



# City of Atlanta

Department of City Planning

## OFFICE OF BUILDINGS - ARBORIST DIVISION

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### TREE PROTECTION PLAN CHECK LIST

**ARBORIST PLAN REVIEWER:**

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**Definitions:**

- **Caliper** - diameter of new tree (nursery stock) trunk at 6” above ground level.
- **CRZ** - (critical root zone) is a circle having a radius of one foot for each one inch of tree DBH. Diameter is twice the size of radius.
- **DBH** - (diameter at breast height), width of tree trunk measured at 4.5’ feet above ground level. Tree trunks having more than one trunk at 4.5’ must be measured individually and added together. The total DBH is to be used to label the tree on the Tree Protection Plan. Example; 1 tree with two trunks would be labeled, 12”/16” HWD.
- **Structural root plate** - means the zone of rapid root taper that provides the tree stability against wind throw. The radius of the root plate is proportional to the stem diameter (DBH) of a tree. The table below provides examples of root plate radii for upright trees without restricted roots.

**Structural Root Plate Table:**

DBH (inches)	8”	16”	32”	48”
Structural Root plate distance (radius’)	5.5’	8’	10.5’	12’

**Show and label the following elements: Tree Protection Plan: Sec. 158-105(a)**

- Provide three (3) copies of drawings.
- Survey of all trees on property whose critical root zone is impacted by limits of land disturbance. Tree locations must be accurately shown, labeled as hwd (hardwood) or pine, and DBH. All hardwood trees >= 6” DBH, pines >=12”DBH must be shown on the drawing.
- Tree protection fences must be located at the edge of critical root zone or work limits, i.e. 4’ orange tree protection fence.
- Show an X on the tree symbol for tree(s) to be destroyed.
- Show and label 4’ orange tree protection fence.
- Existing topography at 2ft contour intervals
- Proposed topography (cut and fill) at 2ft contour intervals
- Existing buildings, structures, driveways and parking areas
- Proposed buildings and structures
- Drainage and water detention structures
- Existing and Proposed underground utilities, i.e. water, gas, electric, sewerage, etc., must be shown from the main line connecting to the house/structure.
- Construction material staging area
- Limit of land disturbance
- Proposed trees planted for credit. They must be at least 2.5” caliper, shown and labeled as to species (from COA recommended tree list). Overstory and mid-canopy trees are required until tree density requirements, per zoning district are met. Spacing requirements are measured from existing and proposed trees and to be spaced as follows: Overstory-35ft., Mid Canopy-25ft., Ornamental, Understory, and Screening trees - 15ft.

**No Trees Impacted:**

- A plan may be approved as No Trees Impacted if there are no trees in or around the area of the project site. If there are no trees; then submit two pictures from two different points of view with the plans along with a No Trees Impacted Statement, available at: <http://www.atlantaga.gov/index.aspx?page=342>

**Critical Root Zone impact calculations:**

- **Net Critical Root Zone** – in urban environments the root zone is sometimes obstructed with root barriers, i.e. public roads and building foundations. When this occurs the root zone is reduced in size. The reduction in the root zone is called the Net Critical Root Zone. To calculate the Net Critical Root Zone, measure the area of the CRZ that overlaps roads and structures with foundations. Subtract that area from the total area of the CRZ. Example, a 20” hardwood has a CRZ of 1,256 sf. If the CRZ overlaps a house footprint 230 sf, then the Net CRZ is 1,026 sf. The Net CRZ is the number used to calculate the % impact to the CRZ, which then determines if the tree is considered **saved, lost, or destroyed**.
- Must show the CRZ and structural root plate of trees that are impacted or in proximity of disturbance.
- To calculate the impact, measure the area of the critical root zone **not** protected by the tree protection fence and divide it by either the net critical root zone or gross critical root zone; whichever is applicable.
- **Saved tree** - if the CRZ is impacted 20% or less, and the Structural Root Plate is protected by the tree save fence.
- **Lost tree** - if the CRZ is impacted 20% to 33% and the Structural Root Plate is protected by the tree save fence. There are two options if the tree’s Structural Root Plate is protected by the tree protection fence and located within the buildable area of the lot:
  1. Obtain an arboriculture prescription from a certified arborist (International Society of Arboriculture). A contract for the prescription must be presented to the Arborist Plan Reviewer that shows it has been signed and paid. This prescription is in lieu of paying recompense and posting the tree for removal.
  2. Pay recompense for the tree and post for removal. (Not an option if tree is within the setback area of the property.)
- **Destroyed tree** - if the CRZ is impacted 20% to 33% and the Structural Root Plate is not protected by the tree protection fence, then the tree must be posted and recompense calculations must be shown on the drawing.
- **Destroyed tree** - if the CRZ is impacted more than 33%. The tree must be posted and recompense calculations must be shown on the drawing.

**Boundary trees: Sec. 158-105(b)**

- Boundary trees are all hardwood trees  $\geq 6$ ” DBH, pines  $\geq 12$ ”DBH on adjacent property, whose critical root zone and/or structural root plate intrudes across the property line and limit of disturbance.
- Boundary trees are required to be protected. They must be located on the site plan, CRZ’s shown and impact calculated.
- If a boundary tree is impacted more than 20% then a signed letter from the neighbor must be presented to the Arborist Plan Reviewer before preliminary approval can be given. The letter must include; list the tree(s) that are impacted, state if they are lost or destroyed and that full permission is granted for the trees removal or in the case of a prescription that the private arborist has permission to enter their property.

**Recompense Calculations: Sec. 158-103(b)**

**Show either Standard Recompense or Maximum Recompense calculations– not both.**

- The Standard Recompense formula is:
$$\$ = \$100 [(\# \text{ trees destroyed} + \# \text{ trees lost}) - \# \text{ trees replaced}] +$$
$$\$30.00 [(\text{DBH inches destroyed} + \text{DBH inches lost}) - \text{caliper inches replaced}]$$
- Maximum Recompense – to qualify to use maximum recompense the property must be a vacant lot or new lot of record. Vacant lot means no structure existed on the property for the past 5 years. Also, a percentage of the existing DBH must be retained on site. That percentage is based on the zoning district of the property. See worksheet for zoning district percentages and calculations.
- Infrastructure Recompense. Disturbed acreage X \$5,000 = \_\_\_\_\_

**Tree density per zoning district on a site must be met regardless of any loss of trees. The requirements are as follows:**

- R-5 and R-4-A districts: 35 inches per acre
- R-3, R-3-A, and R-4 districts: 40 inches per acre
- R-2 and R-2-A Districts: 100 inches per acre
- R-1 districts: 150 inches per acre
- RG, PD and all other districts: 90 inches per acre

**Lots and subdivisions > one acre: Sec. 158-104 (1)**

- o **Environmentally sensitive areas are required to be shown and labeled on the site plan, they include:**
  - o Wetlands, Flood Plains, Streams, mature stands of trees, and other significant aspects of the natural environment

**Parking Lots with 30 or more spaces (existing or proposed): Sec. 158-30**

- o Show barrier curbs
- o There must be a minimum of 10% landscape area inside the parking lot.
- o A minimum of one (1) tree/ eight (8) parking spaces, show calculations.
- o Ground cover shall be provided, examples; shrubs, ivy, lirioppe, pine bark, or other similar landscaping material.
- o Landscape islands are to be a minimum of 36sq ft.; 6 feet long and 6 feet wide.
- o 5 foot minimum green strip between parking lot and public right-of-way. Trees must be planted a maximum of 42.5' on center.