



Orange City Development Services Department

205 East Graves Avenue, Orange City, Florida 32763

www.OurOrangeCity.com Phone: 386-775-5415 Fax: 386-775-5420

MEMORANDUM

Public Hearing: July 11, 2018 Planning Commission

Report Date: June 28, 2018

Subject: Discussion on Land Development Code text amendment regarding tree preservation and landscaping requirements.

Applicant: Development Services Department

Staff: Becky Mendez, AICP, Development Services Director

PUPOSE OF DISCUSSION

Trees are a declared beneficial public resource pursuant the City's Tree Protection ordinance (Chapter 11, Land Development Code) and landscaping fosters a strong community image with enhanced property values (Chapter 10, Land Development Code).

BACKGROUND

On May 22, 2018, the City Council discussed the current tree protection and landscaping requirements and directed staff to schedule this item with the Planning Commission for review and recommendation. A summary of the discussion follows:

Existing single-family residences are exempt from tree protection requirements, which means that homeowners can remove any tree on their lot without a tree removal permit, regardless of size. All other property, including vacant residential properties, must comply with the city's tree protection ordinance. Tree removal permits cost \$20, plus \$3 for every tree removed.

The Code defines a "tree" as any self-supporting woody plant of a species that measures no less than six inches diameter at breast height (DBH). The Code also provides a list of "specimen trees", which requires replacement stock if removed. The most common specimen tree is the Live Oak 18" DBH or larger. The Code does not prohibit removal of specimen trees, simply requires replacement, or payment into the City's Tree Bank. The Code does not define a "historic tree" in any way.

Regulation of “historic tree” removal in west Volusia:

Jurisdiction	Historic Tree	Requires Council Approval to Remove?
Volusia County	36”DBH Live Oak or Bald Cypress	Yes
DeBary	30” DBH Live Oak	Yes
Deltona	36” DBH Live Oak or Bald Cypress	Yes
DeLand	20” DBH Bald Cypress, 25” DBH Live Oak or Red Cedar	Yes

Generally, the City’s tree protection standards include:

- Minimum 15% of lot area must be designated for the protection of trees
- Minimum of 6” DBH per 2,500 square feet of lot area required
- Removal of specimen trees requires replacement at three inches for every six inches of specimen tree removed (Example: If an 18” DBH Live Oak is removed, the applicant is required to provide an additional 9 inches of trees or pay \$599 into Tree Bank.)

The City’s landscape requirements apply to new commercial or multifamily projects only (does not apply to residential subdivisions):

- 5’ width in side and rear yards, unless next to residential than 15 feet width
- 20’ width along a thoroughfare, 10’ width along all other roads
- Front buffers must have one 4” DBH Live Oak every 40 feet, four 2”DBH understory trees per 100 feet, and 15% of the landscape buffer area must have shrubs.
- Side and rear buffers must have “one tree” planted every 50 feet and 15% area for shrubs

The Code does not specify the minimum DBH size of new trees (other than for *front* landscape buffers), only that they are eight feet in height at planting (Section 10.5.5.A, LDC). This is an anomaly in our Code and should be corrected. The Code does not require perimeter landscape buffers in residential subdivisions. The Planning Commission has voiced concern regarding this issue in the past.

COMPREHENSIVE PLAN CONSISTENCY

The following goal, objectives and policies apply to the discussion:

Future Land Use Element

Policy 2.2.7

Require the necessary setbacks and buffers for residential development adjacent to future collector and arterial roadways, as required by the LCD so as to minimize traffic impacts.

Policy 4.1.5

Residential developments shall be consistent with the LDC for the design, maintenance, permitting, landscaping, densities and access requirements.

The landscaping requirements of Chapter 10, LDC do not apply to residential subdivisions. This omission from the LDC appears to conflict with the comprehensive plan policy. Staff recommends that the Planning Commission consider applying the landscape buffer requirements to new residential subdivisions.

Policy 4.1.6

The City shall protect residential neighborhoods from encroachment by incompatible land uses. The type of protection may include landscape buffers, land use buffers or...

Policy 5.1.4

Commercial development shall use landscape buffers, visual screens and setbacks, as required in the LDC when adjacent to residential uses.

Goal 7

Promote the retention of open space in the urban environment and the conservation of significant natural resources.

Conservation Element

Policy 1.1.2

The City shall continue to enforce its LDC tree protection regulations to maintain natural vegetation filters for air pollution.

Policy 1.1.3

The City's LDC shall require landscaping for new development to use native species plant materials that are adapted to the area's soil and water.

The LDC does not currently require the planting of native species. Staff recommends that the Planning Commission consider establishing a preferred plant list and/or requiring a minimum percentage of native species planted in new landscape buffers.

Policy 3.1.1

The City shall continue to seek and support activities directed at preservation of significant historical resources, including public and/or private acquisition.

Goal 4

Promote energy conservation and encourage renewable energy resources and greenhouse gas reductions.

PLANNING COMMISSION DISCUSSION ITEMS

- Define historic tree and provide requirements for removal?
- Limit the number of specimen trees that can be removed?
- Provide minimum size at planting for new trees?
- Review landscape buffer width requirements and material type?
- Require perimeter buffers for new residential subdivisions?

STAFF RECCOMENDATION

Provide input for City Council consideration and future text amendment.

ATTACHMENTS

City Tree Protection code
City Landscape code
Volusia County Tree Protection code



CHAPTER 11. - TREE PROTECTION, LDC

Section 11.1. - Purpose.

Trees are declared to be beneficial public resources. To that end, it shall be unlawful to cut down, damage, poison or in any other manner destroy or cause to be destroyed any tree except in accordance with the provisions of this chapter.

Section 11.2. - Applicability.

11.2.1. *New development or redevelopment.* All new development or reconstruction shall be in full compliance with the provisions of this chapter, except for existing single-family residences in single-family and two-family zoning districts, which shall be exempt from the provisions of this chapter unless otherwise indicated herein.

11.2.2. *Emergency conditions.* During emergency conditions caused by a hurricane or other disaster, the provisions of this chapter may be suspended by direction of the city manager until the end of said emergency period. In the event that any tree shall endanger health or safety, and require immediate removal without delay, verbal authorization may be given by the DSD for the removal without obtaining a tree permit as herein required. Such verbal authorization shall be confirmed in writing by the DSD as soon as possible.

11.2.3. *Nurseries, etc.* All city-licensed nurseries shall be exempt from the provisions of this chapter, but only in relation to those trees that are planted and growing for sale or intended sale to the general public in the ordinary course of said licensee's nursery business.

11.2.4. *Plants in easements and rights-of-way.* State, county, city and franchised utilities may remove trees that endanger public safety and welfare, which are located within utility easements and public rights-of-way or are interfering with utility service without obtaining a tree permit. In such instances state, county, city or franchised utilities shall produce written notification to the DSD ten days prior to such removal and cooperate with the city to preserve such trees by relocation or replacement in the same vicinity or as determined by the DSD for the best public benefit. Under emergency conditions, such utilities and companies may effect removal without prior written notification and without permit as may be necessary to restore interrupted services.

11.2.5. *Land clearing.* On any platted, unplatted or undeveloped land, except as stated in section 11.2.2. of this chapter, it shall be unlawful for any person to remove, cause to be removed, or transplant any tree with a trunk diameter of six inches DBH or more without first having obtained a permit to do so as provided herein.

11.2.6. *Specimen trees.* Except as stated herein, specimen trees as designated in section 11.19 shall be maintained in a living condition. It shall be unlawful for any person to remove such trees except for those designated by the DSD upon review of the property, site plan or subdivision construction plan, as trees located in a proposed construction or reconstruction area that can not be saved or transplanted. Furthermore, it shall be unlawful for any person in the construction of any structures or other improvements to place solvents, material, construction machinery or temporary soil deposits within six feet or two-thirds of the dripline, whichever is greater, of any specimen tree.

(Ord. No. 498, § 2(Att. A), 3-26-13)

Section 11.3. - Exemptions.

The following species are exempted from the provisions of this chapter.

Common Name	Botanical Name



CHAPTER 11. - TREE PROTECTION, LDC

Australian Pine	Casuarina equisetifolia
Brazilian Pepper	Schinus terebinthefolius
Camphor	Cinnamomum camphora
Chinaberry	Melia azedarach
Chinese Tallow	Sapium sebiferum
Citrus	Citrus species
Ear Tree	Enterolobium cyclocarpum
Eucalyptus	Eucalyptus species
Punk Tree	Melaleuca leucadendion
Silk Oak	Grevillea robusta
Woman's Tongue	Albizia lebeck

Section 11.4. - Tree removal permit.

11.4.1. *Tree removal permit application.* Permission for removal, relocation or replacement of trees shall be made on an application form provided by the development services department, together with all information and required exhibits and accompanied by the tree removal fee as adopted by resolution of the city council.

11.4.2. *Time of permit.* Any and all permits issued by the DSD shall be declared null and void if commencement of work so permitted is not begun within six months from date of issuance.

11.4.3. *Display of permit and site inspection.* The applicant shall prominently display the tree removal permit on the site. Said permit shall be displayed continuously while trees are being removed or replaced, or work done, as authorized on the permit and for ten days thereafter. As a condition for the issuance of the permit, the applicant shall agree in writing to entry onto his premises by representatives of the city and all law enforcement officers.

Section 11.5. - Tree removal permit requirements.

An application for a tree removal permit shall be filed, processed and approved as follows.

11.5.1. *Concurrent application.* An application for a tree removal permit shall be filed concurrently with a site plan or preliminary subdivision plat application as required by this code. No trees



CHAPTER 11. - TREE PROTECTION, LDC

shall be removed until the site plan or preliminary plat is approved and the tree permit issued. The application for a tree permit shall include, in addition to the requirements of the site plan or subdivision application, the following information.

- A. A tree survey to scale no greater than one inch equals 50 feet that identifies trees by location, scientific and common name and diameter at breast height (DBH). The tree survey should be part of the site development plan or subdivision plat unless, in the judgment of the DSD, the plans are illegible when combined.
- B. The survey shall denote the following information
 - 1. Existing trees to be removed, relocated or retained.
 - 2. Replacement stock to be planted.
 - 3. Existing trees to be removed and trees to be retained requiring protection shall be clearly designated on site. Method of designation shall be included on the plans submitted for review.
 - 4. Existing and proposed utility easements.
 - 5. Existing and proposed improvements on the site.

11.5.2. *Nonconcurrent application.* Except as otherwise provided in section 11.5.1. of this chapter, an application for a tree permit shall be filed, processed and approved as follows.

- A. An application and two sets of plans shall be filed with the development services department along with the tree permit fee as adopted by resolution of the city council.
- B. The application and plans shall include the following information and exhibits.
 - 1. A diagram of the property at a scale no greater than one inch equals 50 feet that identifies any tree to be removed, its location, common name, DBH, any existing or proposed development on the site, details of replacement stock to be planted including location, size and species. The applicant shall submit two copies of the diagram with the application.
 - 2. Name, signature, address, telephone and fax numbers and email address of the property owner.
 - 3. Legal description of the property and property appraiser's parcel number.
 - 4. North arrow, scale and identification of streets abutting the property.
 - 5. Reason for removal of trees.
 - 6. Existing trees to be removed and trees to be retained requiring protection shall be clearly designated on the site. The designation method used shall be indicated on the plan submitted for review.
- C. If the DSD determines that the application is complete, said application shall be reviewed for compliance with the requirements of this code. The DSD shall have 15 days from the date of receipt of a complete application to approve or disapprove the permit. If no action has been taken after 15 days, the permit shall be deemed approved.

