

**MCKINNEY FIRE DEPARTMENT
FIRE MARSHAL'S OFFICE**

**SPECIAL AMUSEMENT OCCUPANCIES
HAUNTED HOUSE, SCARE HOUSE OR MAZE**

Effective Date: 10/01/2007

Revised: June 2014

Summary: Fire Department requirements for the Permit issuance and safe operation of a Temporary Special Amusement Occupancy.

PURPOSE

To establish minimum fire and life safety guidelines for the use and operation of a temporary Special Amusement Occupancy for the use of a facility or outside space for a "Haunted Houses, Scare House or Haunted Maze" within the City of McKinney.

SCOPE

These guidelines are intended to apply to "Haunted Houses, Scare Houses or Haunted Mazes" which typically operate during the Halloween season at special community, school or local fund raising events. They may also apply to similar commercial activities such as carnivals and other seasonal amusement activities.

These guidelines are necessarily general in scope and should be applied with appropriate professional judgment and common sense in consideration of the overall fire and life safety situation.

This guide does not replace, nor supersede any adopted codes and/or ordinances adopted by the City of McKinney, or determinations and positions of the Fire Chief or Fire Marshal.

DEFINITION

SPECIAL AMUSEMENT BUILDING. A building that is temporary, permanent or mobile that contains a device or system that conveys passengers or provides a walkway along, around or over a course in any direction as a form of amusement arranged so that the egress path is not readily apparent due to visual or audio distractions or an intentionally confounded egress path, or is not readily available because of the mode of conveyance through the building or structure.

HISTORICAL BACKGROUND

Located at the site now occupied by the Autobahn bumper cars and the picnic grounds, Haunted Castle at Six Flags Great Adventure was the original fun house attraction of Six Flags. At the opening day (1979), it was called "Haunted Castle Across the Moat", because to access it, one would have to cross a drawbridge. Inside the attraction, people were spooked by various props and sequences, along with live actors. The attraction was a set of trailer mazes linked up to create a walk-through ride. The facade of the attraction featured turrets, a demon sticking out of the built-in sign, and various other oddities intended to create a scary atmosphere.

On May 11, 1984, one room's lights burned out. A 14-year old boy, who happened to have a cigarette lighter with him, took it out and lit a flame to guide his way through the dark room. He accidentally hit the rubber padding on the wall which lit it on fire. The flames quickly spread throughout the attraction because of highly flammable building material and outside air conditioners that fanned the fire. Only a handful of people escaped the burning building through the main entrance. Seven people were treated for smoke inhalation. However, one group wasn't so lucky. A group consisting of nine teenagers was caught in the fire with no way out. Out of the nine teenagers

SPECIAL AMUSEMENT OCCUPANCIES

HAUNTER HOUSE, SCARE HOUSE OR MAZE

only one survived the fire the rest were burned to death. More information can be found at http://en.wikipedia.org/wiki/Haunted_Castle_at_Six_Flags_Great_Adventure.

In general, such facilities shall comply with the provisions of both the 2012 International Fire Code and the 2012 International Building Code, and shall be classified as a "Special Amusement Building" as defined in Section 202.

Fire And Life Safety Guidelines

By nature, many of these types of facilities are unique; thus, the fire safety concerns are unique and must be evaluated accordingly. Special attention should be given to overall exit arrangement, exit travel distance, exit and emergency lighting, use of flammable liquids and combustible interior finish and construction materials, use and operational condition of fire detection, alarm and extinguishing equipment, use of special effects, adequate trained and supervised staff, established emergency procedures, and readily available means to notify local fire, police and emergency medical services. For added safety, it may be necessary to limit occupant load, add additional emergency exits or establish other special precautions to minimize a potential risk due to some unique circumstance. In any event, every effort should be made to provide an enjoyable but fire safe environment as determined by the local fire inspection authority.

