



HBF Loft Safety Guidance

Safe design and safe working
guidance for new build homes

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Purpose

This guidance includes design, specification and sequencing approaches to help prevent the need for personnel to access lofts and undertake construction or maintenance activities.

This document aims to result in a reduction in the risk of falls from height and improving the way work in lofts is done to become inherently safer for installers and maintainers.

The guidance also includes solutions to eliminate or reduce and safeguard the number of construction operatives working in loft areas.

Scope

This guidance applies to all new build and newly refurbished properties with loft spaces. A loft space is defined as an open area below the roof structure that is insulated and is not a habitable space (not used for living, sleeping, eating, or cooking). These spaces may include electrical and mechanical services such as Mechanical Ventilation with Heat Recovery (MVHR) systems, Photovoltaic (PV) solar systems, lighting, or a fire alarm.

Audience

Designers, technical teams, commercial teams, and build teams working in the home building industry.

How to interpret and use this guidance

This guidance should be used to inform design and specification outcomes for loft areas and help home builders develop best practices aimed at eliminating fall from height hazards and, where that is not possible, help to reduce the residual risks to the lowest level practicable. Home builders are encouraged to provide feedback to the HBF Health and Safety Committee on any other solutions they adopt that are not covered in this guidance.



1. Technical solutions

Solutions that could be adopted to eliminate or reduce the number of people working in loft areas.

This may include designs, specification or sequencing solutions.

1.1 Elimination

Can all mechanical, electrical, and other components in the loft except for insulation be 'designed out'?

Consider positioning vents through walls and locating ventilation systems and inverters in cupboards.

Take into consideration the following:

- SVPS must vent at the head of run through the roof. This can be done before boarding and insulation.
- Depending on the design (for example, mid terrace houses), ventilation systems often have no alternatives but to vent through the roof, where a discreet terminal is required rather than on a wall face.
- Inverters and other electrical systems must be located close to the PV panels to prevent excessive voltage drop on the DC side of the system. Loft location is often the only suitable location.

1.2 Risk mitigation

1.2.1 Design components and their assembly so that they can be constructed outside of the loft space.

For example, ensuring pipes are cut to length and the connectors are fitted before entering the loft space, allowing the pipes to be push fitted together when inside the loft space.

1.2.2 Design for the provision of a centralised point, adjacent to the loft access, where all equipment could be positioned. This area would be boarded.

In particular, the inverter for the PV panels and loft light and isolation



switches must be located as close to the access hatch as possible. Truss designers must be consulted.

- 1.2.3 Where possible and practical, design for extract fans to be ducted through the wall rather than through roof tiles.
- 1.2.4 Where equipment is located close to areas above stairwells, consider boarding the loft area directly above the stairwell to prevent falls from height through the ceiling and down staircases.
- 1.2.5 Design and specification considerations must take account of equipment being installed in lofts such as their size, weight, life span, and maintenance requirements.
- 1.2.6 Hatch sizes (which are usually restricted by width of trusses) should be appropriately designed and a residential grade.

1.3 Sequencing (pre-boarding)

- 1.3.1 Complete as much work as practically possible before the loft space is enclosed at first fix stage.

For example, undertake first fix electrical works from the floor below and install equipment prior to plaster-boarding.

- 1.3.2 Programme work to avoid multiple trades being in the loft space at the same time.

2. Site-based solutions

Solutions to eliminate or reduce and safeguard the number of people working in loft areas.



2.1 Safe systems of work

- 2.1.1 Operate a permit to work to access the loft space to ensure the Principal Contractors' site management check operatives are competent to undertake the works and have provided a safe system of work.

This could cover the access, egress, task lighting, emergency escape, lone working, protective clothing, and equipment.

- 2.1.2 Utilise appropriate and suitable height access equipment.

Figures 1 and 2 show a ladder with a bespoke bracket fitted to span the roof truss chords and web runners.



Figure 1



Figure 2

- 2.1.3 Establish an emergency rescue plan for the recovery of anyone trapped in the loft and unable to self-rescue.
- 2.1.4 Decide if lone working is permitted in loft areas.
- If lone working is permitted, include the lone worker safety arrangements and risk control measures in the permit to work system.
- 2.1.5 Install temporary proprietary systems in the loft such as the Oxford Stairwell Protection System for access to loft space areas and to provide crawl boards for operatives.



- 2.1.6 Identify, provide, and wear appropriate and suitable personal protective equipment (PPE) and respiratory protective equipment (RPE).
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Home Builders Federation (HBF) and the Electrical Contractors' Association



HBF have worked collaboratively with the Electrical Contractors' Association (ECA*) to ensure the most appropriate guidance has been prepared. HBF and ECA achieved this by utilising their own in-house expertise, knowledge, and experience to promote cooperation and share information and intelligence.

**The ECA is the leading electrotechnical trade body in the UK with 3000 member companies. They are determined to help their members be able to work safely in loft spaces and are delighted to work with HBF producing this guidance.*

Health and Safety Disclaimer

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