

## **Chapter 118 – TREE PRESERVATION, PROTECTION, & REPLACEMENT**

### **ARTICLE I – GENERAL**

#### **Sec 118-1 Purpose and Intent**

The intent of this Chapter is to provide a uniform standard for the protection and replacement of trees on all property which require the issuance of land development permits and tree permits within the City of Venice. As communities continue developing, the construction and renovation of buildings, roads, parking lots and other infrastructure is required to accommodate this growth. Unfortunately, the value of a healthy urban tree canopy is often overlooked and greatly underestimated in the interest of short-term costs. For this reason, tree preservation, protection and tree replacement regulations are necessary. The purpose of these regulations is to balance the need to provide space for community growth with the need to protect natural tree and plant communities and to replace trees lost to development. The use of Florida-Friendly urban tree communities provides valuable environmental, economic and aesthetic benefits to the Citizens of Venice. The preservation, replacement and management of trees and the urban tree canopy are a vital part of sustainable community growth and the long-term well-being of the City of Venice.

#### **Sec 118-2 Background**

Prior to the enactment of these regulations, all tree permitting and enforcement within the City of Venice was administered and enforced by Sarasota County through interlocal agreement and incorporation by reference of Sarasota County Code of Ordinances, Sarasota County Ordinance No. 83-44, including all past and future amendments (tree ordinance).

#### **Sec 118-3 Transition from Sarasota County Jurisdiction**

In recognition of the longstanding regulation by Sarasota County, and to address active and outstanding permits and violations of Sarasota County Tree Regulations, the provisions in this Section shall govern the transition of authority to the City.

- 1) Consistent with Article XVIII. – Trees, Chapter 54 of the Sarasota County Code of Ordinances, the City is enacting its own permitting regulations for the preservation, protection and replacement of trees in the City.
- 2) For all documented and currently valid Sarasota County tree permits or written authorization by Sarasota County for altering land within the City of Venice under the County's tree regulations, the following apply:

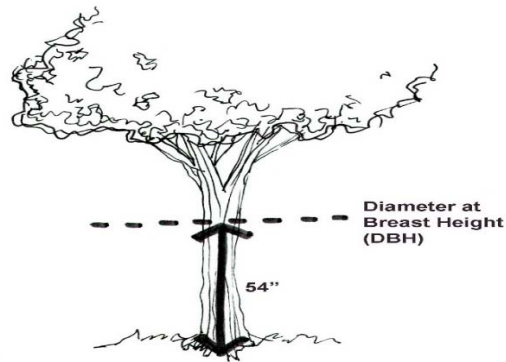
- A. All tree permit applications and authorizations under review or issued by Sarasota County as of the effective date of this Chapter shall remain under the jurisdiction of Sarasota County.
- B. Any applicant with a tree permit or authorization from Sarasota County may choose to withdraw the issued permit or authorization in writing to Sarasota County and apply to the City of Venice for a tree permit.

#### **Sec 118-4 Definitions**

The following terms and phrases, when used in this Chapter, shall have the meanings described in this Article:

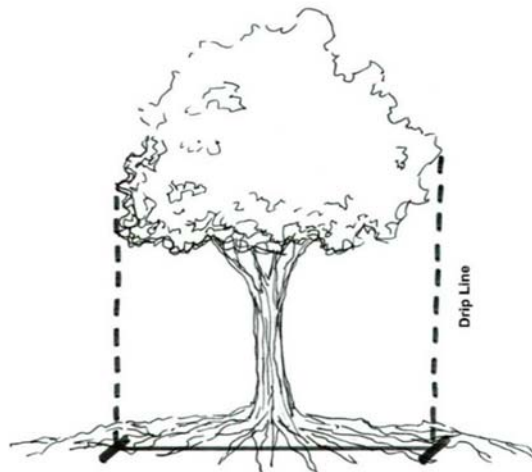
- 1) *Agriculture*. A commercial enterprise using lands classified by the County Property Appraiser under the agricultural assessment provisions of F.S. § 193.461, for the production and marketing of agricultural products.
- 2) *ANSI*. The American National Standards Institute. *Applicant*. Any individual, firm, partnership, corporation, authorized agent, association, organization, trust, company, or any other legal entity that has applied for a Tree Permit for City approval.
- 3) *Boundary Tree*. Any tree located on an adjacent property with a critical root zone that will be impacted by proposed land disturbance activity.
- 4) *Caliper*. The average trunk diameter in one quarter (1/4) inch increments at a predetermined point for the purpose of grading nursery grown trees. For the purpose of this Chapter those points are: six (6) inches from the soil line for trees up to and including four (4) inches in diameter (caliper) and twelve (12) inches from the soil line for trees larger than four (4) inches in diameter (caliper).
- 5) *Canopy Road Protection Zone (CRPZ)*. A designated section of City and County Right-of-Way and the adjacent private property extending up to 15 feet laterally from the Right-of-Way onto adjacent Private Property, but in no event extending greater than 15 feet laterally from the edge of the Roadway.
- 6) *Canopy Tree*. Those trees that compose the top layer of canopy of vegetation and will generally reach a mature height of forty (40) feet or more and mature crown spread of fifteen (15) feet or more.

- 7) *Certified Arborist*. A professional certified by the International Society of Arboriculture (ISA) who possesses an active certification number and the technical competence through experience and related training to provide for or supervise the management of trees and other woody plants in the residential, commercial, and public landscape.
- 8) *City Arborist*. The City Arborist, or an administrative official of City of Venice Government designated by the Development Services Director to administer the provisions of this Chapter.
- 9) *Clear Trunk*. The portion of the trunk maintained free of branches. The clear trunk is the lower portion of the trunk measured from the soil line up to the first major branch. Small temporary branches may exist on a clear trunk.
- 10) *Conservation Area*. An area of land protected from development or damage.
- 11) *Critical Root Zone (CRZ)*. The minimum area required around a tree which must be preserved to provide the tree a reasonable chance to survive development activities. The CRZ is generally a concentric circle measured from the approximate center of the trunk of the tree with a radius of one (1) foot for each one (1) inch of tree DBH or to the drip line, whichever is greater.  
  
