

City of Smyrna

Cobb County
Atlanta MSA

2003 Population Estimate 45,610; +5.9% change from 2000 Census.

Tree City USA for 3 years.

Tree Preservation Board with same number of members as board of Keep Smyrna Beautiful;
quarterly meetings required by ordinance.

TREES AND VEGETATION

Ordinance No. 2003-8

First adopted 1993. Last revised 2003.

Addresses public and private property.

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TREES AND VEGETATION

ORDINANCE No. 2003-8

AN ORDINANCE OF THE CITY OF SMYRNA, GEORGIA, PROVIDING THAT THE CODE OF ORDINANCES, CHAPTER 106 - VEGETATION, ARTICLE II, CITY OF SMYRNA, GEORGIA, BE AMENDED BY REVISING SECTIONS 106-26, 106-27, 106-28, 106-29, 106-30, 106-41, 106-42, 106-43, 106-44 AND 106-45 OF SAID CODE, AND BY ADDING SECTIONS 106-31, 106-32, 106-33, 106-33.1, 106-34, 106-35, 106-36, 106-37, 106-38, 106-39, 106-40, 106-47, 106-48, 106-49, 106-50 AND 106-51 TO SAID CODE, AND BY ADDING APPENDIX A AND APPENDIX B TO SAID CODE, AND BY REMOVING SECTIONS 106-56, 106-57, 106-58, 106-59, 106-60, 106-61, 106-62 AND 106-63 IN THEIR ENTIRETY FROM SAID CODE, PROVIDING SUFFICIENT REGULATIONS AND PROCEDURES TO ENSURE THE PRESERVATION OF OLDER GROWTH SPECIMEN TREES AND OTHER BENEFICIAL VEGETATION, AND TO PROVIDE GUIDELINES FOR TREE DENSITY CALCULATION AND A TREE SPECIES SELECTION LIST

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF SMYRNA, GEORGIA:

That Chapter 106, Article II, of the Code of Ordinances of the City of Smyrna, Georgia, be amended so that such Chapter shall read as follows:

Section 106-26 Purpose and Intent

The intention of this section is to promote the preservation of trees as part of the land development and construction process and to promote the preservation of trees on residential properties. This section shall be known and may be cited as "The Smyrna Tree Ordinance".

Trees are recognized for their importance in shading, cooling, noise and wind reduction, soil erosion prevention, oxygen production, dust filtration, carbon dioxide absorption, and aesthetic and economic enhancement of all real property. Their contribution to the general well being and quality of life for the citizens of Smyrna 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 preservation, planting and replacement of trees and to prevent the indiscriminate removal of trees and reduction of canopy cover within the City.

The purpose of this ordinance is to:

- (1) Provide standards for the preservation of trees as part of the land development process;
- (2) Prevent massive grading of land, both developed and undeveloped, without provision for replacement of trees; and

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(3) Protect trees during construction whenever possible in order to enhance the quality of life within the City of Smyrna.

Section 106-27 Applicability

(1) The terms and provisions of The Tree Protection Ordinance and these standards shall apply to any activity which requires the issuance of a development permit. No development permit or grading permit shall be issued until it is determined that the proposed development is in conformance with the provisions of the Ordinance.

(2) No person shall remove, cause to be removed, poison, damage, trim or transplant any tree with a trunk diameter of six (6) inches or more at breast height without first obtaining a permit, as herein provided.

Section 106-28 Exemptions

(1) The following shall be exempt from the provisions of this Ordinance:

(a) The removal of trees from single family or duplex lot of less than two acres in size.

(b) The removal of trees from horticultural properties such as farms, nurseries or orchards. This exception shall not be interpreted to include timber harvesting incidental to development of the land.

(c) The necessary removal of trees by a utility company within dedicated utility easements.

(d) The removal of trees on public rights-of-way conducted by, on behalf of, or for any activity to be dedicated to a federal, state, county, municipal or other government agency in pursuit of its lawful activities or functions in the construction or improvement of public rights of way.

(e) The removal of trees, other than specimen trees, from detention ponds and drainage easements and other publicly dedicated easements.

(f) The removal of any tree which has become or threatens to become a danger to human life or property.

(g) The removal of trees from public recreation areas such as playgrounds, ballfields, golf courses and other such uses.

(2) Notwithstanding the foregoing, all reasonable efforts shall be made to save specimen trees.

Section 106-29 Definitions

For purposes of this Ordinance, the following definitions shall apply:

(1) Arborist - The Community Development Director or his/her designee responsible for administering the provisions of this Ordinance.

(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) Buffer - A landscaped open space area and/or screen for buffering incompatible uses, as defined in Section 503.

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- (4) Buildable area - The portion of a lot which is not located within any minimum required yard, landscape strip/area or buffer; that portion of a lot wherein a building or structure may be located.
- (5) Caliper - A forest standard of tree trunk measurement for replacement trees. Caliper of the trunk shall be taken at six (6) inches above the ground for trees up to and including four (4) inch caliper size, and twelve (12) inches above the ground for trees larger than four (4) inch caliper.
- (6) 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 (20) inch diameter tree is thirty (30) feet.
- (7) dbh (Diameter breast height) - The standard measure of tree size for those trees existing on a site that have a caliper of at least two inches 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.
- (8) Density factor - A unit of measure used to prescribe the calculated tree coverage on a site. Site density factor for areas within the corporate limits of the City of Smyrna is twenty (20) units per acre. (See Density Factor Analysis, The Smyrna Tree Ordinance - Appendix A).
- (9) 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.
- (10) Development permit - An official authorization issued by the Community Development Director or his/her designee.
- (11) 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 reflect any true qualities of the tree.
- (12) Overstory Trees - Those trees that compose the top layer or canopy of vegetation and will generally reach a mature height of greater than forty (40) feet.
- (13) Public Trees - A tree located on City property including, but not limited to, City street rights-of-way, buildings, parks and cemeteries
- (14) Reasonable Effort - Includes, but not be limited to, alteration of building design; alternate location of building, parking area, water retention drainage pipes; or relocation of utilities in an effort to preserve specimen trees.
- (15) Revegetation - The replacement of trees and landscape materials into the minimum required landscape areas, as determined by the Zoning Code, conditions of zoning approval, or the provisions of this Ordinance.
- (16) Softwood Trees - 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.

