

Guidance on the use of Marquees, Tents and other Temporary Structures

Health and Safety Services

Issued July 2009

Guidance on the use of Marquees, Tents and other Temporary Structures

Marquees, tents or temporary structures (marquees) are often leased or hired by University of Hull departments to provide extra facilities for open days or for extra function areas etc. This document provides guidance to University staff when they hire/lease and use a marquee, it provides information that will assist in the completion of a risk assessment to meet the requirements of the Management of Health and Safety at Work Regulations and the Regulatory Reform (Fire Safety) Order (RRO).

The information in this document has been drawn from MUTAmarq guidance, Safe Use and Operations of Marquees and Temporary Structures and the RRO guidance, Open Air Events and Venues.

University departments should not consider constructing their own marquee's unless they are competent and have completed a separate risk assessment.

The fire safety responsibilities of those leasing the marquee, and therefore, in charge of the activities conducted within it, and those of the owner/leasee, need to be established as part of the contract of hire. Under the RRO all marquees must have a fire risk assessment carried out on them prior to use. Reviewing the risk assessment attached at Annex A, will assist in meeting this requirement.

The following issues should be considered prior to and when using a marquee;

a) Marquee Erecting Company

- Can the marquee erecting company provide proof of competency e.g. membership of MUTA or other relevant organisations?
- Does the company have suitable Public Liability Insurance? i.e. £2 million
- Will the company provide you with a copy of its erection check list before use?

b) Fire Retardancy

- All marquees, flexible membrane and all items used within them, such as furniture curtains, displays must be fire retardant and comply with BS 476:7 and BS 7157.

c) Air Supported

- Air supported structures should comply with the recommendations given in BS 6661

d) Siting

- Have all underground services, drains been identified in the proposed area?
- Does the proposed location provide safe access and egress for people with disabilities?
- Is the proposed location protected from the wind?
- Does the proposed location provide clear access and space for erection and assembly of the marquee?
- Does the proposed location provide suitable ground conditions? e.g.
 - i) Is it flat?
 - ii) Free of pot holes?
 - iii) Free of tree roots?
 - iv) Has all long grass been cut?
 - v) Does it hold water i.e. high water table etc?
 - vi) Will the marquee require flooring due to ground conditions?

e) Stability

- If guy ropes are fitted, are they secured by suitable stakes?
- Are all main and wall guy ropes, if used, checked regularly before use?
- Have anchor plates been used on soft ground?
- Have suitable weights been used if located on hard standing?
- Can the marquee be fully closed in high winds or when not in use?

f) Occupancy levels

Has the occupancy amount been calculated? The occupancy of the marquee is calculated by;

- Number and size of exits
- How much floor space there is and how it is to be used

If the marquee has only one exit the maximum occupancy will be 50 or below depending on floor space availability e.g. 3m² per person is required for standing space. For further details contact the University Fire Safety Officer.

g) Travel Distances

Are the travel distances adequate? The travel distances from anywhere within the marquee must not exceed;

- 6.5m maximum if there is only one exit

- After the first 6.5m the remainder of the route should lead in different directions to alternative exits
- 24m maximum if there is more than one exit

h) Exits

If possible there should always be at least two exits from a marquee.

- All marquees intended to be used by 50 or more people must have two exits
- All exits should be distributed evenly around the marquee so that genuine alternative routes are available and they must be independent of each other e.g. 45° rule
- All exits must be clearly signed, if they consist of wall flaps they should be of a quick release design, clearly defined at the edges and so arranged as to be easily and immediately opened from the inside
- The exit routes may be over uneven ground, temporary flooring, duckboards or ramps etc. safe access and egress of all routes is required
- External escape routes should be sited away from the marquee to avoid trip hazards from guy ropes and stakes, where necessary barriers should be provided to protect the routes

i) Electrical Lighting

- Will the marquee require lighting?
- Can the company provide suitably tested lighting equipment i.e. pat testing etc?
- How are the electrical lights going to be powered i.e. generator or from a building source?
- For larger marquees emergency evacuation lighting may be required

j) Signage

- For larger marquee escape signs must be used to identify exit routes

k) Blow Heaters

- Will the marquee require heating?
- Can the company provide suitably tested blow heaters?
- Are the gas bottles, if used, going to be placed suitably and are they secure?
- Is the heated air going to be blown into the tent via pipes?

