation utilizing the Tent Installation Checklist provided in the NWFD Temporary Membrane Structures, Tents and Canopies document.

_____ I agree not to occupy or use the tent unless it fully meets the requirements for installation and passes the Tent Installation Checklist without exception.

User Representative Signature

Date

Printed Name



TEMPORARY STRUCTURE WORKSHEET

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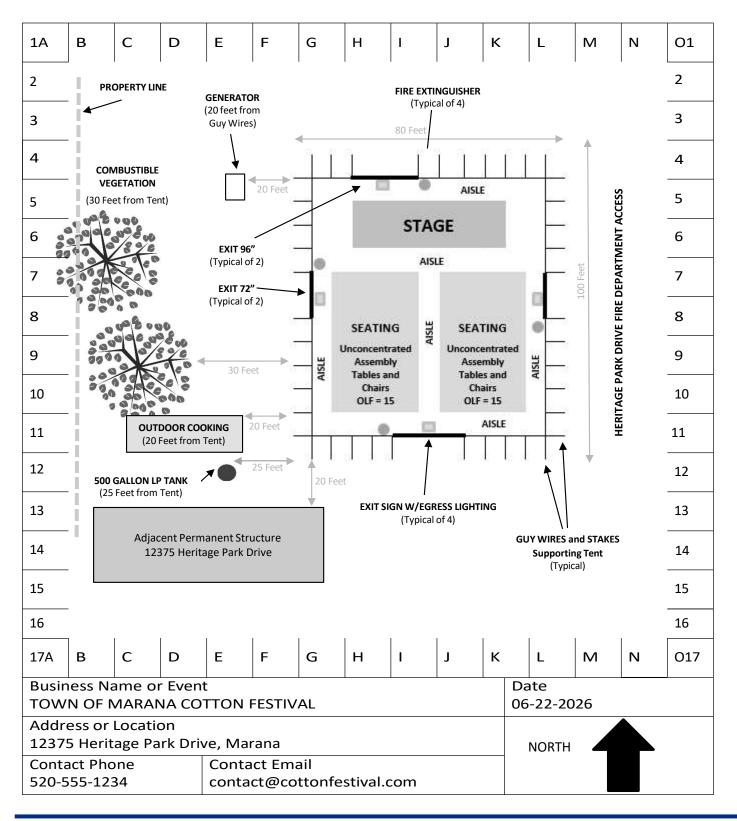
1	USE and OCCUPANT LOAD FACTOR Indicate the type of use for each tent and circle in the corresponding Occupant Load Factor (OLF). Use this OLF in the appropriate space in Stop 2									
	in Step 2 TENT US				OCCUPANT LOAD FACTOR (OLF) (sf per person)					
	Concent no furni	trated asse ture)	mbly	use (chai	7					
	Unconce	entrated as	sseml	bly use (ta	15					
		g space onl tions perm	-	•	5					
_	Retail ar	nd all other	uses				30			
2	Multiply Divide tl	OCCUPANT LOAD Enter the length and width of ea Multiply the length and width to determine the to Divide the total square footage by the OLF (Step 1) each tent.				termine the to	tal squai	re footage for	each	tent.
			х		=				=	
	Tent 1	Length	_	Width		Area (sf)	OLF			ccupant bad #1
			х		=				=	
	Tent 2	Length	_	Width		Area (sf)	OLF			ccupant bad #2
			х		=				=	
	Tent 3	Length	_	Width		Area (sf)	OLF			ccupant bad #3
3	of exits key diffe Membra opening	and minim erence betw ane Structu or remova	um ro ween ire ut	equired w a Tent ar ilizes trad	ridt nd a litio	t Load for each h for each exit Membrane St onal doors and all panel.	utilizing ructure door fra	the table bel for exiting pu	ow. N rpose simp	Note: The es is that a le
	(From S	ANT LOAD tep 2)		REQUIR EXITS	ED	NUMBER OF	inches) TENT			
	1-9			1			72	36	<u> </u>	
	10 – 199			2			72	36		
	200 – 49	9		3			72	72		
	500 - 99			4			96	72		
	1,000 - 1			5			120	96		
	2,000 – 2			6			120	96		
	Over 3,0			7			120*	96*		
		es per pers				be less than th gh other nearb		•		iplied by



4	EXITING SUMMARY Using the occupant loads calculated in Step 2, use the Table in							
	Step 3 to determine the corresponding Required Number of Exits and Minimum Width							
	of each Exit Provide the summary of this information below.							
	TENT #	REQU	IRED NUMBER OF EXITS	MINIMU	M WIDTH OF EXITS			
	TENT 1							
	TENT 2							
	TENT 3							
5	FIRE EXTINGUISHE	RS Uti	izing the square footage of	f each ter	nt, indicate the			
	appropriate numb	er of fi	re extinguishers for each to	ent.				
	TENT, CANOPY or		MINIMUM # of	EXITINGUISHER SUMMARY				
	MEMBRANE		EXTINGUISHERS REQUIRED	TENT #	TOTAL # OF			
	STRUCTURE SIZE (rf)			EXTINGUISHERS			
		517			REQUIRED			
	0-3000		1	TENT 1				
	3001-6000		2					
	6001-9000		3	TENT 2				
	9001-12000		4					
	Add 1 additional 2A	:10BC						
	additional 2000 sf or fraction thereof			TENT 3				



