



**SUPPLY CHAIN SAFETY  
LEADERSHIP GROUP**

**Highways Safety Hub  
Raising the Bar 16  
Work at Height**

Issued Sept 2013 Revised February 2023

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## Objective

This Raising the Bar document seeks to reduce the number of work at height related incidents and injuries.

## Scope

The expectation is that this document will apply across all National Highways worksites and will be implemented by all supply chain partners working with National Highways. Work at height includes working on vehicles, plant, working platforms and adjacent to excavations.

## Background

Work related falls from height resulted in 29 fatalities in 2021 and working at height remains a key risk particularly within the construction environment. This guidance seeks to promote the elimination of working at height through application of safe by design techniques considering the whole life cycle of infrastructure from how it is constructed, maintained and demolished. The use of standardised designs and modern methods of construction will help deliver this ambition together with the use of different techniques which avoid the requirement for working at height.

## Governance Requirements

It is recognised that there will still be a requirement for some working at height. Supply Chain Partners must be satisfied that all mitigation measures have been considered and exhausted with respect to “Above the Line” controls Elimination, Substitution and Isolation prior to accepting proposals for Engineered Controls to be relied upon for all working at height activities. (See Appendix 1 for more details of this approach). Designs requiring construction activity, maintenance activity and demolition involving work at height must be robustly challenged to find alternative solutions to end future legacy issues on the network.

## Minimum Requirements

The following elements are mandatory requirements and suppliers shall ensure these elements are applied fully on National Highways sites.

### *Mandatory Elements*

- › At design stage designers must prioritise designs and construction methodologies to minimise workforce requirements for working at height during construction, maintenance, and demolition
- › Modern methods of construction and off-site manufacture must be considered for reduction of work at height activities
- › Construction methods involving the assembly of components at ground level to minimise work at height must be prioritised
- › Site cabins with lifting points at the bottom not on the top must be used
- › Principal Contractors must implement a “No Gaps” policy on scaffold and bridge decks etc. to prevent tools/materials falling from height
- › All hand tools must be tethered when working at height
- › The use of ladders / step ladders is prohibited for working at height apart from where they form part of temporary works on scaffolding or for safe access into excavations
- › MEWPs with anti-crush devices fitted must be used (see RtB 1)
- › Persons supervising the use of MEWPs must hold the MEWPs for Managers Course
- › Persons supervising rope access must hold IRATA Level 3 training
- › Planned and regular testing of emergency protocols for rescuing casualties from height must be implemented, recorded and lessons shared

## Guidance – Applying the Hierarchy of Controls

### Overview

The following guidance is written with the expectation that it represents best practice and as such should normally be followed unless a better local solution has been devised to meet the overall objective.

The guidance follows the Hierarchy of Controls as described in the Working at Height Regulations 2005:

Avoid work at height wherever possible

Prevent falls by means of work equipment or other measures

Minimise the distance and consequences of a fall should one occur

Give collective measures preference over personal protective measures

### 1. Elimination

#### Design Process

During the design phase designers should challenge the need for work at height, including working at height at ground level. Key considerations at early stages include:

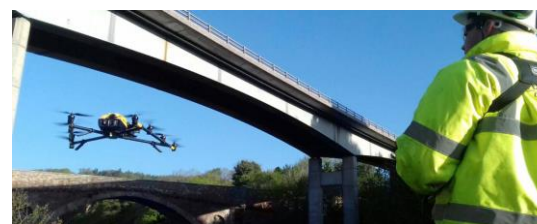
- › Modular designs assembled simply on site at ground level
- › Off-site manufacturing and the use of standardised products to minimise work at height risks
- › Capturing work at height risks for each individual structure or part of the asset to focus and drive real improvement where possible
- › Designing in safe access for maintenance to avoid future work at height
- › Use of remote monitoring systems for inspection including robotic technology and drones
- › Use of extendable tools and telescopic plant for maintenance and construction

**Note:** Application of the principals within the GG104 risk assessment process should demonstrate why any proposed working at height is the optimum methodology from a health and safety point of view.