11.5.3. *Application option.* For any application in which the proposed site is five acres or more in land area, the applicant may, subject to approval of the DSD, identify trees by major tree groupings. The plan shall show existing tree groupings with tree types identified by approximate tree type and size percentages in those areas where no trees are proposed to be removed and no soil is to be disturbed in any manner. In all cases, trees to be removed and trees directly adjacent to the clearing area that are to be protected shall be identified on the plan by type and location clearly designated on site. The designation method used shall be indicated on the plan submitted for review.



CHAPTER 11. - TREE PROTECTION, LDC

Section 11.6. - Removal of trees.

A tree may be removed if it is located in an area where a structure or improvements will be placed according to an approved plan and it cannot be relocated on the site because of age, type or size of the tree; or the tree is diseased, injured, in danger of falling too close to existing or proposed structures, interferes with existing utility service, creates unsafe vision clearance or conflicts with other ordinances or regulations.

Section 11.7. - Standards for the location, relocation or replacement of trees.

Unless otherwise stated herein, trees shall be saved, located, relocated or replaced to ensure a minimum of six inches of DBH for every 2,500 square feet of the total lot area (rounded to the nearest whole number). In the event that specimen trees must be removed the DSD shall require additional replacement trees with a minimum of three inches DBH for every six inches of the specimen tree removed.

Section 11.8. - Area tree protection requirements.

Fifteen percent of the square footage of any development shall be designated for the protection of trees. The area required to protect specimen trees may be included to satisfy this requirement. This required area may be constituted as one or more sub areas within the development. Said area may include any landscape buffer or other landscape areas required by this code. Such designated areas shall contain sufficient land area to comply with minimum tree protection standards to adequately protect the trees contained within the areas. A minimum of 50 percent of the required minimum number of trees as required by section 11.6 of this chapter shall consist of existing trees within said area. This requirement may be modified if the development contains an insufficient amount of existing trees to meet this requirement, or the modification of this requirement is warranted by specific on-site conditions.

Section 11.9. - Natural vegetation retention areas.

Areas of a development may be designated as natural vegetation retention areas indicating that all existing vegetation shall remain undisturbed within said designated area. Under this designation, trees that contain two inches and up to six inches DBH size may be retained as replacement trees. Replacement trees shall be considered protected trees and shall be spaced sufficiently far apart to allow adequate growth room for the species.

Section 11.10. - Prior to commencement of construction.

Prior to the commencement of construction, the applicant shall clearly mark any tree or tree groups to be maintained as required by section 11.5.1. of this chapter, in the proximity of any area where land-clearing equipment is to be operated. The markings shall remain in place during construction. Said equipment shall be operated in a manner as to not injure or destroy any trees in accordance with this chapter.

Section 11.11. - During construction.

During the construction stage of development, a temporary barrier at least three feet in height shall be formed to create a minimum radius of six feet from the base of the tree or trees. It shall include at least 50 percent of the area under the drip line of the tree. The developer shall not cause or allow the cleaning of equipment or material within the drip line of any tree or groups of trees to be maintained. Neither shall the developer cause or allow the disposal of waste material, such as paint, oil, solvents, asphalt, concrete, mortar or any other material harmful to the life of a tree within the drip line of any tree or groups of trees. No attachment, wire (other than protective guy wires), signs or permits may be fastened to a tree. Nothing contained herein shall be construed to prevent the designation of driveways or parking areas beneath tree branches so long as the impervious surface amounts to no more than 50 percent of the total area under drip line of the tree. In no event shall the impervious area be located closer than six



CHAPTER 11. - TREE PROTECTION, LDC

feet from the truck of the tree. In no event shall motorized equipment be allowed to park on or traverse the area that is to remain in its natural state surrounding a tree that is to be preserved.

Section 11.12. - Natural soil level.

Except for palm trees, all trees and replacement stock shall have their natural soil level maintained. Tree wells and/or planter islands shall be provided, if necessary, to maintain the natural existing soil level. All efforts shall be made to maintain natural drainage to such trees.

Section 11.13. - Tree maintenance and survival.

11.13.1. *Tree maintenance.* All tree planting and replacement shall be of a sound workmanship manner and according to accepted good planting procedures. The owner of the property shall be responsible for the maintenance of all trees required by this code, which shall be maintained in good condition so as to present a healthy and safe appearance.

11.13.2. *Tree survival.* Except for any exemptions contained in this chapter, all trees relocated, replaced or existing as required by this code shall be replaced by the property owner or lessee in the event said trees are not maintained in a healthy condition. If the development otherwise meets the minimum requirements of the code, the DSD may waive the replacement requirements. To ensure survival of trees, the DSD shall also utilize the provisions of the Tree Protection Manual for Builders and Developers published by the state department of agriculture and consumer services, division of forestry, or other comparable protection requirements.

Section 11.14. - Street trees to be planted.

11.14.1. *Official street trees.* The following list constitutes the official street tree species for Orange City, Florida. No species other than those included in this list may be planted as street trees without written permission of the city tree board.

Small Trees	Medium Trees	Large Trees
Dahoon Holly	Dogwood	Bald Cypress
Hop Hornbeam	Sable (Cabbage) Palm	Winged Elm
Redbud	Hackberry	Red Maple
Chickasaw Plum	American Holly	Laurel Oak
Bottlebrush	Loblolly Bay	Live Oak
Pindo Palm	Cherry Laurel	Washington Palm
	Pumpkin Ash	Sycamore
	East Palatka Holly	Southern Magnolia



CHAPTER 11. - TREE PROTECTION, LDC

	Wax Myrtle	Sweet Gum
	Crape Myrtle	Date Palm
	Drake Elm	

- 11.14.2. *Spacing.* The official street tree species, size and classes listed in section 11.14.1. of this chapter shall be planted in according to the following spacing distance: Small trees, 30 feet; medium trees, 40 feet; large trees, 40 feet, except in special plantings designed or approved during the site plan process.
- 11.14.3. *Distance from curb or sidewalk.* The official street tree species size classes listed in section 11.14.1. of this chapter shall not be planted closer to any curb or sidewalk than the following: Small trees, two feet; medium trees, three feet; and large trees, four feet.
- 11.14.4. *Distance from street corners and fire hydrant.* No street tree shall be planted closer than 20 feet from any street corner, measured from the point of nearest intersecting curbs or curb lines. No street tree shall be planted closer than ten feet of any fire hydrant.
- 11.14.5. *Public tree care.* The city shall have the right to plant, prune, maintain and remove trees, plants and shrubs within or extending over right-of-way lines of all streets, alleys, avenues and lanes, squares and public grounds, as may be necessary to insure public safety or to preserve or enhance the symmetry and beauty of such public grounds. The city tree board may remove or cause to be removed, any tree or part thereof that is in an unsafe condition or which, by reason of its nature, is injurious to sewers, electric lines, gas lines, water lines or other public improvements, or is infected with any injurious fungus, insect or pest. This section does not prohibit the planting of street trees by adjacent property owners providing that the selection and location of said trees is in accordance with sections 11.14.1. through 11.14.5. of this chapter.
- 11.14.6. *Tree topping.* It shall be unlawful as a normal practice for any person, firm or city department to top any street tree, park tree or other tree on public property. Topping is defined as the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical, may be exempt from this article at the determination of the city tree board.
- 11.14.7. *Pruning, corner clearance.* Every owner of any tree overhanging any street right-of-way within the city shall prune the branches so that such branches shall not obstruct the light from any street lamp or obstruct the view of any street intersection and to create a clear space of eight feet above the surface of the street sidewalk. Said owners shall remove all dead, diseased or dangerous trees, or broken or decayed limbs. The city shall have the right to prune any tree or shrub on private property when it interferes with the proper spread of light along the street from a streetlight, or interferes with visibility of any traffic control device or sign. This subsection shall also apply to existing single-family owner-occupied residences in single-family and two-family zoning districts.
- 11.14.8. *Exceptions.* During the period of emergencies such as hurricane, windstorm, flood, freeze or other disasters, the requirements of this chapter may be waived by the city manager. Said waiver must be for a time certain and may not be for an indefinite period.



CHAPTER 11. - TREE PROTECTION, LDC

(Ord. No. 498, § 2(Att. A), 3-26-13)

Section 11.15. - Tree bank.

Should it be physically impossible according to accepted good planning procedures to replace all required replacement trees. The DSD may allow the developer to make a contribution to the city's tree bank based on the banking formula listed here. Contributions to the tree bank shall be reserved to enhance city property and rights-of-way with tree installation, replacement and maintenance.

TREE BANKING FORMULA

4.93 square inches x number of replacement trees x \$27.00

Notes:

4.93 square inches = cross-sectional area of a 2½" caliper tree measured at 12" height (2½" measured at 12" height is equal to 2" measured at DBH).

4.93 x \$27.00 (accepted national value per square inch) = \$133.00 for 2" tree (rounded to the nearest dollar).

Example: 35" specimen tree to be removed = five replacement trees at 2" caliper DBH = \$133.00 x 5 = \$665.00 to be tree banked with the city.

Section 11.16. - Stop work order.

The DSD shall issue a "stop work order" to any person found in the act of cutting down, destroying, damaging or removing trees in violation of this code.

(Ord. No. 210, Exh. A, 8-24-04)

Section 11.17. - Appeals.

Any person may appeal a decision of the DSD in the enforcement or interpretation of any of the terms or provisions of this chapter as provided for by chapter 3, section 3.11 of this code.

(Ord. No. 498, § 2(Att. A), 3-26-13)

Section 11.18. - Violations and penalties.

Violations shall be processed and penalties levied as provided for by the City Code of Ordinances.

Section 11.19. - Specimen trees.

Common Name	Botanical Name	DBH (inches and larger)
Bald Cypress	Taxodium distichum	12
Elm	Ulmus spp.	18



CHAPTER 11. - TREE PROTECTION, LDC

Hickory	<i>Carya</i> spp.	18
Laurel Oak species	<i>Quercus laurifolia</i>	18
Live Oak	<i>Quercus virginiana</i>	18
Loblolly Bay	<i>Gordonia lasianthus</i>	12
Red Bay	<i>Persea borbonia</i>	12
Red Maple	<i>Acer rubrum</i>	18
River Birch	<i>Betula nigra</i>	12
Shumard Oak	<i>Quercus shumardii</i>	18
Slash Pine	<i>Pinus elliotii</i>	18
Southern Magnolia	<i>Magnolia grandiflora</i>	12
Southern Red Cedar	<i>Juniperus virginiana</i>	12
Swamp Bay	<i>Persea palustris</i>	12
Sweet Bay Magnolia	<i>Magnolia virginiana</i>	12
Sweetgum	<i>Liquidambar styraciflua</i>	18
Sycamore	<i>Platanus occidentalis</i>	18
Turkey Oak	<i>Quercus laevis</i>	12

(Ord. No. 210, Exh. A, 8-24-04)



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Section 10.5. - Landscaping.

All multifamily and nonresidential developments and any exterior multifamily or nonresidential reconstruction shall comply with the following landscape standards unless exempted in accordance with section 10.7 of this chapter.

10.5.1. *Landscaped buffers.* A landscaped buffer shall be established along the entire length of, and contiguous to, any property line. Buffers along side and rear property lines shall be not less than five feet in width measured at a right angle to the side or rear property line except that when a multifamily or nonresidential zoning district abuts a single-family residential zoning district the buffer width shall be 15 feet. Buffers shall be 20 feet in width measured at a right angle to the front property line along arterial and collector street rights-of-way and ten feet in width measured at a right angle to the front property line along all other street rights-of-way. All buffers shall be landscaped and provide visual screening as follows.

