





**Scaffold Safety** 

Checklist







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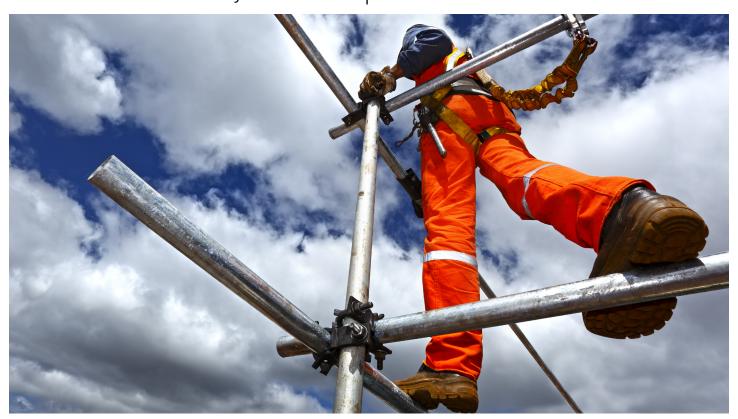
## INTRODUCTION

he purpose of this checklist is two-fold: 1) to answer questions to help employers and employees understand the requirements to protect employees who use scaffolds; and 2) provide employers with a self-audit tool to ensure their company complies with the Occupational Safety and Health Administration (OSHA) General Requirements for Scaffolds in Title 29 Code of Federal Regulations (CFR) 1926.451.

Scaffolding hazards continue to rank high on the list of OSHA's most frequently cited standards in the construction industry. Each year, scaffold-related incidents account for a significant number of work-related injuries and deaths.

This publication is organized in a questionand-answer format followed by a checklist to highlight information that employers and employees need to know to prevent scaffold accidents. The subjects addressed follow the basic organization of the standard and are followed by the regulatory text where that particular information can be located. An attached appendix is also included to provide an alphabetical list of definitions related to the scaffold standard for quick reference.

This publication provides an overview of the standard and OSHA's rule outlined in *Safety Standards for Scaffolds in the Construction Industry*. It is not intended to supersede requirements in the standard or in the Occupational Safety and Health Act of 1970. For compliance with all of the standard's requirements, refer to the regulatory text in 29 CFR 1926, Subpart L.



#### Resources

#### Items you will need:

- 29 CFR 1926, Subpart L Scaffolds
  - **1926.451**

**General Requirements** 

**1926.452** 

Additional requirements applicable to specific types of scaffolds

**1926.454** 

**Training requirements** 

- Appendix A
   to Subpart L of Part 1926
   Scaffold Specifications
- Appendix D
   to Subpart L of Part 1926
   List of Training Topics
   for Scaffold Erectors and
   Dismantlers
- Appendix E to Subpart L of Part 1926
   Drawings and Illustrations
- 29 CFR 1910 Subpart B
   Adoption and Extension of Established
   Federal Standards
- 29 CFR 1910.28 Subpart D
   Walking-Working Surfaces
  - <u>1910.22</u>

**General Requirements** 

- 1910.23 Ladders
- 1910.27

Scaffolds and rope descent systems

**1910.28** 

Duty to have fall protection and falling object protection

- <u>1910.29</u>
  - Fall protection systems and falling object protection
- 1910.30 Training Requirements
- 29 CFR 1910 Subpart Q

Welding, Cutting, and Brazing

1910.252(b)(1)(i)
 Welding on Platforms, Scaffolds, or Runways

- 29 CFR 1910 Subpart R
  Special Industries
  - 1910.272 Appendix A
     Grain Handling Facilities

#### Preambles to Final Rules & Additional Directives

- Scaffolding
- Shipyard Employment "Tool Bag" Directive
- Longshoring and Marine Terminals "Tool Shed" Directive

#### For additional help contact:

 Occupational Safety and Health Administration (OSHA)

www.OSHA.gov

- Standards and Regulations https://www.osha.gov/laws-regs
- OSHA Publications https://www.osha.gov/ publications/all
- Texas Occupational Safety and Health Consultation (OSHCON) Program

www.txoshcon.com

- Free On-site Safety Inspections and OSHA Counseling OSHCON@tdi.texas.gov
   1-800-252-7031, Option 2
- Texas Department of Insurance,
   Division of Workers' Compensation
   (DWC)-Workplace Safety

www.txsafetyatwork.com

- OSHA-authorized Workplace
   Safety and Health Instruction
   and Training
   www.safetytraining@tdi.texas.gov
  - 1-800-252-7031, Option 2
- Free Workplace Health and Safety Publications and Streaming Videos

resourcecenter@tdi.texas.gov

1-512-804-4620 or

1-800-252-7031, Option 2



## **TABLE OF CONTENTS**

#### **Scaffold Safety Checklist**

INTRODUCTION	3
Resources	4
PART I: General Requirements for Scaffolds Questions and Answers	6
Capacity	6
Scaffold Platform Construction	6
Criteria for Supported Scaffolds	7
Criteria for Suspended Scaffolds	9
Access Requirements	13
Use Requirements	14
Fall Protection Requirements	14
Falling Object Protection	15
PART II: Self-Audit Checklist	16
Set Up	16
Use	16
APPENDIX A: OSHA Definitions	17

## **PART I**

# **General Requirements for Scaffolds Questions & Answers**

#### OSHA defines a:

- competent person as "one who is capable of identifying existing and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them," [1926/32(f)]; and a
- qualified person as "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," [1926.32(m)].

