

City of Kennesaw

Cobb County

Atlanta MSA

2003 Population Estimate 25,816; +14.3% change from 2000 Census.

Not a Tree City USA.

No tree board established by ordinance.

APPENDIX A ZONING

ARTICLE XVII. TREE PROTECTION REQUIREMENTS

Year first adopted or last revised unknown.

Addresses private property.

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APPENDIX A ZONING*

***Editor's note:** Printed herein are the city's zoning rules and regulations, as adopted by the city council on March 18, 1996. Amendments to the ordinance are indicated by parenthetical history notes following amended provisions. The absence of a history note indicates that the provision remains unchanged from the original ordinance. Obvious misspellings and punctuation errors have been corrected without notation. For stylistic purposes, headings and catchlines have been made uniform and the same system of capitalization, citation to state statutes, and expression of numbers in text as appears in the Code of Ordinances has been used. Additions made for clarity are indicated by brackets.

Cross references: Code enforcement, § 2-181 et seq.; alcoholic beverages, ch. 6; amusements and entertainments, ch. 10; businesses, ch. 22; cable communications, ch. 26; environment, ch. 46; historic preservation, ch. 54; streets, sidewalks and other public places, ch. 78; subdivisions, ch. 80; utilities, ch. 90.

State law references: Authority to adopt plans and exercise the power of zoning, Ga. Const. art IX, § II, ¶ IV; the Zoning Procedures Law, O.C.G.A. § 36-66-1 et seq.; local government zoning powers, O.C.G.A. § 36-67A-1 et seq.; effect of zoning laws on covenants running with the land, O.C.G.A. § 4-5-60.

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A RESOLUTION TO COMPREHENSIVELY AMEND THE ZONING ORDINANCE OF THE
CITY OF KENNESAW

A resolution and ordinance by the City of Kennesaw to comprehensively amend the Zoning Ordinance of the City of Kennesaw adopted on February 16, 1971, as amended from time to time, to provide for clarification of definitions, new administrative provisions including incorporation of O.C.G.A. § 36-66-1 et seq., new residential and commercial zoning districts, including Historic Preservation Village, Residential Duplex, Neighborhood Retail Commercial, and Regional Retail Commercial; to provide for site plan amendments; to provide for sale, refinancing and leasing exemptions; to provide for certain administrative variances; to provide for exemptions for state, federal and local governments and entities exercising the power of eminent domain from compliance with the ordinance; to provide for additional standards for Special Land Use and Land Use Permits; to provide for Adult Entertainment Establishment Regulations; to provide for Lighting and Buffering Requirements; to provide for Standards for Antennas and Towers; and to provide for other general formatting and use restrictions. THEREFORE, NOW BE IT RESOLVED AND ORDAINED that the following shall be adopted, approved, and amended in lieu of the existing Zoning Ordinance of the City of Kennesaw, as follows:

Section 1. There is hereby adopted by amendment thereto zoning districts for the use of property in the City of Kennesaw as provided herein.

Section 2. Subject to the express provisions herein all properties shall be zoned as set forth on the "Official City of Kennesaw Zoning Map," as amended, which shall bear the signature of the Mayor with the attest of the city clerk, together with the seal of the City of Kennesaw, which map shall be kept under the custody of the zoning administrator, and shall be subject to public inspection. The Official City of Kennesaw Zoning Map is incorporated herein by express reference; however, in the event of a conflict between the original minutes of the mayor and city council and the map, the official minutes shall be controlling.

Section 3. Contemporaneously with the adoption of said comprehensive amendment to the Zoning Ordinance of the City of Kennesaw, the mayor and city council implement, adopt and incorporate the Recreation Master Plan, as previously adopted in June, 1995, and as incorporated in the Recreation Impact Fee Ordinance on January 2, 1996, for inclusion in the Kennesaw Comprehensive Land Use Plan and the Future Land Use Plan Map, as amended.

Section 4. All land of the City of Kennesaw shall remain zoned into the district as shown on the "Official Minutes of the City of Kennesaw," subject to the express provisions and restrictions contained herein.

Section 5. All applications which have been filed and are presently pending before the mayor and city council under an antecedent zoning ordinance of the City of Kennesaw shall be considered as meeting all requirements of this ordinance so as to be zoned as such or rezoned to the appropriate district of this ordinance.

Section 6. The effective date of this ordinance shall be March 18, 1996.

SO RESOLVED this _____ day of March, 1996.