- A. The front yard buffer shall be landscaped with live oak trees of a minimum four inch diameter at breast height (DBH), and 15 feet in height at planting and located along a line that is midway within the buffer. The trees shall be planted every 40 feet. A minimum of four understory trees, of a minimum two inch DBH and a minimum eight feet in height, per 100 linear feet of street frontage or fraction thereof shall be planted in and about access points and intersections. In addition, a minimum of 15 percent of said buffer area shall be covered with shrubs or groundcover. The trees shall be placed in the groundcover beds where possible. In addition to the shrubs or groundcover requirement, the planting of flowering perennials and/or shrubs within said buffer is required.
- B. If an off-street parking or other vehicular use area abuts the front yard buffer, said area shall not only be landscaped as required by section 10.5.1.A. but also be screened as follows.
 1. A continuous shrub hedge shall be planted within the buffer. The shrub hedge plant materials shall be planted on 24 inch centers, shall be at least 2.5 feet in height at time of planting and obtain a height of three feet within 12 months of planting under normal growing conditions so as to screen a minimum of 75 percent of said parking or vehicular use area to that height, as viewed from the right-of-way.
 2. If a berm is used for screening, said berm shall be at least two feet in height and additional landscaping at least one foot in height shall be planted on top of the berm.
 3. If a decorative wall is used for screening, said wall shall not exceed four feet in height. Shrubs shall be planted abutting the exterior side of the wall facing the street at a planting interval of no greater than five feet. Said shrubs may be planted in groupings on the exterior side of the wall facing the street.
- C. Side and rear yard buffers shall be landscaped with at least one tree planted for each 50 linear feet or fraction thereof of said buffer. In addition, a minimum of 15 percent of said buffer area shall be covered with shrubs or groundcover. The trees shall be placed in the groundcover beds where possible.
- D. If an off-street parking area or other vehicular use area abuts a side or rear yard buffer and said area is not entirely screened visually from abutting property, said buffer shall contain a hedge, decorative wall or fence not less than four feet in height, and no greater than six feet in height. The visual screen shall be continuous between the off-street parking area or other vehicular use area and the abutting property. If plant materials are used for screening, said materials shall be capable of obtaining a four-foot height in 12 months from the time said materials were planted. An existing continuous structural visual screen on the abutting property shall be considered adequate visual screening for this requirement.
- E. When a side or rear yard buffer abuts or is across the street from any residential zoning district in the city and/or county said buffer shall be planted and screened in the following manner.



Chapter 10- Development Appearance and Landscaping Appearance, LDC

1. One tree shall be planted for each 50 linear feet or fraction thereof of said buffer. In addition, a minimum of 15 percent of said buffer area shall be covered with shrubs or groundcover. The trees shall be placed in the groundcover beds where possible.
 2. A visual screen consisting of plant materials, or a decorative wall or fence shall be installed. If plant material is used for screening, said materials shall be selected and located to provide, within two years, a visual barrier that is six feet above the average ground level of the buffer. If a decorative wall or fence is used for screening, said wall or fence shall not exceed four feet in height along the front property line and eight feet in height on side and rear property lines. Shrubs or vines shall be planted abutting the exterior side of the wall facing the adjoining property at a planting interval no greater than five feet.
- F. Existing vegetation shall be used where possible to meet these requirements. Where plant materials will be planted to meet these requirements, drought tolerant plant materials shall be used in order to minimize water usage for irrigation.
- G. Landscaping shall be maintained in excellent condition at all times and shall be replaced in the event of disease or death of plant materials. The enforcement official shall notify the property owner which plant material are diseased or dead and then the property owner shall replace said plant material within 30 days of notification.
- H. Landscape materials shall be pruned only to promote healthy, uniform, natural growth of the vegetation. Trees shall not be pruned severely in order to permanently maintain growth at a reduced height or spread. The owner shall replace severely pruned trees.
- 10.5.2. *Landscaped parking/vehicular use areas.* Landscaped areas shall be provided within the interior of the parking/vehicular use areas to break up continuous parking spaces, reduce surface heat and provide an aesthetically pleasing interior environment. Such landscaping shall cover a minimum of ten percent of the total off-street parking and vehicular use area. If the ten percent requirement cannot be met, architectural planters may be permitted in lieu of landscaped areas. Side and rear yard buffers and five feet of the front yard buffers as required by section 10.5.1. shall not be used as a credit towards meeting the landscape requirements for parking/vehicular use areas. All landscaped areas shall be protected from vehicular damage by a raised concrete curb of at least six inches in height. Interior parking/vehicular use areas that access to a designated corridor shall be designed using the landscaping combinations and criteria of section 10.5.2.A., B. and C. (Preferred combinations are A, B and C or A and C. However, combination B and C or C individually, may be approved through the site plan review and approval process where it is determined that individual site or land usage characteristics necessitate use of such techniques.)
- A. *Landscape strips/divider medians.* Landscaped strips should be used to separate rows of abutting parking. Where landscaped strips are used, such strips shall be a minimum width of six feet. Such strips shall be planted with drought tolerant shrubs, ground cover and/or grass and shall contain a minimum of two canopy trees and two understory trees for every 100 feet of length. The canopy trees shall be a minimum of four inch DBH and 14 feet in height at time of planting. The understory trees shall be a minimum of three inch DBH and ten feet in height at time of planting. When shrubs are planted, the ground area surrounding the shrubs shall be planted with drought tolerant groundcover plants and mulched.
- B. *Interior islands.* Interior islands should be used to break up uninterrupted parking spaces. A maximum of ten continuous parking spaces shall be permitted without a landscaped island. Interior islands shall be a minimum of 200 square feet without a landscaped strip for single parking spaces and 400 square feet without a landscaped strip, for double parking rows. Where interior islands are combined with landscaped strips, the aforementioned square footage requirement shall be in addition to the area required for the landscaped strip interior islands. Islands must be planted with grass and/or shrubs and contain a minimum of one canopy tree, four inch DBH and 14 feet in height for every 200 square feet



Chapter 10- Development Appearance and Landscaping Appearance, LDC

of area or a minimum of two understory trees of a minimum three inch DBH and ten feet in height for every 200 square feet of area. When shrubs are planted, the ground area surrounding the shrubs shall be mulched or planted with drought tolerant groundcover plants and mulched. Each island shall be depicted on the site plan with exact square footage measurement.

- C. *Terminal islands.* Terminal islands should be used to terminate parking bays and to separate parking from adjacent drive aisles. Terminal islands shall be located at the end of each drive aisle and parking bay. A maximum of ten continuous parking spaces shall be permitted between the interior islands and the terminal island. Each terminal island shall be a minimum of 200 square feet without a landscaped strip, for single parking spaces, and 400 square feet without a landscaped strip, for double parking rows. Where terminal islands are combined with landscaped strips, the aforementioned square footage requirement shall be in addition to the area required for the landscaped strip. Terminal islands shall be planted with grass and/or shrubs and contain a minimum of one canopy tree, four inch DBH and 14 feet in height at time of planting for every 200 square feet of area or a minimum of two understory trees of a minimum of three inch DBH and ten feet in height at time of planting for every 200 square feet of area. When shrubs are planted, the ground area surrounding the shrubs shall be mulched or planted with drought tolerant groundcover plants and mulched. Shrubs shall be required to provide a minimum of 35 percent coverage of terminal islands and not to exceed 30 inches in height. Each island shall be depicted on the site plan with exact square footage measurement.
- 10.5.3. *Perimeter building landscaping.* Landscaping around the perimeter of buildings enhances site aesthetics, increases green space and increases oxygen output. All projects shall incorporate perimeter landscaping into the project design in accordance with the requirements listed below (see Illustration No. 8).
- A. Perimeter landscape plant materials shall be located adjacent to the primary facade and along any blank facade wall areas that are, or will be, exposed to the general public. Said plant materials shall also be included at entrance areas, plazas and courtyards.
 - B. Perimeter landscape plant materials shall consist of a combination of trees, palms, shrubs and ground covers that are drought tolerant. Perimeter planting beds shall be a minimum of five feet wide to provide the space necessary for plant growth. Landscape plant material type, size and spacing shall, at a minimum, be consistent with the requirements of this code. Tree diameter inches provided for perimeter landscaping purposes shall be counted toward the tree diameter inch requirements for any project.
 - C. Architectural planters may be permitted by the DSD in fulfillment of pervious area requirements. Such architectural planters shall contain a surface area of not less than ten square feet and shall have a minimum dimension of 15 inches.
- 10.5.4. *Installation of landscaping.* All landscaping shall be installed according to accepted commercial planting procedures as prescribed by the American Society of Landscape Architects. Soil, free of limerock, pebbles, or other construction debris, shall be provided. All landscaped areas shall be protected from vehicular encroachment by wheel stops or curbing. Curbing may be perforated to permit drainage from the paved surface areas onto landscape areas.
- 10.5.5. *Plant materials.* All plant material shall meet or exceed standards for Florida No. 1, as determined by the state department of agriculture and consumer services. Specified plant material sizes, heights and spreads shall be considered minimum planting requirements. Special consideration should be given to combining solid-colored plant materials with variegated colored materials to add color and visual interest to the landscape. Plant materials that are known to be intolerant of paving environments or the physical characteristics of which may be injurious to the public shall not be permitted.



Chapter 10- Development Appearance and Landscaping Appearance, LDC

- A. All trees shall have a minimum height of eight feet immediately upon planting and have trunks that can be maintained in a clean condition for over six feet of clear wood measured from the ground level. A minimum radius of 2.5 feet of landscaped area must be provided between the trunk of the tree and the edge of the landscaped area. Tree species having a root system that is likely to cause damage to public roadways or other public improvements shall not be planted nearer than 12 feet to such improvements. If palms are used, said trees shall not exceed 50 percent of the required number of diameter inches.
- B. Ground covers, other than grass, shall be planted in such a manner as to present a finished appearance and reasonably complete coverage. Grass shall be planted with a species normally grown as permanent lawns in Central Florida. Grass areas shall be sodded. Synthetic or artificial material in the form of trees, shrubs, ground covers or vines shall not be used in lieu of plant requirements.

10.5.6. *Plant material maintenance.* The owner, or his agent, if any, shall be jointly and severally responsible for the maintenance of all landscaping in good condition so as to present a neat, healthy and orderly appearance, free of refuse and debris. Any dead or severely damaged plant materials, including trees, shall be replaced by the owner, tenant or agent as part of routine maintenance.

10.5.7. *Recommended plant list.* Appendix A is the recommended plant list for use in meeting the landscaping requirements of this code. With the exception of Live Oaks required within the front yard landscaped buffer as referenced in 10.5.1 A., and the requirements related to the types of street trees listed in chapter 11, section 11.14.1., the developer/property owner may use any of the list of recommended plant material to meet landscape requirements of this code.

