

Structural Pruning (for deciduous trees)

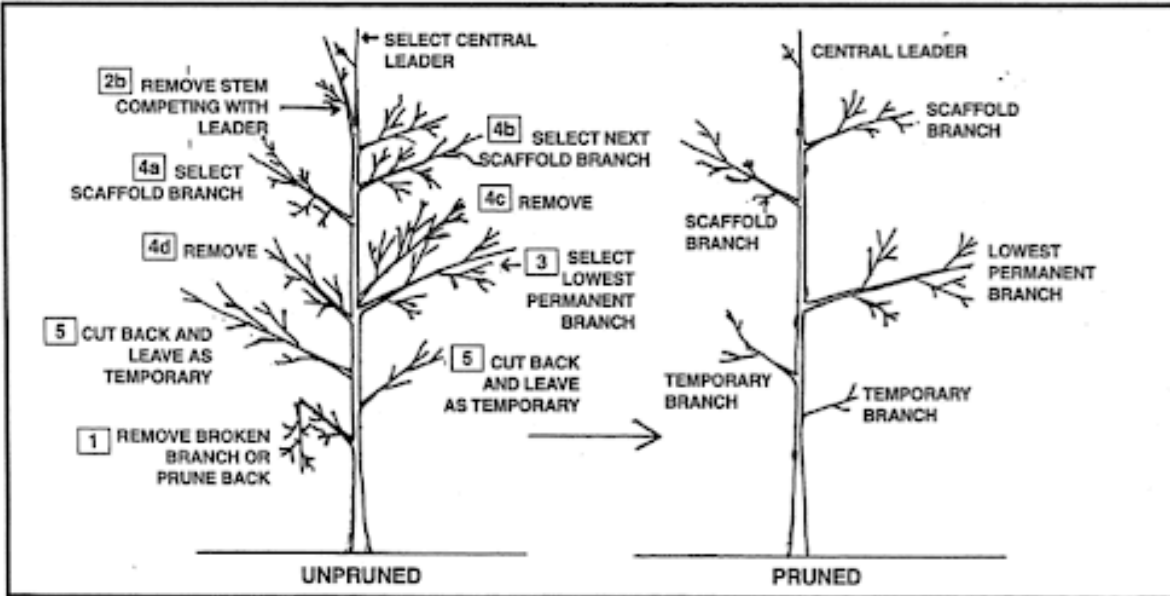


Fig. 2 Applying the 5 steps to the unpruned tree (on the left) creates strong structure and attractive form in young trees. The numbers on the drawing correspond to each of the 5 pruning steps to produce the tree on the right.

1. **Cleaning.** Remove broken, dead, dying, diseased, crossing, rubbing, upright branches
2. **Dominant leader** selection (remove or reduce competing leaders)
3. **Raising.** Identify lowest permanent branch for clearance (8' sidewalk, 12' street, 16' main street)
4. **Scaffolds.** Identify next 3 permanent branches arranged radially, spaced 5% of expected height: (5% for small 20'-30' height = 1'-1.5' ; medium 30'-50' = 1.5'-2.5'; large 50'-80' = 2.5'-4')
5. **Reduce** temporary and competing branches. Keep all branches less than $\frac{1}{2}$ the trunk diameter. Remove temporary and clustered branches by around age 20, before they reach 3" diameter. They main goal is slowing growth of lower branches for a stronger structure.

Reduction cut: slowing branch growth by pruning back to a smaller lateral branch (ie to a branch $\frac{1}{3}$ the size). Leave at least $\frac{1}{4}$ inch to prevent drying out of the lateral bud or branch.

Removal cuts: cut just beyond the collar. If no visible collar, split the angle between a cross cut and the branch bark ridge.

Three part cut for large branches, ie 1": 1. Undercut through underside bark to prevent tearing. 2. Topcut on or outside the undercut to remove the weight of the branch. 3. Final cut near the collar.

Cut roots that wrap or girdle the trunk.

Wait to prune until after the first year.

Timing: Usually prune early spring in dormancy or soon after leaf flush to minimize infection risk and give time for wound wood formation.

Stakes can be removed after the first year.

Sharp side of the pruner goes on the retained, tree side.