 CSN Procedure	Facilities Management
Category: Environmental Health and Safety	Effective Date: 07/28/2025
Ladder Safety Program	

I. PURPOSE

The purpose of the College of Southern Nevada (CSN) Ladder Safety Program is to outline ladder safety practices. All personnel tasked with using and/or maintaining ladders, whether fixed or portable type, will be trained on the proper techniques for their use and care.

II. SCOPE

This program applies to all CSN facilities, college departments, employees, and contractors tasked with using and/or maintaining ladders of any type.

III. PROCEDURE

A. Responsibilities:

1. CSN Environmental Health and Safety (EHS)
 - a. Ensure management and implementation of this program through various actions including periodic program revisions, equipment and/or work area inspections, providing appropriate training resources, and communications with supervisors.
 - b. Ensure compliance with applicable environmental, health and safety regulations through regular monitoring of those agencies for updates.
 - c. Verify that all supervisors and affected employees are trained in accordance with this program. This includes verification that CSN contractors have been made aware of these program requirements.
2. Managers and Supervisors
 - a. Ensure the application of proper work procedures and required training in accordance with this CSN program.
 - b. Provide employees with the proper type(s) of ladder equipment needed to complete assigned work.
 - c. Instruct employees on the correct use of the ladders they will be using.
 - d. Provide, as needed, assistance to employees needing a special ladder or device.
 - e. Ensure that the ladder inventory for the CSN campuses is effectively maintained.
 - f. Conduct annual inspections of all ladders used/stored/mounted in their area of responsibility using the Ladder Inspection Checklists as a guide (Appendix A and B). Record ladder inspection and tool audits in TMA or another EHS-approved tracking system. Any ladders found defective are to be tagged as unserviceable and removed from service.
3. Employees
 - a. Comply with the methods and requirements described in this program and any subsequently developed program(s) and procedure(s).
 - b. Select and use the appropriate ladder for the task.
 - c. Participate in ladder safety training that is assigned to them.
 - d. Inspect ladders before and after use to identify potential problems. Any ladders found defective are to be tagged as unserviceable and removed from service.
 - e. Notify their immediate supervisor of any problems with ladders.

B. Employee Training

1. Ladder safety awareness training will be provided to employees who use a ladder on CSN property. Ladder safety awareness training is available via CSN's CAPE online training platform.
2. Ladder training will include where the employee can find the appropriate ladder for the job and where to find the maximum load capacity information on a ladder.
3. Individuals trained to use ladders are considered "authorized employees" for this purpose.
4. Contractors and vendors are responsible for ladder safety training of their employees for any work performed.

C. Procedures for Portable Ladders**1. Definitions**

Combination ladder - a portable ladder that can be used as a stepladder, extension ladder, trestle ladder, or stairway ladder. The components of a combination ladder also may be used separately as a single ladder.

Extension ladder - a non-self-supporting portable ladder that is adjustable in length.

Fixed ladder - a ladder with rails or individual rungs that is permanently attached to a structure, building, or equipment. Fixed ladders include individual-rung ladders, but not ship stairs, step bolts, or manhole steps.

Mobile ladder stand (ladder stand) - a mobile, fixed-height, self-supporting ladder that usually consists of wheels or casters on a rigid base and steps leading to a top step. A mobile ladder stand also may have handrails and is designed for use by one employee at a time.

Portable ladders - can readily be moved or carried, are generally designed for one-person, and usually consist of side rails joined at intervals by steps, rungs, or cleats. They can be self-supporting or lean against a supporting structure.

Step Ladder - is a self-supporting, portable ladder that has a fixed height, flat steps, and a hinged back.

Stepstool - a self-supporting, portable ladder that has flat steps and side rails. Stepstools include only those ladders that have a fixed height, do not have a pail shelf, and do not exceed 32 inches (81 cm) in overall height to the top cap, although side rails may extend above the top cap. A stepstool is designed so an employee can climb and stand on all of the steps and the top cap.

Through ladder - a type of fixed ladder that allows the employee to step through the side rails at the top of the ladder to reach a walking-working surface, such as a landing.

2. Access

Use a portable or fixed ladder to safely gain access to below grade or elevated working areas/locations. Follow all prescribed safety requirements for use.