#### **Capacity**

#### Q. What are the capacity requirements for all scaffolds?

A. Each scaffold and scaffold component must support without failure its own weight and at least four times the maximum intended load applied or transmitted to it [29 CFR 1926.451(a) (1)]. A qualified person must design the scaffolds, which are loaded in accordance with that design [29 CFR 1926.451(a)(6)]. Scaffolds and scaffold components must not be loaded in excess of their maximum

intended loads or rated capacities, whichever is less [29 CFR 1926.451(f)(1)]. Load carrying timber members should be a minimum of 1,500 pound-force/square inch construction grade lumber [29 CFR 1926 Subpart L Appendix A(1)(a)].

#### **Scaffold Platform Construction**

## Q. What are the requirements for constructing scaffold platforms?

A. Each platform must be planked and decked as fully as possible with the space between the platform and uprights not more than 1 inch (2.5 cm) wide. The space must not exceed 9½ inches (24.1 cm) when side brackets or odd-shaped structures result in a wider opening between the platform and the uprights [29 CFR 1926.451(b)(1)].

## Q. What are the requirements for scaffold planking?

A. Scaffold planking must be able to support, without failure, its own weight and at least four times the intended load [29 CFR 1926.451(a)(1)].

Solid sawn wood, fabricated planks, and fabricated platforms may be used as scaffold planks following the recommendations by the manufacturer, a lumber grading association, or inspection agency [29 CFR 1926 Subpart L Appendix A(1)(b) & (c)].

Tables showing maximum permissible spans, rated load capacity, and nominal thickness are in 29 CFR 1926 Subpart L Appendix A(1)(b) & (c) of the standard.

## Q. What is the maximum deflection of a platform?

A. The platform must not deflect more than 1/60 of the span when loaded [29 CFR 1926.451(f)(16)].

## Q. What are the requirements for work on platforms cluttered with debris?

A. The standard prohibits work on platforms cluttered with debris [29 CFR 1926.451(f) (13)].

## Q. How wide does the work area need to be on scaffolding?

A. Each scaffold platform and walkway must be at least 18 inches (46 cm) wide. Guardrails or personal fall arrest systems must be used [29 CFR 1926.451(b)(2)].

## Q. Are guardrails required on all open sides of scaffolding?

A. The standard requires employers to protect each employee on a scaffold more than 10 feet (3.1 m) above a lower level from falling to that lower level [29 CFR 1926.451(g)(1)].

To ensure adequate protection, install guardrails along all open sides and ends before releasing the scaffold for use by employees, other than the erection and dismantling crews [29 CFR 1926.451(g)(4) (i)].

Guardrails are not required, however:



- when the front end of all platforms are less than 14 inches (36 cm) from the face of the work [29 CFR 1926.451(b)(3)];
- when outrigger scaffolds are 3 inches (8 cm) or less from the front edge [29 CFR 1926.451(b)(3)(i)]; and
- when employees are plastering and lathing 18 inches (46 cm) or less from the front edge [29 CFR 1926.451(b)(3) (ii)].

## Q. What materials are unacceptable for guardrails?

A. Steel or plastic banding must not be used as a toprail or a midrail [29 CFR 1926.451(g)(4)(xiii)].

#### **Criteria for Supported Scaffolds**

#### Q. What are supported scaffolds?

A. Supported scaffolds are platforms supported by legs, outrigger beams, brackets, poles, frames, or similar rigid support [29 CFR 1926.450(b)]. The structural members -- poles, legs, posts, frames, and uprights -- must be plumbed and braced to prevent swaying and displacement [29 CFR 1926.451(c)(3)].



#### Q. Do employees working on supported scaffolds need to be trained?

A. All employees must be trained by a qualified person to recognize the hazards associated with the type of scaffold being used and how to control or minimize those hazards. The training must include fall hazards, falling object hazards, electrical hazards, proper use of the scaffold, and handling of materials [29 CFR 1926.454(a)].

## Q. When do supported scaffolds need to be restrained from tipping?

A. Supported scaffolds with a height to base width ratio of more than 4:1 must be restrained by guying, tying, bracing, or an equivalent means [29 CFR 1926.451(c)(1)].

