

City of Hapeville

Proposed Revisions - Tree Conservation Ordinance

November 7, 2019

TJ Schell with Staff

Section 93-2-14 - TREE CONSERVATION ORDINANCE

GENERAL INFORMATION

The Mayor and Council of the City of Hapeville hereby finds that the protection and preservation of Trees, the planting of new Trees and other landscape material as part of the land development process is a public purpose and provides for the public health and general welfare. This Ordinance is intended to further the City's policy that all development sites where Trees are most commonly removed will achieve upon project completion, a uniform standard related to preserved Tree coverage, planted Tree coverage and Buffers.

A healthy urban forest will increase the fiscal and psychological value of property, reduce the urban heat island effect and contribute to the community's aesthetic quality. These benefits are crucial to the long-term health and welfare of Hapeville's citizens, businesses, workers, and visitors.

Section (1) - Purpose

The purpose of this Ordinance is to firmly establish the value of Trees to the community and to promote the health, safety, and general welfare of the public by recognizing the standards within this Article. Tree canopy preservation and Tree replacement will be promoted as an integral part of the land development and construction process in the City of Hapeville. Specific benefits to our citizens attributed to Trees include:

- Trees facilitate a harmonious community and help to conserve natural resources as well as provide wildlife habitats.
- Trees provide a more attractive place to live and enhance the aesthetic character of the community.
- Trees mitigate harmful vehicle emissions by reducing carbon dioxide levels.
- Trees are recognized for their importance in the production of oxygen, shading and cooling, noise and wind reduction, prevention of soil erosion, dust filtration and fostering improved air quality
- Trees contribute to the economic value of real property.
- Trees help reduce the glare of motor vehicle lights and enhance the appearance of open automobile parking areas and lands used for commercial, public/institutional, office, industrial, and residential purposes.
- Trees can enhance the natural functions of streams and related buffers.

Section (2) - Definitions.

All words in these standards have their customary dictionary definition except as specifically defined herein. The words "shall" and "must" are mandatory, and the words "may" and "should" are permissive.

Basal Area: A forestry industry standard used to describe the cross-sectional area of a Tree expressed in square inches, of a Tree measured at four and one-half (4.5) feet above the ground or diameter at breast height (DBH).

Berm: A mound of soil, either natural or man-made, used to screen one (1) site or property from the view of another.

Boundary Tree: Boundary tree means a tree 20 inches DBH or larger located on any part of a property adjacent to a permitting property with any portion of the <u>root plate</u> extending into the permitting property (see Root plate.) Boundary trees must be in good health as determined from the vantage point of the property to be developed (pre-construction digital photographs required). This provision shall not authorize the trespass on private property abutting the site.

The applicant shall notify the adjoining property owner of a Boundary Tree in writing that the Root Plate of a Boundary Tree is to be disturbed and if the tree should thereafter be damaged or die due to construction impacts, it will be handled as a civil matter between the Applicant and the Boundary Tree owner. The Applicant must provide a copy of any letter and the certificates of mailing prior to permit issuance.

Buffer: If not defined elsewhere in the code, a naturally existing area, a landscaped area or a combination of both designated for screening or around the perimeter of a parcel provided to soften the view of two (2) adjacent lots or parcels from one another.

Buildable Area: Portion of a parcel excluding the required setbacks, easements, planting areas, environmental (streams, wetlands) and areas within the future right-of-way.

Caliper (or Cal.): American Association of Nurseryman standard for trunk measurement of nursery stock. Caliper of the trunk shall be taken six (6) inches above the ground for up to and including four-inch Caliper size, and twelve (12) inches above the ground for larger sizes.

City Arborist: The City's designee responsible for administering the provisions of the Tree Conservation Ordinance on behalf of the City. The City Arborist shall not provide services to applicants (i.e. Applicants must engage a Qualified Professional to complete Tree Conservation Plans submitted to the City).

Critical Root Zone (CRZ): The minimum area beneath a Tree which must be left undisturbed in order to preserve a sufficient root mass to give a Tree a reasonable chance for survival. For the purpose of this Ordinance, the CRZ of any given Tree on the applicant's property shall be represented by a concentric circle with a radius equal to twelve (12) times the diameter of the Tree trunk. No inches will be given if these minimum criteria are not met.

Deciduous Tree: A Tree which sheds leaves annually.

Density Factor: A unit of measure used to prescribe the calculated Tree coverage on a site. The site density factor for areas within the corporate limits of the City of Hapeville is one hundred (100) inches per acre. Please note: Trees in the one-hundred-year floodplain, wetlands and 50' and 25' stream buffers shall be included in the acreage calculation and shall remain protected and undisturbed on-site during construction.

Diameter at Breast Height (DBH): Means the standard measure of a Tree size for those Trees existing on a site that have a Caliper of at least two (2) inches at a height of four and one half (4.5) feet above the ground. If a Tree has 2 or more trunks below four and one half (4.5) feet above the ground, measure the narrowest point below the split.

Genus Cap: A term used to describe a limit determined by this Ordinance in which the quantity of a particular genus cannot exceed thirty (30) percent of the total number of Replacement Trees on a site. This limit is put in place to prevent the creation of a Monoculture.

Land Disturbance Permit (LDP): A permit necessary to begin land-disturbing activity.

Landmark Tree: Any Tree as defined within Preservation of Landmark trees - Section 3 (1).

Landscape Plan: A scaled plan that clearly delineates buildings, vehicular use areas, and displays and describes all proposed planting as required per zoning conditions and/or the Tree Conservation Ordinance.

Lot: A measured parcel of land having fixed boundaries and designated on a plot or survey.

Monoculture: A plant culture (i.e. vegetation) that results from growing only one (1) type of plant which creates the opposite condition of biodiversity and can sometimes be responsible for the spread of plant diseases.

Opaque Buffer: If not defined elsewhere in the code, a landscaped area planted in such a manner as to be impenetrable to view, or so obscuring to view that features, buildings, structures and uses become visually indistinguishable.

