

Fall Protection

Susan Harwood Grant Training Program

2019

Concrete Fall Protection



Learning Objectives

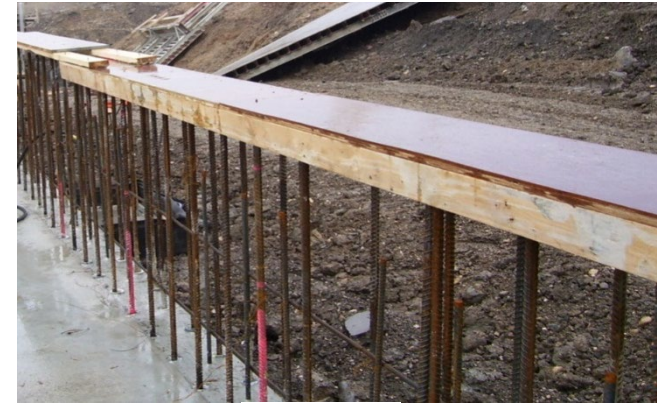
- Understand the OSHA requirements for fall protection during concrete operations
- Identify best practices for protecting workers from falls performing concrete operations



Caps can pop

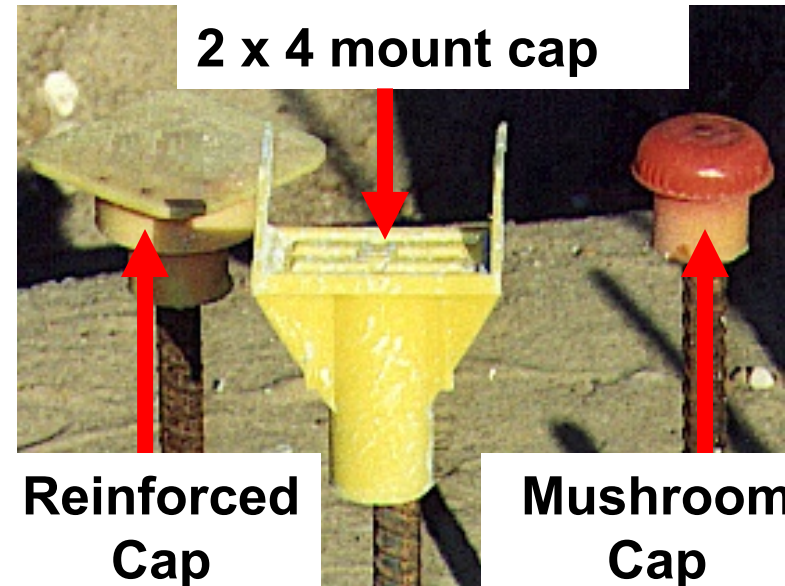


2x4 mount cap



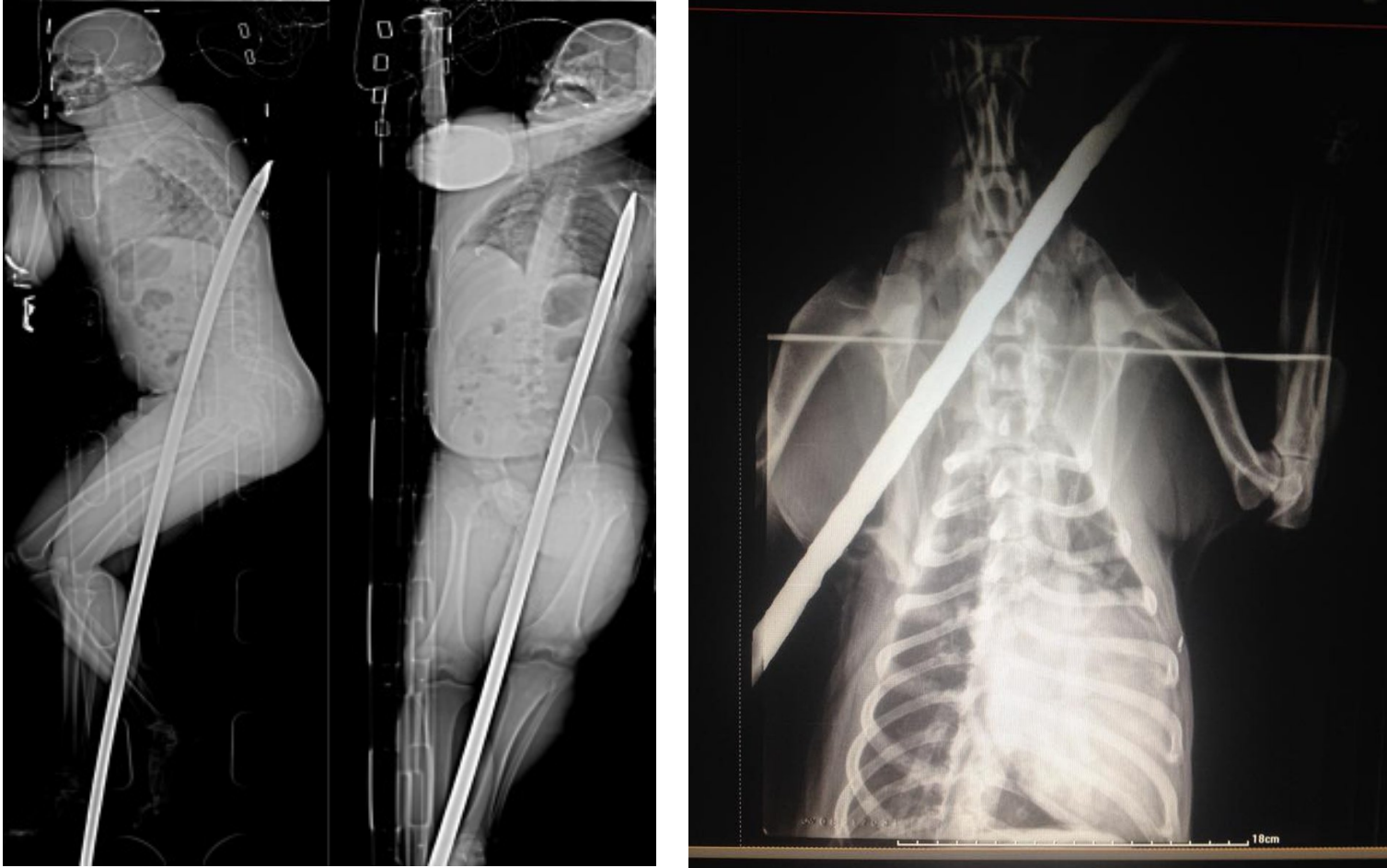
OK

- Caps must protect from injury, especially impalement.
