## Introduction

## Before beginning any tree care operation, employers need to:

- Assess the work site for fall and falling object hazards. Assess the sloped ground where ladders or equipment will be used to prevent falls from equipment overturns and ladder slippage; nearby overhead objects or structures; and weather-related hazards.
- Have a qualified arborist survey the worksite and identify the types of trees involved and possible hazards related to tree structure. The qualified arborist would identify fall hazards and falling object hazards due to tree condition. The American National Standard Institute's (ANSI) Z133 consensus standard on tree care work defines "qualified arborist."
- Determine if rigging is necessary and, if so, that workers can use it safely. This determination helps prevent sections of the tree from falling while performing tree care work.
- Determine if workers will need to climb or use aerial lifts. In making this determination, ensure that:
- Ladders are:
- Well maintained and not defective, such as having missing or broken parts;
- Kept at least 10 feet away from power lines and other electric equipment. For lines and equipment over 50 kV , the distance should be 10 feet plus 4 inches for every 10 kV over $50 \mathrm{kV} . \dagger$
- Inspected before each use, and remove damaged or defective ladders;
- Secured to avoid slippage; and
- Used according to the manufacturer's instructions.
- Aerial lifts are:
- Maintained and properly set up for use;
- Used according to the manufacturer's instructions;
- Not used as cranes to lift or hoist tree parts or material unless designed for that purpose;
- Only used with fall protection equipment including tie-off; and
- Kept at least 10 feet away from power lines and other electric equipment. For lines and equipment over 50 kV , the distance should be 10 feet plus 4 inches for every 10 kV over 50 kV . $\dagger$
- Workers who climb trees are trained on:
- Climbing techniques;
- Using climbing spurs with gaffs that are compatible with the tree they will climb;
$\dagger$ This guidance is intended as a general warning for all tree care workers. In situations where employees other than qualified workers, as defined in 29 CFR 1910.269(a)(1)(i)(E)(1), are clearing trees and brush around electrical lines, minimum approach distances are given in 29 CFR 1910.269(r)(1).
- Using a second means of fall protection such as a work-positioning lanyard or a second climbing line, in addition to using an arborist climbing line;
- Lifting and lowering hand tools and equipment; and
- Carrying only hand tools and equipment that are necessary for climbing.
- Identify and provide without cost properly
fitting personal protective equipment to protect workers from fall and overhead falling object hazards,
and ensure that the workers use the equipment and are trained in its proper use.
- Only use climbing equipment approved by the manufacturer for tree care work, including climbing lines, safety lines, personal fall protection equipment, and inspect all equipment for safe operation before starting work; remove damaged, defective, or worn equipment from service.
- Ensure that all workers at a tree care operation are trained in hazard recognition for falls from elevation and falling object hazards, and the use of personal protective equipment, such as hard hats, to protect against injury from overhead falling objects.
- If workers cannot remain at least 10 feet from electric lines to perform tree care operations, contact the utility company to de-energize and ground the lines. $\dagger$
- Take the following steps to protect workers from falling object hazards: (1) Establish and mark drop zones with equipment, such as cones, where there is a hazard of objects falling;
(2) ensure that all workers receive training on procedures for entering the drop zone; (3) ensure that ground workers maintain a distance away from the tree-felling operations that is at least two times the height of the tree; and (4) when using a rope to fell a tree, workers must be at a distance of at least one-and-a-half times the height of the tree being felled.
- Establish a visual or audible communication system between overhead workers and workers on the ground before starting rigging operations for piecing out the tree. The system must effectively communicate when employees who are beneath overhead tree workers should stand clear of the drop zone, and when it is safe to approach a drop zone. A worker trained in emergency procedures needs to be within visual or voice communication with the worker climbing and working in a tree above 12 feet in height.
- Provide traffic and pedestrian traffic control around the jobsite prior to the start of the tree care operation.
- Have emergency procedures in place prior to the start of the tree care operation. Determine if the worksite location has cellular telephone coverage and verify that every worker knows the address of the worksite in case they need to summon emergency services to the site.
Establish a retreat path for ground workers so they can escape from falling trees.

Modified From OSHA

