

CHAPTER 17

PLACES OF ASSEMBLY

SECTION 1701 GENERAL

1701.1 Scope. Places of assembly, including trade shows and exhibitions, outdoor assembly events, outdoor mazes, special amusement buildings and special scaffolding structures shall comply with Chapter 17.

1701.2 Permits. Permits shall be required as set forth in Sections 105.6 and 105.7.

1701.3 Construction documents. Construction documents shall be submitted to the fire code and building official prior to the construction or modification of special amusement buildings, special scaffolding-type structures and multilevel exhibits.

1701.4 Site plans. Site plans shall be submitted to the fire code official for prior approval in accordance with the following:

- 1. Outdoor assembly events:** At least 30 work days prior to the event, site plans shall be submitted to the fire code official that include, but not be limited to the location and width of exits, location of fencing or means used to confine attendees, and locations of fire apparatus access roads.
- 2. Trade shows and exhibitions:** A minimum of 30 days prior to set-up of trade shows or exhibitions, site plans shall be submitted to the fire code official documenting all details of the trade show or exhibition including, but not limited to the location and size of exhibits and booths, aisles and exits, location of fire extinguishers, hose valves, manual pull stations, and fire alarm strobes, location of covered or multilevel exhibits or booths.
- 3. Outdoor mazes:** A minimum of 30 days prior to the event, site plans shall be submitted to the fire code official. The site plan shall document the location of mazes and any other buildings or structures on the site, location of means to confine attendees, location and width of exits, location of internal combustion engines, location of approved fire extinguishers, location of generators and location of fire hydrants.
- 4. Vehicle displays:** At least 10 work days prior to the display of liquid- or gas-fueled vehicles, boats or other motor craft in Group A occupancies, see Section 314.4.

Exception: Auto dealerships.

- 5. Vehicle competition or demonstration:** At least 10 days prior to the competition or demonstration of gas-fueled vehicles, boats or other motor craft in Group A occupancies, see Section 314.4.

SECTION 1702 DEFINITIONS

1702.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

EXHIBITS. A space or portable structure used for the display of products or services.

MAZES. A labyrinth of paths throughout a confined area accessible by walking or mobile unit.

SWEAT LODGE. A structure constructed for a religious ceremony that contains a fire.

TORCHES. The use of open flame torches for entertainment purposes before a proximate audience.

TRADE SHOWS OR EXHIBITIONS. Public or private displays, events or occurrences held in buildings or portions of buildings for gathering together of 50 or more persons for purposes of competition, demonstration, a setting or presentation of something in open view, or showing the merits of a product or service to a prospective consumer.

SECTION 1703 TRADE SHOWS AND EXHIBITIONS

1703.1 General. Trade shows and exhibitions, conducted within any occupancy shall comply with the fire protection and safety requirements of Sections 1703 and 314.

1703.2 Fixtures and displays. Fixtures and displays of goods for sale to the public shall be arranged so as to maintain free, immediate and unobstructed access to exits as required by Chapter 10.

1703.3 Vehicles. Liquid- or gas-fueled vehicles, boats or other motor-craft displayed shall comply with Section 314.

1703.4 Means of egress.

1703.4.1 Travel distance. The maximum travel distance from any point in an exhibit to an exit access shall not exceed 50 feet (15240mm).

1703.4.2 Aisles.

1703.4.2.1 Aisle width. Minimum aisle width in a trade show or exhibition shall comply with the following:

Square Footage of Trade Show or Exhibition	Minimum Aisle Width
Greater than 15,000 square feet (1393m ²)	10 feet (4572mm)
5,000 square feet (465 square meters) to 15,000 square feet (1393m ²)	8 feet (2438mm)
Less than 5,000 square feet (465 m ²)	6 feet (1829mm)

The square footage of the trade show or exhibition shall be determined by adding all of the areas being used in the

occupancy for the venue, not the individual size of each room.

1703.4.3 Obstructions. Aisles shall be kept clear of all obstructions, including but not limited to, chairs, tables, product, displays, vehicles and trailer tongues.

