

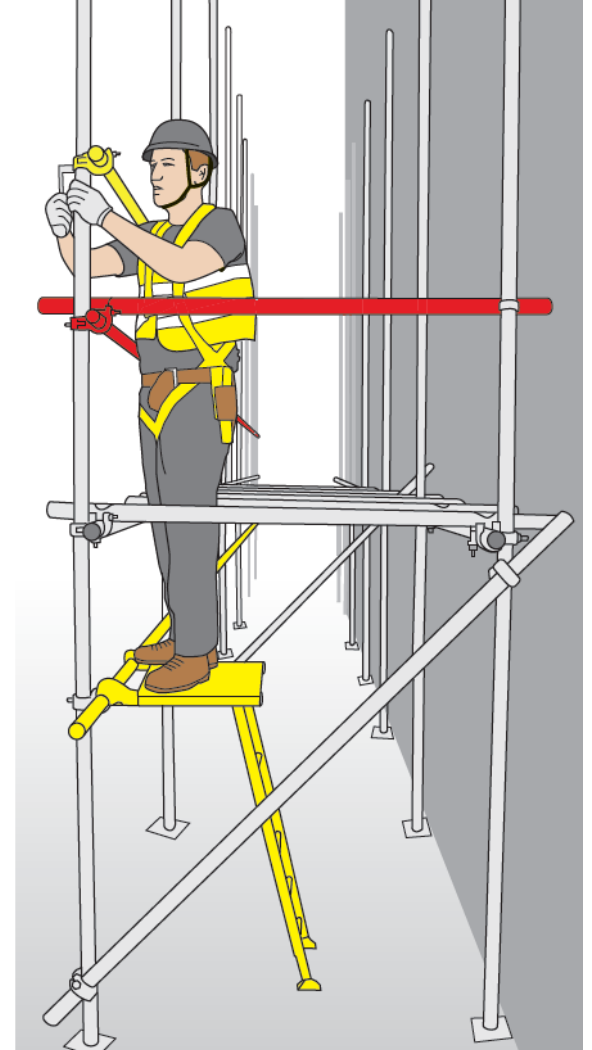


**NASC**®

# SG4 Preventing Falls in Scaffolding Operations

# What is SG4?

- SG4 is a guide to good practice for working at height with scaffolding.
- SG4 has become the 'unofficial code of practice' for working at height with scaffolding and provides comprehensive guidance for safe construction, use and maintenance.
- SG4 is used by constructors, inspectors, health and safety professionals and all who work with or manage scaffolding.
- SG4 is available in two formats:
  - Management Guide (Digital PDF free to download from the NASC website)
  - User Guide (A6 Pocket-sized booklet)

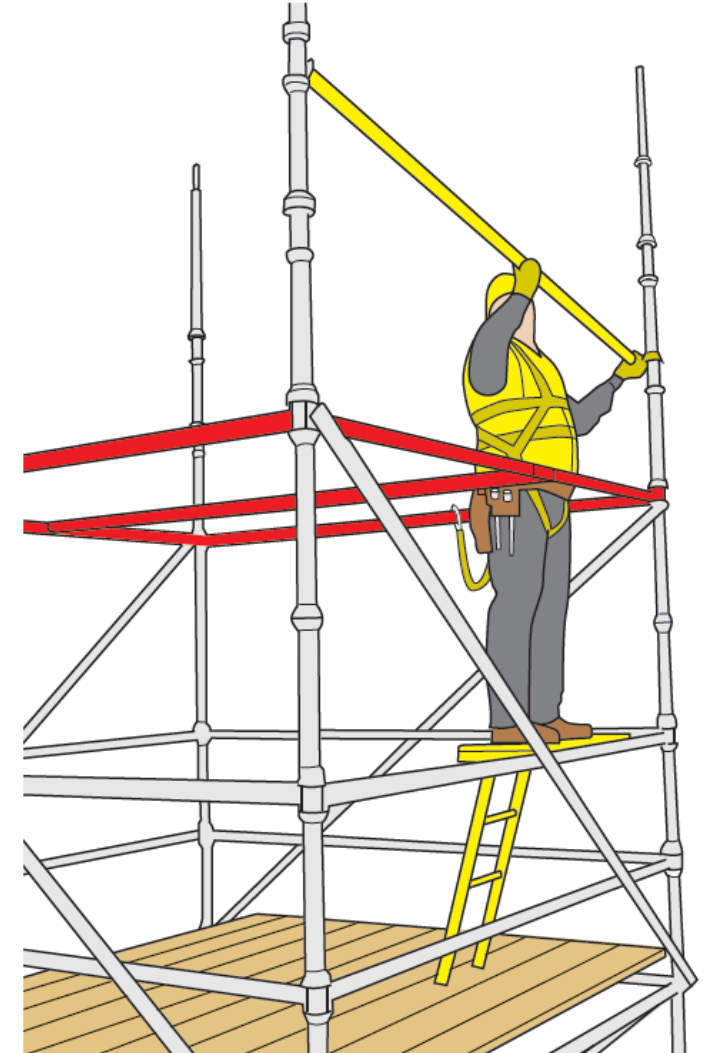


# Why is SG4 needed?

- Falls from height account for almost half of the fatal accidents in the construction sector. Scaffolders, by the nature of their work, are regularly exposed to the risk of a fall.
- SG4 aims to promote scaffolding industry good practice for work at height.
- SG4 has contributed to an 87% reduction in falls between 1999 and 2023 for NASC members.
- SG4 is regularly reviewed and updated to account for changes in legislation and improvements in technology.