Open Space: Unoccupied portion of a lot or building site that is open to the sky and may contain outdoor structures or recreational facilities.

Overstory Tree: Means those Trees that compose the top layer or canopy of vegetation and will generally reach a mature height of greater than forty (40) feet.

Parking Lot Trees: Trees and shrubs required pursuant Requirements - General Plan Requirements Section 1 b.

Pervious Area: Area of a parcel or lot left over after Impervious Areas (see Chapter II definitions) are subtracted.

Replacement Planting: The planting of Trees on a site that before development had more Trees, and after development shall have fewer Trees per acre. (Please note: All properties applying for an LDP must meet the minimum 100 inches per acre whether a site had Trees prior to development).

Replacement Tree: A new Tree planted on a site outside of a Tree Protection Area that is used to meet the required 100 inches per acre.

Residential Lot: A lot shown on a subdivision plat as recorded in the records of Fulton County.

Root Barrier: For the purpose of this Ordinance, a mechanical guide (typically hard plastic) that redirects root down and away from sidewalk driveway or other built structures. Use of root barriers will be at the sole discretion of staff on a case by case basis.

Root Plate: The area of the root zone comprised of pedestal roots, the zone of rapid taper and roots under compression, the directional radius of which based upon the Tree trunk diameter at 4.5 feet above the ground. The root plate will typically be represented by a concentric circle centering on the Trees trunk with a radius equal in feet to one-half times the number of inches of the trunk diameter. (Failure of the Tree could result if roots in this area are damage or destroyed. Example: The root plate radius of a 20-inch diameter Tree is 10 feet.)

Screening: Solid fencing, walls, berms, or dense vegetation used to conceal a Lot or part thereof from view.

Sidewalk Landscape Area: The portion of a sidewalk area, adjacent to the street curb and reserved for the placement of Trees, groundcover, and street furniture including utility poles, waste receptacles, fire hydrants, traffic signs, traffic control boxes, Tree grates, newspaper boxes, bus shelters, bicycle racks and similar elements in a manner that does not obstruct pedestrian access or motorist visibility. Note: The following may cross in a perpendicular manner but shall not be located within the Sidewalk Landscape Area: storm drain lines, sanitary sewer lines, water lines, electrical lines and any other utilities not specifically mentioned.

- If existing underground utilities are present, staff may allow alternative proposals on a case by case basis.
- In the event that existing overhead power lines prohibit the planting of required Overstory
 Trees, an appropriate Understory Tree species may be selected and approved for required
 inches according to accepted horticultural standards and as approved by the impacted utility
 (See Appendix A).

Site Plan: Site plan required by builder's representative for records/documentation at the time a development permit is applied for/purchased (Single Family, Multi-Family and Commercial).

Tree: Any living, self-supporting woody or fibrous plant which normally obtains a diameter breast height (DBH) of at least three (3) inches and typically has one (1) main stem or trunk and many branches and shall be on the approved City of Hapeville Street Tree List (See Appendix A)

Tree Bank: Fund established to purchase, install, and maintain Trees throughout the City's public areas, including parks, green spaces, right-of-way, and government building sites as directed by the Community Services Director.

Tree Save Area: Means a protected area designated for the purpose of meeting the 100 inches per acre requirements, saving/preserving trees in their natural state.

Tree Protection Fencing: A barrier installed at and around the perimeter of a Tree Protection Area to prevent intrusion of construction-related activities in which fencing is a minimum of four (4) feet in height and is at the CRZ.

Understory Tree: A Tree that, under normal forest conditions, may grow to maturity beneath overstory Trees and will generally reach a mature height of at least ten (10) feet but less than forty (40) feet.

Section (3) - Applicability

The regulations included in this Ordinance shall apply to all properties located within the City of Hapeville unless otherwise noted in this Section.

Single-Family Residential outside of Land Disturbance Permit activities

- The removal of five (5) or fewer Trees, other than Landmark Trees or Trees needed to meet the minimum 100" (inches) per acre, is allowed with a permit (no fee associated with this permit) on any Residential Lot within a single calendar year.
- Exemptions will be allowed to the 5 Tree per year limit by City staff if the property owner
 must remove Trees in order to build a newly permitted structure, or to build an addition to
 or to make improvements to an existing structure, or to improve the health of other Trees

- in the landscape. The property owner must ensure the minimum 100" per acre standard is achieved.
- Trees under 3" Caliper that were not planted to meet the minimum 100 inches per acre or a condition of zoning or the Architectural Design Standards can be removed without a permit.
- Regarding private property owners and/or Residential Lots not incidental to development, a
 Tree removal permit is required for Landmark Tree removal. A permit will be granted if the
 Landmark Tree is clearly dead, dying, diseased with no chance for recovery or presenting
 imminent danger to life, limb or property. The property owner shall be required to provide
 a letter stating such from a Certified Arborist.
- Unless a tree or portion of a tree threatens the right-of-way or is on public property, the City will not have any responsibility for requiring property owners to remove trees.

Non-Single-Family Residential Outside of LDP activities:

- Any new construction, renovation, or alteration of a building that results in an expansion or alteration of the total square footage of the building footprint shall invoke the requirements contained in the Tree Conservation Ordinance. The Tree Conservation Ordinance shall be enforced by the City, designated agent, and/or the Municipal Court of the City of Hapeville.
- Should a shared parking agreement be undertaken so that the parking requirements of a property are provided by a parking lot on a separate parcel, said parking lot must come into compliance with the requirements of the Tree Conservation Ordinance.
- If Landmark Tree removal is requested, refer to the standards set forth in the Tree Conservation Ordinance.
- Trees under 3" Caliper that were not required by Ordinance or conditions of zoning or the Architectural Design Standards can be removed without a permit.
- Trees 3" Caliper and greater that do not meet the Landmark Tree criteria require a tree removal permit. City staff shall determine whether portions of the Tree Conservation Ordinance apply on a case by case basis.
- Unless a tree or portion of a tree threatens the right-of-way or is on public property, the City will not have any responsibility for requiring property owners to remove trees.