JOHN R. HAYNIE, Mayor

ATTEST:

Susan Rackley, Clerk

ZONING ORDINANCE

KENNESAW, GEORGIA

John R. Haynie, Mayor
Robert M. Hail, City Manager
Susan Rackley, City Clerk

CITY COUNCIL

Ben Robertson
Pat Ferris
Mark Mathews
Jack Rowland
Jerry Worthan, Mayor Pro Tem

PLANNING COMMISSION

Ray Tanner, Jr., Chairman
Fred Moore, Vice Chairman
Benny Adams
Richard Anderson
William C. Bairan
Pat Carrier
Rebecca Lewis

ZONING ADMINISTRATOR

Diane Coker

CITY ATTORNEY

Fred D. Bentley, Jr.

**ZONING ORDINANCE
of the
CITY OF KENNESAW, GEORGIA**

ARTICLE XVII. TREE PROTECTION REQUIREMENTS*

***Editor's note:** Ord. No. 1999-08, adopted July 19, 1999, repealed in their entirety §§ 1700--1795 and enacted new §§ 1700--1790 as set out herein. Said former sections pertained to similar subject matter and derived from Ord. No. 1999-13, adopted October 18, 1999.

[Section 1700] Purpose and intent.

The tree preservation and replacement ordinance was enacted to provide standards for the preservation and/or replacement of trees as part of the land development and building construction process for the purpose of making the City of Kennesaw a more attractive place to live, providing a healthy living environment, and better maintaining control of stormwater runoff, noise, glare and soil erosion.

The intent of these standards is to provide the necessary information to facilitate development project design, plan review, and enforcement processes in order that the provisions of the ordinance are administered in the most effective, efficient and economical manner.

(Ord. No. 1999-08, 7-19-99)

[Section 1710] Application.

The terms and provisions of the tree preservation and replacement ordinance and these standards shall apply to any activity, private and/or governmental, on real property which requires the issuance of a land disturbance permit within the City of Kennesaw. No land disturbance permit shall be issued for full site development by the construction and development department without it being determined that the proposed development is in compliance with the provisions of these regulations.

(Ord. No. 1999-08, 7-19-99)

[Section 1720] Definitions.

1. *Buffer.*

A. *Water quality buffer:* A designated area of adequate width to provide for protection of the streambank, channel soils and vegetative cover as determined by the development and inspections department, adjacent to any state waters, watercourses, or drainage areas, in which no land disturbing activities shall be undertaken unless approved in the plan. Such activities may include stream crossings for transportation routes or utilities construction; sewer and water line construction, and minor landscaping or channel improvement activities to stabilize critical areas.

B. *Zoning buffer:* Any area required to remain undisturbed as a condition of zoning.

2. **Basal area:** The cross-sectional area of a tree trunk at diameter breast-height (dbh) expressed herein in terms of "units" per acre.
3. **Caliper:** The standard for trunk measurements of nursery stock. Caliper of the trunk shall be taken at six inches above the ground for trees up to and including four-inch caliper size, and 12 inches above the ground for trees larger than four-inch caliper.
4. **Construction permit:** A permit issued on-site by development and inspections department site inspection staff to allow the commencement of any clearing, grubbing and/or grading. This permit is issued only after a land disturbance permit has been issued, and all erosion control and tree protection measures have been installed in accordance with the approved plan.
5. **Critical root zone:** 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 critical root zone (CRZ) will typically be represented by a concentric circle centering the tree's trunk with a radius equal in feet to one times the number of inches of the trunk diameter. Example: The CRZ radius of a 20-inch diameter tree is 20 feet.
6. **Density factor:** A unit of measure to prescribe the calculated tree coverage on a site.
7. **Diameter:** Diameter breast-height/DBH: The standard of tree size (for trees existing on a site). The tree trunk is measured at a height of 4 1/2 feet above the ground. If a tree splits into multiple trunks below 4 1/2 feet, measure the trunk at its most narrow point beneath the split.
8. **Growing season:** A period of no less than 12 months during which there are at least three contiguous months of dormancy followed by a spring leafing.
9. **Hardwood tree:** Any 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.
10. **Land disturbance permit.** Any land change which may result in soil erosion from water or wind and the movement of sediments into the waters or into land within the City of Kennesaw, including but not limited to clearing, grubbing, stripping, dredging, grading, excavating, transporting, and filling of land.
11. **Large tree:** Any tree which has the potential to grow to a mature height of 40 feet or more. (Reference Landscape Plant Materials for Georgia, Cooperative Extension Service, The University of Georgia College of Agriculture, Bulletin No. 625 or any similar publication.)
12. **Protected zone:** All lands that fall outside the buildable area of a parcel, all areas of the parcel required to remain in open space, and all designated buffers or tree save areas, or conditions of zoning approval.
13. **Replacement tree:** A new tree planted on a site to meet minimum site density factor requirements (regardless of whether trees existed prior to any development).
14. **Small tree:** Any tree which typically grows to a mature height of less than 40 feet. (Reference Landscape Plant Materials for Georgia, Cooperative Extension Service, The University of Georgia College of Agriculture, Bulletin No. 625 or any similar publication.)
15. **Softwood tree:** Any coniferous (cone bearing) tree. This definition is based on the colloquialism, and does not necessarily reflect any true qualities of the tree.
16. **Specimen tree:** Any tree which qualifies for special consideration for preservation to its size, type and condition.