# Features of SG4:22:

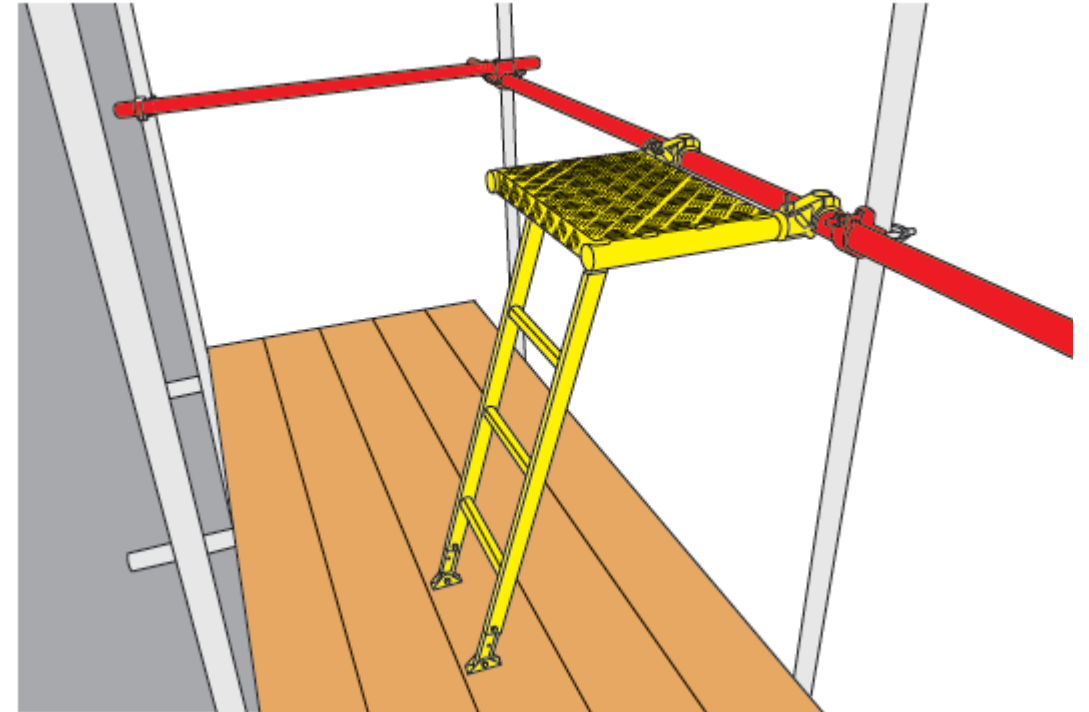
- Scaffolders safe zone
- Information and illustrations for various scaffolding activities.
- Guidance on collective and personal fall protection.
- Accident and enforcement action case studies.
- Embracing technology recommended.
- Fragile surfaces information.
- Working to SG4 with system scaffolding.



## Please note:

The illustrations in SG4 use this colour code:

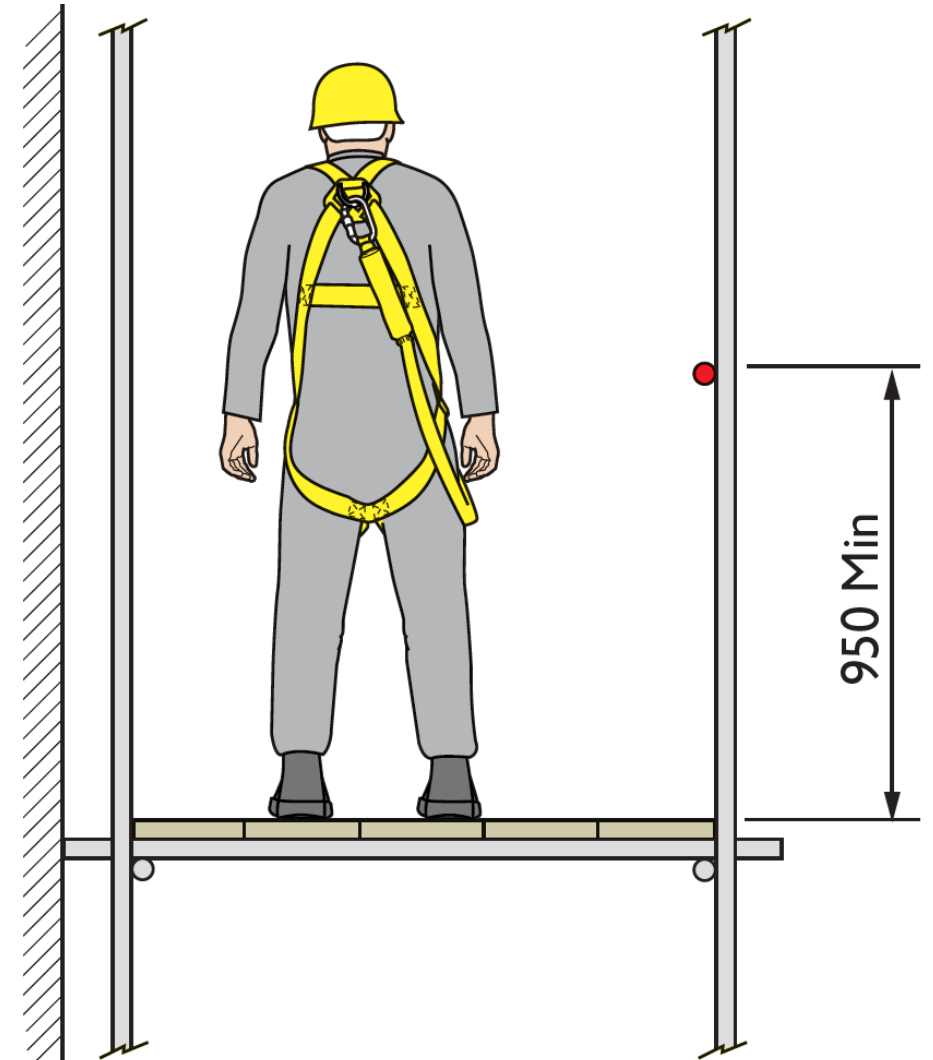
- yellow – features components and equipment.
- red – indicates active collective protection.



# Principles of SG4: Safe zone

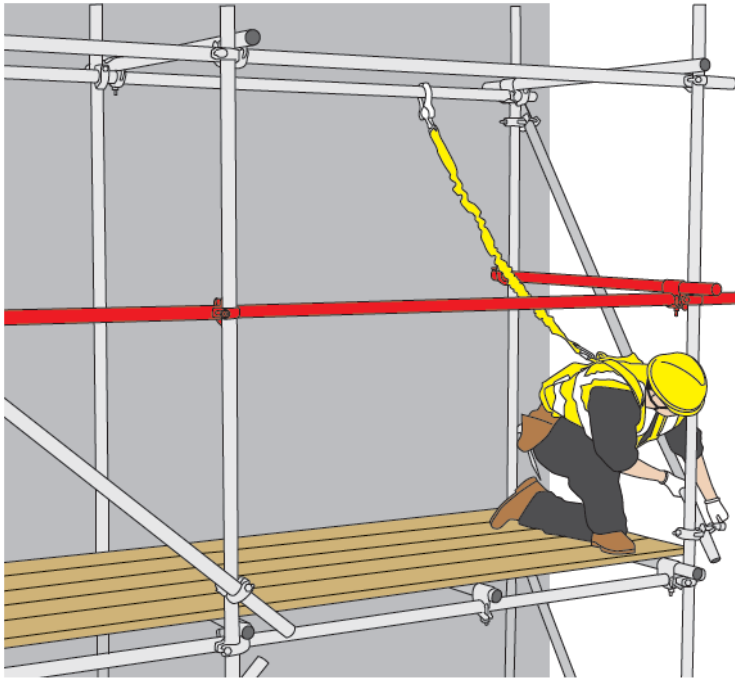
Scaffolders must establish a 'safe zone' as a priority when working at height.

- A safe zone consists of a fully boarded platform with a single guardrail fitted on all sides where there is a risk of a fall.
- Single guardrails should be erected and left in place, for the life of the scaffold.