*Example:* A tree with a DBH of 20" (twenty inches) would have a CRZ radius of 20' (twenty feet):  $20 \times 1.0 = 20$  feet (radius)
- 12) *Development Permit*. Any building permit, zoning permit, plat approval, or rezoning, certification, variance, or other action having the effect of permitting Development of land.
- 13) *Development Services Department*. City of Venice Department comprised of Code Enforcement, Building, and Planning and Zoning Division, or successor department, by whatever title designated.
- 14) *Diameter at Breast Height (DBH)*. The diameter of an established tree trunk measured at breast height, which is fifty-four (54) inches above the ground. When low branches or stems preclude measuring the trunk at fifty-four (54) inches the smallest circumference of the trunk below the lowest branch or stem juncture shall be the measure of DBH. For trees that fork below fifty-four (54) inches and have no discernable single trunk then DBH will be the sum of the diameters of each trunk. Trees that fork at or below ground level, each stem shall be considered individual trees. (See Exhibit 1)



*Exhibit 1 (above)*

- 15) *Director*. The Director of the Development Services Department, or his successor to his duties, by whatever title designated, or his designee.
- 16) *Drip Line*. The circumference around a tree formed by the outermost branches or portion of the Tree crown to the ground. (See Exhibit 2)



*Exhibit 2 (above)*

- 17) *Hardwood tree*: Any tree that is not coniferous (not cone bearing or a needle leaf evergreen).
- 18) *Heritage Tree*. Any 30" (thirty inch) DBH single trunk or 45" (forty-five inch) DBH multi trunk native Tree that has been determined by the City Arborist to have the characteristics as outlined in this Chapter or any Tree designated a Florida State Champion, United States Champion, or World Champion by the Florida Forest Service or the American Forestry Association.

- 19) *Florida-Friendly Landscaping™*. Planting comprised of low maintenance plants and uses low maintenance sustainable practices.
- 20) *Invasive Plant*. Any nonindigenous plant that grows aggressively enough to crowd out Native Plants. The List of Invasive Plant Species published by the Florida Exotic Pest Plant Council (FLEPPC), as it may be amended from time to time, is hereby adopted and incorporated herein by reference.
- 21) *Irreparable Injury*. Any action less than tree removal that results in irreversible or incurable harm so as to cause the unnatural decline of the tree. Actions that are *Irreparable Injury* may include, but are not limited to: inflicting damage upon the root system by heavy machinery, changing the natural grade above the root system or around the trunk, inflicting damage that provides a pathway for infection or pest infestation, application of herbicides or other harmful chemical agents, infliction of trunk wounds, or improper removal of canopy or branches or that is generally inconsistent with “ANSI A (300)” standards for tree care (includes topping of trees).
- 22) *International Society of Arboriculture (ISA)*. A non-profit society that promotes the professional practice of arboriculture and fosters awareness of the benefits of trees.
- 23) *Listed Species*. Any plant or animal afforded protection pursuant to the Florida Administrative Code (FAC), including, but not limited to, species categorized as endangered, threatened, and species of special concern; or any plant or animal categorized as endangered or threatened pursuant to the U.S. Endangered Species Act, or bald eagles protected pursuant to the Bald and Golden Eagle Protection Act or other bird species protected pursuant to the U.S. Migratory Bird Treaty Act.
- 24) *Lot*. Includes “plot”, “tract” or “parcel” and is a parcel of land of at least significant size to meet minimum zoning requirements for use and / or is otherwise determined to be a legal lot of record.
- 25) *Native Plant*. An indigenous plant.
- 26) *Naturalized Plant*. A plant that is not native to an area but has colonized without being invasive.
- 27) *Palm*. Monocotyledous plant of the *Aracaceae* family, generally with one or more unbranched trunks, with fronds (leaves) emanating from a meristem at the top of the trunk.
- 28) *Person*. Any individual, government, corporation, partnership, association, firm, trust, or other entity.

- 29) *Problem Trees*. Trees planted as part of a development project and installed in accordance with the approved plan that, as determined by a certified arborist, are: damaging infrastructure (utilities, sidewalks, parking area or structures), causing visibility issues for safe vehicular movement, or otherwise constituting a threat to the health, safety, and welfare of the general public.
- 30) *Project Area*. Land area subject to any land disturbing activity.
- 31) *Prune, Pruning, Trim, or Trimming*. The act of cutting or sawing to remove a dangerous hazard in a tree, or to maintain or improve the structure, form or health of a tree, in a manner generally consistent with the current “ANSI A (300) Part 1 Pruning”, as may be amended.
- 32) *Right-of-Way*. The land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes. Specifically, land owned fee-simple or dedicated by easement to the State, County, or the City and/or municipality devoted to or required for use as a public street.
- 33) *Root Plate (RP)*. The area of the root zone near the trunk comprised of the main buttress and anchor roots. These roots are under compression and tension pressures and serve as the primary support structures of a tree. Catastrophic tree failure can result from damage to the root plate. The root plate is generally represented by the radius of a concentric circle measured from the approximate center of the trunk equal to five (5) times the DBH. This area can vary slightly by species. (See Exhibit 3)

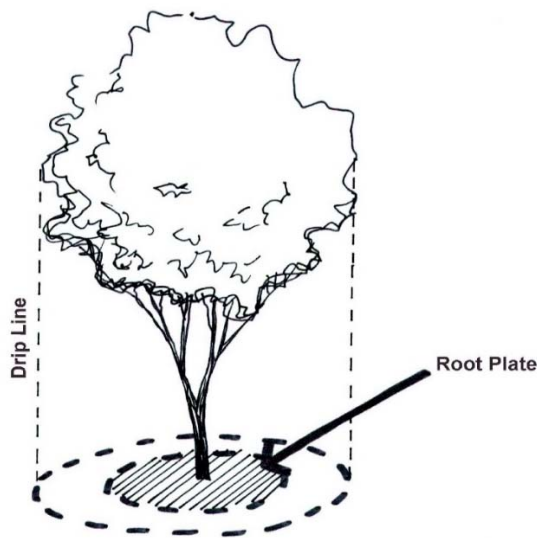
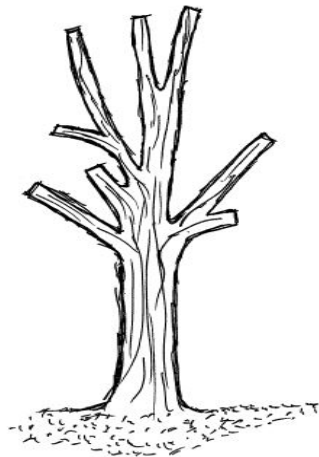


Exhibit 3 (above)

- 34) *Stipulation/ Condition of Approval.* A statement or a condition issued with a Tree Permit or with an approved plan, with which compliance is necessary for continued validity of the Tree Permit or other approval.
- 35) *Street.* Includes any access way such as a road, lane, highway, avenue, boulevard, alley, parkway, viaduct, circle, court, terrace, place or cul-de-sac, or other means of ingress or egress regardless of the descriptive term used, and also includes all of the land lying between the right-of-way lines as delineated on a plat showing such streets, whether improved or unimproved, but shall not include those access ways such as easements and rights-of-way intended solely for limited utility purposes, such as for electric power lines, gas lines, telephone lines, drainage, water and wastewater collection systems and easements of ingress and egress.
- 36) *Topping.* Internodal removal of woody branches containing heartwood or cutting back to a lateral branch too small to assume the terminal role. (See Exhibit 4)



*Exhibit 4 (above)*

- 37) *Tree.* Any self-supporting woody perennial plant, usually having a main stem or trunk and many branches, and at maturity normally attaining an average height greater than ten (10) feet and mature spread or crown greater than fifteen (15) feet.
- 38) *Tree Cluster.* A group of six (6) or more protected trees with one continuous drip line.