l) Vehicles

- Whenever possible vehicles should be parked away from any marquee to prevent accidental ignition of vegetation in hot weather or from striking the structure

m) Housekeeping

- Are combustible materials i.e. cardboard packing cases etc kept to a minimum?
- Have all slips trips and fall hazards been removed e.g. floor boards, cable management, the entrance and exits routes etc?
- Are flammable materials/substances going to be kept on site?

n) Fire Extinguisher

- Suitable types and amounts of fire extinguisher must be in position in the marquee

o) Flammable Substance/Gases

- No flammable substance/gases or appliances should be stored in a marquee

p) Smoking/Hot Work

- All marquees are 'No Smoking' and 'No hot work areas'. e.g. welding etc are not allowed
- Suitable signage should be displayed to inform people

q) Arson

- Arson should always be considered a risk. Therefore to counteract this, good housekeeping (see above section), good lighting, and good security e.g. staff challenging unknown people are required

r) Restriction of use

The marquee should not be used if:

- The frame of the marquee moves appreciably (more than strong wind movement)
- The main and wall guy ropes become slack or the stakes begin to pull out.
- If the marquee starts to collapse or roll over

- When severe weather warnings are received. If the winds are approaching gale force on the Beaufort scale the marquee must not be used (a framed marquee of 9m and above can withstand wind strengths of up to 55mph)
- If high amounts of snow has fallen, snow adds loading to the marquee and can affect the structures integrity

Marquee Pre Check List

Check		Yes	No	Comment
1	Is the marquee erecting company competent?			
2	Is suitable Public Liability Insurance in place?			
3	Does the marquee etc comply with the relevant British Standards for fire retardancy?			
4	Does the Air Supported structure comply with relevant British Standard?			
5	Has the risk assessment table been reviewed?			
6	Is the proposed location suitable?			
7	Have any underground services, drains been identified?			
8	Has the maximum occupancy level been calculated?			
9	Is electrical lighting required?			
10	Is heating required?			
11	Is there clear access and space for erection and assembly of the marquee?			
12	Has a copy of the completed erection check list been received?			
13	Have all guy ropes been checked for security?			
14	Are suitable weights in position (hard standing)?			
15	Can the marquee be fully closed?			
16	Is there safe access and egress for people with disabilities?			
17	Are the travel distances to the exits suitable?			
18	Are there sufficient suitable exits?			
19	Are the exits evenly distributed around the marquee (45° rule)			
20	Are all exits suitably signed?			
21	Do all exits have clearly defined edges?			
22	Is emergency evacuation lighting required?			
23	Should the exit routes have floor boards to prevent a trip hazards ?			
24	Do external exit routes avoid slip trip and fall hazards?			
25	How are the electrical lights going to be powered, is this suitable?			
26	Has all electrical equipment in the marquee been pat tested?			
27	Has the company provided suitably tested blow heaters?			
28	Is the heated air going to be blown into the tent via suitable pipes?			
29	Have the gas bottles been located and secured adequately?			
30	Have vehicles been kept separate from the site?			
31	Are combustible materials i.e. cardboard packing cases etc kept to a minimum?			

32	Have all slips trips and fall hazards in the marquee been identified, removed or managed?			
33	Have all flammable materials/substances been removed from the site?			
34	Have 'No Smoking' signs been put up?			
35	Have suitable types and amounts of fire extinguisher been put into position?			
36	Is the general housekeeping in the marquee good?			
37	Is there adequate security?			
38	Is the frame of the marquee moving appreciably?			Do Not Use the Marquee
39	Are any guy ropes slack or have the stakes begun to pull out?			Do Not Use the Marquee
40	Is the marquee going to potentially collapse or roll over?			Do Not Use the Marquee
41	Has a severe weather warning been received?			Do Not Use the Marquee
42	Has there been a high amount of snow falling?			Do Not Use the Marquee

Completed by:.....