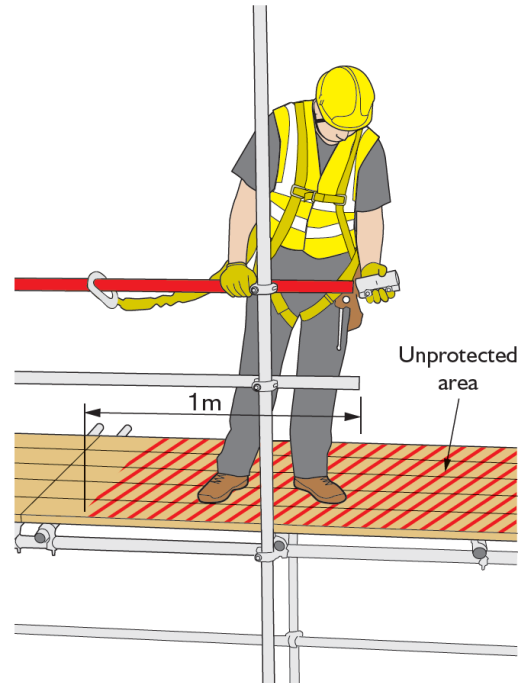


# Principles of SG4: Clipping on

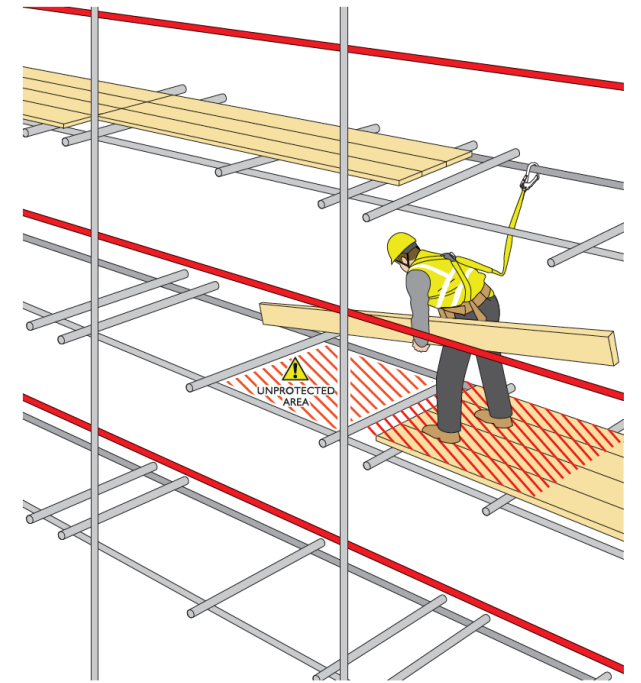
Scaffolders may generally work 'unclipped' when working within the Safe Zone. However, it must be recognised that achieving a safe zone does not completely eliminate the risk of a fall. In such cases fall arrest equipment will still be required.



