

## Is Falling Really That Big Of An Issue?



Why does OSHA dedicate so much time and energy to Fall Protection? The answer is simple but alarming. Falls continue to be the leading cause of death in construction.

According to Bureau of Labor Statistics, there were 350 fatal falls to a lower level out of the 937 total construction fatalities recorded in 2015. And since some contractors haven't adequately addressed these hazards, inspectors issued more than 7,500 citations for violations of two regulations: Fall Protection and Fall Protection – Training Requirements, 1926.503. Fall protection citations topped the 2017 Top Ten list of most-cited OSHA standards.

For this reason, OSHA and various partners, including the National Institute for Occupational Safety and Health, the National Occupational Research Agenda, OSHA approved State Plans, State consultation programs, and the National Safety Council, work together to encourage those in the industry to refocus efforts on jobsite safety by identifying fall hazards and recognizing the importance of fall prevention.

### Step up and take action now

Every day, concrete workers are at risk from falls on jobsites. And these risks lurk in every phase of concrete construction. OSHA suggests that any person working at six feet or more above lower levels is at risk for serious injury or death from falling, so they require employers to provide fall protection and the right equipment for the task to protect these workers.

There are three common jobsite conditions in the concrete industry where workers can be exposed to potential fall hazards:

1

### Foundation installation

2

### Bridge construction

3

### Aerial work platform (AWP)

#### 1. Standing firm for foundation safety

Seven years ago, OSHA revised the regulations to require stricter standards for fall protection safety in residential construction. Concrete contractors responded by taking a harder look at safe access when working on below-grade foundations. These worksites are often full of potential hazards such as wet conditions, unstable ground and elevated work stations.

The [Concrete Foundation Association](#) (CFA) offers resources to help members develop a thorough fall protection safety training program. The kit outlines the challenge of the preparation, education, and maintenance necessary to protect members' number one capital investment – their people.

#### CFA's Executive Director Jim Baty says,

*"our kit explains the OSHA regulations found in 1926.501. Specifically, CFA developed the kit to provide relevant OSHA regulations, letters of interpretation, example plans, a draft plan framework, educational presentations, and research so that a contractor can develop a fully compliant plan more quickly."*

#### 2. Bridging the gaps in fall protection

One of the most hazardous worksites for concrete contractors is a bridge project – where the pace of work is fast and getting faster. On many projects, post-tensioned element forms are positioned every 24 hours.



The Federal Highway Administration focuses specifically on fall protection on its projects, which include most, if not all, bridge projects. Contractors are required to provide personal fall arrest systems (PFASs) for their employees. These systems include a harness for each worker who needs to tie off to the anchor. Contractors must make sure the PFASs fit, and regularly inspect them for safe use.

During the installation of bridge deck forms (either wood or stay-in-place [SIP] corrugated metal), all workers must be protected

from falls six feet or greater in height by means of PFASs, safety nets, guardrail systems, or other means meeting the requirements of Part 1926 Subpart M. If the contractor can demonstrate that using one of the conventional fall protection systems described in Subpart M would create a greater safety hazard or is infeasible (e.g., impossible to construct or would prevent the performance of the required work), an alternate system may be used. The contractor must develop and implement a written fall protection plan meeting the requirements of [1926.502](#).

When structural elements are initially connected, workers exposed to moving members are required to tie off only if they are not exposed to a greater risk from the moving member. “Initial connection” is defined as that period during placement or removal of structural members when the member is supported by a crane or other lifting device.

Because falls from structural members are a serious and clearly recognizable hazard, fall protection for all steel or

concrete beams and other structural elements must be in place prior to erection. This provides fall protection for workers involved in the initial erection and in subsequent operations until the deck forms are in place. This fall protection must consist of PFASs, safety nets, or other means meeting the requirements of Part 1926 Subpart M.

### 3. Using aerial work platforms safely

Concrete contractors are increasing their use of Aerial Work Platforms (AWPs) on projects. AWP make it possible to install anchors, apply repair materials and perform testing on existing and new structures.

The primary fall protection system on AWP is the guardrails that surround the platform. Where needed, secondary systems may be required by the manufacturer. Some secondary systems such as restraining harnesses and lanyards on boom lifts are now mandatory.

OSHA regulation 1926.502(d) (16) (iii) requires that anchorages “be rigged such that an employee can neither free fall more than 6 feet, nor contact any lower level.” Other fall protection measures, over and above mandatory requirements, must be assessed and selected by a qualified person. Hazards should be identified and appropriate fall protection equipment should be selected, with the understanding that OSHA regulations will establish the minimum level of protection.



