

# Fire and Life Safety Planning and Management Guide for Public Assembly Events

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## Information and Assistance

### General Information on Event Planning and the *Event Management Handbook*

Planning for all events should begin by contacting the [Campus Reservations Office](#) located in the Stamp Student Union (301.314.8488). The office is open Monday through Friday, 8:30am to 4:30pm. The [Event Management Handbook](#) is available at the office or online. Greek facilities should check with Greek Life regarding special Greek event requirements.

### Fire and Life Safety

All persons planning public assembly events are encouraged to contact the [Department of Environmental Safety Fire Marshal's Office](#) for information and assistance. Consultation is available by telephone, email, meeting, and at the event site.

In order to comply with the requirements of the State Fire Prevention Code, it is necessary for the DES Fire Marshal's Office to make certain approvals as noted in these guidelines. Required approvals and inspections should be requested as far in advance as possible.

DES Fire Marshals are required to be present for certain events such as indoor pyrotechnics, outdoor fireworks, and large scale events. Services are also provided for events with security concerns as requested by the sponsors and/or UMPD. When services are required or requested for events, a fee for services applies. Fee estimates are provided during event planning.

There is **no charge** for event planning, consultations, or random inspections.

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## Definition of Public Assembly

Public assembly events involve various risk factors associated with having large numbers of people in one location. The primary risk factors are the high occupant density, occupants that are not familiar with the building, and in some cases darkness. These risks can be managed through proper event planning and management.

The State Fire Prevention Code defines a public assembly occupancy as follows:

Assembly occupancies include but are not limited to, all buildings or portions of buildings, used for gathering together **50 or more persons** for such purposes as deliberation, worship, entertainment, eating, drinking, amusement, or awaiting transportation. (NFPA 101 Life Safety Code)

Examples of assembly occupancies found on the UM campus include large meeting rooms and classrooms, auditoriums with fixed or loose chair seating, multi-purpose rooms, concert halls, theaters, sports arenas, field houses, restaurants, bars, and libraries.

## Tents Are Considered Buildings

Tents must meet most of the same requirements as buildings. Please see the section on Tents **and** the [UM Tent Use Guidelines](#).

## Outdoor Spaces

Enclosed open areas such as [Byrd Stadium](#) must meet the same requirements as buildings. Fenced open areas must have at least two exits.

Bleachers, grandstands, and platforms must be certified as structurally sound by a registered professional engineer.

## Large Scale Events

All events intended to, or that have the potential to, attract large crowds must be coordinated through any number of University departments and divisions. These include but are not limited to: [Stamp Student Union and Campus Programs](#), [UMPD](#), [Campus Parking](#), [Facilities Management](#), [Health Center](#), [DES](#). Refer to the [Event Management Handbook](#).

# Fire and Life Safety Planning and Management Information

## Room Capacity

Information on campus room capacities may be obtained from Campus Reservations ((301) 314-8088) or the Classroom Scheduling Office ((301) 314-8243). The DES Fire Marshal's Office determines the legal capacities. Be aware that the occupant load is the maximum capacity based on the net clear floor area. Stages and other obstructions, seating arrangements and the use of tables will decrease the capacity. The type of event is also a determining factor. When planning for an event, consider the following:

<i>Use</i>	<i>Minimum area per person</i>
concentrated (concerts, dances, lectures)	7 sq ft per person
less concentrated (dining room, exhibit room)	15 sq ft per person
fixed seats	number of fixed seats
stage (persons on stage)	15 sq ft per person

## Exits

The number of exits required are based on the capacity.

<i>Number of persons</i>	<i>Minimum number of exits</i>
50 - 499 persons	2 remote exits (minimum)
500 - 999 persons	3 remote exits (minimum)
1000 or more persons	4 remote exits

Exits must remain unobstructed and provide clear access to the outside at all times. Wires or cables are not permitted to be placed in front of exits or on steps. All wires or cables on floors must be properly taped down or covered to avoid tripping hazards.

## Set-up Plans

The placement of stages, seats, equipment (including wiring), and security arrangements affect the exits and access to exits.

Standard set-up plans exist for the [Colony Ballroom](#), the [Grand Ballroom](#), [Ritchie Coliseum](#), [Reckord Armory](#), [Cole Field House](#), and the dining halls. These plans are maintained by the

management of the respective facilities. Set-up plans for other spaces, spaces that are not routinely used for public assembly (including lobbies and atriums), or any plans that are different from existing standard plans must be reviewed in advance by the DES Fire Marshal's Office for conformance with life safety regulations.