REQUIREMENTS

Section 1 - General Plan Requirements

 A Tree Conservation & Replacement Plan shall be submitted and approved as part of the predevelopment site plans as required by the provisions of this Ordinance. No plans shall be accepted by City staff unless Tree Protection and/or Tree Replacement Plans are included in the initial submittal. All commercial parcels and Residential Lots (if applicable) under development shall comply with Street Tree, Parking Lot Tree and Buffer Tree requirements regardless of whether the 100" per acre has been met with existing trees. Street Tree requirements are subject to the Architectural Design Standards and the Zoning categories identified within the City of Hapeville Zoning Ordinance.

- (a) Any areas with Trees required between the sidewalk and back of curb shall be designed so that required Street Trees are planted in a suitable soil volume. Planting environment shall provide an average soil depth greater than or equal to three (3) feet. Each Street Tree shall have a minimum area suitable for root growth of two hundred square feet provided.
 - In addition to or in conjunction with the Tree Protection Areas, each single-family residential lot 7,500 sf or greater shall contain a minimum of (2) two 2" Caliper overstory Trees, at least one of which must be located in the front yard.
 - In addition to or in conjunction with the Tree Protection Areas, each single-family residential lot less than 7,500 sf shall contain a minimum of (2) two 2" Caliper Trees (1 overstory and 1 understory), at least one of which must be located in the front yard.
- (b) Parking Lot Trees shall be provided in landscape islands in parking areas proposing ten (10) or more spaces. Parking areas with fewer than 5 spaces and multi-level parking decks are exempt.
- (c) A sufficient number of (minimum) 3" Caliper Trees must be planted in interior portions of parking lots so that no parking space is more than fifty (50) feet from a parking lot Tree. Show a fifty-foot radius dashed circle for each Parking Lot Tree on Tree Replacement Plan to verify graphically. Up to 20% of Parking Lot Trees may be planted along the perimeter of the parking lot. Landscaped islands shall terminate each row of parking and all landscaped islands planted with Trees shall provide a minimum of 200 square feet per Tree. Light poles are not permitted in parking lot islands, peninsulas and medians unless they are a minimum of 20' from any planted Tree (See Appendix B for Typical Details).
- (d) All parking areas directly adjacent to public Rights of Way shall have a minimum of one (1) row of shrubs to create a visual screen. The shrubs shall be installed at 24" height minimum and shall be maintained between 30- 48" height. (See Appendix B for Typical Detail).
- (e) The Tree Replacement Plan shall be designed so that all Parking Lot Trees are planted in a suitable soil volume. Planting environment shall provide an average soil depth greater than or equal to three (3) feet. Each Parking Lot Tree shall have a minimum area suitable for root growth of two hundred (200) square feet provided; however, if this minimum square footage is not provided, subsurface soil cells shall be incorporated into the Tree Replacement Plan. All applicable details to show an industry standard subsurface soil cell design shall be attached as part of the Tree Replacement Plan. (See Appendix C).

TREE REPLACEMENT AND PROTECTION

Section 1 - Tree Density Requirements

The applicant shall provide a development plan demonstrating both responsible canopy preservation and Tree replacement inches on sites submitted for development. Any Trees saved (with undisturbed CRZ's) will receive appropriate inches. Please note: All properties applying for an LDP must meet the minimum 100 inches per acre whether or not a site had Trees prior to development.

All Trees designated for replacement shall be on an inch for inch basis. The density of 100 inches per acre may be achieved as follows:

- counting existing Trees (inches measured at DBH) to be preserved with no impact to CRZ
- planting new Trees (minimum 2" Caliper) for lots that do not have the required 100 inches per acre

Formula:

Acreage x 100 Inches = Required Inches per Acre

Example: 3.2 Acres x 100 Inches = 320 Inches Required

The minimum required inches per acre shall be calculated and established pursuant to the formula as shown above and calculations shall be in a prominent location on the Tree Preservation and Replacement Plan. All applicable sites brought in for land development must maintain a minimum of 100 inches per acre. Street Trees and/or parking lot Trees planted after the minimum required inches per acre for the site has been satisfied can be counted toward Landmark Tree recompense.

• For planted evergreen trees, the following conversions shall apply:

Evergreen Tree Inches:	Evergreen Tree Sold by Height:
2"	6' Minimum
3"	8' Minimum
4"	12' Minimum
5"	16' Minimum
6"	18' Minimum

- For multi trunk trees; measure the narrowest point below the split
- Tree form shrubs shall not be given credit.

Section 2 - Preservation of Existing Trees

An emphasis of this Ordinance is the preservation of as many existing Trees as possible. Thus, inch for inch credit will be given for preserving existing Trees. No credit will be allowed for shrubs or for Trees with impact to their CRZ. Please note: Administrative variances for encroachment into CRZ shall not be considered.

All Trees to be counted toward meeting the required 100 inches per acre must be inventoried.
 Existing Tree inventory information (caliper at DBH and Genus) must be shown on the Tree

Protection Plan and must be provided by an ISA certified arborist, forester, surveyor or landscape architect along with a statement that the provider conducted the inventory in the field. If the plan is unclear to City Staff, a Tree survey shall be required. Please note: Landmark Trees must have a surveyed location.

