**Ladder Safety Protocol**

Circumstances discovered during the use and inspection of ladders may dictate actions different than listed below. If an employee of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ discovers a ladder that is unsafe to use, they will contact the Manager immediately and the employee will not use the ladder.

**Objective:** Provide the employee knowledge for the inspection and safe use of any type of ladder.

**Note:** No employee shall use a ladder until completing the following:

1. Ladder Safety Training
   1. If an employee’s duties require them to leave a ladder and go onto a roof or other level, they will not use a ladder until they have received **Fall Arrest Training**.
2. Read and signed a copy of this protocol
3. Download the Ladder Safety app using the link below to your smartphone (if you use an iPhone or Droid) <https://www.cdc.gov/niosh/topics/falls/mobileapp.html>
4. Understand that under no circumstances will an employee use a makeshift device to access a different level.

**Ladder Selection:**

* **The weight of the climber and equipment**
  + You and your equipment combined cannot weigh more than the weight rating posted on the ladder.
  + If you and your equipment exceed the weight rating on the ladder, choose a heavier rated ladder.
* **The height of the work to be performed**
  + The ladder will be tall enough to reach your desired height without using the top three rungs of an extension ladder or the top two steps of a step ladder.
* **The surface upon which you will set the base of the ladder**
  + If the surface is slippery, or concrete, anchor the base of the ladder to an anchor point with straps so it does not “kick out” at the bottom while you are working on the ladder.
  + If you are placing the base of a ladder in a mulch bed, make sure you check the ladder for solid footing prior to climbing the ladder.
  + If you are placing a ladder on an uneven surface, make sure the levelers have a secure footing prior to climbing the ladder.

**Securing the ladder to the vehicle:**

* Prior to operating a vehicle carrying a ladder, the driver will:
  + Secure ladder to the ladder rack so that it will not leave the vehicle while in transit.
    - The use of ratchet style straps will be used to ensure the ladder is secure
  + Secure a step or foldable ladder in the bed of a truck or inside a vehicle so that it does not shift while in transit, or fly out of the bed of the truck.

**Ladder Use:**

* Climbing the Ladder:
  + Face the ladder
  + One hand should be free to grasp the ladder
  + Do not carry any load that will cause you to lose your balance
  + Stay centered on the ladder
  + One climber at a time
* Working from the ladder:
  + Maintain 3 points of contact
  + Keep your belt buckle inside the side rails
  + Do not over-reach
  + Do not make any moves that could throw off your balance
* Contact with the upper surface
  + When using an extension ladder, ensure the ladder has solid contact with the upper surface and if possible use a ladder stabilizer at the top.
  + If you have to leave an extension ladder to climb to an upper surface, make sure the ladder extends at least 3 feet (3 rungs) above the upper surface.
* Set the proper angle when using an extension ladder 4:1:
  + The angle meter on the smart phone app.
    - Open the Ladder Safety App and chose the “Measuring Tool” icon
    - Place your phone on the side rail
    - When the phone beeps and the arrow turns green, your ladder is at the proper angle
  + 4-1 rule
    - Determine the distance from the ground to the contact at the upper surface
    - Divide this distance by 4
    - The total is the distance that the bottom of the ladder should be placed from where the top of the ladder makes contact with the upper surface
  + The Arms Out method
    - Stand at the base of the ladder with your feet under the bottom rung
    - Hold your arms straight out
      * If your hands can grasp a rung at chest height without having to lean your upper body in or out, the ladder is set at the proper angle

**Ladder Categories:** The weight shown below is the total combined weight of the climber and the equipment

* Type IA-300 pounds, extra heavy duty
* Type I-250 pounds, heavy duty
* Type II-225 pounds, medium duty
* Type III-200 pounds, light duty

**Inspection of Ladders:** Inspect the ladder prior to use. If any components are defective, do not use and withdraw the ladder from service and tag it “Do Not Use” until it can be repaired or destroyed.

