

Concepts for Draft:

Tree Protection Ordinance rewrite Recommendations

Trees Atlanta (8/12/19)

Our existing canopy is one of Atlanta's greatest resources that directly improve the well-being and success of our city. We must first do no harm, and we aspire to increase our city's canopy to 50%.

Any changes to our tree protection ordinance (TPO) should not result in greater loss of trees than our current standards. Design for tree preservation should be incorporated in the project plans early in the permit process, which results in improved tree preservation and minimizes building costs to applicant due to redesign and/or corrections.

The city feels the impacts of increasing temperatures from urban heat island effect and flooding from stormwater overflows. Trees can help to offset this, and so much more. The benefits to human health, air quality, watersheds, soil erosion, energy consumption, biodiversity, and climate change are well documented. These critical benefits, along with honoring our civic identity as the City in the Forest, calls for urgency to improve our tree protection ordinance. The time is now.

- 1. Enforcement:** We frequently hear from the public about their frustration with perceived lack of enforcement of the current ordinance. The power of any code or law is the ability and support of its agents to enforce it. Enforcement of the tree protection ordinance is urgent and must be supported with leadership mandate.
- 2. Pre-Submission Review Process:** We must identify important tree resources and solutions early in the permit process and design for preservation. Trees should be incorporated in the project plans early, which results in improved tree preservation and minimizes building costs to applicant due to redesign and/or corrections.
- 3. Minimum tree requirement for Residential lots:** Over 60% of our land is zoned single family residential. 77% of our total canopy is in single family residential lots. In order to make impact to our tree canopy cover, we must address how we protect healthy trees on residential lots, especially during construction.
- 4. Soil volume and space to grow:** Trees that are planted require the space to grow and the right conditions to survive in order to deliver important environmental benefits. We need to consider how our buildings create barriers that prevent growth of healthy canopy trees. Good design and planning can improve canopy outcomes.

5. **Parking lot tree cover requirement:** Atlanta has more land covered by parking lots (8.2%) than parks (5.6%). If we create better requirements for canopy cover over parking lots alone, we can have a huge impact on the city's overall canopy cover. Currently, the minimum standards for trees in parking lots are resulting in trees that die or never reach their full size leaving little shade cover over hot, paved surfaces.
6. **Update recompense formula:** The fee for removing healthy trees in the city is commonly dismissed as "cost of doing business". However, the real costs to our environment and public well being is passed on to tax payers, in terms of higher costs for stormwater management, flood damage, electricity bills for cooling, and less access to other known benefits of trees. We need to increase the recompense formula to truly reflect the value of trees, including the current cost for replanting a tree and the land area needed to grow shade trees.
7. **Trees on right-of-way (street trees):** Trees on public land are a public asset and under the care of the city; however, they can be better protected by simplifying the current permit process that requires the plan to be reviewed by arborists in two different departments (Office of Buildings and Office of Parks). We recommend that the Office of Buildings reviews for both public and private property trees.
8. **Funds allocated specifically for land acquisition:** Mature, intact forests are quickly diminishing in Atlanta. Forests that take decades or hundreds of years to grow cannot be quickly replaced. We have limited time and opportunity to capture this canopy resource, and should reserve funds to enable acquisitions.
9. **Create incentives:** Balance the use of "sticks" with "carrots" that create incentives to preserve existing trees rather than pay recompense. We should reward good design and planning that preserves existing trees and maximizes canopy coverage.

Issues related to Zoning Code

Zoning code is also currently being updated. We highly recommend that the tree protection ordinance be coordinated and reflected to work in conjunction with the zoning codes, and vice versa.

10. **Review of residential zoning requirements, in particular R-4 and R-5:** There is currently no code or regulation regarding how much canopy should be required per lot; only standards on how to remove trees and their recompense are addressed. R-4 and R-5 zones comprise the great majority of residential lots in our city. How these parcels are managed greatly impacts the city's overall canopy.
11. **Usable Open Space Requirement (UOSR) for commercial districts:** Commercial, multi-family, and mixed use lots only have requirements for public spaces, but not what

those public spaces must look like. We recommend modifying the requirement to include a minimum amount of greenspace and trees.

