

## Elevated Work Safety

### OVERVIEW

Departments are to protect University personnel and students from falling hazards when performing elevated work.

Elevated work includes working from:

- Open-sided floors, platforms, and roofs (see below)
- [Portable ladders](#)
- [Scaffolds](#)
- [Aerial lifts](#)

### OPEN-SIDED FLOORS, PLATFORMS AND ROOFS

#### Open-Sided Floors and Platforms

Open-sided floors and platforms four feet or more above the adjacent floor or ground level are to include a standard guardrail system. A standard guardrail system consists of posts, an intermediate rail, and a 39-45 inches high top rail.

NOTE: A loading dock is not considered to be an opened-sided floor and therefore does not require standard guardrails.

#### Assistance

Contact Environmental Health and Safety (EH&S) for assistance in evaluating open-sided floors and platforms, and the design and construction of guardrail systems.

#### Roofs

The department is to protect employees and students working off of a roof from fall hazards by utilizing one of the following:

- Parapet walls of at least 39 inches in height
- A standard guardrail system consisting of posts, an intermediate rail, and a 39-45 inches high top rail
- A personal fall restraint or fall arrest system and a Fall Protection Work Plan. A personal fall restraint or fall arrest system consists of:

A safety belt or harness

A lanyard

A drop line, or a catenary line

Engineered anchorage points

3.34.2

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Environmental Health and Safety

509-335-3041

## **Elevated Work Safety**

### **Fall Protection Plan Form**

Supervisors complete Fall Protection Work Plan forms whenever employees are expected to use personal fall restraints or fall arrest systems. To obtain copies of the form, complete and/or print the form master.

### **Training**

Post a copy of the completed form on the job site and route a copy to EH&S, campus mail code 1172.

Supervisors and principal faculty are responsible for ensuring employees and students using personal fall protection systems are trained in the restraint and arrest equipment and the contents of the Fall Protection Work Plan. Supervisors are to document such training on Fall Protection Work Plans.

### **Assistance**

Contact EH&S for assistance with the following (telephone 509-335-3041):

- Evaluating falling hazards potentially requiring personal fall restraint and fall arrest systems
- Selecting and inspecting personal fall restraint or fall arrest systems
- Identifying engineered anchor points
- Completing Fall Protection Work Plans
- Training employees and students

## **PORTABLE LADDERS**

### **Selection**

Departments are responsible for selecting the appropriate type of ladder. Refer to the table below:

Table 1

<b>Duty Rating</b>	<b>Ladder Type</b>	<b>Use</b>	<b>Maximum Intended Load (Pounds)</b>
Extra Heavy Duty	IA	Industry, utilities, contractors	300
Heavy Duty	I	Industry, utilities, contractors	250
Medium Duty	II	Painters, offices, light maintenance	225
Light Duty	III	General household type use	200
<b>NOTE: Maximum intended load is the total load of all persons, equipment, tools and materials.</b>			

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### Selection (cont.)

Use ladders with nonconductive side rails in situations where the ladder could contact uninsulated, energized electric lines or equipment.

### Use

Departments are responsible for ensuring that ladders are used in accordance with the manufacturer's instructions and specifications.

Departments are to ensure that employees and students comply with the following general rules:

- Place all ladders with secure footing on firm, level surfaces, and/or secure and protect the ladders to prevent accidental displacement.
- Place extension ladders at a safe angle.

A safe angle is established when the distance from the feet of the ladder to the building is approximately one quarter of the working length of the ladder. The working length of the ladder is measured from the feet of the ladder to the top support of the ladder (where the ladder rests against the building).

- Use an extension ladder with side rails that extend at least three feet above the landing surface when accessing an upper level, e.g., roof.
- Secure the extension ladder at the top and bottom when working from the ladder.
- Use a safety belt and lanyard secured to the ladder when doing work with both hands and working above 25 feet.
- Face the ladder with both hands free to hold the rails and/or rungs when climbing and descending ladders.

### Inspection

Department personnel must inspect ladders prior to each use and after damage caused by impact, tip-overs, and exposure to excessive heat.

Departments must affix defective and deficient ladders with *Do NOT Use* tags and remove such ladders from service.

### Training

Supervisors are responsible for training employees and students in the selection, inspection, and use of ladders. Contact EH&S for training materials and resources; telephone 509-335-3041.

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### **SCAFFOLDS**

#### **Competent Person**

The department is responsible for ensuring that scaffolds are erected, inspected, moved, and dismantled by a competent person. (WAC 296-874-500, WAC 296-874-20004)

A competent person:

- Is capable of identifying existing and predictable hazards;
- Has authority to take prompt corrective action to eliminate hazards;
- Is knowledgeable in the safe erection, moving, dismantling and use of scaffolds;
- Is knowledgeable in the design criteria, maximum intended load-carrying capacity, and intended use of the scaffold; *and*
- Is knowledgeable in the applicable standards.

#### **General Requirements**

Scaffolds are to be equipped with the following:

- All required bracing
- Standard guardrails and toe boards
- Full decking
- Safe access

#### **Training**

Departments are responsible for ensuring employees using scaffolds are trained to:

- Safely use a scaffold.
- Safely handle materials on scaffolds.
- Recognize scaffold hazards and procedures to control or minimize hazards. These hazards include:

Falling hazards

Electrical hazards

Falling object hazards

#### **Assistance**

Contact EH&S for assistance; telephone 509-335-3041.

## **Elevated Work Safety**

### **AERIAL LIFTS**

#### **Operation**

Supervisors are responsible for ensuring that employees and students comply with the following rules. Employees and students are responsible for:

- Operating aerial lifts in accordance with the manufacturer's operating manual.
- Wearing a full body harness with a lanyard attached to the manufacturer's recommended attachment point, or the boom or platform if the manufacturer does not specify an attachment point.

#### **Training**

Departments are responsible for ensuring that only trained and authorized personnel operate aerial lifts. Training is be conducted by a qualified person, which is defined as someone with extensive knowledge, training, and experience with aerial lifts.

The training must include all of the following:

- General instruction on the inspection, application, and operation of aerial lifts
- Location, purpose, and use of operator manuals
- Purpose and function of the controls
- Safety devices and operating characteristics
- Prestart inspection
- Factors affecting stability
- Workplace survey
- Proper use of fall protection equipment

Operators are to be retrained if performance indicates retraining is necessary.

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### **Prestart Inspection**

Aerial lift operators are to perform a prestart inspection of all of the following:

- Operating controls and associated mechanisms
- Visual and audible safety devices
- Hydraulic or pneumatic systems
- Fiberglass and other insulating components
- Operational and instructional markings
- Electrical systems of or related to the aerial device
- Locking devices, bolts, pins, and other fasteners

A qualified person must examine and/or test any deficient items found during the inspection. All deficient items are to be replaced or repaired before the aerial lift is used.

### **Workplace Survey**

Before using an aerial lift, the operator is responsible for conducting a workplace survey of the area for hazards such as:

- Ditches
- Drop-offs and floor obstructions
- Weather conditions
- Debris
- Unauthorized persons in the work area

### **Assistance**

Contact EH&S for assistance; telephone 509-335-3041.