- 39) *Tree Location Survey*. A survey that provides the following information: location of all trees, plotted by accurate techniques, common name of all trees, and Diameter at Breast Height (DBH), printed on the proposed site plan as described in this Chapter.
- 40) *Tree Inches*. The size of a tree trunk, as further defined as follows:
- A. Caliper – Measurement used only for nursery stock being specified and purchased for installation.
  - B. DBH – Measurement used for standing, existing trees.
- 41) *Tree Protection Plan*. A plan developed per the guidelines in this Chapter for any person conducting construction activities such as: excavation, filling, tunneling, trenching, compacting, demolition, utility work or other land disturbing activity in the Critical Root Zone or Tree Protection Zone (TPZ).
- 42) *Tree Protection Zone (TPZ)*. The area protected from all development activity protected by an approved barrier or fence. The area may consist of a single tree or tree clusters and other vegetation that has been agreed upon by the Applicant and the Director or their designee and set aside for preservation. These areas have been evaluated and determined to be worthy of preservation because of their aesthetic or environmental value. The Critical Root Zone (CRZ) will be the primary definer of the TPZ; however, some trees may need more or less space to be protected. Depending on condition, size, age and species tolerance of construction, the TPZ may be adjusted as needed, with approval by the City Arborist, to insure survival of the tree or tree cluster being preserved.
- 43) *Tree Relocation*. To transplant, reestablish or move a tree to another place within a site or off site.
- 44) *Tree Removal*. To cut down, poison, or in any other manner destroy, or cause to be destroyed, a Tree as defined in this Article.
- 45) *Understory Tree*. A tree that, under normal forest conditions, may grow to maturity beneath canopy trees and will generally reach a mature height of at least ten (10) feet but less than forty (40) feet.
- 46) *Venetian Tree*: A tree of a native or non-native species that has significance, desirability, or utility to the community.



### **Sec 118-5 Administration**

- 1) The City Arborist shall be responsible for carrying out the provisions of this Chapter including the issuance of permits under the direction of the Development Services Director.
- 2) The Development Services Director may direct any application for a permit under this chapter to the City Planning Commission for final action.
- 3) Fees: The City of Venice may establish reasonable fees and charges for the implementation of this Chapter. Such fees shall be set by resolution.
- 4) Applicability and Interpretation.

- A. In the application and interpretation of this Chapter, all provisions shall be considered minimal requirements and construed liberally to effectuate the purposes of this Chapter.
- B. This Chapter is not intended to repeal, abrogate, or impair any existing statutes, laws, ordinances, easements, covenants, or deed restrictions that impose more stringent restrictions on the protection or removal of trees.
- C. Where this Chapter conflicts with or overlaps another ordinance or statute, whichever imposes the more stringent restrictions for the protection of trees shall prevail.
- D. Where any provision of this Chapter refers to or incorporates another provision, ordinance, statute, rule, regulation, policy, official publication, or other authority, it refers to the most current version, incorporating any renumbering thereof or amendments thereto.
- E. This Chapter shall be applicable to all property within the City of Venice.

#### **5) Simultaneous Reviews.**

In the event that an Applicant seeks authorization to conduct activities that are subject to overlapping code provisions from different Articles of Chapter 86 of the City of Venice Code, City staff shall perform simultaneous reviews to the greatest extent practicable.

#### **6) Listed Species.**

In cases where impacts to Listed Species may occur, Applicants shall be required to consult with the appropriate Federal and State agencies, to use recognized sampling techniques as defined by accepted methodology of the agency to identify listed species, prior to any activities that could disturb listed species or the habitat.

#### **7) Appeals.**

Any person aggrieved by the administration or interpretation of the terms of this Chapter may appeal to City Council, which after a hearing with notice to the appellant, may reverse, affirm,

or modify, in whole or in part, the order, requirement, decision or determination appealed from, and may make such order, requirement, decision or determination as ought to be made, and to that end shall have all the powers of the Director from whom the appeal is taken. Any action pursuant to this Chapter shall not stay any enforcement proceedings.

## **ARTICLE II – PROHIBITIONS & EXEMPTIONS**

### **Sec 118-6 Prohibitions**

- 1) Unless otherwise exempted or authorized in a Tree Permit in accordance with this Chapter, no Person shall:
  - A. Engage in Tree Removal;
  - B. Engage in Tree Relocation;
  - C. Initiate Development when a Tree exists on a property;
  - D. Cause Irreparable Injury to a Protected, Venetian, or Heritage Tree;
  - E. Cause Irreparable Injury to or Prune a tree within a Canopy Road Protection Zone within a Right-of-Way.

Any Person violating any provision within this Chapter or a Stipulation contained in a Tree Permit or a Development Permit that results in a prohibited activity shall constitute a violation of this Chapter. No person shall physically impede City staff who are engaged in the planting, maintaining, pruning, treating, or removing of any Tree or portion of Tree in any public Right-of-Way.

### **Sec 118-7 Exemptions**

- 1) The following activities or uses are exempt from this Chapter:
  - A. Work during or after a declared state of emergency that has been exempted from this Chapter by the Mayor or City Council and/or the City Manager as appropriate.
  - B. Removing trees from nurseries and botanical gardens, which are being grown for retail or wholesale.
  - C. The construction of telecommunication towers (cell towers).

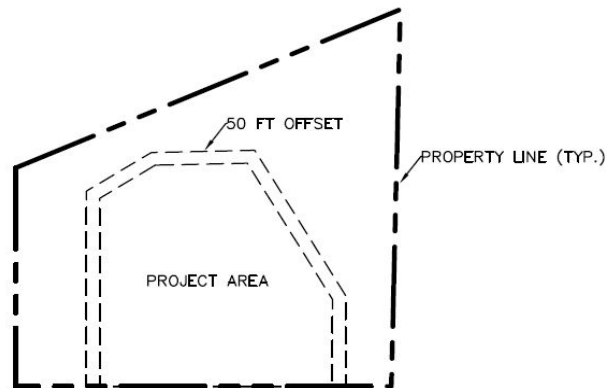
- D. Removal of hazardous, diseased or infested trees upon receiving written confirmation from the City Arborist, Florida Forest Service, Registered Landscape Architect or ISA Certified Arborist.
- E. City maintenance affiliated with road, utility and drainage projects.
- F. Operations by public utility companies and government agencies on public property and rights of way or easements or on sites for electric power substations and similar facilities.
- G. Agriculture.
- H. Single-family zoned lots except with respect to:
  - 1. Heritage or Venetian trees;
  - 2. Conservation or preservation areas or easements;
  - 3. Trees and vegetation within a Canopy Road Protection Zone (CRPZ).
- I. Tree pruning, trimming, or removal on residential property pursuant to F.S. 163.045.