- Tree Protection Fencing is required to be placed at the CRZ for all Trees to be saved and locations shall be clearly delineated on the Tree Protection Plan. All Tree Protection Fencing shall be installed prior to and maintained throughout the land disturbing and construction process and should not be removed until final landscaping is installed, inspected and final approval granted by the City.
- 3. Credit inches will be given for Trees preserved in mandatory stream buffers (City and State as applicable). Stream Buffers shall remain undisturbed. The area (measured in acres) of the undisturbed stream buffers shall be included in the total site acreage when calculating required inches per acre.
- 4. To aid preservation efforts, landowners shall have the option of moving existing Trees to prevent their damage or destruction by development activities. To receive credit for transplanted Trees, the following standards must be adhered to:
 - (a) Trees must be less than ten (10) inches Caliper measured six (6) inches above grade;
 - (b) Trees must remain within the planting areas of the parcel;
 - (c) Trees shall not be moved to or from stream buffers or wetlands
- 5. Tree Protection Areas for subdivisions should be located in common areas, or in buffers required to be undisturbed by zoning or other regulations, or within building setbacks. If Tree Protection Areas must be located on individual lots, the lots must be of sufficient size to reasonably expect the Trees to be preserved at the completion of the building process. *Please Note: Staff shall have sole discretion over whether the lot is of sufficient size.*
- 6. With regard to subdivision developments, the City shall require that improvements be located so as to result in minimal disturbance to the natural topography of the lots and the protection of a maximum number of mature Trees on the lot. Damage to mature Trees located within setback and required yard areas be minimized as much as possible under the particular circumstances, as determined by City staff.
- 7. Every lot in a subdivision shall have Trees, either preserved or planted for which an LDP is obtained after the adoption of this Ordinance. These Trees can be counted as part of the required 100 inches per acre for the development. All planted Trees must be a minimum of two-inch Caliper and must be shown on the required Site Plan. This requirement shall apply to the developer or homebuilder, whoever is the responsible party at the issuance of the Certificate of Occupancy for the individual lot.

Section 3 - Preservation, Replacement and Removal of Landmark Trees

A Landmark Tree is any Tree which qualifies for special consideration for preservation due to its size, type and condition. The following criteria are used by the City to identify Landmark Trees. Both the size and condition criteria must be met for a Tree to qualify.

1. Minimum Size Criteria:

- a. 27-inch Caliper at DBH Oak, Beech, Ash, Blackgum, Sycamore, Hickory, Maple (does not include Silver Maple), Pecan, Walnut, Magnolia (does not include Bigleaf Magnolia), Persimmon, Sourwood, Cedar, Cypress or Redwood
 - b. 30-inch Caliper at DBH Tulip Poplar, Sweet Gum, River Birch, Silver Maple or Pine
- c. 10-inch Caliper at DBH- American Holly, Dogwood, Redbud or another genus as determined by the City Arborist such as Bigleaf magnolia

2. Condition Criteria:

- a. Life expectancy greater than 15 years;
- b. Relatively sound and solid trunk with no extensive decay or significant structural deficiencies;
- c. No more than two major and several minor dead limbs (excluding pine for minor limbs); and
- d. A radial trunk dieback of no more than 20% or a canopy dieback of no more than 30%.
- 3. Small Trees can be classified as Landmark if of a rare or unusual species, of exceptional quality, or socio-historical significance. Small Trees may also qualify as Landmark if used in a landscape as a focal point of the design. In order to claim this credit, the applicant must submit a letter from a certified Arborist stating that the Tree(s) meet these qualifications (See #5 this Section).
- 4. An Arborist report for each Landmark Tree that is shown to be impacted by a proposed development requiring an LDP must be submitted to the City to determine whether that Tree meets the condition criteria for Landmark status. The report must be prepared and signed by a Certified Arborist or a registered forester. The report must contain the following information:
 - Site plan showing an accurate surveyed location of the Tree;
 - Identification/verification of the Tree's size, genus and species;
 - Description of the surrounding site conditions;
 - Detailed description of the Tree's condition; and
 - Digital photographs to illustrate any defects which would disqualify the Tree from Landmark status.

The final determination of Landmark Tree status will be made by City staff after reviewing the report.

- (a) If a Landmark Tree is proposed for removal without an associated LDP either by a single family homeowner or a business, a plan or written documentation indicating the reason for removal must be submitted to the City. The final approval for removal will be made by City staff on a case by case basis.
- (b) The removal of any Landmark Tree impacted by a proposed development must be mitigated by replacing the removed Landmark Tree with minimum four-inch Caliper Trees of comparable species on an inch for inch replacement basis
 - Example: 32" Oak would require replanting six (8) 4" Caliper Trees [32 / 4 = 8]. These recompense Trees are in addition to the minimum 100 inches per acre for a particular site.

- (c) Any person who removes a Landmark Tree in violation of this Ordinance shall be assessed a fine (See Section #5). Regarding Landmark Trees removed after being designated for preservation on an approved plan, the removed Tree must also be replaced on an inch-for-inch basis x 2 with Tree species with potential for comparable size and quality, regardless of the 100 inches per acre requirement. If a Tree is removed without approval and there is no evidence of its condition, size alone will be the determining factor for replacement. Regarding Landmark Trees removed on a Residential Lot that is not currently being developed, the fine shall be paid as referenced, however there shall be no requirement for replacement of the Landmark Tree.
- 5. In order to encourage the preservation of Landmark Trees and the incorporation of these Trees into the design of new development projects, the following incentive is offered.
 - (a) Preserved Landmark Trees with undisturbed CRZ will receive 1.5 x inches DBH. (30" oak x 1.5 = 45" Inches)

Under no circumstance will this incentive allow the requirements of the Tree Conservation Ordinance to be reduced administratively.

Section 4 - Tree Protection Standards.

Allowing enough space for a Tree's root system is a critical factor in Tree protection throughout the development process. Disturbance within this critical root zone (CRZ) can directly affect a Tree's chances for survival. In order to protect Trees, the following standards shall apply:

- 1. The CRZ for each Tree or group of Trees shall be represented on the plan by a circle the size of the CRZ (see definition Critical Root Zone).
- 2. Site layout should be designed to accommodate Tree Protection Areas.
- 3. Construction activities shall be arranged to prevent encroachment into Tree Protection Areas.
- 4. No disturbance whatsoever shall occur within Tree Protection Areas without prior written approval by the City. Disturbance permitted with approval from the City shall be limited to general maintenance (i.e.: removal of dead Trees and/or cleaning of underbrush by hand). Use of machinery shall not be allowed within the Tree Protection Area.
- 5. Active protective Tree fencing shall be installed along the outer edge of and surrounding the CRZs of all Landmark Trees or stands of Trees designated for preservation prior to land disturbance.
- 6. Tree Protection Fencing shall be minimum four (4) feet high and made of orange laminated plastic netting with wooden posts and rail fencing or other equivalent material as approved by the City.
- 8. All protection zones should include signage in English and Spanish that identifies the areas as Tree protection and preservation zones and include the name and phone number of the developer or designated agent.
- 9. All Tree save fencing must be installed prior to any clearing, grubbing, or grading and must be maintained in functioning condition throughout all phases of development and construction.