### Examples of Good Practice Surveys & Inspections:



Wall climbing robot



Drones used for inspection of structures at height

### Examples of Good Modern Methods of Construction



Offline bridge construction, built at ground level, jacked and moved into final position using SPMTs (self-propelled modular transporter)

## 2. Prevention of Falls

### Selection of Appropriate Controls

Where working at height is required for construction or maintenance activities collective controls must always be given priority over individual protection. Selection of access arrangements and equipment is key and can include:

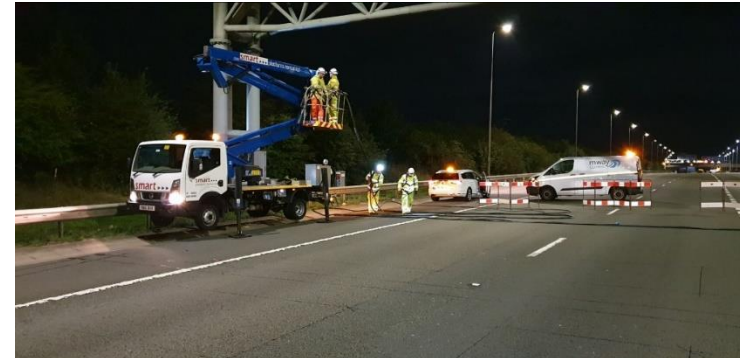
- › Provision of scaffolding and other temporary works to enable safe access and provide barriers at leading edges
- › Provision of access equipment with barriers at loading/offloading points
- › Use of MEWPs for safe access at height
- › Use of man-riders for access into deep excavations and shafts
- › Use of guarded podiums
- › Use of work restraint systems to prevent individuals from accessing an edge at height

This list is not exhaustive.

### Examples of Good Practice:



Movable protected podium for loading and unloading vehicles



MEWP used for access in full lane closure

## 3. Minimising the Consequences of a Fall

Where it is not practicable to prevent a fall focus must be on preventing serious consequences, again with giving preference to collective controls.

Examples include:

- › Provision of netting
- › Provision of soft-landing systems and air-bags
- › Rope access systems
- › Use of fall-arrest equipment with a relevant length lanyard

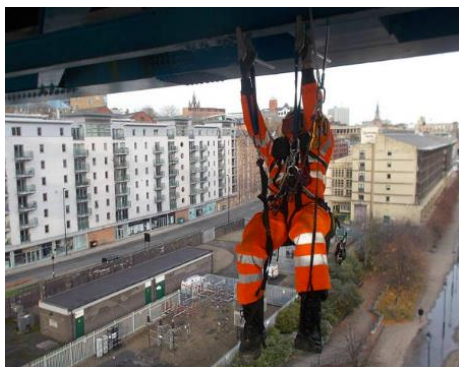
This list is not exhaustive.

### Examples of Good Practice Collective Measures



Safety netting

## Examples of Good Practice Individual Protection



Fall arrest system in use



Mobile man anchor point

## 4. Administrative & PPE Controls

When using any type of access equipment, plant or work at height PPE arrangements must be in place for:

- Inspection of scaffold and temporary works by competent persons every 7 days
- Plant reception checking certification and safety devices for MEWPs before use on site plus ongoing daily pre-use checks
- Inspection and certification of man-riders and any winches provided as emergency rescue equipment
- Detailed inspection of harnesses and any work positioning, work restraint or fall arrest systems by a competent person every 6 months
- Pre-use checks of harnesses and equipment by users
- Use of controlled access in to work at height areas / bridge decks
- RAMS and safe systems of work briefed to all workforce

## Environmental Considerations & Dynamic Risk Assessment

Working at height risks increase when weather conditions deteriorate. High winds, driving rain, snow, ice and fog must be assessed on a dynamic basis and severe weather warnings taken into account when planning

works. Where work over-runs and you are working in low light levels, adequate task lighting must be provided or the work postponed.

## People Requirements

### Training & Competence

All those involved with any work at height tasks must be adequately trained and competent – this includes supervisors and managers responsible for planning and setting people to work. For newly trained individuals mentoring, competence assessment and additional supervision must be provided as necessary.

Familiarisation training must also be provided for equipment such as MEWPs as part of the Day 1 briefing process.

### Fitness to Work

Safety critical medicals must be in place as required and personnel presenting for work must be fit.

### Assurance Activities

As part of site health and safety assurance activities work at height should be included by operational teams as part of routine targeted risk monitoring. A sample checklist can be found at Appendix 2.

## Emergency Arrangements

### Site Emergency Plan

Rescue plans must be in place for all work at height activities and must be detailed in the Site Emergency Plan.

There must be access to a trained rescue team on site able to mobilise quickly. Records of practice drills should be kept and any lessons learned from practice events must be built into the Emergency Plan.

### Examples of Good Practice



Practice rescue using man rider



Deep excavation rescue exercise

### Reporting and Recording

Any significant incidents or high potential near miss events involving work at height incidents must be reported immediately to the National Highways Project Manager or Sponsor and investigated in accordance with their potential severity.

Where required by GG128 incidents must be logged on the National Highways HART incident reporting system. Investigations must be made promptly, openly and any lessons learned shared appropriately.