3. Selection

Key considerations when selecting portable ladders include:

- a. Support characteristics: self-supporting or non-self-supporting.
- b. Target Work Zone: height, below grade or elevated.
- c. Footprint: Consider the size and shape of the ladder's footprint and compare it to the available set-up area.
- d. Set-up Area: evaluate surfaces and hazards.
- e. Design Style: use ladders only for the purpose for which they were designed.
- f. Material: Evaluate the materials the ladder was made from. Select a ladder whose material best fits the environment where it will be used.

- g. Working Load: calculate the working load that will be supported by the ladder.
- h. Size: Proper ladder sizing can be accomplished by comparing the design style's maximum working height to the elevation of your target work zone.

4. Loads

CSN management will consider ladder maximum load capacity when purchasing a ladder for an employee. In general, ladders shall support at least four times their maximum intended load. Select a ladder based on the expected load capacity duty rating, the type of work to be done, and the correct height.

Type	Duty Rating	Use	Load
1AA	Extra Heavy Duty	Rugged	375 lbs.
1A	Extra Heavy Duty	Industrial	300 lbs.
I	Heavy Duty	Industrial	250 lbs.
II	Medium Duty	Commercial	225 lbs.
III	Light Duty	Household	200 lbs.

Calculate the working load for a ladder by adding the user's weight, the weight of all tools taken onto the ladder, and the weight of all materials taken onto the ladder.

Manufacturers of portable ladders are not required by regulatory agencies (i.e., OSHA) to label their products with weight limits or other information. However, most do so to meet applicable legal and manufacturing standards (i.e., ANSI). Contact CSN EHS for any questions on portable ladder selection, if assistance is needed before purchases are made.

5. Ladder Structure

- a. Ladders will have a metal spreader or locking device when the ladder is in an open position to increase the stabilization of the ladder.
- b. Do not paint ladders, as that paint may cover duty rating labels, cracks, or deformities.
- c. When working around electrical equipment, the ladder will have non-conductive side rails in case the ladder meets an electrical source.
- d. Step ladders will not exceed 20 feet in length under any circumstances.
- e. Straight ladders will have grippers or cleats (safety feet).
- f. Rungs and steps are to be slip-resistant.

6. Pre-Use Inspection

- a. Always visually inspect the ladder for any defects before use. This includes checking for:
 - Broken or missing rungs or steps
 - Broken or missing mounts or braces
 - Cracks, corrosion, or bends inside rails
 - Loose or missing hardware
 - Defective locking mechanisms
 - Oil, grease, or other slip hazards on rungs
- b. Immediately report to the supervisor any identified issues that would render the ladder unusable and select another service-ready ladder.

7. Ladder Use

- a. Use ladders only for the purpose for which they were designed. Never alter a ladder.

- b. Read and follow all labels/markings on the ladder.
- c. Do not overload ladders beyond their manufacturer's rated capacity.
- d. Never stand on the top or top rung of a step ladder.
- e. Do not carry anything in your hands when climbing on a ladder, as this would cause loss of balance. Do not overreach when working on any ladder.
- f. Climb down the ladder and move the ladder as the work progresses. Do not "jump" or slide the ladder while you are on it performing any task.
- g. Always face the ladder for stability and maintain three points of contact when ascending or descending.
- h. Only one person is to be on a portable ladder at a time.
- i. Never fasten two portable ladders together.
- j. When using a step ladder, ensure spreaders are locked in place.
- k. Always wear proper footwear (e.g., notched or defined heels, non-slip flat shoes).

8. Ladder Placement

- a. Inspect the worksite where the ladder will be erected for hazards. Control all hazards before setting up the ladder.
- b. Use ladders only on stable and level surfaces free from debris. When required to use a ladder on a potentially slippery surface, secure the ladder.
- c. Never place ladders on boxes, barrels, or other unstable bases to obtain additional height.
- d. When using an extension (non-self-supporting) ladder next to a wall, place the ladder so that the distance from the wall is equal to $\frac{1}{4}$ the vertical height of the ladder to achieve the 4-to-1 setup ratio. EXAMPLE: a 20-foot ladder should be placed about five (5) feet from the base of the wall.
- e. Tie-off extension ladders to a secure object to prevent movement when there is a chance of the ladder moving or the surface cannot be stabilized.
- f. Ensure extension (non-self-supporting) ladders extend at least 3 feet above the level you wish to access.
- g. Guard portable ladders with a temporary barricade or secure the ladders to prevent accidental displacement when the portable ladder is placed in a location such as a passageway, doorway, or driveway where there may be other traffic. Alternatively, a second person can act as a spotter and hold the ladder at the bottom.
- h. Place warning signs and barricades around the work area to alert and prevent pedestrians from walking under or near ladders in use.