Temporary seats must be secured together. Temporary bleachers and platforms must be certified as structurally sound by a registered professional engineer.

The use of "festival" style seating (general admission without the use of actual seats) is prohibited for concert events in venues that have an occupant load of 1000 or greater (Grand Ballroom, Cole Field House, Byrd Stadium, Reckord Armory, Ritchie Coliseum).

## **Tents**

Please review the detailed information in the [UM Tent Use Guidelines](#).

Tent material must be properly certified as flame retardant. Some tents have attached labels. When labels are not attached, sponsors, promoters, or other production personnel must have documentation that certifies that the tent material is flame retardant. Certification must be based on NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

[Example Certificate](#)

Flooring for tents must be non-combustible. Straw, hay, wood chips, mulch, or other similar materials are prohibited from use as flooring in tents. [Example Flooring Certificate](#)

Use of open flames (including those used for cooking or warming of food) and heaters must be approved in advance by the DES Fire Marshal's Office.

Tent suppliers must be able to certify that tents have been erected in accordance with manufacturer recommendations, industry standards, and code requirements.

## **Special Amusement Buildings**

Any building or portion of building that is permanent, temporary, or mobile that is arranged as an amusement must be approved by the DES Fire Marshal's Office. Amusement arrangements are those where the exit path is not readily apparent due to visual or audio distractions. Examples include haunted houses and carnival amusement trailers.

## **Expositions**

Expositions of products or other displays have a number of special requirements. Contact the DES Fire Marshal's Office for consultation and event planning.

## **Exit Notices**

The person in charge of a theater or place of assembly is required to call the attention of everyone present, immediately before the beginning of an event, to the location of exits and to state that the exits are not locked. The person in charge must also announce the following: "Notice. For your own safety, look for the nearest exit. In case of emergency, walk, do not run, to that exit."

The two requirements are considered complied with by one of the following methods:

1. Notices made orally
2. Notices shown on cinema screen
3. Notices printed on the back of a program (by itself in 1/4 inch letters)
4. Notices displayed on a fixed sign visible from all points in an assembly room

## **Decorations and Theatrical Scenery**

All materials used for decorations and theatrical scenery, including the drop used behind stages during concerts, must be Class "A" rated for flame spread. Sponsors, promoters, or other production personnel must have documentation that certifies that the material meets this requirement. DES Fire Marshals may ask to see these certificates prior to the start of an event.

[Example Certificate](#)

If there is no documentation to certify that the material is acceptable, DES Fire Marshals may be requested to perform a "field flammability test." A small sample of the material is required for the test. Materials that fail the test must not be used.

Decorations must not block exits or fire safety equipment.

## **Proscenium Wall (Tawes Theater & [Ina and Jack Kay Proscenium Theater](#))**

Theatrical scenery, props, or sets may not be placed in front of the proscenium wall/fire curtain in Tawes Theater or the Ina and Jack Kay Proscenium Theater (Clarice Smith Performing Arts Center) without approval from the DES Fire Marshal's Office.

## **Open Flames**

The DES Fire Marshal's Office must approve open flames used during public assembly events for any purposes other than decoration and cooking (unless otherwise noted). This includes, but is not limited to, any open flame used in the course of a performance.

Open flames used for decoration and cooking must comply with the table below. Users are required to have adequate safety precautions and are encouraged to contact the DES Fire Marshal's Office for consultation.

Candles and Decorative Devices	Cooking
Class I and Class II liquids and LP gas may not	Equipment fueled by small heat sources that

be used.

Liquid or solid fueled lighting devices containing more than 8 ounces must self-extinguish and not leak fuel at more than 0.25 teaspoon per minute if tipped over.

Devices or holders must be constructed to prevent the spillage of liquid fuel or wax at the rate of more than 0.25 teaspoon per minute when the device or holder is in the upright position.

Devices that do not self extinguish must return to the upright position if tilted to an angle of more than 45 degrees from vertical.

Flames must be enclosed. Openings on the side must not be more than 3/8 inch diameter.

Openings on the top must be distant enough from the flame so that a piece of tissue paper placed on the top will not ignite in 10 seconds.

Non-combustible chimneys are required to be securely attached to the device. Chimney is not required if device is self-extinguishing.

Shades, if used, must be non-combustible.

Fuel canisters must be safely sealed for storage.

Candelabras must be approved by the DES Fire Marshal's Office

can be readily extinguished by water, such as candles or alcohol-burning equipment, including solid alcohol may be used.

