CHAPTER 11
TREE PROTECTION, LANDSCAPING, BUFFERS, AND IRRIGATION

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Chapter 11. Tree Protection, Landscaping, Buffers, and Irrigation

Section 11.01. General Provisions

11.01.01. Purpose and Intent

The purpose of this chapter is to protect the general welfare of City residents and visitors and to promote energy and water conservation; reduce air pollution and noise; enhance property values; improve surface water quality and groundwater recharge; and enhance the City's appearance. The intent of the chapter is to establish procedures and practices governing the protection, installation and long term maintenance of trees, vegetation, and other landscaping elements within the City. The criteria in this chapter are intended to institute landscape and irrigation design principles that will result in creative solutions and provide alternative means to achieve an environmentally friendly community.

11.01.02. Applicability

The removal of trees or fill, and the excavation or dredging of any parcel of land shall be prohibited prior to issuance of all required permits (including tree removal permits), unless otherwise stated in this chapter.

A. New Development

All new development shall be subject to the provisions of this chapter.

B. Alteration of Existing Development

No building or parking lot existing on August 19, 2008 shall be required to be altered or moved in order to comply with this chapter, except that the following activities shall require compliance with this LDC:

1. When a structure is destroyed by fire or other calamity and is proposed to undergo substantial improvement, as defined in this LDC.
2. When a building is expanded by fifty (50) percent or more, the entire parcel on which the building is located shall be brought into compliance with this chapter, to the maximum extent possible, before a certificate of occupancy is issued for the addition.
3. When a legally conforming shopping center building or group of buildings is expanded by fifty (50) percent or more of the current square footage, at least twenty-five (25) percent of the entire shopping center site shall be brought into compliance with this chapter before a certificate of occupancy is issued for the addition. The shopping center's square footage is defined as that area which is under a roof whether air-conditioned and heated or not, including common areas such as walkways, restrooms, and similar areas. If more than one (1) expansion is constructed after the effective date of this Code, the total of all the expansions will be combined in determining if the fifty (50) percent has been reached.
4. When repeated expansions occur on a site over the years, the total combined expansion shall be used in determining whether the threshold for compliance has been reached.
5. When only the parking/vehicular use area is proposed for expansion and it is by less than ten (l0) percent of the total parking area, only the new area is required to be brought into compliance with this chapter.
6. When a parking/vehicular use area is expanded by ten (10) percent or more, the entire parking area shall be brought into compliance with this chapter.

Adopted 8-19-08 – Ordinance # 2008-16
Amended 12-15-09 – Ord. # 2009-26

11.01.03. Measurement of Trees

For the purposes of this chapter, the size of existing trees shall be calculated by the measurement of the diameter of the trunk in caliper inches, taken at breast height. The size of new landscape trees shall be calculated by measurement of the diameter of the trunk at six (6) inches above grade, up to and including trees four (4) inches in diameter. The size of trees over four (4) inches in diameter shall be calculated by measurement of the diameter of the trunk at twelve (12) inches above grade.

11.01.04. Classification of Developments

For the purpose of applying landscaping and irrigation requirements, developments are classified as follows:

A. Class 1: Townhouse, condominium, and multifamily residential development and all nonresidential development;

B. Class 2: Subdivisions in any zoning district; and

C. Class 3: Single-family detached and duplex development on individual lots.

Section 11.02. Tree Preservation, Protection, and Replacement

11.02.01. Protected Trees Defined

All trees that meet the following criteria are protected, with the exception of invasive species (see **Subsection 11.02.05**) and/or species not suited to this area per the United States Department of Agriculture hardiness list:

A. The caliper of the trunk is six (6) inches or greater diameter at breast height.

B. Trees four (4) inches or greater diameter at breast height, if surveyed for credit.

C. Specimen trees, which are any protected species with a trunk of twenty-four (24) inches or greater; however the following species are considered specimen trees when they reach one of the following:

1. Twelve (12) inches or greater diameter at breast height: Cypress, Magnolia, Loblolly Bay, Red Bay, Scrub Oak, and Red Cedar;

2. Sixteen (16) inches or greater diameter at breast height: Elm, Hickory, Oak, Green Ash, Sycamore, Date Palm, Maple, and Sweet Gum.

D. Historic trees, which are any protected species with a trunk of thirty-six (36) inches diameter at breast height or larger.

11.02.02. Tree Survey Requirements

A. Tree Survey

The required survey shall be current (accomplished within the last twenty-four (24) months and shall identify all protected trees by species name and the size of the trunk measured at the diameter at breast height.

B. Monument Signs

Where monument signs are proposed to be located on any development, all protected trees that are located within fifty (50) feet of the proposed sign shall be shown on the tree survey.

C. Protected, Specimen, and Historic Trees

1. Class 1 Developments

a. The tree survey shall show all protected trees six (6) inches diameter at breast height and greater within fifty (50) feet of all right-of-way lines and six (6) inches diameter at breast height and greater within the required buffer area width of any side/rear property lines except that twenty (20) feet is the minimum width to be surveyed.

b. All specimen and historic trees shall be individually located and identified over the entire site as to species and size.

2. Class 2 Developments

All specimen trees shall be individually located and identified over the entire site as to its species and size.

3. Class 3 Developments

a. Protected trees six (6) inches or greater diameter at breast height within all front, rear, and street side building setback areas shall be shown on the tree survey. Trees within any adjacent rights-of-way shall be included in the survey.

b. Specimen and historic trees shall be surveyed over the entire lot.

D. Survey of Individual Trees Not Required

Under the following circumstances, the Land Use Administrator may determine that a survey identifying each individual protected tree is not warranted and a count of all protected trees including species and diameter size is acceptable:

1. When existing vegetated areas are to remain undisturbed; or

2. Where it has been determined by the Land Use Administrator that some or all of a development site or a proposed subdivision must be filled to such an extent, in order for permitted development to occur, that there is no feasible means to save protected trees.

11.02.03. Tree Preservation

A. Specimen and Historic Tree Preservation Requirements

Specimen and historic trees are select protected trees that due to their size and contribution to the overall tree canopy of the City are granted an extra level of significance and protection. Building footprints, drives, stormwater management facilities, and similar activities on all sites shall be designed to save the maximum practicable number of specimen and historic trees. During the subdivision platting process, lot lines shall be shifted for the same purpose. **Table 11-1** shows the minimum percentage of specimen and historic trees that shall be preserved on a site. Owners of lots assigned the SFR, DPX, and EST zoning districts may remove any specimen or historic tree that is within the buildable area of the lot with no mitigation, if all efforts to shift or flip the building footprint cannot save the tree(s).