17. *Tree*: Any living, self-supporting woody perennial plant which normally obtains a trunk diameter of at least two inches and a height of at least ten feet, and typically has one main stem or trunk and many branches.

18. *Tree save area*: All areas designated for the purpose of meeting tree density requirements, saving specimen trees, and/or preserving natural buffers.

(Ord. No. 1999-08, 7-19-99)

[Section 1730] Density factor analysis.

1. *Overview*:

A. A basic requirement of the tree preservation and replacement ordinance is that all applicable sites maintain a minimum tree density of 20 units per acre. The term "unit" is an expression of basal area (a standard forest inventory measurement), and is not synonymous with "tree."

B. This 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 as represented by the formula:

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

Where:

SDF (site density factor) = The minimum tree density required to be maintained on a developed site (20 units per acre).

EDF (existing density factor) = Density of existing trees to be preserved on-site.

RDF (replacement density factor) = Density of new trees to be planted on a site.

2. *Site Density Factor*: Site density factor (SDF) is the minimum tree density required to be maintained on a developed site (20 units per acre). The SDF is calculated by multiplying the number of site acres by 20. Determine the affected site acreage by starting with the area of the parcel(s) of land on which the project is located. Add the area of any off-site slope easements and subtract the area of any 100-year flood plain, wetland or utility easement.

3. *Existing Density Factor*: Existing density factor (EDF) is the density of existing trees to be preserved on a site. Trees that exist in any 100-year flood plain, wetland or utility easements cannot be counted toward meeting tree density requirements.

The EDF is calculated by converting the diameter of individual trees to density factor units. See Table A.

4. *Replacement Density Factor*: Replacement density factor (RDF) is the density of new trees to be planted on a site. Calculate the RDF by subtracting the EDF from the SDF.

The density factor credit for each caliper size of replacement (new) trees is shown in Tables B-1 through B-3.

Any number or combination of transplantable sized trees can be used as long as the total density factor units will equal or exceed the RDF and the species mix is acceptable to the City of Kennesaw.

5. *Unique Density Requirements:*

A. *Subdivision & Multi-Family Developments:* Every lot in a subdivision shall have a minimum of three units of trees. These trees can be counted as part of the required 20 units per acre, but they may be an additional requirement if the 20 units per acre requirement is met elsewhere on the site. If trees must be planted on any lot, these trees must be a minimum of two inches in caliper, and at least one of the trees must be a minimum of three inches in caliper and planted in the front setback area. This requirement shall apply to the developer or homebuilder, whoever is responsible for obtaining the certificate of occupancy for the individual lot.

Subdivision developments proposed in areas that are 75 percent of the total area primarily pasture land may meet tree ordinance requirements in one of the following ways:

- (1) Plant trees at 20 units per acre based on the area of the subdivision infrastructure (road rights-of-way, utility easements and drainage structures)
- (2) Preserve and/or plant trees at 20 units per acre based on the area of the entire subdivision.

Tree preservation areas for subdivisions should all be in common areas, or in buffers required to be undisturbed by zoning or other regulations. If tree preservation areas must be 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.

B. *Commercial & Industrial Developments:* A sufficient number of trees must be planted in interior portions of parking lots to achieve a ratio of one tree per 1,140 square feet of parking bay area. In addition, every parking space must be within 50 feet of the trunk of a tree to assure uniform distribution of trees throughout the parking area.

Any redevelopment project which results in the removal and resurfacing of 15 percent or more of an existing parking lot (other than routine maintenance of the parking surface) must retrofit the entire parking to meet the tree planting standard in the previous paragraph.

All street yards shall be planted with one tree for each 35 linear feet exclusive of driveways, access ways and sight distance triangles.

Trees planted to meet the parking lot and street yard requirements must meet or exceed the minimum standards specified in section 416.04.

