

## TALLAHASSEE

### Sec. 5-83. - Tree protection and removal standards.

- (a) *Official trees.* The live oak (*Quercus virginiana*) shall be the official shade tree, and the dogwood (*Cornus florida*) shall be the official flowering tree, of the city.
- (b) *Applicability.* The following requirements shall apply to all new development and redevelopment in the city except as specified in subsection (c) below. Information required by this section shall be provided as part of the environmental management permit application.
- (c) *Exemptions.* Tree removal under one or more of the following circumstances shall not require a permit and replanting/debits shall not be required:
  - (1) *Nursery trees.* The removal of any tree planted and grown in the ordinary course of business of a lawful plant or tree nursery;
  - (2) *Emergency situation.* The removal of any tree during or following an emergency or an act of nature, when the director determines that permitting requirements will hamper private or public work to restore order to the city;
  - (3) *Single-family detached residential dwelling units.* The removal of non-patriarch trees up to 36 inches in diameter at breast height, located on lots developed with single-family detached residential units during development and post-development;
  - (4) *Safety hazard.* The removal of any tree which the director finds to be in such a dangerous condition or pose such an imminent hazard as to endanger the public health, welfare, or safety and therefore to require immediate removal;
  - (5) *Diseased or pest-infested trees.* The removal of a diseased or pest-infested tree for the purpose of preventing the spread of the disease or pests;
  - (6) *Approved silvicultural activities complying with requirements found in section 5-84.* Tree removal, except for patriarch tree or any tree in a canopy road tree protection zone, necessary for a project which the director has determined is a bona fide agricultural use provided that an environmental management permit for the project has been approved by the director pursuant to section 5-56 of this chapter;
  - (7) *Noxious invasive trees.* Upon verification by the city urban forester, or city growth management department, land use and environmental services division:
    - a. Chinese Tallow;
    - b. Mimosa;
    - c. Tung Oil;
    - d. Chinese Umbrella Tree;
    - e. China Berry;
    - f. Trees listed in the Florida Exotic Pest Plant Council Invasive Plant List (Class I and II species) or other accepted list as approved by the director;
  - (8) *Existing utility easements.* Upon approval by the director, the removal of any tree, that is the result of voluntary growth, within any utility easement or utility right-of-way that is required to inspect, maintain and construct improvements to the existing utility infrastructure within the easement or right-of-way. This provision does not apply to trees that were retained from prior permits. This provision applies only to work performed by or under the direction of a city-owned utility, and will not be considered exempt unless approved by the director on a case-by-case basis. This provision is intended to allow the continued operation of existing utilities and is not to be used to extend infrastructure where no infrastructure currently exists. This provision shall not be applied to conservation and preservation areas.

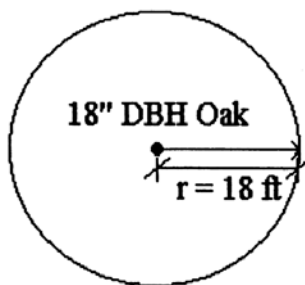
- (d) *Protected trees.* The following trees are protected and shall not be removed, impacted or damaged without receiving an approved environmental management permit complying with the requirements of the chapter:
- (1) *Pre-development.* Any tree of two inches DBH or greater.
  - (2) *During development and post-development.*
    - a. Any dogwood (*Cornus florida*) tree of four inches DBH or greater;
    - b. Any hardwood or long leaf pine tree of 12 inches DBH or greater;
    - c. Any tree of 18 inches DBH or greater;
    - d. Any tree four inches DBH or greater which is located in the lot perimeter zone of any development site except for sites being developed for detached single-family dwellings. The lot perimeter zone is the building set back or 20 feet, whichever is less;
    - e. Any patriarch tree;
    - f. Any tree within a canopy road tree protection zone;
    - g. Any tree in a wetland;
    - h. Any tree planted to meet the replanting, reforestation, or landscaping requirements of this chapter;
    - i. Any exceptional specimen trees, identified by the city urban forester, certified arborist or city environmental biologist.
- (e) *Removal of protected trees.* The preservation of protected trees shall be encouraged. An applicant shall be required to give priority to preserving the more enduring protected tree species, inclusive of current health, size and form. Within the Multi-Modal Transportation District top priority shall be given to preserving, protecting and developing around existing patriarch trees including providing double tree credits and debits pursuant to paragraph (i). Protected trees may be removed only in accordance with the debit criteria set forth in this section. However, even if an applicant can demonstrate compliance with the debit criteria, final determination of whether a protected tree shall be permitted for removal shall be made by the director. The decision of the director shall be based on balancing the preservation of the more enduring tree species, inclusive of current health, size, and form and the ability to develop a site at the intensity or density permitted by the comprehensive plan and the implementing land development regulations. In cases where the applicant chooses to appeal the director's decision, the environmental board shall have the authority to conduct appeal hearings related to the decision of protected tree removal.
- (1) *Criteria for protected tree removal.* The director shall approve a permit for removal of a protected tree if the applicant demonstrates the presence of one or more of the following conditions:

*Safety hazard.* Necessity to remove a tree which poses a safety hazard to pedestrians or other persons, buildings or other property, or vehicular traffic, or which threatens to cause disruption of public services. When a tree is removed for safety hazard reasons that were created as a result of development activity, debits shall accrue and an environmental permit shall be required. When a tree is removed for safety reasons not associated with development activity, an environmental permit shall not be required and debits shall not accrue in accordance with subsection 5-83(c)(4).

    - a. Disease or pest-infested trees. Necessity to remove a diseased or pest-infested tree to prevent the spread of disease or pests. Debits shall not accrue for trees deemed by the director to be diseased or pest infested.
    - b. Good forestry practices. Necessity to reduce competition between trees or to remove exotic species and replace them with native species.

- c. Reasonable and permissible use of property. Tree removal which is essential for reasonable and permissible use of property, or necessary for construction of essential improvements resulting from:
1. Need for access immediately around the proposed structure for essential construction equipment, limited to a maximum width of 20 feet from the structure.
  2. Limited access to the building site essential for reasonable use of construction equipment
  3. Essential grade changes. Essential grade changes are those changes needed to implement safety standards common to standard engineering or architectural practices, and reference to a text that includes such standards shall be included in the permit application.
  4. Location of driveways, buildings or other permanent improvements. Driveway aisles shall be consistent with other applicable standards.
  5. Compliance with other ordinances or codes. Necessity for compliance with other city or Leon County codes, such as building, zoning, subdivision regulations, health provisions, and other environmental ordinances.
- (f) *Reforestation requirements.* All sites, except for individual lots being developed with one single-family, duplex, or triplex, and residential subdivisions that do not exceed four dwelling units per acre shall provide, upon completion of development activities, a minimum number of trees equivalent to a ratio of 40 tree credits for each acre proposed for development; i.e., total tree preservation credits plus tree replanting credits shall be equal to or greater than 40 credits per acre proposed for development. If the total number of trees to be replanted exceeds that which may be reasonably planted on the development site, the applicant may enter into an agreement with the city, as approved by the director, to plant the excess trees on an approved public site or to provide the monetary equivalent to the city for use in public landscaping projects.
- (g) *Tree protection requirements.* It is the intent of this subsection to preserve the community's existing native tree canopy and vegetative understory. In order to maintain the integrity of existing trees, it is necessary to protect the root systems of individual trees that are contained within the critical protection zone (CPZ) from impacts associated with development activity. It is also the intent of this subsection to give priority to preserving the more enduring tree species, inclusive of current health, size and form. The following requirements shall apply:
- (1) *Critical protection zone preservation.* The critical protection zone of every protected tree not permitted for removal shall be protected from activities that may injure the tree, including, but not limited to, cut and fill activities, building pad placements, road bed construction, construction material storage, driving or parking heavy equipment, or trenching. Except as set forth in subsection (g)(6), if impact to the critical protection zone occurs, the tree shall be considered removed and shall require compensation in accordance with subsections (i) and (j).

*Critical protection zone.* That area surrounding a tree within a circle described by a radius of one foot for each inch of the tree's diameter at breast height.



