

Using Temporary Demountable Structures

Erecting marquees or other temporary demountable structures (TDS) is a sensitive operation that requires a steady hand. Forgetting to anchor just one of the many points of a huge tent can undermine the integrity of the entire structure and cause it to come tumbling down on a large crowd—injuring or even killing people.

As a contractor, event organiser, venue owner or someone legally obligated to ensure the safety of a temporary structure, use the following hints and tips to make sure your TDS stands tall and secure.

Common Temporary Structural Risks

The list below contains some of the crucial aspects you must consider in order to ensure the public safety of your TDS. Review the list and make sure you have accounted for each aspect in procuring or erecting your TDS.

- **Structural requirements** – Ensure the structure has a suitable maximum wind load and the anchorage stakes can withstand enough force based on the soil, inclination and depth. Inspect the structure and stakes to guarantee stability.
- **Fire and emergency exits** – Check that the structure is composed of fire-retardant fabric and contains the required number of emergency exits.
- **Capacity** – Heed the manufacturer’s maximum capacity warnings and undertake a risk assessment to determine the safest way to plan the seating arrangements.
- **Client awareness** – Inform clients of recommended safety factors such as keeping exit

routes free at all times and not storing dangerous, combustible or toxic gases in a tented structure.

- **Miscellaneous** – Ensure tables are easily washable, emergency lighting illuminates exit routes and heating apparatuses meet relevant standards.

Erecting marquees or other temporary demountable structures (TDS) is a serious operation that requires a steady hand and constant attention to health and safety.

Hints and Tips

Supervising the erection and dismantling of a TDS can be overwhelming. Instead of letting yourself be paralysed by the amount of regulations and precautions, follow these hints and tips to make the whole process simple, safe and stress-free.

Planning

- Consider what the structure will be used for, what it needs to be able to do, who will use it and how.
- Prepare a clear specification for the structure’s required use, including all technical details.
- If you hire contractors or designers to design, supply, build, manage and take down any aspect of a structure, ensure they are competent and that they have the necessary resources.

Provided by BHIB Councils

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- Whoever builds the structure should undertake an assessment of the possible construction hazards and risks. Make sure all relevant parties have applicable site information.
- Include in any design concept, specification and structural assessment, any advertising or scrim needs. Novel or unusual structures may require additional testing by a TDS designer to demonstrate the integrity of the design.
- Develop safe systems of work or ensure your contractor uses them, and make sure all significant risks on the site are properly controlled (such as use of cranes and lift trucks).
- Consider the extent of control that you and your contractors have over the work activity and workplace during each phase of the build, use and deconstruction cycle of a structure. Organisers and TDS contractors should agree on the extent of their control at the planning stage so that responsibility for structural safety is understood and maintained throughout the event. This will also minimise confusion and conflict.

Building and Dismantling the TDS

- Follow the assessments completed under the planning stage as a guide on how to build and dismantle the structure safely.
- Make sure there is sufficient time and resources available to build and dismantle the structure safely.
- Hire competent staff and have a suitable on-site operational management system in place to supervise and monitor safety compliance.
- Devise a programme, including key safety checkpoints, to communicate critical erection/dismantling stages to the site manager/crew bosses and operatives.
- Build the structure consistent with the agreed design in accordance with a safe system of work.
- Arrange for the structure to be checked to make sure that it has been built according to the design.

While the TDS Is in Use

- Have arrangements in place to inspect the structure for deterioration during the time it is installed, in line with a

documented management plan, and if needed, arrange for remedial works.

- Any change in the proposed use of the structure or in site conditions—which may affect the structure’s suitability—should trigger a design check for which the organiser is responsible.
- Have arrangements in place to ensure that any measures required to keep the structure safe during use are implemented. For example, if the structure is susceptible to the weather, monitor the local weather conditions. In adverse weather conditions, know what to do with the structure to protect its stability, such as when to open wind relief panels and when to evacuate.

Do not:

- Use incomplete design concepts, as this could result in last-minute modifications, leading to safety problems.
- Build a structure on unstable ground.
- Put advertising/scrim on a structure if a competent person has not approved it as being safe—it can affect wind loading and increase the risk of collapse/overturn.
- Use flammable fabrics.

Stability, Safety and You

Your role as a duty holder is crucial—without you, your TDS can be neither stable nor safe. Building and dismantling a TDS safely requires constant attention to health and safety details. And you can trust the detail-oriented insurance professionals at BHIB Insurance Brokers to provide the health and safety resources that keep your employees safe and your event successful.

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