Parking lot or street yards trees can be counted as part of the required 20 units per acre, but they may be an additional requirement if the 20 units per acre requirement is met elsewhere on the site.

C. *Outparcels to Shopping Center:* These shall meet all tree ordinance density requirements separate from the overall shopping center.

D. *Subdivision Amenity / Recreation Areas:* These shall meet all tree ordinance density requirements separate from the overall subdivision.

E. *Clearing Only Permits:* See City of Kennesaw Development Standards Section.

F. *Grading Only Permits:* Grading projects for which no full site plans have been submitted for review by Cobb County staff are subject to the same buffer

requirements as clearing operations. The grading plan shall conform to the review requirements listed in the City of Kennesaw Development Standards and Specifications Section 103.03 (Borrow/fill permit). An estimated completion date must be noted on the plan.

Buffer areas that must be landscaped shall be planted at the completion of the grading project or postponed to an appropriate planting season provided that appropriate performance security arrangements are made in accordance with section 103.03. Planted buffers are subject to maintenance inspection procedures.

Compliance with tree ordinance requirements for speculative grading be postponed for up to six months provided that appropriate performance security arrangements are made in accordance with section 300.

G. *Additions to Existing Projects:* For additions to existing projects, the 20 units per acre density requirement may be met in one of the following ways:

- (1) Calculate the area of any new land disturbance and/or improvements and add replacement trees based on that area (existing trees elsewhere on the site may not be counted with this option); or,
- (2) Base density requirements on the total site area and count any existing trees on the site (subject to all restrictions noted elsewhere in these standards).

H. *Phased Projects:* Where development will occur in increments, density calculations may be based on a site area defined by an established or estimated phase line or construction limit line. Existing trees to be counted toward meeting the density requirements must be within the phase line or limits of construction.

Table A

DIAMETER SIZE TO UNIT VALUE

For existing trees to be preserved

TABLE INSET:

Size Class	Diameter (DBH)	Unit Value
1	1-4 inches	0.1
2	5-8 inches	0.3
3	9-12 inches	0.6
4	13-16 inches	1.2
5	17-20 inches	1.9
6	21-24 inches	2.8

7	25-28 inches	3.8
8	29-32 inches	5.1
9	33-36 inches	6.5
10	37-40 inches	8.1
The unit value of any individual tree may be determined by using the formula: (Diameter) 2 x .7854 + 144		

Table B-1

CALIPER SIZE TO UNIT VALUE

For deciduous trees normally sold by caliper size

TABLE INSET:

Caliper Size	Unit Value
1-1 1/2 inches	.4
2-2 1/2 inches	.5
3-3 1/2 inches	.6
4-4 1/2 inches	.7
5-5 1/2 inches	.9
6-6 1/2 inches	1.0
7-7 1/2 inches	1.2
8-8 1/2 inches	1.3

Table B-2

HEIGHT TO UNIT VALUE

Deciduous Trees Not Normally Sold by Caliper Size

TABLE INSET:

Height	Unit Value

6-8 feet	.4
10-12 feet	.5
14-16 feet	.6
18-20 feet	.7
22-24 feet	.9

Table B-3

HEIGHT TO UNIT VALUE

Evergreen Trees

TABLE INSET:

Height	Unit Value
5-6 feet	.4
7-8 feet	.5
10-12 feet	.6
14-16 feet	.7
18-20 feet	.9

All evergreens other than pines must be a minimum of 5 to 6 feet height at the time of planting. Height rather than caliper size will determine the unit value of evergreens.

If a tree is specified on the plan to be of a size that falls between two size classifications, the lower number will determine the unit value to be assigned. For example:

TABLE INSET:

Willow Oak	3 1/2-4 inches	.6 unit
River Birch	12-14 feet	.5 unit
Southern Magnolia	6-7 feet	.4 unit

(Ord. No. 1999-08, 7-19-99)

[Section 1740] Tree preservation standards.

