

City of Roswell

Article 16: Landscaping

CHAPTER 16.1 GENERAL LANDSCAPING REQUIREMENTS

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Section 16.1.1 Generally

The landscaping requirements of this article are the minimum citywide design standards for all development. These requirements shall be used by the Roswell design review board, zoning director, and when it has jurisdiction, the historic preservation commission, in reviewing site plans. These general landscaping requirements may be supplemented by specific landscaping standards and specifications as established by the design review board or, the historic preservation commission within its jurisdiction, and approved by the Roswell city council in the form of design guidelines.

Section 16.1.2 Screening Required

Screening shall be established within any landscape strip or buffer that is required by this ordinance along side and rear lot lines. Screening required by this chapter shall be approved by the Roswell design review board or the historic preservation commission, whichever has jurisdiction. The board or commission with jurisdiction may require additional screening outside landscape strips and buffers that are required along side and rear lot lines, for purposes of obscuring features such as parking lots, rear entrances, utility and maintenance structures, loading facilities, swimming pools, recreation areas, and other uses and structures.

Landscaping shall be used whenever possible to screen objectionable views or nuisances, such as parking and service areas, refuse containers, air conditioning units, transformers, etc.

Section 16.1.3. Screening Specifications

All required screening shall consist of walls, fences, earthen berms, shrubs, and/or trees. This screening shall be of such nature and density to screen activities on the lot from view from the normal level of a first story window on an abutting lot and shall provide year-round maximum opacity from the ground to a height of at least six (6) feet or

more as required by the Roswell design review board. Screening that utilizes trees and shrubs shall be installed to not only provide maximum opacity, but to allow for proper plant growth and maintenance.

Section 16.1.4 Buffer and Landscape Strip Requirements

- (a) No lot shall hereafter be developed with less than the minimum buffers and landscape strips specified for the zoning district in which said lot is located or for the specific use involved.
- (b) Unless otherwise provided or exempted by this ordinance, a landscaping strip of at least ten (10) feet in width shall be required along all public rights-of-way, except where driveways or other openings may be required. This landscape strip shall be increased to twenty (20) feet in cases where the front property line is across the street from any residential zoning district.
- (c) Unless otherwise provided or exempted by this ordinance, a landscaping strip of at least five (5) feet in width shall be required along any side of a parking lot that abuts adjoining property that is not a public right-of-way except where driveways or other openings may be required.
- (d) Unless otherwise provided or exempted by this ordinance, a landscaping strip of at least twenty (20) feet in width shall be required along any future public or private right-of-way that abuts an existing residential property line.
- (e) Public or private street shall be a prohibited use in all required natural buffers between zoning districts except required by law for interconnectivity as required by the zoning director. Such interconnectivity shall be in the least obtrusive manner as prescribed by the zoning director.

Section 16.1.5 Landscaped Open Space

- (a) No lot shall hereafter be developed with less than the minimum landscaped open space specified for the zoning district in which said lot is located.
- (b) The minimum total lot area in landscaped open space shall be the sum of the areas required to meet tree save areas, buffers, landscape strips, interior parking lot landscaping, and any other approved and installed landscaping.
- (c) No more than twenty-five (25) percent of any lot area in water or flood plain shall be credited as minimum required landscaped open space without approval of the Roswell design review board or historic preservation commission, whichever has jurisdiction.

Section 16.1.6 Sight Visibility

Screening shall extend the entire length of the side or rear landscape strip or buffer, provided, however that screening shall not be closer than fifteen (15) feet to a public right-of-way, unless approved by the city engineer as posing no problems to site visibility.

Section 16.1.7 Waivers and Variances

The screening requirements of this chapter may be waived or varied by the Roswell design review board or historic preservation commission, whichever has jurisdiction. It shall consider the following criteria, among others, in determining the appropriateness of a requested waiver or variance:

(a) It can be clearly demonstrated that existing topography and/or vegetation achieve the purpose and intent of this chapter; or

(b) It can be clearly demonstrated in a specific instance, that for topographic reasons, a fence, wall and/or other screening device required herein could not possibly screen activities from an abutting property as required by this chapter.

This section shall not be construed to authorize a waiver by the design review board or the historic preservation commission of the minimum landscaped open space requirements as may be specified for the zoning district in which the subject property is located.

CHAPTER 16.2 SPECIFIC REQUIREMENTS

[Section 16.2.1 Integration with Other Landscapes](#)

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Section 16.2.1 Integration with Other Landscapes

Landscape design and planning shall be integrated with the overall design concept for any project; therefore, the board shall evaluate landscaping schemes as to their relationship to the existing natural landscape, developed or proposed landscapes on adjacent properties and public rights-of-way, and the building or buildings existing and/or proposed on the subject property and adjacent sites.

Section 16.2.2 Retention of Natural Features

Existing tree cover and natural vegetation shall be preserved, whenever possible, or replaced with suitable vegetation.

Section 16.2.3. Grass Areas

Grass areas shall be sodded prior to the issuance of a certificate of occupancy. If grass seed must be used, it shall be a variety suitable to the area that produces complete coverage.

Section 16.2.4. Artificial Vegetation Prohibited

No artificial plants, trees, or other vegetation shall be installed as landscaping; provided, however, that this section shall not preclude silk or dried flowers used as decorations.

Section 16.2.5 Seasonal Color

Unless otherwise specified by the design review board or historic preservation commission, whichever has jurisdiction, plantings that provide seasonal color shall be added around the base of any ground sign.

CHAPTER 16.3 PARKING AREA LANDSCAPING REQUIREMENTS

[Section 16.3.1 Applicability](#)

[Section 16.3.2 Requirements for Interior Parking Lot Landscaping](#)

Section 16.3.1 Applicability

This chapter shall apply to all parking areas designed for twenty (20) or more spaces.

Section 16.3.2 Requirements for Interior Parking Lot Landscaping

(a) Not less than ten (10) percent of the interior of a parking lot shall be landscaped. This requirement shall be in addition to the minimum buffers and landscape strips required by this ordinance for the zoning district in which it is located and, if applicable, the specific use.

(b) Interior parking lot landscaping islands shall be required. No Interior parking lot landscaping island shall be less than four hundred (400) square feet (e.g., typically twenty (20) feet by twenty (20) feet), except in cases where a fractional amount must be left, in which case one of the interior parking lot landscaping areas may be less than this required amount. The purpose of this subsection is to provide parking lot landscaping islands large enough to provide sufficient area for critical root zones so that shade trees can reach maturity and produce maximum tree canopy for parking lot shade.

(c) There shall be at least two (2) overstory trees in each interior parking lot landscaping island of minimum required size. Trees installed pursuant to this section shall count to minimum tree unit density requirements of [article 15](#) of this ordinance.

CHAPTER 16.4 LANDSCAPING MAINTENANCE AND REPLACEMENT BOND

[Section 16.4.1 Maintenance](#)

[Section 16.4.2 Replacement Bond](#)

Section 16.4.1 Maintenance

The owner, occupant, tenant, and respective agent of each, if any, shall be jointly and severally responsible for the maintenance and protection of all landscaping.

Section 16.4.2 Replacement Bond

Prior to issuance of a certificate of occupancy, the developer or owner shall post a performance bond or cash escrow guaranteeing all landscaping materials and work for a period of two (2) years after approval or acceptance thereof by the city. The bond will be in the amount of one hundred (100) percent of the estimated cost of replacing all of the landscaping required by these specifications. At the end of two (2) years, the city arborist shall make an inspection and notify the owner or developer and the bond company of any corrections to be made.

CHAPTER 16.5 LANDSCAPE STRIP DESIGN GUIDELINES

[Section 16.5.1 Purpose, Intent, and Definitions](#)

[Section 16.5.2 Parking Lot Landscape Strips Adjacent to Street Right-of-Way](#)

[Section 16.5.3 Landscape Strip Between Buildings and Street Right-of-Way](#)

Section 16.5.1 Purpose, Intent, and Definitions

This chapter is intended to provide guidance to the design review board, historic preservation commission, and staff in approving landscaping plans.

Shrub: A woody plant without a trunk, but with several stems growing from the base.

Normal Georgia Height: Used to designate average mature height of shrubs and ground covers.

- Ground cover 1 inch—3 feet
- Small shrub 2.5—5 feet (minimum required for landscape strip Option 1)
- Medium shrub 5—8 feet
- Large shrub 8 feet and greater

The shrub planting shall be maintained in good condition with in its Normal Georgia Height as required into perpetuity including, but not limited to, pruning, shearing, fertilizing, weeding, watering, and complete replacement if required.