**Clunk Click is a worldwide campaign calling for all users of boom type platforms to wear a full body harness with a short restraint lanyard attached to a suitable anchor point. The campaign started as a grassroots initiative by the UK Powered Access Interest Group (PAIG) – a joint committee of the Construction Plant-hire Association and IPAF. The groups created this initiative to address unnecessary fatal accidents that were happening when users were catapulted out of boom platforms because they were not wearing harnesses.**

**Clunk Click!**  
**Wear a full body harness with a short lanyard in boom type platforms**

For full information about the correct use of harnesses in platforms, please obtain technical guidance note H1 from IPAF. Tel: 015395 62444 www.ipaf.org

Hazard	Risk	Control Measure
Boom lift struck by another vehicle	Ejection from platform	Restrict work area around base
Climbing on platform mid-rail	Loss of balance causing fall	Training and fall restraint
Over reaching	Loss of balance causing fall	Training and fall restraint
Uneven ground	Ejection from platform	Training and fall restraint

*The table above provides examples of the site assessment process when using AWP's. NOTE: This is not an all-inclusive list. It's an example assessment list demonstrating the required analysis of a job-specific hazard so an assessment can be performed by a qualified person.*

## Common OSHA fall protection citations

<b>FINE CODE</b>	<b>Fall protection</b>
<b>TOPIC</b>	Unprotected Sides/Edges
<b>TEXT</b>	"Unprotected sides and edges." Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.
<b>FINE CODE</b>	<b>Fall protection-Training requirements</b>
<b>TOPIC</b>	Training
<b>TEXT</b>	The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.



## To implement a fall protection system, concrete contractors must follow two steps



**1** Fall protection measures should be assessed by a qualified person. Contractors must take into account jobsite or task specific hazards, identification of the associated risk and stipulate adequate control measures. Identify the hazards on your jobsite and the selection of appropriate fall protection measures.

**2** Work with your team to implement the fall protection measures outlined in your jobsite analysis. These are some of the appropriate fall protection measures that should be considered:

**Fall hazards** should be identified by a qualified person and all identified fall hazards must be abated.

**Primary fall protection systems** (like guardrails) should be properly installed. Fall arrest should never be used to replace a poorly installed or partially installed primary system.

**Fall restraint** must be your primary objective, not fall arrest.

# The **ABCD's** of **BASIC FALL PROTECTION**



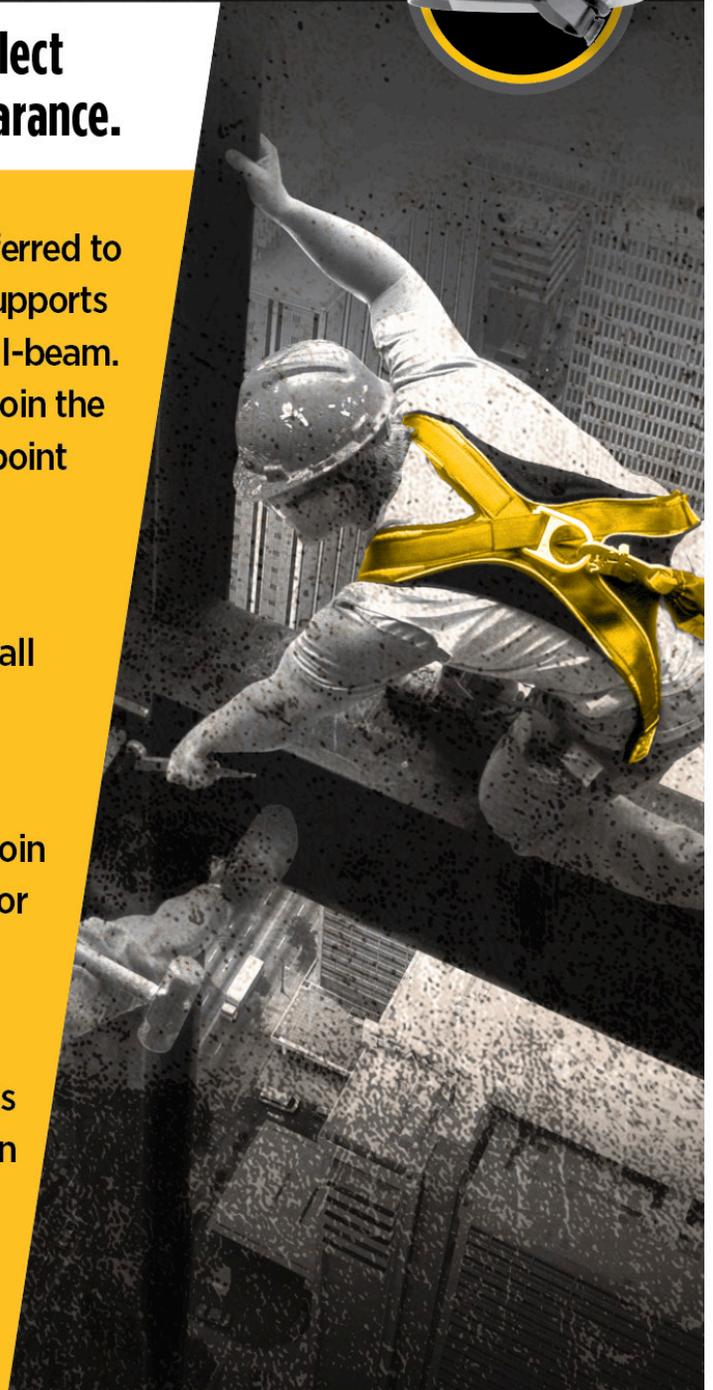
**Always know your fall distance and select proper equipment to meet the fall clearance.**

**A** is for Anchorage Point: commonly referred to as a tie-off point, the structure that supports the fall protection system, such as an I-beam. The Anchorage connector is used to join the connecting device to the anchorage point such as an anchor strap.