### **ARTICLE III – PERMITTING**

#### **Sec 118-8 Tree Permit Application Requirements**

- 1) *Tree Permit Required.* Unless otherwise exempt from this Chapter, a tree permit is required for all development and any changes to property involving the removal, relocation, or trimming of trees.
- 2) *A completed application and the applicable application fee.* The application shall include all required information and associated documents as established by the appropriate application form of the City of Venice and any other information as deemed appropriate by the Development Services Director or designee to effectuate the review of the application consistent with the requirements and standards of this Chapter.
- 3) *Tree Protection and Replacement Plan.* Unless otherwise exempted Tree Protection and Replacement Plans must provide the following information:
  - A. A complete tree survey and inventory of protected trees within the project area is required for all development that is not exempt pursuant to Section 118-7 prior to the submittal of a Tree Protection and Replacement Plan. The survey shall show all trees measured 4" DBH or greater, tree cluster within the property line or within 50 feet of the project area/ limits of disturbance within the property line. The project area is all land on

the property that is disturbed by grading and development. The project area can be located within the property line/ limits.



*Exhibit 5 (above)*

- B. An inventory of identified trees by type and size (in DBH).
  - C. A copy of the site plan, showing proposed buildings, grading, streets, access ways, sidewalks, hardscape, and proposed / existing utilities.
  - D. Methods for tree protection including fencing and retaining walls.
  - E. Plans shall be prepared by a state licensed Landscape Architect or Certified Arborist.
- 4) After the submission of the plan, a designee appointed by the Director will perform a site inspection. The Tree Protection and Replacement plan shall provide sufficient information and detail to demonstrate that all applicable requirements and standards of this Chapter are fully satisfied.
- 5) Access to Property: Active permit applications shall constitute authorization from the property owner for the appropriate City of Venice staff to conduct review, site inspections, and compliance inspections of the subject property through the duration of the permit.
- 6) After the Fact Permits: Any Person who conducts an activity that requires a Tree Permit, without first obtaining a Tree Permit, shall be required to obtain an after-the-fact Tree Permit and/ or mitigate the impact in accordance with this Chapter. Payment shall not preclude nor be deemed a substitute for prosecution of violations of the provisions of this Chapter.

- C. After the Fact Permit Fee: the permit fee for after the fact permits shall be two (2) times the permit application fee for Protected trees and three (3) times the permit application fee for Heritage, Venetian, or Canopy Road trees.
- D. After the Fact Permit Mitigation: For after the fact permits involving Heritage, Venetian, or Canopy Road Trees, mitigation shall be two (2) times the number of tree inches removed.
- E. After the Fact Permits for Irreparable Damage: For after the fact permits involving Irreparable Damage to a tree the permit fee shall be three (3) times the permit fee and two (2) times the mitigation for number of tree inches if damage requires replacement.

#### ***ARTICLE IV – TREE PRESERVATION, RELOCATION AND REPLACEMENT***

##### **Sec 118-9 Protected Trees**

- 1) The following are protected trees:
  - A. Trees planted or preserved as part of an approved binding master plan, site and development plan, preliminary plat, building permit, tree permit, or construction plan.
  - B. Any tree over four (4) inches DBH, unless an invasive plant.
  - C. Sabal Palms with minimum six (6) foot clear trunk (CT).
- 2) Protected trees identified for removal on the tree removal permit application shall be replaced with new planted trees or transplanted trees in accordance with Section 118-13.

##### **Sec 118-10 Heritage Trees and Venetian Trees**

- 1) Designation of a Venetian Tree:

Venetian trees on private property shall be nominated by the owner of the property where the tree is located. Citizens and City Staff may nominate trees on City owned property.

Nominations for trees with overhanging canopy (branches) onto adjoining properties must also include written consent to the nomination from all property owners where the overhanging canopy occurs. Tree nominations will be directed to the City Arborist for review. The City Arborist will prepare a brief report detailing attribute(s) and description of the proposed tree(s). The report will provide technical guidance to Council to the health, condition, location and structure of the proposed tree(s) and the tree(s) suitability for preservation. Should Venetian tree designation be granted by City Council, the tree or group of trees shall be placed on the

registry of Venetian trees maintained by the City Arborist and afforded the protections as stated in this Chapter.

## 2) Venetian Tree Incentives and Conditions

- A. The City Arborist will provide an annual consultation to the property owner where the Venetian tree is located to offer guidance on the management and maintenance of the tree.
- B. To the extent funds are available, the owner of property where a Venetian tree is located or the adjoining owner(s) where the overhanging tree canopy occurs may be awarded up to \$250 to offset the cost of trimming the Venetian tree. The reimbursement request shall be reviewed using the following criteria:
  - 1. Trimming must be conducted under the supervision of an ISA Certified Arborist in accordance with “*ANSI A (300) Standards*” for tree care.
  - 2. The applicant shall provide an invoice marked paid stating the amount paid; the ISA certification number of the supervising arborist; and a brief narrative of the nature of the trimming work performed. The City Arborist shall inspect the Venetian tree for compliance with “*ANSI A (300) Standards*” and confirmation of the nature of the work performed.
  - 3. A property owner is only eligible for one award per calendar year.
  - 4. Request shall be submitted to the City Arborist within 10 days of completion of the trimming.
- C. If a pruning permit application is required (removal of branches ten (10) inches in diameter or larger), the pruning permit fee shall be waived.
- D. A plaque will be located near any Venetian tree on public property stating the botanical and common name, size and a brief description of the tree. Private property owners of a Venetian tree may also request a plaque. Venetian tree plaques shall not be subject to the City’s sign standards in Chapter 86 Land Development Code.
- E. Property owners where a Venetian tree is located or where the canopy overhangs shall have the right to petition City Council to remove the Venetian tree designation. Petitions shall be directed to the City Arborist. The City Arborist shall inspect the tree(s) and provide a brief report to Council of the health and condition of the tree.
- F. Changes in property ownership shall not affect the Venetian tree designation

## 3) Pruning Heritage and Venetian Trees

- A. Unless exempt, a tree permit is required for the removal of a Heritage or Venetian tree branch ten (10) inches in diameter or larger measured twelve (12) inches from the branch union. Any branch removal not performed in accordance with the “*ANSI A (300) Standards*” shall be subject to fines per Article XII.
- B. Applications for pruning shall provide: 1) a current photograph of the tree, 2) a sketch plan or current aerial photograph of the property indicating the tree with branch(es) to be removed including dimensions. The sketch or photo must provide sufficient information to identify each tree branch to be removed, species of tree, a description of each branch to be removed, and the reason for removing each branch. The City Arborist shall conduct a site inspection and may request an onsite meeting with the contractor or owner prior to the issuance of a permit. Violations of this permit requirement shall be subject to fines established in the schedule of fees and charges per Section 118-5.