1703.4.4 Exit signs. Exit signs shall be visible from all locations in the occupancy.

1703.5 Exhibit construction and materials. The materials used for an exhibit shall comply with Section 1703.6.

1703.5.1 Materials.

1. Noncombustible or limited-combustible materials.
2. Wood exceeding $\frac{1}{4}$ -inch (6mm) nominal thickness
3. Wood $\frac{1}{4}$ -inch (6mm) nominal thickness or less that is pressure-treated fire-retardant wood meeting the requirements of NFPA 703, *Standard for Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials*. The product shall be marked or labeled by the manufacturer. See NFPA 703, Section 1.2.3 for labeling requirements. The product shall not be painted or similarly modified until the material has been inspected and the marking or labeling verified, or provide documentation acceptable to the fire code official.

1703.5.1.1 Flame retardant materials. Vertical materials shall comply with NFPA 701.

1703.5.1.2 Wall and ceiling coverings. Textile wall coverings, such as carpeting and similar products used as wall or ceiling finishes shall comply with NFPA 101, Sections 10.2.2 and 10.2.4.

1703.5.1.3 Plastics. Plastics shall be limited to those that comply with Section 803.2.1. Plastics used in trade shows and exhibitions with an occupant load of 300 or more shall be Class A or Class B. Plastics used in trade shows and exhibitions with an occupant load of less than 300, shall be Class A, Class B or Class C.

1703.6 Combustible materials storage.

1703.6.1 Quantity. Combustible materials shall be limited to a one-day supply.

1703.6.2 Location. Storage of combustible materials behind exhibits is prohibited. Combustible materials, including but not limited to wood crates, paper and cardboard boxes, shall be stored outside the building in an approved area or in a storeroom having a fire-resistance rating of at least one hour and protected by an approved automatic fire-extinguishing system.

1703.7 Fire Protection.

1703.7.1 Clearance. A minimum 3-foot (914mm) clearance shall be provided around all fire extinguishers, fire hose cabinets, fire alarm pull stations and all other fire protection equipment, and shall be visible and accessible from an aisle.

1703.7.2 Fire extinguishers. Fire extinguishers shall be in accordance with Section 906.

1703.7.3 Covered exhibits and booths.

1703.7.3.1 Automatic extinguishing systems. Approved automatic extinguishing systems shall be provided in covered exhibits and booths exceeding 300 square feet. See Section 105.7. Each level of multilevel exhibit booths shall be protected throughout, including the uppermost level where the uppermost level is covered with a ceiling.

Exception: Displays including boats, motor homes and other recreational vehicles.

1703.7.3.2 Smoke detectors. Single-station smoke detectors shall be provided in all enclosed, covered exhibits exceeding 120 square feet (111,484 cm²).

1703.8 Multilevel booths. Construction documents for all multilevel exhibits shall be approved and stamped by a licensed structural engineer or architect and shall be submitted with the permit application. This includes any exhibit where a live load is proposed above the exhibit area floor level, regardless of the accessibility of the area to the public. Upper levels of multilevel booths with an occupant load greater than 10 persons shall have at least 2 remote exits.

1703.9 Hazardous materials. Hazardous materials shall comply with Section 1703.10 and Chapter 27.

1703.9.1 Specific prohibitions. The following hazardous materials and operations are prohibited in trade shows and exhibitions:

1. Division 1.1, 1.2, 1.3 and 1.5 explosives as classified by the U.S. Department of Transportation.
2. Detonable, Class I and Class II organic peroxides.
3. Class I-A flammable liquids.
4. Class 4 and Class 3 oxidizers.
5. Class 4 and Class 3 (unstable) reactive materials.
6. Class 3 water-reactive materials.
7. Pyrophoric materials.
8. Highly toxic materials
9. Toxic gases.
10. Fueling or defueling of flammable or combustible liquids or compressed gases.

1703.10 Decorations. Curtains, drapes and decorations including, but not limited to drapes, signs, banners, acoustical materials, cotton, hay, fabric, paper, straw, moss, split bamboo and wood chips shall be flame resistant as demonstrated by testing in accordance with NFPA 701, or provide documentation of flame retardancy. Materials that cannot be treated for flame retardancy shall not be used. This includes but is not limited to oilcloth, tarpaper, nylon, plastic cloth and other plastic materials.

1703.11 Liquid- and gas-fueled vehicles and equipment. Liquid- and gas-fueled vehicles used for display, competition or demonstration within a building shall be in accordance with Section 314.4.

