

GUIDE FOR WORKING SAFELY WITH SUPPORTED SCAFFOLDS

Scaffolding provides safety and adds to the efficiency of work. However, unsafe scaffolding can lead to accidents, serious injuries and death.



This GUIDE promotes awareness of safe work practices for supported scaffolds and covers:

- Commonly Used Supported Scaffolds
- Common Hazards
- Selected CAL/OSHA Regulations
- Working Safely – Best Practices

SAFETY TIP

Following manufacturer's instructions, complying with Cal/OSHA regulations and using this GUIDE as a reference helps you ensure safe work with supported scaffolds.

For [Cal/OSHA](http://www.dir.ca.gov/dosh/puborder.asp) Publications Visit
<http://www.dir.ca.gov/dosh/puborder.asp>



Research and Education Unit

Commonly Used Supported Scaffolds

- Frame or Fabricated
- Tube and Coupler
- Outrigger Scaffold
- Bracket Scaffold
- Tower/Rolling
- Horse Scaffold
- Ladder Jack
- Window Jack

Common Hazards

Individuals exposed to scaffolding hazards include scaffold erectors and dismantlers, personnel working on/under scaffolds, and employees, and the general public near scaffolding. Scaffold erectors and dismantlers are at particular risk, since they work on scaffolds before ladders, guardrails, platforms, and planks are completely installed. Common hazards are:

Structural Flaws

- Missing/improperly supported base plates
- Scaffold not tied properly to building
- Platform slope exceeds req/legs not plumb
- Braces/runners/cross-bracing not secure
- Missing braces/runners and cross-bracing
- Some planks overextended/under extended
- Severe overloading; Danger of collapse
- Broken pins on frames

Fall Hazards

- Missing mid and top guardrails
- Improper access
- Platforms not fully planked
- Substandard planks
- Falling objects/missing toe boards
- Slippery platforms

These hazards mainly come from parts failure, not following proper installation, inspection, and dismantling procedures, the failures at attachment points, inadequate fall protection, changing weather conditions, and overloading of scaffolding.

Beware of Fall and Scaffold Collapse

Selected Cal/OSHA Regulations

(See Title 8 CCR for all regulations and exceptions)

The company's **Code of Safe Practice (COSP)** must include safety requirements for erection, use, and dismantling of scaffolds.

The company's **IIPP** must provide for inspections, correction of hazards found, and training for scaffold erectors, users and dismantlers.

- The design and construction of scaffolds must conform to standards and requirements [1637](#)
- Each scaffold must be designed to support its own weight and 4 times the maximum load. See [1637\(b\)](#) for maximum working loads
- Scaffold erection and dismantlement must be supervised by a qualified person. Scaffold must be erected and dismantled according to design standards, engineered specifications, or manufacturer's instructions [1637](#)
- A Cal/OSHA permit is required for erecting and dismantling scaffolds that exceed three stories or 36 ft. in height [341\(d\)\(5\)\(B\)](#)
- A safe and unobstructed means of access, such as a walkway, stair, or ladder shall be provided to all scaffold platforms [1637\(n\)\(1\)](#)
- Anchorage and bracing shall be such that scaffolds and falsework will be prevented from swaying, tipping, or collapsing [1637\(c\)](#)
- All planks shall be capable of safely sustaining the intended load [1637\(f\)\(4\)](#)
- Workers on scaffolds who are exposed to overhead hazards shall be provided with overhead protection or other means that will effectively eliminate the hazard [1637\(q\)](#)
- Platform must be at least 20" wide and shall not be sloped more than 2 to 10. Slippery platform conditions are prohibited [1637\(p\)](#)

Selected regulations continued in next page.....

- Guardrails must be installed on open sides and ends of platforms that are 7 1/2 ft. or higher [1621\(a\)](#)
- Toeboards are required on all railed sides of work surfaces where employees work or pass below [1621\(b\)](#)
- Follow height limits (see exceptions) [1643](#), [1644](#)
 - Wood (frame/post): 60 ft.
 - Tube and coupler/ Tubular (welded): 125 ft.
- No work shall be done on or from scaffolds during storms or high winds (see exceptions) [1637\(u\)](#)

In addition, specific types of supported scaffolds have their own set of Cal/OSHA requirements:

- Tubular welded scaffold systems [1644](#)
- Tower and rolling scaffolds [1646](#)
- Ladder jack scaffolds [1648](#)
- Outrigger scaffolds [1645](#)
- Bracket scaffolds (light trades) [1645](#)
- Window jack scaffolds [1654](#)

Working Safely With Scaffolds Safety Tips

- Select the right type for the job
- Design and construct to standards
- Follow manufacturer's guidelines for proper erection, use and dismantling
- Inspect daily and before each use
- Maintain stability at all times
- Use ladders/access provided. Don't climb using railings. Don't take short cuts
- Do not overload the scaffold
- Cover scaffold safety in the COSP and train all involved in erection, use, and dismantling

Working Safely – Best Practices

Scaffolding accidents can occur during erection, use and dismantling of scaffolds. The following **Best Practices** can help in preventing scaffold related accidents:

During Design and Selection

- Select proper scaffold/scaffolding material
- Follow proper design for constructed scaffold
- Follow all manufacturer's requirements
- Follow all Title 8 design requirements
- Stationary scaffolds over 125 feet in height and rolling scaffolds over 60 feet in height must be designed by a professional engineer

During Erection and Dismantling

- Scaffold and each level are maintained plumb
- Scaffold is being erected under the direction of a qualified person
- All employees involved with (or near) the scaffold wear hard hats
- Footings are sound and rigid
- Scaffolds are built from the bottom up and dismantled from the top down
- The scaffold is secured to the structure during erection and dismantling
- Ties to the structure are installed as soon as the scaffold is completed to each tie-in area
- If platforms are sloped, the slope is no more than 2 feet vertical to 10 feet horizontal
- Platforms are also secured so they can't slip
- When a platform turns a corner, planks are laid so as to avoid tipping
- Guardrails on open sides/toeboards on all railed sides are provided as required
- Proper access is provided
- Electrical safety clearance distances are maintained to avoid electrocution
- Scaffold requirements for your trade are followed

- Ties are removed only as the work progresses downward, unless other methods are used to prevent the scaffold from falling over
- When dismantling, structural members are not removed below the level being dismantled

During Use

- Have scaffold inspected by a qualified person before putting in use
- Inspect daily and before each use

Quick Scaffold Inspection.

Check for:

- ✓ Missing/damaged planks
- ✓ Missing guardrails/toeboards
- ✓ Proper access
- ✓ Proper tying off to buildings
- ✓ Clearance from electric lines
- ✓ Any overhead obstructions
- ✓ If it is level and plumb

- Use scaffolds as per manufacturer instructions
- Train scaffold users on all aspects of safety including:
 - all potential hazards (structural, fall, falling objects, electrical, and other possible hazards)
 - maximum intended load and capacity
- Do not overload scaffolds
- Use only the safe means of access. Do not climb using railings
- Climb safely using both hands
- Face the rungs as you climb up or down
- Do not work on slippery rungs
- Do not extend working heights
- Do not remove any component of a completed scaffold except under the supervision of a qualified person
- Casters must be locked at all times the rolling scaffold is not being moved
- Train users to spot and report hazards