- 12. Sidewalk and Street Planting Strips:** Street trees are a highly visible and very public resource. These important public assets are located in the most challenging locations: in tight planting wells adjacent to vehicular traffic, exposed to radiating heat from roads, taking in pollution from exhausts, and at risk of impact. We must create better planting environments to improve their success.
- 13. Zoning variance approvals (both building and tree code) cannot create tree loss:** Zoning code and building codes should work in coordination with the tree protection ordinance. While meeting the minimum requirements of zoning or building codes may meet structural requirements, many overlook the impact in creating barriers for protecting trees.
- 14. Minimize areas of disturbance:** Reducing the area in which land can be disturbed on a construction project can reduce impact to existing trees and the health of newly planted trees. The value of undisturbed soil is underestimated for protecting trees, soil erosion, and stormwater management.
- 15. Use of innovative building solutions to increase canopy potential:** Many technologies and strategies exist that allow successful construction projects while preserving trees. The ordinance should not allow trees to be unnecessarily removed simply because it is the cheapest short-term option, but should incentivize innovative solutions – including pier foundations, root bridging, impervious pavers, vertical construction with smaller building footprints, etc.

Additional Details on Concepts

1. Enforcement
 - a. Quarterly reporting of tree removal by permit type, applicant, zoning, violations, etc.
 - b. Pre-construction inspections of tree protection.
 - c. Periodic routine inspections of tree protections during construction.
 - i. Require and verify chain link fencing on sites where violations are found.
 - ii. Use of stop work and fines when violations are found.
 - d. Protecting boundary/neighbors' trees
2. Pre-Submission Review Process
 - a. Tree protection plans must be included in the earliest stage of building review (including during zoning reviews)
 - i. Concept designs must include tree protection plans before advancing to construction documents.
 - ii. Submit tree surveys along with plats/parcel surveys
 - iii. Require arborist review at concept design stages if proposals include removal of mature trees, rather than allowing optional review
 - iv. Detail how tree ordinance requirements will be included in the current "entitlement review" during preconstruction reviews at Office of Zoning & Development (OZD) as well as through the ZRB variance process.
 - b. Building permit approval process (sequence of interdepartmental reviews) should be modified to put the arborists review earlier in the plan approval process. This sequence will also allow for an earlier public posting/appeals process, avoiding delays in permitting. With clear guidelines for tree saving, and earlier review, the number of appeals of plans could be decreased as well.
3. Minimum tree requirement for Residential lots
 - a. Current ordinance only addresses minimum requirements for replacement trees (when tree is removed) Section 158-103(g) - p. 26
 - b. New ordinance should specify (or clarify) a minimum tree requirement for any lot that submits an application for a building permit (regardless if any existing tree is affected)
 - c. Require all residential parcels to qualify for either: minimum canopy cover or tree planting minimums
 - d. Add a column to Table 158-103 to include minimum canopy cover requirements (expressed as measure of DBH existing plus planted) per zoning code
 - e. Update approved list of trees which qualify as replacement trees (e.g., eliminate ash, lacebark elm, etc.). Allowable species should focus on canopy trees and native species wherever planting conditions allow.

4. Soil volume and space to grow
 - a. Set standards for planting margins contiguous to any construction project to establish enough soil volume and space (ground and above ground) for street trees to grow to maturity - minimum best practice (e.g., 20 ft x 6 ft)
 - b. Trees planted within 10 feet of structure footprint should not count toward replacement tree requirement (high likelihood to be removed prior to maturity)
 - c. When needed, require use of permeable materials/pavers and silva cell type structures to allow high quality soil, non-compacted with appropriate organic matter.
 - d. Implement table of requirements for soil volume, including minimum surface soil area – for street trees, residential yard trees, and parking lot trees.
 - e. Require utility/power lines to be buried underground if there is no space for trees on property (e.g., zoning districts, such as high density development parcels, that require less than x% greenspace or minimum tree requirement should require utility lines to be buried underground).

5. Parking lot tree cover requirement
 - a. Current = 1 tree per 8 spaces
 - b. Each tree's canopy must grow to be at least 50' diameter at maturity (to meet 50% coverage over 8 spaces)
 - c. Specify minimum soil volume of planting area (tree well): for example, planting areas must support growth of trees with min. 50' canopy (i.e., 1,600 cubic feet)
 - d. No opening for a tree well can be smaller than 6' x 12' (related to reduce reflective heat)
 - e. Encourage clusters of trees (in planting strips versus single trees in smaller planting areas)
 - f. Trees in parking lots must be maintained. Trees that die must be replaced within 6 months, regardless of changes in ownership. Recompense/fine may apply for non-compliance. (Compliance inspections could be incorporated into existing city inspection process for other infrastructure compliance, e.g., sewer/stormwater, etc.)

