

*Shade Tree Commission Information - Check List*

Are all trees within 25' of the construction area with a diameter of 6" or greater (measured at breast height) shown on the plan? \_\_\_\_\_

Are all trees being removed shown on the plan with an 'X' through the tree? \_\_\_\_\_

After approval, all trees on the approved plan must be marked in the field by the applicant prior to removal with red tape or paint around the trunk.

Is there a chart on the plan with the total number of trees to be removed? \_\_\_\_\_

Example        14 trees to be removed    3 trees 20" DBH | tree 10" DBH

Is the tree protection fencing (if needed) shown on the plan as well as a detail of same? \_\_\_\_\_

The tree protection fence should be located as far from the tree as possible, at minimum -the drip line (far edge of the branches). this protected area JS to remain undisturbed by all construction activities, including trenching for utilities.

*The following permits require plan review by the Shade Tree Commission.*

- Subdivision & Land Development Applications
- Removal of a Heritage Tree
- Grading Permits with over 200 Cubic Yards of Cut & Fill
- Removal of 6 or more trees 6" in diameter or larger (Clearing Permit)
- Or as determined by the Township Engineer

Plans must be submitted to the Engineering Department 10 business days prior to the Shade Tree Commission meeting. The meeting is usually the 3<sup>rd</sup> Wednesday of the month at 6:30pm in the Township Building.

Depending on the size of your project, tree removal, protection and tree planting may be combined on one drawing. However, the drawings must CLEARLY illustrate the necessary information, existing trees, trees to be removed; tree protection fence and detail of same, and compensatory plantings. If the Shade Tree Commission cannot read the plan, they cannot approve it.

**Tree Protection Fence** must be indicated on the drawing as a line protecting trees (areas), which are to remain undisturbed by construction. It must be designated chart, Tree Protection Fence (x-x-x-x-x), and shown as a detail, example attached.

**Tree Replacement Formula**

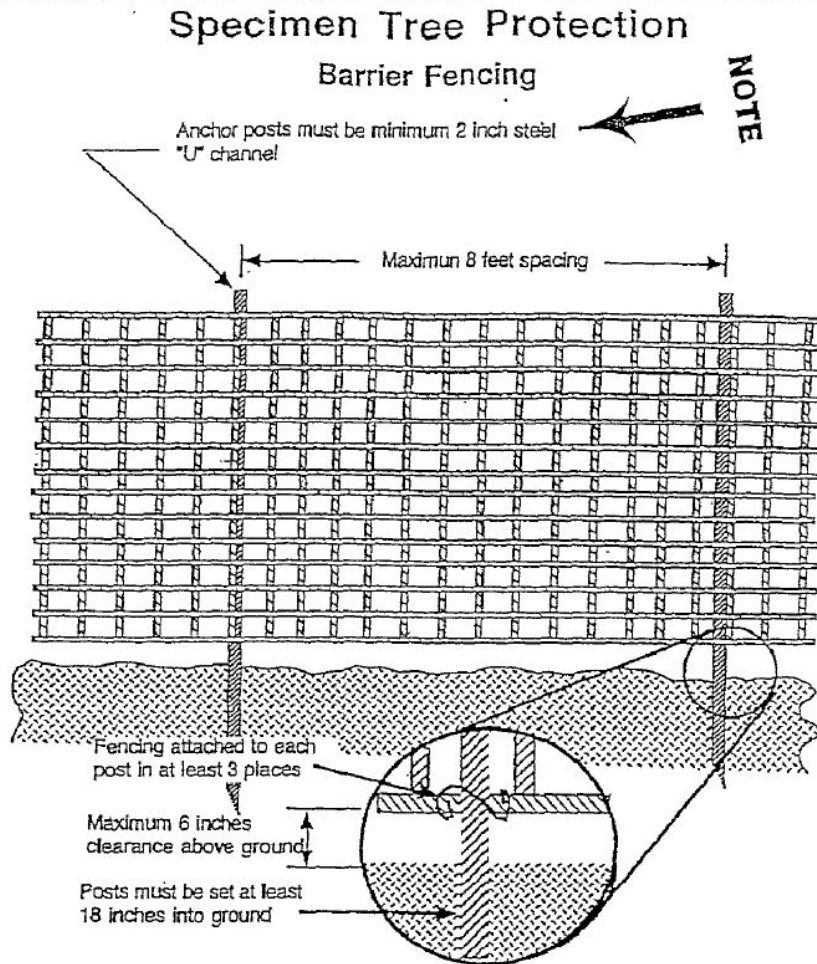
6-18 inch DBH removed = 1 replacement tree

19-29 inch DBH removed = 3 replacement trees, 2 being large canopy trees

30 inch DBH or greater removed = 6 replacement trees, 4 being large canopy trees

Replacement trees must have a minimum caliper of 2 ½ " DBH

Before any construction activity begins, the Tree Protection Fence must be installed, and inspected to be in compliance with the approved grading permit application by the Engineering Department. Once the tree protection is in place, it is to remain undisturbed by all construction activities what so ever for the entire duration of the job.



