

# OSHA Rules for Scaffolding

## A) Objectives:

1. Don't let the scaffold fall.
2. Don't fall off the scaffold.
3. Don't let the material fall off the scaffold.

\_\_\_\_\_  
Name of Competent Person:

\_\_\_\_\_  
Name of Qualified Person:

## B) Key Definitions:

1. **Competent Person:** means 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.
2. **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/her ability to solve or resolve problems related to the subject matter, the work or the project.

## C) Significant Changes to Subpart L\*

1. **Fall protection for Erectors and Dismantlers:** The standard now requires employees be protected from falls while erecting (including increasing the height of the scaffold as the work progresses). The employers must conduct a feasibility study to determine when fall protection, such as personal fall protection systems, are feasible and do not create a greater hazard. (Scaffolding is not designed as an anchor point for fall arrest.)
2. **Electrical Shock Protection:** The standard requires safe distance from power lines be maintained as outlined in the standard.
3. **Employee Training:** The standard now specifically requires all employees who work on, erect or dismantle, repair, operate, maintain or inspect scaffolding be trained in specific areas related to the safe use of the scaffold.
4. **Daily Inspections:** The new standard requires the scaffold be inspected before each use, daily or before each work shift by a competent person.
5. **Welding from a Suspended Scaffold:** The standard requires specific precaution be taken when welding from a suspended scaffold to prevent current travel and/or arcing in the scaffold components.
6. **Cross Braces as Railings:** The standard specifically addresses under what circumstances a cross brace can substitute as a top or mid rail (not both).
7. **Access:** The standard now defines how and under what circumstances a ladder or steps will be used.

## Load Chart

Frame	Tier 1	Tier 2	Tier 3	Tier 4	Part	Load
	(all weights are in lbs. per leg)					(all weights are in lbs.)
5' x 3' SLB	4200	3465	3360	2993	All Purpose	1000 evenly distributed
5' x 4' SLB	4200	3465	3360	2993	Screw Jack	11000 at top of jack
5' x 5' SLB	4043	3360	3213	2835	20" Side Bracket	500 personnel only
5' x 6' 6" SLB	2441	2240	2048	1785	7' Plywood Deck	75 per sq. ft. with 1/2" decking
5' x 6' 6" WT	3434	3045	2646	2373	Folding Trestle	1000 on top cross member
5' x 6' 4" WT	3434	3045	2646	2373	8" Caster	500 per caster

For towers exceeding four (4) tiers high, subtract dead load weight/leg of frames, crossbraces, and brackets above the 4th tier to obtain an allowable load/leg for workman, materials, and planking.

All values are based upon 12" maximum screw extension at the base of the scaffold.

\* Subpart L is the OSHA Scaffolding standard and can be obtained from your local OSHA office.

# Scaffold Safety Tips

These tips and suggestions are designed to promote safety in the use of steel scaffolding. They are intended to deal only with some of the many practices and conditions encountered in the use of scaffolding. They do not purport to be all inclusive or to replace other additional safety and precautionary measures to cover usual, or unusual conditions. They are not intended to conflict with, or supersede any OSHA, federal, state, local statutes or regulations.

## Check Safety Codes

Check frequently with your local OSHA, state and local offices for the latest safety code updates. You can also check the A1 web site at [www.a1scaffold.com](http://www.a1scaffold.com) for code updates and the latest in scaffold safety tips.

## Don't Short Change Bracing

Use bracing at all points provided. Add extra braces if needed to insure stability.

## Reject Damaged Parts

Bent or otherwise damaged frames or braces should not be used. Put them aside for replacement or repair. For repair, call A1 Plank & Scaffold.

## Inclement Weather

Don't work on scaffolds in bad weather or high winds unless the Competent Person decides it is OK to do so. Platforms should be cleared of ice and or snow before being used.

## Tie Scaffold to the Building

Scaffolding should be tied to the structure using #9 wire or tie-in devices. The first vertical tie should be at the maximum height of 4 times the narrowest base dimension. Additional ties are not to exceed 26' vertically. Maximum horizontal distance between ties is not to exceed 30'.

## Intermixing of Components

Scaffold frames and their components manufactured by different companies shall not be intermixed, unless the component parts readily fit together without force and the Competent Person determines the resulting scaffold is structurally sound.

## Personal Safety Equipment

Anyone working on a scaffold must wear a hard hat and steel toed work boots. Additionally, fall protection systems must be used when requested by the proper authorities. Scaffolding is not designed as an anchor point for fall arrest.

## Don't Ride a Rolling Scaffold

The platform height of a rolling scaffold must not exceed four (4) times the smallest base dimension (Cal/OSHA and some Government agencies require a stricter ratio of 3 to 1)

Always keep casters locked while on scaffold.