## Q. How can one prevent supported scaffolding from tipping?

- A. Either the manufacturers' recommendation or the following placements must be used for guys, ties, and braces:
  - Install guys, ties, or braces at the closest horizontal member to the 4:1 height and repeat vertically with the top restraint no further than the 4:1 height from the top.
  - Vertically every 20 feet (6.1 m) or less for scaffolds less than 3 feet (0.91 m)

- wide or every 26 feet (7.9 m) or less for scaffolds more than 3 feet (0.91 m) wide.
- Horizontally at each end and at intervals not to exceed 30 feet (9.1 m) from one end [29 CFR 1926.451(c) (1)].

#### Q. What are the footing and foundation requirements for supported scaffolds?

A. Supported scaffolds' poles, legs, posts, frames, and uprights must bear on base plates and mud sills, or other adequate firm foundation [29 CFR 1926.451(c)(2)(i) and 29 CFR 1926.451(c)(2)(ii)].

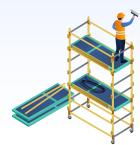
#### Q. May forklifts, front-end loaders, or similar equipment support platforms?

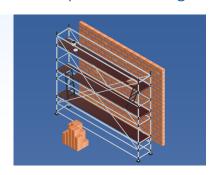
A. Forklifts can support platforms only when the entire platform is attached to the fork and the fork-lift does not move horizontally when workers are on the platform [29 CFR 1926.451(c)(2)(v)].

Front-end loaders and similar equipment can support scaffold platforms only when they have been specifically designed by the manufacturer for such use [29 CFR 1926.451(c)(2)(iv)].

Also see, OSHA Standard Interpretation and Compliance Letter: 09/30/1999
- Forklifts in construction: Elevating personnel and operator training.







# Q. What materials can be used to increase the working level height of employees on supported scaffolds?

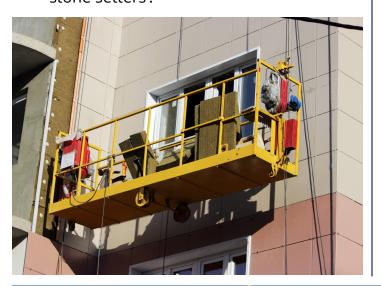
A. Stilts may be used on a large area scaffold. When a guardrail system is used, the guardrail height must be increased in height equal to the height of the stilts. The manufacturer must approve any alterations to the stilts [29 CFR 1926.452(y)].

*NOTE:* A large area scaffold consists of a pole, tube, and coupler systems, or a fabricated frame scaffold erected over substantially the entire work area [29 CFR 1926.450(b)].

#### **Criteria for Suspended Scaffolds**

#### Q. What are suspension scaffolds?

A. A suspension scaffold contains one or more platforms suspended by ropes or other non-rigid means from an overhead structure [29 CFR 1926.450(b)] such as the following scaffolds: single-point, multipoint, multi-level, two-point, adjustable, boatswain's chair, catenary, chimney hoist, continuous run, elevator false car, go-devils, interior hung, masons', and stone setters'.



## Q. What are the requirements for suspension scaffolds?

- A. Some of the requirements for all types of suspension scaffolds include:
  - Employers must ensure that all employees are trained to recognize the hazards associated with the type of scaffold being used [29 CFR 1926.454(a)].
  - All support devices must rest on surfaces capable of supporting at least four times the load imposed on them by the scaffold when operating at the rated load of the hoist, or at least one-and-a-half times the load imposed on them by the scaffold at the stall capacity of the hoist, whichever is greater [29 CFR 1926.451(d)(1)].
  - A competent person must evaluate all direct connections prior to use to confirm that the supporting surfaces are able to support the imposed load [29 CFR 1926.451(d)(3)(i)].
  - All suspension scaffolds must be tied or otherwise secured to prevent them from swaying, as determined by a competent person [29 CFR 1926,451(d)(18)].
  - Guardrails, a personal fall-arrest system, or both must protect each employee more than 10 feet (3.1 m) above a lower level from falling [29 CFR 1926.451(g)].
  - A competent person must inspect ropes for defects prior to each work shift and after every occurrence that could affect a rope's integrity [29 CFR 1926.451(d)(10)].



- When scaffold platforms are more than 24 inches (61 cm) above or below a point of access, ladders, ramps, walkways, or similar surfaces must be used [29 CFR 1926.451(e) (1)].
- When using direct access, the surface must not be more than 24 inches (61 cm) above or 14 inches (36 cm) horizontally from the surface [29 CFR 1926.451(e)(8)].
- When lanyards are connected to horizontal lifelines or structural members on single-point or twopoint adjustable scaffolds, the scaffold must have additional independent support lines equal in number and strength to the suspension lines and have automatic locking devices [29 CFR 1926.451(g) (3)(iii)].
- Emergency escape and rescue devices must not be used as working platforms, unless designed to function as suspension scaffolds and emergency systems [29 CFR 1926.451(d)(19)].