### Critical Protection Zone (CPZ)

- (2) *Location of protected trees.* All protected trees on-site and adjacent to the site, if the critical protection zone extends to within the project site, shall be physically located and depicted on the site plan submitted as part of the environmental management permit application. On sites with dense vegetation or numerous trees, tagging and numbering of some protected trees shall be provided for on site orientation. Numbers should correspond to those shown on the site plan.
- (3) *Centerline of proposed roadways.* The centerline of proposed roadways and other improvements shall be physically tagged or flagged on-site, and shall include station designations corresponding to a proposed site plan.
- (4) *Tree protection barriers.* Tree protection barriers shall be installed at the perimeter of the critical protection zone (CPZ) of each protected tree prior to the initiation of development activity to prevent root and soil compaction, resulting from vehicular traffic, equipment storage or material stockpiling. The barriers shall remain in place until such time as approved landscape operations begin; however, barriers may be removed temporarily to accommodate construction needs, provided that the manner and purpose for such temporary removal is approved in advance by the director. The following are minimum requirements for barrier types:
  - a. Protective posts shall be placed so as to protect the critical protection zone (CPZ) for each tree not permitted for removal.
  - b. Posts shall be of nominal two inches by four inches or larger wooden post, two inches outer diameter or larger diameter pipe, or other post of equivalent size; shall be strung with at least one one-inch by four-inch (1" x 4") wooden stringer; and shall be clearly flagged.
  - c. Posts shall be implanted deep enough in the ground to be stable and to extend to a minimum height of four feet above the ground.
  - d. When the director determines that individual protective tree barriers are not needed in some areas for tree protection, such areas shall be staked and flagged with readily visible markers.
  - e. Where development activity is permitted to occur within the critical protection zone (CPZ) of a protected tree, the director may allow the temporary removal of the tree protection barriers and shall require protective girdling of at least the bottom four feet of the trunk to avoid bruising or scraping of the trunk base, along with fencing or other approved techniques.
  - f. All grading for drainage occurring within the CPZ of the trees shall be done by hand or as directed on-site by the permittee's certified arborist.
- (5) *Tree protection techniques.* Tree protection techniques found in the "Trees and Development, A Technical Guide to Preservation of Trees During Land Development," by Nelda Matheny and James R. Clark or equivalent techniques approved by the director, shall be used and shall be indicated in the environmental management permit application or site plan.
- (6) *Tree mitigation techniques.* It is the intent of this subsection to preserve mature trees and to promote tree safety. As an incentive to preserve existing trees, when the following arboricultural mitigation techniques are employed in their entirety, the director may defer the tree replacement requirements. No credit will be given and no debits will be charged for successfully mitigated trees. Additional arboricultural mitigation techniques not specified below may be approved when supported with scientific documentation. Documentation supporting proposed mitigation measures shall be submitted with the application for an environmental management permit. The information shall be reviewed and approved by the director in consultation with a certified arborist. The mitigation plan shall be prepared and administered by the permittee's registered landscape architect or certified arborist. Documentation detailing the mitigation efforts prepared by the landscape architect or certified arborist shall be included in the landscaping and urban forest compliance report prepared in accordance with section 5-64, by the permittee's

landscape professional seven days prior to requesting a final environmental inspection. Reconciliation of the deferred tree replacement requirements shall occur at time of submittal of the compliance report in accordance with subsection (j). If the arboricultural mitigation techniques are deemed sufficient by the director, the deferred tree replacement requirements shall be waived. The arboricultural mitigation techniques shall include, but not necessarily be limited to, the following:

- a. *Site monitoring.* All tree protection procedures and activities shall be monitored and approved throughout the construction period by a registered landscape architect or certified arborist. Pesticide applications require a state commercial applicators license. Proof of application shall be available upon request to the city's environmental inspector.
- b. *Watering.* All protected trees shall be watered by mechanical irrigation at a minimum rate equivalent to one inch of rainfall per week. Rate shall be dependent upon soil type. For trees that require root pruning, watering shall commence as far in advance as possible, prior to development activity, and shall continue through the completion of the project. Watering shall be adjusted as required by weather conditions. Care shall be taken to prevent water from soaking the base of trees and root collars. Soaker hoses are an acceptable method of irrigation during construction. Installed mechanical irrigation shall be on grade or placed parallel to the radial roots of the tree so as not to damage the trees root system.
- c. *Mulching.* Mulching shall be used throughout the project within the critical protection zone (CPZ) of protected trees to the greatest extent possible. Where construction machinery or vehicular traffic has to pass within the critical protection zone (CPZ), a layer of four to six inches of organic mulch shall be placed within the drive areas within the critical protection zone (CPZ). Additionally a minimum of 5/8 -inch plywood shall be placed over the mulch material positioned where vehicular traffic is proposed. Where possible, within the limits of the project, all critical protection zones (CPZs) of protected and desirable trees should be covered with a two- to three-inch layer of organic mulch or ground cover, as opposed to the placement of sod.
- d. *Root pruning.* Root pruning shall occur as far in advance as possible prior to site grading, earthwork, excavation or any other activity which may damage the roots of a tree proposed for mitigation, in all areas where demolition or new construction requires removal of existing roots (i.e. excavation/construction of footings, retaining walls, curbs, paving and base). Roots shall be cut with a mechanical trenching device to a minimum depth of 18 inches. Where possible, all trenching within the critical protection zone (CPZ) shall be done by hand or an air spade and followed immediately by a clean-cut hand pruning of all roots greater than ¾-inch diameter. Where it is not possible to hand trench, mechanical trenching may be approved by the city's environmental inspector. All pruned/cut roots shall be covered as soon as possible with topsoil, mulch, or other organic medium. Any root-pruning areas that cannot be protected by immediate backfill replacement shall be covered with burlap and wetted to retard soil/root dehydration. The cutting of all major support roots or roots greater than six inches diameter or within ten feet of the trunk collar, shall be reviewed in the field by the city's environmental inspector or a certified arborist. This inspection shall determine if a tree designated to remain, may have to be removed due to the size of the cut and the possibility of the tree becoming a future liability.
- e. *Fertilization.* Prescribed fertilization, if indicated through soil analysis, shall occur as far in advance of root pruning as possible (six to twelve months is most desirable). Commercial fertilizer applications shall be in accordance with the requirements of the chapter 9, article V, of the Code of General Ordinances regarding fertilizer use, and performed by an individual holding a city approved best management practice training certificate.
- f. *Soil aeration.* Where soil compaction has occurred within the critical protection zone (CPZ) of protected and desirable trees on site, an aeration method, approved by a certified arborist shall be required. The soil aerating method used shall be applied to a depth no less than eight to ten inches, below original grade and spaced no greater than 24 inches,

- g. *Pruning.* Pruning and crown clearing shall be performed by a certified arborist in accordance with the currently adopted ANSI A300 Standards. Pruning and crown cleaning shall consist of the removal of all dead and diseased limbs as well as heavy concentrations of moss and vines that compete with crown foliage. Branch collar cuts over eight inch diameter should be avoided but may be allowed to raise limbs in order to accommodate construction traffic, equipment and structures, as advised by a certified arborist.
- (h) *Underbrushing.* No removal of understory vegetation (underbrushing) shall be allowed within a conservation or preservation area. Exceptions to this may be allowed, provided the applicant demonstrates to the satisfaction of the director that underbrushing will provide an ecological benefit to the conservation or preservation area or can demonstrate that such a dangerous condition exists which poses an imminent hazard so as to endanger the public health, welfare or safety. The director may approve a permit for underbrushing a site that contains conservation or preservation areas, provided that a Natural Features Inventory has been performed and the following requirements have been met:
  - (1) *Vegetation management plan.* A management plan outlining the proposed activity shall be submitted with the environmental management permit application. The project narrative shall include a description of the operation, size of parcel to be underbrushed, mechanical methods of underbrushing, and description of best management practices (BMPs) used to control stormwater.
  - (2) *Site plan.* The application shall include a site plan depicting property boundary lines, conservation or preservation areas on or adjacent to the site, access roads, areas requiring best management practices (BMP), and location of underbrushing activity.
- (i) *Credit for tree preservation.* Credit may be given for the preservation of an existing tree provided that the following criteria are met:
  - (1) The critical protection zone of each preserved tree shall be protected during development activities and maintained during and after development in a natural state, in a vegetative landscape material covering;
  - (2) There shall be no impervious area or grade change within the critical protection zone of the tree. The critical protection zone is defined as that area surrounding a tree within a circle described by a radius of one foot for each inch of the tree's diameter at breast height;
  - (3) The tree shall not be damaged from skinning, barking, bumping and the like;
  - (4) There shall be no evidence of active disease or insect infestation potentially lethal to the tree;
  - (5) Trees within urban forest areas are preserved pursuant to subsection 5-85(d);
  - (6) Hand clearing shall be required when necessary to remove debris, noxious or invasive vegetation;
  - (7) Tree protection requirements of this chapter are fulfilled;
  - (8) Tree debit and tree credit are used to represent the taking or the preservation of a two-inch diameter at breast height tree or larger. Credit for preserved trees shall be tabulated as follows:
    - a. *Tree credit calculations.* Calculate the number of credits for protected trees (trees preserved) by selecting the proper category in which the specific species is found. The size (DBH) within its category shall correspond to the number of credits within the credit column, (see chart below). Tree trunk diameter measurements shall be rounded off to the

nearest inch. Note: Trees listed by the Florida Exotic Pest Plant Council in either the Class I or Class II list of invasive species shall not be included in any tabulation of debits or credits. Debits and credits for tree species, not listed in this chapter, will be determined by the director of growth management. Credits and debits for trees listed by scientific name supersede listings by genus found in the tables, i.e., *Acer rubrum* is credited and debited on plant list A instead of under *Acer* in plant list B. A debit/credit worksheet is included as Attachment #1.