APPENDIX A
RECOMMENDED PLANT LIST

CANOPY TREES

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
American Elm	Ulmus americana	80—100	**	Yes
Bald Cypress	Taxodium distichum	80—100	**	Yes
Laurel Oak	Quercus laurifolia	80	***	Yes
Live Oak	Quercus virginiana	60	***	Yes
Red Bay	Persea borbonia	50—60	**	Yes
Red Maple	Acer rubrum	60	**	Yes
River Birch	Betula nigra	50—60	** (if planted in moist area)	Yes



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Shumard Oak	<i>Quercus shumardii</i>	80	**	Yes
Slash Pine	<i>Pinus elliottii</i>	100	***	Yes
Southern Magnolia	<i>Magnolia grandiflora</i>	80	***	Yes
Southern Red Cedar	<i>Juniperus virginiana</i>	50—60	***	Yes
Sweet Bay Magnolia	<i>Magnolia virginiana</i>	90	**	Yes
Sweetgum	<i>Liquidambar styraciflua</i>	80	**	Yes
Sycamore	<i>Platanus occidentalis</i>	100	***	No
Turkey Oak	<i>Quercus laevis</i>	40—50	***	Yes

UNDER STORY TREES

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
American Holly	<i>Ilex opaca</i>	45	***	Yes
Bottlebrush	<i>Callistmon rigidus</i>	15	**	No
Chickasaw Plum	<i>Prunus angustifolia</i>	15	**	No
Crape Myrtle	<i>Lagerstroemia indica</i>	25	***	No
Dahoon Holly	<i>Ilex cassine</i>	25—40	**	Yes
Dogwood	<i>Cornus florida</i>	20—30	**	Yes
Drake Elm	<i>Ulmus parvifolia</i>	40—50	**	No
East Palatka Holly	<i>Ilex Attenuata</i>	30	**	Native Hybrid



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Loquat	<i>Eriobotrya japonica</i>	15—25	**	No
Redbud	<i>Cercis Canadensis</i>	15—25	**	Yes
Wax Myrtle	<i>Myrica cerifera</i>	15—25	***	Yes
Winged Elm	<i>Ulmus alata</i>	40—50	**	Yes
Yaupon Holly	<i>Ilex vomitoria</i>	8	***	Yes

SHRUBS

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
American Beautyberry	<i>Callicarpa americana</i>	8	***	Yes
Anise Tree	<i>Illicium anisatum</i>	20	*	No
Azalea	<i>Rhododendron spp.</i>	5—10	*	No
Camellia	<i>Camellia japonica</i>	6—10	**	No
Chinese Fringe Flower	<i>Loropetalum chinense</i>	6—10	***	No
Compact Walter's Viburnum	<i>Viburnum obovatum "compacta"</i>	3—6	***	Yes
Dwarf Burford Holly	<i>Ilex cornuta 'Burfordi'</i>	5—20	**	No
Dwarf Chinese Holly	<i>Ilex cornuta 'Rotunda'</i>	5—20	**	No
Dwarf Pittosporum	<i>Pittosporum tobira 'Wheeler'</i>	3	**	No
Dwarf Shore Juniper	<i>Juniperus conferta 'Compacta'</i>	2	***	No



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Dwarf Yaupon Holly	Ilex vomitoria 'Nana'	5	**	No
Florida Anise	Illicium floridanum	15	**	Yes
Gardenia	Gardenia jasminoides	8	**	No
Indian Hawthorn	Rhaphiolepis indica	5	***	No
Japanese Privet, Ligustrum	Ligustrum japonicum	15	**	No
Gold Mound Lantana	Lantana camara	3	***	No
Nick's Compact Juniper	Juniperus chinenses 'Pfitzeriana Compacta'	2—3	***	No
Pfitzer Juniper	Juniperus chinensis 'Pfitzeriana'	3—5	***	No
Pineapple Guava	Feijoa sellowiana	14	**	No
Pittosporum	Pittosporum tobira	6	**	No
Plumbago	Plumbago auriculata	5	***	No
Podocarpus	Podocarpus macrophylla	35	***	No
Sandankwa Viburnum	Viburnum suspensum	6	**	No
Sweet Viburnum	Viburnum odoratissimum	8	**	No
Yellow Anise	Illicium parviflorum	15	**	Yes
Fire Bush	Hamelia patens	8	**	Yes

PALMS

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
-------------	-----------------	----------------------	-------------------	----------------



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Cabbage Palm	Sabal palmetto	40	***	Yes
Canary Date Palm	Phoenix canariensis	40	*	No
Chinese Fan Palm	Livistonia chinensis	25	**	No
Dwarf Palmetto	Sabal minor	6	***	Yes
European Fan Palm	Chamaerops humilis	10	**	No
King Sago Palm	Cycas revolute	8	*	No
Lady Palm	Rhapis excelsa	7	*	No
Pindo Palm	Butia capitata	15	**	No
Saw Palmetto	Serenoa repens	6	***	Yes
Washington Palm	Washingtonia robusta	80	**	No

GROUNDCOVERS

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
Algerian Ivy	Hedera canariensis	Vine	**	No
Blue Pacific Juniper	Juniperus conferta 'Blue Pacific'	24	**	No
Cast Iron Plant	Aspidistra elatior	24	***	No (heavy shade tolerance)
Confederate Jasmine	Trachelospermum jasminoides	Vine	**	No
Coontie	Zamia Floridana	12—24	***	Yes (heavy shade tolerance)



Chapter 10- Development Appearance and Landscaping Appearance, LDC

English Ivy	Hedera helix	Vine	**	No
Evergreen Giant Liriope	Liriope muscari 'Evergreen Giant'	18	**	No
Holly Fern	Cyrtomium falcatum	24	**	No (heavy shade tolerance)
Trailing lantana	Lantana montevidensis	12—18	***	No
Leatherleaf Fern	Rumohra adiantiformis	24—36	**	No
Mondo Grass	Ophiopogon japonicus	6—12	**	No
Parson's Juniper	Juniperus chinensis 'Parsonil'	24	***	No
Society Garlic	Tulbaghia violacea	18	**	No
Virginia Creeper	Parthenocissus quinquefolia	vine	**	Yes

FLOWERS AND ACCENT PLANTS

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
Bee Balm, Horsemint	Monarda punctata	36	***	Yes
Black-eyed Susan	Rudbeckia hirta	24	**	Yes
Blanket flower, Gaillardia	Gaillardia pulchella	24	**	Yes
Bougainvillea	Bougainvillea spectabilis	72	***	No
Butterfly Weed	Asclepias tuberosa	24	**	Yes
Coral Honeysuckle	Lonicera sempervirens	vine	**	Yes
Coreopsis	Coreopsis tinctoria	24	**	Yes



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Daylily	Hemerocallis sp.	36	*	No
Dune Sunflower	Helianthus debilis	18	**	Yes
Firecracker Plant	Russelia equiseformis	24	***	No
Muhly Grass	Muhlenbergia capillaris	36	***	Yes
Passion Flower	Passiflora incarnata	vine	**	No
Pentas	Pentas lanceolata	12—24	***	No
Saltmeadow Cordgrass	Spartina patens	24	**	Yes
Scarlet Milkweed	Asclepias curasavica	36—48	*	Naturalized
Spiderwort	Commelina erecta	24	***	Yes
Tropical Sage	Salvia coccinea	24	**	Yes
Texas Sage	Leucophyllum frutescens	48	**	No
Trumpet Vine	Campsis radicans	vine	**	Yes
Vinca or Periwinkle	Vinca Minor	6—12	**	Naturalized

Drought Tolerance

- * Somewhat drought tolerant: May need occasional irrigation year round.
- ** Moderate drought tolerant: May need occasional irrigation during the dry season.
- *** Very drought tolerant: Irrigation not necessary except during prolonged drought (once plants are established).

10.5.8. *Irrigation system.* All landscaped areas shall be provided with an underground irrigation system that delivers 100 percent coverage to plants and trees. Such irrigation system shall be operated and maintained by the developer/property owner in such a manner as to ensure continued irrigation to the landscaped area. The irrigation system shall be equipped with a rain sensor device to minimize the potential for irrigation during rain events. Irrigation systems shall be required to make use of reclaimed water when such water is made available to the developer/property owner.



Chapter 10- Development Appearance and Landscaping Appearance, LDC
(Ord. No. 210, Exh. A, 8-24-04)

CHAPTER 11. - TREE PROTECTION

Section 11.1. - Purpose.

Trees are declared to be beneficial public resources. To that end, it shall be unlawful to cut down, damage, poison or in any other manner destroy or cause to be destroyed any tree except in accordance with the provisions of this chapter.

Section 11.2. - Applicability.

- 11.2.1. *New development or redevelopment.* All new development or reconstruction shall be in full compliance with the provisions of this chapter, except for existing single-family residences in single-family and two-family zoning districts, which shall be exempt from the provisions of this chapter unless otherwise indicated herein.
- 11.2.2. *Emergency conditions.* During emergency conditions caused by a hurricane or other disaster, the provisions of this chapter may be suspended by direction of the city manager until the end of said emergency period. In the event that any tree shall endanger health or safety, and require immediate removal without delay, verbal authorization may be given by the DSD for the removal without obtaining a tree permit as herein required. Such verbal authorization shall be confirmed in writing by the DSD as soon as possible.
- 11.2.3. *Nurseries, etc.* All city-licensed nurseries shall be exempt from the provisions of this chapter, but only in relation to those trees that are planted and growing for sale or intended sale to the general public in the ordinary course of said licensee's nursery business.
- 11.2.4. *Plants in easements and rights-of-way.* State, county, city and franchised utilities may remove trees that endanger public safety and welfare, which are located within utility easements and public rights-of-way or are interfering with utility service without obtaining a tree permit. In such instances state, county, city or franchised utilities shall produce written notification to the DSD ten days prior to such removal and cooperate with the city to preserve such trees by relocation or replacement in the same vicinity or as determined by the DSD for the best public benefit. Under emergency conditions, such utilities and companies may effect removal without prior written notification and without permit as may be necessary to restore interrupted services.
- 11.2.5. *Land clearing.* On any platted, unplatted or undeveloped land, except as stated in section 11.2.2. of this chapter, it shall be unlawful for any person to remove, cause to be removed, or transplant any tree with a trunk diameter of six inches DBH or more without first having obtained a permit to do so as provided herein.
- 11.2.6. *Specimen trees.* Except as stated herein, specimen trees as designated in section 11.19 shall be maintained in a living condition. It shall be unlawful for any person to remove such trees except for those designated by the DSD upon review of the property, site plan or subdivision construction plan, as trees located in a proposed construction or reconstruction area that can not be saved or transplanted. Furthermore, it shall be unlawful for any person in the construction of any structures or other improvements to place solvents, material, construction machinery or temporary soil deposits within six feet or two-thirds of the dripline, whichever is greater, of any specimen tree.

(Ord. No. 498, § 2(Att. A), 3-26-13)

Section 11.3. - Exemptions.

The following species are exempted from the provisions of this chapter.



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Common Name	Botanical Name
Australian Pine	Casuarina equisetifolia
Brazilian Pepper	Schinus terebinthefolius
Camphor	Cinnamomum camphora
Chinaberry	Melia azedarach
Chinese Tallow	Sapium sebiferum
Citrus	Citrus species
Ear Tree	Enterolobium cyclocarpum
Eucalyptus	Eucalyptus species
Punk Tree	Melaleuca leucadendion
Silk Oak	Grevillea robusta
Woman's Tongue	Albizia lebbek

Section 11.4. - Tree removal permit.

11.4.1. *Tree removal permit application.* Permission for removal, relocation or replacement of trees shall be made on an application form provided by the development services department, together with all information and required exhibits and accompanied by the tree removal fee as adopted by resolution of the city council.

11.4.2. *Time of permit.* Any and all permits issued by the DSD shall be declared null and void if commencement of work so permitted is not begun within six months from date of issuance.

11.4.3. *Display of permit and site inspection.* The applicant shall prominently display the tree removal permit on the site. Said permit shall be displayed continuously while trees are being removed or replaced, or work done, as authorized on the permit and for ten days thereafter. As a condition for the issuance of the permit, the applicant shall agree in writing to entry onto his premises by representatives of the city and all law enforcement officers.

Section 11.5. - Tree removal permit requirements.

An application for a tree removal permit shall be filed, processed and approved as follows.