1. *Introduction:* The following section establishes standards by which plans and field conditions are to be evaluated to determine compliance with the tree preservation intent of the City of Kennesaw's tree protection requirements.
2. *Tree Inventories and Surveys:*
 - A. All trees that are to be counted toward meeting density requirements must be inventoried. Trees in other protected zones need not be inventoried.
 - B. Sampling methods may be used to determine tree densities for large forested areas subject to prior approval of the City of Kennesaw arborist. Written guidelines for performing sample inventories can be obtained from the arborist.
 - C. Specimen trees must be shown on the plan with an indication whether they are to be retained or removed. Accurate locations are requested when the preservation of a specimen tree is questionable, or when a site design alteration is feasible. Approximate locations are acceptable otherwise.
 - D. Projects over two acres must provide a plan delineating all ground cover-types (including pasture or forest) on the site and a general description of the types of trees and range of tree sizes in each forest cover-type (e.g. mixed pine and upland hardwoods 12" to 20" dbh).
 - E. Any specimen tree that has a surveyed location shown on the plan will receive double the normal unit value credit if there is to be no construction activity in that tree's critical root zone (CRZ). These trees must be represented on the plan by a circle the size of the CRZ.
3. *Plan Review Standards:*
 - A. All protected zones must be delineated on the tree preservation and replacement plan as well as the erosion and sediment control plan.
 - B. Protected zones must be of sufficient size to reasonably expect the majority of trees growing there to survive the proposed construction impacts. When proposed construction impacts are, in the opinion of the city arborist, likely to cause severe decline and/or death of an affected tree, that tree will not receive credit for meeting tree ordinance requirements.
 - C. All buffers with existing trees must be delineated on plans as tree save areas. Land disturbance within any buffer is subject to plan review committee approval. The applicant must clearly demonstrate the need for the proposed disturbance.
 - D. For subdivisions, all buffers shall be delineated on the final plat and identified as preservation easements. Final plats must also identify any individual lots with other tree preservation and/or planting requirements. These lots must be identified on the plat with a symbol and a corresponding note indicating the homebuilder's responsibility for such tree preservation and/or planting requirements.
4. *Construction Standards:*
 - A. *Purpose of Tree Protection Devices:*
 - (1) Tree protection devices are necessary to eliminate activities detrimental to trees including but not limited to:
 - (a) Soil compaction in the critical root zone resulting from heavy equipment, vehicular or excessive pedestrian traffic, or storage of

equipment or materials;

(b) Root disturbance due to cuts, fills or trenching;

(c) Wounds to exposed roots, trunks or limbs by mechanical equipment;

(d) Other activities such as chemical storage, cement truck clearing, fire, etc.

B. *Location and Types of Tree Protection Devices:*

(1) Tree protection devices are to be installed as shown on the plan or otherwise completely surrounding the critical root zone (see definitions) of all trees to be preserved.

(2) The installation of all tree protection devices will be verified prior to the issuance of the construction permit for clearing and/or grading, and again, prior to the approval of the final.

(3) Once protected zones are established and approved, any changes are subject to plan committee review.

C. *Materials:*

(1) 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 tree trunks are in jeopardy of being damaged by equipment, two-inch by four-inch boards may be requested to be strapped around the trunks of trees.

D. *Sequence of Installation and Removal:* All tree protection devices shall be installed prior to any clearing, grubbing or grading or at the same time as the installation of erosion and sedimentation control devices. Tree protection must remain in functioning condition throughout all phases of development.

E. *Other Specifications:*

(1) *Clearing:* Where clearing has been approved, trees shall be removed in a manner which does not adversely impact the trees to be preserved. Avoid felling trees into protection zones or disturbing roots inside the protected zones.

(2) When digging near trees, the contractor shall prune all exposed roots one inch in diameter and larger on the side of the trench adjacent to the trees. Pruning shall consist of making a clean cut flush with the side of the trench to promote new root growth. Pruned roots shall be protected from drying and backfilled as soon as possible.

(3) Pruning of tree limbs to provide clearance for equipment and materials or for any other reason shall be done according to standard arboricultural practice (See ANSI A300-1995).

(4) *Erosion and Sedimentation Control:* All erosion and sedimentation control measures shall be installed in a manner which will not result in the accumulation of sediment in a protected zone.

(5) *Signage:* All tree protection zones shall be designated as such with "tree save area" signs posted visibly on all sides of the fenced-in area. These signs are intended to inform subcontractors of the tree protection process. Signs requesting subcontractor cooperation and compliance with the tree protection standards are recommended for site entrances.

(Ord. No. 1999-08, 7-19-99; Ord. No. 1999-13, 10-18-99)

[Section 1750] Tree replacement standards.

1. *Introduction.* The following section establishes standards by which plans and field conditions are to be evaluated to determine compliance with the tree replacement intent of the City of Kennesaw's Tree Protection Requirements.

Tree replacement plans should be prepared with appropriate consideration given to the function of trees in the urban landscape. Every effort should be made to maximize the environmental benefit of the plant material.

2. *Planting Specifications:*

A. Trees selected for planting must be free from injury, pests, disease, nutritional disorders or root defects, and must be of good vigor in order to assure a reasonable expectation of survivability.