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(17) Specimen Tree or Stand - Any tree or collective group of trees which qualifies for special consideration for preservation due to size, type and condition. See Section 160-30 for general criteria regarding specimen trees or stands.

(18) Tree - Any self-supporting, woody perennial plant usually having a single trunk.

(19) Tree Bank - An account, maintained by the Finance Department of the City of Smyrna, of funds contributed from developers as a form of alternative compliance to The Smyrna Tree Ordinance. Funds from the Tree Bank are to be used solely for the purchase and planting of trees on public sites within the City of Smyrna as authorized by the Community Development Director.

(20) Tree Removal Permit - A formal letter or permit issued by the Community Development Director allowing for the removal of said tree(s) on a property.

(21) Tree Protection Zone - All lands that fall outside the buildable area of a parcel required to remain in open space, or all areas required as landscaping strips or buffers according to the Smyrna Zoning Code, conditions of zoning approval or provisions of this Ordinance.

(22) Tree Save Area - An area designated for the purpose of meeting tree density requirements, saving existing trees, preserving the root system of existing trees and/or preserving existing buffers.

(23) Tree Species Selection List - The recommended species of trees in The Smyrna Tree Ordinance - Appendix B.

(24) Understory Tree - Those trees that grow beneath the overstory, and will generally reach a mature height of under forty (40) feet.

(25) All other items - All other words or phrases as appropriate to the context of their uses shall be interpreted as defined in the Zoning Ordinance of the City of Smyrna, Georgia.

Section 106-30 General Criteria For The Determination Of Specimen Trees Or Stands Of Trees

(1) Specimen tree:

(a) Any tree in fair or better condition which equals or exceeds the following diameter sizes:

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

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

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

b. A tree in fair or better condition must meet the following minimum standards:

i. A life expectancy of greater than 15 years.

ii. A structurally sound trunk, not hollow and having no extensive decay, and less than twenty (20) percent radial trunk dieback.

iii. No more than one major and several minor dead limbs (hardwoods only).

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- iv. No major insect or pathological problem.
 - c. A lesser sized tree can be considered a specimen tree if it is a rare or unusual species, of exceptional or unique quality, or of historical significance.
 - d. A lesser size tree can be considered a specimen tree if it is specifically used by a builder, developer, or design professional as a focal point in a landscape project.
2. Specimen tree stands - A contiguous grouping of trees which has been determined to be of high value in the opinion of the Arborist. Determination is based upon the following criteria:
- a. A relatively mature, even-aged stand.
 - b. A stand with purity of species composition or of a rare or unusual nature.
 - c. A stand of historical significance.
 - d. A stand with exceptional aesthetic quality.

Section 106-31 Minimum Tree Density Requirements

(1) A basic condition of The Smyrna Tree Ordinance is that all applicable sites maintain a minimum tree density of twenty (20) 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.

Notwithstanding any other provisions of this ordinance, all trees designated for replacement meeting the definition of specimen trees shall be replaced on an inch-for-inch basis. All trees used to replace specimen trees shall have a minimum caliper of 4".

The density may be achieved by counting existing trees to be preserved, by planting new trees according to the minimum standards in this Ordinance or by a combination of the two.

Minimum tree density shall be calculated and established pursuant to the formula and analysis set forth in Appendix A to this Ordinance. The property owner shall be subject to the minimum tree density requirement set forth in this Section. The property owner shall base the density calculation on the net site area, excluding the infrastructure improvements (roads, utility lines, detention ponds, etc.) and buffer zones. In no event shall a parking lot be considered an infrastructure improvement.

(2) All single-family and/or duplex residential lots shall provide the following at time of certificate of occupancy: either four 3" caliper trees or two 2" caliper and two 4" caliper trees. The following species of trees may be used: Nuttall Oak, Swamp Chestnut Oak, Allee Elm, and Village Green Zelkova. Other species may be used if approved by the City.

(3) Trees replanted to achieve density requirements are to be selected species from the Tree Species Selection List found in Appendix B.

In addition, 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.

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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 opinion an exception is justified.

Refer to Table 2, The Smyrna Tree Ordinance - Appendix A, for minimum size requirements for replacement trees.

(4) Notwithstanding the foregoing, it is required that all reasonable efforts be made to save specimen trees. Reasonable efforts shall include, but not be limited to, alteration of building design; alternate location of building, parking area, water retention, drainage pipes; or relocation of utilities.

Section 106-32 Alternative Compliance To Tree Density Requirements

(1) The intent of this Ordinance 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 some alternatives in such case, two methods of compliance, at the discretion of the City Arborist, may be acceptable:

Planting at a location remote from the project site or Contributing to the City of Smyrna Tree Bank.