Chapter 10- Development Appearance and Landscaping Appearance, LDC

- 11.5.1. *Concurrent application.* An application for a tree removal permit shall be filed concurrently with a site plan or preliminary subdivision plat application as required by this code. No trees shall be removed until the site plan or preliminary plat is approved and the tree permit issued. The application for a tree permit shall include, in addition to the requirements of the site plan or subdivision application, the following information.
- A. A tree survey to scale no greater than one inch equals 50 feet that identifies trees by location, scientific and common name and diameter at breast height (DBH). The tree survey should be part of the site development plan or subdivision plat unless, in the judgment of the DSD, the plans are illegible when combined.
 - B. The survey shall denote the following information
 1. Existing trees to be removed, relocated or retained.
 2. Replacement stock to be planted.
 3. Existing trees to be removed and trees to be retained requiring protection shall be clearly designated on site. Method of designation shall be included on the plans submitted for review.
 4. Existing and proposed utility easements.
 5. Existing and proposed improvements on the site.
- 11.5.2. *Nonconcurrent application.* Except as otherwise provided in section 11.5.1. of this chapter, an application for a tree permit shall be filed, processed and approved as follows.
- A. An application and two sets of plans shall be filed with the development services department along with the tree permit fee as adopted by resolution of the city council.
 - B. The application and plans shall include the following information and exhibits.
 1. A diagram of the property at a scale no greater than one inch equals 50 feet that identifies any tree to be removed, its location, common name, DBH, any existing or proposed development on the site, details of replacement stock to be planted including location, size and species. The applicant shall submit two copies of the diagram with the application.
 2. Name, signature, address, telephone and fax numbers and email address of the property owner.
 3. Legal description of the property and property appraiser's parcel number.
 4. North arrow, scale and identification of streets abutting the property.
 5. Reason for removal of trees.
 6. Existing trees to be removed and trees to be retained requiring protection shall be clearly designated on the site. The designation method used shall be indicated on the plan submitted for review.
 - C. If the DSD determines that the application is complete, said application shall be reviewed for compliance with the requirements of this code. The DSD shall have 15 days from the date of receipt of a complete application to approve or disapprove the permit. If no action has been taken after 15 days, the permit shall be deemed approved.
- 11.5.3. *Application option.* For any application in which the proposed site is five acres or more in land area, the applicant may, subject to approval of the DSD, identify trees by major tree groupings. The plan shall show existing tree groupings with tree types identified by approximate tree type and size percentages in those areas where no trees are proposed to be removed and no soil is to be disturbed in any manner. In all cases, trees to be removed and trees directly adjacent to the clearing area that are to be protected shall be identified on the plan by type and



Chapter 10- Development Appearance and Landscaping Appearance, LDC
location clearly designated on site. The designation method used shall be indicated on the plan
submitted for review.

Section 11.6. - Removal of trees.

A tree may be removed if it is located in an area where a structure or improvements will be placed according to an approved plan and it cannot be relocated on the site because of age, type or size of the tree; or the tree is diseased, injured, in danger of falling too close to existing or proposed structures, interferes with existing utility service, creates unsafe vision clearance or conflicts with other ordinances or regulations.

Section 11.7. - Standards for the location, relocation or replacement of trees.

Unless otherwise stated herein, trees shall be saved, located, relocated or replaced to ensure a minimum of six inches of DBH for every 2,500 square feet of the total lot area (rounded to the nearest whole number). In the event that specimen trees must be removed the DSD shall require additional replacement trees with a minimum of three inches DBH for every six inches of the specimen tree removed.

Section 11.8. - Area tree protection requirements.

Fifteen percent of the square footage of any development shall be designated for the protection of trees. The area required to protect specimen trees may be included to satisfy this requirement. This required area may be constituted as one or more sub areas within the development. Said area may include any landscape buffer or other landscape areas required by this code. Such designated areas shall contain sufficient land area to comply with minimum tree protection standards to adequately protect the trees contained within the areas. A minimum of 50 percent of the required minimum number of trees as required by section 11.6 of this chapter shall consist of existing trees within said area. This requirement may be modified if the development contains an insufficient amount of existing trees to meet this requirement, or the modification of this requirement is warranted by specific on-site conditions.

Section 11.9. - Natural vegetation retention areas.

Areas of a development may be designated as natural vegetation retention areas indicating that all existing vegetation shall remain undisturbed within said designated area. Under this designation, trees that contain two inches and up to six inches DBH size may be retained as replacement trees. Replacement trees shall be considered protected trees and shall be spaced sufficiently far apart to allow adequate growth room for the species.

Section 11.10. - Prior to commencement of construction.

Prior to the commencement of construction, the applicant shall clearly mark any tree or tree groups to be maintained as required by section 11.5.1. of this chapter, in the proximity of any area where land-clearing equipment is to be operated. The markings shall remain in place during construction. Said equipment shall be operated in a manner as to not injure or destroy any trees in accordance with this chapter.

Section 11.11. - During construction.

During the construction stage of development, a temporary barrier at least three feet in height shall be formed to create a minimum radius of six feet from the base of the tree or trees. It shall include at least 50 percent of the area under the drip line of the tree. The developer shall not cause or allow the cleaning of equipment or material within the drip line of any tree or groups of trees to be maintained. Neither shall the developer cause or allow the disposal of waste material, such as paint, oil, solvents, asphalt, concrete, mortar or any other material harmful to the life of a tree within the drip line of any tree or groups of trees. No attachment, wire (other than protective guy wires), signs or permits may be fastened to a tree. Nothing contained herein shall be construed to prevent the designation of driveways or parking



Chapter 10- Development Appearance and Landscaping Appearance, LDC

areas beneath tree branches so long as the impervious surface amounts to no more than 50 percent of the total area under drip line of the tree. In no event shall the impervious area be located closer than six feet from the trunk of the tree. In no event shall motorized equipment be allowed to park on or traverse the area that is to remain in its natural state surrounding a tree that is to be preserved.

Section 11.12. - Natural soil level.

Except for palm trees, all trees and replacement stock shall have their natural soil level maintained. Tree wells and/or planter islands shall be provided, if necessary, to maintain the natural existing soil level. All efforts shall be made to maintain natural drainage to such trees.

Section 11.13. - Tree maintenance and survival.

11.13.1. *Tree maintenance.* All tree planting and replacement shall be of a sound workmanship manner and according to accepted good planting procedures. The owner of the property shall be responsible for the maintenance of all trees required by this code, which shall be maintained in good condition so as to present a healthy and safe appearance.

11.13.2. *Tree survival.* Except for any exemptions contained in this chapter, all trees relocated, replaced or existing as required by this code shall be replaced by the property owner or lessee in the event said trees are not maintained in a healthy condition. If the development otherwise meets the minimum requirements of the code, the DSD may waive the replacement requirements. To ensure survival of trees, the DSD shall also utilize the provisions of the Tree Protection Manual for Builders and Developers published by the state department of agriculture and consumer services, division of forestry, or other comparable protection requirements.

Section 11.14. - Street trees to be planted.

11.14.1. *Official street trees.* The following list constitutes the official street tree species for Orange City, Florida. No species other than those included in this list may be planted as street trees without written permission of the city tree board.

Small Trees	Medium Trees	Large Trees
Dahoon Holly	Dogwood	Bald Cypress
Hop Hornbeam	Sable (Cabbage) Palm	Winged Elm
Redbud	Hackberry	Red Maple
Chickasaw Plum	American Holly	Laurel Oak
Bottlebrush	Loblolly Bay	Live Oak
Pindo Palm	Cherry Laurel	Washington Palm
	Pumpkin Ash	Sycamore
	East Palatka Holly	Southern Magnolia



Chapter 10- Development Appearance and Landscaping Appearance, LDC

	Wax Myrtle	Sweet Gum
	Crape Myrtle	Date Palm
	Drake Elm	

- 11.14.2. *Spacing.* The official street tree species, size and classes listed in section 11.14.1. of this chapter shall be planted in according to the following spacing distance: Small trees, 30 feet; medium trees, 40 feet; large trees, 40 feet, except in special plantings designed or approved during the site plan process.
- 11.14.3. *Distance from curb or sidewalk.* The official street tree species size classes listed in section 11.14.1. of this chapter shall not be planted closer to any curb or sidewalk than the following: Small trees, two feet; medium trees, three feet; and large trees, four feet.
- 11.14.4. *Distance from street corners and fire hydrant.* No street tree shall be planted closer than 20 feet from any street corner, measured from the point of nearest intersecting curbs or curb lines. No street tree shall be planted closer than ten feet of any fire hydrant.
- 11.14.5. *Public tree care.* The city shall have the right to plant, prune, maintain and remove trees, plants and shrubs within or extending over right-of-way lines of all streets, alleys, avenues and lanes, squares and public grounds, as may be necessary to insure public safety or to preserve or enhance the symmetry and beauty of such public grounds. The city tree board may remove or cause to be removed, any tree or part thereof that is in an unsafe condition or which, by reason of its nature, is injurious to sewers, electric lines, gas lines, water lines or other public improvements, or is infected with any injurious fungus, insect or pest. This section does not prohibit the planting of street trees by adjacent property owners providing that the selection and location of said trees is in accordance with sections 11.14.1. through 11.14.5. of this chapter.
- 11.14.6. *Tree topping.* It shall be unlawful as a normal practice for any person, firm or city department to top any street tree, park tree or other tree on public property. Topping is defined as the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical, may be exempt from this article at the determination of the city tree board.
- 11.14.7. *Pruning, corner clearance.* Every owner of any tree overhanging any street right-of-way within the city shall prune the branches so that such branches shall not obstruct the light from any street lamp or obstruct the view of any street intersection and to create a clear space of eight feet above the surface of the street sidewalk. Said owners shall remove all dead, diseased or dangerous trees, or broken or decayed limbs. The city shall have the right to prune any tree or shrub on private property when it interferes with the proper spread of light along the street from a streetlight, or interferes with visibility of any traffic control device or sign. This subsection shall also apply to existing single-family owner-occupied residences in single-family and two-family zoning districts.
- 11.14.8. *Exceptions.* During the period of emergencies such as hurricane, windstorm, flood, freeze or other disasters, the requirements of this chapter may be waived by the city manager. Said waiver must be for a time certain and may not be for an indefinite period.

(Ord. No. 498, § 2(Att. A), 3-26-13)



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Section 11.15. - Tree bank.

Should it be physically impossible according to accepted good planning procedures to replace all required replacement trees. The DSD may allow the developer to make a contribution to the city's tree bank based on the banking formula listed here. Contributions to the tree bank shall be reserved to enhance city property and rights-of-way with tree installation, replacement and maintenance.

TREE BANKING FORMULA

4.93 square inches x number of replacement trees x \$27.00

Notes:

4.93 square inches = cross-sectional area of a 2½" caliper tree measured at 12" height (2½" measured at 12" height is equal to 2" measured at DBH).

4.93 x \$27.00 (accepted national value per square inch) = \$133.00 for 2" tree (rounded to the nearest dollar).

Example: 35" specimen tree to be removed = five replacement trees at 2" caliper DBH = \$133.00 x 5 = \$665.00 to be tree banked with the city.

Section 11.16. - Stop work order.

The DSD shall issue a "stop work order" to any person found in the act of cutting down, destroying, damaging or removing trees in violation of this code.

(Ord. No. 210, Exh. A, 8-24-04)

Section 11.17. - Appeals.

Any person may appeal a decision of the DSD in the enforcement or interpretation of any of the terms or provisions of this chapter as provided for by chapter 3, section 3.11 of this code.

(Ord. No. 498, § 2(Att. A), 3-26-13)

Section 11.18. - Violations and penalties.

Violations shall be processed and penalties levied as provided for by the City Code of Ordinances.

Section 11.19. - Specimen trees.

