



The Resource

April 2018 Feature Article

OSHA's Spread the Liability Regulation Update

Fall Protection for Buildings: Usage, Responsibilities, and Risk

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OSHA's recent "at-height" work protection rule, 29 CFR 1926.501 states that it is not just the Contractor that is liable for worker fall risk. Building Owners also are liable for providing safe "at-height" work protection.

The construction industry represents the largest amount of fatality work by volume and rate (Bureau of Labor and Statistics, 2015 data). Fall risks are present everywhere, especially since we are all affected by gravity. Falls account for 40% of construction fatalities. To provide appropriate fall protection, it helps to evaluate usage, responsibilities and risks from the perspective of hazard preventative measures.

Hazards and required fall protection can be evaluated based on a hierarchy of fall protection. This hierarchy helps determine what equipment may be necessary to complete a task as well as provide direction on associated risks. The hierarchy ranks fall protection from no risk, to limited risk, to high risk.

1. Hazard / Fall Elimination – This is the ideal method for fall protection. By eliminating the need to do work at height, the fall risk is eliminated. Work can be performed from the ground utilizing drones, telephoto lenses or equipment affixed to an extendable pole.
2. Passive Fall Protection – Separates the worker from a fall risk or hazard by use of hole covers or the use of Guardrail systems.

Examples of Guardrails:



Guardrail (during construction)

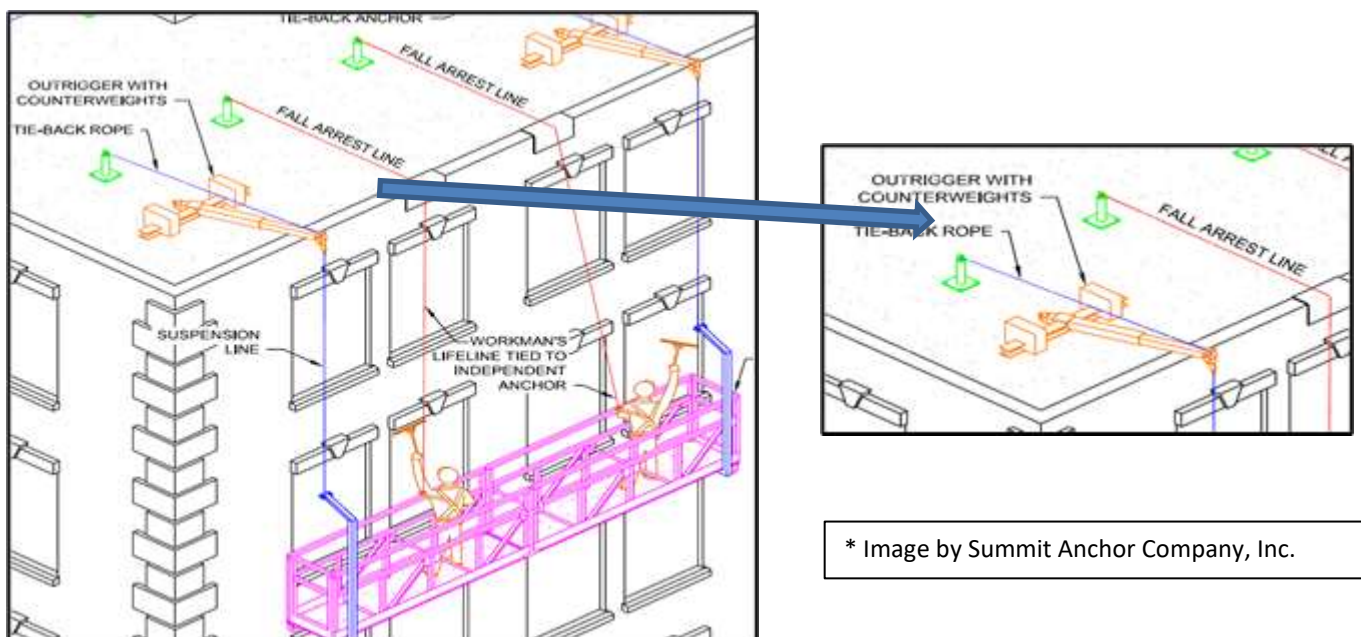


Guardrail / Handrail

3. Fall Restraint – If hazards cannot be eliminated for the worker, a fall restraint that includes securing a worker to an anchorage with a tether could be used to reduce the possibility of a worker falling over a free edge. Work that is routinely performed with predictable paths, such as gutter maintenance, benefits from this sort of fall protection. It is also required per OSHA 1910.28: The employer must ensure that each employee on a walking-working surface with an unprotected side or edge that is 4 feet or more above a lower level is protected from falling by one or more of the following - Guardrail systems; Safety net systems; or Personal fall protection systems, such as personal fall arrest (PFAS), travel restraint or positioning system.

