

Supported Scaffolding in Construction

Scaffolding is generally classified as either suspended scaffolding or **supported scaffolding**. This Safety Tips sheet will provide a general overview of supported scaffolding safety, and more specifically Frame Scaffolding, or Fabricated Frame Scaffolding. This type of scaffolding is the most common type of scaffold because they are versatile, economical, and easy to use. They are frequently used in one or two tiers by residential contractors, painters, etc., but their modular frames can also be stacked several stories high for use on large-scale construction jobs. Scaffolding hazards include falls from working platforms and/or walkways, electrical hazards, scaffolding collapse or failure, and falling objects or materials from overhead work. OSHA Scaffolding Standards can be found under 1926.450 for the Construction Industry and 1910.28 for General Industry.

Training:

Employers are required to have each employee who performs work while on a scaffold trained by a person **qualified** in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize the hazards. For employees involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffolding employers must ensure they are trained by a **competent person** to recognize any hazards associated with the work in question. Retraining is required when employees demonstrate a lack of skill or understanding in the scaffolding requirements, when job site conditions change which an employee has not been previously trained, and when the type of scaffolding or characteristics of scaffolding has changed.

Safe Practices:

- Ensure that all scaffolding is constructed according to the manufacturer's instructions.
- Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.
- Scaffolding must be able of supporting without failure at least four times the manufacturer's recommended maximum load, including materials, workers, and scaffolding components.
- Ensure scaffolds are inspected before each shift by a **competent person**, who is capable of identifying scaffold hazards and who has the authority to correct the hazards.
- Supported scaffolds with height to base width (Including outrigger supports, if used) ratio of >4:1 shall be restrained from tipping by guying, tying, bracing, or equivalent means or per manufacturer's recommendations.
- Use screw jacks, base plates, and mud sills to ensure adequate support. Do not use unstable objects to support scaffolds.
- Fall protection is required when working level is more than 10' above lower level. This can be either a guardrail system or personal fall arrest system. Guardrails must be installed on all open sides and ends of the platforms.
- Employees erecting or dismantling scaffolding must use fall protection as determined by a competent person.
- Safe access must be provided for all scaffolding systems. Employees are prohibited from climbing the cross bracing or other scaffold components other than those designed to provide safe access.
- Scaffolds may not be moved while employees are on the scaffold.

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- Front-end loaders, forklifts, etc. are not to be used for support unless designed for use.
- Work from scaffolds during storms or high-winds is prohibited unless deemed safe by a competent
 person and employees use personal fall protection or wind screens. A windscreen may only be used
 when the scaffold is secured against anticipated wind forces.
- Keep scaffolding at least 10' from electric lines.
- Keep scaffolding work platforms free of all excess tools and materials that could create a trip/fall hazard or could fall from platform.
- Scaffold components made of dissimilar metals shall not be used together unless competent person has
 determined them compatible. Similarly, components manufactured by different manufacturers shall not
 be intermixed unless they fit together without force or modification and the scaffold's structural
 integrity is maintained by the user.
- The front edge of all platforms shall not be more than 14 inches from the face of the work, unless
 guardrail systems or personal fall arrest systems are used. The maximum distance from the face for
 plastering and lathing operations shall be 18 inches.
- Each platform on all working levels shall be fully planked or decked between the front uprights and the guardrail supports. Minimum walkway and platform width is 18". Ensure that platforms do not deflect more than 1/60th of span when loaded.
- Platforms 10' of less in length shall not extend over its support more than 12 inches. Platforms greater than 10' in length shall not extend more than 18 inches over its support.
- Where platforms overlap to create a long platform, the overlap shall occur only over supports, and shall not be less than 12inches unless platforms are nailed together or otherwise restrained to prevent movement.

An OSHA "competent person" is defined as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them". By way of training and/or experience, a competent person is knowledgeable of applicable standards, is capable of identifying workplace hazards relating to the specific operation, and has the authority to correct them. Some standards add additional specific requirements which must be met by the competent person.

"Qualified" person means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.