



## Temporary demountable structures

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### Abstract

The Advisory Group on Temporary Structures (AGOTS) has recently prepared edition four of *Temporary Demountable Structures* on behalf of the Institution of Structural Engineers. Since 1985 previous editions have been the chief source for guidance on the procurement, design, and use of temporary demountable structures in the UK. Demountable structures are widely used for a variety of functions at public and private events and can be found at exhibitions, sporting events, musical concerts and social occasions. Some may carry substantial numbers of people during major events and structural safety is extremely important. The Olympic Games in London in 2012 saw the largest number of temporary structures ever used at a single event, and using the third edition of this Guide was one of the core requirements of the London Organising Committee for the Olympic and Paralympic Games (LOCOG). Since then the industry has seen a number of regulatory changes and the introduction of Eurocodes. The fourth edition embraces these.

**Keywords:** temporary structures; grandstands; stages; design; operation; safety; guidance; regulations;

### 1 Introduction

*Guidance on Procurement, design and use, fourth edition* <sup>[1]</sup> has been prepared by the Advisory Group on Temporary Structures (AGOTS) for the Institution of Structural Engineers.

Demountable structures are widely used for a variety of functions at public and private events. They may provide viewing facilities, shelter, platforms and supports for performers, and for media facilities. They can be found at exhibitions, sporting events, musical concerts and social occasions. Some may carry substantial numbers of people during major events.

The fact that a structure is designed for temporary use does not change the overall requirements for

safety; the failure of any temporary structure in a crowded, confined space can have devastating effects. Following several collapses of temporary stages, some with fatalities, an Alert on *Temporary Stage Structures* was published by Structural-Safety in 2012 <sup>[2]</sup>.

The London Olympic Games in the same year saw the largest number of temporary structures ever used at a single event, and the use of the third edition of this Guide was one of the core requirements of the London Organising Committee for the Olympic and Paralympic Games (LOCOG). Since the publication of the third edition, the industry has seen a number of regulatory changes including the application of UK Construction Design and Management (CDM) Regulations <sup>[3]</sup> to temporary structures. The