

Clarksville-Montgomery County School System

LADDER SAFETY PROGRAM

OSHA Standard - [29 CFR 1910.1053](#)

1.0 **SUMMARY**

NEVER use a ladder if it is damaged or bent. Check the steps of the ladder to make sure each step is safe, dry, and grease free. Don't trust temporary repairs of ladders. If the ladder is broken simply don't use it; instead, choose an appropriate ladder for the job. Above all, do not use chairs and tables in the place of ladders.

Check your surroundings before you place a ladder against a wall. Make sure electrical wires, tree branches, awnings, and other possible impediments are out of the way. The feet of the ladder must be on stable ground.

The bottom of the ladder should be one foot away from the wall for every four feet of ladder length. For example, if the ladder is to extend sixteen feet, the bottom of the ladder should be four feet from the wall.

- Using a ladder that is too short or too tall for the job is dangerous.
- Never place ladders on boxes or counter tops for extra reach.
- Do not lean over the side of the ladder or overreach.
- Always face the ladder when working.
- Do not use a ladder if you are tired, dizzy, or fatigued.
- Do not have more than one person on a ladder at a time.

All ladders in use throughout our facilities are required to be identified with a maximum load capacity rating. In the interest of employee safety, we cannot permit this maximum to be exceeded. Therefore, any employee who is required in the performance of their duties to use a ladder not be at a "Working Weight" (*see definition) that exceeds the posted maximum.

Employees are expected to voluntarily observe and honor this requirement and to alert supervisors anytime they feel a potential hazard exists.

*Working Weight is considered to be the individual's personal weight plus the weight of any tools and equipment involved.

2.0 **GENERAL POLICY**

All ladders in use throughout our facilities are required to be identified with a maximum load capacity rating. In the interest of employee safety, we cannot permit this maximum to be exceeded. Therefore, any employee who is required, in the performance of their duties to use a ladder, not be at a "Working Weight" (*see definition) that exceeds the posted maximum. Employees are expected to voluntarily observe and honor this requirement and to alert supervisors anytime they feel a potential hazard exists.

*Working Weight is considered to be the individual's personal weight plus the weight of any tools and equipment involved.

3.0 **LADDER SELECTION**

- Avoid the use of a ladder that is too short or too long, as this will force you to overreach, adversely affecting your balance.
- Metal ladders should not be used on any electrical work, or in the presence of energized overhead electrical lines.
- All ladders shall have their Maximum Load Capacity clearly indicated on the ladder.
- All ladders must be stored in an approved ladder storage area when not in use.
- For any overhead work, use the proper type of ladder. DO NOT use makeshift ladders, such as boxes, barrels, chairs, etc.

- Ladders should be inspected for defects: missing cleats, cracked rungs, broken spreaders, etc., before use. Defective ladders should be tagged and not used for any reason.
- Straight ladders should have safety feet, spurs, grippers or cleats. They should be fastened at the top and blocked at the bottom.
- Do not paint wooden ladders with solid color paints. This may mask the cracks in the wood and make them hard to see. Clear wood preservatives can be used to protect bare wood.

4.0 LADDER PLACEMENT

- Always treat ladders with caution because they can become conductors of electricity.
- Never attempt to reposition the ladder while it is in use.
- There shall be only one person on the ladder at a given time.
- Ensure the footing support is firm, level, and free from debris or other materials. A ladder should not be used if a slippery condition exists unless equipped with a means of slip resistance.
- Avoid placing the ladder in front of a door. If this condition is unavoidable, lock the door, or have someone stand guard until the task is complete and the ladder is moved.
- If there is a danger of the ladder moving – tie it. If there is a danger of being struck, place warning signs or barricades around it.
- Do not overreach. Move the ladder as your work progresses. Do not jump or slide the ladder while you are on it. Descend and move the ladder over.

5.0 LADDER CLIMBING

- Always face in the direction of the ladder and use both hands while ascending or descending the ladder.
- Never mount or dismount a ladder from the side or back.
- Maintain a level of constant awareness while using the ladder ensuring each movement is done deliberately and with care.
- Maintain body alignment with the center of the steps/rungs to avoid extreme reaching or side loading.
- If a straight ladder is used to climb on to a work platform, it should extend at least 3 1/2 feet above the working level and use the four-to-one rule. Move the ladder one-foot away from the wall every four feet of height.
- Postpone outdoor ladder work during stormy, wet, or windy days.

6.0 STEP LADDERS

- Ensure that all four legs of the ladder are in contact with a flat, level surface.
- At no time shall a step ladder be closed and leaned against something with the intent to use it in this position.
- The rear braces of the ladder shall not be used as steps.
- Ensure that the spreaders are locked in the fully opened position.
- For any stepladder 6 feet or higher, the top two steps should not be climbed on.
- Stepladders more than 10 feet high should be held by another employee. The supporting employee will not stand on the ladder, but will hold and support the ladder while standing on flat, level ground.

7.0 EXTENSION LADDERS

Ladder Length

- Use a ladder with a length that will allow you to work without having to overreach while maintaining the proper ladder angle.
- No alterations shall be made to the ladder, such as tying two ladders together, or using boxes and other objects as a base in the attempt to achieve additional height.

Height Adjustment

- The ladder length shall be adjusted only when the user is standing on the ground to ensure engagement of the locks.
- The base of the ladder shall be a distance approximately one quarter the working length of the ladder.
- The bottom of the ladder should be one foot away from the wall for every four feet of ladder height.