4. Fall Arrest – Often used interchangeably with fall restraint, fall arrest systems differ in that they allow freedom of movement to perform activities. In the event of a fall, fall arrest systems safely stop a falling individual before they come into contact with the ground or surface below. An anchorage for fall arrest, positioning, restraint, or rescue systems must be capable of supporting the potential fall forces that could be encountered during a fall. For fall arrest systems to be certified, the minimum design force considered to be a static load is equal to 5,000 pounds or 2x (i.e. twice) the maximum arresting force. These tie-off points must be “certified” by a registered professional engineer or other “qualified” person as defined below. Alternatively, a non-certified anchorage can be determined by a competent person.

One key addition is that a tethered system must also have a separate fall arrest line. Thus, a “certified” building davit for a typical swing stage or swing chair will need to have a certified davit or tie-off anchor and a separate “certified” fall arrest line tie-off point directly connected to the individual(s) on the swing stage or chair.



* Image by Summit Anchor Company, Inc.

Examples of Building Anchorages:



Parapet Clamp



Plate w/ U-Bar



Manufactured Anchorage



Horizontal Lifeline



Strap Anchors



Rafter Anchor

5. Administrative Controls – Involves use of signals and warnings to indicate the presence of fall hazards. These controls include safety monitors, warning lines and restriction access codes. These controls prove to be the most ineffective form of fall protection.

Rules, Regulations, and Standards

OSHA 1926 provides Safety and Health Regulations for Construction. The most frequently cited serious violations of OSHA 1926, Subpart M are:

1. Failure to protect workers from falls of 6 feet or more off unprotected sides or edges, e.g. floors and roofs.
2. Failure to protect workers from falling into or through holes and openings in floors and walls.
3. Failure to provide guardrails on runways and ramps where workers are exposed to falls to a lower level of 6 feet or more.

ANSI Z359, the “Fall Protection Code,” is the voluntary consensus standard and is written in language that can be adopted by local jurisdictions. The intention of this code is that employers whose operations fall within the scope and purpose of the standard will adopt its guidelines and requirements. In this document, the following definitions are provided:

Section 3.2.3, “Qualified Person” (partial):

- Responsible for supporting the fall protection system.
- Expertise in system design, structural analysis, anchorage certification, compliance with fall protection standards.
- Supervises the design, selection, installation, and inspection of certified anchorages and horizontal lifelines.

Section 3.2.4, “Competent Person” (partial):

- Responsible for the supervision, implementation, and monitoring of the fall protection program.
- Knowledgeable through experience and training of applicable fall protection regulations, standards, equipment, and systems.
- Conducts a fall hazard survey to identify fall hazards before Authorized Persons are exposed to those hazards.
- Has the authority to stop work immediately due to unsafe conditions.
- Verifies that Authorized Persons are adequately trained.
- Supervises the selection, installation, use, and inspection of “non-certified” anchorages.

Section 3.2.4, “Authorized Person” (partial):

- Has a working understanding of (and potentially is certified for) the employer’s fall protection policies and procedures.
- Properly inspects and uses fall protection equipment and systems.
- Informs the Competent Person regarding unsafe conditions.

The goal of building owners and property managers is to mitigate risk and liability for work performed on their property by Contractors and by the Owner’s in-house staff. To perform this, responsibilities include:

- Providing a Use Plan.
- Providing “certified” building anchorages.
- Providing fall protection training to in-house personnel (Authorized).
- Having a Competent Person on staff.

The goal of Contractors is to mitigate risk and liability for their Employees performing work for the contracting company. To perform this, responsibilities include:

- Provide an Access Plan.
- Provide proper tools and equipment, including PPE.
- Provide fall protection training to employees (Authorized).
- Have a Competent Person on staff.
- Have a Qualified Person on staff or retain one as necessary.

In summary, skilled safe access requires a holistic approach for proper execution. Roles and responsibilities must be defined and access plans must be in place. Trained and certified personnel using proper equipment are necessary to mitigate risk.