## Q. What are the specific requirements for counterweights?

A. Counterweights used to balance adjustable suspension scaffolds must be able to resist at least four times the tipping moment imposed by the scaffold operating at either the rated load of the hoist, or one-and-a-half (minimum) times the tipping moment imposed by the scaffold operating at the stall load of the hoist, whichever is greater [29 CFR 1926.451(a)(2)].

Only those items specifically designed

as counterweights must be used [29 CFR 1926.451(d)(3)(iii)].

Counterweights used for suspended scaffolds must be made of materials that cannot be easily dislocated. Flowable material, such as sand or water, cannot be used [29 CFR 1926.451(d)(3)(ii)].

Counterweights must be secured by mechanical means to the outrigger beams [29 CFR 1926.451(d)(3)(iv)].

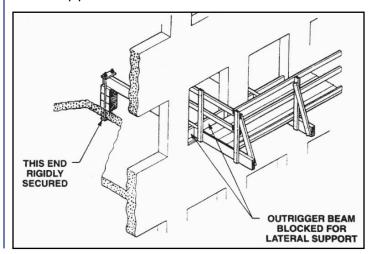
Vertical lifelines must not be fastened to counterweights [29 CFR 1926.451(g)(3)(i)].

#### Q. Can sand, masonry units, or rolls of roofing felt be used for counterweights?

A. No. Such materials cannot be used as counterweights [29 CFR 1926.451(d)(3)(iii) and 29 CFR 1926.451(d)(3)(iii)].

## Q. Are there specific requirements for outrigger beams?

A. Outrigger beams (thrustouts) are the structural members of a suspension or outrigger scaffolds that provide support [29 CFR 1926.450(b)]. They must be placed perpendicular to their bearing support [29 CFR 1926.451(d)(3)(viii)].



# Q. Where do tiebacks for outrigger beams, cornice hooks, roof hooks, roof irons, parapet clamps, or similar devices need to be secured?

A. Tiebacks must be secured to a structurally sound anchorage on the building or structure. Sound anchorages do not include standpipes, vents, other piping systems, or electrical conduit [29 CFR 1926.451(d)(3)(ix) and 29 CFR 1926.451(d)(5)].

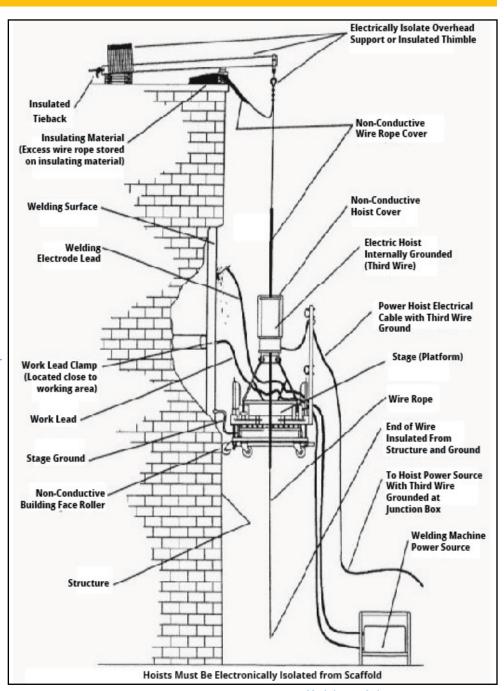
#### Q. How do tiebacks need to be installed?

A. A single tieback must be installed perpendicular to the face of the building or structure.

Two tiebacks installed at opposing angles are required when a perpendicular tieback cannot be installed [29 CFR 1926.451(d)(3)(x)].

## Q. Are there requirements for suspension ropes?

A. The suspension ropes must be long enough to allow the scaffold to be lowered to the level below without the rope passing through the hoist, or the end of the rope configured to prevent the end from passing through the hoist [29 CFR 1926.451(d)(6)]. Also see, OSHA Standards and Interpretation Letter:



<u>06/16/1999 - Scaffolds: Lifelines, support</u> <u>lines, and suspension ropes cannot have a</u> <u>common anchor point</u>.

The standard prohibits using repaired wire [29 CFR 1926.451(d)(7)].

Drum hoists must contain no less than four wraps of the rope at the lowest point [29 CFR 1926.451(d)(6)].



Employers must replace wire rope when the following conditions exist: kinks, six randomly broken wires in one rope lay or three broken wires in one strand in one lay, one third of the original diameter of the outside wires is lost, heat damage, evidence that the secondary brake has engaged the rope, and any other physical damage that impairs the function and strength of the rope [29 CFR 1926.451(d) (10)].

Suspension ropes supporting adjustable suspension scaffolds must be a diameter large enough to provide sufficient surface area for the functioning of brake and hoist mechanisms [29 CFR 1926.451(f) (10)].

Suspension ropes must be shielded from heat-producing processes [29 CFR 1926.451(f)(11)].

# Q. What are some of the requirements for power-operated suspension scaffold hoists?

A. Power-operated hoists used to raise or lower a suspended scaffold must be tested by a qualified testing laboratory [29 CFR 1926.451(d)(13)].