## Begin with Good Footings

Scaffolds must bear on base plates or screwjacks on a mud sill or other adequate firm foundation.

## Work Practices

Safe work practice training by a Competent Person must be given to workers who erect, dismantle, move, operate, repair, maintain, inspect, and use scaffolding.

## Scaffold Training

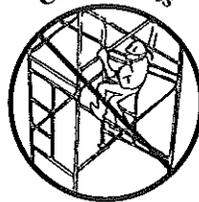
Re-training is necessary when workers are exposed to new hazards or conditions on the job or when workers show signs of unsafe work practices.



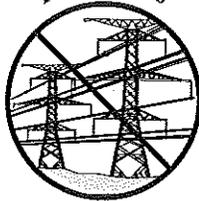
Check Safety Codes



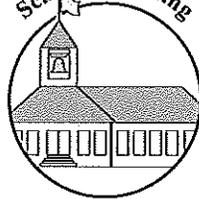
Cross Braces



Power Lines



Scaffold Training



Inspect and Check



Overload Scaffold



Tie Scaffold to Building



Inclement Weather



## Guardrails

Top guard rails must be installed between 36" and 45" (if manufactured and placed into service after Jan. 1, 2000, between 38" and 45"). Mid rail is placed halfway in between.

## Cross Braces

Cross Braces should not be used as a way to climb the scaffold. All braces must be checked for proper engagement onto locks. Cross bracing is acceptable for mid rail if cross point is between 20" and 30" above the work platform. Cross bracing is acceptable for top rail if cross point is between 38" and 45" above the work platform. Cross bracing cannot serve as both.

## Toeboards

Debris and rubble should not be allowed to accumulate on the work platform and should be removed as quickly as possible. Additionally, tools and other materials should not be allowed to accumulate. Toeboards should be used to prevent tools and materials from being knocked off the work platform.

## Work Platforms

Use metal catwalks or platforms where available. If wood plank is used, it must be scaffold grade or better. Inspect thoroughly before each and every job to make sure it is free from breaks, knots, cracks or warpage. Decking should be full width.

## Plank Overlapping

Planks 10' long or less require a 6" minimum and a 12" maximum overlap. Planks greater than 10' long require a 6" minimum and a 18" maximum overlap.

## Protect Working Levels

Use overhead canopies to protect workers on lower work levels when work is being done overhead. Rope off unsafe areas underneath scaffold or provide wire mesh around work area.

## Proper Usage

Never use equipment for purposes other than those recommended by A1 Scaffold Mfg., Inc. Contact A1 for further information.

## Don't Overload Scaffolding

Follow the safe load capacities as provided by the manufacturer... there's a limit even to what steel can support. A 4 to 1 safety factor must be calculated and maintained at all times on scaffolding.

## Guyed Scaffolds

Remember - Slack guys are useless. Overtight guys are dangerous.

## Power Lines

DONOT use scaffolding where the user can come into contact with live power lines.

## Inspect & Check

Take no chances. Inspect the scaffold setup after erection and daily when in use. Don't remove or allow removal of any parts without the OK from the Competent Person. When wire rope is used, inspect it on each job.

# GIVE TO ERECTOR / USER OR POST ON JOB SITE

## FRAME SCAFFOLDS, SYSTEM SCAFFOLDS, TUBE AND CLAMP SCAFFOLDS & ROLLING SCAFFOLDS DEVELOPED FOR INDUSTRY BY SCAFFOLDING, SHORING & FORMING INSTITUTE (SSFI) and SCAFFOLD INDUSTRY ASSOCIATION, INC. (SIA)

It shall be the responsibility of all users to read and comply with the following common sense guidelines which are designed to promote safety in the erecting, dismantling and use of Scaffolds. These guidelines do not purport to be all inclusive nor to supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If these guidelines in any way conflict with any state, local, federal or other government statute or regulations, said statute or regulation shall supersede these guidelines and it shall be the responsibility of each user to comply therewith.

