



## Prevention through comprehensive research and investigation

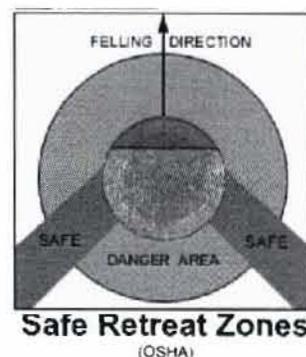
### INVESTIGATION/RESEARCH

### ARBORISTS: LOOK UP, STAY CLEAR & STAY SECURED

- In Michigan from 2001-2003, 7 arborists have been killed when struck by falling trees or limbs or after falling from the tree while trimming.
- Examples Include:
  - A 31 year-old man was killed when he bumped into a coworker and ran into the path of a falling tree rather than away from it. The tree landed on him.
  - A 44-year-old man was killed when he entered the backyard just as a co-worker had finished his backcut and pushed the tree to begin its fall. The tree landed on him.
  - A 57-year-old man was killed when he fell roughly 35-40 feet from a tree while reattaching his safety harness when moving from a vertical branch onto the main part of the tree.

### IN ORDER TO PREVENT SIMILAR INCIDENTS IN THE FUTURE

- **Develop** a work plan.
- **Communicate** the work plan to all workers through a job briefing before the work begins.
- **Assign** work areas so that the distance between adjacent occupied work areas is at least two tree lengths of the trees being felled.
- **Set up** the work area to prevent intrusions.
- **Evaluate** trees before they are worked on to be sure they can stand the strain of climbing, rigging, or removal.
- **Plan** a clear escape path. A safe escape path is 45 degrees from the sides and back on either side of the tree. Never move away directly behind the tree. Use the chain brake, walk away at least 20 feet and try to put yourself behind a standing tree.
- **Use** safe climbing procedures such as breaking or cutting off dead limbs while climbing and placing hands and feet on separate limbs.
- **Communicate** struck-by hazards through “**voice command & response**”: the climber should say, “Stay clear!” and groundworkers acknowledge with, “All clear!” before trees or tree sections are allowed to fall.



Safe Retreat Zones  
(OSHA)

### DID YOU KNOW?

- Electrocutions, falls and struck-bys are the three leading causes of arborists deaths nationwide
- 71% of arborist deaths in Michigan are due to trees falling on them
- An average of 21 deaths occur per year nationwide in the tree trimming industry
- Industry standards call for the tree climber to use an approved climbing system consisting of a ½-inch synthetic fiber line with nominal breaking strength of 5400 lbs.; an approved arborist's saddle; and a second means of being secured, such as an adjustable lanyard
- The climber must be secured at all times while off the ground, except when ascending a ladder

**MIFACE:** [www.chm.msu.edu/oem](http://www.chm.msu.edu/oem)

**FACEWeb:** [www.cdc.gov/niosh/face/](http://www.cdc.gov/niosh/face/)

**ANSI:** Z133.1-2000 (rev) American National Standard for Tree Care Operations-Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush-Safety Requirements.

**MIOSHA Tree Trimming & Removal Standard:**  
[www.michigan.gov/documents/](http://www.michigan.gov/documents/) Click on Part 53.

**Tree Care Industry Assn (TCIA):**  
[www.treecareindustry.org](http://www.treecareindustry.org)

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### TO REPORT A NEW WORKPLACE FATALITY TO MIOSHA

**1.800.858.0397**

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