Table 11 - 1: **Minimum Specimen and Historic Trees to be Preserved**

Number of Specimen/Historic Trees on a Site	Percentage of trees to be Preserved
Less than 3 per acre, or a portion thereof	80%
3.0 to 5.0 per acre	65%
5.1 to 8.0 per acre	50%
More than 8.0 per acre	4 per acre

B. Tree Preservation Credits

The following credits apply only within the COM, IND, MFR, OFC, P&G, and PSP zoning districts:

1. Trees saved in wetlands or their associated upland buffers are eligible for preservation credits; however, preservation of trees in wetlands for preservation credits may not also be used as criteria for preserved wetlands and imperiled upland habitats density bonuses established in **Chapter 3**.
2. A stormwater retention/detention area may be credited toward meeting the tree density requirement provided the area is no more than two (2) feet in depth from the top of bank, is heavily wooded, and contains plant types that will survive periodic flooding.
3. The total diameter at breast height of preserved protected, specimen, and historic trees on the site may be applied to satisfy the tree density requirements. A preserved palm tree may only be credited on a one-to-one basis for any palm tree removed.
4. Existing pine trees (other than sand pine) in good health may be used as buffer shade tree credits if they are a minimum of six (6) inches diameter at breast height, and comprise no more than fifty (50) percent of the buffer tree requirement. If pines meeting these criteria are of good quality such that planting of new shade trees is impractical, then existing pines may count for more than the fifty (50) percent maximum requirement.

11.02.04. Tree Protection Measures

A. Canopy Road, Specimen, and Historic Tree Protection

In order to protect the existing tree canopy over roadways within the City, the following roadways have an extra level of significance and protection: Colbert Lane, Old Kings Road, Palm Coast Parkway, and Palm Harbor Parkway.

Roadway projects and modifications to the roadway system necessitated by development shall preserve and protect any specimen or historic tree within the right-of-way or within thirty-five (35) feet of such roadway edge. Preservation methods are to include, but are not limited to, the following:

1. Reduction of the length of turn, deceleration, or acceleration lanes subject to public safety needs and the approval of the Land Use Administrator.
2. Consideration of alternatives to widening such as alternate service roads.
3. Root protection/aeration construction methods such as retaining walls with guardrails.
4. Where no practical alternative for preservation is possible, the total diameter of the tree shall be replaced with replacement trees no less than six (6) inch caliper.

B. Tree Protection During Clearing or Tree Trimming Activities

1. Developments shall be designed to the greatest extent possible to protect existing trees and their tree protection zone from stormwater facilities, drainage lines, utilities, or grade changes, building footprints, parking areas, drives, and walkways. Subdivision plats shall shift lot lines to minimize placing specimen or historic trees in the buildable area of the lot if practicable.
2. Protected trees, including their tree protection zones, in front buffer areas shall be preserved if trees are in good condition and do not impede access or visibility into or out of the site.

C. Tree Protection During Construction

1. During any development activity, appropriate protective measures, per City standards, shall be taken to prevent the destruction or damage of all trees to be retained on the site. The preservation of existing vegetation within the tree protection zone of all trees to be retained is required, unless the vegetation is hand cleared.

2. Protection methods, including trimming/pruning of trees and tree barricades, shall conform to ANSI A-300 standards.

11.02.05. Tree Removal

A. Prohibitions

Unless exempted herein, it is prohibited and unlawful for a person or entity, agent, or representative thereof, directly or indirectly, to perform or authorize the following:

1. Cut down, remove, damage, or destroy any protected tree as defined in **Subsection 11.02.01** on any parcel without first obtaining a tree removal permit;

2. Commit any act or authorize the commission of any act that physically or effectively removes a protected tree or causes a tree to die, such as damage inflicted upon the root system by heavy machinery, chemicals, or paving, any pruning or tree work inconsistent with ANSI A-300 Standards, or changing the natural grade above the root system;

3. Root raking the area within the tree protection zone or adding fill over the tree protection zone, which may cause damage and permit infection or pest infestation to a protected tree; or

4. Perform tree removal, land clearing, grubbing, grading, excavation, construction, or make or install any improvement upon any site or parcel, regardless of the existence of valid permits or approvals for the given activity, unless all protected trees and protected vegetative areas established pursuant to this chapter have been surrounded by a protective barrier.

B. Land Clearing

During the subdivision infrastructure construction stage, clearing of trees and existing vegetation shall be limited to the minimum necessary to construct roadway and utility rights-of-way and facilities. Trees may only be cleared from individual lots upon review and approval of the tree survey and/or fire hazard considerations at the time of building permit application. However, in order to accommodate development within a subdivision where fill is required to such a depth that it would preclude the survival of existing trees, lots may also be cleared provided:

1. A clearing and grading plan shall be submitted showing vegetation and tree areas to be preserved, the amount of fill needed for lot development based on existing grades, proposed roadway and building elevations, and drainage plans.

2. If lots are approved under this provision for clearing of protected trees during the subdivision infrastructure construction stage, the front, rear, and side street setback areas shall have all trees six (6) inches or greater diameter at breast height surveyed and replaced in accordance with **Table 11-2** prior to final subdivision inspection. Replacement of these trees may be allowed in common areas of the subdivision (i.e., street trees, detention or retention ponds, buffer areas, etc.).

C. Tree Removal Activities Exempt From Permit/Replacement Requirements

The following activities shall be lawful without application or issuance of a tree permit:

1. The removal of any invasive plant species as determined by the Florida Department of Agriculture and Consumer Services "Noxious Weeds" rule set forth in the Florida Administrative Code.

2. The removal or alteration of any tree or vegetation in an existing City or utility easement or right-of-way provided such work is done by, or under the control of, the operating utility company and said company has received all necessary licenses or permits to provide utility service within the easement.

3. The removal of any tree or vegetation for the purpose of maintaining existing access to a property.

4. Any activity conducted by a lawfully operating and bona fide commercial nursery, tree farm, agricultural operation, silvicultural operation, ranch, or similar operation when the activity occurs on property owned or lawfully occupied by the person conducting said activity and is done in pursuit of said activity. This exemption shall include the purposeful removal of a tree or trees for their permanent relocation at another site undergoing development.

D. Permit Requirements

1. A permit is required for land clearing/filling. It is prohibited and unlawful to clear trees, fill land, excavate, or dredge any parcel of land prior to the issuance of a building permit, unless otherwise stated in this LDC, permitted in a development order, or authorized by the Land Use Administrator. The building permit shall act as the tree removal permit.

   a. Vacant properties may be partially cleared to enable the construction of seawalls prior to a permit being issued for a principal structure. Refer to **Chapter 4** for requirements.

   b. Vacant properties may be partially cleared for the purpose of removal of unsuitable debris or muck within the buildable area of a site. Refer to **Chapter 9** for general right-of-way access permit requirements for this type of work.

   c. Vacant residential properties that are under common ownership with any developed adjacent residential lot may be cleared of all pines, vegetation, and any trees less than six (6) inches in diameter if the minimum tree densities are maintained or replaced. Refer to **Chapter 9** for permitting requirements.