Diameter of Tree	Credits*	Credits*	Credits*	Credits*
Preserved (inches DBH)	Category A	Category B	Category C	Category D
2—3	1	3	5	6
4—6	2	5	6	8
7—12	3	6	8	16
13—18	5	8	10	19
19—24	6	10	11	22
25—30	8	16	24	
31—36	13	21	29	
37—42	16	24	32	
43—48	19	27	35	
49—60	22	30	38	
60—70	32	40	48	
70—80	40	50	60	
>80	50	62	75	

\* Within the Multi-Modal Transportation District credits shall be doubled for patriarch trees and credits shall be given for planted street trees according to their placement within the existing planting lists.

(j) *Tree replanting requirements.* The removal of any protected tree shall comply with the following requirements:

- (1) *Replanting plan.* A plan shall be presented by the applicant based on the tree debits and reforestation requirements of this section.
- (2) *Off-site replanting.* If the total number of trees to be replanted exceeds that which may be reasonably planted on the development site, the applicant may enter into an agreement with the city, as approved by the director, to plant the excess trees on an approved public site or to provide the monetary equivalent to the city for use in public landscaping projects. This option can only be utilized if the minimum reforestation requirements of subsection (f) are met on site.
- (3) *Replacement of tree for which credit was given.* If any tree for which credit was given under this section is not alive and growing after all associated development activity on the property is completed, it shall be removed and replaced with trees that originally would have been required to be planted.
- (4) *Tree removal without a permit.* If protected trees are removed without a permit or otherwise in violation of this chapter, the number of replacement trees shall be up to three times the amount which would have been required for removal for the first offense and five times for every offense thereafter and the applicant shall be charged twice the normal application fee for tree removal.
- (5) *Tree replacement.* Removal of protected trees shall require compensation. Tree compensation shall be determined using tree debits and tree credits. Tree debits and tree credits are terms used to represent the taking or the preservation of a two-inch diameter at breast height (DBH) tree or larger. Tree replacement (debts) shall be tabulated on species type and categorized as per their designated values as follows:

- a. *Tree debit calculations.* Calculate the number of debits (required replants) for protected trees proposed for removal by selecting the proper category in which the specific species is found. The size (DBH) within its category shall correspond to the number of debits within the debit column, (see chart below). Tree trunk diameter measurements shall be rounded off to the nearest inch. (Note: trees listed by the Florida Exotic Pest Plant Council in either the Class I or Class II list of invasive species shall not be included in any tabulation of debits or credits). Debts and credits for tree species, not listed in the this chapter, will be determined by the director of growth management.

Credits and debits for trees listed by scientific name supersede listings by genus found in the tables, i.e., *Acer rubrum* is credited and debited on plant list A instead of under *Acer* in plant list B. A debit/credit worksheet is included as Attachment #1.

Diameter of Tree	Debits*	Debits*	Debits*	Debits*
Removed (inches DBH)	Category A	Category B	Category C	Category D
2—3	1	4	6	8
4—6	2	6	8	10
7—12	4	8	10	20



13—18	6	10	12	24
19—24	8	12	14	28
25—30	10	20	30	
31—36	16	26	36	
37—42	20	30	40	
43—48	24	34	44	
49—60	28	38	48	
60—70	40	50	60	
70—80	50	62	75	
>80	63	78	94	

\* Within the Multi-Modal Transportation District debits shall be doubled for patriarch trees.

- (k) *Plant list A*. Includes many native and selected non-native species, including species that rapidly colonize disturbed sites. These shall include the following:

PLANT LIST A

Common Name	Scientific Name
Sand pine	<i>Pinus clausa</i>
Shortleaf pine	<i>Pinus echinata</i>
Slash pine	<i>Pinus elliotii</i>
Loblolly pine	<i>Pinus taeda</i>
Red Maple	<i>Acer rubrum</i>
River birch	<i>Betula nigra</i>

Persimmon	<i>Diospyros virginiana</i>
Blueberry	<i>Vaccinium</i> spp.
Willow oak	<i>Quercus phellos</i>
Laurel oak	<i>Quercus hemisphaerica</i>
Water oak	<i>Quercus nigra</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sassafras	<i>Sassafras albidum</i>
Water-locust	<i>Gleditsia aquatica</i>
Honey-locust	<i>Gleditsia triacanthos</i>
Black-locust	<i>Robinia pseudoacacia</i>
Osage-orange; Bois D'arc	<i>Maclura pomifera</i>
Mulberry	<i>Morus</i> spp.
Sycamore	<i>Platanus occidentalis</i>
Southern crabapple	<i>Malus angustifolia</i>
Plum and Cherry	<i>Prunus</i> spp.
Willow	<i>Salix</i> spp.
Hackberry	<i>Celtis</i> spp.
Bradford Pear	<i>Pyrus calleryana</i>
Burford Holly	<i>Ilex cornuta</i> 'Burfordii'
Crepe Myrtle	<i>Lagerstroemia indica</i>

Fosters Holly	Ilex x attenuata 'Fosteri'
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- (l) *Plant list B.* Qualitatively have similar characteristics as Category A, but are generally less common and more enduring. These shall include the following:

PLANT LIST B

Common Name	Scientific Name
Pond pine	Pinus serotina
Maple	Acer spp.
Hazel alder	Alnus serrulata
Catalpa	Catalpa bignonioides
Chinquapin	Castanea spp.
Bay	Persea spp.
Eastern cottonwood	Populus deltoides
Sawtooth Oak	Quercus acutissima
Elm (native and horticultural varieties)	Ulmus spp.

- (m) *Plant list C.* Desirable, long lived, more enduring species, native species that are unavailable commercially, includes more rare and uncommon species, many of these species are components of the unique native and natural communities found in Leon County and many are indicative of high quality successional and native forest types. These shall include the following:

PLANT LIST C

Common Name	Scientific Name
Eastern red cedar	Juniperus virginiana
Spruce pine	Pinus glabra

Longleaf pine	<i>Pinus palustris</i>
Cypress	<i>Taxodium</i> spp.
Winterberry	<i>Ilex verticillata</i>
Dahoon	<i>Ilex cassine</i>
Myrtle-leaved holly	<i>Ilex myrtifolia</i>
Possum-haw	<i>Ilex decidua</i>
Ironwood	<i>Carpinus caroliniana</i>
Buckwheat-tree	<i>Cliftonia monophylla</i>
Titi	<i>Cyrilla racemiflora</i>
Sourwood	<i>Oxydendron arboreum</i>
American beech	<i>Fagus grandifolia</i>
Oak	<i>Quercus</i> spp.
Black walnut	<i>Juglans nigra</i>
Hickory	<i>Carya</i> spp.
Tulip-tree; Yellow-poplar	<i>Liriodendron tulipifera</i>
Southern magnolia	<i>Magnolia grandiflora</i>
Sweetbay	<i>Magnolia virginiana</i>
Gum	<i>Nyssa</i> spp.
Ash	<i>Fraxinus</i> spp.
Carolina buckthorn	<i>Rhamnus caroliniana</i>

Wild-olive; Devilwood	Osmanthus americanus
Haw	Crataegus spp.
Swamp cottonwood	Populus heterophylla
Loblolly bay	Gordonia lasianthus
Basswood	Tilia americana
Water elm planer-tree	Planera aquatica

- (n) *Plant list D.* Includes midstory or understory native trees, which are generally uncommon or rare and may also, have desirable growth characteristics. Most have limited commercial availability; these trees generally do not exceed 12 DBH. These shall include the following:

PLANT LIST D

Common Name	Scientific Name
American holly	Ilex opaca
Devil's walking stick	Aralia spinosa
Eastern hophornbeam	Ostrya virginiana
Dogwood	Cornus spp.
Mountain-laurel	Kalmia latifolia
Witch-hazel	Hamamelis virginiana
Red buckeye	Aesculus pavia
Spicebush	Lindera benzoin
Redbud	Cercis canadensis
Magnolia (native)	Magnolia spp.