### References

Work at Height Regulations 2005 [The Work at Height Regulations 2005 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

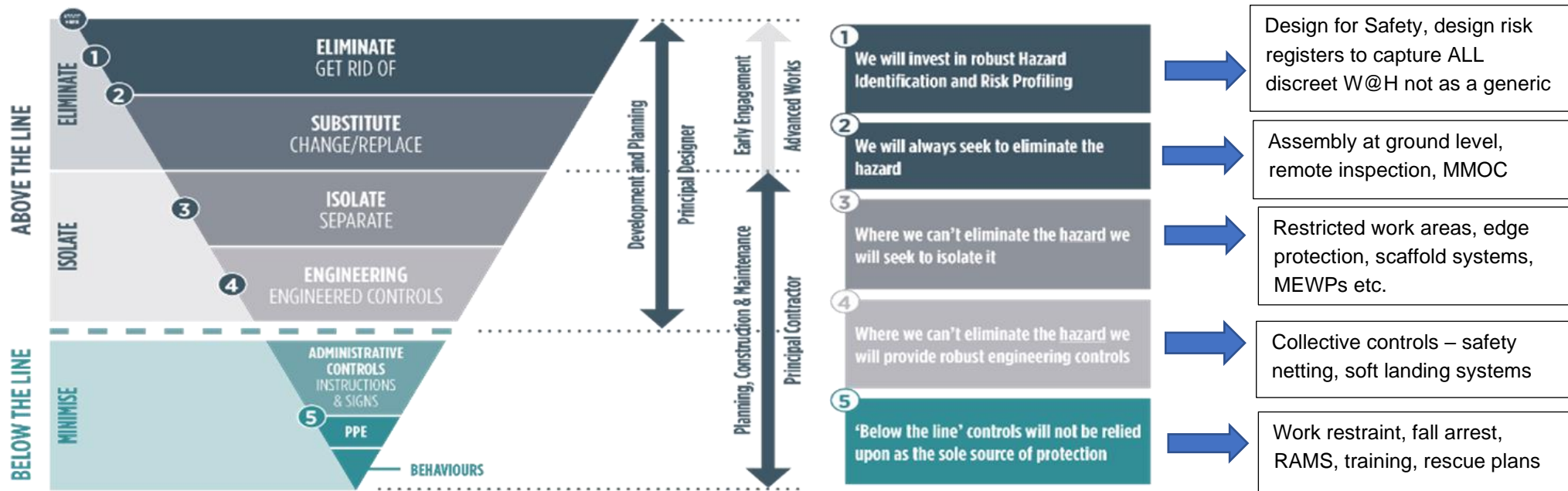
HSE Guidance GEIS 6 [Selection and management of mobile elevating work platform in construction GEIS6 \(hse.gov.uk\)](https://www.hse.gov.uk)

HSE Guidance INDG367 [INDG367 - Inspecting fall arrest equipment made from webbing or rope \(hse.gov.uk\)](https://www.hse.gov.uk)

CPA Guidance - Work at Height Whilst Loading & Unloading Transport [CPA Generic Guidance | Construction Plant-hire Association](https://www.cpa.uk.net)

CPA Guidance – Emergency Action Planning & Rescue from Height plus The Climbing of Tower Cranes [Tower Crane Guidance | Construction Plant-hire Association \(cpa.uk.net\)](https://www.cpa.uk.net)

Appendix 1 – Above the Line Approach & How It Applies to Working at Height





## Appendix 2 - Sample Work at Height Targeted Risk Monitoring

DATE:		TIME:	INSPECTED BY:			
GENERAL				YES	NO	N/A
1.	Has all work at height been considered?					
2.	Are the hierarchy of controls being effectively applied? E.g. bring work to ground level, use permanent structure, collective fall prevention, collective fall arrest, individual work restrain and individual fall arrest.					
3.	Confirm work at height identified and controls as detailed in RAMS are being fully applied.					
4.	Have weather conditions been considered?					
5.	Are emergency rescue plans in place, communicated, practiced and practical?					
6.	Do personnel identified as safety critical when working at height hold in date safety critical medical certification?					
7.	Is suitable protection in place to prevent falling materials and tools?					
8.	Is there a record of inspection for access equipment? Includes scaffolds, harnesses, man riders, MEWPs etc.					
9.	Are people using equipment suitably trained and competent?					
10.	Are any fragile structures or openings protected?					
11.	Are open excavations adequately fenced and protected?					
12.	Has work at height during loading and unloading of vehicles been assessed and adequately controlled?					
13.	Add further questions as necessary					
14.						
15.						

ACTION PLAN – FOR ANY QUESTIONS ANSWERED NO ABOVE RECORD AN ACTION HERE WITH INITIALS OF RESPONSIBLE PERSON & A TIME SCALE & A SIGN OFF				
	DETAIL OF ACTION	RESP.	DATE	SIGNED OFF