E. Tree Removal Activities Requiring a Permit

Prior to the removal of any protected tree, an application for removal shall be submitted to the City. If the requested removal is in conjunction with an approved building permit, grade and fill permit, or a development order, a separate permit need not be obtained, but tree removal shall be addressed in the development order review process. The valid period for a tree removal permit shall run concurrent with the development order or for one (1) year, whichever is greater.

F. Removal of Protected Trees

Protected trees removed under this section shall require replacement if the tree was originally preserved or planted to meet a requirement of this chapter. Upon receipt of a completed application and verification on-site by a certified arborist, the Land Use Administrator may permit the removal of the following protected trees:

1. Dead, severely diseased, or severely injured trees, as determined by a certified arborist.

2. Trees that pose imminent danger to the health, safety, and welfare of the public and cannot be corrected through standard arboricultural procedures, as determined by a certified arborist.

3. Trees that pose a sight distance visibility problem along any public rights-of-way.

4. Any pine tree within thirty (30) feet of a structure or within a distance from a structure less than the tree's height may be removed as a safety precaution if the tree is deemed by the City or a certified arborist to be a hazard.

5. Trees causing structural damage to a foundation, driveway, patio, wall, or which interfere with the construction or repair of public infrastructure or facilities and cannot be corrected by standard arboricultural means.

6. Any tree located in botanical gardens or in state-approved or government nurseries and groves that are grown for sale or public purpose.

7. Trees within clusters if there is a need to relieve overcrowding between dissimilar tree species or tree thinning as part of an approved fire mitigation plan.

8. For Class 3 site developments only, trees that would not affect the minimum tree density. The Land Use Administrator shall determine which trees shall be preserved as credit towards the minimum density requirement.

9. Trees located within a City drainage easement, City drainage rights-of-way, or City access rights-of-way that need to be removed to allow for access to, or maintenance and/or clearing and construction of, the City's drainage ditches and drainage related facilities.

G. Tree Removal on Developed Lots

On developed lots zoned SFR, DPX, or EST all provisions of **Subsection 11.02.05.E** and **Subsection 11.02.05.F** would apply as well as the requirements to maintain the minimum tree density as outlined in **Subsection 11.03.01.A**. The following additional requirements also apply:

1. Protected trees that are in excess of the minimum tree density for the lot can be removed without mitigation.

2. Removal of a specimen or a historic tree shall be mitigated as follows:

   a. A specimen and/or a historic tree – One (1) tree of three and one-half (3½) inches caliper.

For the purposes of this section only, "developed lot" shall mean three (3) years has elapsed since the issuance of a certificate of occupancy for the property.

H. Requirements Suspended

During a declared emergency, the Land Use Administrator may suspend the requirements of this subsection so that private or public work to restore order in the City will in no way be hampered. Replacement of these trees may be required after removal as outlined in this chapter.

11.02.06. Tree Replacement Standards

Applicants are strongly encouraged to preserve as much of the existing vegetation as possible. Therefore, existing protected trees are counted toward meeting the landscaping requirements for a site. By saving protected trees, rather than planting new ones, applicants can achieve the minimum planting requirements in a more efficient and economical manner.

Tree replacement for all protected, specimen, and historic trees shall be provided as shown in **Table 11-2**. The property owner shall be responsible for the cost of replacing the trees removed from the property.

Table 11 - 2: Tree Replacement Requirements

Site Zoning/Use	Protected Trees	Specimen Trees	Historic Trees	Palm Trees
SFR, DPX, EST	30% of the existing tree inches removed from the required front, rear, and street side building setbacks. Minimum replacement tree size shall be 2" caliper, 7'-8' high.	30% of the existing preservable tree inches removed from anywhere on the site. Minimum replacement tree size shall be 4-1/2" caliper.	100% of the existing preservable tree inches removed from anywhere on the site. Minimum replacement tree size shall be 6" caliper.	40% of palms removed from the required front, rear, and street side building setbacks. Minimum replacement shall be 8' clear trunk palms (preferably Sabal Palms).
COM, IND, MFR, OFC, P&G, PSP	70% of the pre-development tree inches removed from the required survey areas of the site. Minimum replacement tree size shall be 3-1/2" caliper, 12'-14' high.	70% of the tree inches removed from the site. Minimum replacement tree size shall be 4-1/2" caliper.	100% of the tree inches removed from the site. Minimum replacement tree size shall be 6" caliper.	40% of palms removed from the site. Minimum replacement shall be 8' clear trunk palms (preferably Sabal Palms).
Wetlands (within any zoning district)	1 tree for every 2 trees removed from a wetland site shall be replaced. Minimum replacement size shall be 2" caliper, 7'-8' high.	Every tree removed from a wetland site shall be replaced. Minimum Replacement size shall be 3-1/2" caliper.	Every tree removed from a wetland site shall be replaced. Minimum replacement size shall be 3-1/2" caliper.	Every palm tree removed from a wetland shall be replaced with 2 new or relocated 8' clear trunk palms (preferably Sabal Palms).

11.02.07. Tree Bank Fund Established

If the Land Use Administrator determines that, due to site conditions or configuration, it is impossible or impracticable for the property owner, applicant, or developer to meet the requirements for tree density and/or replacement on-site, the property owner, applicant, or developer shall pay fees of equivalent value into the tree bank fund or plant the trees off-site upon approval of a suitable site or sites by the City.

A. The tree bank fund shall be a separate account set up and shown in City financial records in which all receipts are detailed. All monetary contributions paid to the tree bank fund pursuant to this section shall be used exclusively for the planting or replanting of mitigation trees. Funds may also be used for the installation of irrigation systems. Monies collected in the fund shall be used on public land.

B. Valuation of contributions to the tree bank fund shall be based on the caliper size of the required hardwood tree replacement and quantity of the required palm trees in accordance with City standards.

Section 11.03. Landscaping, Buffers, and Irrigation Requirements

11.03.01. General Landscaping Requirements

A. Tree Density Requirements

All developments shall be required to provide one (1) tree for every 2,500 sq. ft. of property area.

B. Preserved Trees

Preserved trees, including those within wetland or associated upland buffer areas, may be counted towards the tree density requirements as long as they are, at a minimum, the same size as the required new trees (refer to **Table 11-3**). The trees must be in good structural condition and health and the root zone shall be protected during the construction phase of the project.

C. Protected Trees and Plants

The use of protected trees, understory trees, shade trees, accent plants, shrubs, and groundcovers is required to partially or totally satisfy the planting requirements of this chapter. Class 1 and 2 developments may use existing pine trees, six (6) inches diameter at breast height and over to meet the minimum tree requirements; however, no more than fifty (50) percent of the pine trees may be credited. The Land Use Administrator may approve alternate plantings if the purpose and intent of this chapter are met and a nuisance or environmental hazard is not created.