8.0 PORTABLE LADDERS, MOBILE LADDER STANDS & MOBILE LADDER STAND PLATFORMS, AND WALKBOARDS

- For any overhead work, always use the proper type of ladder. Never use makeshifts.
- Ladders, scaffolds, and walk boards shall be inspected by the person using the equipment for defects prior to each use. Missing safety feet or shoes, cracked rungs, damaged side rail, etc. or any equipment with structural defects shall be immediately identified with yellow equipment out of service tag and shall be withdrawn from service until repaired.
- Make sure hands and shoes are reasonably dry and free of oil and grease before using equipment.
- Always clean and return equipment to its proper storage after each use.
- Ladders being used in any location where they can be displaced by workplace activities, such as passageways, doorways, or driveways, shall be secured to prevent accidental displacement. Barriers are to be used or a person shall *attend* to keep the activities or traffic away from the area.

9.0 STRAIGHT LADDERS

- Select a ladder that is the right length for the job.
- Straight ladders must be equipped with safety feet.

When securing ladder:

- Ensure both side rails make contact with a fixed resting point, or use a device to prevent the ladder from twisting.
- The ladder is to be secured close to the top resting point.
- Rope shall be tied to both side rails directly below a rung.
- No slack in rope.
- Tie off point on the both side rails must be below the point to which ladder is resting.
- Rope shall be of substantial material such as 1/2" or greater, preferably nylon.
- If ladder is not secured as described above; it must be blocked or held against movement at the bottom.

- Slip resistant feet shall not be used as a substitute for care in placing, tying off, or holding a ladder that is on slippery surfaces.
- Extend the ladder at least three feet above the top support, if using the ladder as an access to a platform.
- Angle the ladder so the distance from the bottom to the wall equals one-fourth the ladder's working length.
- Do not leave ladders unattended unless they are securely anchored.
- Position an extension ladder before extending it.
- Do NOT stand on or above the third rung from the top of a straight or extension ladder.
- Ladders are not to be moved, shifted, or extended while occupied.
- Maintain three point contacts while climbing. Keep between side rails when working. Do not overreach. As a minimum, fall protection is required when use of both hands are required for a task and you are above 6 feet, or if the task requires working outside of the side rails.
- Always face the ladder when climbing up or down.
- Tools or other articles which are too large to be carried in pockets or belts are to be lifted and lowered by hand line.

Note: Working outside of the side rails is defined as overreaching because the center of gravity is outside of the side rail.

10.0 STEP LADDERS

- Select a ladder that is the right length for the job.
- Ladder is to be used only on stable and level surfaces unless secured to prevent accidental displacement.
- Ladders are not to be moved or shifted while occupied.
- The top and the top step are not to be used as a step.
- Cross bracing on the rear section of step ladders is not to be used for climbing unless the ladders are designed and provided with steps for climbing on both the front and rear sections.
- Always face the ladder when climbing up or down. Maintain three point contacts when climbing on a ladder. Keep between the side rails. Do not overreach. Fall protection is not required if these provisions are met.
- Step ladders are not to be used as a straight ladder.

11.0 MOBILE LADDER STANDS AND MOBILE LADDER STAND PLATFORMS (PORTABLE STAIRS)

- All mobile ladder stands and platforms must be in compliance with ANSI A14.7-1991 and OSHA [1910.29](#).
- The maximum work level height is not to exceed four (4) times the minimum or least base dimension. Where the basic mobile unit does not meet this requirement, suitable outrigger frames are to be employed.
- The minimum step width is 16 inches.

- Mobile ladder stands and platforms shall be inspected prior to each use.
- Damaged or defective mobile ladder stands and platforms are not to be used and should be tagged out of service.
- Occupied mobile ladder stands and platforms should not be moved.
- Mobile ladder stands and platforms are not to be loaded beyond rated loads.
- Materials and equipment is not to be stored on the steps or platform.
- Additional height should not be gained by the addition of any type of extension or an object being placed on the unit.
- Foreign materials, such as mud or grease, should be removed from a person's shoes prior to ascending a unit.
- Handrails are to be used while ascending or descending the unit.
- The user is to face the ladders when ascending or descending a unit except when the slope of the ladder is 50 degrees or less above the horizontal.
- Users are cautioned to take proper safety measures when units are used in areas where electrical lines or sources exist.
- Occupied units should not be placed in front of a door unless the door is secured in an open position, locked, attended or barricaded.
- Overreaching, while on a unit, could cause instability and result in a fall. Always keep the unit in close proximity to the work. Descend and relocate the unit to prevent overreaching.
- Mobile ladder stands and platforms are to be used only on a level surface.
- Access or egress to or from any step or platform from any other elevated surface is prohibited unless the unit has been positively secured against movement.
- Fall protection is not required if these provisions are met.

12.0 INSPECTIONS

The Maintenance supervisor or Lead Custodian will inspect the ladders used or stored in their area of responsibility once per semester (Fall and Spring). Any defective ladders will be tagged and taken out of service immediately. The Ladder Inspection Checklist (ref. [RSK-F005](#)) will be completed and returned to the Risk Management/Safety Department, as evidence that inspections are being conducted.

Associated Documents: [29 CFR 1910.25](#) Portable Wood Ladders
[29 CFR 1910.26](#) Portable Metal Ladders
[29 CFR 1910.27](#) Fixed Ladders
[RSK-F005](#) Ladder Inspection Checklist