(2) The following standards have been established for administering these alternative compliance methods: The Arborist must review and approve all requests for alternative compliance. In no instance shall one hundred (100) 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.

(3) No development permit shall be issued until the Community Development Director has approved the request and received the necessary documentation and/or funds. If trees are to be planted at another location, a Tree Replacement Plan, meeting all applicable standards, must be reviewed and approved. The following note must be shown on the approved plan:

"A tree replacement plan addendum for this project shall be submitted to the Arborist for the City of Smyrna at least thirty (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."

(4) Smyrna Tree Bank. As another method of alternative compliance, the City of Smyrna will accept donations to the Smyrna Tree Bank. These donations will be used for the sole purpose of planting trees on public property within the City of Smyrna (See Section 106-50).

(5) Fund administration. The City of Smyrna Tree Bank will be administered by the Community Development Director. A quarterly report shall be submitted to the City Administrator showing amounts collected, amounts spent, and the type and location of trees planted.

Section 106-33 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:

(1) A complete Tree Survey and Inventory Plan, as specified in Section 106-34.

(2) A complete Tree Protection Plan, as specified in Section 106-36. This plan shall be an integrated site plan showing specimen trees, the tree protection

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areas, those trees to be saved and those to be removed, utilities to be installed, grading, the approximate location of all structures, driveways and curb cuts, proposed tree planting and other landscaping.

(3) A complete Tree Replacement Plan as specified in Section 106-37. Replacement trees used in density calculation must be ecologically compatible with the intended growing site. A list of acceptable replacement trees is provided in The Smyrna Tree Ordinance - Appendix B, Tree Species Selection List.

Section 106-33.1 Grading for Future Site Development Requirements

Land disturbance activities for future site development shall not be permitted unless accompanied by site development plans and all requirements of the Smyrna Tree Ordinance are met. Activities associated with future development shall include (but not be limited to): tree cutting, land clearing, grading and/or grubbing.

Section 106-34 Tree Survey Plan And Inventory

(1) The Tree Survey Plan shall be in the form of a to-scale map or a site plan prepared and sealed by a state-registered surveyor, or landscape architect noting the location of all specimen trees plus all other trees which will be preserved and counted toward meeting site density requirements.

(2) All specimen trees and their critical root zones are to be labeled, and must be shown on the survey and inventoried by size and species. This includes those specimen trees that are to be preserved as well as those proposed for removal.

(3) All other trees that are to be counted toward meeting density requirements must be shown on the survey and inventoried by size and species. Only trees with a dbh measurement of two (2) inches or greater are to be identified as eligible for density compliance purposes. Existing trees less than one (1) inch dbh will not be counted toward Existing Density Factor.

(4) Trees other than specimen trees that are proposed for removal, and thus cannot be counted toward density requirements, are not required to be counted and shown individually on the plan.

(5) Sampling methods may be used to determine tree densities for forested areas over five (5) acres. The minimum sampling area shall be 1 acre.

(6) All tree protection zones and tree save areas must be delineated on the Tree Survey Plan. All buffers with existing trees must be delineated on plans as tree save areas. Land disturbance within any buffer is subject to approval by the Arborist.

(7) The Tree Survey Plan shall provide an accurate list of those trees to be saved and a total value of Existing Density Factor units for the entire property.

Section 106-35 Tree Survey Inspection

Following the receipt of the completed tree removal application, Tree Survey Plan and supporting data, the Arborist shall schedule and conduct an inspection of the proposed development site within ten (10) working days. The applicant or his designee shall be advised as to the date and time of the inspection and given an opportunity to participate. Following inspection, the Arborist, consistent with the purposes of this Ordinance, shall advise the applicant of any recommended changes in the applicant's proposed tree removal, protection or replanting plans.

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Section 106-36 Tree Protection Plan -- Documents Required

- (1) Before the acceptance of a rezoning application and before the commencement of any alteration, defoliation or land disturbing activity which requires the issuance of a development permit, a Tree Protection Plan is required.
- (2) The Tree Protection Plan shall be a detailed plan designed to protect and preserve trees before, during and for a period of one (1) year after construction.
- (3) The Tree Protection Plan shall be submitted as a separate drawing.
- (4) The Tree Protection Plan shall be submitted on a current survey of the proposed site, drawn to scale, and showing clearly all required information as outlined by this section for acceptance as the plan required in Section 106-37(1).
- (5) The Tree Protection Plan shall be prepared by a landscape architect

Required specifications for a Tree Protection Plan include, but are not limited to, the following:

- (1) The identity of the tract of land upon which tree(s) sought to be removed are located.
- (2) 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.
- (3) The type, location and size as measured at the diameter breast height of the tree(s) constituting those to be protected. Only trees designated on the Tree Protection Plan will be counted toward density requirements.
- (4) Locations of all specimen trees and their critical root zones (CRZ's). Indicated those specimen trees proposed for removal or for preservation. Removal of specimen trees is subject to approval by the Arborist. Any specimen tree proposed for removal is to be identified in terms of exact location, size and species.
- (5) The locations of all tree protection zones, natural areas, landscaped areas, buffers and areas of revegetation. Include detailed locations and specifications for active protection measures. Methods of tree protection shall be indicated for all tree protection zones, including tree fencing, erosion control, retaining walls, tunneling for utilities, aeration systems, transplanting, staking, signage, etc.
- (6) Limits of clearing and land disturbance such as grading, trenching, etc. where these disturbances may affect tree protection zones.
- (7) The locations of all existing and proposed utility lines or easements. Include the location for any boring sites for underground utilities.
- (8) Indication of staging areas for parking, material storage, concrete washout, debris burn and burial holes and other areas where tree protection may be affected.
- (9) A delineation of tree save areas in which trees have been inventoried for density calculations.
- (10) Calculations showing compliance with the required Site Density Factor using existing trees, replacement trees, and/or alternative compliance methods. Site density compliance shall be demonstrated on the Tree Protection and Tree Replacement plans. Existing trees or stands of trees used in the density calculation must be indicated on the drawing. Only existing trees with a dbh of two (2) inches or greater shall be counted toward the

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minimum tree density requirements. Tree protection plans submitted prior to rezoning applications shall indicate thereon how the minimum Site Density Factor shall be maintained.

