

TOOLBOX TALK: STAIRWAYS

Job or site _____

Date _____

Led by _____

Open with this

Walk up the stairs on this job in your head. How many times have you caught yourself on them? Now tell me whether there is a handrail on both sides.

The talk

First, when a stairway is even required. A stairway or a ladder goes at every personnel point of access where there is a break in elevation of 19 inches or more, unless there is a ramp, a runway, a sloped embankment or a personnel hoist. Nineteen inches. That is one deep step and it is a legal trigger.

Stairs get installed between 30 and 50 degrees from horizontal. Outside that band it is not a stairway, and the thing people build at 55 degrees to save space is the thing people come down backwards in the rain.

Riser height and tread depth have to be uniform within a flight, and the variation cannot be more than a quarter inch anywhere in the system. That includes any foundation or block being used as one of the treads. A quarter inch is the number because that is roughly where a foot stops arriving where the brain expects it.

Four or more risers, or a rise of more than 30 inches, whichever is less, and the stairway needs at least one handrail and a stairrail along every unprotected side. Stairrails installed since March 1991 sit at not less than 36 inches. Handrails sit between 30 and 37 inches, measured from the tread at the face of the riser.

Pan stairs are the ones that actually hurt people here. Foot traffic is prohibited on pan stairs waiting to be filled with concrete unless they are temporarily fitted with wood or other solid material at least to the top edge of each pan, and those temporary treads have to be replaced when they wear below the pan edge. The same goes for skeleton metal stairs with no permanent treads yet.

Landings are not decoration. A temporary stairway needs a landing at least 30 inches in the direction of travel and 22 inches wide at every 12 feet of vertical rise, and the unprotected sides and edges of those landings get guardrails. Where a door opens straight onto a stairway there has to be a platform, and the door swing must not cut its effective width below 20 inches.

And the two lines everybody skips. All parts of stairways shall be free of hazardous projections, such as protruding nails. Slippery conditions on stairways shall be eliminated before the stairways are used to reach other levels. Before. Not at the end of the shift.

Point at these before anybody starts

- Every stairway on this job, and whether it has a handrail on the side people actually use.
- The one riser that is different from the others. There is always one.
- Any pan stair or skeleton stair being walked on before it was filled or fitted.
- The landings, and whether anything is stored on them.
- Any door that opens straight onto a flight with no platform in front of it.
- Mud, ice, grout or sawdust on any tread right now.

The rules that apply

- A stairway or ladder shall be provided at all personnel points of access where there is a break in elevation of 19 inches or more and no ramp, runway, sloped embankment or personnel hoist is provided.
- Stairs shall be installed between 30 and 50 degrees from horizontal, and riser height and tread depth shall be uniform within each flight, varying by no more than a quarter inch anywhere in the system.
- Stairways having four or more risers or rising more than 30 inches, whichever is less, shall have at least one handrail and a stairrail system along each unprotected side or edge.
- Handrails and stairrail top rails shall withstand at least 200 pounds applied within 2 inches of the top edge in any downward or outward direction at any point.
- Foot traffic is prohibited on unfilled pan stairs and on skeleton metal stairs unless they are fitted with temporary treads and landings covering the full width and depth.
- All parts of stairways shall be free of hazardous projections such as protruding nails, and slippery conditions shall be eliminated before the stairway is used.

Ask the crew

- What break in elevation makes a stairway or a ladder a requirement rather than a nice idea?
- Can you walk on a pan stair that has not been poured yet, and under what condition?
- Point at the tread on this site you have caught yourself on.

Close with this

A quarter of an inch out is enough. Your foot only has to arrive somewhere it did not expect once.

Attendance

Everybody who was present signs, including subcontractors and anybody visiting the site.

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This talk is general safety information for a crew briefing, not legal advice and not a substitute for the training your employees are required to have. Standards are quoted for orientation only. Check the current text of the standard and your own state plan, which may be stricter than the federal rule.