When working below the guardrail



When fixing advanced guardrails

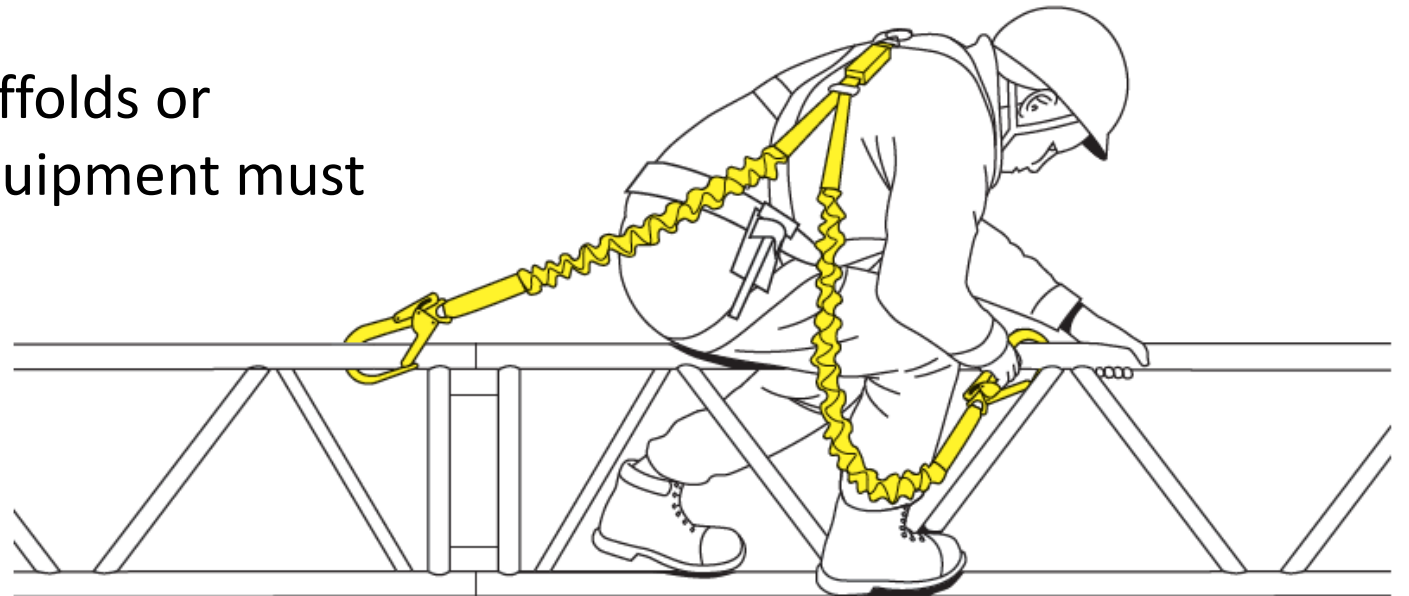


When transferring boards to the next level



# Principles of SG4: Access

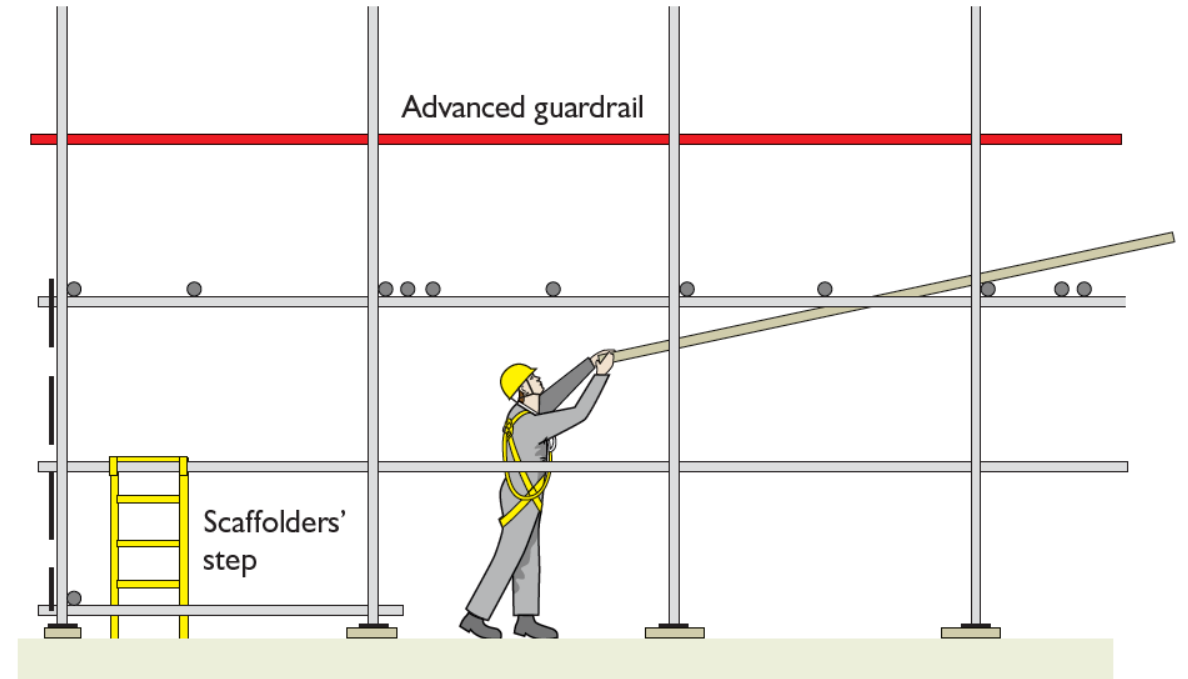
- It is not permitted to climb the scaffold via braces or tubes. Suitable access must be used at all times.
- It is not permitted to stand on scaffold tubes or beams at any time.
- Except when constructing slung scaffolds or prefabricated beams – fall arrest equipment must be used.





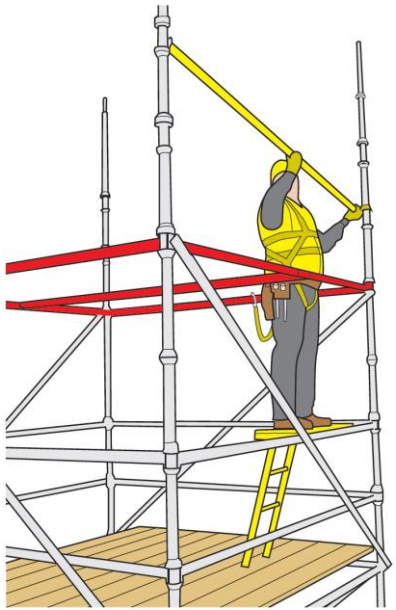
# Principles of SG4: Boarding out

- All lifts should be boarded out from below.
- All boards must be correctly supported with no 'trap ends'.
- The working platform should be fully boarded, (except where a gap is required to fit a lanyard hook when one board maybe omitted).
- A single guardrail should also be fitted to provide edge protection. In most cases guardrails can be fitted before access is gained to the platform.