Fringe-tree	Chionanthus virginicus
Privet	Forestiera spp.
Downy serviceberry	Amelanchier arborea
Pinckneya/Fever-tree	Pinckneya bracteata
Buckthorn	Bumelia spp.
Silverbell	Halesia spp.
Horse-sugar	Symplocos tinctoria
Elm	Ulmus americana

- (o) *Tree debits and credits in proposed residential subdivisions.* When calculating tree debits and credits for residential subdivisions, debits shall be charged for all protected trees removed or impacted during construction of all infrastructure required for permitting the subdivision. Credits shall be given for all protected trees that will be preserved in the permitted subdivision, exclusive of the individual lots. Approved tree mitigation techniques, prepared by a certified arborist, or debits shall be required at the time of subdivision permitting, in accordance with subsection (g)(6), when the critical protection zone of any protected tree on the entire subdivision site is impacted. At the time of subdivision permitting, debits and credits shall not be applied to trees within the area proposed for individual lots, except protected trees impacted or removed for installation of the subdivision infrastructure. At the time of building permitting for an individual lot proposed for a single-family detached dwelling unit, tree debits shall only be charged if a tree that is greater than 36 inches is physically removed. Tree credits shall be given for trees preserved on the lot. An approved arboricultural mitigation, prepared by a certified arborist, may be required at the time of building permitting for an individual single-family dwelling unit if encroachment into the critical protection zone of any protected tree greater than 36 inches occurs. Prior to the issuance of a C.O. on an individual single-family dwelling unit, the preserved tree credits must be equal to or greater than the tree debits on the lot.
- (p) *Projects within or abutting future transportation corridors.* This paragraph applies to land within or abutting future transportation corridors designated on/in the future right-of-way needs map and the Tallahassee-Leon County Long Range Transportation Plan of the Tallahassee-Leon County Comprehensive Plan, as amended. Subsection 10-416(h) of this Code provides that green space credits and other incentives may be given to landowners who dedicate property determined by the city as necessary for corridor protection. Therefore, for the purpose of calculating tree debits and credits pursuant to subsections (i) and (j) of this section, the acreage of the parcel prior to dedication shall be used. This incentive, if applicable, shall be provided consistent with subsection 10-416(h).
- (q) *Multi-Modal Transportation District (MMTD) street trees.* Street trees are trees provided in the Multi-Modal Transportation District, as per chapter 10, article IV, division 4, along public rights-of-way that are appropriately sized, scaled and placed to accomplish the goals of buffering pedestrians from roadway traffic, adding and contributing to the natural landscape and green space, providing an

aesthetic view-scape from the buildings and roadway, providing shade to sidewalks and walkways to facilitate pedestrian usage, and complementing the scale of the development and its surroundings. Street trees are not intended to contribute to agricultural production or to provide a food source for species habitat as fruiting and masting species shall be avoided for most urban settings. Street trees may be used for credits in the establishment of the green space and landscaping requirements. As defined and identified herein street trees shall not be required to be part of conservation or preservation areas, but shall fulfill generally the objectives identified above furthering the tenets of the MMTD.

(Ord. No. 04-O-02, § 2, Exh. 1(§ 4.3), 3-31-2004; Ord. No. 06-O-07AA, § 2, 1-25-2006; Ord. No. 06-O-42AA, § 5, 7-12-2006; Ord. No. 10-O-16, § 3, 4-28-2010; Ord. No. 11-O-07AA, § 3, 4-27-2011; Ord. No. 11-O-12, § 1, 4-27-2011; Ord. No. 12-O-14AA, § 5, 5-23-2012; Ord. No. 13-O-13, § 4, 8-28-2013)

**Editor's note**— The attachment referred to in this section is not set out at length herein, but may be found on file in the offices of the city.

#### Sec. 5-84. - Silvicultural standards.

*Design criteria.* All silviculture operations shall be carried out in accordance with state approved best management practices for silviculture. All silviculture projects shall maintain buffers in a natural state where indicated below:

- (1) An undisturbed buffer of a minimum 25 feet in width around the entire perimeter of any wetland, water body, or water course located on or adjacent to the project site;
- (2) A buffer extending a minimum of 25 feet in width around the entire perimeter of the silviculture project site, except at necessary points of ingress and egress and except that marketable timber may be removed provided that selective logging techniques are used which will minimize understory destruction, and no ground disturbance occurs; and
- (3) A buffer of a minimum of 50 feet in width along perimeter areas of the site which adjoin any public road right-of-way, except at necessary points of ingress and egress, and except that marketable timber may be removed from the innermost 25 foot strip of buffer provided, selective logging techniques are used which will minimize understory destruction, and no ground disturbance occurs.

(Ord. No. 04-O-02, § 2, Exh. 1(§ 4.4), 3-31-2004)

#### Sec. 5-85. - Landscaping and urban forest standards.

- (a) *Applicability.* The following requirements and standards for urban forest and landscaping shall apply to all new development and redevelopment in the city except as specified in article V, this section, and section 10-281 affecting development within the Multi-Modal Transportation District (MMTD). The information shall be provided in the form of an urban forest and landscape plan submitted as part of the environmental management permit application, with the exception of any site located within the Bradfordville Study Area, which must meet the requirements of section 5-89 of this Code.
- (b) *Exemptions.* The following exemptions from the requirements of this section shall apply:
  - (1) *Residential and agricultural.* Individually-owned mobile homes, individual detached single-family dwelling units, one two-family dwelling unit, one triplex, one single-family attached building with no more than two units or bona fide agricultural uses shall be exempt from the urban forest and landscaping requirements of this section.

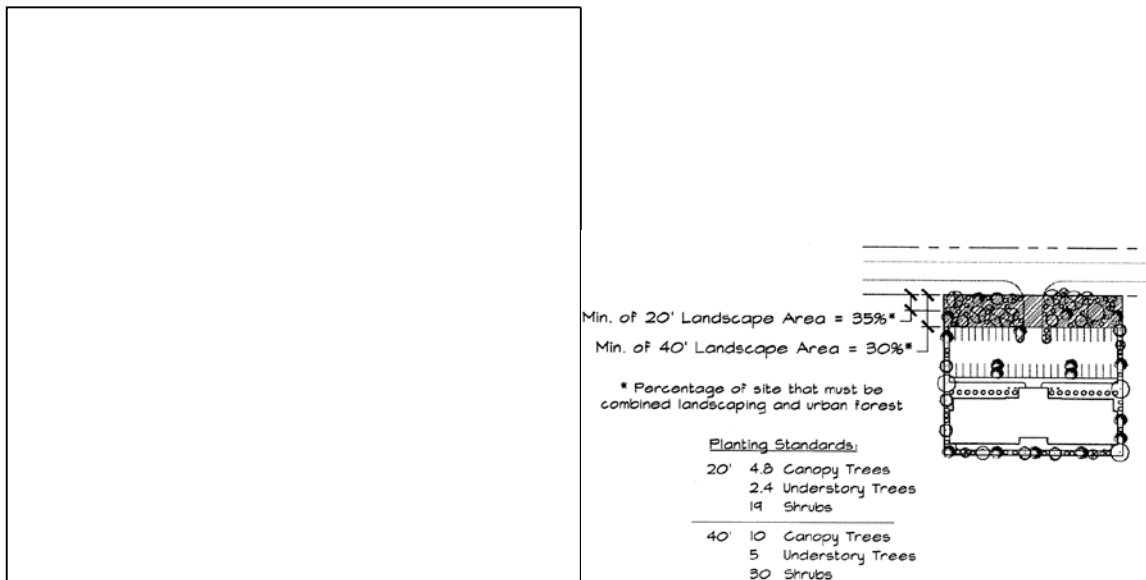
- (2) *Planned unit developments (PUDs) and urban planned unit developments (U-PUDs).* The specific landscaping and urban forest requirements set forth in this section shall not apply to PUDs or U-PUDs located in the MMTD provided the PUD/U-PUD is found consistent with the PUD/U-PUD requirements set forth in this code and the comprehensive plan by the planning commission and city commission. As part of a PUD/U-PUD application in the MMTD, the applicant shall propose a set of landscaping and urban forest standards unique to the PUD/U-PUD. The planning commission shall review the specific amount of landscaping and urban forest proposed by the applicant on a case-by-case basis for consistency with the Comprehensive Plan.
- (3) *Residential subdivisions.* Residential subdivisions with gross densities of four residential dwelling units per acre or less shall be exempt from the urban forest and landscaping requirements of the section. Residential subdivisions with gross densities greater than four residential dwelling units per acre shall meet the urban forest and landscaping requirements of this section. Such urban forest and landscaping areas shall be provided within common area(s), exclusive of that within individual lots. Residential units that meet the definition of inclusionary units as provided in section 9-241 and represent at least ten percent but not more than 15 percent of the total market rate units being developed shall be excluded from the residential density calculations for purposes of determining whether landscaping and urban forest shall be required.
- (4) *[Downtown Overlay and Multi-Modal Transportation District.]* Development within the Downtown Overlay and Multi-Modal Transportation District will adhere to the on-site green space requirements as stipulated in section 10-281. Where conflicts exist between section 10-281 and sections of chapter 5, the former shall take precedent over the latter.
- (5) *Public roadway projects.* All roadway construction and reconstruction projects undertaken by local and state government shall be exempt from the provisions of this section and section 5-83(f), except that arterial roadways shall conform to the visual screen requirements of subsection (m)(18) of this section.
- (c) *Certification.* The landscape development plan shall be prepared and submitted by a person qualified to prepare such a plan in accordance with chapter 481 Part II, Florida Statutes. In accordance with section 5-64, a landscaping and urban forest compliance report shall be submitted by the permittee's landscape professional a minimum of seven days prior to requesting a final environmental inspection. Changes in the permitted landscape development plan shall require a permit amendment, prepared by the permittee's landscape professional in accordance with subsection 5-56(e).
- (d) *Minimum urban forest and landscape area requirements.*
  - (1) *Non-vested sites.* Urban forest and landscaping combined shall not be less than 40 percent of the total area of the site unless the front perimeter incentives set forth in subsection (e) are utilized to reduce the requirement to 35 percent or 30 percent. In no case, can combined urban forest and landscaping be less than 30 percent of the total area of the site.
    - a. Urban forest shall not be less than ten percent of the total site.
    - b. Landscaping shall not be less than five percent of the total site.Stormwater management facilities may be counted towards landscaping requirements as specified in subsection 5-86(f)(9).
  - (2) *Vested sites.* Urban forest and landscaping combined shall not be less than 25 percent of the total area of the site. The front perimeter incentives set forth in subsection (e) cannot be utilized for vested sites.
    - a. Urban forest shall not be less than ten percent of the total site.
    - b. Landscaping shall not be less than five percent of the total site.