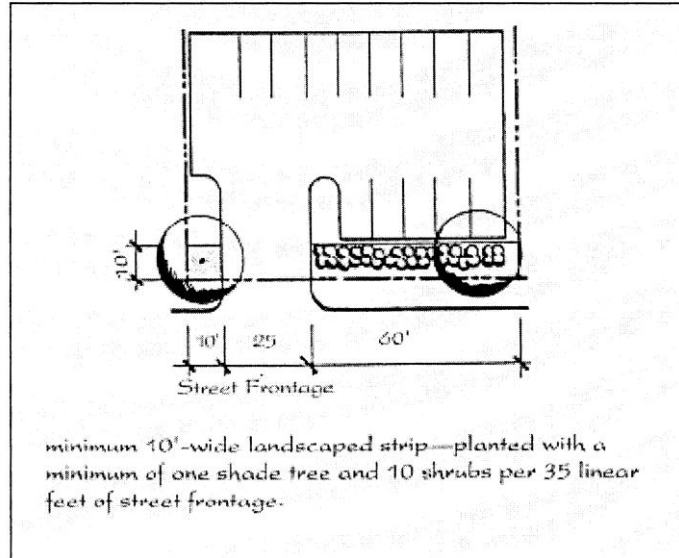
Shrub container size at planting: Three-gallon minimum.

Ground Covers: Ornamental grasses, vines, annual and perennial plants, ranging in height from several inches to three (3) feet in height.

Section 16.5.2 Parking Lot Landscape Strips Adjacent to Street Right-of-Way

An applicant may choose but should comply with one (1) of the five (5) following options for landscaping adjacent to the public right-of-way. The landscape strip requirement does not apply to vehicle access areas but should not include any other paved surfaces with the exception of pedestrian sidewalks or trails and areas approved for stormwater management.

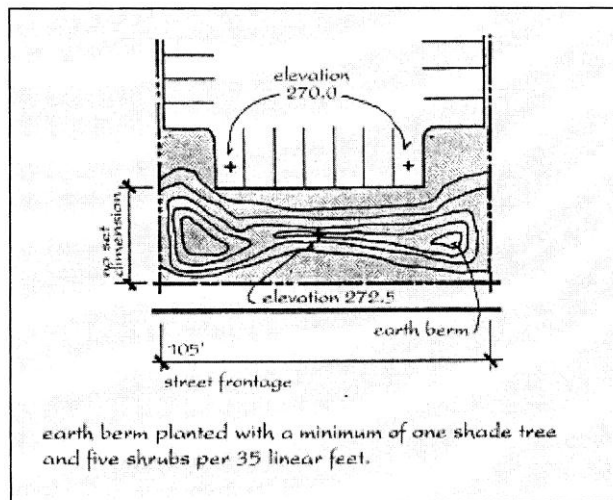
Option 1 - Minimum ten-foot wide landscape strip, planted with a minimum of one (1) shade tree and ten (10) small height shrubs per thirty-five (35) linear feet of street frontage, excluding driveway openings (Figure 16-5-1). Seventy (70) percent of the small shrubs shall be evergreen. Shrubs shall be two and one-half (2.5) feet minimum height at planting.



Source: Martz, Wendelyn A., and Marya Morris. 1990. Preparing a Landscape Ordinance. Planning Advisory Service Report Number 431. Chicago: American Planning Association.

Figure 16-5-1
Option 1, Landscape Strip Adjacent to Street Right-of-Way

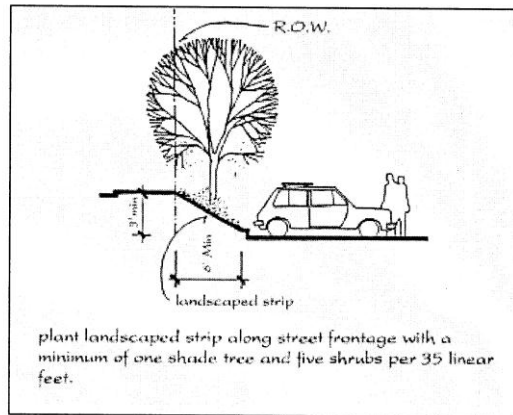
Option 2. An earth berm at least two and one-half (2.5) feet higher than the finished elevation of the parking lot, with one (1) shade tree and five (5) shrubs for every thirty-five (35) linear feet of frontage.



Source: Martz and Morris 1990.

Figure 16-5-2
Option 2, Landscape Strip Adjacent to Street Right-of-Way

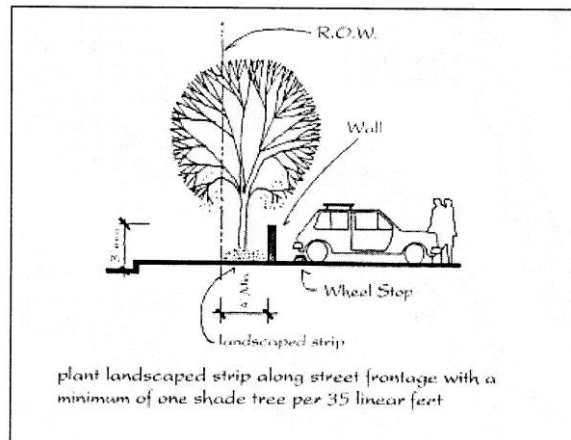
Option 3. A six-foot landscaped strip with a minimum three-foot grade drop from the right-of-way to the parking lot. One (1) shade tree and five (5) shrubs for every thirty-five (35) linear feet (Figure 16-5-3).



Source: Martz and Morris 1990.

Figure 16-5-3
Option 3, Landscape Strip Adjacent to Street Right-of-Way

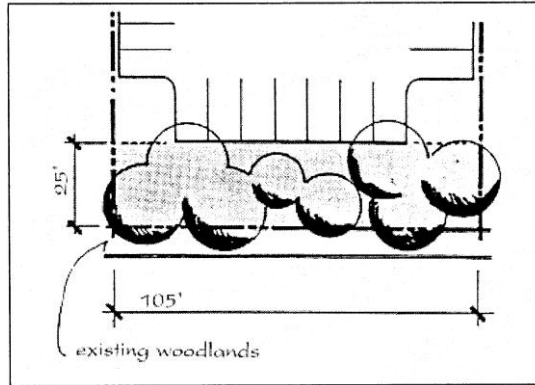
Option 4. A three-foot high fence of brick, stone, or finished concrete wall, with a four-foot buffer strip, planted with a minimum of one (1) shade tree per thirty-five (35) linear feet of frontage (Figure 16-5-4).



Source: Martz and Morris 1990.

Figure 3-9-4
Option 4, Landscape Strip Adjacent to Street Right-of-Way

Option 5. If existing woodlands are determined by the arborist to be sufficient, the applicant may preserve a twenty-five-foot wide natural buffer strip to satisfy the recommendations of this section.



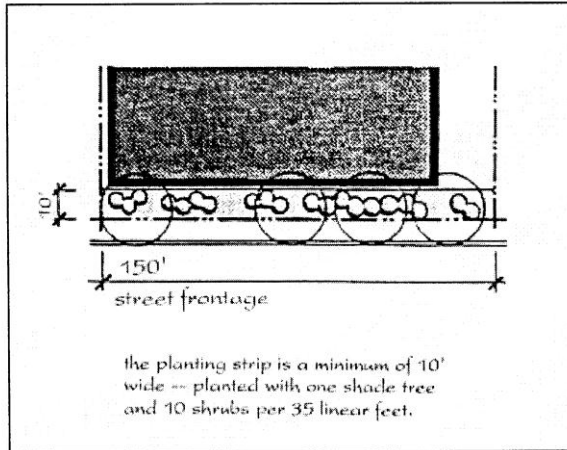
Source: Martz and Morris 1990.

Figure 16-5-5
Option 5, Landscape Strip Adjacent to Street Right-of-Way

Section 16.5.3 Landscape Strip Between Buildings and Street Right-of-Way

There are the following three (3) options that may be used singly or in any appropriate combination to meet the intent of these guidelines:

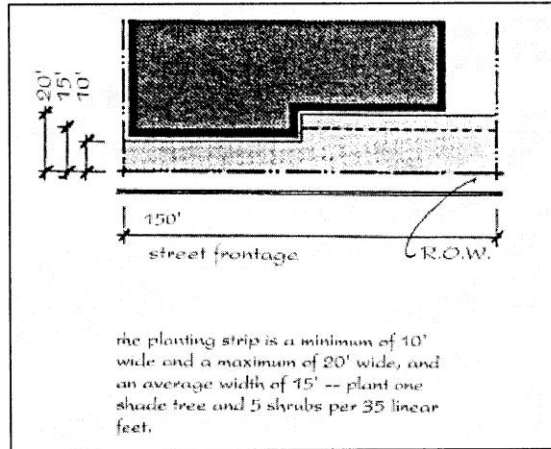
Option 1. A minimum ten-foot wide landscape strip, with a minimum of one (1) shade tree and ten (10) shrubs for every thirty-five (35) feet of linear street frontage (Figure 16-5-6).