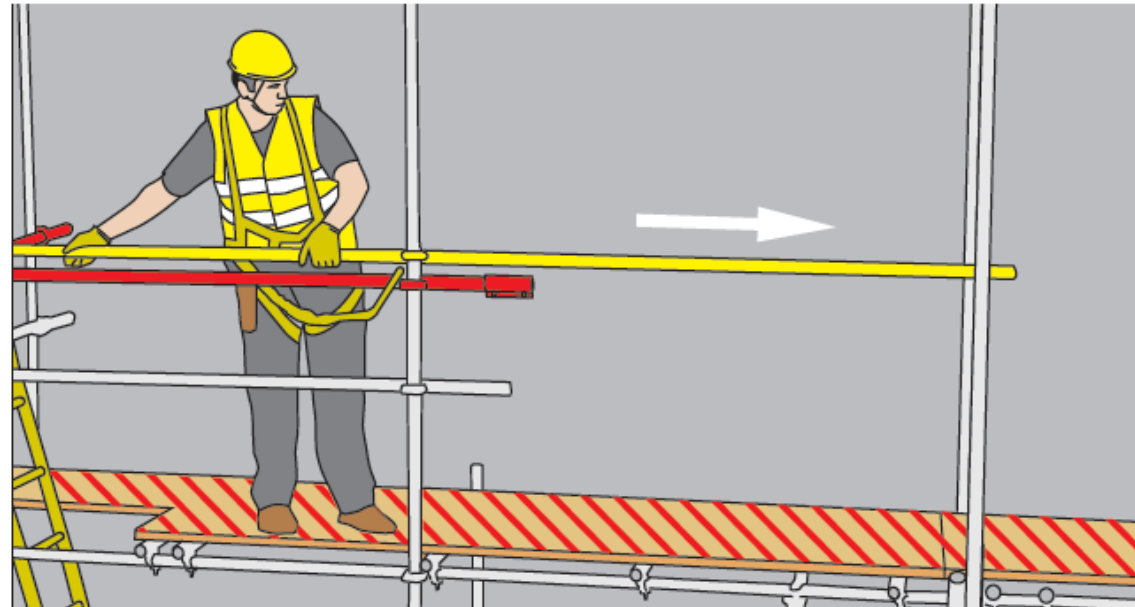


# Principles of SG4: Guardrails

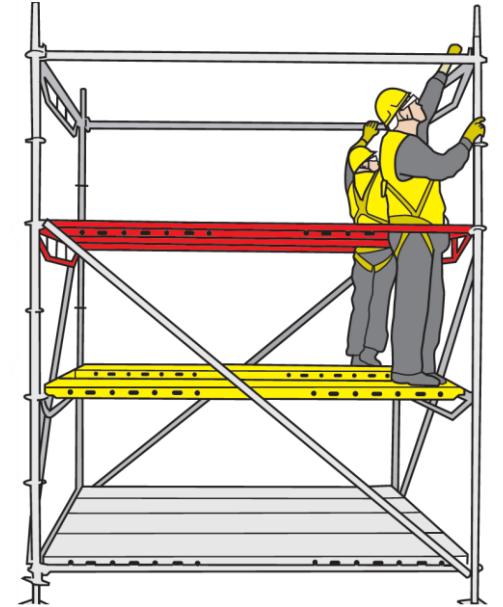
All levels of the scaffolding must be fitted with single guardrails before accessing that section of the scaffolding. Examples of methods for fixing single guardrails:



Scaffolders steps



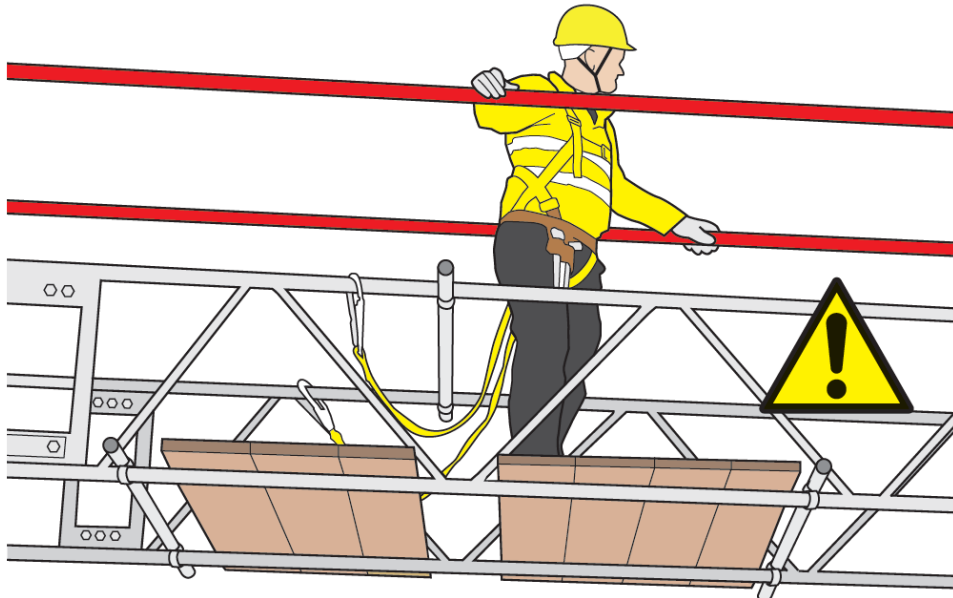
When fixing advanced guardrails



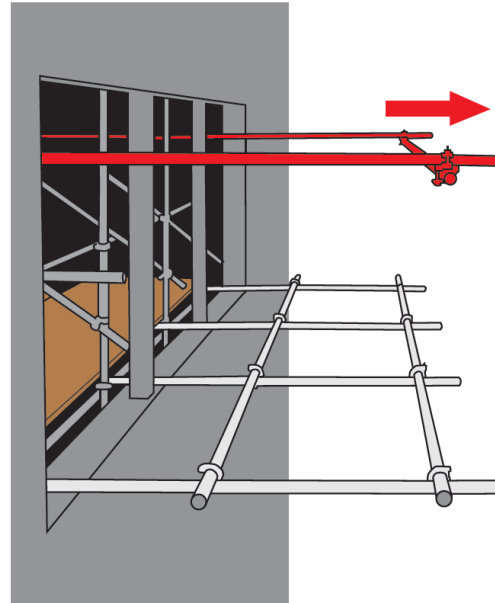
Short lift system

# Principles of SG4: Guardrails

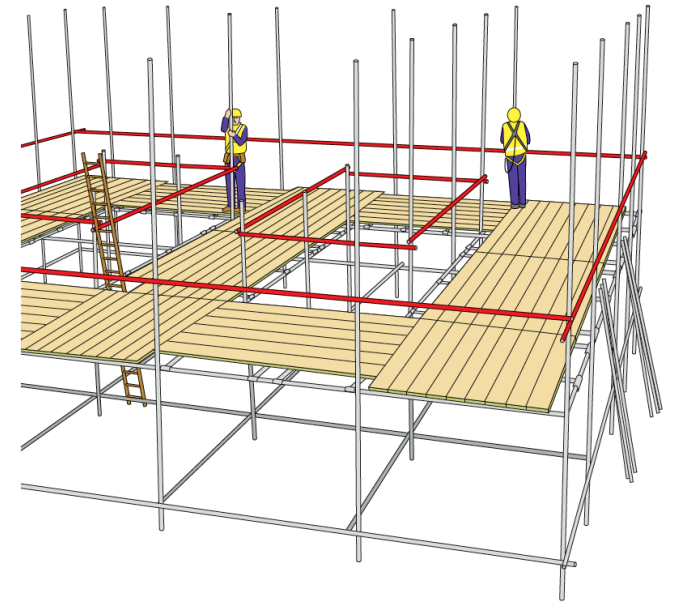
Here are some examples where additional measures are required to erect a safe zone.