D. Native Vegetation

Use of native plants and plant species that conserve water, adapt to local conditions, and are drought tolerant are required for all new landscaping. Class 1 and Class 2 developments are required to plant at least fifty (50) percent of the pervious area of the site with native plants or plants and sod that conserve water, that adapt to local conditions, and that are drought tolerant.

E. Planting Bed Requirements

Bed lines, where practicable, shall be curvilinear and wrap the corners of the structure with shrubbery plantings no closer than two (2) feet from the building. On sites located along specially designated collector or arterial roads, as listed in **Subsection 11.03.05**, an average minimum foundation planting bed width of eight (8) feet shall be planted. In this area, a minimum of two (2) different heights of plant material shall be used along with understory trees at the rate of one (1) tree per fifty (50) lineal feet of building wall length.

F. Freestanding Sign Landscaping

1. All monument signs shall have shrubbery or flowers planted around the perimeter of the sign. Signs shall be located so as to provide both adequate visibility from the public rights-of-way and preservation of protected trees. In the event trees must be removed for sign construction, sign, or site distance visibility, the applicant shall plant replacement trees in accordance with **Table 11-2**.

2. If freestanding signage cannot be shifted within the buffer to allow the required room for screen plantings between the sign and the outside parking envelope area without obscuring visibility to the sign, then the City shall allow a ten (10) foot radius from the base of the freestanding sign in which lower accent plantings are allowed in lieu of the screen plantings.

G. Retention and Detention Ponds

Stormwater retention/detention ponds shall be naturally shaped (without geometric straight sides) and shall meet the following requirements:

1. All wet detention ponds shall incorporate a combination of aquatic and non-aquatic native plants around portions of the perimeter to filter runoff of fertilizers, herbicides, and pesticides.

2. Wet detention ponds shall incorporate, at a minimum, a littoral zone or a littoral zone alternative per **Chapter 40C-42, Florida Administrative Code**.

H. Screening plantings

Structures such as dumpster enclosures, mechanical equipment, backflow preventers, wells, pumps, tanks, buffer walls, HVAC units, transformers, lift stations, utility cabinets, electrical panels, or cable television equipment shall be fully screened with planting beds in areas that are visible from the public rights-of-way. Height screening shall be a minimum of thirty (30) inches at the time of installation.

I. Plan Submittal Requirements

Landscape and irrigation plans shall be submitted for all Class 1 and Class 2 site plans and shall be prepared by a Florida registered landscape architect or other licensed professional authorized by the state law to prepare such plans. Class 3 development landscape and irrigation plans shall also be required, but do not need to be prepared by a landscape architect.

J. Street Trees and Median Planting

1. In all subdivisions and any other developments involving the creation of new streets, street trees shall be planted in the rights-of-way or a median, unless the Land Use Administrator determines that a conflict exists between trees and utilities located in the rights-of-way or that site distances or recovery zones are not in compliance with sound and generally accepted engineering practices and principles. In such cases, the street trees shall be planted outside of the rights-of-way.

2. If street trees are to be located outside of the rights-of-way, trees shall be planted no farther than five (5) feet outside of the right-of-way line, and shall be perpetually maintained. All property owners' association covenants and restrictions shall include this requirement, and all property owners shall comply with this paragraph. Street tree plantings shall be in accordance with City standards.

3. Street trees planted to meet the requirements of this paragraph must be shade trees, and shall be planted at a rate of one (1) tree for every fifty (50) feet of site/lot frontage along the right-of-way or every thirty (30) feet on center in medians. If planted medians and/or cul-de-sac islands are provided with trees, street trees along the outside of the roadway are not required. If the Land Use Administrator determines that the use of understory trees would be more practical because of overhead utility lines or other infrastructure conflicts, understory trees may be planted in lieu of shade trees at a rate of one (1) tree for every twenty-five (25) feet of site/lot frontage along the right-of-way.

4. Street trees may be included to satisfy the minimum requirements for tree density and buffers if located within the property and not in the right-of-way.

K. Utility Lines

Shade trees shall not be planted under or within fifteen (15) feet horizontally of overhead power lines. Underground power lines, cable TV, and phone line clearance to trees shall be as specified by the utility providing the lines. Water mains shall be separated a minimum distance of ten (10) feet from shade trees. Distances less than ten (10) feet shall be reviewed and approved by the City. Understory trees that do not attain, or can be maintained by pruning to a height of no more than fourteen (14) feet, may be planted under utility lines.

L. Retaining Walls

Any retaining wall three (3) feet tall or higher shall have shrubbery installed along its length. Shrub species shall be selected such that the mature height shall be proportionate to the height of

the wall with fifty (50) percent of the wall height being covered as determined by the Land Use Administrator.

11.03.02. Specific Landscaping Requirements for Class 1, 2, and 3 Developments

A. Class 1 Developments

1. Foundation Plantings

Planting beds with a minimum width of four (4) feet shall surround a minimum of eighty (80) percent of the building facade or elevation. This percentage may be reduced to twenty-five (25) percent in the IND-1 and IND-2 zoning districts upon a finding of adequate landscaping by the Land Use Administrator. These planting beds shall be placed in the most visible areas to the public. The following may be used in order to provide some alternatives:

a. Architectural Design

Foundation planting requirements for multifamily and nonresidential buildings may be reduced by the Land Use Administrator, when it is determined that building façade massing techniques provide the same benefit as foundation plantings.

b. Landscape Design

Alternative foundation planting may be permitted (e.g., architectural planter, pots, etc.) by the Land Use Administrator and applied as a credit towards meeting the foundation planting requirement if demonstrated and determined that the methodology is of equal benefit and appropriate automatic irrigation facilities are provided.

2. Wildfire Hazard Assessment

Class 1 development shall be required to include a wildfire hazard assessment for the site prepared and certified by a forester, wildfire mitigation expert, or landscape architect. If the site is determined to be in a medium or higher wildfire hazard area, certain measures shall be required to be implemented prior to the issuance of a certificate of occupancy of the building. Wildfire mitigation shall be in accordance with City standards.

B. Class 2 Developments

1. Common Area

Common areas within subdivisions including, but not limited to, entrance ways, recreation areas, gateways, and street islands shall maintain the same tree density standards as required in **Subsection 11.03.01.A** and the same sizes of trees as shown in **Table 11-3**.

a. Temporary sales trailers are required to have landscaping with temporary irrigation around all visible sides at appropriate heights to screen the underside of the trailer.

b. Unless an easement for perpetual maintenance is provided, buffer planting areas, if required, shall be provided in the common areas of the subdivision and not on individual private lots.

c. Provisions for maintenance of common areas and conservation/wetland areas shall be made through covenants and restrictions or other means.