Source: Martz and Morris 1990.

Figure 16-5-6
Option 1, Landscape Strip Between Nonresidential Building and Street Right-of-Way

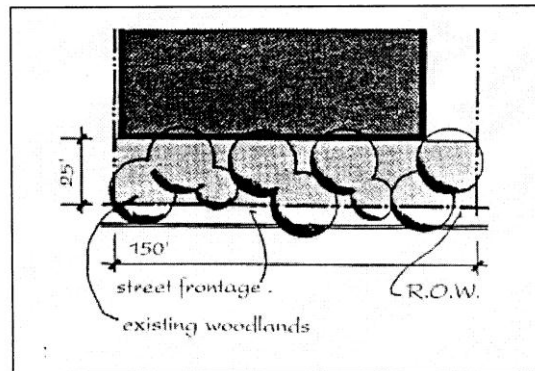
Option 2. A strip of varying width, but with a minimum of ten (10) feet and averaging at least fifteen (15) feet wide, with a minimum of one (1) shade tree and five (5) shrubs per thirty-five (35) linear feet (Figure 16-5-7).



Source: Martz and Morris 1990.

Figure 16-5-7
Option 2, Landscape Strip Between Nonresidential Building and Street Right-of-Way

Option 3. Existing woodlands at least twenty-five (25) feet wide (Figure 16-5-8).



Source: Martz and Morris 1990.

Figure 3-9-10
Option 3, Landscape Strip Between Nonresidential Building and Street Right-of-Way

Article 15: Tree Protection
CHAPTER 15.1 GENERAL PROVISIONS

[Section 15.1.1 Purpose and Intent](#)

[Section 15.1.2 Definitions](#)

[Section 15.1.3 Applicability and General Provisions](#)

[Section 15.1.4 Exemptions](#)

Section 15.1.1 Purpose and Intent

The intention of this article is to promote the preservation of trees as part of the land development and construction process and provide for the replacement of trees removed in the development process. This article shall be known and may be cited as "The Roswell Tree Protection Ordinance".

Trees are recognized for their importance because they provide shading and cooling, improve stormwater quality, reduce noise, wind, stormwater runoff and soil erosion, provide for wildlife refuge, produce oxygen, filter dust, absorb carbon dioxide, and enhance the aesthetics and economics of all real property. Their contribution to the general well being and quality of life for the citizens of Roswell as well as the region of metropolitan Atlanta is recognized and valued. Therefore, the city deems it necessary and desirable in the interest of public health, safety, and welfare to enact an ordinance for the conservation, planting and replacement of trees and to prevent the indiscriminate removal of trees and reduction of canopy cover within the city.

The purposes of this ordinance are to:

- (a) Provide standards for the preservation of trees as part of the land development process;
- (b) Protect trees during construction and land development whenever possible in order to enhance the quality of life within the City of Roswell;
- (c) Protect specimen trees, as defined by this article, while providing for a reasonable use of each lot and avoiding regulatory takings; and
- (d) Promote a healthy urban forest.

Section 15.1.2 Definitions

For purposes of this article, the following definitions shall apply. All other words or phrases as appropriate to the context of their uses shall be interpreted as defined in [article 3](#) of this Zoning Ordinance.

Arborist: The agent(s) of the City of Roswell primarily responsible for administering and enforcing the tree protection ordinance, under direction of the zoning director.

Basal area: The cross-sectional area of a tree trunk at diameter breast height (dbh) expressed herein in terms of "units" per acre.

Caliper: A forest standard of tree trunk measurement for understory trees or replacement trees. Caliper of the trunk shall be taken at six (6) inches above the ground for trees up to and including four-inch caliper size, and twelve (12) inches above the ground for trees larger than four-inch caliper.

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 of survival. The CRZ will typically be represented by a concentric circle centering on the tree's trunk with a radius equal in feet to one and one-half (1.5) times the number of inches of the trunk diameter. EXAMPLE: The CRZ radius of a twenty-inch diameter tree is thirty (30) feet.

Density factor analysis: A method of converting the size of any given tree-to-tree density units for purposes of determining whether a given site meets the minimum tree density unit requirement prescribed by this article.

Development activity: Any alteration of the natural environment which requires the approval of a development or site plan and issuance of a development permit. Development activity shall also include the "thinning" or removal of trees from any undeveloped land, including that carried out in conjunction with a forest management program, and the removal of trees incidental to the development of land or to the marketing of land for development.

Development permit: An official authorization issued by the zoning director in accord with [chapter 31.7](#) of this Zoning Ordinance.

Diameter breast height (dbh): The standard measure of tree size for those trees existing on a site that are at least four-inch in diameter at a height of four and one-half (4.5) feet above the ground. If a tree splits into multiple trunks below four and one-half (4.5) feet, then the trunk is measured at its most narrow point beneath the split. For understory tree and replacement tree measurement methods, the tree trunk shall be measured in accordance with the definition of caliper found in [section 15.1.2](#).

Drip line: An imaginary perpendicular surface from a tree's branch tips down to the ground; The circular area of land surrounding the tree from the trunk to the outermost branches. This area is distinguished from, and not to be confused with critical root zone.

Georgia 400 Tree Protection Zone: All property within a horizontal distance of one hundred twenty (120) feet of right-of-way of Georgia 400. At major intersections on Georgia 400 having exit and/or entrance ramps, the protection zone shall be reduced to sixty (60) feet. The reduction shall apply for the length of each ramp. The Georgia 400 Tree Protection Zone is a buffer area.

Hardwood tree: Any leaf-bearing (not needle-bearing) tree that is not coniferous (cone bearing). This definition is based on the colloquialism, and does not necessarily reflect any true qualities of the tree.

Overstory tree: A tree that composes the top layer or canopy of vegetation and will generally reach a mature height of greater than forty (40) feet.

Revegetation: The replacement of trees and landscape materials into the minimum required landscape areas, as determined by the Zoning Ordinance generally, conditions of zoning approval, or the provisions of this article.

Severe pruning: Removal of more than one-third (1/3) of the crown.

Softwood tree: Any coniferous (cone bearing) tree, such as pine, fir, hemlock, cedar, etc. This definition is based on the colloquialism and does not necessarily reflect any true qualities of the tree.

Specimen tree: Any tree, as defined by this article, in fair or better condition, which qualifies for special consideration for preservation due to size, species, or condition, and which meets the following:

24" dbh - Large hardwoods such as oaks, hickories, yellow poplars, sweetgums, etc.

30" dbh - Large softwoods such as pines, deodar cedars, etc.

4" dbh - Small trees such as dogwoods, redbuds, sourwoods, etc.

Provided, however, that a lesser-size tree can be considered by the arborist to be and designated a specimen tree if it is a rare or unusual species, of exceptional or unique quality, or of historical significance; provided further that a lesser-size tree can be considered by the arborist to be and designated a specimen tree if it is specifically used by a builder, developer, or design professional as a focal point in a landscape project.

Specimen tree stand: Any collective group of specimen trees, as defined by this ordinance, which has been determined to be of high value in the opinion of the arborist, and which meets one (1) or more of the following:

- a. A relatively mature, even aged stand; or
- b. A stand with purity of species composition or of a rare or unusual nature or ecological value; or
- c. A stand of historical significance; or
- d. A stand with exceptional aesthetic quality.

Tree: Any self-supporting, woody perennial plant usually having a single trunk diameter of three (3) inches or more which normally attains a mature height of a minimum of fifteen (15) feet.

Tree bank: An account, maintained by the finance department of the City of Roswell, of funds contributed from developers as a form of alternative compliance to the requirements of this article. Funds from the tree bank are to be used solely for the purchase and planting of trees for public benefit on public property, or private property within a public easement, within the City of Roswell as authorized by the mayor and city council.

Tree density unit: A unit of measure based on diameter breast height of trees which is used to prescribe a minimum number of trees on any given development site.

Tree in fair or better condition: A tree with (a) a life expectancy of greater than fifteen (15) years; (b) a structurally sound trunk, not hollow and having no extensive decay, and less than twenty (20) percent radial trunk dieback; (c) for hardwoods only, no more than one (1) major and several minor dead limbs; and (d) no major insect or pathological problem.

Tree removal permit: A formal letter or permit issued by the arborist allowing for the removal of said tree(s) from a property.