### 1. GENERAL GUIDELINES

- A. **POST THESE SCAFFOLDING SAFETY GUIDELINES** in a conspicuous place and be sure that all persons who erect, dismantle, or use scaffolding are aware of them, and also use them in tool box meetings.
- B. **FOLLOW ALL STATE, LOCAL AND FEDERAL CODES, ORDINANCES AND REGULATIONS** pertaining to scaffolding.
- C. **SURVEY THE JOB SITE.** A survey shall be made of the job site by a competent person for hazards, such as untamped earth fills, ditches, debris, high tension wires, unguarded openings, and other hazardous conditions created by other trades. These conditions should be corrected or avoided as noted in the following sections.
- D. **INSPECT ALL EQUIPMENT BEFORE USING.** Never use any equipment that is damaged or defective in any way. Mark it or tag it as defective. Remove it from the job site.
- E. **SCAFFOLDS MUST BE ERECTED IN ACCORDANCE WITH DESIGN AND/OR MANUFACTURER'S RECOMMENDATIONS.**
- F. **DO NOT ERECT, DISMANTLE OR ALTER A SCAFFOLD** unless under the supervision of a competent person.
- G. **DO NOT ABUSE OR MISUSE THE SCAFFOLD EQUIPMENT.**
- H. **ERECTED SCAFFOLDS SHOULD BE CONTINUALLY INSPECTED** by users to be sure that they are maintained in safe condition. Report any unsafe condition to your supervisor.
- I. **NEVER TAKE CHANCES! IF IN DOUBT REGARDING THE SAFETY OR USE OF THE SCAFFOLD, CONSULT YOUR SCAFFOLD SUPPLIER.**
- J. **NEVER USE EQUIPMENT FOR PURPOSES OR IN WAYS FOR WHICH IT WAS NOT INTENDED.**
- K. **DO NOT WORK ON SCAFFOLDS** if your physical condition is such that you feel dizzy or unsteady in any way.
- L. **DO NOT WORK UNDER THE INFLUENCE** of alcohol or illegal drugs.

### 2. GUIDELINES FOR ERECTION AND USE OF SCAFFOLDS

- A. **SCAFFOLD BASE MUST BE SET ON BASE PLATES AND AN ADEQUATE SILL OR PAD** to prevent slipping or sinking and fixed thereto where required. Any part of a building or structure used to support the scaffold shall be capable of supporting the maximum intended load to be applied.
- B. **USE ADJUSTING SCREWS** or other approved methods to adjust to uneven grade conditions.
- C. **BRACING, LEVELING & PLUMBING OF FRAME SCAFFOLDS-**
  1. Plumb and level all scaffolds as erection proceeds. Do not force frames or braces to fit. Level the scaffold until proper fit can be easily made.
  2. Each frame or panel shall be braced by horizontal bracing, cross bracing, diagonal bracing or any combination thereof for securing vertical members together laterally. All brace connections shall be made secure, in accordance with the manufacturer's recommendations.
- D. **BRACING, LEVELING & PLUMBING OF TUBE & CLAMP AND SYSTEM SCAFFOLDS-**
  1. Posts shall be erected plumb in all directions, with the first level of runners and bearers positioned as close to the base as feasible. The distance between bearers and runners shall not exceed manufacturer's recommendations.
  2. Plumb and level all scaffolds as erection proceeds.
  3. Fasten all couplers and/or connections securely before assembly of next level.
  4. Vertical and/or horizontal diagonal bracing must be installed according to manufacturer's recommendations.
- E. **WHEN FREE STANDING SCAFFOLD TOWERS** exceed a height of four (4) times their minimum base dimension, they must be restrained from tipping (CAL/OSHA and some government agencies require stricter ratio of 3 to 1.)
- F. **THE CONTINUOUS (RUNNING) SCAFFOLDS TO THE WALL OR STRUCTURE** at each end and at least every 30 feet of length in between when scaffold height exceeds the maximum allowable free standing dimension. Install additional ties on taller scaffolds as follows: On scaffolds 3 feet or narrower in width, subsequent vertical ties shall be repeated at intervals no greater than every 20 feet. On scaffolds wider than 3 feet, subsequent vertical ties shall be repeated at intervals not greater than 26 feet. The top tie shall be installed as close to the top of the platform as possible; however, no lower from the top than 4 times the scaffold's minimum base dimension. Ties must prevent the scaffold from tipping either into or away from the structure. Stabilize circular or irregular scaffolds in such a manner that the completed scaffold is secure from tipping. Place ties near horizontal members. When scaffolds are fully or partially enclosed, or when scaffolds are subjected to overturning loads, additional ties may be required. Consult a qualified person.
- G. **DO NOT ERECT SCAFFOLDS NEAR ELECTRICAL POWER LINES.** Consult a qualified person for advice.
- H. **ACCESS SHALL BE PROVIDED TO ALL PLATFORMS.** Do not climb crossbraces or diagonal braces.
- I. **PROVIDE A GUARDRAIL SYSTEM, FALL PROTECTION AND TOEBOARDS WHERE REQUIRED BY THE PREVAILING CODE.**
- J. **BRACKETS AND CANTILEVERED PLATFORMS-**
  1. Brackets for system scaffolds shall be installed and used in accordance with manufacturer's recommendations.
  2. Brackets for frame scaffolds shall be seated correctly with side bracket parallel to the frames and end brackets at 90 degrees to the frames. Brackets shall not be bent or twisted from normal position. Brackets (except mobile brackets designed to carry materials) are to be used as work platforms only and shall not be used for storage of material or equipment.

