

Hamilton College Fire Safety Guidelines For Temporary Membrane Structures (Tents/Canopies)

1. Plan Ahead

- All tents in excess of 200 square feet and canopies in excess of 400 square feet are subject to inspection/review by the local code enforcement official (CEO)—see the exceptions below.
- When and where possible, select vendors with a greater capacity to be in compliance than others. The more knowledgeable they are with fire code compliance considerations, the less time and money the college will have to spend to supplement tent/canopy erection activities. The biggest issue that the college does not control is the fire resistance and/or retardancy of the tent/canopy fabrics. Do not use a vendor that cannot provide sufficient documentation.
- You should plan your tent/canopy activities in accordance with the guidelines contained herein, and be prepared to give all required documentation to the Campus Safety office at least 5 days before the event takes place. This will allow Campus Safety to properly notify the local CEO ahead of the planned event, such that he may inspect the tent/canopy during the erection phases, when modifications (as are necessary) are still possible.
- The documentation that Campus Safety must have includes the following:
 - A completed “Tent/Canopy Erection & Use Permit”;
 - Site layout plan (the staging specifics) to minimally include—seating capacity and arrangement, exits, means of egress, and location/type of cooking/heat producing equipment (when used);
 - Certifications from the vendor regarding fire resistance/retardancy of all fabric materials, including affidavits where applicable;
- The Physical Plant must also be notified of all tent/canopy activities on campus (even those that do not need permitting) because all tents/canopies **must be marked for utilities**. For those tents/canopies that require permitting, the PP will require all of the same information submitted to Campus Safety, minus the fire resistance/retardancy certifications. For those activities that do not need permitting, only the site layout plan is required. The organizing department should submit this information by fax to Linda Legacy at x4407. Along with this fax, the department should complete a work order summarizing the Physical Plant duties.
- If a single event includes the staging of multiple tents/canopies in the same vicinity (like a large tent for the event and a cooking tent to support it), it is acceptable for the site layout to include both set ups.
- The larger the event, the greater the likelihood that the local CEO will require a crowd manager. This responsibility should be given to someone managerially responsible for the event, who is basically on “fire-watch” while the tent/canopy is being used for its intended purpose. 1 crowd manager is required for every 250 event participants, so plan accordingly.

2. Tent/Canopy Erection & Set Up Considerations



- Tents equal to or less than 200 square feet and canopies equal to or less than 400 square feet are exempt from this formal permitting procedure. **However**, any tent or canopy used for cooking, those that will be heated, or any event where multiple tents will be used simultaneously regardless of square footage, need to be approved through this procedure.
- A canopy is defined by the fire code as any temporary membrane structure with 75% or more of its sides open without sidewalls (so a tent is any structure with >25% sidewall coverage).
- Tents in excess of 200 square feet and canopies in excess of 400 square feet are subject to notification and inspection by the local CEO—exceptions:

- Any tent used exclusively for recreational camping purposes need not be approved;
- Canopies and awnings open on all sides need not be approved if both of the following apply:
 - Single (or multiple canopies in aggregate) are equal to or less than 700 square feet;
 - They are staged no closer than 12 feet from any structure or tent.
- Tents or canopies with an occupant loading of more than 50 people shall include a detailed floor plan that indicates the means of egress, seating capacity, arrangement of seating, and location/type of heating and cooking equipment, which must be a part of the required documentation maintained by the Campus Safety Office.
- Multiple tents and canopies must be staged at least 20 feet from one another, and at least 12 feet of unobstructed areas surrounding the tent/canopy must be maintained as a fire break. For the purposes of determining these distances, the supports, guy ropes and any weights, fasteners or anchors are considered part of the tent/canopy—exceptions:
 - If the aggregate quantity of 2 or more tents/canopies is less than 15,000 square feet, and neither tent/canopy is used for cooking, then this 20 foot rule does not apply (only as it relates to the distances between the membrane structures).
- Occupancy requirements:
 - Tents and canopies used for public events and assembly must be sized based upon the expected number of occupants (or, the occupancy must be limited to that allowed by the size of the tent/canopy), with consideration given to “usable” floor space. Tent/canopy occupancies are determined as follows:
 - Tents/canopies set up as a table and chair event (i.e. a sit down meal) require 15 square feet per person. So, a tent/canopy that is 100’ by 50’, or 5,000 square feet, may seat a maximum of 333 occupants.
 - Tents/canopies set up as a chaired event only (i.e. a speaking arrangement) require 7 square feet per person. So, in the example above, a 5,000 square foot tent/canopy may seat a maximum of 714 occupants.
 - Tents/canopies set up without seating, for standing room only, require 5 square feet per person. So, in the example above, a 5,000 square foot tent/canopy may accommodate 1000 occupants.
 - Please be advised, again, that this guidance is based upon “usable floor space”. In the same 5,000 square foot set up, if the forward 30 feet of the tent in a table and chair event is used as a food servery and speaker area, the effective seating occupancy (based on 70’ * 50’, or 3,500 square feet) is reduced to 233.
- Exit requirements:
 - Tent/canopy occupants must be within 100 feet of an exit from any point in the structure. For most canopies, and for some tents with multiple openings or sidewalls drawn, this is easy to achieve. But when the structure is a tent, with most or all of its sidewalls closed, exits are required as follows:
 - 10-199—2 exits at 6’ each
 - 200-499—3 exits at 6’ each
 - 500-999—4 exits at 8’ each
 - 1000-1999—5 exits at 10’ each
 - Exit signs must be posted at each exit, and they must be either self-luminous, or capable of being illuminated by power (with other requirements).
- Fire extinguishers:
 - At least three 10 pound ABC dry chemical fire extinguishers should be staged at each permitted tent/canopy event. Additional fire extinguishers are required as the occupancy of the event increases, incrementally as follows—500 requires 4, 1000 requires 5, 1500 requires

6, etc., etc... All fire extinguishers must be hung/staged on or inside wooden racks that are red in color to keep them stable and visible. Finally, they should be staged near exits, just inside the tent/canopy, and/or near any food warming stations.

3. Tent/Canopy Use Considerations

- Cooking and food warming issues:
 - Open/exposed flames for cooking or other purposes are not permitted inside tents or canopies open to the public (the event crowd/assembly).
 - Food cooking operations using open/exposed flames (or that generate sparks or grease-laden vapors) must be staged at least 20 feet from tents/canopies used for assembly activities. If a tent/canopy is set up specifically for food cooking activities (i.e. a food cooking tent), this tent/canopy still has to be staged at least 20 feet away, and may not be open to the public—exceptions:
 - A food cooking canopy may be open to the public if it is open on all sides, and if cooking activities are performed in a tent (or canopy not open on all sides), the public may access the cooking areas only if it is staged at a leading edge of the tent/canopy, such that the public may approach the cooking area without entering the tent/canopy itself.
 - Food warming operations (using sterno or other warming devices) are permitted inside public assembly tents/canopies, but they should be set up with at least a 10-foot clearance from any combustible materials (including tablecloth linens), and a 10 pound ABC dry chemical fire extinguisher must be staged within 10 feet.
- Heating issues:
 - The best way to describe what is and is not permissible regarding heating is to consider the following pictures...

<p>The heating device on the left is typically placed inside a tent/canopy area, where the radiant heat warms the space. As per the OFPC, this type of heating device is outright illegal in NYS, let alone in tents/canopies. So do not order these types of heating devices, and do not authorize their use in any college sponsored event.</p>	<p>The heating device on the right utilizes a heating source external to the tent, and the warmed air is blown into the tent/canopy to heat by convection. This type of heating device is acceptable.</p>
	

- Lighting/Power
 - The use of lighting devices, along with the set up of temporary power connections, need to comply with other elements of the fire code, as well as the NYS Building Code. Please make sure that Frank Marsicane and the Physical Plant P/E Shop is aware of your lighting and power needs through the approval/permitting procedure below.

4. Hamilton Owned Tents/Canopies

- Hamilton owns a few small tents and canopies that it uses mostly for athletic events on campus, or in other venues when sheltering from the weather is required. While they are generally small enough to fall below the formal approval and permitting process, a few important points:
 - If any Hamilton owned tent or canopy is to be used for food cooking or warming activities, they must fully comply with the fire code and the provisions of this procedure. So, maintenance of the fire retardancy/resistance requirements is required. If the department(s) responsible for these tents/canopies does not have this necessary documentation, they cannot be used for cooking, and temporary power and lighting may not be used.