Common Name	Botanical Name	DBH (inches and larger)
Bald Cypress	Taxodium distichum	12
Elm	Ulmus spp.	18
Hickory	Carya spp.	18



Chapter 10- Development Appearance and Landscaping Appearance, LDC

Laurel Oak species	<i>Quercus laurifolia</i>	18
Live Oak	<i>Quercus virginiana</i>	18
Loblolly Bay	<i>Gordonia lasianthus</i>	12
Red Bay	<i>Persea borbonia</i>	12
Red Maple	<i>Acer rubrum</i>	18
River Birch	<i>Betula nigra</i>	12
Shumard Oak	<i>Quercus shumardii</i>	18
Slash Pine	<i>Pinus elliotii</i>	18
Southern Magnolia	<i>Magnolia grandiflora</i>	12
Southern Red Cedar	<i>Juniperus virginiana</i>	12
Swamp Bay	<i>Persea palustris</i>	12
Sweet Bay Magnolia	<i>Magnolia virginiana</i>	12
Sweetgum	<i>Liquidambar styraciflua</i>	18
Sycamore	<i>Platanus occidentalis</i>	18
Turkey Oak	<i>Quercus laevis</i>	12

(Ord. No. 210, Exh. A, 8-24-04)

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE [\[46\]](#)

Sec. 72-831. Purpose and jurisdiction.

- (a) The county council finds and determines that it is in the best interest of the public health, safety and welfare to protect and preserve trees and enhance tree cover in Volusia County, Florida. The value of trees are many and varied and include, but are not limited to the following:
- (1) Trees are valuable producers of oxygen, a necessary element to the human survival, and serve to reduce the environmentally dangerous carbon dioxide concentration in the air.
 - (2) The leaves of the trees trap and filter out ash, dust and pollen in the air.
 - (3) Trees may reduce wind velocity and noise levels.
 - (4) Trees may prevent erosion by stabilizing the soil through their root system and by breaking the force of raindrops pounding upon soil surfaces.
 - (5) Trees reduce the quantity of surface runoff and reduce the percentages of impervious surfaces.
 - (6) Trees help purify water by removing the nutrients from waters passing through the ground from the surface to the groundwater table.
 - (7) Trees provide shade and transpire water which helps to moderate temperatures and cleanse the air.
 - (8) Trees provide food, shelter and essential habitat for wildlife.
 - (9) Trees provide valuable visual aesthetics and psychological contrast to the urban environment.
 - (10) Trees are a valuable asset and increase the economic and aesthetic value of developed and undeveloped properties.

Therefore, for the above-described reasons, the county council has determined that it is necessary to enact this division.

- (b) Jurisdiction. This division shall apply to the unincorporated areas of Volusia County, Florida.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-832. Penalty.

- (a) Violations of this division are punishable as provided in [chapter 1, section 1-7](#), Code of Ordinances, County of Volusia.
- (b) Any person who violates a provision of this division may be required to replace an affected tree, at the county forester's option. Application and approval of a tree permit in accordance with the requirements of [section 72-836](#) must be obtained. Replacement stock must be planted within 90 days of permit issuance. The cross sectional area of the replacement stock shall be taken at the tree's caliper and shall be equal to 150 percent of the cross sectional area of the tree removed. The county forester may reduce the replacement schedule based on the nature of the violation. All other tree replacement provisions of [section 72-842](#) shall apply.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

Sec. 72-833. Documents incorporated by reference.

When a word, term, or phrase used in this division is not defined in [section 72-2](#), the definitions set forth in publications recognized as authoritative in the scientific and engineering fields, as applicable, shall apply. Such publications shall include the latest edition of Trees Native to Tropical Florida by Tomlinson; Dig Manual by the State of Florida; Guide for Plant Appraisal by the Council of Tree and Landscape Appraisers; Tree and Development by Jim Clark and Nelda Matheny; Tree, Shrub and Other Woody Plant Maintenance-Standard Practices by the American National Standards Institute (ANSI A-300); Grades and Standards for Nursery Plants by the Florida Department of Agriculture and Consumer Services. These publications, as amended, are adopted and incorporated into this division by reference.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08; Ord. No. 2013-20, § X, 12-12-13)

Sec. 72-834. General prohibitions.

Unless otherwise authorized by this division, no person shall cause, suffer, permit or allow:

- (1) The removal of any historical tree without first obtaining approval from the council to conduct the removal.
- (2) The removal of any tree without first obtaining a tree removal permit from the county forester as herein provided.
- (3) Any encroachments, excavations, or change of the natural grade within the drip line of a tree unless it can be demonstrated to the county forester prior to the commencement of said activity, that the activity will not negatively impact any tree.
- (4) Land clearing or the operation of heavy equipment in the vicinity of a tree without placing and maintaining a protective barrier around the drip line of the tree. The protective barrier shall be conspicuous enough and high enough to be seen easily by operators of trucks and other equipment. Tree protection provisions of [section 72-844](#) of this article shall apply.
- (5) The storage or use of materials or equipment within the drip line of any tree, or attachments, other than those of a protective and nondamaging nature, to any tree.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-835. General exemptions.

- (a) During emergency conditions caused by a hurricane or other natural disaster, the provisions of this division may be suspended by the direction of the county manager.
- (b) Nuisance trees as specified in the glossary portion of this article III of the Volusia County Land Development Code are exempt from the provisions of this division.
- (c) Deteriorated trees, as defined in [section 72-2](#), which have been removed with prior approval of the county forester, are exempt from the provisions of this division. Trees removed without prior approval of the county forester shall be presumed to have been in good condition. Removal of said trees without review by the county forester shall be considered a violation of this division and subject to the provisions of [section 72-832](#) of this division.
- (d) Trees with trunks which lie wholly within the property boundaries as described herein, are exempt from the requirements of this division if the following conditions are met:

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

- (1) *Residential owner-occupied.* Said property is classified (zoned) pursuant to article II, Volusia County Zoning Ordinance, division 7, as amended, as a:
- a. Single-family or two-family use area, in a community development plan or PUD, excluding mobile home rental parks; and
 - b. A single-family or two-family dwelling or mobile home is located on said property; and
 - c. Said property is owner-occupied.

Historic trees located on residential owner-occupied property as defined in [section 72-2](#), are exempt from the requirement of this division.

- (2) *Agricultural use.* Said property is classified (zoned) A-1, A-2, A-3 (over 2.5 acres), A-4, RC, RA, MH3, MH4 (over 2.5 acres), or FR pursuant to article II, Volusia County Zoning Ordinance, division 7, as amended; or classified as agricultural land for ad valorem tax purposes by the Volusia County property appraiser.
- a. *Rebuttable presumption:* A rebuttable presumption is created for the removal of any tree on land which is classified as, or used for, agriculture, as set forth above; if said tree is removed within three years prior to and located on property which is the subject of:
 1. An application for rezoning to a classification other than agriculture; or
 2. An application for a special exception pursuant to article II, [section 72-415](#), Volusia County Zoning Ordinance, as amended; or
 3. Subdivision application approval pursuant to article III, division 2, Volusia County Land Development Code, as amended.
 - b. In order to rebut the presumption that the tree removal was done with the intention of developing the land to a nonagricultural use, the owner may file a sworn affidavit with the county forester attesting to the fact that no trees have been removed except in conformity with recognized agricultural management or production practices.
 - c. The county forester shall consider the following factors, which shall be set forth in the affidavit, when deciding whether the trees have been removed in conformance with recognized agricultural management or production practices:
 1. The specific reason(s) for removal of said trees.
 2. The length of time the land has been in agricultural production.
 3. Whether the use has been continuous.
 4. The size of the area as it relates to efficient agricultural production.
 5. Whether the land has been sufficiently and adequately cared for within accepted commercial practices of the dominant type of production.
 6. Whether the land is under lease and if so, the type and terms of said lease.
 7. Whether the tree removal was done in the ordinary course of business.
 8. Any contract for sale in existence at the time of submitting the affidavit.
 9. Such other factors which are relevant to the determination of good faith land use.
 - d. After reviewing these factors, the county forester shall deny or approve the exemption. If the county forester denies said exemption, said denial may be appealed as provided in [section 72-849](#) of this division.

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

Historic trees located on agricultural use property as defined in [section 72-2](#), are exempt from the requirement of this division.

- (3) *Existing rights-of-way and easements.*
 - a. Any trees, except historic trees, within an existing public or private right-of-way or maintenance easement which must be removed or thinned to ensure the safety of the motoring public and to maintain visibility of oncoming traffic at intersecting public streets. Trees which may disrupt public utilities such as power lines, drainage ways and similar public needs may be removed only upon prior approval by the county forester and pursuant to the requirement of subsection (d)(5) of this section. However, historic trees located in public or private rights-of-way or utility easements may only be impacted pursuant to county permit requirements.
 - b. Planned public or private rights-of-way shall be designed to preserve as many trees as possible. However, historic and specimen trees located in public or private rights-of-way or utility easements may only be impacted pursuant to county permit requirements.
- (4) *Trees for sale.* Trees which are planted and grown for sale to the general public or for some public purposes. Licensed wholesale plant or tree nurseries and botanical gardens are exempt from this division.
- (5) *Removal of trees, except historical or specimen trees, by franchised utility companies provided that:*
 - a. The utility company provides prior written notice of its intention to remove trees, to the county forester and the record property owner. The written notices shall be delivered, at minimum, 15 days prior to the intended tree removal; and
 - b. The utility company can demonstrate to the county forester prior to tree removal that:
 1. The tree will cause a continual disruption of service; and
 2. The threat of service interruption cannot be remedied by tree pruning in accordance with standards as set by the American National Standards Institute, as amended.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08; Ord. No. 2013-20, § XI, 12-12-13)

Sec. 72-836. Tree permit application requirements.

- (a) *Application forms.* A complete permit application for removing or relocating trees shall be submitted by a property owner or authorized agent of the owner, on county-approved application form(s).
- (b) *Fees.* Each permit application must be accompanied by the appropriate fee(s) as established by council. The permit application fees are nonrefundable and nontransferable.
- (c) *Required application data.* The county-approved permit application must be accompanied by surveys, and other documents as required by the county forester, that describe the proposed activities to be performed in sufficient detail to meet the standards of this division and to clearly identify all potential impacts to the environment and public health. A property boundary survey shall be submitted with the application. Property boundaries must be locatable in the field by the inspectors. As a minimum, property corners must be located and so designated to be clearly identifiable and visible on-site. Property corners shall be intervisible or line markers shall be provided.

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

- (d) *Action on permit application.* The land development division shall, in a timely manner, from the date of filing, determine if the application is complete. If it is determined the application is incomplete, it shall be returned to the applicant. If the application is determined to be complete, the land development division shall transmit the application and plans to the county forester. The county forester shall have 15 working days from the date of receipt from the land development division of a complete application to approve or deny the permit.
- (e) *Modification of application requirements.*
- (1) Application requirements may be modified upon agreement of the county forester to reflect specific on-site needs for information. Modification would be based on the type of development proposed, the vegetative cover being impacted, and the degree of impact anticipated.
 - (2) Statistical tree survey information may be considered at the discretion of the county forester. However, such statistical surveys shall be limited to sites containing an overstory consisting predominantly of trees uniform in age, species and distribution, which do not contain specimen or historic trees. Statistical surveys must be conducted in compliance with accepted forestry practices.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-837. Area tree protection requirements.

Fifteen percent of the square footage of any development shall be designated for the protection of trees. The area required to protect specimen trees may be included to satisfy this requirement. This required area may be constituted as one or more subareas within the development. Said area may include any landscape buffer or other landscape buffer or other landscape areas required by article II, Volusia County Zoning Ordinance, as amended, on a development. Such designated areas shall contain sufficient land area to comply with minimum tree protection standards to adequately protect the trees contained within the areas. A minimum of 50 percent of the required minimum number of trees as provided in [section 72-838](#) of this division shall consist of existing trees within said area. The county forester may provide for a waiver or modification of this requirement if the development contains an insufficient amount of existing trees to meet this requirement or if the county forester determines that modification of this requirement is warranted by specific on-site conditions.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-838. Minimum tree coverage requirements.