B. Standards for transplanting shall be in keeping with those established in the International Society of Arboriculture publication *Tree and Shrub Transplanting Manual* or similar publication. Reference the American Association of Nurserymen publication *American Standard for Nursery Stock (ANSI Z60, 1973)* for plant material quality specifications. Reference the *Manual of Woody Landscape Plants (Michael Dirr, 1983, Castle Books)* or similar publication for information on tree species site requirements.

3. *Species:*

A. Species selected as replacement trees must be quality specimens, and must be ecologically compatible with the intended growing site.

B. Flowering ornamental species are typically not acceptable for use in meeting density requirements.

C. When less than 10 trees are shown to be planted on a project, one species of tree may be specified. When 10 to 50 trees are shown, a minimum of three species of trees are required. When more than 50 trees are shown, a minimum of five species of trees are required.

D. Where summer shading is required or recommended, the use of deciduous overstory tree species is necessary.

4. *Parking Lots and Street Yards:*

A. All root zones must be a minimum of eight feet in width (measured from back-of-curb where curbing is installed or edge of pavement otherwise).

B. The root zone for overstory trees must be a minimum of 200 square feet. If that area is shared with other trees, add 80 square feet for each additional tree.

C. The root zone for understory trees must be a minimum of 100 square feet. If that area is shared with other trees, add 40 square feet for each additional tree.

D. Parking lot islands, peninsulas and medians must have clean, cultivated soil to a total depth of two and one-half feet. Native subsoil is acceptable in parking lot islands, peninsulas and medians if the entire area is amended with appropriate soil improvements and thoroughly tilled. Otherwise, loamy topsoil is required.

E. Parking lot island, peninsulas and medians must be mulched with four (4)

inches of suitable mulch material replaced as needed. To discourage soil compaction from pedestrian traffic, these areas may be planted with low evergreen shrubs, but not with grass.

F. Light poles are prohibited in parking lot islands, peninsulas and medians unless a plan is submitted by the lighting contractor showing minimum impact to the root zone.

G. No fastigate (narrow crowned) varieties of trees are permissible in parking lots.

H. Trees planted to meet parking lot and street yard requirements must be a minimum of two inches in caliper.

I. The use of at-grade planting areas in parking lots to promote stormwater runoff treatment and to supplement irrigation needs is encouraged; provided that the trees planted there will not be adversely impacted and that the system is designed by a licensed, professional civil engineer.

J. Where street yard trees will be planted within 16 feet of the edge-of-pavement of a public street with a design speed of 45 mph or higher, or in areas beneath overhead utility lines, the use of an understory species is required.

5. *Irrigation:* Newly planted trees and existing trees subjected to construction impacts typically need supplemental watering when rainfall is inadequate. Commercial project applicants should be prepared to discuss how trees are to be watered during their establishment or transition period, and to possibly note on the plan the method of irrigation that is proposed.

6. *Public Street Rights-of-Way:*

A. Trees planted within publicly maintained street rights-of-way can not be counted toward the tree density requirement for a site unless otherwise approved by the public works director and/or the Cobb County Department of Transportation.

B. Indemnification and maintenance for commercial properties must be recorded with the public works department to plan approval for within city rights-of-way.

7. *Subdivisions:*

A. Trees shown to be planted in common areas within a subdivision (outside a amenity areas) shall be planted by the subdivision developer. These trees must be in place before the final plat is approved.

B. Trees shown to be planted on individual lots must be planted by the homebuilder. These trees must be in place before the certificate of occupancy for the affected lot is approved.

(Ord. No. 1999-08, 7-19-99; Ord. No. 1999-13, 10-18-99)

[Section 1760] Specimen trees.

1. *Identification.*

A. Some trees on a site warrant special consideration and encouragement for preservation. These trees are referred to as specimen trees.

B. The following criteria are used by the development and inspections department to identify specimen trees. Both the size and condition criteria must

be met for a tree to qualify.

Size Criteria:

- Overstory hardwoods: 24-inch diameter or larger
- Overstory softwoods: 30-inch diameter or larger
- Understory trees: 8-inch diameter or larger

Condition Criteria:

- Life expectancy of greater than 15 years
- Relatively sound and solid trunk with no extensive decay
- No more than one major and several minor dead limbs (hardwoods only)
- No major insect or pathological problem

2. **Preservation:** In order to encourage the preservation of specimen trees and the incorporation of these trees into the design of projects, additional density credit will be given for specimen trees which are successfully saved by a design feature specifically designated for such purpose. Credit for any specimen tree thus saved would be two times the assigned unit value shown in Table A.

