Making The Cut

Why Prune?
Good pruning can: remove potential hazards; correct weak structure; improve the form of the tree; control decay; improve air circulation; increase light penetration; enhance views; and promote the longevity of the tree.

When To Prune And How Often
Mature trees are best pruned as-needed only; most trees need little or no pruning. However, young trees respond better to light pruning every few years that gradually establish the tree’s mature form. Winter is a good time for general pruning. Early summer pruning helps control growth.

Who Should Prune?
The City does not endorse or recommend any individual contractor. For information regarding selecting a contractor, see the Resources section at the end of this Guide.

Tree owners may be able to prune small trees using a hand saw and ladder. Follow the diagrams shown in this brochure to produce a good pruning cut, and if you are unsure of what you are doing, review the resources listed at the end of this brochure. Larger trees should be pruned by an arborist, preferably one that is ISA certified. These professionals have demonstrated their knowledge and experience in many aspects of tree care and they must continue their education to stay certified.

How Much To Prune
All types of pruning together should not remove more than 25% of the total leaf area of a tree and less is generally better. After an extensive (approaching 25% removal) pruning, a tree should be given at least two years to recover before attempting more wood removal.

Pruning and City Code
The Unified Land Development Code does not regulate pruning of trees on private property, provided that pruning conforms to the types described on the second page of this brochure. According to the Code, non-conforming pruning requires a permit in the following situations:

- Construction work
- Landmark tree or grove
- Critical Area (slope, watercourse, wetland, or geologic hazard area)
- Town Center
- Other non-single-family residential uses

If you think you need a permit to prune your tree, please contact the City Arborist at (206) 275-7713. Additional information is located on the City’s website at www.mercergov.org.

RESOURCES

WEBSITES
International Society of Arboriculture
www.treesaregood.org
Pacific Northwest Chapter of ISA
http://www.pnwisa.org
Plant Amnesty
http://plant Amnesty.org/pruning/info.aspx
Arbor Day Foundation
http://www.arborday.org/trees/nine things html
Master Gardeners
http://gardening.wsu.edu

BOOKS
Arboriculture
Integrated Management of Landscape Trees, Shrubs and Vines
by Richard Harris, et. al.
A New Tree Biology
Facts, Photos, and Philosophies on Trees and Their Problems and Proper Care
by Alex Shigo
An Illustrated Guide to Pruning
by Edward Gilman

Portions of this brochure were adapted from “Tree City USA Bulletin #6 Don’t Top Trees!”, published by the National Arbor Day Foundation.
**Topping** is the cutting of a trunk or main branch to a point where there is no branch large enough and vigorous enough to become the new leader. Topping has been a widespread practice in the past, but advances in tree biology have rendered this practice obsolete. Topping is not a satisfactory remedy for trees that are too tall. See the next page for more on topping.

**Stripping** branches from an inner section of a trunk or branch is called “lion-tailing.” Structural imbalances and potential failure can occur with too much weight at the ends of branches. Sometimes this happens when an arborist only works the center of the tree and does not take the time to climb to all parts of the crown to achieve a well-distributed thinning.

Imbalances in pruning disrupt the architecture of the tree. They can induce twisting stresses when the wind blows, causing vertical cracking. They also may induce rapid new growth that will be structurally weak and break.

**Excessive Pruning** can kill a tree. Stripping branches from any large area deprives the tree of food production, causing starvation. Starvation, combined with an excessive number of pruning wounds, is an invitation for decay.

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**Best Pruning Practices**

Pruning a tree begins with understanding its natural form. A tree with a single dominant trunk has a central leader form. A tree with branching trunks has an open center form.

**Crown Cleaning** means removing dead, dying, diseased, crowded, weakly-attached, or low-vigor branches. Done correctly, this should not significantly reduce the canopy.

**Crown Thinning** means selective removal of branches throughout the crown of a tree to improve light penetration and air circulation. Remaining branches should be well-distributed and balanced. No more than 25% of the total leaf area of the tree should be removed. A common mistake is “lion-tailing” (see opposite page) where the center of the tree is stripped of branches.

**Crown Raising** means the removal of the lower branches of the tree to provide height clearance. Typical clearances are 8’ for pedestrians, 14’ for equestrians and 16’ for vehicles. Young trees should be trained gradually for required clearances. Mature trees can be raised as long as half of the foliage is preserved on the lower two-thirds of the trunk.

**Windowing** means removing several branches symmetrically within an area of the tree’s crown to create an opening to enhance views. Since stripping a large area of branches weakens the tree and causes structural problems, windowing is properly done to limited portions of the canopy.

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**Improper Pruning Practices**

Some examples of improper pruning are shown below. Practices such as these do not meet city definitions for pruning and may require an application for a permit. A permit will only be granted if code criteria is met.

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