6. Update recompense formula - potential ideas include:
 - a. Stepped fee schedule based on DBH of each tree; e.g., 6-14" = 1x; ≥14- 20" = 2x; greater than 20" = 3x (better reflects the lost value of larger trees)
 - b. Increase maximum recompense per acre (found on Table 158-103)
 - c. Cap for recompense fee should be percentage of lot value (at minimum, increase fees proportionately to inflation)
 - d. Preservation can earn recompense credits
 - e. Maximum 50% credit allowable by replanting (to encourage preservation)

7. Trees on right-of-way (street trees)
 - a. Street trees need to be represented on building plans and included in arborist review (currently they are not, as permit requirements are separate for public versus private trees).
 - b. On construction projects affecting both private and public trees, review should be by one arborist plan reviewer. Current plan requires plans to be submitted to both Office of Buildings and Parks Department, creating redundancy and barriers to review plans and impact holistically.
 - c. All street trees must be protected by chain link fencing during construction
 - d. If tree protection requirements during construction are violated on the project, all trees must be protected by chain link fence. (Violations on private property should impose this chain link fence requirement also.)
 - e. Fines and/or stop work orders should be applied for violation of tree protection guideline.
 - f. Repeat violations require permit applicant to attend class for protecting trees on construction sites before subsequent tree protection plans/permits will be approved.
 - g. Any street tree removed or damaged must be replaced regardless of caliper inches (many are new trees that are less than 6" DBH)
 - h. Review "inch per inch" requirement for public trees which is becoming increasingly ineffective to execute. Modify to allow public investment to be a combination of innovative methods to increase protection of existing trees (such as root bridging, narrowing of a section of sidewalk, etc) and investment in improved tree planting areas, such as:
 - i. 1 tree per 10" removed + new stepped recompense formula.
 - ii. Recompense credit for cost associated with root bridging, pervious pavers, sidewalk bump-out around large trees, etc.
 - iii. Recompense value for public tree recompense can be used to improve planting conditions for new on-site public trees, such as structural improvements to planting well, improved soil, pavers, etc.
8. Funds allocated specifically for land acquisition. Possible sources of funds:
 - a. Fees in lieu of power lines underground
 - b. Any development below 50% canopy or green space requirement, offsets by fee
 - c. Any variance approval that does not meet canopy requirement must pay fee
9. Create incentives
 - a. Encourage land owners to maintaining high canopy coverage and preserve existing trees (over paying recompense)
 - b. Options could include: property tax credit, stormwater credit, etc.

Issues related to Zoning Code

Zoning code is also currently being updated. We highly recommend that the tree protection ordinance be coordinated and reflected to work in conjunction with the zoning codes, and vice versa.

10. Review of residential zoning requirements, in particular R-4 and R-5
 - a. Create a minimum canopy cover requirement per zoning district
 - b. Evaluate whether current lot coverage maximums allow enough land support the possibility of the minimum canopy coverage requirement of the TPO and adjust as necessary
 - c. Define and specify the minimum area required to support a mature shade tree.
 - d. Require at least one shade tree in the front yard and back yard of single-family and duplex residential yards
 - e. How do you check for compliance? What are the penalties? Could properties be bonded for tree survival for 2 years?

11. Usable Open Space Requirement (UOSR) for commercial districts
 - a. Add specific requirement on what portion of the UOSR needs to be greenspace or canopied (perhaps based on land use intensity, related to density)
 - b. Require minimum percent of UOSR to be “consolidated area” to enable for tree planting (should meet planting area requirements similar to parking lot trees)
 - c. Mandate use of trees in public space requirement (cannot be fulfilled with only impermeable surfaces)
 - d. In high density In high areas, if the open space requirement cannot be met or conditions do not allow space for trees, these developments should contribute to a funding stream that allows the establishment of greenspace elsewhere for the enjoyment and benefit of the new residential and commercial occupants.

12. Sidewalk and Street Planting Strips
 - a. Minimum surface soil dimensions and soil volume should be part of any complete streets project or capital improvement. Rather than large investments in planting offsite or contributing to a “tree bank,” each project should invest in better design for preservation where possible and better planting conditions for future canopy growth.
 - b. Require use of innovations to minimize compaction and preservation of healthy soil

13. Zoning variance approvals (both building and tree code) should not create tree loss or create a conflict with the tree protection ordinance.
 - a. Require variance approvals to carry higher canopy requirements (to offset burden again the original code)
 - b. Variance which increases tree loss pays recompense with multiplier
 - c. Continue to allow variances, such as setback variances, to save healthy trees
 - d. Height allowance may be increased proportionate to footprint to give additional greenspace.

14. Minimize areas of disturbance
 - a. Maximum area of disturbance cannot exceed more than 10% in excess of the footprint of construction
 - b. This includes areas used for construction staging/storage
 - c. Setbacks

15. Use of innovative building solutions to increase canopy preservation and potential
 - a. Piers & floating foundations
 - b. Crawlspace
 - c. Silva cell or like solution
 - d. Structured soil (used with pavers) for connecting planting areas
 - e. Retaining walls to limit grading
 - f. Helical piers