

## **Keeping trees safe is a process**

The construction or extensive remodeling of a house is always an incredible experience for all involved. A beautiful building stands in a previously empty or distressing site when the complicated project is done. The question is: will the trees that surround it will still be standing safely too?

Tree professionals are usually called in when a tree is visibly declining. It is often too late to help a tree by then. Trees may seem huge and sturdy, but their root systems are very sensitive. Construction activities around them can damage them in invisible ways that will not show until later.

Trees in the Pacific Northwest have shallow roots in general due to our soil conditions and the genetic make up of our trees. Most of the tree roots are in the upper 18 inches even for trees 80 to 100 feet tall. The roots spread out into great distances beyond the drip-line, but they do not penetrate into the soil very deep. Roots of young trees can acclimate to changes in the soil structure much easier than roots of grown, mature trees. This is why it is so important to think about a tree preservation plan at the same time an architect is working on the plans for the house. Some major elements of a tree preservation or tree protection zone plan are straight forward, but some may require a professional's advice.

During construction, heavy equipment moves all around a site and every time a machine goes by, it compacts the soil beneath it. The air is pressed out of the soil and roots not only get crushed, but suffocate as well in the effected area. Creating and marking a specific area designated for this kind of heavy traffic away from the trees can greatly reduce the risks to the health of the trees.

Re-grading a site and adding additional soil even a few inches deep on top of the existing grade will suffocate trees as well. Removing soil only a few inches on the other hand usually damages the surface roots and can kill the tree slowly. Sometimes the solution is to remove otherwise healthy trees and while it is sad to see them go, it is safer then having them fail a few years later.

Excavating and trenching cuts through the roots and depending on the fashion it is done, it can kill a tree or at least weaken it. Planning the excavation with the help of a tree professional will prevent these problems. This should be done in much smaller constructions as well, such as putting in sewer systems and drain fields. Many of the trees, that are purposefully left standing around a home, fall victims to the additional and indirect works and repairs.

Clearing for construction does not mean clear-cutting an area, but it means a planned action to preserve trees for a long and healthy life. If the tree protection zones are designed, installed, and maintained properly, beautiful houses can be built with beautiful and safe trees nearby.

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