Each lot shall contain a minimum of one tree for each 2,500 square feet of lot area (rounded up to nearest whole number). If the lot contains an insufficient number of existing trees to meet this requirement, or if the lot has no existing trees, replacement trees shall be provided in accordance with [section 72-842](#) of this division.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-839. Natural vegetation retention areas.

- (a) Areas of the property may be designated as natural vegetation retention areas indicating that all existing vegetation will remain on that area of the site.

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

- (b) Under this designation, trees meeting the minimum replacement size criteria, up to trees of the minimum tree definition criteria, may be retained as replacement stock for trees to be removed elsewhere on the site.
- (c) Cross sectional area of these replacement trees must be calculated and may be applied toward replacement volume needed on the site as a whole. Trees designated as replacement stock pursuant to this method, become protected trees.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-840. Tree permits.

- (a) *Standards for issuance.* The county forester shall consider the following standards in reviewing the application:
 - (1) The extent to which the actual or intended use of the property requires cutting down or destruction of vegetation and trees, including whether the applicant has made every reasonable effort to incorporate existing trees into the project and to minimize the number of trees removed.
 - (2) The desirability of preserving any tree by reason of its size, age or some other outstanding quality, such as uniqueness, rarity or status as an historic or specimen tree.
 - (3) The extent to which the area would be subject to increased water runoff and other environmental degradation due to removal of the trees.
 - (4) The heightened desirability of preserving tree cover in densely developed or densely populated areas.
 - (5) The need for visual screening in transitional areas, or relief from glare, blight, commercial or industrial unsightliness, or any other affront to the visual or aesthetic sense in the area.
 - (6) The effect that changes in the natural grade will have on the trees to be preserved.
 - (7) The removal of tree(s) will significantly affect the natural clearing of the atmosphere by vegetation through particulate matter interception, the ingestion of oxygen released to the atmosphere as a by-product of photosynthesis.
- (b) *Requirements for subdivision development.*
 - (1) Except as otherwise exempted in this division, compliance with the provisions of this division shall be required of all subdivisions subject to requirements of the Volusia County Land Development Code. Review for compliance shall be a function of subdivision review pursuant to this article III, Volusia County Land Development Code, division 2 (as amended), and shall be clearly documented in the subdivision planning documents.
 - (2) Tree removal on individual lots within the subdivision may be permitted either as a part of the subdivision review process or independently under the requirements of [section 72-848](#) of this division following approval of the subdivision.
 - (3) If said lots are to be cleared as part of the subdivision review process, clearing may be limited, based on a determination made by the county forester. If permitted with the subdivision process, tree replacement requirements must be provided with the subdivision approval. Permitting fees for tree removal on lots within the subdivision shall be determined based on the number of protected trees removed and shall be calculated independently of the fees for the subdivision.
 - (4) Lots to be cleared as part of the subdivision review process shall be subject to the following:

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

- a. Developer must demonstrate a site specific need for lot clearing based upon the type of trees on-site, the topography of the site, and other factors as may be determined by the county forester.
 - b. Developer must demonstrate that clearing can be accomplished without damage to other protected trees within the subdivision.
 - c. Developer must demonstrate that clearing is in compliance with approved preliminary plat.
 - d. Clearing does not violate any provision of the Code of Ordinances of Volusia County.
 - e. The development agreement specifies permitting fees and replacement requirements for lots to be cleared.
 - f. Developer shall provide documentation of financial hardship to justify the need for lot clearing within the subdivision.
 - g. Clearing would be limited to an amount not to exceed 20 percent of the approved lots with the subdivision during any one calendar year.
- (c) *Tree permit issuance.*
- (1) If the application meets the requirements of this division, the county forester shall approve the application subject to appropriate permit conditions. In the event that the application does not comply with the requirements set forth in this division, said application shall be denied, with reasons stated.
 - (2) Upon approval or denial of the application, the county forester shall notify the land development division. If the application is approved, the land development division will notify the applicant that the tree permit is approved subsequent to the requirement of [section 72-844](#) of this division. If the application is denied, the land development division shall notify the applicant, stating the reasons for the denial.
- (d) *Posting of permit.* A copy of the approved tree permit shall be clearly posted on the job site during all phases of clearing and construction activities.
- (e) *Termination of permit.* All tree permits shall expire one year from the date of issue unless time extensions are granted by the county forester. Application for extensions of time shall be made in writing to the county forester at least 30 days prior to the expiration of the permit.
- (f) *Notification of impending activity.* The person holding an approved permit shall notify the county forester prior to the start of any land activity which will effect trees. Notification shall be timely, allowing the county forester sufficient notice to perform necessary site inspections. Forester will inspect the site for compliance with [section 72-844](#) of this division. A tree removal permit will be issued only after these pre-activity inspections are complete.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-841. Tree relocation option.

Any person may elect to relocate a nonhistoric tree subject to prior approval by the county forester. Any person electing to relocate a tree, rather than remove it, shall receive credit for successful relocation equal to 100 percent of the cross sectional area of the tree, deducted from the tree replacement requirements as specified in [section 72-842](#) of this division.

- (1) *Tree relocation requirements.* To ensure successful relocation and transplanting of trees to the following guidelines shall be adhered to:

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

- a. No other trees on-site shall be unnecessarily damaged by the relocation.
 - b. A relocated tree shall not interfere with existing or proposed utilities, either above or below ground. A relocated tree which may reach a height of 30 feet, shall not be placed within 20 feet of an overhead powerline.
 - c. A tree should be relocated within the vicinity from which the original tree was removed, where practicable.
 - d. Any tree being relocated shall not be unnecessarily damaged during removal, transport or replanting of that tree.
 - e. If a tree has a dormant period, it should be transplanted during that time. A tree should not be transplanted during periods of strong, dry winter winds or during droughts.
 - f. Adequate space for root and canopy development shall be provided.
 - g. Prior to transplanting, the tree shall be root and canopy pruned according to sound arboricultural standards. All crown pruning shall be done in accordance with standards set by the American National Standards Institute, as amended.
 - h. During and following transplanting of a tree, the root ball and trunk shall be protected. The root ball must be kept moist at all times.
 - i. A transplanted tree shall be braced for at least one year after its relocation.
 - j. A transplanted tree shall be fertilized as appropriate and shall be watered sufficiently until tree growth is re-established.
- (2) *Tree relocation maintenance/monitoring requirements.* Any person conducting tree relocation activities shall:
- a. Maintain the health of a relocated tree for a period of two years following final inspection and approval.
 - b. Replace, with a equivalent cross sectional area, within 60 days, a relocated tree that dies or is determined by the county forester to be effectively destroyed within two years of being relocated. The two-year maintenance period shall begin anew whenever a tree is replaced.
- (3) *Tree relocation bond requirements:*
- a. Unless otherwise exempted by this article, any person conducting tree relocation activities must post a bond to insure the survival of the relocated trees designated for preservation. Said bond shall meet the approval of the county attorney's office and may be in the form of a letter of credit drawn upon banks or savings and loan institutions legally doing business in the State of Florida, cash bonds issued by an insurance company legally doing business in Florida or other acceptable means as approved by the county attorney's office. This bond shall be in addition to any other bond that may be required by any other governmental entity.
 - b. Determination of the bond amount shall be computed based upon the most current version of the Guide for Plant Appraisal, published by the International Society of Arboriculture.
 - c. Government entities are exempt from bond requirements.
 - d. Release of bonds. Tree relocation bonds will be released upon successful tree relocation as set forth in this article and written approval by the county forester.
 - e. Drawing on bonds. If a tree is determined by the county forester to be effectively destroyed within two years from the date of relocation, the bond shall be drawn upon and funds will

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

be deposited into the tree replacement trust fund. Said funds will be expended pursuant to [section 72-846](#) of this division.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-842. Tree replacement requirements.

- (a) Trees identified for removal on the tree permit application shall be replaced by replacement stock. Replacement shall be based on the replacement of 15 percent of the total of the cross sectional area of the trunk of the tree removed. Replacement for Sand Pine (*Pinus clausa*) shall be based on replacement of seven percent of the total cross sectional area of the trunk of the tree removed.
- (b) Diameter used to determine cross sectional area shall be as defined in the Grades and Standards for Nursery Plants, State of Florida, Florida Department of Agriculture and Consumer Services.
- (c) Single trees may be replaced with two or more trees provided the cross sectional requirements are met. In no event shall replacement stock be less than six feet in height, nor have a caliper of less than two inches.
- (d) Replacement species shall be the same general species as the tree removed or an alternative species acceptable to the county forester.
- (e) Replacement trees shall meet the requirements for Florida No. 1 or better grade, as provided in Grades and Standards for Nursery Plants, State of Florida, Florida Department of Agriculture and Consumer Services.
- (f) Replacement trees provided in conjunction with the site plan or subdivision approval shall be considered required improvements.
- (g) Palms may be used as replacement stock up to the full cross sectional replacement area of palms being removed from the site. Palms may be substituted as replacements for other species being removed under the following conditions:
 - (1) If the cross sectional area of palms being removed from the site comprises zero to 25 percent of the total cross sectional area of trees being removed, palms may be substituted for replacement of nonpalm species up to a maximum of 25 percent of the total replacement cross sectional area required.
 - (2) If the cross sectional area of palms being removed exceeds 25 percent of the total cross sectional area of trees being removed, no substitution of palms for non-palm species will be allowed. The use of palms will be restricted to the replacement cross sectional area originally calculated based on palms that are being removed.
 - (3) Since palms are generally moved as mature trees, it is necessary to equate cross sectional area of commonly moved palms to cross sectional area of commonly planted nonpalm species when substituting palms for nonpalm species pursuant to subsection (g)(1) of this section. For the purpose of substitution of palms for nonpalm species, a ratio of 16 square inches of replacement cross sectional area of palms may be substituted for one square inch of replacement cross sectional area of nonpalm species.

For example, a six-inch DBH palm tree containing 28.26 square inches may be substituted for a two-inch caliper hardwood tree containing 3.14 square inches of cross sectional area. The following informational chart indicates common size comparisons:

PART II - CODE OF ORDINANCES
 Chapter 72 - LAND PLANNING
 ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

DBH of Palm	Caliper of Nonpalm Species
6" equates to	2"
8" equates to	2"
10" equates to	3"
12" equates to	3"
14" equates to	4"
16" equates to	4"

This substitution ratio applies only when replacing nonpalm species with palms.

- (h) *General requirements for replaced trees.* Any person conducting tree replacement activities shall:
- (1) Refrain from unnecessarily damaging any other tree or trees remaining on-site while planting or preparing the site for any replacement tree;
 - (2) Plant the replacement tree so that it will not interfere with existing or proposed utility lines or cables, either above or below ground. A tree which may reach a height of 30 feet shall not be planted within 20 feet of an overhead powerline;
 - (3) Plant replacement tree species and use installation and maintenance methods that follow xeriscape principles, where practicable;
 - (4) Plant a replacement tree in an area with adequate space for root and canopy development;
 - (5) Complete tree replacement within six months of the issuance of a tree removal permit unless granted an extension by the county forester.
- (i) *Maintenance/monitoring requirements for replaced trees.* Any person conducting tree replacement activities shall:
- (1) Maintain the health of a replacement tree for a period of two years from the date of planting;
 - (2) Replace, within 60 days, any replaced tree that dies or is determined to be effectively destroyed within two years of being planted, as determined by the county forester. The two-year maintenance period shall begin anew whenever a tree is replaced.
- (j) *Remuneration in lieu of tree replacement.* If it is determined by the county forester that the replacement is not feasible due to lack of available planting space, the following applies:
- (1) The person conducting the tree replacement activity shall, in lieu of actual tree replacement, pay a replacement contribution into the Volusia County Tree Replacement Trust Account.