Date.....

University of Hull

Directorate	Establishment : University Of Hull	Section:
Activity; Use of Marquees	Site: Hull Campus, Scarborough Campus, Lawns, Other	
People at Risk: Occupants of the Marquee	Additional Information/Standard Texts: See University Guidance	

Risk Evaluation

Hazard Identified	How might someone be harmed?	Rating	Existing Control Measures	Additional Action Required (Include timescale and mechanism for implementation)	Action by:
Marquee erecting company not competent	<ul style="list-style-type: none"> Marquee unsuitably erected and collapsing Marquee catching fire 	L	<ul style="list-style-type: none"> Ensure marquee erecting company provides proof of competence Ensure marquee erecting company provide a copy of erection check list prior to occupancy <p><i>Are these measures adequate? Yes/No</i></p>	<ul style="list-style-type: none"> If no competence proof available use another company Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company
Marquee erecting company not having suitable Insurance	<ul style="list-style-type: none"> Lack of insurance cover 	M	<ul style="list-style-type: none"> Ensure marquee erecting company provide proof of Public Liability Insurance minimum £2 million <p><i>Are these measures adequate? Yes/No</i></p>	<ul style="list-style-type: none"> If no proof of Public Liability Insurance available use another company If Public Liability Insurance lower than £2 million discuss use with University Insurance Officer 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company
Poor or lack of fire retardancy of marquee	<ul style="list-style-type: none"> The marquee will burn freely causing injuries to people using it 	H	<ul style="list-style-type: none"> Ensure the marquee erecting company provide a certificate of compliance <p><i>Are these measures adequate? Yes/No</i></p>	<ul style="list-style-type: none"> Ensure a certificate of compliance is requested from the marquee erecting company If not available do not use the marquee Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company

<p>Unsuitable Furniture/ curtains etc</p>	<ul style="list-style-type: none"> The furniture/ curtains etc might catch fire causing injuries to people using it 	<p>H</p>	<ul style="list-style-type: none"> Ensure all furniture/curtains in the marquee is fire retardant and certificated as such <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> Remove all unsuitable furniture/curtains, etc Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company
<p>Fire</p>	<ul style="list-style-type: none"> The marquee or items within it might catch fire causing injuries to people using it 	<p>M</p>	<ul style="list-style-type: none"> Ensure the marquee is a designated no smoking area Ensure no hot works are allowed in the marquee Ensure all electrical items are checked and serviceable (Pat Tested) Ensure all flammable substance/gases or appliances are removed from the marquee Ensure housekeeping is adequate <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> Ensure this is managed during the marquee's use Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company
<p>Poor Siting</p>	<ul style="list-style-type: none"> Poor erection due to restrictions of area Poor underground footing for occupants Area flooding Collapse of marquee Long grass catching fire 	<p>H</p>	<p>Ensure the area is checked for suitability i.e.</p> <ul style="list-style-type: none"> Large enough Not on slope Does not holds water Is flat <ul style="list-style-type: none"> Free from pot holes, tree roots Put in a J request to have the grass cut and for the cuttings to be removed. <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> Move marquee to more suitable location Fit floor boards Ensure a pre use check is carried out before occupancy takes place Ensure marquee erecting company checks area before erecting marquee 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company
<p>Underground Services not identified</p>	<ul style="list-style-type: none"> Electrical shock Damage to drains 	<p>H</p>	<ul style="list-style-type: none"> Ensure area checked before marquee erection Consider alternative way to secure marquee i.e. weighting down <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> Move the marquee to a more suitable location Ensure marquee erecting company checks area before erecting marquee Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company