Tree save area: An area designated for the purpose of meeting tree density requirements, saving natural trees, preserving the root system of natural trees and/or preserving natural buffers.

Tree species selection list: The recommended species of trees in Appendix B of this article.

Understory tree: Any tree that grows beneath the overstory, and will generally reach a mature height of under forty (40) feet.

Section 15.1.3 Applicability and General Provisions

- (a) Except as specifically exempted in [section 15.1.4](#) of this article, the terms and provisions of this article shall apply to any activity which requires the issuance of a development permit.
- (b) No development permit or grading permit shall be issued until it is determined that the proposed development is in conformance with the provisions of this ordinance.
- (c) No person shall remove, cause to be removed, poison, damage, trim, or transplant any tree with a trunk diameter of three (3) inches or more at breast height which normally attains a mature height of fifteen (15) or more without first obtaining a permit, as provided herein.

Section 15.1.4 Exemptions

- (a) The following activities shall be exempt from the provisions of this article; provided, however, that in cases where these exemptions would provide for the removal of one (1) or more specimen trees as defined by this article, all reasonable efforts shall be made to preserve said specimen trees.
- (b) The removal of trees, other than specimen trees, from any lot of less than one (1) acre in size and which contains or is zoned and platted or to be platted for purposes of constructing a detached, single-family residence or duplex.
- (c) The removal of trees from horticultural properties such as farms, nurseries or orchards. This exception shall not be interpreted to include timber harvesting or the removal of trees incidental to development of the land.
- (d) The removal of trees by a utility company within dedicated utility easements, where necessary to install, remove, repair, or maintain utilities within said easements.
- (e) The removal of trees on public rights-of-way by or on behalf of any federal, state, county, municipal, or other government agency with jurisdiction, where necessary to lawfully construct, maintain, repair or improve said public rights-of-way.
- (f) The removal of trees, other than specimen trees, from detention ponds and drainage easements where necessary for the construction, maintenance, or operation of said ponds or drainage improvements within said drainage easements.
- (g) The removal of any tree which has become or threatens to become a danger to human life or property, as determined by the arborist.
- (h) The removal of trees less than three (3) inches, at breast height, unless a development permit is required.

CHAPTER 15.2 TREE PROTECTION

[Section 15.2.1 Tree Survey Required](#)

[Section 15.2.2 Tree Survey Inspection](#)

[Section 15.2.3 Tree Protection Plan Required](#)

[Section 15.2.4 Tree Protection Plan Specifications](#)

[Section 15.2.5 Arborist Authority and Action on a Tree Protection Plan](#)

[Section 15.2.6 Standards for Tree Protection During Construction](#)

[Section 15.2.7 Tree Damage](#)

[Section 15.2.8 Pruning](#)

Section 15.2.1 Tree Survey Required

(a) *Survey required.* Unless specifically exempted from this article, before the commencement of any alteration, defoliation or land disturbing activity which requires the issuance of a development permit, a tree survey shall be completed and submitted to the arborist in accordance with the requirements of this article. When an application for a preliminary plat is made, the applicant shall be required to submit a tree survey.

(b) *Survey requirements.* The tree survey shall be in the form of a to-scale map or a site plan prepared and sealed by a registered land surveyor, registered professional engineer, registered landscape architect, an arborist certified by the International Society of Arboriculture, or a registered forester noting the location of all specimen trees plus all other trees which will be preserved and counted toward meeting site tree density unit requirements established in this article. Important natural features such as streams and wetlands shall also be shown on the tree survey.

(c) *Specimen trees.* All specimen trees and their critical root zones and drip lines shall be labeled, even if the tree trunk is not on the subject property, and must be shown on the tree survey and inventoried by size and species. This includes those specimen trees that are to be preserved as well as those proposed for removal, if any, and the portion of critical root zones and drip lines of trees on abutting properties which are contained within the subject property, to the extent that such drip lines and critical root zones can be determined from the vantage point of the property to be developed. This provision shall not authorize the trespass on other private property abutting the site.

(d) *Other trees to be retained.* All other trees that are to be counted toward meeting tree density unit requirements of this article must be shown on the survey and inventoried by size and species. Only trees with a caliper measurement of three (3) inches or greater are to be identified as eligible for tree density unit compliance purposes.

(e) *Trees to be removed.* Trees other than specimen trees that are proposed to be removed and which thus cannot be counted toward tree density unit requirements, are not required to be counted and shown individually on the tree survey. Such trees shall be estimated in number, size and species of such trees and quantified as part of the total site inventory of tree population.

(f) *Sampling.* Sampling methods may be used to determine tree densities for forested areas over two (2) acres.

(g) *Tree save areas.* All tree save areas must be delineated on the tree survey. All buffers with existing trees must be delineated on the tree survey as tree save areas. Land disturbance within any buffer is subject to approval by the arborist.

(h) *List and tree density unit calculations.* The tree survey shall provide an accurate list of those trees to be saved and a total value of tree density units for the entire property.

Section 15.2.2 Tree Survey Inspection

Within ten (10) working days following the receipt of a tree survey, the arborist shall schedule and conduct an inspection of the proposed development site. The applicant or his designee shall be advised as to the date and time of the inspection and given an opportunity to attend and observe the inspection. Following inspection, the arborist, consistent with the purposes of this article, shall advise the applicant in writing or on the survey of any recommended changes to the applicant's tree survey.

Section 15.2.3 Tree Protection Plan Required

Unless specifically exempted from this article, before the commencement of any alteration, defoliation or land disturbing activity which requires the issuance of a development permit, a tree protection plan shall be completed and submitted to the arborist in accordance with the requirements of this article. The Georgia 400 Tree Protection Zone shall be observed.

Section 15.2.4 Tree Protection Plan Specifications

The tree protection plan shall be a detailed plan designed to protect and preserve trees before, during, and for a period of two (2) years after construction. Required specifications for a tree protection plan include the following:

- (a) *Separate drawing.* The tree protection plan shall be submitted as a separate drawing unless the arborist approves the combination of tree protection plan with a tree replacement plan on a single drawing.
- (b) *Boundary survey.* The tree protection plan shall be submitted on a current boundary survey of the proposed site, drawn to scale, and showing clearly all required information required in this section.
- (c) *Tract identification.* The plan shall identify the tract of land involved by acreage and location.
- (d) *Owner and contact.* The name, address and phone number of the owner of the land and the name, address and phone number of any tenant of the property, and twenty-four-hour emergency contact phone number.
- (e) *Trees to be protected.* The type, location and size as measured at the diameter breast height of all tree(s) to be protected. Only trees designated on the approved tree protection plan will be counted toward meeting minimum required tree density requirements.
- (f) *Specimen trees.* Locations, species, size, critical root zones, and drip lines of those specimen trees proposed to be proposed and, if any, proposed to be removed. The tree protection plan must include any portion of a critical root zone or drip line of any trees on abutting properties proposed to be protected. Removal of specimen trees is subject to approval by the zoning director in accordance with [chapter 15.3](#)
- (g) *Tree save areas and clearing limits.* All natural areas to be retained and buffers shall be included in the tree save area. There shall be no material storage in tree save areas. Limits of clearing and land disturbance such as grading, trenching, etc., where these disturbances may affect tree save areas shall also be shown, including an indication of staging areas for parking, material storage, concrete washout, debris burn and burial holes and other areas where tree protection may be affected.
- (h) *Tree protection methods.* Methods of tree protection shall be indicated for all tree save areas, including tree fencing, erosion control, retaining walls, tunneling for utilities, aeration systems, transplanting, staking, signage, geoweb or similar material, permeable paving, bollards, etc.
- (i) *Development characteristics.* The locations of roads, existing and proposed structures, paving, driveways, cut and fill areas, drainage before and after construction including detention areas, etc.
- (j) *Utilities and easements.* The locations of all existing and proposed utility lines or easements, including the location for any boring sites for underground utilities.
- (k) *Tree density units.* Calculations showing the amount of existing trees to be retained for purposes of complying with the minimum required tree density units required by this article. Only existing trees with a dbh of two (2) inches or greater shall be counted toward meeting the minimum tree density unit requirements.
- (l) *Irrigation systems.* The tree protection plan must also indicate any irrigation systems required by this article.
- (m) *Additional information.* Additional information as required on a case-by-case basis by the arborist.

Section 15.2.5 Arborist Authority and Action on a Tree Protection Plan

Prior to approval of the tree protection plan, the arborist may require relocation or replacement of trees as uniformly as possible throughout the site. The arborist may require the use of active tree protection fencing for any or all tree save areas. Passive tree protection fencing is to be used only for areas remote from construction activity.