(11) Site area (roads, utility lines, detention ponds, etc.)

(12) The locations of existing and proposed structures, paving, driveways, cut and fill areas, detention areas, etc.

(13) Phase lines or limits of construction.

(14) Location and details for all permanent tree protection measures (tree wells, aeration systems, permeable paving, retaining walls, bollards, etc.)

(15) Additional information as required on a case-by-case basis or as requested by the Arborist.

(a) Prior to approval of the Tree Protection Plan, the Arborist may require relocation or replacement of trees as uniformly as possible throughout the site, so that the entire property site meets the density requirements as outlined in Section 106-31.

(b) Prior to approval of the Tree Protection Plan, the Arborist may require the use of active tree protection fencing for any or all tree protection zones.

(16) The following notes shall be indicated on both tree protection plans and grading plans in capital letters:

Contact Community Development Department (770-319-5387) to arrange a preconstruction conference prior to any land disturbance. No permit shall be issued until plans are approved and an on-site inspection with City representatives occurs.

All tree protection measures shall be installed prior to grading.

Buffers shall be replanted subject to Community Development Department Approval.

Section 106-37 Tree Replacement Plan -- Standards And Revegetation

(1) A separate Tree Replacement Plan indicating the location of all proposed trees for revegetation is required. This plan may be included as a part of the Tree Protection Plan or may be submitted as a separate drawing.

(2) The Tree Replacement Plan is to include planting schedules with proposed tree names (botanical and common), quantity, size, spacing and any special planting notes.

(3) Unless otherwise approved by the Arborist, trees selected for replanting must be on the tree Species Selection List found in The Smyrna Tree Ordinance Appendix B. 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. Standards for transplanting shall be in keeping with those established in the International Society of Arboriculture publication Tree and Shrub Planting Manual or similar publication.

(4) 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.

(5) All replanted overstory trees shall be a minimum of eight (8) feet tall and have a trunk of not less than two (2.0) caliper inches. All replaced understory trees shall be a minimum of six (6) feet tall and have a trunk of not

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less than one and one (1.0) inch. 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 - 200 square feet of pervious root zone. Understory Trees - 75 square feet of pervious root zone.

- (6) Planting and staking details are to be provided on the plan.
- (7) Trees must be relocated or replaced on site in accordance with the provisions of this Ordinance.
- (8) Debris removed. All debris from trees cut or substantially damaged shall be removed from the site in prior to the issuance of a certificate of occupancy. This includes the removal of any portion of the tree stump above the original natural grade or elevation of land.

Section 106-38 Permit Procedures

- (1) Prior to the issuance of a development permit, a Tree Protection Plan and Tree Replacement Plan must be submitted to the Arborist for review and approval.
- (2) All Tree Protection and Tree Replacement Plans and related documentation shall be reviewed by the Arborist for conformance to the provisions of this ordinance and either approved or denied. If denied, the reasons for denial shall be annotated on the Tree Protection Plan or otherwise stated in writing.
- (3) After the Tree Protection Plan is approved, 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. To adequately protect the site, tree save areas shall be delineated in the field with tree protection fencing.
- (4) All tree protection measures shall be installed prior to any land disturbance, and the Community Development Director shall be contacted for a pre-construction conference prior to land disturbance. Land disturbance may proceed only after a permit is obtained and tree protection measures have been approved by the City.
- (5) After completion of a development, the Community Development Director (or his/her designee) will conduct an inspection of the site to ensure compliance with the Tree Protection and/or Replacement Plans.
- (6) The Arborist or City officials may make unscheduled inspections before and during development to ensure protection of trees, critical root zones and buffer zones.

Section 106-39 Removal Of Trees - Conditions And Exceptions

- (1) Tree removal shall be disallowed in the following circumstances:
 - (a) Soil erosion or runoff problems will result due to topography, soil type, or proximity to flood plain or river protection areas; and 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 his evaluation.
 - (b) Specimen trees are located on site and are not adequately protected or replaced. Additionally, removal may be disallowed if alternative site designs can be utilized to save specimen trees (without decreasing building area) and have not been made.

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(2) Exceptions.

Tree removal from a site may be allowed if:

- (a) 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, type or size of tree.
 - (b) The tree is diseased or structurally unsound.
 - (c) The tree is injured and/or poses an imminent danger.
 - (d) The tree interferes with existing utility service.
 - (e) The tree creates an unsafe vision clearance for vehicular movement.
- (3) Trees must be relocated or replaced on site in accordance with the provisions of this Ordinance.
- (4) Existing trees. Any existing trees of not less than two (2) inches dbh left in good growing condition on the property shall be counted toward the minimum number required. All replacement trees will be maintained properly to ensure their survivability.
- (5) Debris removed. All debris from trees cut or substantially damaged shall be removed from the site prior to the issuance of a certificate of occupancy, including the removal of any portion of the tree stump above the original natural grade or elevation of land.
- (6) It is required that all reasonable efforts (see definition) be made to save specimen trees.