The following should be inspected on each type of ladder listed:

* **Portable Extension Ladders-**
  + - Ropes
      * Must have a rope to raise and lower the fly section
      * Rope is not frayed
      * Rope is connected
      * Pulley is in good working order.
    - Structure
      * Side Rails are straight and free of cracks
      * Rungs are not damaged
      * Rungs are not loose
    - End Caps are in place
    - Feet are not damaged
    - Extension locks seat properly on the rungs of the ladder
    - Weight limitation stickers present
* **Portable Step Ladders-**
  + - The ladder will not wobble
    - Hinge Spreaders not loose, bent, or missing
    - Hinge Stop functional
    - Weight limitation stickers present
    - **Portable Single ladders-**
      * Structure-
      * Side Rails will be straight and free of cracks
      * Rungs are not damaged
      * Rungs are not loose
      * Feet are not damaged
    - Weight limitation stickers are present
* **Portable Multi ladders-**
  + - The ladder will not wobble
    - Hinge Locks will be functional and free from damage
    - Weight limitation stickers are present
* **Attic Pull Down Stairs-**
  + Hinging mechanism will work properly
  + Stair treads are free of cracks or breaks
  + Metal threaded support rods under or through the stair treads are present and secure.
  + Weight limitations if a sticker is not visible:
    - * Wooden stairs- 250#
      * Metal Stairs- 300#
      * **Fixed ladders-**
        + These ladders are usually made of steel and are bolted or welded to the structure
        + Inspect these ladders to ensure:

Welds are not broken

Bolts are not loose or missing

Rungs are not bent or missing

**Lifting, carrying, maneuvering, and placing ladders:**

* Use ladders that have been inspected and approved by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ not a customer’s ladder
* Prior to removing the ladder from the vehicle, the employee will assess and plan the path of travel from the vehicle to the final use area and will identify any hazards.
* When carrying a ladder:
  + Limit the extension of the arms to a straight position thus limiting the risk of a strain to the shoulder, elbow, wrist, neck, or back.
  + Bend at the knees instead of bending at the back when picking a ladder up from the ground
  + Keep the ladder as close to the core of the body as possible when carrying the ladder
  + Bring the ladder to its smallest position before attempting to move the ladder
* Ensure the ladder has stable footing prior to climbing the ladder
  + - Ladder levelers will be placed on all extension ladders prior to use when dealing with sloped terrain.
    - At no time will an employee use any object other than an installed ladder leveler to level the base of a ladder.
* Place a ladder stabilizer at the top of the ladder when possible to ensure the top of the ladder will not shift from side to side when working from the ladder.
* When using an extension ladder to access an upper level, ensure that the ladder extends at least three feet above the surface accessed.

**Ladder Safety:**

* Read and follow all labels/markings on the ladder.
* Avoid electrical hazards! – Look for overhead power lines before handling a ladder. Avoid using a metal ladder near power lines or exposed energized electrical equipment.
* Always inspect the ladder prior to using it. If the ladder is damaged, it must be removed from service and tagged until repaired or discarded.
* Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact on the ladder when climbing. Keep your body near the middle of the step and always face the ladder while climbing
* Only use ladders and appropriate accessories (ladder levelers, jacks or hooks) for their designed purposes.
* Ladders must be free of any slippery material on the rungs, steps or feet.
* Do not use a self-supporting ladder (e.g., step ladder) as a single ladder or in a partially closed position.
* Do not use the top step/rung of a ladder as a step/rung unless it was designed for that purpose.
* Use a ladder only on a stable and level surface, unless it has been secured (top or bottom) to prevent displacement.
* Do not place a ladder on boxes, barrels or other unstable bases to obtain additional height.
* Do not move or shift a ladder while a climber or equipment is on the ladder.
* An extension or straight ladder used to access an elevated surface must extend at least 3 feet above the point of support (see diagram). Do not stand on the three top rungs of a straight, single or extension ladder.
* The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface (see diagram).
* A ladder placed in any location where it can be displaced by other work activities must be secured to prevent displacement or a barricade must be erected to keep traffic away from the ladder.
* Be sure that all locks on an extension ladder are properly engaged.
* Do not exceed the maximum load rating of a ladder. Be aware of the ladder’s load rating and of the weight it is supporting, including the weight of any tools or equipment.

Employee Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Please Print)

Employee Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_\_\_\_\_