3. **Removal and Replacement:**

A. If a specimen tree is to be removed, a plan or written documentation indicating the reason for the removal must be submitted to the construction and development department and arborist.

B. Specimen trees must be replaced by species with potentials for comparable size and quality.

C. Any specimen tree which is removed without the appropriate review and approval of the development and inspections department must be replaced by trees with a total density equal to three times the unit value of the tree removed. If a tree is removed without approval and there is no evidence of its condition, size alone will determine whether the tree was of specimen quality.

(Ord. No. 1999-08, 7-19-99; Ord. No. 1999-13, 10-18-99)

[Section 1770] Alternative compliance.

1. **Overview:**

A. The intent of the tree preservation and replacement ordinance is to ensure that a minimum density of trees is maintained on all developed sites. Occasionally, this intent cannot be met because a project site will not bear the required density of trees. To provide some alternatives in such cases, two methods of compliance are acceptable:

- (1) Planting at a location remote from the project site; or
- (2) Contributing to the City of Kennesaw tree replacement fund.

B. The following standards have been established for administering these alternative compliance methods.

C. The construction and development department and city arborist must review and approve all requests for alternative compliance. In no instance shall

100 percent of the required site density factor be met through alternative compliance. As many trees as can reasonably be expected to survive must be planted on the site in question.

D. The land disturbance permit will only be issued after the construction and development department has approved and requested and received the necessary documentation and/or funds.

2. *Off-site Planting:* If trees are to be planted at another location, the following criteria must be observed:

A. The off-site location should be in the same area of the city as the project site.

B. A tree replacement plan meeting all applicable standards in these guidelines must be reviewed and approved.

C. The following note must be shown on the approved plan.

"A tree replacement plan addendum for this project shall be submitted to the City of Kennesaw Construction and Development Department and city arborist at least 30 days prior to requesting a final inspection. This plan shall include the species, size and location of trees to be planted off-site to meet the tree density deficit shown. Release of this project is subject to approval of this plan as well as verification of the installation of the trees."

3. *City Tree Replacement Fund:*

A. As another method of alternative compliance, the City of Kennesaw will accept donations which will be used for the sole purpose of planting trees on public property.

(1) Calculating contribution amounts:

(a) Contribution calculations are based on two-inch caliper replacement trees with a value of \$220.00, representing the average size and cost of materials, labor and guarantee for trees planted in the City of Kennesaw area.

(b) To determine the appropriate contribution, first calculate the density factor deficit (DFD) or unit value which cannot be planted on the site. Divide the DFD by .5 (the unit value of a 2-inch caliper replacement tree) and multiply by \$220.00.

Example: A 2.2 acre site has a required site density factor (SDF) of 33.0, an existing density factor (EDF) of 21.4, and can accommodate a replacement density factor (RDF) of only 9.0.

Determine the density factor deficit (DFD) using the formula:

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

$$\text{In this example, DFD} = 33.0 - 21.4 - 9.0 = 2.6$$

Determine the acceptable contributing amount as follows:

$$2.6 / .5 \times \$220.00 = \$1,144.00$$

(c) Fund administration: The City of Kennesaw Tree Replacement Fund will be administered by the construction and development department. A quarterly report shall be submitted to the city manager showing amounts collected, amounts spent, and the type and locations of trees planted. The report will be made available to the mayor and city

council on their request.

4. **Parking Lot and Street Yard Requirements:**

A. If sufficient cause is demonstrated that the parking lot and street yard planning requirements can not be met, then the plan must show a method of alternative compliance which is equal to or exceeds the minimum requirements.

B. Sufficient cause is deemed to be when enforcing any of the parking lot or street yard requirements would cause the applicant to violate any state or federal law or any City of Kennesaw ordinance or zoning stipulation specific to the applicant.

(Ord. No. 1999-08, 7-19-99)

[Section] 1780 Tree preservation and replacement plan requirements.

1. **Introduction:** The preservation and/or replacement plan shall be submitted as a separate sheet or as part of other site drawings; provided that all required information is legible. The plans for projects over two acres (as determined for the site density factor) and with more than 50 percent of the site density requirement to be met with replacement trees shall be prepared, sealed and signed by a registered landscape architect.

2. **Full Land Disturbance Permits:**

Show the following information on the plan:

A. All items found on the erosion and sedimentation control submittal checklist pertinent to normal plan review.

B. Total site area and site area used to determine the site density factor.

C. The locations of existing and proposed improvements, including structures, paving, driveways, cut and fill areas, detention areas, etc.