EXAMPLE SITE PLAN





ISO CLASS 1 ★ INTERNATIONALLY ACCREDITED 13535 N Marana Main St. | Marana, AZ 85653 (520) 887-1010 | www.nwfdaz.gov @NorthwestFire ♂ /NorthwestFireDistrict

SITE PLAN

1A	в	С	D	E	F	G	н	1	J	к	L	м	N	01
2	_		-	-		-	-							2
3	_													3
4	_													4
5														5
6	-													6
7	-													7
8	_													8
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TEMPORARY STRUCTURE SET UP CHECKLIST

#	ITEM TO VERIFY	YES	NO	CORRECTIVE ACTION REQUIRED FOR "NO" ANSWERS
1	Is the temporary structure located a minimum of 20 feet from lot lines, buildings, parked vehicles or internal combustion engines? (Support ropes and guy wires are considered part of the temporary structure.)			Do not occupy or use structure. Structure must be relocated a minimum of 20 feet from any property lines, buildings, parked vehicles or internal combustion engines.
2	Is the structure adequately anchored and braced according to the IFAI?			Do not occupy or use structure until installation meets IFAI requirements.
3	Does the structure have a label identifying the size and fabric or material type permanently affixed to it?			Do not use or occupy structure unless label is present.
4	Is the Occupant Load under 50 people?			If no, continue to question #5. If yes, skip to question #12.
5	Is the Occupant Load posted appropriately?			Do not occupy or use structure until the correct occupant load is posted appropriately.
6	Are exits clearly marked with exit signs?			Do not occupy or use structure until required exit signs are provided.
7	Will the structure be occupied/operating after dark?			If no, skip to question #12. If yes, continue to question #8.
8	Are exits signs illuminated?			Do not use or occupy structure until illuminated exits are provided.
9	Is power supplied to exit signs on two separate circuits or by two separate sources of power?			Do not use or occupy structure until a minimum of two circuits or sources of power are provided as required. (Typically, this is accomplished through the use of AC powered exit signs with internal battery backup.)
10	Is emergency egress lighting provided?			Do not use or occupy structure until emergency egress lighting is provided.
11	Is power supplied to emergency lighting on two separate circuits or by two separate sources of power?			Do not use or occupy structure until a minimum of two circuits or sources of power are provided as required.



12	Are all points in the structure within 100 feet of an exit?	Do not occupy or use structure unless sufficient nearby exits are provided.
13	Are exits open and uncovered?	Do not occupy or use structure unless all required exits are functional.
14	Are all aisles at least 44 inches wide? Do aisles increase in width where required?	Do not occupy or use structure unless proper aisle widths are maintained.
15	Are the appropriate number and type of fire extinguishers provided as identified in the handbook?	Do not use or occupy structure until sufficient, properly sized fire extinguishers are provided and located as required.
16	Is there at least one 40BC rated fire extinguisher provided for each kitchen, mess hall, power generator, or transformer and at locations where flammable or combustible liquids are used, stored, or dispensed?	Do not use or operate any of these hazards unless appropriate fire extinguishers have been provided.
17	Is there a minimum of 3 feet clearance between the fabric of the structure and all contents located inside?	Do not use or occupy structure until the proper clearance has been provided.
18	Are "No Smoking" signs conspicuously posted?	Do not occupy or use structure until no smoking signs are posted and enforced.
19	Is a generator being used on site?	If no, skip to question #21. If yes, continue to question #20.
20	Is the generator located a minimum of 20 feet from the structure? (Support ropes and guy wires are considered part of the temporary structure.)	Do not occupy or use structure until the generator has been relocated.
21	Are combustible and flammable liquids stored in an approved manner at least 50 feet from the structure? Will the structure be heated or will it	Do not occupy or use structure until the combustible and flammable liquids have been relocated to a proper storage location. If no to both, skip to question #25. If
	be used for cooking?	yes to either, continue to question #23.
23	Is heating or cooking equipment installed in accordance with the International Mechanical Code and the International Fuel Code?	Do not occupy or use structure until equipment has been properly installed and inspected by the appropriate parties.



24	Is cooking or heating equipment located a minimum of 10 feet from exits or combustible materials?	Do not occupy or use structure until equipment is relocated a minimum of 10 feet from exits or combustible materials.
25	Is LP gas being used on site?	If no, skip to question # 27. If yes, continue to question #26.
26	Is the LP container more than 500 gallons?	If no, provide a minimum of 10 feet separation between the tank and the structure. If yes, provided a minimum of 25 feet separation between the tank and the structure.
27	Has combustible vegetation within 30 feet of the structure been removed?	Do not occupy or use structure until the combustible vegetation within 30 feet of the structure has been removed.
28	Are proper waste containers provided?	Do not use or occupy structure until waste containers are provided.
29	Is the floor surface and grounds within 30 feet surrounding the structure clear of combustible waste?	Do not use or occupy the structure until combustible waste has been removed.