#### 4) Removal of Heritage and Venetian Trees

- A. Unless exempt, a tree permit is required to remove a Heritage or Venetian tree. Documentation by a Certified Arborist is required to justify the tree removal subject to Section 118-15.
- B. Heritage or Venetian trees may be removed if the tree is located in an area where a structure or improvement will be placed and the applicant provides a report bearing the signature of a licensed architect, landscape architect, or engineer providing a determination that the proposed structure or improvement cannot be reasonably redesigned to preserve the Heritage or Venetian tree. The criteria in Section. 118-15 shall be utilized in determining whether to approve an application for tree removal.

#### 5) Replacement tree calculations Heritage and Venetian Trees

Unless otherwise provided in this Chapter, Heritage and Venetian Trees shall be replaced at a rate of one to one tree inches (1:1). If there is insufficient land area on a site to accommodate the replacement trees then the Applicant shall pay the equivalent tree inches not accommodated on the site into the Tree Mitigation Fund.

#### **Sec 118-11 Removal of Required Trees**

For trees that were preserved or planted as part of a tree permit, problem trees shall be replaced with equivalent tree inches of similar species. Replacement trees may be planted on the same site

or other common areas, such as around drainage ponds, near a clubhouse, a park or entry, or addressed through the Tree Mitigation Fund as provided in Article VI.

### **Sec 118-12 Tree Mitigation and Replacement**

Tree Replacement Calculations provided herein provide minimum standards for tree replacement and mitigation. All properties must meet the minimum standards per acre or provide mitigation by payment to the City's Tree Mitigation Fund where the site cannot adequately accommodate the required number of tree inches. All trees that are designated for replacement shall be on a tree inch per tree inch basis. The required tree inches are based on zoning:

- 1) All zoning districts (except Industrial zoning districts): A minimum site/project of forty (40) tree inches per acre of approved trees is required. This can be achieved as follows:

- A. Preservation of existing trees (tree inches measured in DBH) to be preserved with no impact to the TPZ.
- B. Planting new trees. Within a PUD zoning district, planting of new trees is restricted to common areas only.

**Formula:** Total project area acreage (See Exhibit 5) x 40 tree inches  
= required tree inches per acre

**Example:** 3.2 acres x 40 tree inches = 128 total tree inches required

**Example:** 0.5 acres x 40 tree inches = 20 total tree inches required

- 2) All industrial zoning districts. Twenty (20) tree inches per acre of approved trees is required.

- 3) Replacement Tree General Criteria:

- A. For the removal of protected trees, the total caliper inches of replacement trees shall equal total DBH inches removed, unless otherwise approved by the City Arborist. For multi-trunked trees, the total DBH of the four largest trunks shall equal the replacement caliper inches. Unless otherwise stated in this Chapter, new palms may be used only to replace protected palms removed.
- B. Single Family Residential zoned lots of one-half acre or less are exempt from the tree inch per tree inch replacement unless a Heritage or Venetian Tree is removed. Heritage and Venetian Trees shall be replaced at one tree inch per one tree inch. .



- C. Tree species selected for planting are subject to City approval based upon site conditions including but not limited to: soil characteristics, soil volume, planting area size, and visibility.

### Section 118-13: Master Tree Species List (Florida Friendly Species Required)

- 1) The following tree species are authorized replacement species for all tree applications and permits. The available soil volumes as described in Section 118-19 *Soil Volume Recommendations* shall determine whether a Large and Medium Canopy tree may be used to the greatest extent possible. Minor deviations from Large or Medium Canopy tree soil volume requirements may be allowed by the City Arborist for some individual species.

**CS = Cold Sensitive (Requires protection if planted away from coastal areas generally understood to be located east of I-75)**

**FF = Florida Friendly Plant**

<b>Large Canopy Trees</b>						
<b>Scientific Name</b>	<b>Common Name</b>	<b>Max. Height (ft.)</b>	<b>Max. Spread (ft.)</b>	<b>Native</b>	<b>FF</b>	<b>CS</b>
<i>Acer rubrum</i>	Red Maple	50-60	25-35	Y	Y	N
<i>Carya glabra</i>	Hickory, Pignut	50-65	30-40	Y	Y	N
<i>Delonix regia</i>	Royal Poinciana	35-40	40-60	N	Y	Y
<i>Ficus aurea</i>	Strangler Fig	50-60	50-70	Y	Y	Y
<i>Jacaranda mimosifolia</i>	Jacaranda	25-50	45-60	N	Y	N
<i>Liquidambar styraciflua</i>	Sweet Gum	60-70	35-50	Y	Y	N
<i>Magnolia grandiflora</i>	Southern Magnolia	60-80	30-40	Y	Y	N
<i>Pinus clausa</i>	Sand Pine	25-40	15-25	Y	Y	N
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida Slash Pine	75-100	35-50	Y	Y	N
<i>Pinus palustris</i>	Long Leaf Pine	60-80	30-40	Y	Y	N
<i>Quercus shumardii</i>	Shumard Oak	75-90	35-60	Y	Y	N
<i>Quercus virginiana</i>	Oak, Live	60-80	60-120	Y	Y	N
<i>Swietenia mahagoni</i>	West Indian Mahogany	40-50	46-60	Y	Y	Y
<i>Tabebuia heterophylla</i>	Pink Trumpet Tree	40-50	35-50	N	Y	N
<i>Taxodium distichum</i>	Bald Cypress	60-80	25-35	Y	Y	N
<i>Ulmus americana</i>	American Elm	70-90	50-70	Y	Y	N