- 10. Once Tree Protection Areas are established and approved, any changes are subject to review and approval by the City.
- 11. Developer shall notify any adjacent property owner a minimum of 14 days prior to construction dates (copy of notification to be provided to City for permit file) if visual assessment identifies boundary tree root plates are potentially within the proposed limits of disturbance (See root plate definition). Any and all subsequent tree matters shall be a civil matter between the property owner and the developer.

Section 5 - Tree Replacement Standards.

- 1. The replacement of Trees shall occur within the required yards, Buffers, Open Space, parking lots, and landscape areas, as specified in the Zoning Ordinance and Tree Conservation Ordinance. The following standards for replacement will be used to evaluate proposed Tree planting plans:
 - Existing Tree coverage, size, and type;
 - Number of Trees to be removed from the lot or parcel;
 - Area to be covered with structures, parking, and driveways;
 - Grading plan and drainage requirements;
 - Character of the site and its environs.
- 2. Replacement Trees shall be ecologically compatible with the intended growing site, contribute to the diversity of the urban forest, and add to the overall aesthetic quality of the City.
- 3. The spacing of Replacement Trees must be compatible with spatial site limitations with responsible consideration towards species sizes when mature. Typical spacing for Overstory / Street Trees is thirty (30) feet on center, with no overstory Tree being planted less than twenty-five (25) feet on center from any other Tree. Spacing of Understory Trees and/or Trees in parking lots shall be subject to approval of the City and within accepted horticultural standards.
- 4. If existing overhead power lines prohibit the planting of required Overstory Trees, an appropriate Understory Tree species may be selected and approved for required inches according to accepted horticultural standards and as approved by the impacted utility (See Appendix A).
- 5. Trees selected for planting may be a species from the recommended Tree species lists shown in the appendices. Use of a species not shown on these lists is subject to approval of the City, according to accepted horticultural standards (See Appendix A).
- 6. Replacement Trees shall be a minimum two-inch Caliper measured six (6) inches above grade and be protected by a twelve-month guaranteed maintenance surety. (110% of installed amount) beginning at the date of planting.
- 7. Planting of Replacement Trees within utility, storm drainage, or sanitary sewer easements is not acceptable and no credit will be allowed toward the required inches per acre. City Staff shall determine whether or not the applicant will be required to install Root Barriers to prevent future conflicts for trees planted directly adjacent to proposed easements or utility locations.
- 8. Trees and plants selected for planting must meet the minimum requirements as provided in the "American Standard for Nursery Stock" (ANSI Standards latest edition).

- 9. Tree planting may be delayed up to six (6) months in the case of unfavorable climate conditions (drought, flood, extreme heat or cold). Property owners must provide the City with a performance bond (See #6 this Section) that identifies a target date for when the required numbers, sizes, and species of Trees will be planted to meet the requirements of this Ordinance.
- 10. Each development site (parcel) should contain Trees of sufficient number, size, and type to achieve the minimum required 100 inches per acre, which is determined according to the size of the parcel and is intended to be consistent across uses and underlying zoning categories. Total replacement units should be gathered by using as diverse a palette of species of Trees as possible. However, a minimum of fifty (50) percent of the total replacement units required for any parcel must be achieved in the form of Overstory Trees. When fewer than ten (10) Trees are shown to be planted on a project, one (1) species may be specified. When ten (10) to fifty (50) Trees are shown, a minimum of three (3) species of Trees are required. When more than fifty (50) Trees are shown, a minimum of five (5) species of Trees are required.
- 11. When ten (10) or more Trees are to be planted, no single genus shall represent more than thirty (30) percent of the required inches per acre.
- 12. Buffer Planting Standards are as follows:

An Opaque Buffer is a designated area along a property line that is required to be planted for the purpose of Screening. Buffers may be required as a condition of zoning or in areas where incompatible land uses exist (i.e. commercial adjacent to residential).

The Opaque Buffer shall consist of evergreen plant materials that must form an eighty (80) percent visual barrier within two (2) years and a one hundred (100) percent visual barrier within five (5) years. Trees must be minimum six (6) feet height at installation, and shrubs must be minimum twenty-four-inch height at installation.

- Existing Buffer to remain undisturbed: Sparsely vegetated or previously disturbed portions
 of this undisturbed, existing buffer must be replanted to comply with the definition above;
- Buffer width twenty (20) feet or less: This buffer shall consist of a minimum of one (1) row of Evergreen Trees and one (1) row of evergreen shrubs (See Appendix B);
- Buffer width twenty-one (21) to thirty-five (35) feet: This buffer shall consist of a minimum of two (2) rows of Evergreen Trees and one (1) row of evergreen shrubs (See Appendix B);
- Buffer width +35': This buffer design shall be subject to approval by the City of Hapeville

Evergreen Trees planted within buffer areas may be counted for inches per acre credit

Section 6 - Tree Removal.

Tree removal should be considered a secondary option for meeting the requirements of this Ordinance and should be pursued only if all avenues to preservation have been exhausted.

- 1. The Tree is in the buildable area or street right-of-way of a parcel or lot on which improvement is to be made and the Tree unreasonably restricts the permitted use of the property;
- 2. The Tree is diseased, injured beyond restoration, in danger of falling, or interferes with utility services.