MATERIALS AND CONSTRUCTION

1. Highly flammable materials such as cotton batting, straw, dried plant material, certain plastics, etc. shall not be used for decorations or construction.
2. Avoid use of combustible material in displays. If used, combustibles must be treated with an approved commercial flame-retardant treatment. Samples of all such materials must be submitted to this office for flame tests prior to use.
3. Construction of interior partitions, cubicles, mazes and the like shall be of non-combustible materials such as gypsum wallboard on wood or metal studs, brick, concrete block, plaster, etc. Under no circumstances shall the extensive use of exposed plywood, wood paneling or wood frame partitions be allowed where such material would substantially contribute to the ignition, spread or intensity of a fire. Use of fire retardant treated materials shall be restricted since many such products tend to produce unacceptably high levels of smoke when exposed to fire. In any case, interior construction materials shall be consistent with the general type of construction of the building.
4. Extension cords, multiplug adapters, and non-fused power strips are not permitted. Only UL Approved circuit breaker strips or NEC approved wiring methods are permitted.
5. The interior finish shall be Class A in accordance with Section 803.1. Flame Spread 0-25; Smoke Developed 0-450. Combustible material shall be flame resistant. Foam plastics shall not be used other than trim.
6. Use of draperies, cardboard and flammable vinyl materials for use as interior finish or display purposes shall not be used unless they are inherently flame resistive, self-extinguishing or otherwise fire retardant treated in an approved manner as per NFPA 701.
7. Under no circumstances shall the use of exposed urethane foam, foam rubber or similarly highly combustible "cushion" or "molded" material be allowed, unless such material is covered or otherwise protected by gypsum wallboard, plaster or other non-combustible covering providing at least a 15 minute fire resistance rating.
8. All wiring and electrical appliances must comply with the National Electrical Code, NFPA 70. A licensed electrician shall install all wiring. Special attention should be given to assure adequate clearance is provided between electrical appliances subject to heated surfaces and nearby combustible materials. All electrical wiring and electrical appliances shall be subject to inspection by an approved electrical inspection agency.
9. Smoking and the use of pyrotechnic devices (fireworks) or open flame devices such as cigarette lighters, candles, canisters, kerosene lamps, kerosene heaters, flash powder, shall be strictly prohibited inside or around the outside of special amusement buildings or display areas. Signs shall be conspicuously posted for this purpose.

SPECIAL AMUSEMENT OCCUPANCIES

HAUNTER HOUSE, SCARE HOUSE OR MAZE

10. The use of flame effects and/or pyrotechnics will be evaluated on a case-by-case basis and shall be permitted only if performed and supervised by a licensed technician. *Separate Pyrotechnics Permit shall be required.*

FIRE PROTECTION SYSTEMS

11. Automatic fire detection. Special amusement buildings shall be equipped with an automatic fire detection system in accordance with Section 907 of the IFC.
 - a. In areas where ambient conditions will cause a smoke detection system to alarm, an approved alternate type of automatic detector shall be installed.
12. Alarm. Activation of any single smoke detector, the automatic sprinkler system or any other automatic fire detection device shall immediately sound an alarm at the building at a constantly attended location from which emergency action can be initiated, including the capability of manual initiation of requirements in Section 907.2.11.2.
 - a. Cause illumination in the means of egress.
 - b. Stop any conflicting or confusing sounds and visuals.
 - c. (Note: As an alternative to the above, consideration may be given to use of a master lighting switch under the direct control of an attendant at a constantly attended location which would illuminate the area in the event of emergency. This shall be limited to small or temporary facilities.)
13. **Automatic Sprinklers:** Special amusement buildings shall be equipped throughout with an automatic sprinkler system in accordance with NFPA 13. Where the special amusement building is temporary, the sprinkler water supply shall be of an approved temporary means.
14. **Emergency Voice/Alarm Communication System:** An emergency voice/alarm communication system, which is also allowed to serve as a public address system, shall be installed in accordance with NFPA 72, and shall be audible throughout the entire special amusement building.
15. **Fire Extinguishers:** An adequate number and type of portable fire extinguishers shall be provided on the premises for use by the staff. At least one 2A:10BC (10-lb. multi-purpose) rated fire extinguisher shall be provided within 75 ft. travel distance to all areas. Extinguishers shall be properly mounted and located near an exit. All staff shall be familiar with the location and use of such fire extinguishers.
16. **Exit Markings:** Exit signs shall be installed throughout amusement buildings. Such markings shall become visible in an emergency. The directional exit marking shall be activated by the automatic fire detection system and the automatic sprinkler system in accordance with system response outlined in paragraph above. Exit signs shall have a battery back-up system. Additional approved directional exit markings shall also be provided when required by the code or deemed necessary. Where mirrors, mazes or other designs are utilized that disguise the path of egress travel such that they are not apparent, approved low-level exit signs and directional path markings shall be provided and located not more than 8 inches above the walking surface and on or near the path of egress travel.
17. Maintain all exits clear of obstructions and in useable condition.
18. Exit doors shall be maintained in proper working order and unlocked at all times when the building is occupied.
19. Exits shall be identified by approved self-luminous or electrically illuminated exit signs, permanently or temporarily wired in a satisfactory manner. Exit signs may be externally illuminated by a reliable power source. The size of the letters in the word "Exit" shall be large enough to be seen but not less than 6-inches high and ¾-inches wide. The exit sign shall be of a distinctive color on a contrasting background (eg: red or green letters on a white background or vice-versa) and shall be readily apparent with respect to nearby decorations, interior finish, or other signs.
20. If necessary, low level exit signs located at or near floor level shall be provided. Consideration may also be given to special floor proximity egress path marking such as special internally illuminated wiring, reflective tape or other acceptable product.
21. Emergency lighting is required along all means of egress and in all assembly areas. Battery packs are acceptable as well as emergency generators if the building is to be occupied on a temporary basis.