1. Protection barrier shall be 4 feet high, constructed of durable and highly visible material (Plastic orange construction fence and snow-fence may be used)
2. Protection barriers shall be maintained throughout the duration of the work at the site
3. Additional warning signs should also be placed on the fencing and in appropriate areas near the work zone.

# **TREE TECH CONSULTING**

114 Grand Canyon Court, Bear, DE 19701 (302)832-1911, DE, MD, NJ, PA

## **Guidelines for Protection of Trees on Construction Sites**

To preserve certain mature trees within a construction site some precautions must be taken to assure that neither the trunk, limbs nor root system of the tree are excessively damaged. The root system of a tree is the most vital and the most delicate part of the plant, and the most easily damaged.

The root system extends far from the trunk, often beyond the drip-line of the tree. The fine absorbing roots, those that collect water and nourishment for the tree, are located within the top eight to twelve inches of the soil. (See Figure 1) The roots and the soil in this surface layer must be protected from injury.

Any encroachment, disturbance, or compaction of the soil around the tree will damage or destroy the fine absorbing roots. Injury caused by cutting, crushing, suffocation, poisoning, or moisture stress by inundation or dehydration can result in the death of the tree. Injuries caused during construction projects may not be finally apparent for many years after the completion of the project, but can ultimately kill the tree.

The following guidelines are minimum standards recommended for the preservation of trees. These guidelines should be incorporated in construction contracts, and the details made available to all parties involved with work on the site, including equipment operators. Other guidelines and protective measures may also be appropriate, in addition to those listed below.

- **Protection Barrier:** A protection barrier shall be installed around the tree or trees to be preserved. The barrier shall be constructed of durable fencing material, such as plastic construction fencing, snow fence, or chain-link fencing. The barrier shall be placed as far from the base of the tree(s) as possible, preferably at the dripline. The fencing shall be maintained in good repair throughout the duration of the project, and shall not be removed, relocated, or encroached upon without permission of the arborist involved.

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**Guidelines for the Protection of Trees**

- **Storage of Materials:** There shall be NO storage of materials or supplies of any kind -within the area of the protection barriers. Concrete and cement materials, block, stone, sand and soil shall not be placed -within the drip-line of the tree.
- **Fuel Storage:** Fuel storage shall NOT be permitted within 150 feet of any tree to be preserved. Refueling, servicing and maintenance of equipment and machinery shall NOT be permitted within 150 feet of protected trees.
- **Debris and Waste Materials:** Debris and waste from construction or other activities shall NOT be permitted -within protected areas. Wash-down of concrete or cement handling equipment, in particular, shall NOT be permitted within 150 feet of protected trees.
- **Grade Changes:** Grade changes can be particularly damaging to trees. Even as little as two inches of fill can cause the death of a tree. Lowering the grade can destroy major portions of a root system. Any grade changes proposed should be approved by an LSA Certified Arborist or a member of the American Society of Consulting Arborists before construction begins, and precautions taken to mitigate potential injuries.
- **Damages:** Any damages or injuries should be reported to the project arborist as soon as possible. Severed roots shall be pruned cleanly to healthy tissue, using proper pruning tools. Broken branches or limbs shall be pruned according to International Society of Arboriculture Pruning Guidelines and ANA-300 Pruning Standards.
- **Preventative Measures:** Before construction begins, fertilization of the affected trees is recommended to improve tree vigor and health. Soil analysis testing should be completed to assure fertilization with the appropriate fertilizer products. Pruning of the tree canopies and branches should be done at the direction of the project arborist to remove any dead or broken branches, and to provide the necessary clearances for the construction equipment.
- For further information on the preservation of trees, contact Mr. Russell E. Carlson, ASCA, Tree Tech Consulting, 114 Grand Canyon Court, Bear, DE 19701, 1-302-832-1911 or 1-800-455-1911