Section 7 - Tree Species

A diversity of Tree species facilitates the long-term health of the urban forest. Lists of Tree species deemed acceptable by the City of Hapeville for use in meeting the requirements of this Ordinance are found in Appendix A (City of Hapeville Tree List)

IMPLEMENTATION, ENFORCEMENT AND PENALTIES

Section 1 - Public Trees

No person shall remove, destroy, break, cut, or deface any Tree or shrub growing in any public right-of-way, easement or city park under any circumstances. No person shall directly or indirectly place stone or cement or similar substances about any Tree growing in the public right-of-way which impedes the entrance of water and air to the roots of the Tree. No person shall attach or place any rope, wire, sign poster, handbill or any other thing on any Tree or shrub growing in any public right-of-way or city park. In the case of erection, demolition, or repair of any structure, the developer/ owner shall implement best management practices per accepted industry standards around all nearby Trees in a public right-of-way to prevent harm or injury.

Section 2 - Tree Preservation Trust Fund

This Ordinance hereby establishes the Hapeville Tree Bank. The Tree Bank will be used exclusively to purchase, install, and maintain Trees throughout the City's public areas, including parks, green spaces, right-of-way, and government building sites and, at the direction of the Community Services Director to improve the City's parks and/or green spaces.

Occasionally a project site does not have the capacity or will not bear the required 100" per acre
of Trees. If a property owner or developer cannot meet the minimum site density requirement
for Tree replacement and/or Landmark Tree recompense, and with Planning Commission
approval, a mitigation fee for each Tree required by this Ordinance but not planted will be paid
to the Tree Bank. A schedule of mitigation fees is presented below:

Replacement:	Mitigation Fee								
Non-Recompense (Inches Per Acre)	\$150.00 per inch								
Recompense (Landmark Tree Inches)	\$200.00 per inch								

Example for Non-Recompense Mitigation Fee:

.5 Acres x 100 Inches = 50 Inches Required

45 Inches planted or preserved 5 Remaining inches Paid to Tree Bank 5 x \$150.00 = \$750.00 Paid to Tree Bank

Example for Landmark Tree Recompense Mitigation Fee:

(2) 30" Specimen Trees in Good Condition Removed (Assume Inches per Acre is met)

20 Inches - (5) 4" caliper Trees planted

10 remaining inches Paid to Tree Bank

 $10 \times $200.00 = $2,000.00$ Paid to Tree Bank

2. A fine for each protected tree or Landmark Tree removed without a permit issued by the City will be paid to the Tree Bank. Fine amounts will be based on the Fee Schedule shown above. *From time to time the mitigation fees shown above may be updated based on market values.

Section 3 - Easements

The City is hereby authorized to enter into agreements with the owners of private property located within the City for the purpose of acquiring easements to plant Trees. Private property owners shall acquire ownership of Trees after planting provided agreement to maintain the Trees is reached and the City is absolved of any liability attributable to the planting or presence of the Trees. No agreement may be longer than two (2) years and all shall limit the City's interest to an area sufficient to allow planting of Trees.

Section 4 - Inspection

- 1. Every development within the City shall be required to undergo landscape inspection by the City's designated agent prior to the issuance of a certificate of occupancy. The inspection will determine whether the Tree preservation and/or replacement plan has been implemented as required by this Ordinance. At the time of inspection, the City shall collect an inspection fee not to exceed \$150.00 for single family residential development and \$350.00 for commercial or multi-family development. This fee will be determined by the City Council and will be used to cover the cost of labor and materials for performing Tree and/or landscape inspections.
- 2. Once completed, a written report will be prepared outlining the findings of the inspection and transmitted to the property owner or developer. If the inspection shows that Tree planting has been implemented according to plan, and all other departments have signed off on final inspections, a certificate of occupancy will be issued. If the inspection reveals deficiencies between the approved Tree protection and replacement plan and the condition of the development site, the property owner or developer will be notified of the nature and extent of the problems uncovered during inspection.

Upon issuance of the report, all deficiencies must be corrected before a certificate of occupancy can be issued.

Section 5 - Violation and Penalty.

It shall be unlawful for any person, firm, organization, or society to violate the provisions of this Ordinance. The removal or destruction of each Tree shall constitute a separate offense. Violation of this Ordinance shall constitute grounds for revoking or suspending any permit granted for the construction, demolition, or renovation of a structure on the lot or parcel. Upon revocation or suspension of Permit, no new Permit for construction, demolition, or renovation of any structure on the site shall be issued for a period of one (1) month; and a civil penalty of five hundred dollars (\$500.00) shall be levied for violating the requirements of this Ordinance.

Section 6 - Appeals

In the event an applicant disputes the decision of the City regarding Tree removal and/or replanting, applicant may file a written appeal with the Board of Zoning Appeals. The written appeal should detail the reasons why the decision of the City staff should be vacated. Upon receiving the written appeal, the Board of Zoning Appeals shall hear arguments and decide whether to uphold the administrative decision, modify the administrative decision, or negate the administrative decision. The decision of the Board of Zoning Appeals shall be final. A written copy of the findings and decision of the Board of Zoning Appeals shall be transmitted to the applicant and City.

Section 7 - Validity

Should any section of this provision of this Ordinance be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the Ordinance in whole or any part thereof other than the part so declared invalid.

Section 8 - Repeal of Conflicting Provision

The provisions of any part of Resolutions in conflict herewith are repealed.

Section 9 - Effective Date

This Ordinance shall become effective upon approval by the Mayor and Council of the City of Hapeville on date of adoption of this Ordinance.