1703.12 Cooking and warming equipment and devices.

1703.12.1 General. Cooking and warming devices shall be in accordance with Section 1703.13.

1703.12.2 Public isolation. The equipment and devices shall be isolated from the public by not less than 4 feet (1219 mm) or by a noncombustible 3-sided barrier between the equipment and devices and the public.

1703.12.3 Protection. Single-well cooking equipment using combustible oils or solids shall meet the following:

1. A noncombustible lid shall be immediately available. The lid shall be of sufficient size to cover the cooking well completely.
2. The cooking surface shall not exceed 288 square inches (18,580 mm).
3. The equipment shall be placed on a noncombustible surface.
4. The equipment shall be separated from each other by a horizontal distance of not less than 2 feet (609 mm).
5. The equipment shall be separated from combustible materials by a horizontal distance of at least 2 feet (609 mm).

1703.12.4 Fire extinguishers. An approved 20-B: C rated dry chemical fire extinguisher shall be provided within 30 feet (9144 mm) of deep fat fryers using animal fat oil. An approved Class K rated fire extinguisher shall be provided within 30 feet (9144 mm) of deep fat fryers using vegetable oils).

1703.13 Electrical. See Section 605.

1703.14 Open flame devices. See Section 308.

1703.15 Pyrotechnics and lasers. Pyrotechnics shall comply with Chapter 3. Lasers shall comply with State of Arizona regulations.

SECTION 1704 OUTDOOR ASSEMBLY EVENTS

1704.1 General. Outdoor assembly events shall be in accordance with Section 1704.

1704.2 Occupant load. The fire code official shall establish an occupant load for the event site.

1704.3 Exits. Exits as remote from each other as practical shall be provided as follows:

Occupant Load	Minimum Number of Exits
500 to 4,999	2
5,000 to 8,999	3
9,000 or more	4

1704.3.1 Width. The aggregate clear width of exits shall be a minimum of 36 inches wide (914 mm) for each 500 persons to be accommodated.

1704.3.2 Signs. Exits shall be identified with signs that read "EXIT." The signs shall be weather-resistant with red lettering on a contrasting background. The lettering shall be of sufficient height and brush stroke to be immediately visible from 75 feet (22,860 mm). Placement of the exit signs shall be approved by the fire code official.

1704.4 Access. Fire apparatus access roads shall be provided in accordance with Chapter 5.

1704.5 Fire extinguishers.

1704.5.1 General. Portable fire extinguishers shall be provided for the entire event site in accordance with Section 906.

1704.5.2 Travel distance. Maximum travel distance to reach a portable fire extinguisher shall not exceed 75 feet (22,860 mm).

1704.6 Electrical equipment. Electrical equipment and installations shall comply with the *National Electrical Code*.

1704.7 Concession stands and food booths.

1704.7.1 General. Concession stands and food booths shall be in accordance with Section 1704.7.

1704.7.1.1 Distances. A minimum of 10 feet (3048 mm) shall be provided behind booths when placed back-to-back. A minimum of 20 feet (6096 mm) shall be provided between every 150 feet (45,720 mm) of concession stand and food booth space. A minimum of 30 feet (9144 mm) shall be provided between food booths and the parking of automobiles, generators or any other internal combustion engine.

1704.7.1.2 Location. Concession stands used for cooking shall have a minimum of 10 feet (3048 mm) of clearance on two sides and shall not be located within 10 feet (3048 mm) of amusement rides or devices.

1704.7.1.3 Fire extinguishers. An approved 20-B: C rated dry chemical fire extinguisher shall be provided within 30 feet (9144 mm) of deep fat fryers using animal fat oil. An approved Class K rated fire extinguisher shall be provided within 30 feet (9144 mm) of deep fat fryers using vegetable oils.

1704.7.2 Cooking appliances or devices.

1704.7.2.1 Public isolation. Concession stand and food booth cooking appliances or devices shall be isolated from the public by providing the following:

1. A minimum of 4 feet (1219 mm) between the cooking appliances or devices from the front of the booth, or
2. A noncombustible 3-sided shield installed between the cooking appliance or device and the public.

A minimum of 3 feet (914 mm) shall be provided between concession stands and food booths and solid fuel-burning appliances or devices.

1704.7.3 Liquefied petroleum gas (LP-gas). LP-gas shall be in accordance with Chapter 38 and NFPA 58.

1704.7.3.1 Maximum number and quantity. A maximum of two LP-gas containers with a total aggregate water capacity of 25 gallons (95L) is permitted at one concession stand or food booth.