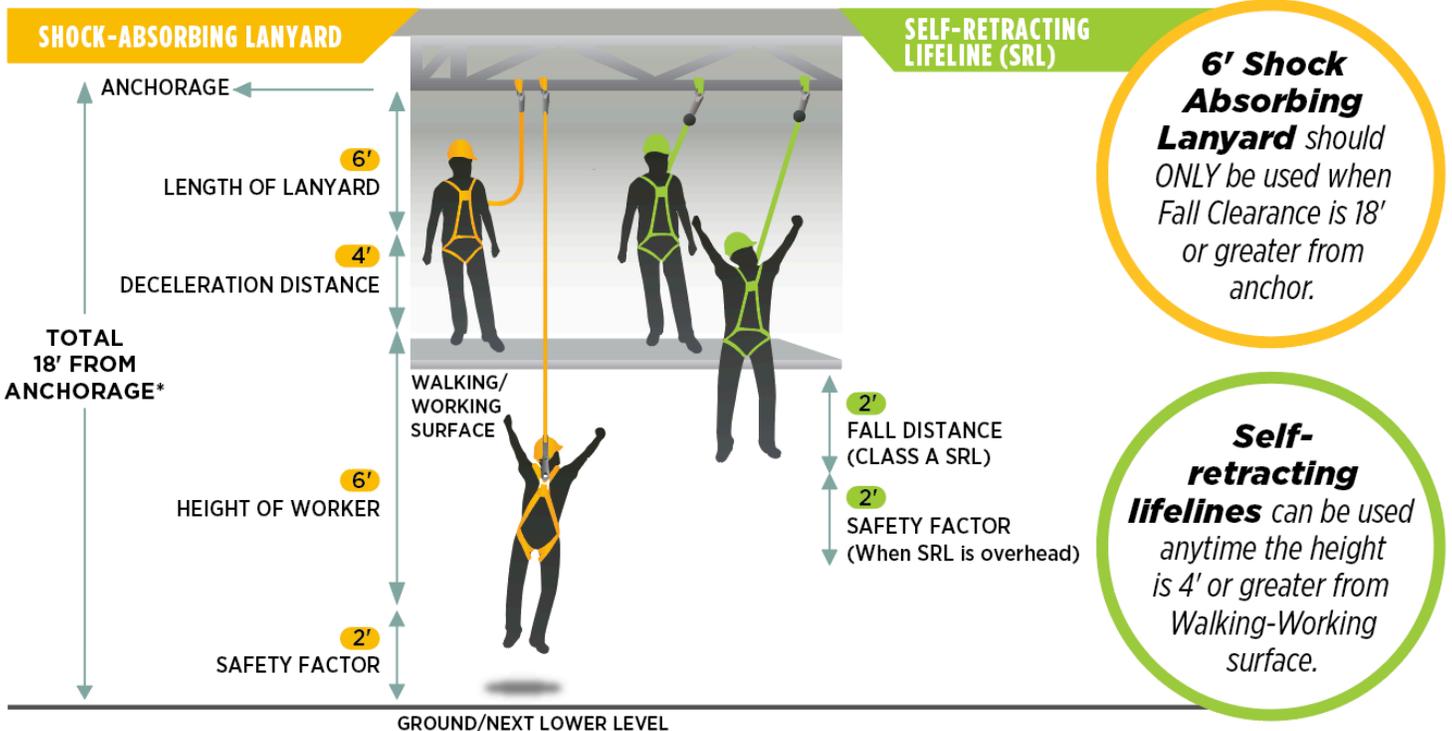
**B** is for Body Harness: worn by the worker to connect him/her to the fall protection system

**C** is for Connecting Device: attaches to the D-ring(s) of the body harness to join the worker to the anchorage connector such as a self-retracting lanyard

**D** is for Descent/Rescue: refers to the rescue plan of a fallen worker, which is a critical element of any fall protection program. Suspension Trauma Straps and Winch Systems are often used in the Descent/Rescue plan



## SHOCK-ABSORBING LANYARD OR SELF-RETRACTING LIFELINE?



\* ALWAYS consult the instructions for the specific type of lanyard in use for Fall Clearance requirements.



**Fall Protection Training Courses**

3M's "Thinking About Fall Protection" is an eleven-part educational video series designed to give an overview of the basics of fall protection. The series covers the ABCD's of fall protection, at-heights fundamentals, fall clearance calculations, and types of falls and hazards.

The video series is not a substitute for certified fall protection training, but does provide an excellent introduction to the topic.

To view this article online, go to:

<https://news.whitecap.com/safety-stand-down-fall-protection/>