

Job Name: _____ Job Site Location: _____

Date: _____ Start Time: _____ Finish Time: _____ Foreman/Supervisor: _____

Topic 555: Tree Felling Safety (Job Site)

Introduction: Cutting down trees can be dangerous work when there are buildings and power lines nearby. Proper preparation and weather conditions are to be taken into serious consideration. Following are safety guidelines for felling trees in construction operations.

- **Clear out** a space around the tree where you can get a firm footing and have enough space to work with the chain saw.
- **Lop off** any lower branches that are in the way. Pay close attention to the top of the tree. Which way is it leaning? What side are the majority of the branches on? Which way is the wind blowing?
- **Check** the trunk of the tree at waist height. Look for holes or rot. Check for nails. Remove any objects that are imbedded.
- **Look** for a clear space, or bed, into which to drop the tree, where it **will not** cause damage, or get caught up in another tree.
- **Never** try to drop a tree up a slope. The tree could kick back at you when it hits the ground.
- **Tie a rope or cable** as high on the tree as possible, if there are high winds, or the tree is to drop in a specific spot. Make sure that the rope is long enough, so that whoever is pulling does not end up under the tree.
- **Create** two escape routes, so you can move away quickly, as soon as the tree begins to fall.
- **Before operating the chain saw**, read and study the operator's manual. Even if you are an experienced operator, it is good practice to review the manual before each use. Make sure that all safety features work.
- **Most accidents** are caused when the operator comes in contact with the sharp moving chain. Injuries from a chain saw are often serious due to the jagged wound the high-speed cutting chain inflicts.
- **The undercut should be** made on the side where you want the tree to fall. Begin at waist height with a horizontal cut. Cut about one-third the distance through the tree. Place the saw above the first cut, angle it downward, and cut out a 45° wedge of wood.
- **Make sure** the horizontal cut is perpendicular to the direction of the fall.
- **Opposite the undercut**, backcut into the tree about two inches above the base of the undercut. Keep the cut horizontal. Do not angle it down. Keep sawing while paying attention to the hinge, which is the piece of uncut wood between the backcut and the undercut.
- **Keep** the hinge uniformly thick to prevent the tree from twisting and falling in a different direction than intended. Keep sawing until the tree begins to drop to the ground. Step back, in case the butt of the tree kicks back.
- **While cutting, keep a close watch** on the kerf, which is the space that the saw leaves behind as you cut through the trunk. The kerf should get bigger as you cut further into the trunk.
- **Remove the saw immediately** if the kerf is closing up instead of getting bigger; you have misjudged the lean, or balance of the tree.
- **Put tension** on the rope, and put some wedges into the final cut, to open the space if the kerf is closing. Saw some more, and drive the wedge in further. **Make sure** the rope is taught, and have a co-worker pull the tree forward.
- **Wrap** a cable around the butt end of the tree and use a winch, come-along, or truck to pull the tree free, if the tree becomes lodged in another tree. After the tree has been felled, trim off the limbs, size for removal, and remove from the job site.



Personal Protective Equipment: Eye, face, hand, hearing, head, and body protection

- **Heavy-duty** sure grip gloves which provide protection from puncture wounds, cuts, and lacerations.
- **Heavy-duty steel-toed boots** constructed of cut-resistant materials and slip resistant treads.
- **Eye, face, and lung** protection should include safety goggles, full face shields, and dust masks.
- **Ear muffs or ear plugs** to protect your ears from the 90+ decibel noise level of modern saws.
- **Hard hats** must be worn to protect the head from falling limbs or debris.
- **Clothing should be well-fitted** and free of dangling or ragged edges that could become entangled in the saw. **Protective chaps or leggings** that cover the area from the groin to about 2 inches above the ankles should be worn by all chain saw operators.



Conclusion: Always take your time, and think through each step, when felling trees. By preparing carefully, and cutting correctly, a safe tree felling operation will ensure safety for all employees. Utilize these safety guidelines for felling trees on the construction site.

Work Site Review

Work-Site Hazards and Safety Suggestions: _____

Personnel Safety Violations: _____

Employee Signatures:

(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

_____	_____	_____
_____	_____	_____
_____	_____	_____
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These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.