- (3) *Projects within or abutting future transportation corridors.* This paragraph applies to land within or abutting future transportation corridors designated on/in the future right-of-way needs map and the Tallahassee-Leon County Long Range Transportation Plan of the Tallahassee-Leon County Comprehensive Plan, as amended. Subsection 10-416(h) of this Code provides that green space credits and other incentives may be given to landowners who dedicate property determined by the city as necessary for corridor protection. Therefore, for the purpose of calculating ten percent urban forest and 40 percent combined landscaping/urban forest requirements pursuant to section 5-85 of this chapter, the acreage of the parcel prior to dedication shall be used. If land to be dedicated includes urban forest that will be removed in the future, the developer may replant urban forest elsewhere on the site. In the event that right-of-way needs restrict the parcel to the point that staff determines economic use of the land is significantly reduced by the ten percent urban forest requirement, the director may provide a functional waiver of this requirement, and the terms of such waiver shall be included in the written agreement required by subsection 10-416(h) of this Code. This incentive, if applicable, shall be provided consistent with subsection 10-416(h).
- (4) *[Multi-Modal Transportation District.]* Within the MMTD, development shall satisfy the requirements for minimum urban forest and landscape area by meeting the following:
- a. *Providing adequate landscaping in either paragraph (a) or (b) for open space.* Development may install an equivalent amount of landscaping material on public property—parks, medians, planting strips, etc.—located within the MMTD, using guidelines below, as provided for in a landscaping plan reviewed and approved by the growth management director:
    - i. *Specific to Zone T3.*
      - 1. Pervious surface (green space) requirement: 40 percent.
      - 2. Urban forest requirement: Ten percent.
    - ii. *Specific to Zones T4 and T5.*
      - 1. Pervious surface (green space) requirement: 20 percent.
      - 2. Urban forest requirement: Zero percent.
    - iii. *Specific to Downtown Overlay.*
      - 1. Pervious surface (green space) requirement: Ten percent.
        - a) Newly created public plazas shall receive double percentage credit for the purposes of pervious green space.
      - 2. Urban forest requirement: Zero percent.
  - b. *Adhering to a fee in-lieu option that shall allow the reduction of on-site green space (urban forest, landscaping, and pervious surface) required in chapter 5.* In lieu of providing the on-site green space, a fee shall be collected as set forth below, for each square foot reduction below the requirement in subsection (4)a. above, not to exceed the established minimums below. Existing on-site impervious surface will be acknowledged and exempted from the fee in-lieu calculations.
    - i. *Zone T3 and T4:* The fee in-lieu shall equal the assessed value of the mitigated portion of the development site at the time of permit application multiplied by 1.18.
      - a) For T3, the minimum green space with fee in lieu: 20 percent.
      - b) For T4, the minimum green space with fee in lieu: Ten percent.

With the exception of driveways, development in first layer of Transect T3 (as identified in 10-285, Tables 10A and 12) shall not be paved.

- ii. *Zone T5 and Downtown Overlay:* The fee in-lieu shall equal the assessed value of the mitigated portion of the development site at the time of permit application multiplied by 1.18.
    - a) For T5, the minimum green space with fee in lieu: Ten percent.
    - b) For Downtown Overlay, the minimum green space with fee in lieu is: Five percent.
  - iii. The collected fees shall be deposited in the city's tree bank fund for future plantings or maintenance of existing resources within the MMTD.
  - iv. The square foot area of provided street trees shall count towards on-site green space requirements.
- (e) *Front perimeter incentive.* If the applicant preserves an existing urban forest area or establishes a new urban forest and landscaping area along the front and front-corner of a site, then the combined urban forest and landscaping area shall be reduced as set forth below. In no case shall the minimum requirements of ten percent urban forest and five percent landscaping be reduced.
- (1) If a minimum 20-foot wide area is preserved or established along the front of site (between the front property line and any vehicular use area), the combined landscaping and urban forest area shall be reduced to a minimum of 35 percent.
  - (2) If a minimum 40-foot wide area is preserved or established along the front of a site (between the front property line and any vehicular use area), the combined landscaping and urban forest area shall be reduced to a minimum of 30 percent.
  - (3) Establishment of these areas shall conform with the planting standards set forth in subsection (l) of this section.

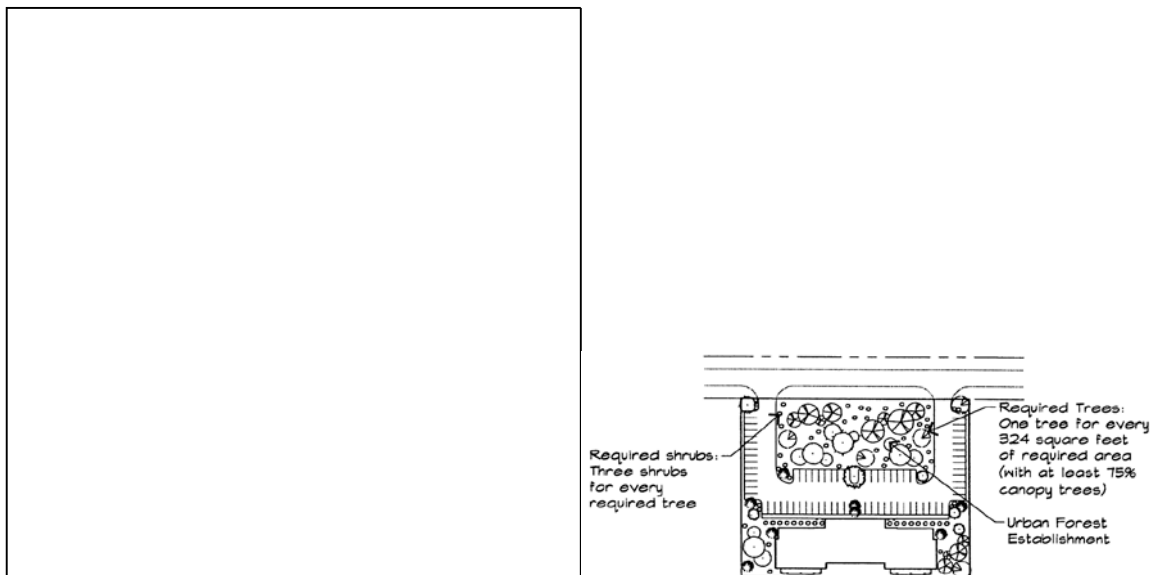


- (f) *Urban forest mitigation requirements.* Sites meeting criteria(1), (2), or (3) below shall mitigate all or part of the ten percent urban forest requirements. For sites meeting criteria (4) below, the method of mitigation is optional. A mitigation plan detailing the method of mitigation proposed, shall be submitted to the director for approval. Sites that mitigate the ten percent urban forest requirement by payment of a fee into the city's off-site mitigation trust fund or dedication of the applicable land to the city's greenways program must devote a minimum of 30 percent of the overall site area to landscaping. Sites that mitigate all or a portion of the ten percent urban forest requirement by re-establishing urban forest shall devote 30 percent of the total area of the site to landscaping plus the percentage of urban forest being re-established. In addition to urban forest mitigation requirements, tree debits and credits shall be reconciled and tree replacement, off-site replanting, and/or the