1704.7.3.2 LP-gas cylinder hoses. Hoses shall be designed for a working pressure of 350 PSIG with a safety factor of 5 to 1 and shall be continuously marked with

“LP-GAS, PROPANE, 350 PSI WORKING PRESSURE”, and the manufacturer’s name or trademark. Hose assemblies, after the application of couplings, shall have a design capability of 700 PSIG. Hose assemblies shall be leak tested at the time of installation at not less than the operating pressure of the system in which they are installed. The hose length shall be 36 inches (914 mm) or less.

1704.7.3.3 Storage of containers. Containers shall be stored in accordance with Chapter 38.

1704.8 Internal combustion engines. Internal combustion power sources, generators and similar equipment shall be in accordance with Section 1704.8.

1704.8.1 Fueling. Fueling of internal combustion power sources shall be conducted only when not in use.

1704.8.2 Protection. Internal combustion power sources shall be isolated from the public by physical guard, fence or enclosure installed at least 3 feet (914 mm) away from the internal combustion power source.

1704.9 Water stations. When outdoor temperatures are expected to exceed 100°F (38°C), the event sponsor shall provide and maintain a minimum of one staffed water station for each 25,000 persons-projected attendance. The water station shall include adequate water supply and cups, and a means for rapid replenishing of exhausted water and ice supplies. Each water station shall be located as far apart as practicable to allow ease of access for event attendees.

SECTION 1705 SPECIAL AMUSEMENT BUILDINGS

1705.1 General. Special amusement buildings shall be in accordance with Section 411 of the *International Building Code*, and this section.

Exception: Amusement buildings or portions thereof that are without walls or a roof and constructed to prevent the accumulation of smoke.

1705.2 Use of combustible decorative materials. Use of combustible decorative materials shall be in accordance with Chapter 3.

1705.3 Assistance. Adult monitors with flashlights shall be available to provide assistance in the event someone becomes lost or disoriented.

1705.4 Automatic sprinkler system. Special amusement buildings shall be equipped throughout with an automatic sprinkler system in accordance with Chapter 9.

1705.4.1 Temporary special amusement buildings. Where the special amusement building is temporary, the sprinkler water supply shall be of an approved temporary means. The sprinkler piping shall be connected to a temporary water supply having sufficient capacity (flow and pressure) to supply residential or standard quick spray response sprinkler heads at a minimum design density of 0.15 gpm per square foot of protected floor area. The design shall be based on flowing the six most hydraulically remote sprinkler heads. Should the temporary amusement building con-

tain less than six heads, the design shall assume that all heads are flowing simultaneously.

The temporary water supply may be connected to either a domestic water line, a fire line or temporary on-site storage, as long as the minimum design densities are met. An indicating type control valve shall be installed in an accessible location between the sprinkler system and the connection to the water supply.

When the temporary sprinkler system is installed from a domestic water line, back flow prevention shall be provided in accordance with the requirements of the *Arizona State Plumbing Code*.

SECTION 1706 OUTDOOR MAZES

1706.1 General. Outdoor mazes including, but not limited to, corn stalk or hedge mazes shall be in accordance with Section 1706.

1706.1.1 Smoking and open flame devices. Smoking and open flame devices shall not be permitted within 50 feet of the maze site.

1706.1.2 Safe refuge areas. Safe refuge areas shall be established outside of the maze or building and structure, and not closer than 50 feet (15240 mm).

1706.1.3 Generators. When generators are installed, a permit from the Development Services Department shall be obtained.

The generators shall be installed at least 10 feet (3048 mm) from combustible materials.

1706.1.4 Paths. Paths throughout the maze shall be a minimum of 36 inches (914 mm) clear and unobstructed width.

1706.1.5 Separation. A minimum of 20 feet (6096 mm) shall be provided between mazes and buildings and structures. The 20-foot (6096 mm) clearance shall be free from vegetation and obstructions.

1706.1.6 Means of egress. Each exit shall be a minimum of 6 feet (1828 mm) wide.

1706.1.6.1 Travel distance. The maximum travel distance to reach an exit access shall not exceed 75 feet (22,860 mm). The travel distance shall be determined by using the maze path.