9. Ladder Maintenance

- a. Review and follow the manufacturer's maintenance requirements noted on the ladder data labels and any other product specification material provided.
- b. Any portable ladders that are missing the manufacturer's technical information labels (i.e., weight capacity) or those labels are illegible, are to be removed from service.
- c. Keep ladders clean and free from oil, grease, dust, and other slipping hazards.
- d. Clean ladders with appropriate materials as recommended by the manufacturer.
- e. Do not recondition a ladder or attempt to make repairs of any kind. The cost of a new ladder outweighs the chances of an employee falling from a reconditioned ladder.
- f. Defective ladders are to be removed from service and destroyed before disposal to prevent others from using them.

10. Proper Storage

- a. All portable and fixed ladders under the responsibility of applicable CSN departments are to be included in the department's ladder inventory.
- b. All ladders must be stored and secured properly when not in use. Ladders can be secured using devices including ropes, chains, lanyards, or other devices.
- c. Store self-supporting ladders in a closed position, orientated vertically to reduce the risk of sagging or twisting.
- d. Ladders may be stacked if cribbing is used to keep ladders from lying directly on the floor surface. Do not stack more than 4-feet in height.
- e. Do not lean ladders against the wall at a steep angle to prevent them from falling backward onto the floor or persons.
- f. Do not lean ladders against the wall at a shallow angle to prevent them from collapsing.
- g. Protect ladders from environmental elements (dust, wind, direct heat, rain, snow, etc.).

11. Transporting and Handling

- a. Manual transport of ladders
 - Balance the ladder on one shoulder.
 - Be aware of your surroundings.
 - Get help when needed.
- b. Mechanical transport of ladders
 - Properly secure ladders to the vehicle.
 - Prevent movement in all directions.
 - Secure ropes on extension ladders.
 - Follow local and State vehicle laws on securing loads for transport on roads or highways.

D. Procedures for Fixed Ladders**1. Definition**

Fixed ladders are permanently attached to a structure, building, or equipment. These include individual-rung ladders, but not ship stairs, step bolts, or manhole steps.

2. Design

Fixed ladders, to include all appurtenances, fastenings, and special requirements, shall be designed and constructed in accordance with 29 CFR 1910.23.

3. Ladder Structure

- a. Fixed ladders must be provided with a cage, well, or ladder safety device where the length of climb is 24 feet or greater. Note the following for fixed ladder requirements:
 - *Existing fixed ladders* that extend more than 24' above a lower level, which were installed before November 19, 2018, are equipped with a personal fall arrest system, ladder safety system, cage, or well.
 - *New fixed ladders*, installed on and after November 19, 2018, are to be equipped with a personal fall arrest system or a ladder safety system.
 - *Replacement fixed ladders*, cages, or wells, or when any portion of a section thereof, is replaced, a personal fall arrest or ladder safety system is installed in at least that section of the fixed ladder, cage, or well where the replacement is located.
 - OSHA set a final deadline of November 18, 2036, after which point all fixed ladders 24

feet in length or greater are equipped with a personal fall arrest system or a ladder safety system.

- b. Cages shall extend at least 42 inches above the landing.
- c. The preferred pitch of a fixed ladder is between 75° and 90°; fixed ladders will not be installed with a pitch greater than 90° from horizontal.

4. Ladder Use

- a. Always conduct a visual inspection of all fixed ladders prior to use. Any defects identified are to be documented and communicated to the applicable supervisor.
- b. Never use a defective fixed ladder, communicate the identified deficiencies to the applicable supervisor immediately. Remove this ladder from use until repairs are completed.
- c. Fixed ladder rungs are to be free of defects and should have non-slip surfaces.
- d. When applicable, utilize a ladder extension to safely mount and dismount a fixed ladder. Confirm this step with the applicable supervisor before performing.
- e. Never carry any objects when on a ladder that would cause loss of balance. Do not overreach when working on any fixed ladder.
- f. Always face the ladder for stability and maintain three points of contact when ascending or descending.
- g. Do not carry anything in your hands when climbing a ladder.
- h. Ladder hatch opening shall be protected and maintained for easy and safe operation.
- i. Always wear proper footwear for climbing ladders (e.g., notched or defined heels, non-slip flat shoes).