monetary equivalent of tree replanting shall be required in accordance with subsections 5-83(j)(1) and (2).

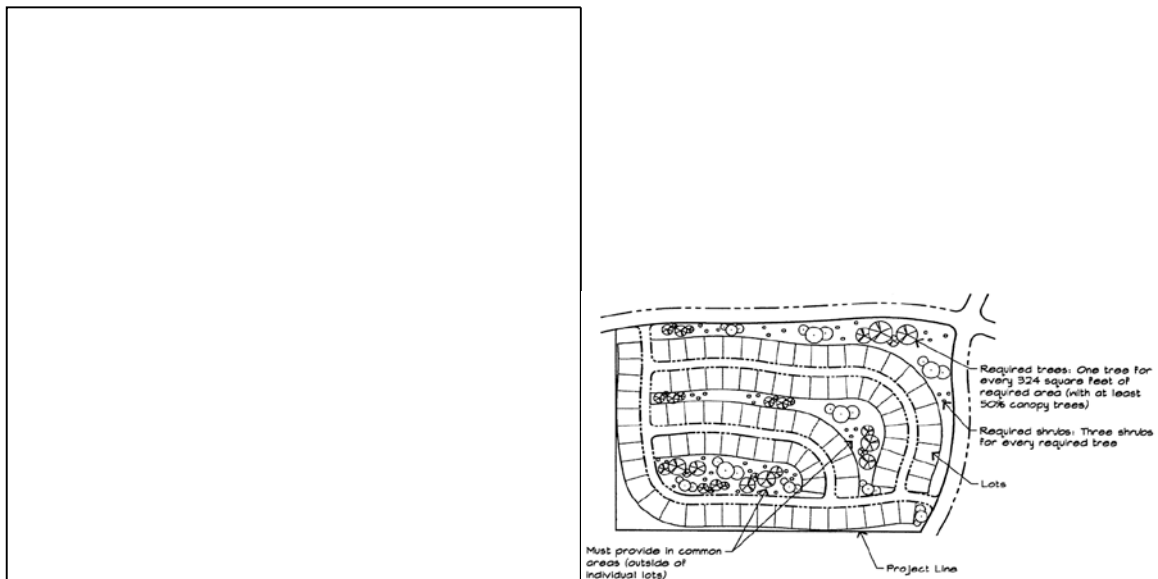
- (1) If the site is devoid of urban forest, then:
  - a. Urban forest shall be re-established in the amount necessary to achieve the ten percent minimum urban forest requirement and the re-established urban forest shall conform to the planting standards set forth in subsection (i) of this section, or
  - b. Payment of a fee into the city's off-site mitigation trust fund in an amount equivalent to 1.18 times the assessed value of the mitigated portion of the development site for the intended land use at the time of permit application, or
  - c. If an applicant owns property designated as greenways, dedication of the applicable land to the city's greenways program in an amount equivalent to 1.18 times the assessed value of the mitigated portion of the development site for the intended land use at the time of permit approval.
- (2) If the existing urban forest comprises less than ten percent of the total area of the site, then:
  - a. The portion of urban forest that is deficient shall be established so that the total of the newly established and the existing urban forest comprise ten percent of the total site. The newly created urban forest shall conform to the planting standards set forth in subsection (i) of this section, or
  - b. Payment of a fee into the city's off-site mitigation trust fund in an amount equivalent to 1.18 times the assessed value of the mitigated portion of the development site for the intended land use at the time of permit application, or
  - c. If an applicant owns property designated as greenways, dedication of the applicable land to the city's greenways program in an amount equivalent to 1.18 times the assessed value of the mitigated portion of the development site for the intended land use at the time of permit approval.
- (3) If urban forest exists on site and the applicant demonstrates to the satisfaction of the director that there is no reasonable alternative to removing the forest, then a minimum of ten percent urban forest shall be re-established, and shall conform to the planting standards set forth in subsection (i) of this section.
- (4) Site is one acre or less in size at the time of adoption of this amended chapter.
- (g) *Environmentally sensitive land features and greenways.* On-site environmentally sensitive land features that meet the definition of urban forest and are placed in conservation easements or on-site greenways that are placed in greenways easements may be used toward satisfying the minimum urban forest requirements of this section.
- (h) *Urban forest management.* An urban forest management plan shall be required for all urban forest areas. It is the intent of this subsection to allow selective management of urban forest areas for the purpose of integrating the existing urban forest into the overall landscape design and to minimize safety hazards. The urban forest management plan shall include at a minimum the following:
  - (1) Goals and intent of the management plan;
  - (2) Specific details depicted on the site plan shall correspond to the management plan;
  - (3) Techniques for removing and plans for control of invasive or noxious vegetation;
  - (4) Provisions for selective view trimming or underbrushing selective vegetation;
  - (5) Removal of dead and hazardous trees or limbs;
  - (6) Provision for supplemental planting, if additional plantings are desired;
  - (7) Provisions for pruning vegetation when pruning adds value, increases the beauty, health, or safety of the tree;

- (8) Fertilizing or pest control provisions;
  - (9) Provisions for mulching which shall not exceed three inches;
  - (10) Provisions for wildlife; and
  - (11) A statement that mechanical methods which compact the earth or impair root systems are prohibited.
- (i) *Urban forest establishment and enhancement criteria.* It is the intent of this subsection to provide criteria for the establishment of a sustainable urban forest, when the urban forest on site comprises less than ten percent of the total area of the site and when the applicant demonstrates to the satisfaction of the director that there is no reasonable alternative to removing the urban forest. The following criteria shall apply to all established and enhanced urban forest areas:
- (1) *Urban forest management plan.* Plant materials selected for the urban forest shall be consistent with the goals and intent of the urban forest management plan in subsection 5-83(h).
  - (2) *Planting material.* All planting material shall conform to the standards set forth in subsection (m) of this section.
  - (3) *Trees.* The total tree requirement within the established urban forest area shall be determined using a ratio of one tree for every 324 square feet of required area or major portion thereof, with no less than 75 percent of said trees being canopy trees. Understory and ornamental trees may be utilized in the remaining 25 percent. This provision is not intended to require trees to be equally spaced.
  - (4) *Shrubs.* The total shrub requirement within the established urban forest area shall be determined using a ratio of three shrubs for every tree planted.
  - (5) *Diversity.* In order to promote a stable urban forest, a minimum of five species of trees and five species of shrubs shall be utilized. In order to create the desired diversity, equivalent numbers of the species selected for planting shall be utilized. Where an applicant can demonstrate to the satisfaction of the director that an alternative will exceed the objectives of this section, strict application of this specific requirement may be modified.