Prefabricated Beams



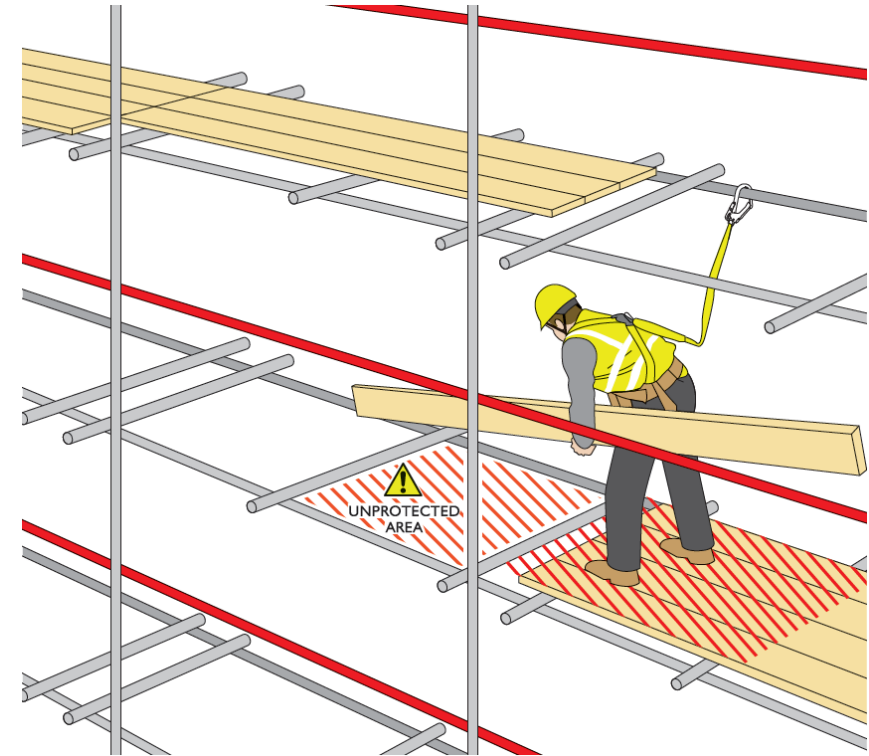
Truss-outs &  
Cantilevers



Birdcages

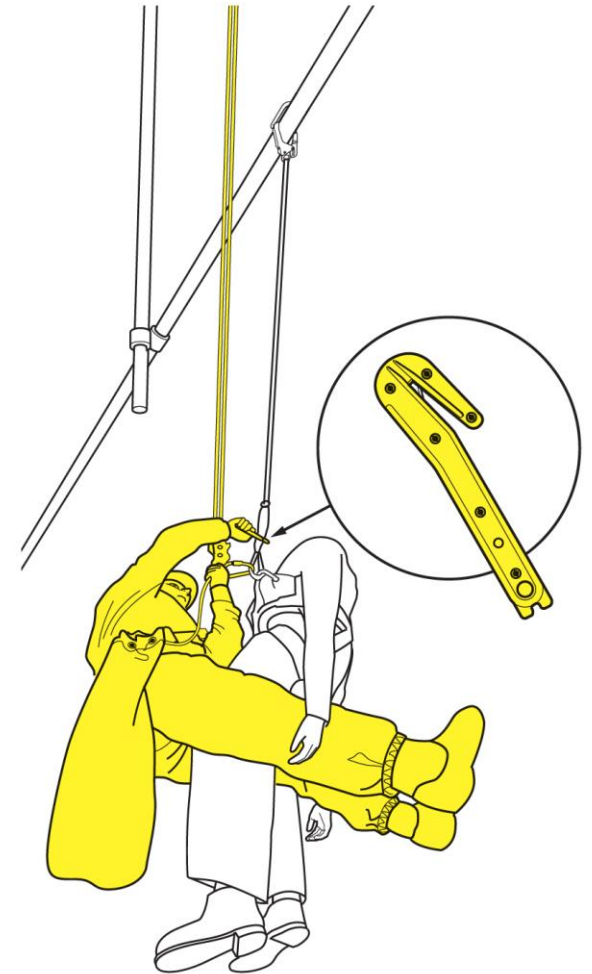
# Principles of SG4: Dismantling

- All dismantling activities should be carried out progressively, reversing the erection process.
- Scaffolders should work along the elevation removing the single guardrail and then lowering the boards from that section of guardrail to the lift below.
- Scaffolders **MUST NOT** remove the single guardrail from the whole elevation before lowering the boards.
- Work should progress back towards the ladder bay to eliminate the need to climb down the structure itself.



# Principles of SG4: Rescue

- The law requires that a rescue plan must be in place before any scaffolding work takes place.
- There are health risks associated with any person suspended in a fall arrest harness for any length of time, therefore an adequate rescue plan must be in place for every scaffolding operation where fall arrest equipment is used.
- The rescue plan must be detailed on the risk assessment before any work commences.
- This should consider the method of rescue, which may vary dependent on the type and configuration of the scaffold and should consider the action to be taken once the individual has been rescued.



# Principles of SG4: System Scaffolding Decking

- Install decking on every lift to allow all subsequent decks to be installed and removed from the lift below.
- Retain decking on alternate lifts to allow temporary decking to be installed and removed from the lift below.
- Use assembly aids that allows decks to be installed and removed from a scaffolders safe zone and avoid the need to climb the structure. E.g. temporary boards, temporary erection decks, etc.
- Avoid leaving partly boarded bays behind. Where this is necessary / can't be avoided, the decks must be secured.




Example of an assembly aid to place and remove decking.



# Note: SG4 is part of a raft of NASC Guidance notes

- SG4:22 is one of over 100+ guidance notes available – click on link for index: <https://nasc.org.uk/blog/article/nasc-publishes-guidance-index/>
- Click on link for the NASC shop: <https://nasc.org.uk/shop/>
- SG4:22 can be broken down as follows:
  - SG = safety guidance
  - 4 = is the 4<sup>th</sup> safety guidance note produced
  - 22 = is the year of issue.



NASC GUIDANCE INDEX

Safety Guidance:  
(UR) = Under Review

Guidance No.	Year	Title
SG1	14	Control of Substance Hazardous to Health in Scaffolding (COSHH) (UR)
SG2	22	Asbestos Licences and Ancillary Work Involving the Scaffolding Contractor - PDF only
SG3	21	Asbestos Awareness for the Scaffolding Contractor
SG4	22	Preventing Falls in Scaffolding Operations – PDF only
SG5	18	Overhead Power Sources and Earthing of Scaffold Structures
SG6	22	Management of manual handling in the scaffolding industry
SG7	19	Risk Assessments & Method Statements – PDF only
SG8	17	Reporting of Accidents Procedure and RIDDOR
SG9	21	Use, Inspection and Maintenance of Lifting Equipment [...] in the Scaffolding Industry - PDF only
SG10	19	Use of Brickguards
SG11	15	Noise (UR)
SG12	N/A	Document not in system
SG13	17	Health Surveillance in Scaffolding
SG14	N/A	Document not in system – for information about Safety Nets refer to FASET
SG15	17	Substance Abuse
SG16	23	Management of Fall Protection Equipment - PDF only
SG17	N/A	Document incorporated in SG16
SG18	14	Welfare Facilities for the Scaffolding Contractor (UR)
SG19	17	A Guide to Formulating a Rescue Plan
SG20	19	Consultation & Participation with the Workforce
SG21	17	Entry into Confined Spaces
SG22	17	Induction Training
SG23	N/A	Document not in system
SG24	N/A	Document incorporated in SG7
SG25	20	Access and Egress from Scaffolds
SG26	22	Scaffolding and Hoists – PDF only
SG27	22	Guidance on temporary edge protection on open steelwork, roofs and slab edges (Class A and B Surfaces) – PDF only
SG28	17	Safe System of Work for Scaffolding Associated with Timber Frame Building Construction
SG29	17	Internal Edge Protection on Scaffold Platforms
SG30	17	Management of Road Haulage for the Scaffolding Contractor – PDF only
SG31	20	Management of Slips and Trips
SG32	17	Provision of Extended and Telescopic Transoms and Board Brackets
SG33	14	Guide to the Construction of Scaffold Loading Bays and Loadbearing Platforms (UR)
SG34	17	Guidance on Protection of the Public - PDF only
SG35	21	Handover of Scaffold Structures and First Scaffold Inspection – PDF only
SG36	18	Unauthorised Modifications to Scaffolds
SG37	18	Effective Supervision
SG38	23	Guidance on Mental Health & Wellbeing – PDF only
SG39	21	Guidance on Appointing a Scaffolding Contractor – PDF only

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THANK YOU

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