

Found on nearly every construction project, scaffolds are extremely useful and can improve the efficiency at the job site by providing a safe and secure platform for workers. However, when scaffolds are constructed incorrectly, are missing key parts, or are used improperly, they can become a threat to worker safety.

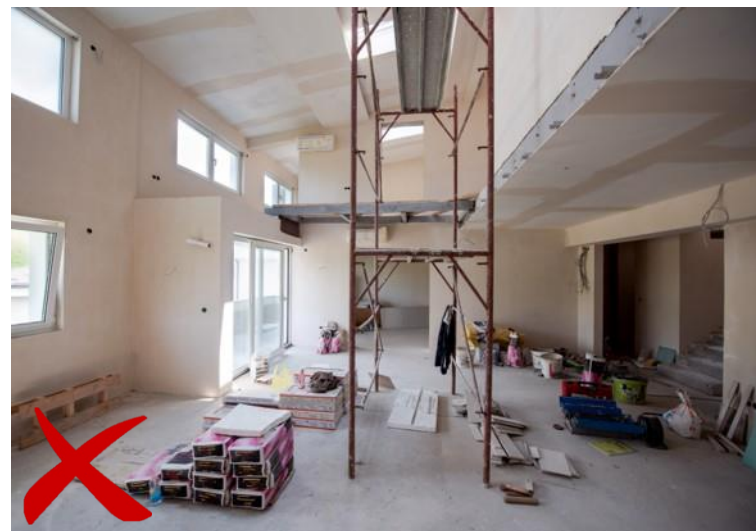
The most common type of scaffolding is known as a **supported scaffold** and consists of one or more platforms supported by rigid supports like outrigger beams, brackets, poles, legs, uprights, posts, or frames.

Scaffolds are temporary structures that are subjected to repeated setup, teardown, and transport, often under rough conditions. Scaffolds have to be designed and manufactured to withstand not only this repeated abuse but also the stress of being loaded by heavy materials, equipment and workers.

There are a variety of styles, configurations, and types of supported scaffolds with new designs and technologies being created every year. However, all supported scaffolds have several common safety concerns that must be addressed during their construction and use.

This safety topic is focused on raising awareness to these critical safety areas that pertain to all types of supported scaffolds:

- Footing and placement
- Planks and platforms
- Strength and load limitations
- Accessibility requirements



Safety hazards! No ladder access, no guardrails, not fully decked, not on base plates.

0002112



0000431



0000027

As with any construction, setup of a scaffold must start from a **stable footing**. If the foundation isn't square and level then the scaffold will be at risk of collapse, and all workers working on or near the scaffolding will be at risk of injury.

- Footings must be capable of supporting the loaded scaffold without settling or displacement.
- Unstable objects may not be used to support scaffolds or platform units.
- Front-end loaders and similar pieces of heavy equipment shall not be used to support scaffold platforms.
- Supported scaffold poles, frames, uprights, etc. must be set on a base plate and mud sill or other firm foundation and must be plumb and braced to prevent swaying and displacement.

OSHA Standard 1926.451(c)(2) *Supported scaffold poles, legs, posts, frames, and uprights shall bear on base plates and mud sills or other adequate firm foundation. (i) Footings shall be level, sound, rigid, and capable of supporting the loaded scaffold without settling or displacement.*

The **platform** is the main work area of the scaffold. It holds not only the workers, but also the materials, tools, and supplies necessary to get the job done. Scaffold platforms may be constructed using wooden planks, metal decks, or manufactured components.

- Scaffold platforms must be fully decked in order to create a safe and stable work area.
- No gaps greater than 1 inch are permitted between adjacent planks or deck units, or between the platform and the uprights.
- Scaffold platforms and walkways must be at least 18 inches wide.
- To prevent scaffold boards or planks from slippage, the platforms must be cleated or otherwise restrained at each end, or else overlap their support at least 6 inches.
- On scaffolds where platforms are overlapped to create a long platform, the overlap may only occur over supports, and may not be less than 12 inches, unless the platforms are restrained (nailed together) to prevent movement.



