

# Fall Protection Basics for Construction Activities

*Washington State has revised fall protection rules, effective April 1, 2013. This booklet provides an overview of the requirements.*



**[www.Lni.wa.gov/Safety](http://www.Lni.wa.gov/Safety)**

*Caution: This pamphlet does NOT contain everything required by the standard. Always refer to the fall protection requirements in Chapter 296-155, Part C-1.*



Washington State Department of  
**Labor & Industries**

*Division of Occupational Safety and Health*

Preventable falls are a leading cause of worker deaths and debilitating permanent injuries in Washington.

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For more information on fall protection rules and resources, visit our Fall Protection topic page at: **[www.Lni.wa.gov/Safety/Topics/AtoZ](http://www.Lni.wa.gov/Safety/Topics/AtoZ)** and click on "F" for Fall Protection.

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# **ZERO Feet**

## **WAC 296-155-24607**

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### **Regardless of height:**

1. All open-sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, such as rock-crushing equipment, and material-handling equipment, and similar hazards shall be guarded with a standard guardrail system.
2. Floor holes and floor openings must be guarded in accordance with the standard.
3. Employees shall be protected from falling into or onto impalement hazards, such as conduit, reinforcing steel (rebar), or exposed steel or forming stakes.

# **FOUR Feet or more**

## **WAC 296-155-24609**

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*(Note: This section does not include all of the requirements in WAC 296-155-24609.)*

### **Applies to:**

1. Every open-sided walking/working surface with unprotected sides and edges or platform.
2. Ramps, runways, and inclined walkways.
3. Form and rebar work, as when employees are placing or tying reinforcing steel on a vertical face.
4. Steep-pitched roofs.
5. Low-pitched roofs; applies to any work activity not listed in WAC 296-155-24611.
6. Hazardous slopes for which there is a free fall of four feet or more to a lower surface.
7. Wall opening is an opening at least 30 inches high and 18 inches wide in any wall/partition and must be guarded when the bottom of the opening is less than 39 inches above the working surface.

*(Continued on next page.)*

## **FOUR Feet or more**

### **WAC 296-155-24609** *(Continued)*

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8. When employees are using stilts, the height of the top rail or equivalent member of the standard guardrail system must be increased (or additional railings may be added) an amount equal to the height of the stilts while maintaining the strength specifications of the guardrail system.
9. Working on platforms above the protection of the guardrail system, the employer must either increase the height of the guardrail system or select another form of fall protection.
10. When guardrails are temporarily removed to perform a specific task, the area shall be constantly attended by an employee whose duty is to warn persons approaching the hazard until the guardrail is replaced.

## **TEN Feet or more**

### **WAC 296-155-24611**

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#### **Applies to employees engaged in:**

1. Roofing work on a low-pitched roof.
2. Leading edge work (see definitions on Page 5).
3. Working on any surface that doesn't meet the definition of a walking/working surface not already covered in WAC 296-155-24609.
4. Excavation operations, see WAC 296-155-24611(1)(d).

*Note: Employees not directly involved with constructing the leading edge, or not performing roofing work must comply with WAC 296-155-24609, Fall Protection Required at Four Feet or More.*

# **Fall Protection Work Plan (FPWP)**

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An employer shall develop and implement a written fall protection work plan (FPWP) including each area of the workplace where the employees are assigned and where fall hazards of 10 feet or more exist. The FPWP must:

1. Identify all fall hazards in the work area;
2. Describe the method of fall arrest or fall restraint to be provided;
3. Describe the proper procedures for the assembly, maintenance, inspection, and disassembly of the fall protection system to be used;
4. Describe the proper procedures for the handling, storage, and securing of tools and materials;
5. Describe the method of providing overhead protection for workers who may be in or pass through the area below the work site;
6. Describe the method for prompt, safe removal of injured workers; and
7. Be available on the job site for inspection by the department.

Prior to permitting employees into areas where fall hazards exist, the employer shall ensure employees are trained and instructed in the items described in WAC 296-155-24611(2)(a)(i) through (2)(a)(vii).

*Note: When using a safety monitor, see WAC 296-155-24621.*

# General Requirements

## WAC 296-155-24605

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*(NOTE: This section does not include everything in WAC 296-155-24605)*

1. Personal fall-arrest systems, personal fall-restraint systems, positioning-device systems, and their components shall be used only for employee protection and not to hoist materials.
2. All components of personal fall-arrest systems, personal fall-restraint systems and positioning-device systems shall be inspected prior to each use according to manufacturer's specifications for mildew, wear, damage, and other deterioration.
3. Defective components **shall** be removed from service.

