Scaffold User Refresh Training

CFR 1926 Subpart L

Scaffolds

- Lesson Overview
  - Competent person
  - Types of scaffold we use
  - Scaffold hazards
  - Methods of protecting against scaffold hazards

Definitions

- Competent Person
  - One who can identify existing and predictable hazards in the surroundings or working conditions which are hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them
    - *Oversees assembly, disassembly, inspection, and safe use of scaffolds*

Scaffolds We Use

A.Mast Climbing (Fraco)
B.Tower (Rolling Tower)
C.Swing Stage
D.Fabricated Frame
E.Tube and Coupler
F.Baker/Perry

Hazards Associated with Scaffolds

- Falls
- Falling object(s)
- Electrical hazards
- Collapse hazards
- Planking hazards
- Severe weather conditions
- Collisions or struck-by

Reducing and Eliminating Hazards

- Proper access
- Guardrails
- Personal Fall Arrest System (PFAS)
- Protection from falling objects
- Protection from electrical hazards
- Precautions for moving scaffolds
- Safe scaffold construction, disassembly, and use
- Daily Inspection

Access

- Safe means of access is required when platforms are more than 24 inches above or below a point of access
- Examples of permitted access - ladders, stair towers, ramps, walkways
- Do not use cross braces for access

Guardrails

- Must be installed along all open sides and ends of platforms before workers can use the scaffold
- The front edge (working edge) cannot be more than *14 inches away from the wall. If this is not feasible, a guardrail and/or PFAS system must be used

*When installing Lath & Plaster the front edge cannot be more than 18 inches away from the wall

Planking

- Requirements
  - Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail supports
  - The space between planks can be no greater than 1 inch

- Top Rails - on supported scaffolds must be between 38 - 45 inches above the platform surface
- Mid-rails - must be approximately midway between the top edge of the guardrail and the scaffold platform, typically 21 inches
- Cross-bracing - When used as a toprail or midrail must meet certain height requirements

Guardrails

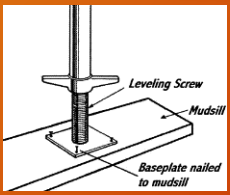
- Cross braces can be used as a mid-rail when the crossing point is between 20 – 30 inches above the work platform.
- Cross braces can be used as a top-rail when the crossing point is between 38 – 48 inches above the work platform. The ends at each upright must be no more than 48 inches apart.

Don't forget about guarding the platform ends! Using gates that swing inward at access points is considered best practice

Cross-Bracing

Requirements

Stability and loads



Base plates and mud sills (or other firm foundations) are required on supported scaffolds.

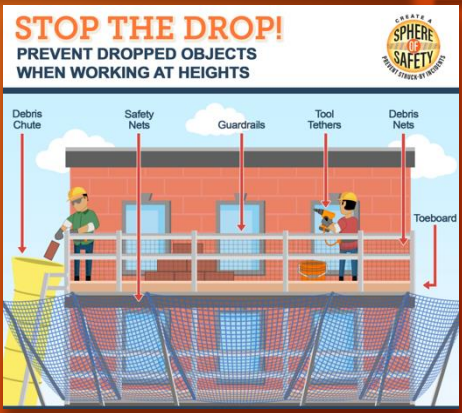
Base plates and mud sills

- Poles, legs, posts, frames, and uprights must bear on base plates and mud sills or another firm foundation.
- Footings must offer full support without settling (e.g. dirt, sand, gravel, and warm asphalt are foundations that can allow settling or displacement).

A concrete slab is considered a firm foundation. However, it's still a good practice to use mud sills. Nailing base plates to mud sills will prevent a scaffold from "walking."

The scaffold must be plumb and braced so that it does not sway.

Protection From Falling Objects



- Protection must be provided when there is potential of being struck by falling objects
- 10 feet is the trigger height for falling object protection
- Methods of protection
  - Barricades, toe boards, screens or paneling, canopies or mesh nets
  - Always wear a hardhat when working around or below scaffolds

Protection From Electrical Hazards

- Minimum distance based on voltage
  - Insulated lines
  - Uninsulated lines
- When exceeding minimum distance to perform work, the utility company must be notified to
  - De-energize or relocate lines

  OR
  - Install protective coverings to prevent contact

The minimum safe distance from power lines is 10 feet

Moving Scaffolds

- Workers may only be on a moving scaffold when
  - There is a level ground surface
  - There is good communication between the up guy and the down guy
  - The up guy drops to one knee and braces against the railing

Moving with a worker on the platform is never allowed on double stacked baker

Mobile Scaffolds

- Baker/Perry scaffolds are used everyday on the jobsite, and when used properly, are a safe means to access and perform tasks.
- One person can assemble a basic section. Two people are required when setting up a double or triple stacked system.
- Specific Procedures must be followed when using this equipment to ensure safety.

Baker/Perry Scaffold Use

- Setting up the scaffold properly is crucial. For example, when setting up on or near stairways, casters must be replaced with base plates.
- Selecting the right components that are of the same brand (color) is the first step.
- Inspect all components before use.
- Survey the area and clear it of all hazards.
- Lock all wheels before climbing
- When outriggers are required (double or triple stacked) all 4 must be used.
- Feet must remain on the platform at all times.
- When in doubt, ask the foreman.