<b>Medium Canopy Trees</b>						
<b>Scientific Name</b>	<b>Common Name</b>	<b>Max. Height (ft.)</b>	<b>Max. Spread (ft.)</b>	<b>Native</b>	<b>FF</b>	<b>CS</b>
<i>Avicennia germinans</i>	Black Mangrove	30-50	20-30	Y	Y	Y
<i>Bucida buceras</i> 'Shady Lady'	'Shady Lady' Black Olive	30-50	20-40	N	Y	Y
<i>Bursera simaruba</i>	Gumbo Limbo	25-40	25-40	Y	Y	Y
<i>Cassia fistula</i>	Golden Shower	30-40	30-40	N	Y	Y
<i>Conocarpus erectus</i>	Buttonwood	30-40	20-30	Y	Y	N
<i>Elaeocarpus decipens</i>	Japanese Blueberry	30-40	30-40	N	Y	N
<i>Fraxinus caroliniana</i>	Carolina Ash	30-50	10-15	Y	Y	N
<i>Gordonia lasianthus</i>	Loblolly-Bay	35-45	10-15	Y	Y	N
<i>Ilex opaca</i>	American Holly	35-50	15-25	Y	Y	N
<i>Juniperus silicicola</i>	Southern Red Cedar	30-45	20-30	Y	Y	N
<i>Laguncularia racemosa</i>	White Mangrove	30-50	20-30	Y	Y	Y
<i>Magnolia grandiflora</i> x var.	Southern Magnolia, Compact Cultivars	20-40	15-25	Y	Y	N
<i>Magnolia virginiana</i>	Sweet Bay	40-50	15-25	Y	Y	N
<i>Persea borbinia</i>	Redbay	30-50	30-50	Y	Y	N
<i>Persea palustris</i>	Swamp Bay	20-30	20-30	N	Y	N
<i>Podocarpus gracilior</i>	Weeping Podocarpus	30-50	25-35	N	Y	N
<i>Podocarpus macrophyllus</i>	Podocarpus	30-40	20-25	N	Y	N
<i>Quercus geminata</i>	Oak, Sand Live	30-60	20-30	Y	Y	N
<i>Taxodium ascendens</i>	Cypress, Pond	50-60	10-15	Y	Y	N
<i>Ulmus alata</i>	Winged Elm	45-65	30-40	Y	Y	N
<i>Ulmus parvifolia</i>	Chinese Elm	40-50	35-50	N	Y	N

<b>Small Understory Trees</b>						
<b>Scientific Name</b>	<b>Common Name</b>	<b>Max. Height (ft.)</b>	<b>Max. Spread (ft.)</b>	<b>Native</b>	<b>FF</b>	<b>CS</b>
<i>Acacia farnesiana</i>	Sweet Acacia	15-20	15-25	Y	Y	N
<i>Acer saccharum 'floridanum'</i>	Florida Maple	25-30	15-25	Y	Y	N
<i>Ardisia escallonioides</i>	Marleberry	12-20	6-12	Y	Y	Y
<i>Calliandra sp.</i>	Powderpuff	12-15	10-15	N	Y	N
<i>Cephalanthus occidentalis</i>	Bottlebrush	10-15	10-15	N	Y	N
<i>Coccoloba uvifera</i>	Seagrape	25-30	20-30	Y	Y	N
<i>Cordia sebestena</i>	Geiger Tree	25-30	20-25	Y	Y	Y
<i>Cornus foemina</i>	Swamp Dogwood	10-16	10-16	Y	Y	N
<i>Eugenia sp.</i>	Native Stoppers	10-30	5-20	Y	Y	N
<i>Ilex cassine</i>	Holly, Dahoon	20-30	8-12	Y	Y	N
<i>Ilex vomitoria</i>	Holly, Yaupon	15-25	15-20	Y	Y	N
<i>Lagerstroemia indica</i>	Crepe Myrtle	10-30	15-25	Y	Y	N
<i>Ligustrum japonicum</i>	Japanese Privet	8-12	15-20	N	Y	N
<i>Myrcianthes fragrans</i>	Simpson's Stopper	20-30	15-20	Y	Y	N
<i>Myrica cerifera</i>	Wax Myrtle	15-25	20-25	Y	Y	N
<i>Plumeria rubra</i>	Frangipani	20-25	20-25	N	Y	Y
<i>Quercus myrtifolia</i>	Oak, Myrtle	15-30	15-30	Y	Y	N
<i>Rhizophora mangle</i>	Red Mangrove	20-30	20-30	Y	Y	Y
<i>Sabal palmetto</i>	Cabbage Palm	40-50	10-15	Y	Y	N
<i>Tabebuia caraiba</i>	Silver Tabebuia	15-25	15-20	N	Y	Y
<i>Tabebuia chrysotricha</i>	Golden Trumpet	25-35	25-35	N	Y	Y
<i>Tabebuia heterophylla</i>	Pink Trumpet Tree	20-30	15-25	N	Y	Y
<i>Tabebuia impetiginosa</i>	Purple Tabebuia	12-18	10-15	N	Y	Y

- 2) The following shall be required for all landscape development plans:
- A. Replacement Trees shall be Florida No. 1 or Greater (Florida Grades and Standards for Nursery Plants, latest edition).
  - B. At a minimum, seventy-five percent (75%) of replacement Trees shall be Large and Medium sized canopy trees, unless canopy trees are not suitable, as reasonably determined by the City Arborist in the area to be planted.
  - C. No single species shall constitute more than fifty percent (50%) of the total replacement tree inches.
  - D. No more than 25% of the required tree inches may be of the Pinus (commonly referred to as Pine) species.
  - E. All replacement canopy trees shall be a minimum two and one-half (2.5) inches caliper measured no closer than six (6) inches from the ground.
  - F. All replacement understory trees shall be a minimum of one and one-half (1.5) inches caliper measured no closer than six (6) inches from the ground, and be a minimum of eight (8) feet in height from grade.
  - G. Sabal palmetto (Cabbage Palm) may be planted at a rate equivalent to three (3) palms to one (1) required tree equal to two and one-half (2.5) tree inches. Other Florida-Friendly palm species may be proposed at the replacement rate subject to approval of the City Arborist. Palms shall not constitute more than twenty-five (25%) of the total replacement planting.

#### **Sec 118-14 Incentives – Planting New Trees and Preservation of Existing Trees and other Vegetation**

Preserved inches shall be credited to the total inches required by one or more of the following methods:

- 1) *Incentive one:* Native trees twenty-four (24) inches in diameter and larger that will be retained shall result in a credit of two (2) times their diameter. All invasive species within the TPZ shall be removed utilizing only hand-held power equipment; no heavy equipment is allowed within the TPZ unless approved by the City Arborist.
- 2) *Incentive two:* Clusters of six (6) or more protected native trees with one continuous drip line shall result in a credit of one and one half (1 ½) times their diameter. Trees over twenty-four (24) inches DBH shall result in a credit of two (2) times their DBH as outlined in subsection (A). All invasive species shall be removed utilizing only hand-held power equipment; no heavy equipment is allowed within the TPZ unless approved by the City Arborist.

- 3) *Incentive three*: Clusters of six (6) or more protected trees with a continuous ground cover of Saw Palmetto (*Serenoa repens*) or other approved native understory plant community shall result in the credit outlined in subsection (B), above, plus one (1) tree inch per 1,000 (one-thousand) square feet of Saw Palmetto or native understory to remain. This area must remain undisturbed except that all invasive species within the TPZ shall be removed utilizing only hand held power equipment; no heavy equipment is allowed within the TPZ unless approved by the City Arborist.
- 4) *Incentive four*: New nursery grown trees six (6) to eight (8) inches caliper planted shall result in a credit of one and one half (1 ½) times their diameter.