The stall load of any scaffold hoist must not exceed three times its rated load [29 CFR 1926.451(a)(5)].

The stall load is the load at which the prime-mover (motor or engine) of a power-operated hoist stalls or the power to the prime-mover is automatically disconnected [29 CFR 1926.450(b)].

Gasoline power-operated hoists or equipment are not permitted [29 CFR 1926,451(d)(14)].

Drum hoists must contain no less than four wraps of suspension rope at the lowest point of scaffold travel [29 CFR 1926.451(d)(6)].

Gears and brakes must be enclosed [29 <u>CFR 1926.451(d)(15)</u>].

An automatic braking and locking device, in addition to the operating brake, must engage when a hoist makes instantaneous change in momentum or an accelerated overspeed [29 CFR 1926.451(d)(16)].

# Q. What are some of the requirements for manually operated suspension scaffold hoists?

A. Manually operated hoists used to raise or lower a suspended scaffold must be tested and listed by a qualified testing laboratory [29 CFR 1926.451(d)(13)].

These hoists require a positive crank force to descend [29 CFR 1926.451(d)(17)].

## Q. When can welding be done from a suspension scaffold?

- A. Welding can be done from suspended scaffolds when:
  - a grounding conductor is connected from the scaffold to the structure and is at least the size of the welding lead;
  - the grounding conductor is not attached in series with the welding process or the work piece;
  - an insulating material covers the suspension wire rope and extends at least 4 feet (1.2 m) above the hoist;

- insulated protective covers cover the hoist;
- the tail line is guided, retained, or both, so that it does not become grounded; and
- each suspension rope and any other independent lines are insulated from grounding [29 CFR 1926.451(f)(17)].

# Q. What materials can be used to increase the working level height of employees on suspended scaffolds?

A. No materials or devices may be used to increase the working height on a suspension scaffold. This includes ladders, boxes, and barrels [29 CFR 1926.451(f) (15)].

#### **Access Requirements**

#### Q. What are the requirements for access to scaffolds?

A. Employers must provide access when the scaffold platforms are more than 2 feet (0.6 m) above or below a point of access [29 CFR 1926.451(e)(1)].

Direct access is acceptable when the scaffold is not more than 14 inches (36 cm) horizontally and not more than 24 inches (61 cm) vertically from the other surfaces [29 CFR 1926.451(e)(8)].

The standard prohibits the use of crossbraces as a means of access [29 CFR 1926.451(e)(1)].



#### Q. What types of access can be used?

- A. Several types of access are permitted:
  - ladders, such as portable, hook-on, attachable, and stairway [29 CFR 1926.451(e)(2)];
  - stair towers [29 CFR 1926.451(e)(4)];
  - ramps and walkways [29 CFR 1926.451(e)(5)]; and
  - integral prefabricated frames [29 CFR 1926.451(e)(6)].

# Q. What are the access requirements for employees erecting and dismantling supported scaffolds?

A. Effective September 2, 1997, employees erecting and dismantling supported scaffolding must have a safe means of access provided when a competent person has determined the feasibility and analyzed the site conditions [29 CFR 1926.451(e)].



#### **Use Requirements**

## Q. What types of scaffolds does the standard prohibit?

A. Shore and lean-to scaffolds are strictly prohibited [29 CFR 1926.451(f)(2)].

Also, employees are prohibited from working on scaffolds covered with snow, ice, or other slippery materials, except to remove these substances [29 CFR 1926.451(f)(8)].

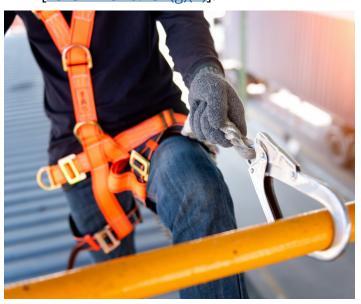
## Q. Are there required clearance distances between scaffolds and power lines?

A. Yes. The standard requires specific clearance distances. [Review the tables listed in 29 CFR 1926.451(f)(6)].

#### **Fall Protection Requirements**

## Q. What are the fall protection requirements for all scaffolds?

A. Employers must provide fall protection for each employee on a scaffold more than 10 feet (3.1 m) above a lower level [29 CFR 1926.451(g)(1)].



A competent person must determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds [29 CFR 1926.451(g)(2)].

#### Q. What is fall protection?

A. Fall protection includes guardrail systems and personal fall arrest systems. A personal fall-arrest system is a system used to arrest an employee in a fall from a working level. Personal fall-arrest systems include harnesses and components of the harness such as D-rings, snap hooks, lifelines, and anchorage points. (More on guardrail systems appears later in this section.)

NOTE: As of January 1, 1998, subpart M states that body belts are not acceptable as part of a personal fall arrest system [29 CFR 1926.502(d)]. The use of a body belt in a tethering system or in a restraint system is acceptable and is regulated [29 CFR 1926.502(e), 29 CFR 1926.453(b)(2)(v) and 29 CFR 1926.451(g)(3)].