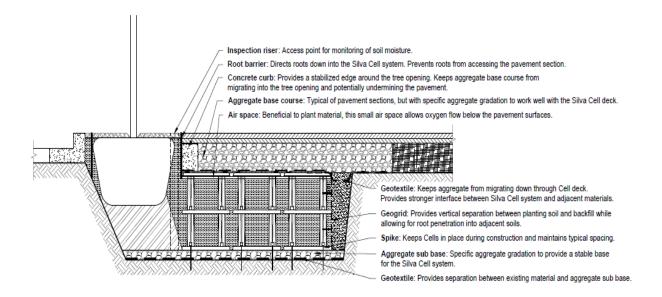
APPENDIX A – Tree Species List

City of Hapeville Tro	ee opecies List	1 -							_	ENVIRONMENTALCHARACTERISTICS											
										AND TOLERANCES											
SPECIES COMMON NAME	LATIN NAME	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors		Native Tree to Metro Area	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Light Requirement	Construction Tolerance/Limitation			
Maple, Norway	Acer platanoides					scept				•	N										
Maple, Red	Acer rubrum	XX	XX	XX	XX		XX	XX	0	ŀ	Y	F	L	0.084	М	L	FS	G/			
Maple, Silver Maple, Southern Sugar (Florida Sugar)	Acer saccharinum Acer barbatum	0 XX	×	XX	0 x	0 XX	XX	×		ŀ	N Y	M	S	0.084 n/a	M	Н	FS	P/A M/IS			
Maple, Sugar	Acer saccharum	XX	$\overline{}$	XX		7.01	,,,,	×	0	t	Ÿ	М	L	0.100	М	М	PS	pm			
Maple, Sugar 'Green Mountain'	Acer saccharum 'Green Mountain'	XX	$\overline{}$	XX					0	Į	Υ	F	L	0.100	М	М	PS	n/a			
Maple, Sugar 'Legacy' Maple, Trident	Acer saccharum 'Legacy' Acer buergeranum	0 0	XX	XX	XX	xx	XX		0 x	ŀ	Y N	F	L M	0.100 n/a	M	M	PS FS				
Mimosa	Albizia julibrissin	lĽ		_		ible; v		tree	^	t	N	Ė	141	Inci	IVI	144		100			
Mulberry, Red	Morus rubra	×	0		0	0		х		- [Υ	F	S	0.099	М	Н	FS	G/			
Oak, Black Oak, Cherrybark	Quercus velutina Quercus falcata var. pagodifolia	×	\vdash	×	\vdash	\vdash		x		ŀ	Υ	M	L	-0.253 n/a	D M	H M	FS FS	G/			
Oak, Chestnut	Quercus prinus	×	0	XX	0	0		0		ŀ	Y	S	L	-0.342	D	Н		_			
Oak, Diamond Leaf (Laurel)	Quercus laurifolia	×	х	х						Ī	Ν	М	L	n/a	М	М	FS	G/			
Oak, English	Quercus robur	I⊫	×	х		_				ŀ	N	s	М	-0.275	М	М	FS				
Oak, Georgia Oak, Laurel	Quercus georgiana Quercus hemisphaerica	×	×	x						ŀ	Y N	M F	M	n/a -0.314	D D	Н	_	_			
Oak, Laurel 'Darlington'	Quercus hemisphaerica 'Darlington'	×		XX						İ	Ν	F	М	n/a	D	н					
Oak, Live	Quercus virginiana			_	out of	f rang	e			F	N	F		0.50		ļ	FC	01177			
Oak, Northern Red Oak, Nuttall	Quercus rubra Quercus nuttalli	XX	×	xx	Н	Н				H	Y	M	L	-0.503 n/a	M	M	FS FS	GM/S0			
Oak, Oglethorpe	Quercus oglethorpensis	×	×	X						t	Y	S	М	n/a	W	М	F\$	n/a			
Oak, Overcup	Quercus lyrata	XX	_	XX				х		- [Υ	М	٦	-0.159	W	М	_	_			
Oak, Pin Oak, Post	Quercus palustris Quercus stellata	0 ×	×	XX	0	0		0		ŀ	N Y	M	M L	-0.483 -0.327	M D	M H	FS FS	_			
Oak, Post Oak, Sawtooth	Quercus stellata Quercus acutissima	0	0	×	0	0		0		ŀ	N	F	М	-0.327	М	M	FS				
Oak, Scarlet	Quercus coccinea	XX	_	XX	х	х				į	Υ	М	L	-0.592	D	Н	FS	G/			
Oak, Shumard	Quercus shumardii	XX	$\overline{}$	XX	XX	XX				ŀ	Υ	F	L	-0.265	М	н	FS	G/			
Oak, Southern Red Oak, Swamp Chestnut	Quercus falcata Quercus michauxii	XX X	0	x	0	0		x		ŀ	Y	M	L	-0.576 -0.544	M	H M	FS FS	G/			
Oak, Swamp White	Quercus bicolor	×	×	x		Ů		×		t	Ÿ	М	L	-0.457	М	М	FS	G/			
Oak, Water	Quercus nigra	XX		XX		\vdash		XX	0	-	Υ	F	М	-0.451	М	М	FS				
Oak, White Oak, Willow	Quercus alba Quercus phellos	XX	_	XX	XX	XX	0	XX	0	H	Y	S	L	-0.348 -0.314	M	M H	FS FS	_			
Orange, Osage	Maclura pomifera	×	0	×	0	0	Ů	0		ı	N	F	L	0.000	D	н					
Parrotia	Parrotia persica	1⊏	х	х					х	-	Ν	F	S	n/a	М	М		n/a			
Pear, Callery	Pyrus calleryana Pyrus communis	 	de ^e	fectiv x	ne bra	nch :	struc 0	ture	0		N	-	М		м	Ŀ	FS	M/S			
Pear, Callery Pear, Common Pecan	Carya illinoensis	×	0	x	0	0	0	Н	0	ľ	N	s	M	0.088	M	L	FS	mg			
Persimmon, Common	Diospyros virginiana	×	0	х	0	0		х		1	Υ	М	s	0.058	М	Н		G/P			
Pine, Eastern White	Pinus strobus	XX		_		t tole			0	ŀ	N	-		0.040				G/			
Pine, Lobiolly Pine, Longleaf	Pinus taeda Pinus palustris	l ^^	X	x	XX	Н	XX	0	0	ŀ	Y N	F M	M L	0.016	M	M H	FS FS	GM/C			
