

Root Pruning Standard Operating Procedure

For step by step instructions, see *Root Pruning Recommended Practices*

Root pruning shall be done whenever there will be grading, cutting or compaction disturbance underneath the drip line of a tree. Prior to any work within drip line, contractors should contact Landscape Services to coordinate work. Root pruning shall be done prior to disturbance of the site. No disturbance shall be done within a distance of 3x the diameter of the tree, due to stability concerns.

Before disturbance, meet with Landscape Services on site to confirm location of root pruning. Root pruning shall be conducted at an agreed upon location. This location will be marked on the ground between the disturbance and the tree, typically 6" closer to the tree than edge the disturbance.

All roots 3/4"-1.5" diameters must be pruned. If 2.5" or larger roots are encountered, stop pruning in that area and contact Landscape Services. Root pruning shall only be as deep as necessary to ensure the cutting of all roots which would be impacted by the disturbance.

Root pruning shall be done with a sharp tool, in such a way that does not pull on the roots, but leaves smooth cuts. It is preferable to expose the roots prior to root pruning. After pruning, fill the area with quality topsoil and water until thoroughly soaked.

Once exposed, roots must be covered within 8 hours. If roots will be left exposed for longer than 8 hours, they must be kept moist. One option is to put moist burlap over the exposed roots.

Root pruning shall be done by or under the supervision of an ISA Certified Arborist, and meet or exceed ANSI A300 or approved Tree Care Industry Standards. A certified arborist must be onsite during the entirety of root pruning.

For a more detailed description, please see Root Pruning Notes.

Root Pruning Recommended Practices

Overview

- 1) Root pruning is when tree roots are cleanly severed from the tree in order to prevent damage which would be caused by excavation
- 2) The soil around the roots is removed by hand or utilizing an air knife so the roots can be seen before pruning. This is called making a “root pruning trench”
- 3) Once exposed, the roots are cleanly cut, then top soil is put into the root pruning trench to encourage root regrowth in that area
- 4) This system prevents future problems with the tree by minimizing damage to its roots

How to Root Prune

When

- 1) When digging beneath the dripline of a tree you will need to root prune
- 2) If you will be digging near the trunk of the tree, you may affect the tree's stability.
 - a) The most important stability roots are found at 3x the diameter of the tree. This is called a tree's “structural root plate”
 - i) For example, a 2 foot diameter tree will have a 6 foot structural root plate holding it up. For some trees, this structural root plate is even larger.

How

- 1) Before Digging
 - a) First, contact Landscape Services and arrange a site visit to discuss logistics
 - i) During the site visit, you will decide where the root pruning trench must be dug
 - ii) The location of the root pruning trench will be marked on the ground
 - b) Decide if you will perform root pruning yourself under the supervision of an arborist, or have an arborist perform the pruning for you.
 - i) A certified arborist must be onsite to perform or supervise the root pruning
 - c) If major roots will be pruned, or a large percentage of the roots will be pruned, the tree may require other types of care
 - i) For mature trees, no more than 30% of roots may be pruned.
- 2) Digging Process
 - a) The pruning trench should be cleared in a way that exposes the roots while leaving them intact.
 - i) Use hand tools or an air knife
 - ii) Do NOT use an excavator, as this will pull on the roots and possibly damage the trunk
 - iii) If a root larger than 2” is exposed, leave this root intact and contact Landscape Services
 - b) Once the roots are exposed, use a SHARP tool to cleanly cut all roots which are between 1-2” diameter, to the depth of the proposed disturbance
 - i) Appropriate tools include sharp lopping shears, handsaws, a sharpened ax, a root pruner, a stump grinder, a reciprocating saw (sawsall) and any other sharp tool which leaves a clean cut
 - ii) You may not use a chainsaw or chain trencher to make the final cuts

iii) All roots shall be left with a clean, smooth ends and no ragged edges

3) Post Pruning

- a) Tree roots must be kept moist. If roots ends will be left exposed for more than 8 hours, cover the hole with moist burlap.
- b) Fill the hole with high quality top soil, mulch the area with triple shredded hardwood to a depth of 3", and water well.

Who:

- 1) Landscape Services' Main Office: 660-4280
- 2) The following companies have the expertise to perform successful root pruning on campus, although other certified arborists may be considered:
 - a) Bartlett Tree Experts (Kevin Riegner ; kriegner@Bartlett.com; 919.291.9246)
 - b) Leaf and Limb (Basil Camu; basil.camu@leaflimb.com; 919.787.9551)