2. Landscape Buffers

For subdivisions fronting any of the specific collector roads as noted in **Subsection 11.03.05.B,** landscape buffers shall be required.

3. Sales Trailers

Temporary sales trailers shall be adequately landscaped around all sides to screen the undersides of the trailers.

4. See **Subsection 11.03.02.A.2** for wildfire hazard assessment requirements that also pertain to Class 2 development.

C. Class 3 Developments

1. Number and Type of Trees

a. A minimum of one (1) required tree shall be located in the front yard and one (1) in the rear, one of which shall be a shade tree. Street trees may be included to satisfy the minimum requirement if located within the property and not in the right-of-way.

b. Shade trees shall comprise at least forty (40) percent of the tree requirements on a lot.

2. Foundation Plantings

a. Residential lots shall provide foundation plantings along the front of the house to achieve sixty (60) percent opacity within two (2) years.

b. Foundation shrubbery plantings are also required for side street house exposures and for the rear of houses and accessory structures facing saltwater canals, freshwater canals, lakes, golf courses, public rights-of-way, and all sides of homes in the MHD zoning district.

c. Foundation plantings are not required if existing vegetation is preserved or fences installed providing adequate screening of the required house foundation area. Preserved vegetation must remain and be maintained to provide the required screening in perpetuity; otherwise foundation plantings will be required.

d. If fences that provide comparable screening are provided along the side or rear of the property, the requirement for foundation plantings may be determined to be unnecessary by the Land Use Administrator.

e. The corners of the house shall be wrapped with shrubbery. Shrubbery shall be selected using varying heights to accent and soften walls. Exclusive use of groundcovers shall not be permitted. Size of shrubs and groundcovers shall comply with **Table 11-3**.

f. Screening for fences along rear or side lot lines abutting a right-of-way, golf course, or saltwater canal as noted in **Chapter 4** shall be facilitated by setting the fence back a minimum of three (3) feet from the property line and installing shrubs or vines on the outside of the fence for softening and enhancement. This requirement also applies to any fence facing the front or side corner of the property. This requirement applies to all types of fencing.

3. Minimum Planting Requirement

For alternate types of landscaping where sod is not used as the primary groundcover (i.e. Florida-friendly landscaping) there shall be a minimum planted area (or preserved existing native vegetation) of sixty (60) percent of the pervious open space. The remainder of the pervious area may be gravel, stone, or other mulches. All swales in rights-of-way shall be sodded.

11.03.03. Tree and Plant Types, Sizes, and Quality

A. Trees, Shrubs, and Groundcovers

All trees, shrubs, and groundcovers shall meet or exceed the standards of a Florida No. 1 or better quality as set forth in the latest edition of Grades and Standards for Nursery Plants, Florida Department of Agriculture. The planting requirements at time of installation are listed in the following table:

Table 11 - 3: Tree and Plant Size and Spacing Requirements at Installation

Type of Development	Shade Trees	Understory Trees	Shrubs and Groundcovers	Accent Plants
Class-1 and Class-2	Caliper: 3 ½" Height: 12' to 14' 3 palm trees at 8' clear trunk are required for 1 shade tree credit (Class 2 street trees, except for medians may be 2" caliper, 7' to 8' height)	Caliper: 1 ½" Height: 6' to 7' Minimum container: 30 gallon	Shrubs: 3 gallon Groundcover: 1 gallon Screen planting: 6' ht. and 60% opacity installed Visual buffer: 24" ht. (3gallon) and maximum 3' on center spacing. Larger sizes are allowed larger spacing.	Dwarf to medium 3-gallon container shrubs Height: 12" minimum at time of planting
Class-3	Caliper: 2" Height: 7' to 8' 3 palm trees at 8' clear trunk are required for 1 shade tree credit	Caliper: 1 ½" Height: 6' to 7' Minimum container: 30 gallon	Shrubs: 3 gallon Groundcover: 1 gallon	None required

1. Existing trees shall count towards any tree requirements as noted in this chapter if:
   - **a.** They are no smaller than six (6) inches diameter at breast height for Class 1 and 2 site plans;
   - **b.** Four (4) inches diameter at breast height in Class 3 plot plans;
   - **c.** Are in good structural condition and health, as determined by the Land Use Administrator; and
   - **d.** The root zone is protected during the construction phase of the project.
2. Where areas of at least two hundred fifty (250) square feet are to be preserved as a native vegetated area, existing trees less than four (4) inches diameter may be counted for credit as long as there are at least four (4) trees in the preserved area and the total diameter at breast height is equal to at least six (6) inches.
3. When required trees are planted, understory tree size as noted in **Table 11-3** will qualify for the two (2) inches, seven (7) to eight (8) feet tall replacement size trees, if shade trees are not required.
4. For Class 1 and Class 2 developments, where palm trees are used in lieu of shade trees for credit, no more than twenty-five (25) percent of the palm trees may be allowed towards meeting the requirements, except that Class 3 developments shall be allowed to use palms for fifty (50) percent of the required shade trees.

B. Turf

Grass areas shall be planted with sod in a species normally grown as permanent lawns in East Central Florida. Newly installed Bahia sod shall be healthy and may have no more than twenty (20) percent weeds or unlike grass species. Newly installed St. Augustine, Seashore Paspallum, Bermuda, and Zoysia sod may have no more than five (5) percent weeds or unlike grass species. For newly installed turf where irrigation is not provided, grass species shall be Bahia grass (or Bermuda grass upon approval of the Land Use Administrator). All areas of a disturbed site not otherwise landscaped or not left in natural native vegetation shall be grassed or mulched at a minimum.

11.03.04. Parking Lot Landscaping Requirements

A. Visual Screening

Visual screening from the right-of-way in the form of shrubbery is required for off-street parking areas in accordance with the following:

1. Height

A minimum of twenty-four (24) inches in height, measured from the adjacent parking surface level, at time of planting. If the screen is planted on a berm, the height of the plants can be less as long as the cumulative height is at least twenty-four (24) inches.

2. Spacing

The maximum plant spacing shall be three (3) feet on center. If the proposed plants are larger than the minimum specified, wider spacing may be allowed at the discretion of the Land Use Administrator.

3. Material Type

Plant material must be nondeciduous for full year around screening.

B. Internal Parking Lot Landscaping

Internal parking lot landscaping shall comprise a minimum of ten (10) percent of the vehicular use area. The vehicular use area is the total area of all parking stalls, drive aisles, and access ways within the limits of the property being developed.