Section 106-40 Tree Protection During Construction

- (1) No person in the construction of any structure(s) or improvement(s) or any activity shall encroach or place solvents, material, construction machinery or temporary soil deposits within six (6) feet of the area outside the Critical Root Zone, as defined herein, of any specimen tree or any tree within a tree protection zone.
- (2) Before development, land clearing, filling or any land alteration, the developer shall be required to erect suitable protective barriers as required by the Arborist, including tree fences, tree protection signs, and erosion barriers until completion of site landscaping. Authorization to remove the protective devices shall be in writing by the Arborist or by the issuance of a final Certificate of Occupancy. Inspection of tree protection barriers is required prior to any land disturbance or development. The Community Development Director shall be contacted to schedule an inspection time.
- (3) 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 surveyor's flagging ribbon denoting the size and species of tree to be protected.
- (4) All tree protection devices must remain in functioning condition until the Certificate of Occupancy is issued.

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Section 106-40.1 – Protection and Care for Public Trees

(1) The city shall have the right to plant, maintain, prune, and remove trees, shrubs, and plants within the rights-of-way of all city streets, roads, and highways, in parks, around city facilities, and on other city grounds, as may be necessary or desirable to insure public safety, to preserve tree health, and to maintain and increase tree canopy cover.

(2) All public trees shall be protected from damage to the crown, trunk, and roots.

It shall be unlawful for any person to engage in any activity on private property that directly or indirectly adversely affects the health, safety, or condition of a public tree. Furthermore, active tree protection measures, as described in this chapter, shall be undertaken by the person engaging in any such activity to protect each affected tree's roots, trunk, crown, and critical root zone, from damage. If a person damages, destroys, or fails to protect a public tree, the city may require the person responsible for the damage to pay a fine equal to the appraised value of the tree, the cost of repairing the damage, and/or the cost of restoring the site to its original condition or as near as possible to its original condition.

(3) The value of a public tree shall be equal to the appraised value

(4) The city may prune, remove or cause to be pruned or removed, any public tree or part thereof which is in an unsafe condition or which by reason of its location or condition is or may be injurious to sewers, water lines, electric power lines, gas lines, or other public improvements, or is infested with any injurious fungus, insect, or other pest.

Section 106-41 Tree Damage

Any tree, designated in the 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 National Arborists Association Standards, or replaced with a tree or trees equal to the 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. 4" minimum trees must be utilized to replace damaged specimen trees.

Section 106-42 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 106-43 Variances And Waivers Of Article Requirements

The Mayor and Council may, upon appropriate application in writing, vary or waive the terms and provisions of this article due to a hardship in the use of the land upon which a tree is located. A hardship shall be limited to factors associated with the topography of the land, size/configuration of the parcel or uniqueness of the development plan (including buildings).

Section 106-44 Appeal

Any person adversely affected by a decision of the Arborist in the enforcement or interpretation of any of the terms or provisions of this ordinance may appeal such decision to the Mayor and Council. Such appeal shall be

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taken by filing written notice thereof with the Community Development Director within ten (10) days after the decision of the Arborist or his designee.

Section 106-45 Withholding Of Certificate Of Occupancy

The Community Development Director may withhold the issuance of the required Certificate of Occupancy, or permits and inspections, for any development as required until the provisions of the Ordinance have been fully met.

Section 106-46 Tree Removal And Construction Companies

All provisions of this Ordinance 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 Ordinance, unless a valid permit thereof is in effect and is displayed in accordance with the provisions of Section 160-47. If any such work or removal is performed without the permit being displayed as required in Section 160-47, such removal or work shall constitute a violation of this Ordinance and shall subject the person or company violating this Ordinance to all penalties provided herein. 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 under this section may include defined areas of tree cutting and trimming under one permit.

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 this Ordinance.

Section 106-47 Display Of Permit And Inspections

The applicant shall prominently display on the site the permit issued. Such permit shall be displayed continuously while trees are being removed or replaced or work done as authorized on the permit. As a condition for 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.

Section 106-48 Fees

Each applicant requesting a permit under the provisions of The Smyrna Tree Ordinance shall deposit with the City of Smyrna a fee of five hundred dollars (\$500.00), which fee shall be nonrefundable.

Provided, however, no fees shall be charged on any application filed solely within a public right-of-way or for a single-family residence.

Provided, further, that no fee shall be charged on any application where the Arborist determines that the tree(s) meet the exception criteria contained in Section 106-28.

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Section 106-49 Penalty

Any person, firm or corporation violating any provisions of this article shall be punished as described in Section 1-8 of the Code of the City of Smyrna, and in addition thereto may be enjoined from continuing the violation. Each tree cut, damaged or poisoned shall constitute a separate offense.

Section 106-50 Tree Replacement Fund

On January 4, 1993 the Smyrna City Council adopted the Tree Preservation and Protection Ordinance, and set the Tree Replacement Fund for alternative compliance at \$440.00 per unit that the property is deficient. This alternative compliance method may only be used when the Community Development Department determines that a property has a justifiable hardship in meeting the density requirements set forth herein.

Section 106-51 Tree Maintenance

Any tree designated for preservation or added to a site as a result of a Tree Replacement Plan shall be maintained properly for a period of two years from the date of installation. Any tree not properly maintained during this two year period shall be replaced. This maintenance period can be reduced to one year if an irrigation system is installed per a set of plans approved by the City. If any tree, shrub or plant installed for the purposes of meeting the City's code requirements is removed after installation, it must be replaced on an inch per inch basis with the same species of tree, shrub or plant. This can be accomplished using more than one tree provided the total caliper equals the size of tree removed.