### **Sec 118-15 Criteria for the preservation of trees**

Determining the suitability of a tree or tree clusters for preservation during the design and planning phase of site development is an important early step so that resources are not misallocated. To determine the suitability for preservation of protected, Heritage and Venetian trees, the following criteria will be considered by the City Arborist:

- 1) Location:
  - A. Relationship to a Building, Structure and / or Construction Activity;
  - B. Grading Impacts (Cut & Fill)
  - C. Infrastructure Conflicts (Utilities, driveways, sidewalks, etc.)
  - D. Susceptibility to wind and sun exposure
- 2) Health & Condition:
  - A. Appropriate and vigorous growth
  - B. Existing decay in trunk, main branches, or roots
  - C. Lightning Damage
  - D. Pruning Errors (Tree Topping)
- 3) Structure:
  - A. Structural Defects (Cracks, Decay, Overextended Branches, Girdling Roots)
  - B. Stability of the tree (Root Health, Leaning)
  - C. Branch Attachments
- 4) Species:

Tree species shall meet Florida Friendly principles by conserving water, reducing waste and pollution, creating wildlife habitat and preventing erosion. The below species characteristics will be assessed in conjunction with using the appropriate species in the appropriate location;

- A. Desirable Species
- B. Wind Resistance
- C. Pest Resistant
- D. Water Efficient
- E. Reduce and manage stormwater runoff
- F. Meets desired aesthetic and / or environmental benefits

#### **Sec 118-16 Mangroves and Seagrapes**

- 1) Trimming and alteration of mangroves shall be consistent with the Mangrove Trimming and Preservation Act, F.S. § 403.9321 through 403.9333.
- 2) Trimming and alteration of Seagrapes (*Coccoloba uvifera*) waterward of the Coastal Construction Setback shall be consistent with F.S. § 161.242.

#### **Sec. 118-17 Canopy Road Designation**

- 1) The City Council may designate a road as a Canopy Road by resolution after an advertised public meeting and may set standards for the implementation of this Section. Requests for a Canopy Road designation may be made to the City Arborist by City Council, property owners abutting a potential Canopy Road, residents of the City, and City staff. Prior to the public meeting, a written meeting notice shall be mailed to all property owners of record abutting the potential Canopy Road. The notice shall provide the Canopy Road standards that would become applicable if the road is designated a Canopy Road. The notice shall also be posted a minimum of fifteen (15) days prior to the public meeting.
- 2) Canopy Roads shall have the following characteristics:
  - A. A minimum of fifty (50) percent overhead coverage, per section of travelway, as measured by branching, drip line, shadows, and other visual cues. Evaluation shall be based on tree canopy coverage as a percentage of overall travelway length, canopy condition and composition; and
  - B. A minimum of seventy-five (75) percent Florida-Friendly species; and
  - C. A Canopy Road may be composed of more than one segment of differently named roads providing they are contiguous.
  - D. Canopy Roads shall have appropriate signage to delineate the limits of the Canopy Road

### 3) Canopy Road Requirements

- A. Unless otherwise exempt, all utility companies having facilities within a designated Canopy Road shall notify the City Arborist by e-mail or mail five (5) business days prior to conducting scheduled routine vegetation maintenance and tree pruning or trimming activities within a designated Canopy Road. All pruning and trimming shall conform to the “ANSI A (300)” standards for tree care.
- B. When more than twenty (20) percent of the area with the TPZ is impacted, or when pruning of the crown of a tree within the CRPZ must be performed, the following arboricultural techniques are required:
  - 1. When twenty (20) percent of the TPZ must be impacted, roots shall be severed cleanly utilizing equipment, tools and methods designed for root pruning. All root pruning activity shall conform the “ANSI A (300)” standards for tree care and shall be conducted under the direct supervision of a certified arborist. Tunneling or directional boring initiating and terminating outside the TPZ and to a depth of thirty-six (36) inches or more through the TPZ shall be exempt from these requirements. Under no circumstances shall encroachment within the Root Plate zone be allowed.
  - 2. All pruning of trees within the CRPZ of branches larger than two inches in diameter shall be conducted under the supervision of a certified arborist. All pruning shall conform to “ANSI A (300)” standards for tree care.
- C. It shall be a violation of this Chapter to cause irreparable injury to or prune a tree in a manner inconsistent with “ANSI A (300)” standards and this Chapter.

## ***ARTICLE V – Education and Best Management Practices***

### **Sec 118-18 Education**

The City Arborist shall develop and conduct a public relations and education program to recognize and promote the preservation of Trees within the City. This program shall provide the citizens of the City with the awareness and technical assistance necessary to preserve and plant trees within the City.

### **Sec 118-19 Required Best Management Practices**

The following Best Management Practices shall be applicable to all tree permits, unless specified otherwise herein. These standard Best Management Practices shall also be applicable to all activities



that affect Protected, Heritage, and Venetian trees, trees located within a TPZ and CRPZ, and regardless of whether a tree permit is required for the proposed activity.

- 1) Prior to commencing work and throughout the duration of the authorized activity, the owner, developer, contractor or agent shall clearly mark (with red flagging) all trees proposed to be removed and shall erect barricades around all trees to be protected. The barricades must remain in place and be in good condition for the duration of the authorized activity. Protective barricades for protected trees shall be installed no closer than the outer edge of the designated TPZ of the tree. Barricades shall be placed no closer than three feet from the trunk of palms. Barricades shall be constructed in a post and rail configuration or with orange barrier fencing and be no less than four (4) feet in height. The upright posts shall be a minimum of a two by two-inch wooden stake. Posts shall be implanted deep enough into the ground to be stable and extend a minimum height of four feet above the ground. A minimum of one four-inch by one inch by eight feet in length wooden board shall be used to connect the upright posts. Silt barriers, hay or straw bales, or similarly effective erosion control barriers may be substituted and required in any area where erosion or siltation may cause damage to TPZ upon approval by the City Arborist. The maximum distance allowed between upright posts is eight feet. A different barricade that results in greater protection may be substituted with the approval of the City Arborist. In all cases the barriers must remain in place until the final finish grade is being established at the end of the project or project phase. Damage to protection barriers and encroachments into the TPZ will be subject to the fines and penalties established in Article VII. Signs shall be posted at (fifty) 50-foot intervals for single trees or tree clusters of twenty (20) trees or less and; One-Hundred (100) foot intervals for areas of more than twenty (20) trees; clearly stating potential fines and "*Tree Protection Area, Keep Out*".
- 2) Throughout the duration of the authorized activity, the owner, developer, contractor or agent shall not cause or permit the cleaning of equipment or material or the storage or disposal of debris, fill, waste materials such as paints, oils, solvents, asphalt, concrete, mortar or any other material within any TPZ or within any native habitat or buffer.
- 3) No damaging attachment ropes or wires (other than supportive measures for a tree), signs, posters, handbills, Tree Permits or other objects may be fastened to any tree except pursuant to authorization under the provisions of this Chapter. No gaseous, liquid, equipment exhaust or solid substance which may be harmful to trees shall come into contact with any portion of the tree.