Vertical or horizontal lifelines may be used [29 CFR 1926.451(g)(3)(iii) and 29 CFR 1926.451(g)(3)(iv)].

When working from an aerial lift, attach the fall-arrest system to the boom or basket [29 CFR 1926.453(b)(2)(v)].

# Q. How will I know what kind of fall protection to provide for a specific-type of scaffold?

A. The following chart illustrates the type of fall protection required for specific scaffolds:

Type of Scaffold	Fall Protection Required
Aerial lifts	Personal fall-arrest system
Boatswains' chair	Personal fall-arrest system
Catenary scaffold	Personal fall-arrest system
Crawling board (chicken ladder)	Personal fall-arrest system, or a guardrail system, or a ¾ inch (1.9 cm) diameter grabline, or equivalent handhold securely fastened beside each crawling board
Float scaffold	Personal fall-arrest system
Ladder jack scaffold	Personal fall-arrest system
Needle beam scaffold	Personal fall-arrest system
Self-contained scaffold	Both a personal fall-arrest system and a guardrail system
Single-point and two-point suspension scaffolds	Both a personal fall-arrest system and a guardrail system
Supported scaffold	Personal fall-arrest system or guardrail system

# Q. When can personal fall-arrest systems be used when working on scaffolding and aerial lifts?

A. Personal fall arrest systems can be used on scaffolding when there are no guardrail systems [29 CFR 1926.451(g)(1) (vii)].

Use fall-arrest systems when working from the following types of scaffolding: boatswain's chair, catenary, float, needle beam, ladder, and pump jack [29 CFR 1926.451(g)(1)(i)].

Use fall-arrest systems also when working from the boom/basket of an aerial lift [29 CFR 1926.453(b)(2)(v)].

## Q. When are both fall-arrest and guardrail systems required?

A. Fall-arrest and guardrail systems must be used when working on single- and two-point adjustable suspension scaffolds and self-contained adjustable scaffolds that are supported by ropes [29 CFR 1926.451(g)(1)].

#### **Falling Object Protection**

# Q. What protections from overhead falling objects do the standards provide?

A. To protect employees from falling hand tools, debris, and other small objects, install toeboards, screens, guardrail systems, debris nets, catch platforms, canopy structures, or barricades. In addition, employees must wear hard hats [29 CFR 1926.451(h)(1), 29 CFR 1926.451(h)(2), and 29 CFR 1926.451(h)(3)].



## **PART II**

#### **Scaffold Safety Self-Audit Checklist**

#### Does the Scaffold Safety Plan include the following?

Set Up	Yes	No
Is the scaffold being erected under the direction of a competent person?		
Are all employees involved with (or near) the scaffold wearing hard hats?		
Are footings sound and rigid and not set on soft, muddy, or frozen ground (that could melt), or resting on blocks?		
Is the scaffold level?		
Are wheels and castors locked?		
Is the scaffold able to hold four times its maximum intended load?		
Is the platform complete front to back and side to side (fully planked or decked, with no gaps greater than 1 inch)?		
Are guardrails and toeboards in place on all open sides?		
Are all sections pinned or appropriately secured?		
Is there a safe way to get on and off the scaffold without climbing on crossbraces?		
Is the front face within 14 inches of the work (or within 3 feet for outrigger scaffolds)?		
Does the scaffold meet electrical safety clearance distances?		
Use	Yes	No
Is the scaffold inspected by a competent person before being put in use?		
If the scaffold is over 10 feet high, is personal fall protection provided, or are guardrails over 38 inches high?		
Are hardhats worn by workers on and around the scaffold?		
Are scaffold loads (including tools and other equipment) kept to a minimum and removed when the scaffold is not in use (for example, at the end of a day)?		
Are employees removed from scaffolds during high winds, rain, snow, or bad weather?		
Are materials secured before moving a scaffold?		
Are employees removed from the scaffold before they are moved?		
Are heavy tools, equipment, and supplies hoisted up (rather than carried up by hand)?		

# **APPENDIX A:**Scaffolding Definitions, 29 CFR 1926.450

**Adjustable suspension scaffold** means a suspension scaffold equipped with a hoist(s) that can be operated by an employee(s) on the scaffold.

**Bearer (putlog)** means a horizontal transverse scaffold member (which may be supported by ledgers or runners) upon which the scaffold platform rests and which joins scaffold uprights, posts, poles, and similar members.

**Boatswains' chair** means a single-point adjustable suspension scaffold consisting of a seat or sling designed to support one employee in a sitting position.

**Body belt (safety belt)** means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

**Body harness** means a design of straps which may be secured about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders, with means for attaching it to other components of a personal fall arrest system. Brace means a rigid connection that holds one scaffold member in a fixed position with respect to another member, or to a building or structure.