A tree bond with a value equivalent to the restoration cost associated with all replaced trees shall be furnished to the City. This bond may be released by the City within two years after the final certificate of occupancy is issued for the development (one year for developments with irrigation systems) provided the trees are certified to be in good condition by the Community Development Director or his/her designee.

A two year tree maintenance bond shall also be required for any work within public rights-of-way or utility easements. This bond shall be equivalent to the restoration cost associated with all existing trees and shall be furnished to the City. This bond may be released by the City within two years after the work is completed provided trees are certified to be in good condition by the Community Development Director or his/her designee

Section 106-52 -Tree Board

- (1) A Tree Preservation Board (hereinafter referred to as the "Board") is hereby established to advise the Mayor and Council on matters pertaining to the preservation of trees and conservation of tree canopy cover within the City.
- (2) The Board shall consist of members of Keep Smyrna Beautiful. They shall serve without compensation.
- (3) A Chairman and Vice-Chairman shall be elected by the Board from among the Board members. Nominations for these positions shall be submitted to the Board annually at least ten (10) working days and not more than thirty (30) working days prior to the first meeting of each calendar year. Elections shall be held at the first meeting of each calendar year, at which time the term of office shall begin.
- (4) The Keep Smyrna Beautiful Director shall act as Secretary of the Board. The Secretary shall be a non-voting member.

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(5) The Secretary shall maintain records of the Board's proceedings and assist the City Clerk with dissemination of information, public awareness, and such other administrative duties as may be assigned by the Board.

(6) The term of office for each member of the Tree Preservation Board shall be the same as their term of office on the Keep Smyrna Beautiful Board.

(7) In the event that a vacancy occurs during the term of any member, his or her successor shall be appointed by either the Mayor or Council depending upon their initial appointment on the Keep Smyrna Beautiful Board. The Chairman of the Tree Preservation Board shall recommend to the Mayor and Council that a replacement be appointed for any member who fails to perform his/her duties.

(8) A majority of the members of the Board shall constitute a quorum.

(9) The Tree Preservation Board shall meet not less frequently than quarterly and shall establish rules and regulations for its operation consistent with the provisions of this chapter.

The Smyrna Tree Ordinance - Appendix A

Tree Density Calculations

DENSITY FACTOR ANALYSIS

A basic condition of the Smyrna Tree Protection Requirements is that all applicable sites maintain a minimum tree density of twenty (20) 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. The density may be achieved by counting existing trees to be preserved, planting new trees, or some combination of the two.

For density factor analysis, the following formula shall apply:

$SDF = EDF + RDF$ 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 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 20.

EXAMPLE: A 2.2 acre site has a SDF of $2.2 \times 20 = 44$

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

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

EXAMPLE: A total of 15 trees will remain on the 2.2 acre site in Step 1. These trees include:

- 7 - 12" pines
- 3 - 14" pines
- 3 - 18" pines
- 1 - 20" hickory
- 1 - 30" oak

When converted to density factory units using Table 1, we arrive at the following values:

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<u>DBH</u>	<u>Units</u>	<u>Trees</u>	<u>Value</u>
12"	0.6	7	4.2
14"	1.2	3	3.6
18"	1.9	3	5.7
20"	1.9	1	1.9
30"	5.1	1	5.1
Total			20.5

The sum total units, 20.5 is the EDF (Existing Density Factor).

Step 3. Calculate the Replacement Density Factor (RDF) by subtracting the EDF (Step 2) from the SDF (Step 1):

$$RDF = SDF - EDF$$

Example: $RDF = 44 - 20.5$
 $RDF = 23.5$

Step 4. The RDF can be converted back to caliper inches using Table 2. Any number of combination of transplantable size trees can be used so long as their total density factor units will equal or exceed the RDF.

Example: On the 2.2 acre site the following number, size and species will be replanted:

<u>Number</u>	<u>Size</u>	<u>Species</u>	<u>Unit</u>	<u>Value</u>
12	1"	Pine	0.4	4.8
10	2"	Red Maple	0.5	5.0
3	6"	Oak	1.0	3.0
Total				12.8

12.8 is less than the RDF of 23.5 thus the minimum requirement has not been met.

Example 2: Required SDF (Density Factor)
 2.2 acres x 20 units/acre = 44 units required

<u>Number</u>	<u>Size</u>	<u>Unit</u>	<u>Value</u>
2	24"	2.8	5.6
10	18"	1.9	19.0
8	10"	0.6	4.8
Total			29.4

Required RDF (Replacement Density Factor)

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<u>Number</u>	<u>Size</u>	<u>Unit</u>	<u>Value</u>
10	2"	0.5	5.0
100	1"	0.4	40.0
		Total	45.0

$$\begin{array}{rclcl} \text{EDF} & + & \text{RDF} & = & \text{DFS} \\ 29.4 & + & 45.0 & = & 74.4 \end{array}$$

Because the proposed SDF (74.4) exceeds 44.0, the SDF is satisfied.