<p>Poor access and egress for disabled people</p>	<ul style="list-style-type: none"> • Disabled person cannot gain access • Disabled person becomes trapped in an emergency 	<p>M</p>	<ul style="list-style-type: none"> • Ensure all access and egress routes are suitable for disabled staff <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • Change route • Fit suitable ramps 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company
<p>The marquee is not secured adequately (Stability)</p>	<ul style="list-style-type: none"> • The marquee could collapse or rollover causing injuries to the occupants 	<p>H</p>	<ul style="list-style-type: none"> • Ensure guy ropes if fitted, are secured with suitable stakes • Ensure all main and wall guy ropes are checked before use • Ensure anchor plates are used on soft ground. • Ensure suitable weights are used if located on hard standing • Ensure the marquee can be fully closed in high winds or when not in use <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • If not possible do not use the marquee • Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company
<p>Exceeded occupancy</p>	<ul style="list-style-type: none"> • Insufficient exits available • People trapped injured in a fire 	<p>H</p>	<ul style="list-style-type: none"> • Ensure occupancy levels are not exceeded <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • Check occupancy levels with University Fire Safety Officer 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company
<p>Unrealistic travel distances</p>	<ul style="list-style-type: none"> • The people in the marquee will be unable to evacuate in a suitable time in case of a fire 	<p>M</p>	<ul style="list-style-type: none"> • Ensure if the marquee has more than one exit, a minimum of 24m travel distance is available • Ensure if the marquee has only one exit, a minimum of 6.5m. travel distance is available • Ensure after the first 6.5m the route leads in different direction to an alternative exit. <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • Ensure if travel distances are exceeded additional exits are provided • If not possible do not use the marquee • Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company

<p>In sufficient exits numbers</p>	<ul style="list-style-type: none"> The people in the marquee will be unable to evacuate in a suitable time in case of a fire 	<p>M</p>	<ul style="list-style-type: none"> Ensure all marquees with an occupancy of 50 or more have two or more exits Ensure all exits are evenly distributed around the marquee (45° rule) Ensure all exits are clearly indicated /signed Ensure all exits that consist of wall flaps are the quick release design with clearly defined edges and can be easily and immediately opened from the inside. Ensure all door type exits open outwards and are available when the marquee is occupied Ensure that all exit routes provide safe access and egress from the marquee. <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> Ensure extra exits are requested if possible Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company
<p>Unsuitable escape routes</p>	<ul style="list-style-type: none"> The people in the marquee will be unable to evacuate in a suitable time in case of a fire 	<p>M</p>	<ul style="list-style-type: none"> Ensure escape routes are sited away from marquees to avoid trip hazards from guy ropes and stakes, Ensure where possible and if necessary barriers are provided around trip hazards Ensure hazard tape is tied around guy ropes to increase visibility if possible <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company
<p>Unsuitable Electrical Lighting Equipment</p>	<ul style="list-style-type: none"> Electrical shock Fire 	<p>M</p>	<ul style="list-style-type: none"> Ensure marquee erecting company provide suitably tested lighting equipment Ensure marquee erecting company store any generators outside the marquee <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> Do not use electrical lighting equipment Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> Person hiring/leasing the marquee Marquee erecting company

<p>Poor Signage</p>	<ul style="list-style-type: none"> • People not being able to evacuate in an emergency 	<p>H</p>	<ul style="list-style-type: none"> • Ensure marquee erecting company provide suitable signs, if required due to size of marquee. If signage is electrical it must be tested and on a different circuit <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • Signage must be clear and visible at all times • Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company
<p>Unsuitable blow heaters</p>	<ul style="list-style-type: none"> • Fire • Injury through burning 	<p>M</p>	<ul style="list-style-type: none"> • Ensure marquee erecting company provide suitably tested blow heaters • Ensure marquee erecting company store gas bottles outside marquee • Ensure marquee erecting company keep blow heaters outside marquee and pipe in the hot air using suitable piping <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • If not possible do not use blow heaters • Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company
<p>Vehicles</p>	<ul style="list-style-type: none"> • Causing fires • Striking marquee 	<p>M</p>	<ul style="list-style-type: none"> • All vehicles to be removed from site and not allowed on site unless closely controlled <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • Close control of vehicle access 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee
<p>Poor Housekeeping</p>	<ul style="list-style-type: none"> • Arson • Match or cigarette fire • Slips, trips and falls 	<p>H</p>	<ul style="list-style-type: none"> • The marquee and surrounding area must be kept clear of combustible material • No flammable substance/gases or appliances should be stored in a marquee. • If the marquee is left over night all loose items of a combustible nature should be removed • All flammable substance/gases or appliances must be removed from site • Floor areas to be kept as clear as possible. • Remove all slips trips and fall hazards e.g. floor boards, electrical cable management etc <p>Are these measures adequate? Yes/No</p>	<ul style="list-style-type: none"> • If not possible do not use the marquee • Ensure a pre use check is carried out before occupancy takes place 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company

