



Landscape Services

Safety Standard Operating Procedure

(Revised 7/2023)

Tree Removal

This SSOP provides guidance on the safe practice of **Tree Removal**. Large and/or small equipment may be used while removing trees. As with any equipment or tool, the most basic premise for safe operation is reading and adhering to the manufacturer's instructions and warnings. This SSOP is not a substitute for the owner's manual(s) produced by the manufacturer.

Safety Requirements PPE Required:

When working around large equipment, such as a backhoe: Hardhat, high-vis vest.

When working with a chainsaw: Work boots, chaps, work gloves, safety glasses, earplugs, hard hat (if working with polesaw).

Caution tape, cones, and barricades should also be utilized when appropriate. Note, if a tree cannot be safely or efficiently removed by FMLS staff, the University Arborist may seek contracted assistance.

Safety Hazards: Vehicle and pedestrian traffic, underground and overhead utilities, lifting, bending, slipping, tripping, falling, overhead objects, dust, noise, sharp objects, blind spots, equipment malfunction, pinch points, hot or cold temperatures, and inclement weather, and rarely chemical hazards.

Scheduled: As needed. Schedule through the University Arborist or FMLS Assistant Manager.

Horticultural Elements: If tree stump is left at or slightly above ground level and if the natural history of the tree dictates, treat stump with killer (Tordon). Remember to use as label directs. Tree examples include but are not necessarily limited to: Mulberry, Black Willow, Elm, Locust, Hackberry. No need to tree junipers.

IPM: If presence of disease or concerning pest has been confirmed, follow best practice disposal instructions. The University Arborist, FMLS Assistant Manager, Oklahoma Plant Disease and Insect Diagnostic Lab, OSU Extension, horticulturalist, or other specialist may advise in disposal method decisions. While plant and tree debris can usually be taken to in-house compost, some disease or pests require taking discarded plant material to landfill.

Tree removal by digging: This method is best when the tree is small enough to maneuver by hand and young enough that the root ball has not become established. Hand tools are exclusively used in this method; shovels, loppers, etc. Gators are used to dispose of plant material. Repairs to the area must be made by install or zone; fill in root ball holes, remulch, fix irrigation, clean-up etc. It's the least likely tree removal method but is often utilized when utilities are nearby. An Okie811 dig permit must be secured before digging.

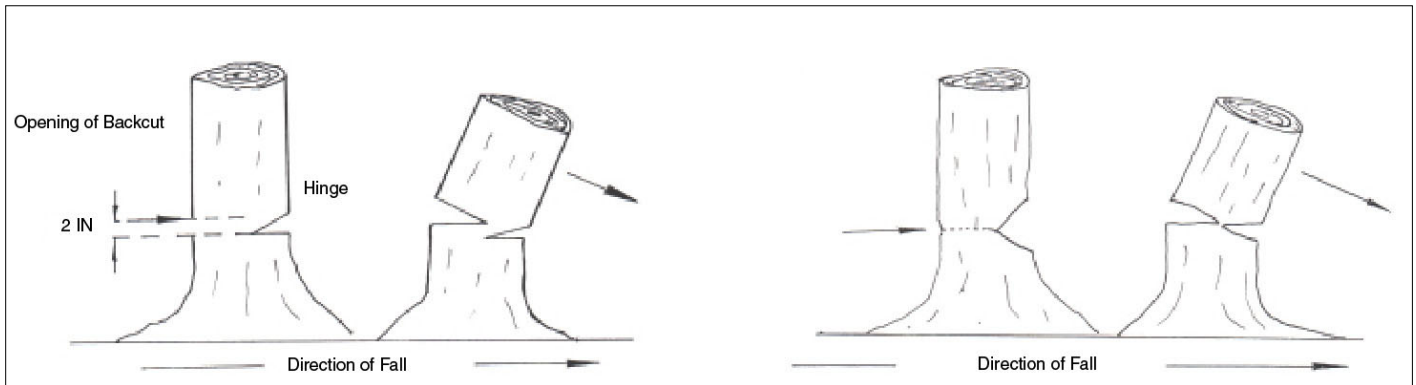
Tree removal by backhoe and chain: This method is to be scheduled through SSS. Typically, one person attaches a chain to the bucket of the backhoe and secures the other end of the chain around the trunk of the tree. The ground person then moves out of the way, but still in eyeline of the equipment operator. Eyeline allows for hand signals and communication between the operator and ground crew which is vital to safety. Then the operator maneuvers the equipment, pulling the tree from the ground. Once removed from the ground, the tree is placed into the back of a gator

or dump truck and disposed of appropriately. Repairs to the area must be made by install or zone; fill in root ball holes, remulch, fix irrigation, clean-up etc. This method is best utilized when the area is free of utilities, when the tree is mature or large in size, and when the backhoe has safe access to the area. An Okie811 dig permit must be secured before digging.

Tree removal by chainsaw: Chainsaw operator must be in-house trained in chainsaw safety prior to equipment use. See OSU fact sheet for more information. This method is most appropriate when the residual stump won't be a distraction in the landscape. Calculate and secure a safe drop zone, a radius equal to the height of the tree. People other than the chainsaw operator should be at least double the height of the tree away. Usually, the chainsaw operator should make an undercut (left) or hinge cut (right) for felling. See video below for more information. Once removed, the tree is typically pieced apart and disposed of appropriately. Repairs and clean up in the area must be completed by install, zone, or person responsible for removal.

Fact Sheet: <https://extension.okstate.edu/fact-sheets/safe-use-of-chainsaws.html>

Undercut and hinge cut methods:



Video: <https://www.youtube.com/watch?v=vxW42BEPcEQ>

Tree removal by contractor: When deemed appropriate by the University Arborist or FLMS Assistant Manager, a contractor may be utilized for tree removal. This method is typically used when the scope of the removal is too large for in-house equipment and staff to safely handle, or when the stump will be a distraction in the landscape. Contractors will grind the stump, and we do not have in-house equipment for that process. The University Arborist or FMLS Assistant Manager will handle contacting the contractor, site walks and estimates with the contractor, AIM and OKCorral processes, act as a day-of contact for the contractor crew, and inspect the work zone after work completion.