- 4) Where elevation changes are proposed, within the TPZ, the applicant will be required to justify the need for the elevation change and install retaining walls and/ or drain tiles unless the applicant demonstrates that such protection would be impractical. The applicant shall have the choice of the type or design. Where elevation changes are proposed within the TPZ of any Venetian or Heritage tree, the applicant will be required to install retaining walls and/ or drain tiles unless the applicant demonstrates such protection would be impractical. The applicant shall have the choice of the type of design. These root protection measures shall be in place prior to the deposition of fill, or excavation of soil within the TPZ. Tree species' tolerances for grade changes, size and age will be considered when locating tree wells and retaining walls. Tree wells or retaining walls will be required as applicable when grade changes of more than six (6) inches are needed within more than 20% of the TPZ. Tree well and retaining wall distances from the face of the trunk range from 0.75 feet for each one-inch DBH for a construction tolerant species to 1.5 feet for each one-inch DBH of mature or less tolerant species. The applicant will be required to present a report bearing the signature of a Certified Arborist with a statement of minimal impact design. The Applicant may also request a pre-application meeting with the City Arborist before submitting a design. Retaining walls shall be built with post or pilings, shallow and small footers or footers of stone or sand to lessen the impact of cut or compacted roots. In cases where grade changes can be accomplished with less than 20% of the CRZ being impacted then the change should be as gradual and as far from the trunk face as possible with no more than 6" of fill over 20% of the TPZ. Under no circumstances will fill be allowed over the Root Plate.
- 5) The City Arborist may conduct periodic inspections of the site during land clearing and construction in order to ensure compliance with this Chapter.
- 6) The City Arborist may allow certain activities to be conducted within the barricaded TPZ, upon a determination that the tree will not be adversely affected, such as driveways, swimming pool decks, and patio pavers.
- 7) If temporary equipment or vehicle access into the TPZ is required for construction activity, then steps must be taken to protect the TPZ from compaction and damage. For short-term temporary access of three (3) weeks or less, a six (6) to twelve (12) inch layer of organic mulch in the area of encroachment shall be installed and maintained. For longer periods the applicant will be required to install and maintain a four (4) inch layer of mulch and place ¾" plywood on the mulch layer to create a path for equipment or vehicles. Under no circumstances should these

access paths be placed on or where they may impact the root plate. The City Arborist must be informed and approve of any alterations to the original approved Tree Protection Plan.

Violations will be subject to fines and penalties as established in the schedule of fees and charges per Section 118-5.

- 8) The use of posts, pilings or a similar system shall be used as the construction method for structures within the TPZ. Continuous footers and stem walls shall not be installed within the TPZ unless approved by the City Arborist. These posts or pilings shall be engineered only as large as necessary to support the proposed structure. All efforts should be made to reduce the impact to large roots and in no circumstances should the structure encroach on the Root Plate of a tree.
- 9) No trenches are permitted within the TPZ without prior approval of the City Arborist unless per an exempted use. With approval of the City Arborist, hand dug trenches may be allowed and roots pruned cleanly as directed in "*ANSI A (300) Part 8, Root Management Standard*". All efforts should be made to bypass the TPZ with underground utilities and irrigation lines unless tunneling methods are used a minimum of thirty-six (36) inches below the existing grade.

10) Soil Volumes - Required Soil Volumes for Trees

A. Large canopy trees, 45 feet height and taller

1. Minimum open soil space 300 square feet or minimum uncompacted soil volume of 900 cubic feet
2. No closer than four (4) feet from any pavement or curbing
3. Minimum planting space width is eight (8) feet
4. Minimum uncompacted soil depth 36 inches

B. Medium canopy trees, 25 to 45 feet height

1. Minimum open soil space 200 square feet or minimum uncompacted soil volume of 500 cubic feet
2. No closer than 36 inches from any pavement or curbing
3. Minimum planting space width is six (6) feet
4. Minimum uncompacted soil depth 30 inches

C. Small understory trees, less than 25 feet in height

1. Minimum open soil space 100 square feet or minimum uncompacted soil volume of 200 cubic feet
2. No closer than 24 inches from any pavement or curbing

3. Minimum planting space width is four (4) feet
  4. Minimum uncompacted soil depth 24 inches
  - D. Exceptions to the space requirements may be granted by the City Arborist.
- 11) The following are methods to achieve soil volume requirements for street trees in or near sidewalks, within plazas and parking lots;
- A. *Structural soil under pavement*  
CU Structural Soil™ is an aggregate soil developed and patented by Cornell University. It consists of a combination of stone and soil plus additives. This product or an approved equivalent provides a highly compactable material that also allows for root growth. It may be used under pavement to provide the required soil volume for root space.
  - B. *Suspended pavement*  
Modular soil cell systems designed to be assembled and placed under pavement may be used to provide root space. These systems are designed to support the pavement weight while providing soil volume for tree roots.
  - C. Other soil volume system designs may be approved by the City Arborist.

#### **ARTICLE VI - Tree Mitigation Fund**

- 1) The city shall establish and maintain a dedicated Tree Mitigation Fund. Payments into the fund shall be in accordance with:
  - A. Section 118-8, mitigation of trees illegally removed and not replaced.
  - B. Section 118-10, mitigation for removal of Heritage, Venetian trees.
  - C. Section 118-13, mitigation for required trees not planted as part of a tree permit or site development permit per Article IV.
- 2) The City shall use the Tree Mitigation Fund for the following purposes:
  - A. Tree planting on City property, including the cost of trees, landscaping equipment and associated installation, associated irrigation equipment and design services by a Registered Landscape Architect.
  - B. Qualified Attainable Housing Projects. A maximum of fifty percent (50%) of the cost of required trees for the attainable housing project may be provided; however, in no event shall the amount provided exceed \$10,000.
  - C. Urban forest assessments and/or tree inventories within the City.
  - D. Public Education and Tree Planting Initiatives.

- 3) Tree mitigation fund expenditures of twenty-five thousand dollars (\$25,000) or less shall require the approval of the City Manager. Fund expenditures of more than twenty-five thousand dollars (\$25,000) shall require the approval of City Council.

***ARTICLE VII – Enforcement***

A violation of any provision of this Chapter shall be processed according to Chapter 2, Article VI of the City Code of Ordinances and per provisions of the F.S. ch. 162. Each day of any such violation shall constitute a separate and distinct offense.