



## High Priorities

**Suspended access equipment is commonly used by workers to clean and maintain structures. Make sure you incorporate it into your design, with the help of our guide.**

**As a designer, your focus needs to extend beyond the design and construction phases of a project. Every structure requires ongoing work to maintain it, and keep it clean. So you need to make sure you provide for the use of equipment that facilitates such work.**

**Suspended access equipment is likely to feature in many projects. Whether it is permanently installed, or a temporary addition, it provides a means of accessing tall buildings, so that workers can carry out maintenance and cleaning tasks.**

**Life outside the tick box.**



Your design needs to make adequate provision for suspended access equipment to be:

- **Installed safely**
- **Accessed safely**
- **Used, inspected and maintained safely**

## Making provision for suspended access equipment

If suspended access equipment is to be used in the maintenance phase of your project, you should incorporate anchorage points for it in the permanent works.

You should also try to avoid specifying features that may snag the equipment while it is in use. Examples of such features include windows that open outwards, decorative corbels, and ledges.

Remember to consult specialists in suspended access equipment when drawing your plans. They will be able to advise you about the design elements needed to facilitate use of suspended access equipment, as well as giving you an overview of the options available.

The Suspended Access Engineering and Maintenance Association (SAEMA) is a good source of information and contacts.

### ***Design particulars***

Where suspended access equipment is to be used on a structure, you need to incorporate the following elements into your design:

- **Tracks for the equipment to run on. Where these go around corners, you should ensure the slope is not too severe**
- **Sufficient clearance for the equipment to operate in. If you have restricted space available, make certain that the supplier of the equipment is aware of the limitations, so that they design a solution that fits. Generally speaking, clearance should be the width of the suspended access equipment, plus 600mm**
- **Counterweights for the equipment, which may project beyond it**
- **A means of restraining the suspended access equipment. This should be incorporated into the façade of your structure**
- **Structural adequacy. The structure needs to bear the loads associated with the use of suspended access equipment. Make sure you specify components and construction methods that ensure its capability in this regard**
- **A garage. Suspended access equipment should be stored in a garage, where it may also be maintained. You should incorporate a garage structure into your design from the outset**

## Accessing suspended access equipment

In your plans, provide dedicated access areas and safe routes to suspended access equipment. These should be non-slip, and have appropriate guards to minimise the risk of falling.

Where workers will be required to walk across a structure's roof in order to reach suspended access equipment, you should make sure they have a route that keeps away from edges and other hazards, such as roof lights. You should also specify roof materials that satisfy the Advisory Committee for Roof Safety's non-fragility criteria, and provide an internal staircase from which to access the roof. For more information, see **CON308 Roof working**.

**Life outside the tick box.**



You should provide inspection and maintenance areas for suspended access equipment. These should be easy to access, and constructed in a way that ensures people will be safe while working in them. For example, you should make sure that maintenance areas have guard rails, to protect workers from the risk of falling.

It is worth remembering that the tracks of suspended access equipment will also require regular maintenance. You should make provision for fall protection measures for maintenance workers, either in the form of edge protection, or personal protection equipment. See **CON307 Fall prevention by design** for further guidance.

## Keeping up Standards

Familiarise yourself with the British and European Standards that govern suspended access equipment. That way, you can be sure to take account of them in your design.

The relevant Standards are:

- **BS 6037**
- **BS 5974**
- **BS EN 1808**

## Problem buildings

Some buildings pose problems when it comes to incorporating suspended access equipment. Those with domed glass atria, stepped façades or curved elevations are especially problematic.

Features like outward-opening windows, glazed façades and roofs with a slope in excess of 30 degrees may make the use of suspended access equipment difficult. Attachments (like CCTV cameras) on the façade, and recessed windows, can also interfere with suspended access equipment.

Be sure to discuss these potential problems with a specialist supplier of suspended access equipment. They can usually be overcome, but it pays to be prepared for them as early as possible in the design process.

## Hazards of use

Workers who use suspended access equipment are at an obvious risk of falling from height. This can occur while they are getting in and out of the equipment, or if it fails while in use.

They could also fall if the equipment tips, perhaps because it has snagged on something protruding from the structure.

A further hazard associated with the use of suspended access equipment is to people below it. They may be struck by objects, such as tools, that fall from the equipment while it is being used.

## Useful resources

BS 6037: 1: 2017 Planning, design, installation and use of permanently installed access equipment.

BS EN 1808:2015 Safety requirements for suspended access equipment.

Design calculations, stability criteria, construction. Examinations and tests.

LG3 Suspended Access Equipment Guidelines (Safety Assessment Federation)

L113 Lifting operations and lifting equipment regulations 1998. Regulations and Approved Code of Practice.



## See elsewhere on SID:

**CON307 Fall prevention by design**

**CON308 Roof working**