1. Landscape Islands

a. A qualifying island or planting area shall contain one (1) shade tree for every two hundred fifty (250) square feet of island area. A single island which is five hundred (500) square feet or greater, is equal to two (2) island credits. Existing trees preserved in islands may qualify for more than one (1) landscape island credit, based on the size of the tree and area provided as determined by the Land Use Administrator. Shade trees shall not be planted in islands containing less than eight (8) feet in width and two hundred fifty (250) square feet in size.

b. A minimum of seventy-five (75) percent of the required islands shall be a minimum of two hundred fifty (250) square feet in area; with the remainder a minimum size of one hundred fifty (150) square feet. The one hundred fifty (150) square foot islands shall have one (1) understory tree, with a minimum height of twelve (12) feet to fourteen (14) feet, or a grouping of three (3) palms, for each vehicular use area credit proposed.

c. Vehicular use areas must meet a minimum of one (1) vehicular use area credit for every 4,000 square feet of vehicular use area.

2. Placement of Landscape Islands

No more than five (5) consecutive parallel parking spaces may be constructed without separation by a vehicular use area landscape island, and no more than ten (10) consecutive parking spaces may be constructed without separation by a vehicular use area landscape island, except as specified below:

a. Where shade trees are planted at a minimum of forty (40) feet on center the length of a center island with a minimum planting width of eight (8) feet as measured from inside of curbs.

b. Where an additional five (5) foot width is provided, in addition to any buffer width, along the outside edge of the parking lot adjacent to the parking spaces with shade trees planted at a minimum of every forty (40) feet on center**.**

c. If stabilized grass parking is approved, the parking spaces shall be delineated with parking stops and the required vehicular use area islands with trees and shrubs installed to break up rows of ten (10) consecutive parking spaces.

d. All parking rows shall be terminated by a landscape island.

3. Design Requirements for Landscape Islands

a. Light poles and flagpoles shall not be placed in landscape islands of less than five hundred (500) square feet that contain shade trees.

b. Curbing shall be installed around the perimeter of all landscape islands that abut paved parking or drive aisles.

c. The placement of utility transformers, fire hydrants, and utility lines in parking lot islands is prohibited, unless the Land Use Administrator determines that a compelling public interest exists. In this case, the requirements for clearances elsewhere in this LDC shall apply, as well as the requirement that utility transformers shall be separated a minimum distance of eight (8) feet between the front of the unit and any trees or shrubs, and a minimum distance of three (3) feet between the side of the unit and any trees or shrubs.

4. Alternate Planting Requirements for Parking Lot Islands

The following specific planting requirements relate to internal parking lots:

a. Understory and palm trees may be allowed for use towards vehicular use area calculations in islands less than two hundred fifty (250) square feet in area.

b. In lieu of providing the minimum open space in a parking lot island, the Land Use Administrator may approve one (1) or more of the following practices:

(1) Structural soils;

(2) Structural bridging under sub base and pavement areas; or

(3) Soil trenches/root paths that allow roots to access larger soil areas.

c. Upon submittal and approval of design plans and specifications of an alternate means of rooting area under a paved surface, the minimum parking lot island planting area as required in this section may be reduced. Structural soil specifications shall comply with City standards.

5. Driveway Medians

A landscaped median shall be installed to separate the ingress and egress driveways for any access that is shared between two (2) or more lots or parcels. This median shall be a minimum of two hundred fifty (250) square feet in area with a minimum average width of eight (8) feet and shall meet the planting and design requirements for landscape islands.

6. Flexibility

a. The Land Use Administrator may permit the use of architectural planters to provide partial credit landscape island/area requirements if found to be of equivalent public benefit.

b. The Land Use Administrator may permit more than ten (10) contiguous parking spaces without an island in order to promote tree preservation.

c. The Land Use Administrator may reduce the minimum area for parking lot islands if it is determined adequate tree rooting area is provided below the pavement area and if special pavement provisions are provided.

11.03.05. Landscape Buffer Requirements

A. Buffer Type Determination

Determining perimeter buffer requirements for a site consists of a two (2)-step process:

1. Determine the intensity of the proposed development based on the scale shown in **Table 11-4**.

2. Use **Table 11-5** to determine the type of buffer required.

Table 11 - 4: Land Use Density/Intensity Scale

Zoning District	Density/Intensity Scale
AGR, PRS, P&G	Very Low
SFR-5, EST-1, EST-2	Low
SFR-1, SFR-2, SFR-3, SFR-4, DPX	Medium
MFR-1, MFR-2, MHD, OFC-1, OFC-2, COM-1, PSP*, MPD	High
COM-2, COM-3, IND-1, IND-2	Very High

*Uses in the PSP zoning districts shall use "high" or "very high" density/intensity as a guideline. The Land Use Administrator may reduce or eliminate these buffer requirements on a case-by-case basis.

B. Perimeter Buffer Requirements

The following table shows the perimeter buffer types required based on the intensity of the proposed and adjacent uses. The density/intensity scale for the proposed development is shown on the X-axis and the adjacent use and/or its density/intensity scale is shown on the Y-axis. For example, perimeter buffer type "C" is required for "very high" scale proposed development abutting an area zoned or developed within the "very high" scale.

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Table 11 - 5: Perimeter Buffer Requirements

	Scale of Proposed Development				
	Very Low	**Low**	**Medium**	**High**	**Very High**
Adjacent Scale or Abutting Use:					
Very Low	None	A	A	C	E
Low	None	None	None	D or E	E
Medium	None	None	None	D or E	E
High	None	None	None	C	D, E, or F
Very High	None	None	None	C	C
Local Roads	None	A	A	A	A
Specially Designated Arterial or Collector Roads*	B	B	B	B	B
Other Arterial or Collector Roads	None	A	A	A	A
Retention Pond or Canal	None	A	A	C	D or E

***** Specific arterial and collector roads include the following: Belle Terre Parkway, Belle Terre Boulevard, Bridgehaven Drive, Brushwood Lane, Boulder Rock Drive, Club House Drive, Colbert Lane, Corporate Drive, Cypress Edge Drive, Cypress Point Parkway, Florida Park Drive, I-95, Matanzas Woods Parkway, Old Kings Road, Palm Coast Parkway, Palm Harbor Parkway, Pine Lakes Parkway, Pine Cone Drive, Royal Palms Parkway, S.R. 100, Seminole Woods Parkway, U.S. 1, and White View Parkway.

1. For nonresidential uses, a perimeter buffer will not required between two (2) or more newly created adjoining lot lines when subdividing a parcel of land that has an existing development or an approved site plan. In order to qualify, the existing or approved project and future developments on the proposed lots must have approval for a unified or master site plan that incorporates shared facilities including, but not limited to, access, parking, stormwater facilities, and connectivity.