SPECIAL AMUSEMENT OCCUPANCIES

HAUNTER HOUSE, SCARE HOUSE OR MAZE

Consideration may be given to the use of flash lights or other portable battery operated hand lights under certain circumstances provided an adequate number of such devices and assigned supervisory personnel are available as directed by the fire official.

22. Each occupied floor shall be provided with at least two (2) approved means of egress, located as remote as possible from each other. Each exit and the access to reach it shall be clearly indicated and marked by directional exit signs as necessary so that every occupant can readily see the direction of escape from any point.
23. Any doorway or passageway that is not an exit or a way to reach an exit, but may be mistaken as an exit, shall be identified with a "No Exit" sign to prevent occupant confusion with designated exits. Every effort shall be made to prevent occupants mistakenly traveling into dead-end spaces in a fire emergency.
24. No decorations, furnishings or equipment shall be allowed to obstruct, impair or otherwise detract attention from the visibility or use of an exit. Under no circumstances shall an exit be part of a mirrored wall.
25. Where mazes, mirrors or other layouts are designed to confound the egress path, approved directional exit marking that will become apparent to the occupant in an emergency shall be provided.
26. Approved "Fire Lanes" and emergency access to the premises shall be provided.
27. All staff shall be trained and drilled in the duties they are to perform in case of fire, panic or other emergency to effect orderly exiting. This shall include personnel specifically assigned to notify the fire department and other appropriate emergency services. Staff shall be specifically instructed to devote their immediate attention to the safe evacuation of occupants and notification of the fire department before attempting to fight a fire, in order to prevent possible injury or delayed alarm.
28. For added safety, the Fire Marshal may limit the occupant load to a small group of people at a time to be "ushered" through a display with proper supervision. Also, the general public shall be restricted to only those floors or areas which are provided with adequate exits.
- 29.

To expedite the plan review and inspection processes, please refer to the information listed below.

PERMITTING REQUIREMENTS

1. Provide a written description of the operations for the "Haunted House, Scare House or Haunted Maze".
2. Plan drawings of the installation location and layout, to include; including.
 - a. Floor plan layout.
 - b. Location of all exits and emergency lights.
 - c. Location of all fire extinguishers.
3. Listing of all materials to be used and the fire rated classification of each. NOTE. Only Class A interior finish is permitted.
4. Locations of any mirror walls, laser lights or other mechanism to confuse occupants.
5. Indicate the locations and use of any smoke or dry-ice machines. NOTE: Smoke machines may not be permitted and may cause alarms in a building with smoke detection installed.
6. Drawings shall be submitted for review and approval, PRIOR to installation.
7. The submittal package must include all above requirements.
8. No Haunted Houses, Scare Houses or Mazes shall be constructed, located or otherwise used until a Special Amusement Permit has been issued by the Fire Department. This is to include the operation of these facilities within an R-3 single family residential home in which persons other than direct family members, general public or admission is required for entry. Any use of a structure or outside location as a special amusement PRIOR TO issuance of this permit may result in a citation being issued for violation of Section 113.3 of the 2012 International Fire Code.
9. Separate review and/or permit will be required by the Building Inspections Department.

GENERAL SUBMITTAL REQUIREMENTS

SPECIAL AMUSEMENT OCCUPANCIES HAUNTER HOUSE, SCARE HOUSE OR MAZE

10. Each submittal shall have a completed McKinney Fire Department Plan Review Permit Application.
11. Plans approved by the Fire Marshal's Office give authorization for installation. Final approvals are subject to field verification. Any approval issued by the Fire Marshal's Office does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances.
12. All fire department inspection forms and permits shall be kept on site the duration of the planned use.
13. All installations shall comply with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office.

All special amusement occupancies for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2012 International Fire Code, as adopted and amended by City of McKinney.

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