Section 15.2.6 Standards for Tree Protection During Construction

(a) *Materials prohibited in tree save areas.* No structure(s), improvement(s), or any activity including solvents, material, construction machinery, portable toilets, construction trailers, or temporary soil deposits shall encroach or be placed within a drip line and within six (6) feet of the area immediately outside the drip line, of any specimen tree or any tree within a tree save area unless authorized by the arborist in writing.

(b) *Tree protection devices.* Before development, land clearing, filling, or any land alteration, the developer shall be required to erect suitable protective barriers as required by the arborist pursuant to an approved tree protection plan, including tree fences, tree protection signs, and erosion barriers. Inspection of tree protection barriers is required prior to the commencement of any land disturbance or development. Said tree protection measures shall remain in functioning condition until completion of site landscaping, completion of the project, or until the certificate of occupancy is issued. Authorization to remove the protective devices shall be evidenced in writing by the arborist or by the issuance of a final certificate of occupancy.

(c) *Active tree protection devices.* Materials for active tree protection shall consist of chain link, orange laminated plastic, wooden post and rail fencing or other equivalent restraining material. In addition to fencing, where active tree protection is required, each tree to be saved shall be marked at the base of the trunk with blue colored water-based paint.

(d) *Passive tree protection.* Materials for passive tree protection shall consist of heavy mil. plastic flagging, a minimum of four (4) inches wide with dark letters reading "Tree Protection Area - Do Not Enter" or equivalent signage on a continuous, durable restraint.

(e) *Additional measures.* The developer shall take measures to ensure the health of the protected trees during construction, including but not limited to the following measures:

1. Water, fertilize and treat the trees for pests or disease as needed, in accordance with standards of the International Society of Arboriculture.
2. If grading covers the trees with dust, hose them off.
3. Do not randomly or incorrectly prune live branches so that equipment or structures can "fit" within the tree's protected zone.
4. Do not strip the topsoil or remove the natural leaf mulch or material from beneath a protected tree.
5. Trees should be felled away from, rather than into, tree save areas.
6. Provide adequate mulching and water for trees that will be retained.

Section 15.2.7 Tree Damage

Any tree, designated on a tree protection plan to be saved, which is damaged during construction or as a result of construction, as determined by the arborist, shall be treated according to accepted standards of the National Arborists Association, or replaced with a tree or trees equal to the tree density unit value of the tree removed. However, any specimen tree damaged as described above shall be replaced with trees equal to two (2) times the

unit value of the tree removed or damaged. If a damaged specimen tree must be removed, the area occupied by its drip line must remain in a previous state. A replacement plan for such area must be approved by the arborist.

Section 15.2.8 Pruning

(a) To prevent long-term harm to the health of trees or their structure, all pruning of trees within the City of Roswell must be done in accordance with the International Society of Arboriculture Standards entitled "ANSI A300 Standards." A copy of the ANSI A300 Standards is attached to [Article 15](#) as [Section 15.7.3](#), Appendix D-ANSI A300 Standards, and is incorporated herein by reference as though fully stated.

(b) "Topping," defined as removal of more than one-third (1/3) of the leaves and branches of a tree measured from the lowest branch on the trunk of the tree to the top of the tree, is prohibited.

(c) Except for specimen trees, subsection (a) of this section shall not apply to a single lot that contains, or is zoned and platted for purposes of constructing, a detached single-family residence or duplex.

(Ord. No. 2009-06-07, §§ 1, 2, 6-8-2009)

CHAPTER 15.3 TREE REMOVAL

[Section 15.3.1 Removal of Specimen Trees](#)

[Section 15.3.2 Criteria for Removal of Trees](#)

[Section 15.3.3 Tree Removal and Construction Companies](#)

Section 15.3.1 Removal of Specimen Trees

Unless specifically exempted from the requirements of this article, no specimen tree as defined by this article shall be removed except in accordance with this section.

(a) *Justification for removal.* Any applicant proposing to remove a specimen tree(s) regulated by this article shall apply for a tree removal permit. In addition to the requirements for tree removal permits specified by this article, the applicant shall provide a written explanation as to why the specimen tree(s) cannot be retained on the site which shall include a description of all alternative site development plans considered by the applicant to avoid the removal of said specimen tree(s). Said written explanation shall at minimum include the following:

1. Consideration of whether any buildings or structures, parking areas, stormwater facilities, utilities, driveways, or other features of the proposed development can be relocated or designed to retain the specimen tree(s), and the additional costs of such relocations or design, if any.
2. Consideration of whether the land area consumed by the proposed development can be reduced via decked parking, reduction of the footprint of a building or structure by increasing the height or number of stories, placement of stormwater facilities underground, and other appropriate means, to retain the specimen tree(s), and the additional costs involved in such surface area consumption, if any.

3. Consideration of whether the development proposal can be reduced in size, scale, or extent without jeopardizing the economic feasibility of the proposed development.
4. The total estimated value of the development before approval and upon completion as proposed, if approved.

(b) *Zoning director approval.* An application to remove a specimen tree shall require the approval of the zoning director, after review by and recommendation from the arborist. The zoning director may also consult with the city engineer in determining the accuracy of cost estimates submitted in the applicant's written analysis. The zoning director may issue a permit to remove one (1) or more specimen trees after finding that one (1) or more of the following conditions are met:

1. The written analysis provides convincing evidence that alternative site and building designs have been considered by the applicant but would not result in retention of the specimen tree(s).
2. The additional cost associated with developing the site or constructing buildings as redesigned or reducing the site area consumed to retain the specimen tree(s) would be disproportional to the value of the specimen tree(s) retained, calculated at \$100.00 per tree density unit.
3. Retention of the specimen tree(s) would result in a less than viable economic use of the subject property.
4. If more than one (1) specimen tree is proposed to be removed, the site design results in the minimum number of specimen trees removed that are necessary to accommodate the proposed development.
5. A variance to the dimensional requirements of the Zoning Ordinance may be an appropriate remedy to preserve a specimen tree. Where in the opinion of the zoning director one (1) or more variances would enable a site and building design to be accomplished while saving one (1) or more specimen trees, and where the objectives of tree protection would outweigh the purposes of the zoning regulations that would be varied, the zoning director may suggest an applicant apply for variances instead of proposing to remove one (1) or more specimen trees. A determination by the zoning director that one (1) or more variances to the dimensional requirements of the Zoning Ordinance would not be appropriate may support a finding by the zoning director in favor of granting approval to remove one (1) or more specimen trees.
6. The request to remove a specimen tree or trees is reasonable considering the remaining specimen trees on the site that will be retained.
7. The zoning director may apply any or all decision criteria for the removal of trees as specified in this chapter.

The zoning director may approve or deny an application for a tree removal permit based on the above referenced criteria. The determination of the zoning director pursuant to this provision may be appealed in accordance with [chapter 31.6](#) of this ordinance.

(c) *Tree bank contribution.* When removal of a specimen tree(s) is approved by the zoning director, as a condition precedent to issuing said tree removal permit, the project applicant shall contribute to the City of Roswell Tree

Bank an amount of \$500.00 for each tree density unit of the specimen tree(s) removed, calculated on the basis of table 1 of this article. In any case where a specimen tree was removed without or prior to a lawfully issued tree removal permit, the amount contributed to the tree bank shall be \$1,000.00 per tree density unit of the specimen tree removed. The tree removal permit shall not be issued, nor shall the specimen tree(s) be removed, until funds are received for deposit in the City of Roswell Tree Bank. Said amount is in addition to any tree bank contribution which may be required under [section 15.4.2](#) of this article.

(d) *Recompense*. Contributions to the Roswell tree bank may be adjusted by recompense subject to the following criteria:

1. Credit, based on the tree density units as specified in table [15.7.2](#), may be given for new trees planted on the subject site, above and beyond the minimum site density requirement, if approved by the city arborist.
2. Such newly planted trees shall be of a caliper of four (4) inches or greater.
3. In cases where the obligation is not fully reduced by recompensed trees, the remaining obligation shall be deposited to the Roswell tree bank and calculated based on \$500.00 per density unit.

Section 15.3.2 Criteria for Removal of Trees

This section is intended to guide the arborist in considering whether non-specimen trees shall be permitted to be removed. At the discretion of the zoning director, the provisions of this section may be used along with other criteria specified in [section 15.3.1](#) in determining whether specimen trees shall be permitted to be removed.

(a) Tree removal shall be disallowed if soil erosion or runoff problems will result due to topography, soil type, or proximity to flood plain or river protection areas; or if the removal will substantially alter the existing soils adversely with regard to runoff and erosion. Information submitted by the city engineer or other environmental specialist may be used by the arborist in such an evaluation.