Table 1 – Conversion from dbh to density units for existing trees to remain

<u>DBH</u>	<u>Units</u>
2 - 4"	0.1
5 - 8"	0.3
9 - 12"	0.6
13 - 16"	1.2
17 - 20"	1.9
21 - 24"	2.8
25 - 28"	3.8
29 - 32"	5.1
33 - 36"	6.5
37 - 40"	8.1

Table 2 – Conversion from caliper to density factor units for replacement trees

<u>Caliper</u>	<u>Units</u>
1"	0.4
2"	0.5
3"	0.6
4"	0.7
5"	0.9
6"	1.0
7"	1.2
8"	1.3
9"	1.5
10"	1.7
11"	1.9
12"	2.1
13"	2.3
14"	2.5

Table 3 – Container grown pine tree replacement credit

<u>Size</u>	<u>Units</u>
7 Gallon	0.4
3 Gallon	0.2
1 Gallon	0.1

The use of 1 and 3 gallon pines is only permitted with prior written approval. These units can only total 20% of the total replacement trees.

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

The Smyrna Tree Ordinance - Appendix B
Tree Species Selection List

Overstory Trees

1.	<i>Acer rubrum</i>	Red Maple
2.	<i>Betula nigra</i>	River Birch
3.	<i>Carya species</i>	Hickories, Pecans
4.	<i>Celtis occidentalis</i>	Hackberry
5.	<i>Cladrastis lutea</i>	American Yellowwood
6.	<i>Cunninghamia lanceolata</i>	Common Chinafir
7.	<i>Fagus grandifolia</i>	American Beech
8.	<i>Fraxinus americana</i>	White Ash
9.	<i>Fraxinus pennsylvanica</i>	Green Ash
10.	<i>Ginkgo biloba</i>	Ginkgo
11.	<i>Juniperus virginiana</i>	Eastern Red Cedar
12.	<i>Liquidambar styraciflua</i>	Sweetgum
13.	<i>Liriodendron tulipifera</i>	Yellow Poplar, Tulip Poplar
14.	<i>Magnolia grandiflora</i>	Southern Magnolia
15.	<i>Metasequoia glyptostroboides</i>	Dawn Redwood
16.	<i>Nyssa sylvatica</i>	Black Gum, Black Tupelo
17.	<i>Pinus elliotii</i>	Slash Pine
18.	<i>Pinus taeda</i>	Loblolly Pine
19.	<i>Pinus virginiana</i>	Virginia Pine
20.	<i>Platanus occidentalis</i>	Sycamore
21.	<i>Quercus species</i>	Oaks, except Live Oaks
22.	<i>Robinia pseudoacacia</i>	Black Locust
23.	<i>Taxodium disticum</i>	Bald Cypress
24.	<i>Ulmus parvifolia</i>	True Chinese Elm
25.	<i>Zelkova serrata</i>	Japanese Zelkova
26.	Allee Elm	<i>Ulmus parvifolia</i>
27.	Village Green Zelkova	<i>Zelkova serrata</i>

Understory Trees

1.	<i>Acer buergerianum</i>	Trident Maple
2.	<i>Amelanchier arborea</i>	Juneberry
3.	<i>Carpinus caroliniana</i>	American Hornbeam
4.	<i>Cercis canadensis</i>	Eastern Redbud
5.	<i>Cornus species</i>	Dogwoods
6.	<i>Crataegus phaenopyrum</i>	Washington Hawthorne
7.	<i>Oxydendrum aboreum</i>	Sourwood
8.	<i>Acer floridanum</i>	Florida Maple or Southern Sugar Maple
9.	<i>Cercidiphyuum japonicum</i>	Katsura Tree
10.	<i>Halesia carolina</i>	Carolina Silverbell
11.	<i>Sophora japonica</i>	

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All ordinances, parts of ordinances, or regulations in conflict herewith are repealed as of the effective date of this ordinance.

Severability: Should any section of this Ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of the Ordinance as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

Approved by Mayor and Council this 21st day of January, 2003.

Attest:

A. Max Bacon, Mayor

Susan D. Hiott, City Clerk
City of Smyrna

Approved as to form:

Scott A. Cochran, City Attorney
City of Smyrna

**CITY OF SMYRNA – COMMUNITY DEVELOPMENT DEPARTMENT
Tree Replacement Check List**

Project Name: _____

Project Number: _____ **Zoning No.** _____ **Date:** _____

Reviewed By: _____ **Phone:** _____

PLEASE ADDRESS ALL ITEMS MARKED WITH AN 'X'.

1. Plans have been prepared, stamped and signed by a Georgia registered landscape architect.
2. Plan scale, magnetic north arrow, and net site area excluding infrastructure improvements such as roads, utility lines, detention ponds and buffers (but including parking lots).
3. The locations of existing and proposed improvements that may affect tree preservation zones including structures, driveways, paving, cut and fill areas, detention areas, buffers, utility lines (underground and overhead), easements, limits of construction, phase lines, and areas of revegetation.
4. Corridor Design District standards applied to project.
5. Calculations to be shown:
 - ◆ Site Density Factor calculations using existing trees and replacement trees. 20 units per acre.
 - ◆ Specimen tree removal recompense. 4" caliper trees used to replace specimens on inch-for-inch basis. These may be used as part of minimum density requirements.
 - ◆ Single-family and/or duplex residential lots: each must have four 3" caliper trees, or two 2" caliper and two 4" caliper trees.
6. A planting schedule showing the type (common and botanical names), size, spacing, and quantity of trees to be planted, and any special planting notes.
7. Replanted trees shall be of the same or similar species as those trees removed when practical.
8. Minimum root planting space: 200 SF overstory tree; 75 SF understory tree.
9. Planting and staking details shown.
10. Minimum planting size for proposed trees is 2" caliper.
11. Maximum 40% of any one genus.
12. Replanting ratio of not less than one overstory tree for every three understory trees.
13. The locations of all trees to be planted on the site to meet density requirements.
14. A note indicating the type of irrigation used. If hand watering is the type of irrigation used, show water faucets or quick couplers that will be used for this purpose.
15. If an automatic irrigation system is provided, provide plans showing the location of lines and heads, the spray radius for each head, all valves (control, shut-off, drainage, etc.), controller and rain sensor locations, and a 24-hour emergency contact phone number. Add note to plan: Backflow preventer device must be approved by Community Development Department prior to installation.
16. If required for the project, show compliance with all stipulations required by Mayor and Council. These stipulations should be listed on the cover sheet of the project.
17. Additional information as required on a case-by-case basis.
18. The following notes:

Tree Replacement Check List, continued (page 2 of 2)

- ◆ All debris from trees cut or substantially damaged shall be removed from the site prior to the issuance of a Certificate of Occupancy, including removal of any portion of the tree stump above the original natural grade or elevation of land.
- ◆ The density requirements shown on the Tree Preservation and/or Tree Replacement plan(s) must be verified prior to the issuance of the Certificate of Occupancy. Call the Community Development Department at 770-319-5387 for an inspection.
- ◆ A maintenance inspection of trees will be performed after two full growing seasons, or one full growing season on sites with an automatic irrigation system, from the date of the Certificate of Occupancy. Project owners at the time of the maintenance inspection are responsible for ordinance compliance.
- ◆ All buffers shall be replanted to buffer standards where sparsely vegetated or where disturbed. Replantings are subject to Community Development Department approval.

REVISED 4/26/04

**CITY OF SMYRNA – COMMUNITY DEVELOPMENT DEPARTMENT
Tree Survey Plan and Inventory Check List**

Project Name: _____

Project Number: _____ **Zoning No.** _____ **Date:** _____

Reviewed By: _____ **Phone:** _____

PLEASE ADDRESS ALL ITEMS MARKED WITH AN 'X'.

1. Plans have been prepared, stamped and signed by a Georgia registered surveyor or landscape architect.
2. Site area, plan scale, and magnetic north arrow.
3. All specimen trees and their critical root zones labeled; inventoried by size and species.
4. All existing trees 2" dbh or greater that are to be counted toward meeting density requirements; inventoried by size and species.
5. Sampling methods for forested areas over 5 acres. Minimum sampling area is one acre.
6. All tree protection zones and buffers delineated.
7. List of saved trees and a total value of Existing Density Factor units for the entire property.
8. For commercial sites only: on cover sheet, include calculation for impervious square footage for site.

**CITY OF SMYRNA – COMMUNITY DEVELOPMENT DEPARTMENT
Tree Preservation Check List**

Project Name: _____

Project Number: _____ **Zoning No.** _____ **Date:** _____

Reviewed By: _____ **Phone:** _____

PLEASE ADDRESS ALL ITEMS MARKED WITH AN 'X'.

1. Plans have been prepared, stamped and signed by Georgia registered landscape architect.
2. Site area, plan scale, and magnetic north arrow.
3. Name, address and phone number of the owner of the land and name, address, and phone number of any tenant of the property. Not required on landscape plan if on cover sheet.
4. Corridor Design District standards applied to project.
5. All tree preservation zones with dimensions from saved tree to tree protection fence; CRZ = radius equal to one-and-a-half times dbh inches.
6. Existing trees 2" dbh or greater to receive density credits. Calculations for Site Density Factor using existing trees.
7. The locations of existing and proposed improvements that may affect tree preservation zones including structures, driveways, paving, cut and fill areas, detention areas, buffers, utility lines (underground and overhead), easements, limits of construction, phase lines, and areas of revegetation.
8. The locations of staging areas for parking, materials storage, concrete washout, debris burn, tub grinding, and burial holes where tree protection may be affected.
9. Approximate location of all specimen trees or stands of trees, and indications whether they are to be removed or preserved. Specimen tree size definitions: hardwood 24"; softwood 30"; understory 10".
10. Exact location for specimen trees when their preservation is questionable, or as requested by the City Staff, or as might result in a change of the site design.
11. Indicate those specimen trees removed. Removal of specimen trees is subject to City Arborist approval. 4" caliper trees used to replace specimens on inch-for-inch basis.
12. Methods of permanent tree protection for all tree preservation zones, including tree fencing, tree fence details, erosion control, retaining walls, tunneling for utilities, aeration systems, staking, signage, transplanting, permeable paving, retaining walls, et cetera.
13. The location of any state waters and the limits of any proposed disturbance in a water quality buffer zones.
14. Additional information as required on a case-by-case basis.
15. The following notes:
 - ◆ Contact the Community Development Department at 770-319-5387 to arrange a preconstruction conference prior to any land disturbance.
 - ◆ All tree protection measures shall be installed prior to any alteration, defoliation or land disturbing activity that requires the issuance of a development permit. Call the Community Development Department at 770-319-5387 for an inspection.

Tree Preservation Check List, continued (page 2 of 2)

- ◆ All buffers shall be replanted to buffer standards where sparsely vegetated or where disturbed. Replantings are subject to Community Development Department approval.
- ◆ Tree protection shall be enforced according to the City of Smyrna standards. No activities (including solvents, materials, and construction machinery placement or temporary soil deposits) are to occur within six feet outside the tree protection zones.
- ◆ Avoid felling trees into protection zones or disturbing roots inside the protection zones. Roots shall be cut cleanly before tree removal.
- ◆ All tree protection devices must remain in functioning condition until the Certificate of Occupancy is issued.

REVISED 6/22/04