# Exemptions

## WAC 296-155-24605

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Employees are exempt from sections WAC 296-155-24609 and WAC 296-155-24611 only under the following conditions:

1. During initial installation of the fall protection anchor (prior to engaging in any work activity), or the disassembly of the fall protection anchor after the work has been completed.
2. An employee directly involved with inspecting or estimating roof-level conditions only on low-pitched roofs prior to the actual start of construction work or after all construction work has been completed.

Examples of activities the department recognizes as inspecting or estimating include:

- Measuring a roof to determine the amount of materials needed for a project.
- Inspecting the roof for damage without removing equipment or components.
- Assessing the roof to determine what method of fall protection will be provided to employees.

Examples the department does not recognize as inspecting or estimating under this exemption include:

- Delivering, staging or storing materials on a roof.
- Persons estimating or inspecting on roofs that would be considered a “Hazardous Slope.”

For fall protection exemptions related to excavation work, see WAC 296-155-24611(1)(d)(i)(A) and (B).

## Definitions

### WAC 296-155-24603

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*(NOTE: This is not a complete list of definitions.)*

**Anchorage** means a secure point of attachment for lifelines, lanyards, or deceleration devices that are capable of withstanding the forces specified in this part.

**Equivalent** means alternative designs, materials or methods to protect against a hazard that the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

**Hazardous slope** means a slope where normal footing cannot be maintained without the use of devices due to the pitch of the surface, weather conditions, or surface material, and there is a free-fall distance of four feet or more to a lower level.

**Horizontal lifeline** means a rail, rope, wire, or synthetic cable that is installed in a horizontal plane between two anchorages and used for attachment of a worker’s lanyard or lifeline device while moving horizontally; used to control dangerous pendulum-like swing falls.

**Leading edge** means the advancing edge of a floor, roof, or formwork that changes location as additional floor, roof, or formwork sections are placed, formed, or constructed.

*(Continued on next page.)*

# Definitions,

## WAC 296-155-24603 *(Continued)*

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**Personal fall-arrest system** means a fall-arrest system that is worn by the employee to arrest the employee in a fall from elevation. It consists of an anchor point, connectors, a full-body harness, and may include a lanyard, deceleration device, lifeline, or suitable combinations of these.

**Personal fall-restraint system** means a fall-restraint system that is worn by the employee to keep the employee from reaching a fall point, such as the edge of a roof or elevated work surface. It consists of an anchor point, hardware assemblies, a full-body harness and may include a lanyard, restraint lines, or suitable combinations of these.

**Positioning device system** means a full-body harness or positioning harness that is worn by an employee, and is rigged to allow an employee to be supported on an elevated vertical or inclined surface, such as a wall, pole, or column and work with both hands free from the body support.

### Roof pitch

- Low-pitch roof means the pitch is 4:12 or less.
- Steep-pitch roof means the pitch is greater than 4:12.

**Roofing work** means the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor-barrier work, but not including the construction of the roof deck.

**Unprotected sides and edges** means any open side or edge of a floor, roof, balcony/deck, platform, ramp, runway, or walking/working surface where there is no standard guardrail system, or parapet wall of solid strength and construction that is at least 39 inches in vertical height.

**Walking/working surface** means any area including but not limited to floors, a roof surface, a bridge, the ground, and any other surfaces whose dimensions are 45 inches or more in all directions, through which workers can pass or conduct work. A walking/working surface does not include vehicles or rolling stock on which employees must be located in order to perform their job duties.

**Warning line system** means a barrier erected on a walking and working surface or a low pitch roof (4:12 or less), to warn employees that they are approaching an unprotected fall hazard(s).

# Definitions of Fall Protection Systems

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1. Fall Arrest – arrests a fall that has occurred, and includes:
  - Personal Fall Arrest  
..... see WAC 296-155-24613(1)
  - Safety Nets  
..... see WAC 296-155-24613(2)
  - Catch Platforms  
..... see WAC 296-155-24613(3)
  
2. Fall Restraint – restrained from falling, and includes:
  - Personal Fall Restraint  
..... see WAC 296-155-24615(1)
  - Guardrail System  
..... see WAC 296-155-24615(2)
  - Covers..... see WAC 296-155-24615(3)
  - Warning-Line System  
..... see WAC 296-155-24615(4)
  - Safety Monitor  
..... see WAC 296-155-24615(5)
  - Safety Watch . . . . see WAC 296-155-24615(6)  
(NOTE: Safety Watch has a limited use — refer to standard.)
  
3. Positioning-Device Systems — see specifications in WAC 296-155-24617.

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## How can I get help from L&I?

To request a no-cost confidential workplace safety or health consultation, visit **[www.SafetyConsultants.Lni.wa.gov](http://www.SafetyConsultants.Lni.wa.gov)** or call your local L&I office and ask for the DOSH Consultation Manager.

Division of Occupational Safety and Health



**[www.Lni.wa.gov/Safety](http://www.Lni.wa.gov/Safety)**



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