- (j) *Residential subdivisions landscape area requirements.* It is the intent of this subsection to provide landscaping within common areas as opposed to landscaping on individual lots for residential subdivisions with gross densities greater than four residential dwelling units per acre. The following standards shall apply:

- (1) *Common areas.* Urban forest and landscaping areas shall be provided within common area(s), exclusive of that within individual lots.
- (2) *Trees.* The total tree requirement within the landscape area shall be determined using a ratio of one tree for every 324 square feet of required area or major portion thereof, with no less than 50 percent of said trees being canopy trees. Understory and ornamental trees may be utilized in the remaining 50 percent. This provision is not intended to require trees to be equally spaced. A list of recommended plant materials shall be provided by the city, growth management department.
- (3) *Shrubs.* The total shrub requirement within the established landscape area shall be determined using a ratio of three shrubs for every tree planted as per (j)(2) above.
- (4) *Street trees.* When street trees are used, they shall be of the type which is appropriate for the proposed locations so as to avoid conflicts with utilities and vehicular sight distance. Within the MMTD street trees shall be provided along all public rights-of-way or first layer of developments in accordance with the siting and recommended tree species in sections 10-283.3 and 10-285, Tables 3, 4, 10A, 10B, and 12.
- (5) *Diversity.* A minimum of three species of trees and three species of shrubs shall be utilized. In order to create the desired diversity, equivalent numbers of the species selected for planting shall be utilized. Where an applicant can demonstrate to the satisfaction of the director, that an alternative will exceed the objectives of this section strict application of this specific requirement may be waived.
- (6) *Planting material.* All planting material shall conform to the standards set forth in subsection (m) of this section.



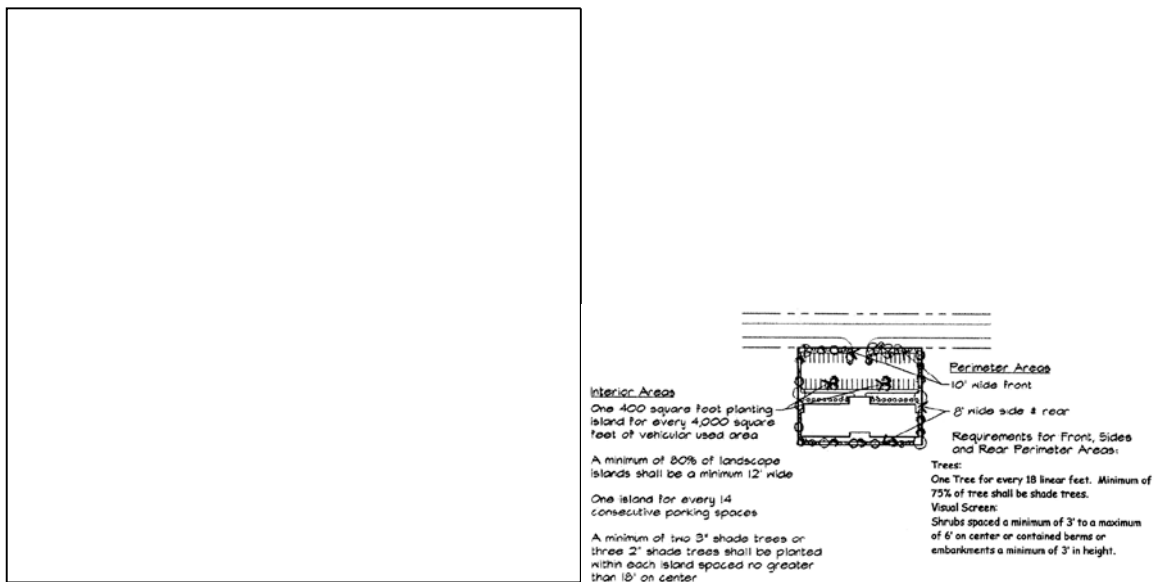
- (k) *Landscape requirements for vehicular use areas.* It is the intent of this subsection to promote vehicular and pedestrian safety; to limit physical site access to established points of ingress and egress; to delineate and buffer the bounds of abutting vehicular use areas so that distractions of movement, noise and glare from one area do not adversely affect the activity in another area; to break up large expanses of pavement and to reduce the heat sink effect within the vehicular use areas of a site. The following requirements shall apply to all vehicular use areas and off-street parking facilities:

- (1) *Perimeter landscaping requirements.* A ten-foot-wide landscape area, exclusive of impervious area, shall be provided between the front property line and the vehicular use area and an eight-foot wide landscape area, exclusive of impervious area shall be provided between the side and rear property lines and the vehicular use area. These landscape areas shall be located adjacent

to the vehicular use area. These landscape areas requirements shall not apply to shared vehicular access areas or to the portion of the perimeter areas where physical interconnections exist.

- (2) *Joint use.* When perimeter landscape areas are required on adjacent properties, the owners of such adjacent properties may agree to the installation of only one such landscape area on the adjacent boundary, as long as such agreement is binding on both property owners and their successors in interest and is approved as part of the permit application by the director.
- (3) *Tree count.* The total tree requirement within perimeter landscape areas shall be determined by using a ratio of one tree for each 18 linear feet of required landscape perimeter area, or major portion thereof, with no less than 75 percent of said trees being shade trees. Creative design and spacing is encouraged.
- (4) *Visual screen.* A visual screen is required within perimeter landscape areas, running the entire length of such areas excluding areas of ingress or egress. The visual screen may be provided using:
  - a. *Shrubs.* Shrubs shall be spaced a minimum of three feet to a maximum of six feet on center dependent on the inherent growth of the species. Creative design and spacing is encouraged.
  - b. *Contoured berms or embankments.* Contoured berms or embankments shall be a minimum of three feet in height and landscaped appropriately.
  - c. *Structural.* Exterior knee walls, decorative fencing, or preserved structural faces acceptable to the city may be used for screening purposes.
- (5) *Utility conflicts.* Where overhead utilities conflict with proposed plantings, tree placement shall be determined using a ratio of one tree for each 15 linear feet within the affected portion of the perimeter landscape area. Where conflicts with underground utilities exist, tree replacement shall be a minimum of ten feet from the underground utility and a root barrier shall be installed.
- (6) *Clear sight triangle standards.* A clear sight triangle shall be provided at all points where an accessway intersects the right-of-way easement line of any street and where the right-of-way or easement lines of any two streets intersect. The area within the sight triangle shall be maintained as follows:
  - a. *Clear sight triangle.* An unobstructed cross-visibility between two and ten feet above the level of the center line of the public right-of-way shall be maintained within the sight triangle.
  - b. *Trees.* Trees having limbs and foliage trimmed so that the cross-visibility within the sight triangle is not obscured shall be allowed to overhang the sight triangle, provided the location of any tree does not create a traffic hazard.
- (7) *Landscape island requirements within vehicular use areas.* The following requirements shall apply:
  - a. One 400 square foot planting island shall be required for every 4,000 square feet of vehicular use area, or major portion thereof. Islands larger than 400 square feet shall be counted as multiple islands based upon achieving the 400 square foot ratio per island. For example, an island of at least 800 square feet shall count as two islands, while an island of 750 square feet shall count as one, and
  - b. A minimum of 80 percent of each landscape island shall be no less than 12 feet in width, exclusive of impervious area, and
  - c. For every 14 consecutive parking spaces, one 400 square foot planting island shall be required, and
  - d. For every 14 consecutive nose to nose parking spaces, a linear landscape island shall be required between the nose to nose parking spaces, and

- e. Whenever linear landscape islands at least 50 feet long having shade trees spaced no closer than 15 feet on center and no greater than 18 feet on center are used, the minimum width may be reduced to eight feet exclusive of impervious area, and
  - f. Perimeter landscape areas shall not count as landscape islands.
  - g. Tree count. A minimum of two three-inch or three two-inch, caliper shade trees together with other landscape material shall be planted within each planting island and shall be spaced no closer than 15 feet on center and no greater than 18 feet on center.
  - h. While the definition of vehicular use area in section 5-12 includes those portions of vehicular uses located under, on, or within buildings, these areas shall not be required to be included in the calculation of vehicular use area for purposes of determining the minimum number of interior landscape islands.
- (8) *Landscape functional waiver.* When an applicant demonstrates to the satisfaction of the director that strict application of this subsection will interfere with the function of vehicular use areas, the director may permit relocation of required landscape areas or other substitutions, which will improve functioning provided that the intent of this subsection is met by such modifications.



