



Work at height (WAH): Safety Steps for...

DESIGNERS

For any built asset, construction and operational safety is a crucially important design consideration. With regard to ensuring safe work at height (WAH), and in addition to considering the wider design brief and design process, designers should consider the need for WAH during the construction phase and the foreseeable lifetime operation of the built asset, when preparing or modifying designs.

Designers should actively seek to eliminate:

- The need for WAH, where possible;
- Foreseeable significant risks (including to workers and the public) that could arise because of necessary WAH.

Designers should also:

- take steps to reduce or minimize risks that cannot be eliminated, so far as is reasonably practicable (*SFRP – see below)
- Communicate, co-operate and co-ordinate with any other designers (including principal designers), along with all relevant contractors, facilities managers and service providers, to ensure all the above.

When considering risks that could arise from WAH, designers should consider the following framework of risk control (taking into account the Construction (Design and Management) Regulations 2015 (CDM) ‘Principles of Prevention’** and the steps below).

*SFRP = ‘So Far as Reasonably Practicable’ (HSW etc. Act 1974).

Designers who plan (or modify plans) for the construction/alteration of any built asset should take into account the following steps:		
Consider	Control	Examples may include:
<p>1. Avoid the need for work at height, where possible.</p> <p>Avoid designs that lead to unnecessary, readily avoidable or unsafe WAH, or which present challenges to ensuring safe WAH, including during the operational life of the asset. Include WAH considerations when dismantling, if relevant.</p>	<p>Assess and mitigate any significant risks due to work at height – during both construction and the operational life of the built asset.</p>	<p>During construction</p> <p><i>Offsite assembly</i></p> <ul style="list-style-type: none"> • Installing equipment at ground level, then lift safely to upper level <p><i>Operational lifetime</i></p> <ul style="list-style-type: none"> • Enable smart (and thus reduced) maintenance • Maximise accessible lighting and other services <p>Equipment can be lowered effectively to a safe working platform for repair/replacement</p>

<p>2. Prevent falls by designing to ensure a safe place of work</p>	<p>Design safe places of work, with safe access and egress</p>	<ul style="list-style-type: none"> • Safe access and egress • Safe working platforms • Suitable parapet walls • Flat roof with permanent edge protection • Effective guard rails • Enable evacuation and rescue, if necessary
<p>3. Prevent falls by designing to enable the necessary collective protective measures. Maximise shorter duration, low risk construction and maintenance WAH</p>	<p>Enable appropriate collective control measures to be fixed or available as necessary. Where reasonably practicable, enable low risk maintenance requirements.</p>	<ul style="list-style-type: none"> • Enable suitable equipment and effective deployment of (as necessary): • Maintenance cages (e.g. window cleaning) • Scaffolding • Mobile towers • MEWPs
<p>4. Prevent falls, or minimise the consequences of falls, by designing to enable the necessary personal protective measures.</p>	<p>Enable safe, secure and accessible personal control measures.</p>	<ul style="list-style-type: none"> • Anchor points for lanyards • Building edges and façade details to allow rope access

Skills, knowledge and experience – designers should ensure that they have (or have ready access to) sufficient skills, knowledge and experience that:

- Allows significant WAH risks and risk control measures to be identified and considered, during the design phase, construction phase and lifetime of the built asset
- Covers the suitability of fixed or temporary protective measures and required access equipment e.g. maintenance cranes, railing and anchorages
- Reflects the requirements of applicable regulations, standards and good practice

Key Points

- Eliminate the need for work at height where possible
- When work at height cannot be eliminated, control the risk with safe working access/platforms (SFARP)
- Ensure fixed areas designed for placing or attaching access and other work positioning and protective equipment are stable and strong enough for safe use
- Seek to enable low risk maintenance requirements (SFARP).

Designer

Further sources of information for designers includes:

Construction (Design and Management) Regulations 2015 (CDM) - and guide to the CDM Regulations (LI53):
 Designer duties

**CDM 2015 Regulations 'Principles of Prevention' (Appendix 1)

BS8560 2012 CoP for the design of buildings incorporating safe WAH + AI: 2018

HSE: Working at Height (INDG 401).

Ends