PART II - CODE OF ORDINANCES
 Chapter 72 - LAND PLANNING
 ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

(2) The replacement contribution will be determined using a replacement tree fee schedule as determined by council.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-843. Historic and specimen trees.

(a) Historic trees shall only be removed or relocated upon approval of a permit granted by the county council. However, if said trees are deteriorated, dying, or considered to be a hazard, the county forester upon prior review, may grant approval for removal under terms of subsection [72-835\(c\)](#) of this article.

(1) For historic tree removal, a tree permit application shall be filed, processed and reviewed in accordance with [section 72-840](#) of this article. For historic tree relocation, a permit application shall be filed, processed and reviewed in accordance with [section 72-840](#) and [section 72-841](#) of this article.

(2) The county forester shall send a report and recommendation on the application to the land development division within 15 working days of receipt of the application from the land development division.

(3) The land development manager shall prepare and submit a report on the application, including the county forester's recommendation, to the county manager's office for inclusion on the next available county council agenda.

(4) The county council shall consider the report and shall approve, approve with conditions, or deny the application. The report of the county council action shall be transmitted back to the land development division, stating any reasons for denial or conditions.

(5) Upon receipt of the county council actions the land development division shall immediately act concerning issuance of the permit.

(b) *Specimen trees.*

(1) Specimen trees shall only be removed or relocated in accordance with a permit issued by the county forester, upon compliance with the following requirements:

Minimum Specimen Tree Protection:

Number of Specimen Trees per Acre	On-site Protection Required
Less than 3 per acre or a portion thereof	80 percent of all specimen trees
3.0 to 5.0 per acre	65 percent of all specimen trees
5.1 to 8.0 per acre	50 percent of all specimen trees

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

8.0 or more per acre	4 specimen trees per acre
----------------------	---------------------------

- (2) Any specimen tree removed in accordance with permit, must be replaced pursuant to [section 72-842](#) of this article.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-844. Standards for tree protection during development activities.

The following are minimum standards necessary to protect trees designated for preservation from damage during development activities after a permit has been approved:

- (1) *Protection of existing trees.* Prior to the commencement of construction of a development, the applicant shall clearly mark any tree or tree groups to be maintained in the proximity of any area where land clearing equipment is to be operated. In addition, prior to any clearing of improved, vacant or unimproved land unless specifically exempted from this article, trees to be preserved, shall have barriers constructed around them by the developer to prevent physical damage from heavy equipment and other activities incidental to development. Required barriers shall be subject to inspection by the county as a condition of permit approval and prior to any clearing. The barriers shall be:
 - a. Large enough to include the entire area inside the drip line of the tree or one foot of radius per inch of the diameter, whichever is greater;
 - b. Conspicuous enough and high enough to be easily seen by operators of trucks and other equipment;
 - c. Constructed of sturdy material as approved by the county forester based on professional judgment that the intent of this provision shall be met; and
 - d. Constructed as a condition of the issuance of any tree permit, building permit, and any other development permit and prior to any construction or other development activities and require to remain in place throughout the construction.
 - e. Barriers or barricades shall be completely removed from the site at the end of the construction, unless otherwise stipulated on the approved tree preservation plan.
- (2) *Tree protection zones.* The area within the drip line of trees designated for preservation is considered the tree protection zone. Only hand clearing is permissible within the tree protection zone, unless otherwise stipulated in the approved tree permit. Encroachments into the tree protection zone will require submittal and approval of a drip line encroachment plan outlining tree protection measures to be utilized.
- (3) *Other required protection of trees and understory.* Developers shall, as required by the approved tree permit, protect the trees and understory plants designated for preservation from chemical poison, excavation, and grade changes to at least the following minimum standards:
 - a. *Utility line trenches.* Utility line trenches shall be routed away from trees to an area outside of the drip line. If underground utilities must be routed through a tree protection barrier zone, tunneling will be required.

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

- b. *Grade changes.* The site shall be utilized as to require the smallest possible grade change around existing trees. The project shall be designed to utilize site topography to the greatest extent possible. No grade changes are to be allowed within the drip line of existing trees unless approved by the county forester.
 - c. Tree wells of an approved design shall be constructed around all trees to be preserved when fill material will be deposited within the drip line of protected trees. Utilize retaining walls and drywells to protect any tree to be preserved from severe grade changes.
 - d. Swaling and minor negative grade changes shall be designed outside the drip line of the area of trees to be preserved. If ditches, swales, or other significant grade changes are required near a tree that is designated to be preserved, piping shall be used. Trenching within the drip line of trees to remain shall be avoided. Tunneling shall be used in lieu of trenching within the drip line of trees to remain.
 - e. Where traffic areas are proposed within the drip line of trees to be preserved, and less than two inches of grade change is proposed, surfaces that allow air and water in the soil shall be used in lieu of asphalt or other impervious surfaces.
- (4) *Pruning of trees and vegetation.* The developer is permitted to properly cut or prune branches and roots of trees designated for preservation under the supervision of the county forester. However, tree pruning shall be accomplished in accordance with the procedures set forth by the American National Standard Institute, as amended.
- (5) *Roots system protection.* The root systems of trees shall be protected as follows:
- a. *Excavation within a drip line.* County forester may approve a drip line encroachment plan upon the applicant's request to excavate within the drip line of a tree as part of a clearing permit.
 - b. *Standards for root protection.* The following standards shall apply and the county forester may establish additional standards for root protection consistent with this section if deemed warranted by site conditions or the project proposal:
 - 1. If roots are exposed, the developer shall provide temporary earth cover, mixed with peat moss and wrapped with burlap, to prevent exposure from drying out before permanent back fill is placed.
 - 2. The developer shall also fertilize, water and maintain in a moist condition, and otherwise temporarily support and protect the tree root from damage until the tree root is permanently covered with earth.
 - c. *Protection of the tree root system.* The developer shall protect tree root systems from damage due to noxious material in solution caused by runoff, or spillage during mixing and placement of construction materials, or drainage from storage materials. Developer shall also protect the root systems from flooding, erosion and excessive wetting resulting from dewatering or grading operations.
- (6) *Trees damaged during construction.* The developer shall have trees damaged by construction repaired by a professional or arborist in a manner acceptable to the county forester as follows:
- a. *Immediate notification to the county.* The county forester must be notified immediately after any damage to any tree damaged by construction operations.
 - b. *Prompt repair.* Repairs shall be made promptly, as necessary, after damage occurs to prevent progressive deterioration of damaged trees.

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

- c. *Removal and replacement of damaged trees.* The developer shall remove trees which are determined by the county forester as being incapable of restoration of normal growth pattern. Such trees shall be subject to replacement pursuant to subsection [72-832\(b\)](#) of this article.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-845. Tree relocation by county.

Where a tree is intended to be removed pursuant to the provisions of this division, the county may with owner's permission, relocate the tree at the county's expense. The tree will be relocated within the incorporated area on public land. If the county does not elect to relocate a tree, it may give to the school board or any municipality within the county the right to acquire the tree, at its expense, for relocation within the city's incorporated area for public use, or to a school board owned site. The relocation shall be accomplished within 15 working days of the issuance of a permit. If it is necessary to root prune the tree to insure survival, the relocation shall be accomplished within a time frame agreed to by all parties.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-846. Tree replacement trust account.

- (a) *Establishment.* A Volusia County Tree Replacement Trust Account is hereby established as a depository for tree replacement fees and monies.
- (b) *Dispersal of assets.* The funds in said account shall be expended, utilized and disbursed for the planting of trees, and to cover any other ancillary costs including but not limited to, landscaping, sprinkler systems and other items or materials necessary and proper for the preservation, maintenance, relocation or restoration of tree ecosystems on any public land within Volusia County. These monies may also be utilized to engage support elements such as landscape architects and additional personnel, if deemed necessary in the opinion of the county manager, following established county procedures.
- (c) All monies deposited for use as specified in this section shall be deposited in trust, in a separate account established and maintained apart from the general revenue funds and accounts of Volusia County.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-847. Issuance of certificates of occupancy.

Compliance with this division, and including any conditions attached to the clearing permit, shall be a condition to the issuance of certificates of occupancy from the department of development and code administration. Under certain circumstances, conditions may warrant postponing installation of replacement trees due to unfavorable planting conditions. If conditions warrant, and if acceptable to the applicant and county forester, a certificate of occupancy may be granted without completion of the replacement requirements under the terms of this article, provided the applicant agrees to be bound by said conditions, and appropriate performance guarantee is provided in accordance with the requirements of article III, Volusia County Land Development Code, division 5, as amended.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

Sec. 72-848. Tree permit requirements for residential construction.

- (a) *Residential construction application requirements.* At the time of application for building permits for residential construction, the applicant must certify compliance with the requirements of this article. If it is anticipated that no trees requiring a permit are to be removed, submittal of a county approved certificate of compliance will satisfy this requirement, subject to on-site inspection and verification by the county forester. If the county forester determines that protected trees are to be removed, the certificate of compliance will be converted to a tree permit, subject to payment of appropriate permit fees and tree replacement, in accordance with [section 72-842](#) of this article.
- (b) *Each section of this article shall apply to residential construction except:*
- (1) The area tree protection requirements of [section 72-837](#)
 - (2) The specimen tree requirements of subsection [72-843\(b\)](#); and
 - (3) Tree replacement requirements of [section 72-842](#) of this article, within the buildable area. Historic tree removal for residential construction is not exempt.
- (c) *Application for tree permit prior to building permit.* A tree clearing permit may be issued prior to the issuance of a building permit application. It shall remain valid for one year unless extended by the application for a building permit. If no such application is tendered, then replacement of protected trees shall be required.
- (d) *Optional residential tree permit procedures.* At the developer's option, and with concurrence of the county forester, the following tree permit standards for residential development may be utilized:
- (1) Lots containing less than 20,000 square feet in lot area, shall contain a minimum of one tree per 1,000 square feet of lot size, rounded up to the next whole tree.
 - (2) Replacement trees may be existing trees, planted trees, or a combination thereof. Existing trees remaining on the property after construction will meet this requirement as long as adequate protection has been provided during construction in accordance with [section 72-844](#) of this article. Planted trees must consist of a variety of species.
 - (3) Except for the historic tree provisions of subsection [72-843\(a\)](#) of this article, tree removal on lots developed pursuant to this option are exempt from the replacement schedule set forth in [section 72-842](#) of this article. However, a tree permit must be obtained in compliance with the requirements of this division.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-849. Appeals.

Aggrieved parties may appeal any decision of the county forester to the development review committee (DRC) as set forth in article III, Volusia County Land Development Code, division 1, subsection [72-502\(g\)](#), as amended.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Secs. 72-850—72-880. Reserved.

PART II - CODE OF ORDINANCES
Chapter 72 - LAND PLANNING
ARTICLE III. - LAND DEVELOPMENT REGULATIONS

DIVISION 10. VOLUSIA COUNTY TREE PRESERVATION ORDINANCE

FOOTNOTE(S):

--- (46) ---

Editor's note— Ord. No. 02-13, § I, adopted July 18, 2002, repealed former art. X, §§ 1001—1011, which pertained to tree permits, and enacted provisions designated as a new art. X, §§ 1001—1019, to read as herein set out. See the Code Comparative Table for a detailed analysis of inclusion, which was further renumbered to division 10, §§ 72-831—72-849, by Ord. No. 2008-25, § III, adopted Dec. 4, 2008. ([Back](#))

Code reference—Environmental protection standards relating to trees, § 50-161 et seq. ([Back](#))