1706.1.6.2 Number. The travel distance required to reach an exit access shall determine the number of exits required. Locking devices shall not be allowed on exits when the maze is occupied.

1706.1.6.3 Exit signs. Exit signs shall be provided next to or above each exit. The lettering shall be a minimum of 12 inches (305 mm) high, with 2-inch (51 mm) brush-stroke. The signs shall read “EXIT” with lettering in a color contrasting to the sign’s background.

1706.1.6.4 Fire extinguishers. A minimum 2:A:10-B:C portable fire extinguisher shall be provided at each exit.

1706.2 Permit application. At time of permit application, the event coordinator shall submit to the fire code official a letter

from the property owner authorizing the use of the site, the address of the site, dates and hours of operation, and names and 24-hour phone numbers of at least two principals.

1706.2.1 Event plans. The following plans shall be submitted to the fire code official for approval.

1706.2.1.2 General fire safety plan. The plan shall include, but not be limited to procedures that shall be used to prevent over-drying of vegetation throughout the site, documentation of decorative materials flame-retardancy, the maximum number of attendees.

1706.2.1.3 Security plan. The plan shall document who shall provide security (e.g., off-duty police officers, sheriff's posse, employees). Each security personnel shall be provided with a two-way radio and flashlight.

1706.2.1.4 Evacuation plans. The plan shall document the responsibilities of all on-site employees. The plan shall also document how attendees will be evacuated, and where they will be evacuated.

1706.2.1.5 Maze rules. Each attendee shall be provided with maze rules.

1706.3 Employee responsibilities. Each employee shall be familiar with the evacuation plan and with fire extinguisher locations.

1706.3.1 Guides. An employee shall be responsible for guiding a group of not more than 14 attendees through the maze. Each employee shall be provided with a minimum of one "D" size flashlight and two-way radio. The employees shall be responsible for detecting and reporting fire or smoke to a competent, person posted at the maze main entrance.

1706.3.2 Main entrance employee. Each maze shall be manned by an employee at the entrance. The employee shall be capable of communicating with the employees and shall be provided with a cellular telephone. When the main entrance employee receives a report of smoke, fire or injury, the employee shall immediately call 9-1-1.

1706.4 Watering. Corn stalk and hedge mazes shall be provided with sufficient water and at a frequency that prevents the vegetation from becoming dry or brittle. Failure to comply with this provision is an imminent hazard and the fire code official shall issue a stop order.

1706.5 Buildings and structures. When buildings and structures are intended to be occupied by attendees, the buildings and structures shall comply with Section 1705.

SECTION 1707 COVERED MALL BUILDINGS

1707.1 General. Temporary use of the common pedestrian area within a covered mall building for promotional, Group E, Group A, Group M or similar activities shall be in accordance with Section 1707.

1707.2 Definitions.

ALLOWABLE USE AREA. The area approved to conduct activities in accordance with Section 1707 and shall not include area necessary for main and cross aisles.

CROSS AISLES. Required aisles which permit egress from one main aisle to another through an allowable use area.

FIXTURES. Those furnishings accessory to the normal operation of the mall. Fixtures are allowed to include, but are not limited to, seating, directories, planters and lighting fixtures.

MAIN AISLE. That area of a mall designated to accommodate the required means of egress width located between the furthest projections of the area designated for use by a tenant and the allowable use area.

TEMPORARY STRUCTURES. Kiosks, booths, concession stands and similar structures.

1707.3 General requirements.

1707.3.1 Main aisle width. Main aisles shall be a minimum of 10 feet (3048 mm) in width or the minimum required means of egress width, whichever is greater, and shall be maintained in accordance with Chapter 10. Main aisles shall not be obstructed.

1707.3.2 Cross aisle width. Cross aisles shall be a minimum of 15 feet (4572 mm) in width or the required means of egress width, whichever is greater, and shall be maintained in accordance with Chapter 10.

1707.3.3 Fueled equipment. Liquid- or gas-fueled appliances, tools, apparatus, craft or vehicles shall be displayed in a mall in accordance with Section 314. LP-gas powered floor maintenance machines may be used when in conformance with Chapter 38.

1707.4 Combustible decorative materials. Combustible decorative materials shall be in accordance with Chapter 8.

1707.5 Fixtures. Fixtures shall not be located in main aisles or cross aisles.