5. Other Considerations

Responsibilities

- While this procedure is mostly focused on covering regulatory fire code obligations, the use and erection of tents and canopies on campus is a logistical dilemma that affects many different departments (the Physical Plant most directly). As detail oriented as this procedure is, it must be followed, and it is the principal responsibility of the department taking the organizing/lead role coordinating the event to ensure that the procedure is adhered to.

Utility Marking

- Just to re-emphasize, **ALL TENTS AND CANOPIES** that are erected on campus need to be marked for utilities **BEFORE** erection, even those that do not need a permit. The campus has electrical, gas, fiberoptic, telephone, copper cable, water, and sewer lines buried throughout its premises, and the erection of a tent/canopy without utilities adequately marked can have **SERIOUS CONSEQUENCES**. So, please contact the Physical Plant for all tent/canopy activities.

Finally...

- Please remember that the tent/canopy fire code regulations principally apply to the college as the owner of the property upon which a tent/canopy is being used, as opposed to the vendor or some other entity providing the structure/service. So if some 3rd party (like an athletic booster or alumni group) wants to stage a tent/canopy on campus, say to provide cooked food during a football game, the regulations still apply even though the college itself is not providing for and arranging the service/event. Those departments who allow these types of 3rd party services to take place must be responsible for communicating this procedure accordingly.

**HAMILTON COLLEGE
TEMPORARY TENT/CANOPY ERECTION & USE PERMIT**

This form is to be completed by the department initiating or managing the tent/canopy event, and the permit and other required information is to be submitted to both the Office of Campus Safety and the Physical Plant at least 5 days before the event takes place. Failure to submit this information could lead to the disruption or cancellation of the event.

Person/Dept. Initiating Permit:

Name of the Event:

Date(s) of the Event:

Date Event Set Up Will Begin:

TENT/CANOPY LOGISTICS

Set Up #	Tent or Canopy?	If canopy, will it be open on all sides by design?	Length	Width	Total Square Footage	Predicted Number of Occupants
		<input type="checkbox"/> Y <input type="checkbox"/> N				
		<input type="checkbox"/> Y <input type="checkbox"/> N				
		<input type="checkbox"/> Y <input type="checkbox"/> N				
		<input type="checkbox"/> Y <input type="checkbox"/> N				

Name of Tent/Canopy Vendor(s) (They must provide written proof of all tent/canopy flame retardancy/resistance ratings)

TENT/CANOPY SET UP INFORMATION

Set Up #	Standing Room Only?	Chairs Needed?	# of Chairs	Tables Needed?	# of Tables and Type
	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> Y <input type="checkbox"/> N	
	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> Y <input type="checkbox"/> N	
	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> Y <input type="checkbox"/> N	
	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N		<input type="checkbox"/> Y <input type="checkbox"/> N	

OTHER SET UP CONSIDERATIONS

Who is responsible for staging fire extinguishers? Physical Plant Tent/Canopy Vendor Other

Who is responsible for staging exit signs? Physical Plant Tent/Canopy Vendor Other

Will there be food cooking in any tent/canopy set up? Y N **If Yes, Which Set Up #** _____

Will there be food warming in any tent/canopy set up? Y N **If Yes, Which Set Up #** _____

Will there be heating in any tent/canopy set up? Y N **If Yes, Which Set Up #** _____

If there will be heating in any tent/canopy set up, who is responsible for this? Physical Plant Tent/Canopy Vendor Other N/A

Will there be lighting/power in any tent/canopy set up? Y N **If Yes, Which Set Up #** _____

If there will be lighting/power in any tent/canopy set up, who is responsible for this? N/A
 Lighting: Physical Plant Tent/Canopy Vendor
 Power: Physical Plant Tent/Canopy Vendor

Who is/are the principal college official(s) overseeing the event, who might also be responsible for providing or arranging for crowd management and control?
 Name: _____ Ext# _____
 Name: _____ Ext# _____
 Name: _____ Ext# _____

Have you completed the necessary work orders and/or been in contact with the Physical Plant to both support the tent/canopy set up, and mark utilities? Y N **If yes, when?** ____/____/____
 Other Details: _____

Any other critical information? Y N **If yes, details:**

Date Submitted to Campus Safety: ____/____/____

Date Approved by Campus Safety: ____/____/____

Date Local CEO Notified: ____/____/____

Did the Local CEO Conduct an Inspection? Y N **If yes, when?** ____/____/____