Candles with protected flames may be used on tables used for food service where securely supported on substantial noncombustible bases located to avoid danger of ignition of combustible materials.

Flamed dishes, such as cherries jubilee or crêpe suzette, may be used, provided that precautions have been approved by the DES Fire Marshal's Office.

Small portable LP gas cooking equipment (less than 2lbs) may be used under the following conditions:

- Equipment must be listed for indoor use in commercial restaurants by an approved listing agency such as Underwriters Laboratories (UL) or Factory Mutual Systems (FM).

- Equipment must be used in strict accordance with the manufacturer's and listing agency's instructions including replacement fuel and parts.

- Employees working with portable butane gas stoves must be instructed on the proper use of the stoves. A trained employee must be in attendance at all times that the stoves are used by customers.

- Portable gas stoves, when used, must be placed on noncombustible surfaces and kept clear of surrounding combustibles

Small open flames used by outdoor performers, such as jugglers, are approved on a case by case basis. Contact the DES Fire Marshal's Office. Performers must be prepared to demonstrate their safety procedures and may be required to have insurance certificates.

## **Open Fires (outdoors)**

Any open fire, with the exception of small contained cooking fires, require an [Open Fire Permit](#) from the DES Fire Marshal's Office and the [Prince George's County Department of Health](#). Open fires are limited to the dimensions of 5' X 5' X 5' and must be at least 50 feet from buildings and other exposures. Open fires must also be approved by [Facilities Management Building and Landscape Services](#). Open fires are limited to the hours between 4:00pm - 12:00 midnight. Other

environmental restrictions apply. The DES permit includes directions for obtaining necessary approvals.

Cooking fires, which do not require a permit, must be at least 15 feet from buildings and be located so that smoke does not enter buildings.

## **Pyrotechnics**

The indoor and outdoor use of pyrotechnics is strictly regulated and requires proper approval and permits.

Indoor pyrotechnics and outdoor fireworks displays require a [Public Display of Fireworks Permit](#) issued by the [Office of the State Fire Marshal](#). The event sponsor or producer must apply for the permit. The DES Fire Marshal's Office provides site approval for the permit and coordinates the application process. DES Fire Marshals also inspect the pyrotechnics/outdoor fireworks site on the day of the show for conformance with applicable fire codes. An application for the permit must be received by the State Fire Marshal at least 10 days before the scheduled event. The following must be obtained by the event sponsor or producer before a permit application is submitted to the Office of the State Fire Marshal:

1. Site approval by the DES Fire Marshal's Office
2. The services of a pyrotechnician licensed by the State Fire Marshal
3. A certificate of insurance for a policy acceptable to the State Fire Marshal (indicated on permit application) with University of Maryland and State of Maryland named as insured
4. \$50.00 application fee (check payable to State of Maryland)

Outdoor fireworks displays require large "safety zones." The basic requirement is 70 feet per inch of shell diameter. For example, a 6 inch shell needs 420 feet of clearance from spectators and occupied buildings. Please note that there are very few suitable locations available on campus that can accommodate an outdoor fireworks display.

## **Fog Machines**

Use of fog machines during a performance, dance, or other public assembly event may activate smoke detectors and/or obscure exits. Areas where fog machines are going to be used must be evaluated so that accidental activation of the fire alarm system or obscuring of exits is avoided. Contact the DES Fire Marshal's Office for an evaluation.

In some cases, smoke detectors may need to be temporarily shut down in the area where a fog machine is used. Facilities Management needs advance notification to schedule an outage. DES Fire Marshals are required to perform a "fire watch" during the period in which the smoke detectors are temporarily out of service.

## **Event Staff/Crowd Managers**

Crowd Managers are responsible for maintaining clear exits, assuring that there is no overcrowding, initiating a fire alarm if necessary, directing occupants to exits, and general fire and life safety awareness. A minimum of 1 Crowd Manager is required for every 250 occupants. Crowd Managers may be comprised of ushers, house managers, gate personnel, security personnel, police aides, or police officers. DES Fire Marshal personnel are available to provide training.

## **Post Event Procedures**

At least one person should be responsible for completing a post event check. Items to check for include safely extinguished smoking materials (where smoking is allowed), open flames safely extinguished (where open flames are approved), unnecessary electrical equipment turned off, and any obvious hazardous conditions. This is extremely important in Greek houses and other residential facilities.

