



## Introduction

Ladders come in many varieties. It is important to ensure all employees are trained and knowledgeable in the proper use of ladders, including the specific procedures for the type of ladder in use. This document outlines some of those requirements.

## Hazards

Ladder use poses several hazards, including:

- Falls from heights
- Structural failures
- Improper setup
- Incorrect use
- Obstructions and traffic
- Electrical hazards
- Falling/Dropped objects

## Fall Protection

When working from a portable ladder at a height of 3 metres (10 feet) or more, workers must use a personal fall arrest system in accordance with Alberta OHS legislation. This requirement is exempted while the worker is moving up or down the ladder. Management is responsible for ensuring the availability of appropriate fall protection equipment and training, while supervisors must enforce compliance and ensure proper use of equipment as per the [Fall Protection Program](#). Workers are required to adhere to these safety measures, report any compliance challenges, and use personal fall arrest systems when necessary. Proper training on fall protection and ladder usage is mandatory for all workers using portable ladders.

## General Ladder Inspection Guidelines

A competent person must visually inspect all ladders before use for any damages/defects. Follow these inspection guidelines:

- Inspection Frequency:
  - Inspect new ladders upon receipt.
  - Inspect ladders before each use.
  - Inspect ladders after any incident that may have caused damage.
  - Inspect ladders before storage.
- Inspection Criteria:
  - Ensure the ladders safety labels are present and legible.
  - Check for missing or loose steps or rungs.
  - Ensure non-slip feet are not worn or damaged.
  - Verify that nails, screws, bolts, or nuts are secure.



- Look for any rot, decay, or warping in wooden ladders.
- Inspect for cracks and exposed fibers in fiberglass ladders.
- Ensure all metal parts such as spreaders, locks, and hinges are not loose or worn out.
- Confirm there are no cracks, splits, or broken rails or rungs.
- Look for sharp edges or rough surfaces.
- Check for corrosion or rust.
- Verify the ladder is not twisted or bowed.

## **General Usage Guidelines**

### **Positioning**

- Place ladders on firm, level surfaces.
- Ensure the ladder is stable before climbing.
- Secure the ladder if using it near a doorway or passageway.
- Do not place a ladder on boxes, barrels, or unstable bases.
- Do not use a ladder on soft ground or unstable footing.

### **Climbing**

- Always face the ladder when climbing up or down.
- Maintain three points of contact (two hands and one foot or two feet and one hand).
- Do not carry tools or materials in your hands while climbing.
- Do not move or shift a ladder with a person or equipment on the ladder.

### **Height and Reach**

- Do not overreach; keep your body centered between the rails.
  - If you cannot reach, climb down the ladder, and reposition it.
  - If your ladder cannot be repositioned properly, use a different ladder or work platform.
- Use fall protection when working above 3 metres (10 feet).
- Do not stand on the top two rungs of a stepladder (top step or top cap) or the top three rungs of an extension ladder.
- Do not tie two ladders together to make them longer.
- Do not use an extension ladder horizontally like a platform.

### **Proximity to Hazards**

- Keep ladders away from electrical hazards and power lines.
- Avoid using ladders in high winds or inclement weather.
- Do not ignore nearby overhead power lines.



**Load Capacity**

- Do not exceed the ladder’s maximum load rating.

**Ladder Selection Guidelines**

Ladders are to be selected based on the expected load capacity (duty rating), the type of work to be done and the correct height. There are five categories of ladder duty ratings.

Ladder Grade		Use	Duty Rating
ANSI	CSA		
Type IAA	Grade 1AA	Super Heavy Duty	375 lbs.
Type IA	Grade 1A	Extra Heavy Duty Industrial	300 lbs.
Type I	Grade 1	Heavy Duty Industrial	250 lbs.
Type II	Grade 2	Medium Duty Commercial	225 lbs.
Type III	Grade 3	Light Duty Household	200 lbs.

**Specific Ladder Types**

**Step Ladders**

Step ladders are self-supporting ladders used for a variety of tasks. Follow these inspection and usage guidelines to ensure safety:

Inspection Guidelines:

- Check for wobble or instability.
- Inspect hinges and hinge spreaders for damage or looseness.
- Ensure the pail shelf is secure and not damaged, if applicable.

Usage Guidelines:

- Fully open the step ladder and ensure spreaders are locked before use.
- Do not use the top step or top cap as a step.
- Select a stepladder that is about 3 feet shorter than the highest point to reach for stability.
- Do not carry objects in your hands while on a ladder.
  - Use a tool belt or utility vest to transport tools up.
  - Have a co-worker pass materials or equipment up or use a hoist line.





- If you are working by yourself or cannot attach the materials to yourself (such as a paint can), use a ladder accessory to assist so you can maintain 3 points of contact while you climb.
- Avoid pushing or pulling stepladders from the side.
- Clear the area around the base of the ladder of debris.
- Use a ladder made of non-conductive materials, such as fibreglass, when working in proximity to, or with, electrical equipment.
- Store ladders properly at the end of each shift.