**Bricklayers' square scaffold** means a supported scaffold composed of framed squares which support a platform.

**Carpenters' bracket scaffold** means a supported scaffold consisting of a platform supported by brackets attached to building or structural walls.

**Catenary scaffold** means a suspension scaffold consisting of a platform supported by two essentially horizontal and parallel ropes attached to structural members of a building or other structure. Additional support may be provided by vertical pickups.

**Chimney hoist** means a multi-point adjustable suspension scaffold used to provide access to work inside chimneys. (See Multi-point adjustable "suspension scaffold.")

**Cleat** means a structural block used at the end of a platform to prevent the platform from slipping off its supports. Cleats are also used to provide footing on sloped surfaces such as crawling boards.

**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.



**Continuous run scaffold (Run scaffold)** means a two-point or multi-point adjustable suspension scaffold constructed using a series of interconnected braced scaffold members or supporting structures erected to form a continuous scaffold.

**Coupler** means a device for locking together the tubes of a tube and coupler scaffold.

**Crawling board (chicken ladder)** means a supported scaffold consisting of a plank with cleats spaced and secured to provide footing, for use on sloped surfaces such as roofs.

**Deceleration device** means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyard, or automatic self-retracting lifeline lanyard, which dissipates a substantial amount of energy during a fall arrest or limits the energy imposed on an employee during fall arrest.

**Double pole (independent pole)** scaffold means a supported scaffold consisting of a platform(s) resting on cross beams (bearers) supported by ledgers and a double row of uprights independent of support (except ties, guys, braces) from any structure.

**Equivalent** means alternative designs, materials, or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

**Exposed power lines** means electrical power lines which are accessible to employees and which are not shielded from contact. Such lines do not include extension cords or power tool cords.

**Eye or Eye splice** means a loop with or without a thimble at the end of a wire rope.

**Fabricated decking and planking** means manufactured platforms made of wood (including laminated wood, and solid sawn wood planks), metal or other materials.

**Fabricated frame scaffold (tubular welded frame scaffold)** means a scaffold consisting of a platform(s) supported on fabricated end frames with integral posts, horizontal bearers, and intermediate members.

**Failure** means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

**Float (ship) scaffold** means a suspension scaffold consisting of a braced platform resting on two parallel bearers and hung from overhead supports by ropes of fixed length.

**Form scaffold** means a supported scaffold consisting of a platform supported by brackets attached to formwork.



**Guardrail system** means a vertical barrier, consisting of, but not limited to, toprails, midrails, and posts, erected to prevent employees from falling off a scaffold platform or walkway to lower levels.

**Hoist** means a manual or power-operated mechanical device to raise or lower a suspended scaffold.

**Horse scaffold** means a supported scaffold consisting of a platform supported by construction horses (sawhorses). Horse scaffolds constructed of metal are sometimes known as trestle scaffolds.

**Independent pole scaffold** (see "Double pole scaffold").

**Interior hung scaffold** means a suspension scaffold consisting of a platform suspended from the ceiling or roof structure by fixed length supports.

**Ladder jack scaffold** means a supported scaffold consisting of a platform resting on brackets attached to ladders.

**Ladder stand** means a mobile, fixed-size, self-supporting ladder consisting of a wide flat tread ladder in the form of stairs.

**Landing** means a platform at the end of a flight of stairs.

**Large area scaffold** means a pole scaffold, tube and coupler scaffold, systems scaffold, or fabricated frame scaffold erected over substantially the entire work area. For example: a scaffold erected over the entire floor area of a room.

**Lean-to scaffold** means a supported scaffold which is kept erect by tilting it toward and resting it against a building or structure.

**Lifeline** means a component consisting of a flexible line that connects to an anchorage at one end to hang vertically (vertical lifeline), or that connects to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

**Lower levels** means areas below the level where the employee is located and to which an employee can fall. Such areas include, but are not limited to, ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water, and equipment.

Masons' adjustable supported scaffold (see "Self-contained adjustable scaffold").

**Masons' multi-point adjustable suspension scaffold** means a continuous run suspension scaffold designed and used for masonry operations.



**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.

**Mobile scaffold** means a powered or unpowered, portable, caster or wheel-mounted supported scaffold.

**Multi-level suspended scaffold** means a two-point or multi-point adjustable suspension scaffold with a series of platforms at various levels resting on common stirrups.

**Multi-point adjustable suspension scaffold** means a suspension scaffold consisting of a platform(s) which is suspended by more than two ropes from overhead supports and equipped with means to raise and lower the platform to desired work levels. Such scaffolds include chimney hoists.

**Needle beam scaffold** means a platform suspended from needle beams.

**Open sides and ends** means the edges of a platform that are more than 14 inches (36 cm) away horizontally from a sturdy, continuous, vertical surface (such as a building wall) or a sturdy, continuous horizontal surface (such as a floor), or a point of access. Exception: For plastering and lathing operations the horizontal threshold distance is 18 inches (46 cm).