(b) Removal of non-specimen trees from a site may be allowed at the discretion of the arborist if:

1. The tree is located in an area where a structure or improvement will be placed and the tree cannot be relocated on the site because of age, species, or size of tree.
2. The tree is diseased or structurally unsound.
3. The tree is injured and/or poses an imminent danger.
4. The tree interferes with existing utility service.
5. The tree creates an unsafe vision clearance for vehicular movement.

Section 15.3.3 Tree Removal and Construction Companies

(a) All provisions of this article shall apply to any person removing trees on behalf of any other person, including all tree removal companies, utility companies or persons in the business of removing trees or construction. It shall be unlawful for any person or company to remove or cause to be removed any tree, or undertake any work for which a development permit is required pursuant to this Zoning Ordinance, unless a valid permit thereof is in effect and is displayed in accordance with the provisions of [chapter 15.5](#). If any such work or removal is performed without the permit being displayed as required in [chapter 15.5](#), such removal or work shall constitute a violation of this ordinance and shall subject the person or company violating this article to all penalties provided herein and this Zoning Ordinance, as applicable. However, utility companies may provide emergency work without formal

approval; provided, however, that emergency actions are reported in writing to the arborist within three (3) working days after completion of all emergency services. Further, the permit taken by any person, company or utility may include defined areas of tree cutting and trimming under one permit.

(b) All tree removal companies, utility companies or persons in the business of removing trees or construction shall remove from the site any trees, stumps, limbs or debris caused by activities allowed by the issuance of a permit under [chapter 15.5](#) of this article.

CHAPTER 15.4 TREE REPLACEMENT AND PLANTING

[Section 15.4.1 Minimum Tree Density Requirements](#)

[Section 15.4.2 Alternative Compliance to Tree Density Requirements](#)

[Section 15.4.3 Tree Replacement Plan](#)

[Section 15.4.4 Street Trees](#)

Section 15.4.1 Minimum Tree Density Requirements

(a) *Requirement.* A basic requirement of this article is that all applicable sites, including all single-family and/or duplex residential lots one (1) acre or greater in size, shall maintain a minimum tree density of thirty (30) units per acre. The term "unit" is an expression of basal area, and is not synonymous with "tree". The density requirement must be met whether or not a site had trees prior to development for the issuance of a development permit.

(b) *Methods of achievement.* The minimum required tree unit density may be achieved by counting existing trees to be preserved, by planting new trees according to the minimum standards in this article, or by a combination of the two (2). Only existing trees of not less than three (3) inches caliper, to be left in good growing condition on the property, shall be counted toward the minimum required tree density units.

(c) *Calculation of tree density requirement.* The minimum tree density required for any given lot subject to the requirements of this article shall be calculated and established pursuant to the formula and analysis set forth in Appendix A (section [15.7.1](#)) of this article. The minimum required tree density units shall be calculated on the basis of total (gross) area of the site or lot in question, excluding existing easements that are required to be cleared of trees.

Section 15.4.2 Alternative Compliance to Tree Density Requirements

(a) *Intent.* The intent of this article is to ensure that a minimum density of trees is maintained on all developed sites. Occasionally, this intent cannot be met, because a site will not bear the required density of trees. To provide an alternative in such cases, at the discretion of the city arborist, the applicant may contribute funds to the City of Roswell Tree Bank.

(b) *Standards.* The following standards have been established for administering this alternative compliance method. The arborist must review and approve all requests for alternative compliance. In no instance shall more than ninety (90) percent of the required site density be met through alternative compliance. As many trees as can

reasonably be expected to survive must be planted on the site in question. This provision may require planting less trees of a larger caliper than the minimum required caliper.

(c) *Permit*. No development permit shall be issued until the arborist has approved the request and funds are received for deposit in the City of Roswell Tree Bank.

(d) *Roswell Tree Bank*. The City of Roswell will accept donations to the Roswell tree bank. These donations will be used for the sole purpose of planting trees for public benefit on public property or private property within a public easement within the City of Roswell. For calculating contributions to the Roswell tree bank, see Appendix C (section [15.7.3](#)) of this article.

(e) *Fund administration*. The City of Roswell Tree Bank will be administered by the City of Roswell Finance Department with disbursements of tree bank funds initiated by the arborist and approved by the mayor and city council. A report shall be prepared by the Roswell finance department and submitted to the city administrator showing amounts collected, amounts spent, and the type and location of trees planted. The annual audit prepared by an independent auditor shall suffice to meet this requirement.

Section 15.4.3 Tree Replacement Plan

Trees must be relocated or replaced on site in accordance with the provisions of [section 15.4.1](#), unless alternative compliance is permitted pursuant to [section 15.4.2](#) of this article.

(a) *Separate drawing*. A separate tree replacement plan indicating the location of all proposed trees for revegetation is required. This plan shall be submitted as a separate drawing but may subject to the arborist's approval be included as a part of the tree protection plan.

(b) *Planting schedules and species names*. The tree replacement plan shall include planting schedules with proposed tree species names (botanical and common), quantity, size, spacing and any special planting notes.

(c) *Approved trees*. Unless otherwise approved by the arborist, trees selected for replanting must be on the tree species selection list found in Appendix B (section [15.7.2](#) of this article). Invasive trees shall not be allowed under any circumstances. Trees selected must be free from injury, pests, disease, nutritional disorders or root defects, and must be in good vigor in order to assure a reasonable expectation of survivability. It is desirable that replanted trees be ecologically compatible with the site and neighboring sites. Accordingly, the replanted trees shall be of the same or similar species as those removed when practical.

(d) *Flowering ornamental trees*. The use of flowering ornamental trees or plants classified as large shrubs may be included in the tree replacement plan, but shall not be used for the purpose of meeting minimum tree density unit requirements for the site unless approved by the arborist.

(e) *Transplanting of trees*. Standards for transplanting shall be in keeping with those established in the International Society of Arboriculture publication *Tree and Shrub Planting Manual*.

(f) *Overstory/understory ratio*. Replanting shall be at the ratio of not less than one (1) overstory tree for every three (3) understory trees. Density credit may be met by planting all overstory trees, but not by planting only understory trees. Refer to Appendix A (section [15.7.1](#)) for minimum size requirements for replacement trees.

(g) *Replacement tree size and height*. All replanted overstory trees shall be a minimum of eight (8) feet tall and have a trunk of not less than three-caliper inches. All replaced understory trees shall be a minimum of six (6) feet tall and have a trunk of not less than two (2) inches. In order to provide sufficient growing area for planted trees, the following minimum criteria must be observed unless otherwise approved by the arborist:

Overstory Trees - Two hundred (200) square feet of pervious root zone

Understory Trees - Seventy-five (75) square feet of pervious root zone

Impervious surface area may encroach into no more than thirty (30) percent of the pervious root zone of a tree to be protected or planted, with techniques approved by the arborist.

(h) *Diversity.* No more than forty (40) percent of any one genus may be included in any replanting plan. Exceptions to this requirement may be authorized by the arborist where in his or her opinion an exception is justified.

(i) *Planting and staking details.* Planting and staking details shall be provided on the plan as determined by the arborist using International Society of Arboriculture (ISA) standards.

(j) *Debris.* All debris from trees cut or substantially damaged shall be removed from the site or chipped in a timely fashion including the removal or chipping of any portion of the tree stump above the original natural grade or elevation of land unless exempted by the arborist for a specific reason such as, but not limited to, unusually large size or age.

(k) *Practices.* The City of Roswell encourages environmentally sustainable design practices, such as drought-tolerant landscaping, keeping turf away from native trees, and planting trees strategically for energy conservation.

(l) *Maintenance.* All replacement trees will be maintained properly to ensure their survivability.

Section 15.4.4 Street Trees

The requirements of this section shall be independent of and in addition to all other sections of this article.

(a) *Required.* Street tree planting is required along all new local, collector, and arterial streets in the City of Roswell and private streets within commercial, industrial, or residential subdivisions.

(b) *Responsibility.* The subdivider, owner of land to be dedicated as a public street, or the developer of a private street shall at the time of preliminary plat approval submit a plan for the provision of street trees along all said roads. It is the intent of this section that the subdivider carefully position street trees on the plan while taking into account future driveway and sidewalk locations if not constructed simultaneously with the construction of the public or private street. Suitable arrangements must be made for either the subdivider/developer or individual builders to install street trees according to a plan approved by the planning commission as a part of preliminary plat approval, prior to dedication or opening of said street. It is the preference of the city that the subdivider shall install said street trees prior to the dedication or opening of the public or private street; however, the planning commission may accept an agreement where the responsibility for street tree planting is shifted to the owners or individual builders of the lots to be subdivided. Any such responsibility shall be legally transferred in a form acceptable to the city attorney.