When to ask for help

Scaffold Hazard Recognition

Identify hazards and solutions

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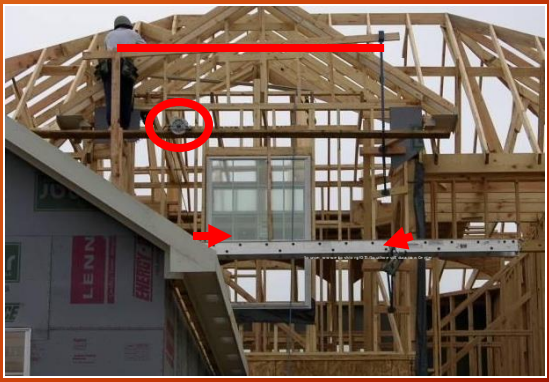
Identify hazards and solutions



Tags

- **Erecting, Dismantling, and Use**
  - Scaffolds must only be erected, moved, dismantled, and altered under the authority of a competent person.
  - The competent person must be on the worksite to direct and supervise the work.
  - The work must be performed by persons selected by the competent person.
  - Tags should be placed at all access points to give users important information about the scaffold.

Green (GO) Yellow Red (STOP)

(Proceed with instructions

Inspections

- Scaffolds and components must be inspected by a competent person before each workday and after any incident that could weaken them.

Effective inspections can detect a variety of hazards.
Here, a nail is used to hold a railing in place

Tags must be legible

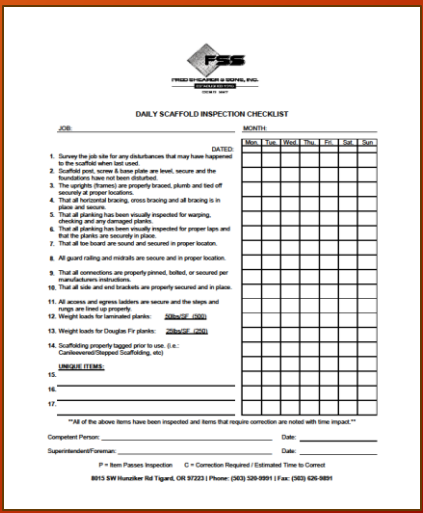
Damaged scaffolds and components

- Any part of a damaged scaffold or a scaffold component must be removed from service until it is repaired or replaced.

Use a checklist as a guide to ensure that you're not missing anything when you inspect a supported scaffold. Best practice is to post the inspection log at the main entrance of the scaffold.

FSS Scaffold Checklist

- Daily scaffold checklist must be completed by a competent person



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DAILY SCAFFOLD INSPECTION CHECKLIST

JOB: _____ MONTH: _____

DATED:	Mon.	Tues.	Wed.	Thu.	Fri.	Sat.	Sun.
1. Survey the job site for any disturbances that may have happened to the scaffold when last used.							
2. Scaffold post, screw & base plate are level, secure and the foundations have not been disturbed.							
3. The uprights (frames) are properly braced, plumb and tied off securely at proper locations.							
4. That all horizontal bracing, cross bracing and all bracing is in place and secure.							
5. That all planking has been visually inspected for warping, checking and any damaged planks.							
6. That all planking has been visually inspected for proper laps and that the planks are securely in place.							
7. That all toe board are sound and secured in proper locaton.							
8. All guard railing and midrails are secure and in proper location.							
9. That all connections are properly pinned, bolted, or secured per manufacturers instructions.							
10. That all side and end brackets are properly secured and in place.							
11. All access and egress ladders are secure and the steps and rungs are lined up properly.							
12. Weight loads for laminated planks: 50lbs/SF (300)							
13. Weight loads for Douglas Fir planks: 25lbs/SF (250)							
14. Scaffolding properly tagged prior to use. (i.e.: Cantilevered/Stepped Scaffolding, etc)							
UNIQUE ITEMS:							
15. _____							
16. _____							
17. _____							

All of the above items have been inspected and items that require correction are noted with time impact.

Competent Person: _____ Date: _____

Superintendent/Foreman: _____ Date: _____

P = Item Passes Inspection C = Correction Required / Estimated Time to Correct

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Stilts

- Stilts are a form of scaffolding, however, unlike scaffolds, stilts do not provide secondary fall protection devices such as safety rails or harnesses.
- An employee may wear stilts on a scaffold only if it is a large area scaffold (dancefloor) and all surfaces shall be flat and free of pits, holes and obstructions.
- When using stilts on a large area scaffold where a guardrail system is in place, the guardrail system must be increased in height by an amount equal to the height of the stilts (walking working surface).
- Stilts must be inspected daily before use and properly maintained. Any alteration of the original equipment shall be approved by the manufacturer. Check for screws or other items stuck in the foot pads.

Stilt Hazards

- Stilts need to be adjusted for the user. Adjustments may need to happen throughout the shift.
- Keep the area clean and free of slip or trip hazards.
- Communicate with others in area. Plan your moves

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