**Outrigger** means the structural member of a supported scaffold used to increase the base width of a scaffold in order to provide support for and increased stability of the scaffold.

**Outrigger beam (Thrustout)** means the structural member of a suspension scaffold or outrigger scaffold which provides support for the scaffold by extending the scaffold point of attachment to a point out and away from the structure or building.

**Outrigger scaffold** means a supported scaffold consisting of a platform resting on outrigger beams (thrustouts) projecting beyond the wall or face of the building or structure, the inboard ends of which are secured inside the building or structure.

**Overhand bricklaying** means the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. It includes mason tending and electrical installation incorporated into the brick wall during the overhand bricklaying process.

**Personal fall arrest system** means a system used to arrest an employee's fall. It consists of an anchorage, connectors, a body belt, or body harness and may include a lanyard, deceleration device, lifeline, or combinations of these.

**Platform** means a work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

**Pole scaffold** (see definitions for "Single-pole scaffold" and "Double (independent) pole scaffold").

**Power operated hoist** means a hoist which is powered by other than human energy.

**Pump jack scaffold** means a supported scaffold consisting of a platform supported by vertical poles and movable support brackets.

**Qualified** 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.

**Rated load** means the manufacturer's specified maximum load to be lifted by a hoist or to be applied to a scaffold or scaffold component.

**Repair bracket scaffold** means a supported scaffold consisting of a platform supported by brackets which are secured in place around the circumference or perimeter of a chimney, stack, tank, or other supporting structure by one or more wire ropes placed around the supporting structure.

**Roof bracket scaffold** means a rooftop supported scaffold consisting of a platform resting on angular-shaped supports.

**Runner (ledger or ribbon)** means the lengthwise horizontal spacing or bracing member which may support the bearers.

**Scaffold** means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), used for supporting employees or materials or both.

**Self-contained adjustable scaffold** means a combination supported and suspension scaffold consisting of an adjustable platform(s) mounted on an independent supporting frame(s) not a part of the object being worked on, and which is equipped with a means to permit the raising and lowering of the platform(s). Such systems include rolling roof rigs, rolling outrigger systems, and some masons' adjustable supported scaffolds.

**Shore scaffold** means a supported scaffold which is placed against a building or structure and held in place with props.

**Single-point adjustable suspension scaffold** means a suspension scaffold consisting of a platform suspended by one rope from an overhead support and equipped with means to permit the movement of the platform to desired work levels.

**Single-pole scaffold** means a supported scaffold consisting of a platform(s) resting on bearers, the outside ends of which are supported on runners secured to a single row of posts or uprights, and the inner ends of which are supported on or in a structure or building wall.



**Stair tower (Scaffold stairway/tower)** means a tower comprised of scaffold components and which contains internal stairway units and rest platforms. These towers are used to provide access to scaffold platforms and other elevated points such as floors and roofs.

**Stall load** means the load at which the prime-mover of a power-operated hoist stalls or the power to the prime-mover is automatically disconnected.

**Step, platform, and trestle ladder scaffold** means a platform resting directly on the rungs of step ladders or trestle ladders.

**Stilts** means a pair of poles or similar supports with raised footrests, used to permit walking above the ground or working surface.

**Stonesetters' multi-point adjustable suspension scaffold** means a continuous run suspension scaffold designed and used for stonesetters' operations.

**Supported scaffold** means one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames, or similar rigid support.

**Suspension scaffold** means one or more platforms suspended by ropes or other non-rigid means from an overhead structure(s).

**System scaffold** means a scaffold consisting of posts with fixed connection points that accept runners, bearers, and diagonals that can be interconnected at predetermined levels.

**Tank builders' scaffold** means a supported scaffold consisting of a platform resting on brackets that are either directly attached to a cylindrical tank or attached to devices that are attached to such a tank.

**Top plate bracket scaffold** means a scaffold supported by brackets that hook over or are attached to the top of a wall. This type of scaffold is similar to carpenters' bracket scaffolds and form scaffolds and is used in residential construction for setting trusses.

**Tube and coupler scaffold** means a supported or suspended scaffold consisting of a platform(s) supported by tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.

**Tubular welded frame scaffold** (see "Fabricated frame scaffold").

**Two-point suspension scaffold (swing stage)** means a suspension scaffold consisting of a platform supported by hangers (stirrups) suspended by two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels.

**Unstable objects** means items whose strength, configuration, or lack of stability may allow them to become dislocated and shift and therefore may not properly support the loads imposed on them. Unstable objects do not constitute a safe base support for scaffolds, platforms, or employees. Examples include, but are not limited to, barrels, boxes, loose brick, and concrete blocks.

**Vertical pickup** means a rope used to support the horizontal rope in catenary scaffolds.

Walkway means a portion of a scaffold platform used only for access and not as a work level.

**Window jack scaffold** means a platform resting on a bracket or jack which projects through a window opening.

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