### **Extension Ladders**

Extension ladders are used for reaching higher areas. Follow these inspection and usage guidelines:

Inspection Guidelines:

- Check for loose, broken, or missing extension locks.
- Ensure locks engage properly when extended.
- Inspect ropes, chains, cords or other working parts for wear or damage.
- Lubricate pulleys and other moving parts regularly.

Usage Guidelines:

- Always erect the ladder on a level surface.
- Follow the 4:1 ratio rule: set the base 1 foot out for every 4 feet up.
- Ensure upper contact points rest firmly against the structure.
- Ensure the ladder is extended 3 feet above the structure when climbing to an upper level and secure the ladder at the top and bottom.
- Adjust extension ladders only when standing at the base.
- Climb extension ladders one person at a time.
- Raise and lower extension ladders from the ground.
- Do not overextend. Maintain the minimum overlap of sections as indicated on the ladder label.
- Set up barricades and warning signs when using in doorways or passageways.
- Do not use near overhead power lines.
- Do not set up or take down when extended.
- Do not climb higher than the fourth rung from the top.
- Do not use on slippery surfaces without securing the feet.
- Do not extend the top section from above or by "bouncing" on the ladder.



### **Multi-positional/Cross Step Ladders**

Multi-purpose ladders are capable of being used in multiple ways. This could include being set up as a straight/extension ladder, an A-frame ladder or set up at different heights/angles for harder-to-reach areas. Follow these inspection and usage guidelines:



Inspection Guidelines:

- Verify all parts are in good condition and operate smoothly.
- Ensure the ladder is stable in the chosen configuration.
- Confirm the ladder meets manufacturer's specifications.

Usage Guidelines:

- Set up in a stable position that cannot move while an employee is on the ladder.
- Ensure all requirements for using a step/A-frame ladder or straight/extension ladder are met if the ladder is used in that configuration, such as using the 4:1 ratio with the straight/extension configuration.



**Fixed Ladders and Climbable Structures**

Fixed ladders are installed to provide secure access to elevated work areas, equipment, or platforms. Follow these inspection and usage guidelines:

Inspection Guidelines:

- Verify the ladder is securely attached to the structure.
- Ensure all rungs and rails are in good condition.
- Check for rust, corrosion, and other signs of wear.

Usage Guidelines:

- Fixed ladders are installed to provide secure access to elevated work areas, equipment, or platforms.
- If a fixed ladder is damaged, loose, or otherwise non-functional, it must not be used. The issue should be reported immediately to a supervisor, and an alternate means to access the space should be arranged.

If the ladder is damaged, loose, or otherwise non-functional, do not use the ladder:

- Report the issue immediately to your supervisor. For fixed ladders that are part of U of A Buildings, report the issue to the [maintenance desk](#).
- Find an alternate means to access the space. This may include temporarily using an extension ladder or waiting until the fixed ladder is back in commission.

**Access Ladders (inc Floor Access)**

Ladders may be used to access certain areas, such as sump pump pits, man holes, mechanical spaces, or to enter into equipment for maintenance/cleaning.



1. If the ladder access is the only access into the space, it may be a restricted or confined space. See the [Confined Space Code of Practice](#) for details on the requirements.
  - a. Example 1 - A ladder is used to access a roof top and is the only access to the work area. This is not a restricted space because the area is not enclosed/partially enclosed. Work at Heights requirements would apply (including fall protection) but confined space requirements would not.
  - b. Example 2 - A ladder is used to access the inside of a duct or other HVAC system. The ladder is the only access. This would be a restricted space and the Confined Space Code of Practice would apply.
  - c. Example 3 - A ladder is used to access a tunnel but the tunnel has other access/entry points that are not restricted (man-doors/openings). This space does not have restricted access/egress and so the confined space requirements would not apply.

**Note** - Just because a specific program does not apply does not mean there are no safety requirements for the work. A hazard assessment must be conducted to ensure all hazards are controlled, and an emergency response plan must be in place.

## Barricading and Flagging

Where there is a ladder in a floor access and the access is open, the opening must be secured to prevent anyone from falling into the opening.

- Guardrails around 3 sides and a protective gate can be used to permanently secure the floor access.
- An access hatch/grating can be used to secure the opening when it is not being used. When the access hatch/grating is removed, the area must be secured.

## Training

Training on ladder use is mandatory to ensure safety and to evaluate the safest methods for accessing elevated areas where work is needed. The University of Alberta requires all personnel to complete the online [Ladder Safety Training Course](#) provided by the ACSA before engaging in any ladder-related tasks, and to undertake refresher training as necessary. Management will retain copies of all training certificates in personnel files.