C. Buffer Design Standards

The required buffers shall meet the following landscape standards:

Table 11 - 6: Buffer Design Standards

Type	Width	Shade Trees per Linear Feet	Understory Trees per Linear Feet	Buffer (B) (24-30" height) Screen (S) (6' height)	Accent Planting per Linear Feet	Decorative Wall
A	20'	4/100'	Optional	B 3-4' on center	N/A	N/A
B	35'	4/100'	4/100'	B 3-4' on center	30/100'	N/A
C	10'	1/50'	Optional	B 3-4' on center	N/A	N/A
D	10'	1/50'	Optional	Not Required	30/100'	Required
E	25'	1/25'	Optional	S 6' on center	N/A	Optional
F	15'	1/25'	Optional	Not Required	30/100'	Nonmasonry fence

1. Landscape buffer areas shall be located at the perimeter of the site. Plantings shall not be located in any portion of a public or private right-of-way or drainage easement, unless permitted by a landscape easement. Screen (S) or buffer (B) plantings may be located between the minimum landscape buffer width and the parking lot, building, or structure they are intended to buffer. If not screening parking areas, these screen or buffer plantings can be incorporated into the required foundation plantings. Buffers shall be installed such that the

buffer height at time of installation screens the intended use at the minimum required buffer height.

2. At least fifty (50) percent of the existing native vegetation shall be preserved within the landscape buffer area. Preserved native vegetation within the buffer shall be hand cleared of vines, debris, and dead branches to present an attractive transition from maintained to natural. If native vegetation is not present, is insufficient to meet the screening required by this section, or the Land Use Administrator has determined that it must be removed due to required site grading, then native plants, plants that conserve water, those that are adaptable to the local climate and are drought resistant, or ornamental plant material shall be installed to meet the buffer requirement.

3. When calculating the required number of trees and shrubs within a buffer, the width of access ways or easements shall be subtracted from the property length.

4. The maximum spacing between shade trees within a buffer shall be fifty (50) feet.

5. Understory trees may be used in lieu of shade trees where noted in **Table 11-6** as "Optional"; however, no more than fifty (50) percent of the required trees may be understory trees.

6. A buffer hedge shall be required when the buffer is adjacent to a parking lot, and shall be comprised of plants twenty-four (24) inches in height spaced three (3) feet on center or plants thirty (30) inches in height spaced four (4) feet on center. Screening hedges are required when the buffer is adjacent to a rear or side property line and shall be comprised of plants six (6) feet in height planted six (6) feet on center.

7. Where accent plants are required, no more than thirty (30) percent of the planting bed area shall be comprised of groundcover plants.

8. Visual and screening buffer heights noted in **Table 11-6** denote height at the time of installation.

9. Uses within buffers:

   a. Buffer yards shall be limited to passive recreation and may contain pedestrian or bicycle trails and public amenities such as decorative fountains, artwork, and similar structures.

   b. Mechanical equipment or structures, other than signs, backflow preventers, and lights may be allowed in perimeter buffer areas pursuant to approval by the Land Use Administrator.

   c. Regardless of the buffer width, no more than twenty (20) percent of a required buffer area may be used for stormwater retention/detention.

10. Decorative walls, when required, shall be six (6) feet in height and comply with the material and design requirements (see **Chapter 4** for material and design requirements for walls).

D. Miscellaneous Buffer Requirements

1. Vehicle Display Areas

For automotive, recreational vehicles, motorcycles, motorized watercrafts, and other similar displays, as determined by the Land Use Administrator, a maximum of twenty (20) percent of the frontage landscape buffer plantings may be allowed to be reduced to a height of twelve (12) inches at time of planting if a minimum height of sixteen (16) inches is achieved within two (2) years.

2. Frontage Road Buffers

Frontage roads that parallel the main road serving a site may encroach into a front landscape buffer if no less than ten (10) feet of the required buffer is provided on the development side of the frontage road with the remaining footage of the buffer width on the side of the main road.

3. Fleet Rental Parking Buffers

Fleet rental parking spaces shall be located to the side or rear of the building and screened with a buffer planting that is a minimum of five (5) feet in height and opacity of sixty (60) percent at time of planting and that achieves one hundred (100) percent opacity within two (2) years.

4. Utility Structures

Individual structures such as dumpster enclosures, mechanical equipment, backflow preventers, wells, pumps, tanks, buffer walls, HVAC units, transformers, storage sheds, lift stations, utility cabinets, electrical panels, or cable television equipment shall be screened by the utility company or property owner with visual buffer planting, when visible from rights-of-way, parking areas, or adjacent properties. In lieu of a visual buffer planting, solid decorative fencing or walls may be installed to screen from public view. Plants used shall be native or shall be vegetation that conserves water, is adaptable to local conditions, and is drought tolerant.

11.03.06. Irrigation Requirements

A. Requirements by Type of Development

1. **Class 1**: Class 1 developments shall meet the irrigation design standards contained in this section.
2. **Class 2:** Irrigation systems for all common areas of a subdivision, including planted medians, shall be designed and installed with the subdivision infrastructure in accordance with this section. If the owner elects, the planting and irrigation of street trees on lots may be postponed until the lot is developed.
3. **Class 3:** Class 3 developments shall be required to meet the irrigation standards of this section if the lot is one-half (1/2) acre or larger in size, with the exception of **Subsection 11.03.06.B**, which is required if an irrigation system is installed regardless of the lot size.

B. Design Standards

Irrigation systems shall meet all City irrigation design standards as well as the following:

1. Water Conservation

Irrigation systems shall be designed in such a way as to minimize runoff or spraying of irrigation water onto roadways, driveways, and adjacent properties that are not under the control of the owner. The irrigation systems shall be designed to correlate plants into water use zones.

2. Water Source

Nonpotable water use demands shall be met using water of the lowest quality supply that is both available and acceptable for the intended application. Water reuse or water reclamation

water use applications which do not require potable water. The following are the water source priorities of the City from highest preference to lowest preference:

a. Reclaimed water.

b. Stormwater, lake, or canal.

c. Groundwater (well).

d. Potable water.

3. Temporary Irrigation

All landscape installations shall make necessary provisions for watering to establish and guarantee plant survival. Sites with these types of irrigation shall use super absorbents in the planting backfill as well as native plants or xeric plants and trees. A watering schedule shall be submitted. For an example, see the University of Florida Extension publication ENH856 – Tree Specifications for Planting and Shrubs in the Southeastern United States. Specifications shall be included to provide one (1) of the following:

a. Automatic irrigation;

b. Hand watering via hose bib or other water source;

c. Water truck hand watering; or

d. Automated water bags.

4. Irrigated Areas

The irrigation system, unless temporary, shall have mainlines and lateral lines buried underground and designed to provide adequate irrigation to all landscaped areas except for areas of existing native vegetation or planting areas comprised of vegetation that conserves water, is adaptable to local conditions, and is drought tolerant.

5. Backflow Prevention

Irrigation systems connected to a potable water source shall have a backflow prevention assembly installed as required and approved by the Land Use Administrator. Permitted wells shall have a serviceable double-check valve as required and approved by the Land Use Administrator. See **Chapter 9** for these requirements.

6. Moisture Sensor or Smart Irrigation Controller

All irrigation systems shall have an operational moisture-sensing device with buried soil probes located in each water use zone or a smart irrigation controller.