Pine, Longleaf Pine, Shortleaf	Pinus echinata	XX	×	x	x		x	х	0	t	Υ	М	L	0.008	М	Н	_	_			
Pine, Slash	Pinus elliotii	I⊫		х	х		×	0		ŀ	N	F	М	0.010	М	М	_	_			
Pine, Virginia Pistache, Chinese	Pinus virginiana Pistacia chinensis	×	×	XX	X	×	XX	0		ŀ	Y N	F M	S M	0.003 n/a	M	Н	FS FS	G/ n/a			
Planetree, London	Platanus x acerifolia	×	XX	XX	XX	_		Ů		t	N	F	М	-0.415	М	н	FS	pg			
Plum, Chickasaw	Prunus angustifolia	х	0	х			х		х	-	Υ	М	S	n/a	М	Н	FS				
Plum, Purpleleaf Poplar, Lombardy	Prunus cerasifera Populus nigra var. italica	ŀ⊢	×	X	t hea	t tole	XX		Х	ŀ	N	М	S	0.014	М	М	FS	mg			
Poplar, White	Populus alba	ı∟		х	l					t	N	F	М	-0.417	М	Н	FS	n/a			
Poplar, Yellow (Tuliptree)	Liriodendron tulipifera	XX		X		LUI-	3,000	XX	0	ſ	Υ	М	٦	0.171	М	L	FS				
Redbud, Eastern Redbud, Eastern White	Cercis canadensis Cercis canadensis var. alba	XX	XX	XX		XX	XX	x	XX	ŀ	Υ	F	S	0.012 n/a	M	M	PS PS	M/S n/a			
Redbud, 'Forest Pansy'	Cercis canadensis 'Forest Pansy'	×	XX	XX		XX	X	×	XX	ŀ	Y	F	S	n/a	M	L	PS	n/a			
Redbud, 'Oklahoma'	Cercis reniformis 'Oklahoma'	ΙF	XX	XX	х	XX		П	XX	ļ	Ν	М	S	n/a	D	Н	FS	n/a			
Redbud, 'Texas White' Redcedar, Eastern	Cercis reniformis 'Texas White' Juniperus virginiana	H_×	XX	XX	x	XX	XX	х	XX 0	ŀ	N Y	M S	S M	n/a -0.010	D M	H	FS FS	n/a M/IS			
Redwood, Dawn	Metasequoia glyptostroboides	×		XX	Х		XX	Ĺ	J	ŀ	N	F	L	0.163	М	М	FS				
Royal Paulownia (Princess-Tree)	Paulownia tomentosa	ΙF	0	х	0	0		0		ļ	N	F	S	0.022	М	М	FS	g			
Sassafras Serviceberry, Downy	Sassafras albidum Amelanchier arborea	XX	XX	XX		XX	XX	×	y	ŀ	Υ	M S	M	0.069	M	M	FS PS	G/ M/IS			
Silverbell, Carolina	Halesia tetraptera	XX		X		^^	ΑΛ.	×	^	ŀ	Y	M	М	0.004 n/a	M	L	PS				
Silverbell, Two-Winged	Halesia diptera	XX		х				х	XX	[Ν	М	М	n/a	М	М	PS	M/SC			
Smoketree, American Smoketree, Common	Cotinus obovatus Cotinus coggrania	ŀ⊢		x		\vdash			×	ŀ	Y N	M	S	n/a n/a	D	Н	PS FS	n/a n/a			
Sourwood	Cotinus coggygria Oxydendrum arboreum	XX		X					^	ŀ	Y	M	S	0.018	М	М	FS	P/A			
Sparkleberry, Tree	Vaccinium arboreum	ΙF		х				х	х	ļ	Υ	S	S	n/a	М	М	S	M/A			
Sparkleberry, Tree <mark>Spruce Varieties</mark> Sugarberry	Picea species	۱ŀ		_	t hea	t tole	rant 0			ŀ	N Y	М	М	0.118	М	М	FS	G/I			
Sweetgum	Celtis laevigata Liquidambar styraciflua	×	0	x	0	0	0	×		ŀ	Υ	F	L	-0.488	M	L	FS	G/I			
Sycamore	Platanus occidentalis	×		х				×	0	t	Υ	F	М	-0.789	М	М	FS	G/			
Sycamore Tallowtree, Chinese Tree-of-Heaven (Ailanthus)	Sapium sebiferum	١F		la selección		asive			\exists	F	Z Z	Ц				\vdash		\vdash			
Tree-of-Heaven (Ailanthus) Walnut, Black	Ailanthus altissima Juglans nigra	×		brittle x	0 wo	od; in	vasiv	e x		ŀ	N Y	М	L	0.086	М	L	FS	P/IS			
Waxmyrtle, Southern	Myrica cerifera	ΙĖ	Ť	x	х	Ľ	х	0	×	ı	N	М	S	n/a	М	М					
Willow, Black	Salix nigra	х	0	Ĺ	0	0		х	0	[Υ	F	S	-0.177	W	L	FS				
Willow, Weeping Winterberry, Common	Salix babylonica Ilex verticillata	×	0 ×	x	0	0	×	×	0 ×	ŀ	N Y	F M	M S	-0.096 n/a	W	M L	FS FS	mg G/			
Witchhazel, Common	Hamamelis virginiana	×	-	X		х	^	×	X	ŀ	Y	М	М	-0.009	M	М		M/IS			
Yellowwood, American	Cladrastis kentukea	×		х							Ν	М	М	0.013	М	М	PS	P/A			
Zelkova, Japanese	Zelkova serrata			v		l v		1 0	0		Z	8.6	0.4	0.084	M	н	FS	n/a			

APPENDIX B – Parking Lot, Light Pole, Buffer, and Planting Details

See Attached

APPENDIX C - Subsurface Structural Cells - SILVA CELL OR OTHER



- NOTES:

 1. Installation to be completed in accordance with manufacturer's specifications.
- 2. Do not scale drawings.

Disclaimer: Conditions that vary from drawings must be evaluated by a qualified Engineer and appropriate adjustments made.