3. Cantilevered platforms shall be designed, installed and used in accordance with manufacturer's recommendations.
- K. **ALL SCAFFOLDING COMPONENTS** shall be installed and used in accordance with the manufacturer's recommended procedure. Components shall not be altered. Scaffold frames and their components manufactured by different companies shall not be intermixed, unless the component parts readily fit together and the resulting scaffold's structural integrity is maintained by the user.
- L. **PLANKING**
  1. Working platforms shall cover scaffold bearer as completely as possible. Only scaffold grade wood planking, or fabricated planking and decking meeting scaffold use requirements shall be used. Planks and platforms should rest on bearers only.
  2. Check each plank prior to use to be sure plank is not warped, damaged, or otherwise unsafe.
  3. Planking shall have at least 12" inches overlap and extend 6" beyond center of support, or be cleated or restrained at both ends to prevent sliding off supports.
  4. Solid sawn lumber, LVL (laminated veneer lumber) or fabricated scaffold planks and platforms (unless cleated or restrained) shall extend over their end supports not less than 6" nor more than 18". This overhang should be guardrailed to prevent access.
- M. **FOR "PUTLOGS" AND "TRUSSES" THE FOLLOWING ADDITIONAL GUIDELINES APPLY:**
  1. Do not cantilever or extend putlogs/trusses as side brackets without thorough consideration of loads to be applied.
  2. Install and brace putlogs and trusses in accordance with manufacturer's instructions.
- N. **FOR ROLLING SCAFFOLDS THE FOLLOWING ADDITIONAL GUIDELINES APPLY:**
  1. **RIDING A ROLLING SCAFFOLD IS VERY HAZARDOUS.** The SSFI and the SIA do not recommend nor encourage this practice.
  2. Casters with plain stems shall be attached to the frames or adjustment screws by pins or other suitable means.
  3. No more than 12 inches of the screw jack shall extend between the bottom of the adjusting nut and the top of the caster.
  4. Wheels or casters shall be locked to prevent caster rotation and scaffold movement when scaffold is in use.
  5. Joints shall be restrained from separation.
  6. Use horizontal diagonal bracing near the bottom and at 20 foot intervals measured from the rolling surface.
  7. Do not use brackets or other platform extensions without compensating for the overturning effect.
  8. The top platform height as measured from the rolling surface of a rolling scaffold must not exceed four (4) times the smallest base dimension (CAL/OSHA and some government agencies require a stricter ratio of 3:1).
  9. Clear or secure all plank.
  10. Secure or remove all materials and equipment from platform before moving.
  11. Do not attempt to move a rolling scaffold without sufficient help - watch out for holes in floor and overhead obstructions - stabilize against tipping.
- O. **SAFE USE OF SCAFFOLD-**
  1. Prior to use, inspect scaffold to insure it has not been altered and is in safe working condition.
  2. Erected scaffolds and platforms should be inspected continuously by those using them.
  3. Exercise caution when entering or leaving a work platform.
  4. Do not overload scaffold. Follow manufacturer's safe working load recommendations.
  5. Do not jump onto planks or platforms.
  6. **DO NOT USE** ladders or makeshift devices to increase the working height of a scaffold. Do not plank guardrails to increase the height of a scaffold.
  7. Climb in access areas only and use both hands.

### 3. WHEN DISMANTLING SCAFFOLDING THE FOLLOWING ADDITIONAL GUIDELINES APPLY:

- A. Check to assure scaffolding has not been structurally altered in a way which would make it unsafe and, if it has, reconstruct and/or stabilize where necessary before commencing with dismantling procedures. This includes all scaffold ties.
- B. Visually inspect planks prior to dismantling to be sure they are safe.
- C. Do not remove a scaffold component without considering the effect of that removal.
- D. Do not accumulate excess components or equipment on the level being dismantled.
- E. Do not remove ties until scaffold above has been dismantled to that level.
- F. Lower dismantled components in an orderly manner. Do not throw off of scaffold.
- G. Dismantled equipment should be stockpiled in an orderly manner.

These safety guidelines (Code of Safe Practice) set forth common sense procedures for safely erecting, dismantling and using scaffold equipment. However, equipment and scaffolding systems differ, and accordingly, reference must always be made to the instructions and procedures of the supplier and or manufacturer of the equipment. Since field conditions vary and are beyond the control of the SSFI and the SIA, safe and proper use of scaffolding is the sole responsibility of the user.