11.03.07. Installation of Plants

All landscaping is to be installed in a professional manner following good nursery practices as set by the Florida Nurserymen Landscape and Growers Association. All planting requirements shall meet or exceed the standards set forth in this chapter and the University of Florida Extension Publication ENH856 - Tree Specifications for Planting Trees and Shrubs in the Southeastern United States.

A. Mulching Requirements

All planting areas shall be mulched with a minimum two (2) inches up to four (4) inches of mulching material. The type of mulching material is subject to approval by the City.

B. Turf

See **Subsection 11.03.03.B** for turf requirements and quality.

11.03.08. Compliance with Approved Plans; Maintenance

A. Compliance with Approved Plans

All required plantings as shown on the approved landscape plans must be completed prior to issuance of a certificate of occupancy.

B. Maintenance

1. The owner is responsible for maintaining the approved landscaping on site in a healthy condition indefinitely. When any plants are replaced because they are dead, diseased, or destroyed by acts of nature, they should be of the same or similar species and as large as can be feasibly planted to match the size of the replaced plants.
2. Adequate provision shall be made, as approved by the Land Use Administrator, for the perpetual maintenance of common areas through covenants and restrictions or other means. These requirements can be achieved through either existing tree preservation (preferred) or by planting new trees. Buffer plantings shall be planted in common areas and not private lots, unless a landscape maintenance easement is granted with adequate perpetual maintenance assurances as approved by the Land Use Administrator.
3. The owners are responsible for maintaining the approved irrigation system in an operable and efficient condition in perpetuity.
4. The City may conduct periodic inspections to assure compliance with the planting and maintenance requirements of this section. If a violation is found the City will notify the owner that they have thirty (30) days in which to replace plants and make any other necessary repairs. Continued violation after the thirty (30) days will be referred to the Code Enforcement Board or another enforcement mechanism will be used.
5. In cases where the City must seek a remedy in court, the City may recover reasonable attorney's fees and costs where the City obtains affirmative relief.

11.03.09. Construction Phase/Acceptance of Improvements

A. Construction Phase

1. Permit

No permit for clearing, site development (subdivision), or a grade and fill permit shall be issued until the Land Use Administrator has visited the site and determined that the tree removal and protection plan is in accordance with the conditions stated in this chapter and any approved site plan, subdivision plat, or grading and filling permit.

2. Preclearing Meeting

Prior to any site clearing, all trees and areas to remain shall be properly marked and barricaded as indicated in this chapter. A site review meeting shall be scheduled with the contractor, land clearing contractor, and City staff to review specific criteria for construction.

3. Site Clearing and Grading

For erosion control purposes the disturbed on-site and off-site areas shall, at a minimum, be seeded with grass and mulching material, be planted with shrubs, or mulched within thirty

(30) days of disturbance, except that if runoff occurs the owner will be required to sod the area immediately. All areas subject to erosion shall be sodded.

4. Phased Projects

Any development that proposes phasing shall be required to provide the perimeter buffer planting required for all future phases of the project. If existing trees and vegetation are sufficient to provide this buffer, they may be used to satisfy this requirement. The first phase approval shall not be issued until this is done.

B. Acceptance of Improvements

1. Certificate of Occupancy

No certificate of occupancy may be issued until all tree protection barricades or other related items are removed as well as compliance with all plans and specifications on the approved plan has been attained. The Land Use Administrator may deviate from this requirement if delay is due to plant availability limitations or weather conditions affecting availability of sod, plants, or trees. A project may be bonded and issued a certificate of occupancy if the Land Use Administrator determines that an extension of up to sixty (60) days is warranted and the site work landscape and irrigation is covered by a surety given to the City, on a form provided by the City, in the amount of one hundred fifty (150) percent of the estimated value of the unfinished work.

2. As-builts

Landscape and irrigation as-builts are required prior to the certificate of occupancy of the project being issued in any zoning district except for SFR, DPX, and EST. The irrigation as-builts provided to the City shall include certification by a landscape architect for location of water source, rain sensor, valves, clocks, and heads. Approximate underground pipe run locations will be acceptable in lieu of exact locations. Electronic format as-builts are required. As-builts may be bonded according to the procedure as noted in **Subsection 11.03.09.B.1** above.

Section 11.04. Enforcement/Remediation and Penalties

11.04.01. Cease and Desist Orders

The Land Use Administrator may issue a cease and desist order for a maximum of two (2) working days whenever a violation of this subpart has occurred. Upon review of the violation by the Land Use Administrator, the Land Use Administrator may extend the cease and desist order until the violation is brought into compliance and all resulting fines incurred as a result of the violation be paid.

11.04.02. Correction of Violation/Remediation

The City shall take the following actions when a violation of this chapter has occurred in addition to all other available code enforcement remedies:

A. Tree Replacement Remediation Requirements

Each tree destroyed or damaged contrary to the latest ANSI A-300, Part I standards shall be replaced pursuant to **Table 11-2** by a desirable type of tree(s), except that in the case of total or effective removal, the total diameter inches of the protected trees removed shall be replaced. In the case of total or effective removal, the minimum replacement size shall be six (6) inch caliper. A mitigation plan consistent with this chapter must be submitted as required by the Land Use Administrator. This plan may require, in part, contribution to the tree bank fund. If contribution is to be made into the tree bank fund, the monetary equivalent amount of such contribution shall

be determined pursuant to **Subsection 11.02.07**. The mitigation plan shall also require mitigation of any other damage to the property. Each tree so damaged or removed shall be considered a separate violation of this LDC.

B. Sites Cleared Without Approved Tree Surveys

If the site has been cleared and the trees have been removed from the site such that the Land Use Administrator is unable to determine with reasonable certainty the number of protected trees removed in violation of this subpart, the violation may be corrected by paying into the tree replacement fund. The Land Use Administrator will determine the appropriateness and numbers of tree replacements to be planted back on the lot upon inspection. No work shall continue until the tree replanting plan has been approved. The contributions assessed under this subsection shall be payable to the City within seven (7) working days after assessment.

C. Clearing Without Construction/Inspections

Permitted projects cleared and upon which construction and inspection has not occurred within six (6) months of clearing shall be subject to mitigation per **Table 11-2,** as well as stabilization of all disturbed areas with sod or seed. In areas where a tree survey was accomplished, all protected trees on the survey shall be mitigated, and in areas where trees were not surveyed, the fine established by the City shall apply. Additionally, all perimeter buffer plantings, as shown on the approved plans, shall be installed and irrigated. Trees used in these buffers shall be credited towards the mitigation requirements.

11.04.03. Appeals

Any person aggrieved by an administrative order of the Land Use Administrator may appeal the order to the Planning and Land Development Regulation Board in accordance with requirements in **Chapter 2**.