- Mushroom caps are not allowed on low vertical bars.





Potential Rebar Impalement



- Workers must be prevented from falling onto vertical rebar.
- Rebar must be protected from potential impalement.



- Shields can be effective.

- Rebar spacing and mounting of supports must meet manufacturers requirements



Boxing Column Dowels

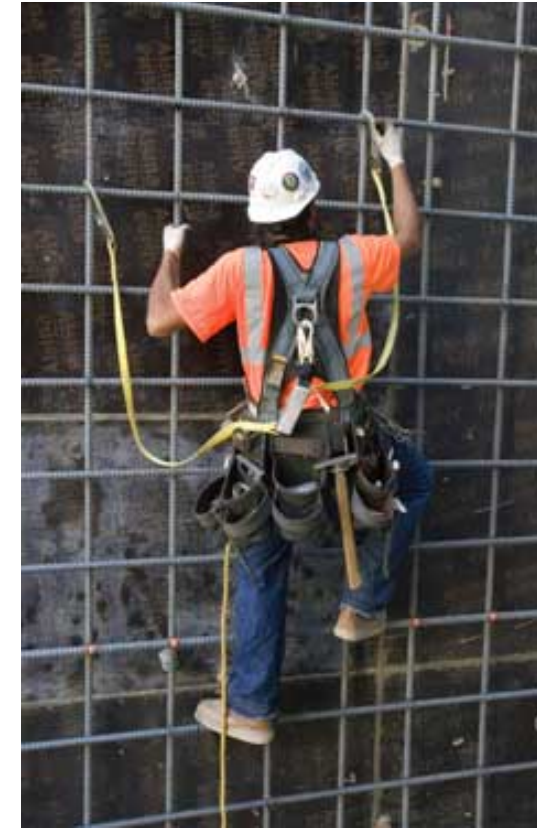
- Boxes are constructed on 2nd floor and carried floor to floor