5. Defective Ladders

- a. Fixed ladders with structural defects such as broken or missing rungs, cleats, or steps; broken or split rails; or corroded components including mounting bolts and hardware, must be removed from service until repaired or replaced.
- b. Place a "Do Not Use" or similar tag on the fixed ladder; the tag must be placed at the point of entry and will be noticeable to other employees.
- c. If feasible, lock out access to the defective fixed ladder using locks, chains, or other devices to control access.
- d. Notify your supervisor of the condition of the ladder immediately.
- e. Ladder repairs must restore the ladder to conditions meeting its original design criteria before the ladder is returned to use.

6. Ladder Maintenance

- a. All fixed ladders will be maintained in safe condition.
- b. Fixed ladders will be included in the ladder inventory for the applicable CSN campus.
- c. Fixed ladders will be included in regularly scheduled and documented safety audits and inspections for the applicable CSN campus. These are to be conducted annually at a minimum.

IV. AUTHORITY AND CROSS REFERENCE LINKS

[OSHA 29 CFR 1910.23](#) (*Walking-Working Surfaces - Ladders*)

ANSI A14.1-2017 Safety Requirements for Portable Wood Ladders

ANSI A14.2-2017 Safety Requirements for Portable Metal Ladders

ANSI A14.5-2017 Safety Requirements for Portable Reinforced Plastic Ladders


Unless otherwise specified at the beginning of this procedure, printed copies of this procedure are UNCONTROLLED.
Always ensure prior to use you are using the most current copy.

Appendix A – Portable Ladder Inspection Checklist

Portable Ladder Inspection Checklist					
Department:		Campus & Building:			
Location of the ladder:					
Ladder description/identification:					
Inspector:		Date:			
For each item check OK, Defective, or N/A. Be sure to retain all documentation regarding inspections for a minimum of 3 years.					
Ladder Materials		OK	Defective	N/A	Comments
1. Ladder is clean and free of slip hazards (oil, grease, mud, or dust)					
2. No splinters or burrs					
3. Accessories properly mounted					
4. Warning labels in good condition					
5. Wooden ladders are not painted					
6. Footings are in good condition					
7. Ropes are not frayed or worn					
8. No cracks or dents					
Ladder Structure		OK	Defective	N/A	Comments
9. Steps condition (loose, cracked, bent, missing)					
10. Rail condition (cracked, bent, split, frayed rails)					
11. Slip-resistant feet or shoes (missing or damaged)					
12. Pail shelf condition (loose, bent, missing, broken)					
13. Top condition (cracked, loose, missing)					
14. Spreader condition (loose, bent, broken)					
15. Platform condition (cracked, bent)					
16. General condition (rust, corrosion, damaged parts)					
17. Step/rung/cleat-to-rail connection (cracked, damaged)					
18. Other (bracing, shoes, rivets)					
19. <i>Extension Ladder</i> Rung Locks (loose, bent, missing, broken)					
20. <i>Extension Ladder</i> Hardware (damaged, loose, missing)					
21. <i>Extension Ladder</i> Shoes (worn, broken, missing)					
22. <i>Extension Ladder</i> Rope/Pulley (loose, bent, broken)					
23. All hardware and fittings are securely attached					
24. Moveable parts operating freely without binding or undue play					
Action		Y/N	Notes		
Ladder tagged as damaged and removed from use					
Ladder is in good condition					
Inspector's Signature:		Date:			



Appendix B – Fixed Ladder Inspection Checklist

Fixed Ladder Inspection Checklist					
Department:	Campus & Building:				
Location of the ladder:					
Ladder description/identification:					
Ladder length (ft):					
Inspector:	Date:				
For each item check OK, Defective, or N/A. Be sure to retain all documentation regarding inspections for a minimum of 3 years.					
General	OK	Defective	N/A	Comments	
1. Ladder access point is clear and unobstructed					
2. Ladder is clean and free of slip hazards (oil, grease, mud, or dust)					
3. Ladder surface is free of sharp edges (laceration hazards)					
4. Ladder is in good working condition (no defects such as loose rungs or steps or side rails, corrosion, or other deterioration that may impact safety)					
5. "Step/rung/cleat-to-rail" connection is tight and undamaged					
6. Ladder is securely attached to the building or the structure it's mounted on					
7. Safety cage and/or guardrails are securely attached and in good condition (if present)					
8. Ladder's fall arrest system is properly functioning and in good condition (if present)					
9. For ladders that terminate at a hatch, the cover opens with sufficient clearance to provide easy access to/from ladder					
Action	Y/N	Notes			
Ladder tagged as damaged and removed from use					
Ladder is in good condition					
Inspector's Signature:		Date:			