(c) *Location.* Trees must be planted within the public right-of-way or, if right-of-way width is insufficient to accommodate said street trees, then on private property abutting the public right of way within a street tree easement dedicated to the city. For local, arterial, and collector streets with speeds less than or equal to forty-five (45) miles per hour: On streets with curb and gutter, street trees should be a minimum of 1.5 feet behind the curb and may be placed between the sidewalk, if present, and the back of curb. On streets without curb and gutter, the trees should be at least seven (7) to ten (10) feet from the edge of the traveled way. A bike path is not considered part of the traveled way. Adequate sight distance must be available from intersecting streets and driveways. Utility

installations must be coordinated with tree locations. In many cases, the underground locations have the potential for conflict. Street trees shall have equal bearing when considering utility location.

(d) *Guidelines.* The guidelines below are intended to avoid conflicts with infrastructure; they are recommendations only and are subject to the approval of the arborist and, in the case of preliminary plat review, the planning commission.

Mature Size	Minimum Width Of Tree Lawn	Spacing Between Trees	Overhead Utilities (If Permitted)	Distance From Signs, Utility Poles, Driveways, Fire Hydrants	Distance From Intersection	Distance From Underground Utilities
Large 50–70 Feet	8 Feet	60 Feet	Do Not Plant	10 Feet	30 Feet	5 Feet
Medium 30–40 Feet	5 Feet	40 Feet	Okay	10 Feet	30 Feet	5 Feet
Small 15–20 Feet	3 Feet	20 Feet	Okay	10 Feet	30 Feet	5 Feet
Evergreen 40–50 Feet	Yards Only	30 Feet	Do Not Plant	30 Feet	30 Feet	5 Feet

CHAPTER 15.5 APPLICATION AND PERMITS

[Section 15.5.1 Application Requirements](#)

[Section 15.5.2 Permit Procedures](#)

Section 15.5.1 Application Requirements

When a person applies for a development permit, such person shall also file an application for a tree removal permit providing the following information:

- (a) A complete tree survey, as specified in [chapter 15.2](#)
- (b) A complete tree protection plan, as specified in [chapter 15.3](#)
- (c) A complete tree replacement plan as specified in [chapter 15.4](#)

The arborist shall be authorized to and may waive the application requirements of this article in cases where the proposed development will not involve the removal or replacement of trees, or in cases where the submission of a

tree survey, tree protection plan, and/or tree replacement plan would be unduly burdensome given the nature of the development proposed; provided, however, that the arborist shall in all instances at least require a sketch showing proposed changes to ensure compliance with this article.

Each applicant requesting a permit under the provisions of this article, except those pertaining to property solely within a public right-of-way, shall deposit with the City of Roswell a fee as set forth by the mayor and city council, as amended from time to time. The fee shall be nonrefundable.

Section 15.5.2 Permit Procedures

(a) *Approval by arborist.* Prior to the issuance of a tree removal permit and a development permit, a tree survey, tree protection plan, and tree replacement plan must be submitted to and approved by the arborist as required by this article. Said arborist's approval must be achieved prior to submission of a final design plan application to the design review board or prior to submission of an application for a certificate of appropriateness to the historic preservation commission, whichever has jurisdiction. All tree surveys, tree protection plans, and tree replacement plans and related documentation shall be reviewed by the arborist for conformance with the provisions of this article and either approved, returned for revision, or denied. If denied, the reasons for denial shall be annotated on the application and/or plans, as appropriate, or otherwise stated in writing.

(b) *Relationship to other reviews.* Approved tree surveys, tree protection plans, and tree replacement plans shall be accepted by the design review board or the historic preservation commission, whichever has jurisdiction, as a pre-approved element of the design plan or certificate of appropriateness, respectively.

(c) *Issuance.* After the tree survey, tree protection plan, and tree replacement plan are approved, and the after the remaining elements of the design plan are approved by the design review board or certificate of appropriateness is approved by the historic preservation commission, whichever applies if required, tree removal permits shall be issued and development plan approval with regard to conformance with this article shall be granted.

(d) *Inspections.* All tree protection measures shall be installed prior to any land disturbance, and the arborist shall be contacted for a pre-construction conference prior to land disturbance. As a condition of the issuance of a permit, the applicant shall agree in writing to entry onto his premises by representatives of the city as designated by the arborist to inspect the permit and activities at any time, and such entry shall be lawful. Failure to allow such entry shall be unlawful and shall constitute failure to display the permit as required under this section. Land disturbance may proceed only after a tree removal permit and development permit are obtained. The arborist shall make unscheduled inspections before and during development to ensure protection of trees, critical root zones drip lines, and buffer zones. After completion of a development, but prior to the issuance of a certificate of occupancy, the arborist will conduct an on-site inspection of the site to ensure compliance with the approved tree protection plan and approved tree replacement plan. The engineering division of the community development department will be charged with the responsibility of inspecting the site to ensure that trees are adequately protected during any grading of the property for infrastructure installation.

(e) *Display of permit.* The applicant shall prominently display the tree removal permit on the site for which the permit is issued. Such permit shall be displayed continuously while trees are being removed or replaced or work done as authorized on the permit.

CHAPTER 15.6 ADMINISTRATION AND ENFORCEMENT

[Section 15.6.1 Emergencies](#)

[Section 15.6.2 Variances](#)

[Section 15.6.3 Appeals](#)

[Section 15.6.4 Withholding of Certificate of Occupancy](#)

[Section 15.6.5 Enforcement and Penalties](#)

Section 15.6.1 Emergencies

In case of emergencies, such as hurricane, windstorm, flood, freeze or other disasters, the requirements of these regulations may be waived by the arborist or other designated official, upon a finding that such waiver is necessary so that public or private work to restore order in the city will not be impeded.

Section 15.6.2 Variances

The board of zoning appeals may, upon appropriate application in accordance with [chapter 31.4](#) of this ordinance, may grant a variance to the terms and provisions of this article.

Section 15.6.3 Appeals

Any person adversely affected by a decision of the arborist or the zoning director in the administration, enforcement or interpretation of any of the terms or provisions of this article may appeal such decision to the board of zoning appeals in accordance with the provisions of [chapter 31.6](#) of this ordinance.

Section 15.6.4 Withholding of Certificate of Occupancy

The zoning director or arborist may instruct the building inspector to withhold the issuance of the required certificate of occupancy, or permits and inspections, for any development until the provisions of this article have been fully met.

Section 15.6.5 Enforcement and Penalties

(a) *Section 1.1.3 penalties.* Any person, firm or corporation violating any provisions of this article shall upon conviction be punished as described in Section 1.1.3 of the Code of the City of Roswell, which provides for fines up to \$2,000.00, imprisonment up to one hundred eighty (180) days, and/or community service up to one hundred eighty (180) days. In addition, the person, firm or corporation may be enjoined from continuing the violation. Each tree cut, damaged or poisoned shall constitute a separate offense.

(b) *Stop-work orders.* Upon issuance of a stop work order by the zoning director, work on any project that is being done contrary to the provisions of this article shall be immediately stopped. Such notice shall be in writing and shall be given to the owner of the property, his authorized agent or the person or persons in charge of the activity on the

property, and shall state the conditions under which work may be resumed. Where an emergency exists, no written notice shall be required. A stop-work order shall be considered a suspension of the development permit.

(c) *Suspension, revocation or modification of permits.* A tree removal permit and/or development permit may be suspended, revoked or modified by the zoning director upon a finding that the holder is in violation of the terms of the permit or any portion of this article.

CHAPTER 15.7 APPENDICES

[Section 15.7.1 Appendix A Density Factor Analysis](#)

[Section 15.7.2 Appendix B Tree Species Selection List](#)

[Section 15.7.3 Appendix C Formula For Determining Contributions to Roswell Tree Bank](#)

Section 15.7.1 Appendix A Density Factor Analysis

A basic condition of this article is that all applicable sites maintain a minimum tree density of thirty (30) units per acre. The term "unit" is an expression of basal area and is not synonymous with "tree".

The minimum tree density requirement must be met whether or not a site had trees prior to development. The density may be achieved by counting existing trees to be preserved, planting new trees, or some combination of the two (2).

For density factor analysis, the following formula shall apply:

$$\text{SDF} = \text{EDF} + \text{RDF}$$

Where:

SDF (Site Density Factor) = The minimum tree density required to be maintained on a developed site (30 units per acre).

EDF (Existing Density Factor) = Density of existing trees to be preserved on a site.

RDF (Replacement Density Factor) = Density of new trees to be planted on a site.

PROCEDURE FOR CALCULATING THE REQUIRED TREE REPLACEMENT:

Step 1. Calculate the Site Density Factor (SDF):

The SDF is calculated by multiplying the number of site acres by 30.