0000530

OSHA Standard 1926.451(b)(1) *Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail support.*

It is important that workers follow manufacturer's instructions on how to avoid overloading and damaging the scaffold. Scaffolds and scaffold components must be capable of supporting, without failure, their own weight and at least 4 times their **maximum intended load**.



0002114



0002115

Maximum intended load means the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

- The intended load will often be less than the rated load but should never exceed the rated load unless such design is approved by an engineer and the manufacturer.
- Scaffolds should never be modified or altered unless approved by the manufacturer and only under the supervision and direction of a competent person.
- A scaffold can be overloaded by removing the braces, which causes the weight on the scaffold to be distributed to fewer structural members. Even if they are "in the way," braces should not be removed while work is being performed on a scaffold!

OSHA Standard 1926.451(f)(1) *Scaffolds and scaffold components shall not be loaded in excess of their maximum intended loads or rated capacities, whichever is less.*

Workers must have a **safe way to access** their work areas when using a scaffold. Ensure the following requirements are followed:

- Install a ladder or use a stairway-type ladder or walkway whenever there is more than 2 feet above or below a point of access to the scaffold.
- Never climb on the cross-braces or use them as a means of access to other levels of the scaffold.
- Only use ladders that are specifically designed for use with the specific type of scaffolding.
- Position portable, hook-on, and attachable ladders so they do not tip the scaffold.
- Hook-on and attachable ladders must be positioned so that their bottom rung is not more than 24 inches above the supporting level.
- Make sure that when scaffold stairways are used that the bottom step is not more than 24 inches above the supporting level.
- Use stairways that have slip-resistant treads on all steps and landings.
- When using scaffold stairways, they must have stair rail consisting of a top rail and a mid rail on each side of each scaffold stairway.



0002113

OSHA Standard 1926.451(e)(1) *When scaffold platforms are more than 2 feet (0.6 m) above or below a point of access, portable ladders, hook-on ladders, attachable ladders, stair towers (scaffold stairways/towers), stairway-type ladders (such as ladder stands), ramps, walkways, integral prefabricated scaffold access, or direct access from another scaffold, structure, personnel hoist, or similar surface shall be used.*



COPYRIGHT AND DISCLAIMER

This material is the copyrighted property of Weeklysafety.com, LLC. Purchase of this material from Weeklysafety.com, LLC grants the owner the right to use this material for workplace safety and education purposes only. Use of this material for any other purpose, particularly commercial use, is prohibited. This material, including the photos, may not be resold. Weeklysafety.com, LLC does not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed in these materials. Photos shown in this presentation may depict situations that are not in compliance with applicable Occupational Safety and Health Administration (OSHA) safety requirements. These materials are meant for informational purposes only and it is not the intent of Weeklysafety.com, LLC to provide compliance-based training. The intent is more to address hazard awareness in the construction and related industries, and to recognize the potential hazards present in many workplaces. These materials are intended to discuss Federal Regulations only, as individual State requirements may be more stringent. Many states operate their own state OSHA and may have standards that are different from information presented in this training. It is the responsibility of the employer and its employees to comply with all pertinent OSHA safety rules and regulations in the jurisdiction in which they work.

PHOTO ACKNOWLEDGMENTS

Unless specified below, all photos are the copyrighted property of Weeklysafety.com, LLC and may not be used in any other training materials or resold for any purpose.

- 0000027 OSHA; Caught-In or –Between Hazard Recognition. [osha.gov/dte/outreach/construction/focus_four/](https://www.osha.gov/dte/outreach/construction/focus_four/)
- 0000431 Copyright Weeklysafety.com
- 0000530 Oregon OSHA Fall Protection for Construction Activities; [osha.oregon.gov/OSHAPubs/2824.pdf](https://www.osha.oregon.gov/OSHAPubs/2824.pdf)
- 0002112 – 0002113 Shutterstock License for Weeklysafety.com
- 0002114 – 0002115 OSHA Scaffolding eTool; [osha.gov/SLTC/etools/scaffolding/supported](https://www.osha.gov/SLTC/etools/scaffolding/supported)

For more information on this weekly safety topic, other topics that are available and the full list of FAQs please visit www.weeklysafety.com or email safety@weeklysafety.com.