Working on Rebar Wall Cages

- Workers must be protected above 6 feet when working on ALL rebar assemblies

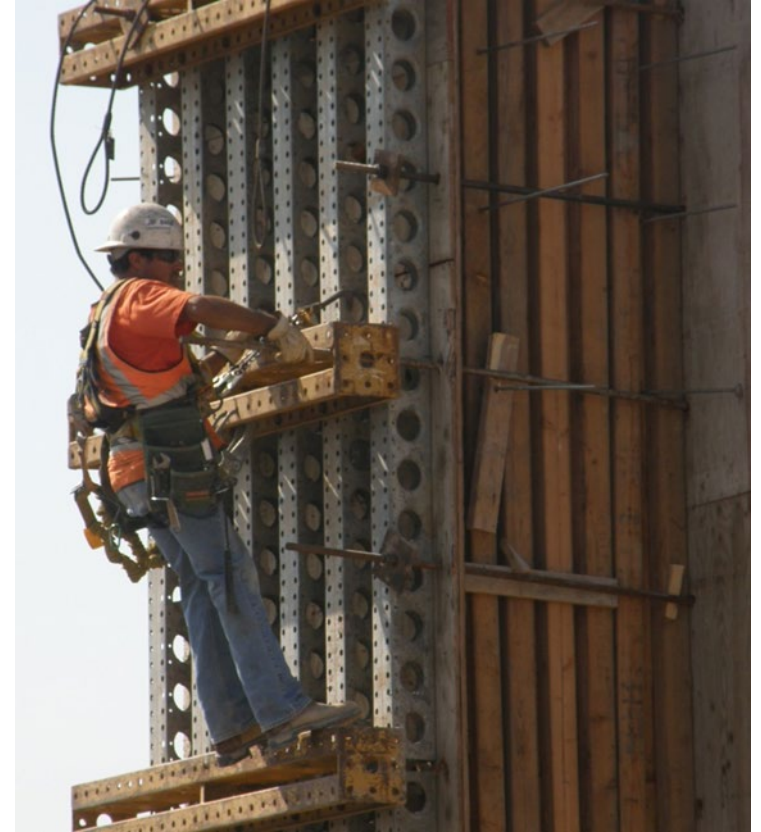




Fall Protection on Vertical Forms



- Workers must be protected when 6' or higher.
- They must position off before working on column and wall forms.
- If the vertical form is near an edge, the employee must establish fall protection before he climbs the form.





Form Scaffolds

- These are good examples of a form scaffolds with proper guardrails.
- This access bridge must be at least 18” wide. The bridge should be protected if there is a fall hazard of over 6 feet.





Construction of Shored Forming

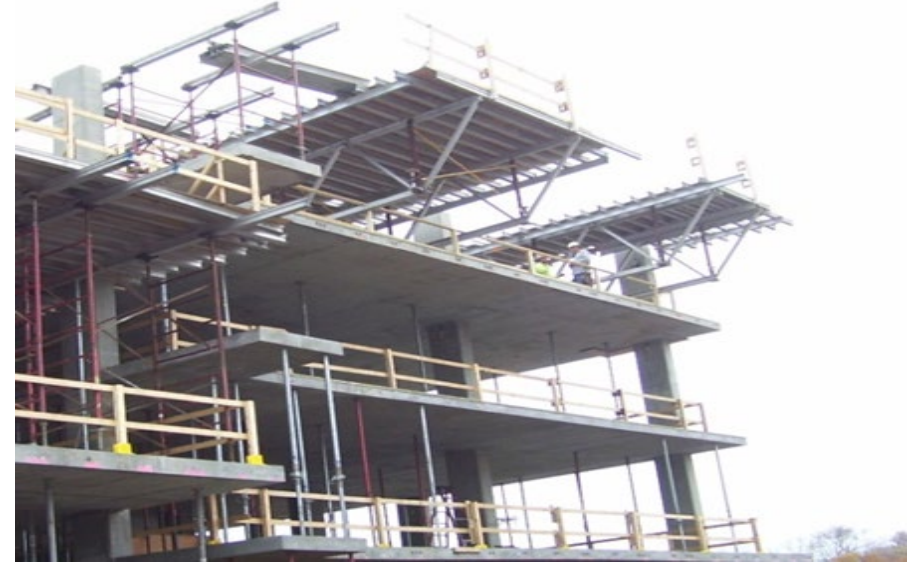
- Employees are exposed to major falls while constructing form work around perimeter columns.
- Workers must utilize fall protection
- This worker is tied off to column behind the edge.





Flying or Table Top Forms

- Workers who must work at open edges more than 6 feet above lower levels must tie off as these employees are doing.
- They can tie to pre-set anchors, the columns behind or other suitable anchorages.





Column Forms

- Fall hazards?
- Scaffolds or lifts help reduce fall exposures.





Safe-T-Straps

- Safety straps are effective, simple anchors in concrete construction.
- They slip over rebar and are then embedded in the concrete.





Install Proper Guards





Potential Trip Hazards

- There are potential trip hazards on reinforced floors.
- Temporary walkways are a good hazard control.





Protection During the Pour



- Floor perimeters must be fully protected by proper guardrails and all holes must be covered



Pre-Cast Concrete Erection Controlled Access Zones

- Employees may work in a CAZ under a qualified fall plan when it can be shown that standard fall protection is infeasible.
- Plan must be site specific.
- All employees must be trained in the safe erection of pre-cast concrete.
- A safety monitor must oversee the fall safety.
- Warning lines must be set along the edges and guardrails installed as soon as possible.





No Walking Beams!!

- Do not allow workers to walk beams without proper fall protection





Setting & Receiving Planks

- Approach the plank when it is waist high.
- Restraint should always be used.
- The Safety Monitor oversees the safety of the setting process if working under a plank.





Warning Lines Until Guardrails Installed



- Warning lines should protect all perimeters during setting operations.
- Workers can only be outside perimeters when setting precast under a properly established plan



Guardrails should be installed as soon as possible.