<p>Unsuitable/ inadequate amounts of fire fighting equipment supplied</p>	<ul style="list-style-type: none"> • The marquee or items within it might catch fire causing injuries to people using it 	<p>M</p>	<ul style="list-style-type: none"> • Ensure suitable types and numbers of fire extinguisher are in position in the marquee i.e. the University fire trolleys can be used <p><i>Are these measures adequate? Yes/No</i></p>	<ul style="list-style-type: none"> • Ensure fire extinguishers in place before occupancy takes place • Ensure a pre use check is carried out before occupancy takes place 	<p>Person hiring/leasing the marquee</p>
<p>The marquee must not be used</p>	<ul style="list-style-type: none"> • Marquee turning over, collapsing causing damage and injuries 	<p>H</p>	<p>Do not use the marquee if;</p> <ul style="list-style-type: none"> • The main and wall guy ropes become slack or the stakes begin to pull out • The frame of the marquee moves appreciably (more than strong wind movement) • If the marquee starts to collapse or roll over. • Extreme Weather i.e. In high winds, approaching gale force on the Beaufort scale Heavy snow fall <p><i>Are these measures adequate? Yes/No</i></p>	<ul style="list-style-type: none"> • Confirmation that all is secure by the marquee erecting company will be required before re-occupancy is allowed 	<ul style="list-style-type: none"> • Person hiring/leasing the marquee • Marquee erecting company

Signature:.....

Title:

Date.....

Guidance on Completing The Risk Assessment Form (RA1) Activity

Identify the **activity** for which the risk assessment is being completed (*e.g. use of a particular piece of equipment*).

People at Risk; Identify the people at risk (*e.g. employees, volunteers, contractors, visitors, students, members of the public*).

Additional Information; Cross reference to other available documentation, such as general risk assessments, data sheets, safe working procedures, operations manuals, HSE guidance, British Standards and standard texts.

Hazard Identified: Identify each hazard involved in the activity in a separate box. Remember that a hazard is something with the potential to cause harm (*e.g. noise, dust, working at height, weather conditions, moving parts, flying debris*).

How might someone be harmed?; The risk is the potential for the harm to be realised. To help evaluate this, decide what could be the outcome of the hazard being realised (*e.g. slips and trips, lacerations, drowning, burns, shock manual handling injuries*) and record this.

Risk Rating: This is the evaluation of the potential for the harm to be realised. To determine the risk rating look at the likelihood and the severity of the outcome if the hazard is realised. Assign the rating H, M or L based on the following matrix (*e.g. where the severity is a fatality and the likelihood is possible then the risk rating is H*).

	Likely	Possible	Remote
Fatality	H	H	M
Serious Injury	H	M	M
Minor Injury	M	L	L

H= High

M=Medium

L = Low

Existing Control Measures; Give the control measures that the organisation has in place in practice (*e.g. details relating to dust extraction, machine guarding, training, maintenance, testing and personal protective equipment*)

Are the Control Measures Adequate?; If the control measures already in place reduce the risks to an acceptable level then enter 'yes'. However, if further action is deemed necessary then enter 'no'.

Additional Action Required: If 'yes' was answered to the previous question then this box can be left blank though it would be good practice to enter 'none'. If 'no' was the answer to the previous question then identify in full what additional control measures need to be put in place. It is likely that a follow up report to management will be required to plan the implementation of items detailed in this section.

Action by; Make a decision about who needs to take the action to control the risks to an acceptable level.

Signature/Title and Date; Please remember to sign and date the risk assessment. Please ensure this is legible!