## **Generators**

Generators must meet all electrical code requirements including proper grounding. All wires that may pose a tripping hazard must be covered or otherwise secured. Generators must be located so that exhaust does not enter buildings or tents.

## **Insurance**

Proof of insurance is required for outside groups/events that come to the University. Events sponsored by University student groups that pose substantial risks to non-University participants (i.e., auto rallies, car smashing, fire jumping) may also require proof of insurance. Insurance issues may be handled as part of a contract for events such as concerts. The [DES Insurance Coordinator](#) ((301) 405-3964)) can provide information on University insurance issues. DES coordinates all University insurance claims involving injury and/or property damage.

## **Emergency Medical Services (EMS)**

EMS is required for events based on the type of event and anticipated crowd size. The number and level of EMS providers is determined by [UMPD](#), and/or the [Health Center](#) in consultation with DES during pre-event planning. Events of over 2000 persons require a minimum of one ambulance. Events of over 7000 persons require a minimum of 2 ambulances. Ambulances are provided by a contract ambulance service. Additional EMS personnel may be provided by the Health Center.

## **Occupational Safety and Health (OSH)**

There are many requirements pertaining to OSH for persons employed by the University and persons working at the University on a contract basis. Personnel should only be working with equipment and procedures for which they have been trained. Arrangements should be made to provide University personnel working at concerts and other loud locations with approved hearing protection.



Information and assistance can be obtained by contacting [DES Occupational Safety & Health](#) ((301) 405-3960).

## Summary of Required Permits and Approvals

Item	Required
<a href="#">Set-up Plans</a>	DES Fire Marshal approval
<a href="#">Indoor Pyrotechnics/Outdoor Fireworks</a>	State Fire Marshal permit, DES Fire Marshal approval
<a href="#">Open Flames</a>	DES Fire Marshal approval
<a href="#">Open Fires (outdoor)</a>	DES Fire Marshal permit, Prince George's County Department of Environmental Resources permit
<a href="#">Tents</a>	Flame retardant certification, Structural integrity certification
<a href="#">Decorations</a>	Flame retardant certification, Structural integrity certification
<a href="#">Temporary Bleachers, Grandstands, and Seating (Indoor and Outdoor)</a>	Structural integrity certification
<a href="#">Special Amusement Arrangements</a>	DES Fire Marshal approval
<a href="#">Insurance</a>	Certificate for pyrotechnics/fireworks, outside groups, events with substantial risk

## Public Assembly Event Self-Check

Public Assembly Event Self-Check is available in  or .

<b>Public Assembly Event Self-Check Form</b> <i>Fire and Life Safety</i>	<b>Fire - Police - Rescue 911</b> UMPD Non-emergency (301) 405-3555 DES Fire Marshal - page through UMPD
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Date: \_\_\_\_\_ Time: \_\_\_\_\_ Location: \_\_\_\_\_

Event: \_\_\_\_\_ Person Doing Check: \_\_\_\_\_

- Exit announcement read, displayed or posted?  Yes  No - provide announcement
- Exit doors clear and unobstructed (on both sides)?  Yes  No - remove obstructions
- Exit paths clear and unobstructed all the way to outside?  Yes  No - remove obstructions
- Wires taped down or otherwise secured?  Yes  No - tape down wires  n/a
- Aisles clear and unobstructed?  Yes  No - remove obstructions

Exit lights on and unobstructed?  Yes  No - remove obstructions

Emergency lights unobstructed ?  Yes  No - move obstructions

Floor set-up approved?  Yes  No - contact DES Fire Marshal  n/a

Fire protection equipment unobstructed ?  Yes  No - remove obstructions

- fire alarm pull stations
- fire alarm horns, bells, or speakers, and flashing lights
- fire extinguishers

Decorations non-flammable?  Yes  No - remove decorations  n/a

Use of open flames approved?  Yes  No - safely extinguish open flames  n/a

Use of pyrotechnics approved?  Yes  No - contact UMPD immediately

Crowd managers in place?  Yes  No - contact DES Fire Marshal

- 1 crowd manager for every 250 occupants

Tents have proper certifications?  Yes  No - contact DES Fire Marshal  n/a

- flame retardant certification
- structural integrity

Emergency Medical Services in place?  Yes  No - contact UMPD

- over 2000 people, 1 ambulance
- over 7000 people, 2 ambulances

Post-event check completed?  Yes  No - perform post event check

- smoking materials safely extinguished (where smoking is allowed)
- approved open flames safely extinguished
- unnecessary electrical equipment turned off
- no obvious hazards