



Construction Safety Quick Take **FALL PREVENTION AND PROTECTION**

If you ask anyone involved in the construction industry what the leading cause of fatalities was last year they would answer immediately, **FALLS**. According to the Bureau of Labor Statistics there were 280 fatal falls in the construction industry in 2012. 2011/262. 2010/264. 2009/283. 2008/336. 2007/447. While the numbers have decreased falls remain the leading cause of fatalities in the industry each year by a wide margin. *Why? What's missing?*

At Harvard the same challenges exist related to fall exposures:

1. The most high hazard observations and life-threatening observations amongst categories tracked are made in the fall prevention and protection category.
2. Top 3 unsafe observations for fall prevention and protection:
 - a. Improper use of personal fall arrest systems (PFAS)
 - b. Floor/wall openings not protected
 - c. Floor covers inadequate/not secured/unmarked

Improper Use of Personal Fall Arrest Systems

35% of unsafe observations in the fall prevention and protection category involve improper use of or lack of personal fall arrest systems. Commonly observed improper uses of PFAS include (most frequent to least frequent):

1. No fall protection in place or fall protection in place but not used. **Failure to identify the need for fall protection.**
2. Free fall distance exceeds 6', inadequate fall clearance, swing fall hazards
3. Fall protection equipment used improperly.
4. Improper/inadequate anchor point.
5. Wearing full body harness improperly/poor fit.
6. Use of ladder adjacent to shaft or floor opening/above guardrail.

A lack of planning and/or a lack of training often contribute to the presence of fall exposures and fatalities in construction. Focusing on these two critical areas will help to eliminate exposures.



Construction Safety Quick Take **FALL PREVENTION AND PROTECTION**

1. **IDENTIFY:** Thoroughly review your scope of work before construction begins and throughout the course of construction to identify those tasks or operations that present potential fall exposures. Track the identified tasks on the schedule.
2. **PLAN:** Complete a thorough job hazard analysis for any task involving potential fall exposures. Ask/answer the following:
 - a. Where do the fall exposures exist? Are they a result of site conditions or associated with the equipment in use?
 - b. What type of fall protection systems will be utilized? Guardrails are preferable as a passive system. PFAS are active systems requiring employees to engage the system correctly and consistently.
 - c. What equipment will be used? If a PFAS will be used, identify appropriate anchor points and connecting devices that will limit free fall distance to 6' and provide adequate fall clearance below the work zone.
3. **TRAIN:** Utilize the plan to provide *task-specific* fall protection training to the work crew. If the plan is complete and is reviewed with the crew effectively they will understand where exposures exist, the specific control measures in place, and the equipment in use to protect them.

Harvard-Specific Fall Prevention and Protection Requirements

1. **The 6' Rule:** Fall protection is required when working at or above 6'. Applies to all tasks including steel erection, scaffold erection, excavations, roofing operations (no safety monitors), and any other tasks involving work at heights.
2. Horizontal lifelines must be part of a manufactured system or designed by a professional engineer. No knots for vertical lifelines.
3. Mobile scaffold platforms (baker staging) require guardrails when the platform height meets or exceeds 4'.
4. Fall protection required for ladder use in some circumstances.

Relevant Exhibits: [Fall Prevention and Protection](#) [Equipment Safety](#)