EXAMPLE: A 2.2 acre site has a SDF of $2.2 \times 30 = 66$

Step 2. Calculate the Existing Density Factor (EDF):

The Existing Density Factor, EDF, is determined by converting the diameter breast height (dbh) of individual existing trees to density factor units as shown in the following table 1. These units are totaled to determine the EDF for the site.

A total of 8 existing trees will remain on the EXAMPLE: 2.2 acre site in Step 1. These existing trees include:

- 3 - 14" pines
- 3 - 18" oaks
- 1 - 20" hickory
- 1 - 30" oak

When converted to density factor units using table 1 (on the following page), we arrive at the following values for existing trees on the site:

UNITS X NUMBER OF TREES dbh
 4.8 x 3 = 14"14.4
 5.7 x 3 = 18"17.1
 6.0 6.0 x 1 = 20"
 8.4 8.4 x 1 = 36"
 units total 45.9

The total units, 45.9, is the EDF (Existing Density Factor). This is the density value of existing trees that will remain on the site.

Step 3. Calculate the Replacement Density Factor (RDF):

Replacement Density Factor (RDF) is determined by subtracting the EDF from the SDF.

EXAMPLE: 66 (SDF) - 45.9 (EDF) = 20.1

This means that 20.1 tree units are required as replacements for the total site to meet the requirement of 30 units per acre.

The Density Factor credit for each caliper size of replacement (new) trees is shown in table 2 on the following page.

TABLE 15.7.1
 CONVERTING EXISTING TREE DIAMETERS TO DENSITY UNITS

DBH Existing Tree	Density Units for Existing Tree	DBH Existing Tree	Density Units for Existing Tree
3"	1.0	26"	6.9
4"	1.5	28"	<u>7.2</u>
5"	2.0	30"	7.5
6"	2.4	32"	7.8

8"	3.0	34"	<u>8.1</u>
10"	3.6	36"	8.4
12"	<u>4.2</u>	38"	8.7
14"	4.8	40"	9.0
16"	<u>5.3</u>	42"	<u>9.3</u>
18"	<u>5.7</u>	44"	<u>9.6</u>
20"	6.0	46"	9.9
22"	<u>6.3</u>	48"	<u>10.2</u>
24"	6.6	50" or more	<u>10.5</u>

TABLE 15.7.2
 CONVERTING REPLACEMENT TREES TO DENSITY UNITS

Caliper of Replacement Tree	Density Units for Replacement Tree	Caliper of Replacement Tree	Density Units for Replacement Tree
2" understory only	0.5	6"	2.4
3"	0.5	7"	<u>3.2</u>
4"	0.9	8"	4.0

5"	1.5	9" or more	6.0
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A seven-gallon container grown pine tree is given replacement credit of 0.3 units. The minimum size for an understory tree is two (2) inches. The minimum size for an overstory tree is three (3) inches.

For tree relocation, replacement units will be granted to trees relocated on site. Tree relocation is subject to arborist approval.

Section 15.7.2 Appendix B Tree Species Selection List 

<i>Overstory Trees</i>		
1.	<i>Acer floridanum</i>	Florida Maple or Southern Sugar Maple
2.	<i>Acer rubrum</i>	Red Maple
3.	<i>Acer saccharum</i>	Sugar Maple
4.	<i>Betula nigra</i>	River Birch
5.	<i>Carya species</i>	Hickories, Pecans
6.	<i>Castanea mollissima</i>	Chinese Chestnut
7.	<i>Celtis occidentalis</i>	Hackberry
8.	<i>Cercidiphyllum japonicum</i>	Katsura Tree

9.	<i>Cladrastis lutea</i>	American Yellowwood
10.	<i>Cryptomeria Japonica</i>	Cryptomeria
<u>11</u>	<i>Cunninghamia lanceolata</i>	Common Chinafir
12.	<i>Cupressocyparis leylandii</i>	Leyland Cypress
13.	<i>Fagus grandifolia</i>	American Beech
14.	<i>Fraxinus americana</i>	White Ash
15.	<i>Fraxinus pennsylvanica</i>	Green Ash
16.	<i>Ginkgo biloba</i>	Ginkgo
17.	<i>Halesia carolina</i>	Carolina Silverbell
18.	<i>Ilex Opaca</i>	America Holly
<u>19</u>	<i>Juniperus virginiana</i>	Eastern Red Cedar
20.	<i>Liquidambar styraciflua</i>	Sweetgum
21.	<i>Liriodendron tulipifera</i>	Yellow Poplar, Tulip Poplar
22.	<i>Magnolia grandiflora</i>	Southern Magnolia
<u>23</u>	<i>Metasequoia glyptostroboides</i>	Dawn Redwood
24.	<i>Nyssa sylvatica</i>	Black Gum, Black Tupelo

25.	<i>Pinus elliottii</i>	Slash Pine
26.	<i>Pinua taeda</i>	Loblolly Pine
<u>27</u>	<i>Pinus strobes</i>	White Pine
28.	<i>Pinus virginiana</i>	Virginia Pine
<u>29</u>	<i>Platanus occidentalis</i>	Sycamore
30.	<i>Quercus species</i>	Oaks, except Live Oaks
<u>31</u>	<i>Robinia pseudoacacia</i>	Black Locust
32.	<i>Sophora japonica</i>	Japanese Pagodatree
<u>33</u>	<i>Taxodium disticum</i>	Bald Cypress
34.	<i>Ulmus parvifolia</i>	True Chinese Elm
35.	<i>Zelkova serrata</i>	Japanese Zelkova
<i>Understory Trees</i>		
1.	<i>Acer buergerianum</i>	Trident Maple
2.	<i>Amelanchier arborea</i>	Serviceberry

3.	<i>Carpinus caroliniana</i>	American Hornbeam
4.	<i>Cercis canadensis</i>	Eastern Redbud
5.	<i>Chionanthus virginicus</i>	Fringe tree, Grancy Graybeard
6.	<i>Cornus species</i>	Dogwoods
7.	<i>Cotinus obovatus</i>	American Smoketree
8.	<i>Crataegus phaenopyrum</i>	Washington Hawthorne
9.	<i>Hamamelis virginiana</i>	Witch-Hazel
10.	<i>Ilex species</i>	Holly
<u>11</u>	<i>Illicium floridanum</i>	Florida Anise-tree
12.	<i>Koelreuteria paniculata</i>	Golden Raintree
13.	<i>Lagerstroemia species</i>	Crapemyrtle species
14.	<i>Magnolia stellata</i>	Star magnolia
15.	<i>Malus species</i>	Flowering crabapple
16.	<i>Myrica cerifera</i>	Waxmyrtle
17.	<i>Ostrya Virginia</i>	Ironwood
18.	<i>Oxydendrum aboreum</i>	Sourwood

19.	<i>Ptachia chinensis</i>	Chinese Pistache
20.	<i>Prunus serrulata</i>	Japanese Flowering Cherry
21.	<i>Prunus x yedoensis</i>	Yoshino Cherry
22.	<i>Sassafras albidum</i>	Sassafras

Section 15.7.3 Appendix C Formula For Determining Contributions to Roswell Tree Bank

The required contribution amount is \$220.00 per tree density unit, based on cost of materials, labor and guarantee for trees planted in the Roswell area.

To determine the appropriate contribution, Example: first calculate the Density Factor Deficient (DFD) or unit value which cannot be planted on the site.

Determine the Density Factor Deficient (DFD) using the formula:

$$DFD = SDF - EDF - \text{Approved RDF}$$

Where:

SDF (Site Density Factor) = The minimum tree density required to be maintained on a developed site (30 units per acre).

A 2.2 acre site will have a required Site Example: Density Factor of 66.0 units (2.2 x 30 = 66).

EDF (Existing Density Factor) = Density of existing trees to be preserved on a site.

The site has existing trees totaling 45.9 units (Existing Density Factor).

Approved RDF (Replacement Density Factor) = Density of new trees to be planted on a site.

Due to space limitations, the site can only bear 15.0 units as replacement trees.

Example:

$$DFD = SDF - EDF - \text{Approved RDF}$$

$$DFD = 66 - 45.9 - 15$$

$$DFD = \underline{5.1} \text{ (the number of tree density units that cannot be planted on site)}$$

This means that the value of 5.1 tree density units must be contributed to the Roswell Tree Bank. Determine the acceptable contribution amount as follows:

$$\underline{5.1} \text{ tree density units} \times \$220 \text{ per tree density unit} = \$1,122.00$$

$$\$1,122 = \text{TOTAL CONTRIBUTION TO TREE BANK}$$