D. Calculations showing compliance with the required site density factor using existing trees, replacement trees, and/or contributions to the City of Kennesaw Tree Replacement Fund.

E. A narrative to document any alternative compliance arrangements approved by the city arborist.

F. Locations of any specimen trees and indication if they are to be removed or preserved.

G. Locations of all tree protection devices, materials to be used in each area, and details.

H. Location of any state waters with required buffers.

I. Location of any buffers required by the zoning ordinance or by a rezoning stipulation and a planting plan for those buffers.

J. Location of and details for any permanent tree protection devices such as tree wells, aeration systems, retaining walls, etc.

K. Location of all existing and proposed utility lines or easements.

L. A planting schedule (table) with columns for common name, botanical name, size, quantity, individual unit value of all types of trees to be planted.

M. The locations of all trees to be planted on the site to meet density

requirements.

N. For trees to be planted in any publicly maintained street right-of-way, show the shoulder section showing placement of trees in relation to the curb and underground utilities.

O. Additional information as required on a case by case basis.

P. Show the following notes:

(1) Tree protection devices must be installed and inspected prior to any clearing, grubbing or grading.

(2) Tree protection shall be enforced according to City of Kennesaw standards. Any field adjustments to the locations of tree protection devices or substitutions of plant materials from what is shown on the approved plans are subject to the review and approval of the City of Kennesaw arborist.

(3) A pre-construction conference is required prior to the issuance of the on-site construction permit. Call the construction and development department at (770) 429-4554 to arrange the meeting.

(4) Tree protection devices for subdivisions shall be installed by the developer at the same time as erosion control devices. The developer is responsible for maintenance of tree protection devices until building commences. At that time, the building contractor shall be responsible for the maintenance of tree protection devices.

(5) The requirements shown on the tree preservation and replacement plan must be verified prior to the issuance of the certificate of occupancy or acceptance of the final plat. Call the construction and development department at (770) 429-4554 for an inspection. The construction and development department will accept a performance bond or letter of credit if plant materials must be installed at a later date.

(6) Fiscal security for the maintenance of planted trees must be in place prior to the issuance of the certificate of occupancy. A maintenance inspection will be performed prior to the scheduled release date of the posted fiscal surety to determine the health of trees planted to meet the requirements of this ordinance as well as any buffer plantings.

(Ord. No. 1999-08, 7-19-99)

[Section] 1785 Inspections.

1. *Pre-construction Conference:* Prior to the issuance of a construction permit, an inspection will be required to verify correct installation of tree protection devices and to discuss any issues with the contractor concerning tree planting.

2. *Final Inspection:* Prior to the release of the certificate of occupancy or final plat approval, an inspection will be performed to assure compliance with the tree preservation and replacement plan. Hose bibs and other watering devices specified on the plans will be verified, and buffer plantings will be inspected.

3. *Maintenance Inspection:* Prior to the scheduled release date of the fiscal surety, an inspection will be performed to determine the health of all planted trees.

Any planted materials that are dead or missing at the time of that inspection must be replaced by the responsible party named on the surety instrument.

The city arborist shall provide the responsible party with a written evaluation of what trees to be replaced and the time frame within which replacement is to occur.

Any trees in a state of decline will be noted and subject to monitoring at later dates. If such trees die after the release of the security instrument, they will become the responsibility of the current owner to replace.

(Ord. No. 1999-08, 7-19-99; Ord. No. 1999-13, 10-18-99)

[Section] 1790 Fiscal Surety.

Fiscal surety shall be required in the amount of 110 percent of the cost of all required plant materials and the cost of the installation and guarantee of those materials. The surety may be in the form of an escrow agreement, letter of credit or maintenance bond. The surety shall be prepared on forms provided by the construction and development department.

The expiration date of the surety instrument shall be determined as one year from the date of the final landscape inspection. Exempt from fiscal surety will be all single-family residential lots.

If the original developer sells, transfers, assigns or conveys in any manner all or a portion of the property prior to the expiration date of the surety instrument, the original developer shall maintain the surety instrument until the expiration date. However, if an alternative surety instrument satisfactory to the construction and development department is provided by the subsequent owner of the property, the original developer may be partially or totally released from the developer's obligation under the original surety instrument upon receipt of written notification from the construction and development department accepting the alternative surety instrument. The alternative surety instrument must satisfy all requirements of the tree preservation ordinance and standards and specifications.

All or part of the surety may be called if the conditions of the city arborist or construction and development department maintenance inspection letter are not met.

(Ord. No. 1999-08, 7-19-99; Ord. No. 1999-13, 10-18-99)