- (9) *Projects within or abutting future transportation corridors.* This paragraph applies to land within or abutting future transportation corridors designated on/in the future right-of-way needs map and the Tallahassee-Leon County Long Range Transportation Plan of the Tallahassee-Leon County Comprehensive Plan, as amended. Subsection 10-416(h) of this Code provides that green space credits and other incentives may be given to landowners who dedicate property determined by the city as necessary for corridor protection. Therefore, while it is not the intent of this provision to reduce perimeter buffers designed to ensure compatibility of proposed development with adjacent uses, in the event that right-of-way needs restrict the parcel to the point that staff determines economic use of the land is significantly reduced by the perimeter buffer requirements, the director may provide a functional waiver of this requirement, and the terms of such waiver shall be included in the written agreement required by subsection 10-416(h) of this Code. This incentive, if applicable, shall be provided consistent with subsection 10-416(h).
- (I) *Land use buffer standards.* The following buffer standards are intended to implement the provisions found in the adopted land use development matrix in the Land Development Code. Should there be a conflict between the provisions of this chapter and those of other regulations, the most restrictive or that imposing the higher standard shall govern. Within the MMTD, buffer zones to address

compatibility between uses shall be governed by sections 10-284.3, 10-282.5 and 10-285 Table 11; all development within the MMTD shall adhere to the buffer requirements therein. The following buffer standards shall be applicable to all new development, redevelopment, or changes of use which create the land use conflicts identified in the Land Development Code, section 10-177, buffer zones:

- (1) A minimum of 75 percent of all required plant material shall consist of evergreen species.
- (2) All landscape material shall be placed so as to maximize its screening potential.
- (3) All shrub material shall be a minimum height of 30 inches and have a minimum crown width of 24 inches when planted and shall be a species capable of achieving a minimum height of eight feet at maturity.
- (4) Forty percent of the total number of individual plants required for each category, canopy tree, understory tree and shrub, shall be native species. A list of recommended plant materials shall be provided by the city growth management department.
- (5) *Planting schedule.* The following planting schedule specifies the number of plants required per 100 linear feet for the zoning buffers specified in the Land Development Code, Buffer Standards. The minimum size of plant material at the time of planting shall be consistent with the requirements of this subsection and subsection (m).
- (6) The use of the existing vegetation in buffer zones is preferred. However, the proposed use of existing vegetation shall be reviewed by growth management staff to determine its quality and extent.
- (7) All proposed plant materials may be equally spaced in a staggered formation along the length of the required landscape buffer, or placed as to create a 100 percent opacity at plant material maturity.

#### Land Use Buffer Areas—Planting Schedule

Zone Width	Landscape Standard "A"	Landscape Standard "B"	Landscape Standard "C"	Landscape Standard "D"
0—10'	(2.4) C.T. (.8) U.T. (8) S.	(5) C.T. (2) U.T. (20) S.		
15'	(1.8) C.T. (.6) U.T. (6) S.	(4.5) C.T. (1.8) U.T. (18) S.		
20'	(1.2) C.T. (.4) U.T. (4) S.	(4) C.T. (1.6) U.T. (16) S.	(6.6) C.T. (3.3) U.T. (28) S. * buffer fence	
25'		(3.5) C.T. (1.4) U.T. (14) S.	(6) C.T. (3) U.T. (24) S. * buffer fence	

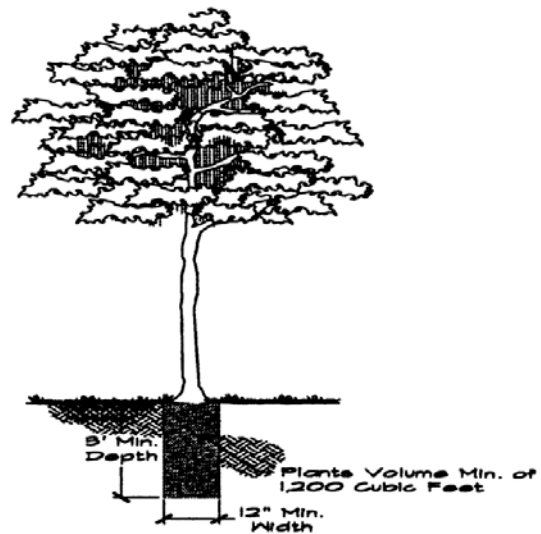
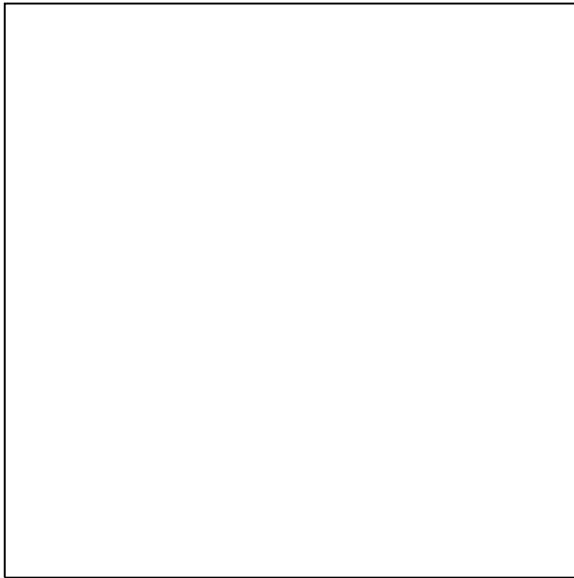


30'			(5.4) C.T. (2.7) U.T. (22) S.* buffer fence	(12) C.T. (6) U.T. (36) S.* buffer fence
35'			(4.8) C.T. (2.4) U.T. (19) S.* buffer fence	
40'				(10) C.T. (5) U.T. (30) S.
50'				(9) C.T. (4.5) U.T. (27) S.
60'				(8) C.T. (4) U.T. (24) S.
<p>*Buffer fence is required as part of the landscaping. CT-Canopy Tree; UT-Understory Tree; S-Shrub</p>				

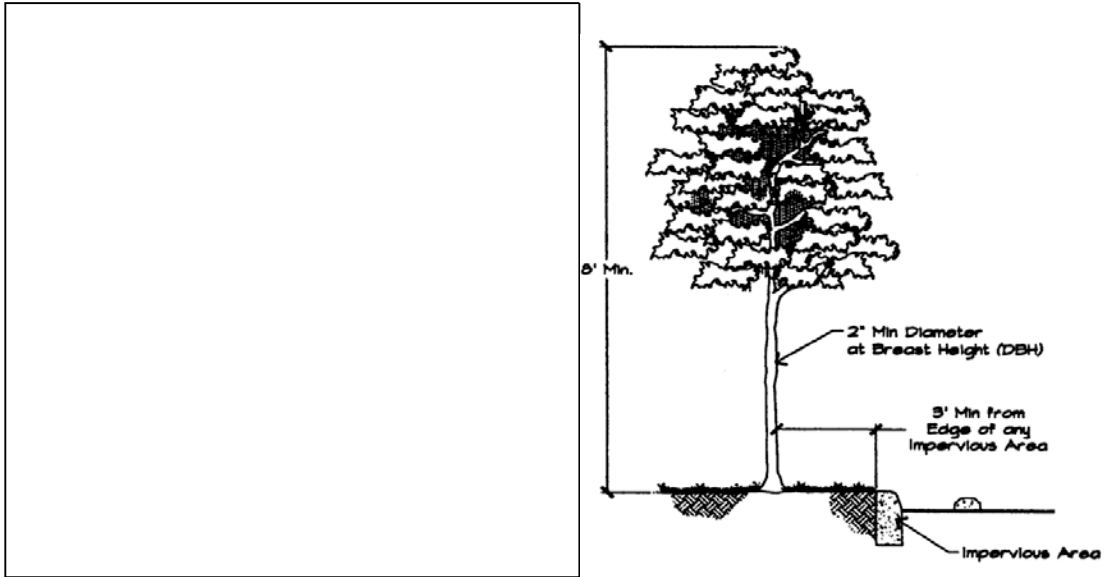
(m) *Standards for all landscape areas and established urban forest areas.* The following standards shall apply to all landscape areas and established urban forest areas, including the residential subdivision requirements and the vehicular landscape area requirements:

- (1) All plants used as a part of any landscape plan shall be healthy, well proportioned, disease-free and pest-free, and hardy for the North Florida Region. Unless otherwise provided herein, only Florida No. 1 or better plant material as described in "Grades and Standards for Nursery Plants," Part I, 1998, and Part II, State of Florida, Department of Agriculture, Tallahassee, shall be credited toward the landscape area requirements of this chapter.
- (2) The use of plant material, site design techniques, and planting design techniques which enhance wildlife habitat benefits is strongly encouraged. The publication "Planting a Refuge For Wildlife," available from the Florida Game and Freshwater Fish Commission, may be used as a guide.
- (3) Prohibited plants. Plants prohibited by the state department of environmental protection shall not be used. A list of prohibited plants shall be furnished by the city, growth management department.
- (4) Planting volume. When plantings are within proposed clearing limits, the planting volume for one or more trees shall be a minimum of 1,200 cubic feet with a minimum width of 12 feet and a depth of three feet. Construction-grade fill material within planting areas shall be excavated to a

depth of three feet below the finished grade of the planting area and replaced with existing site soil or a non-compacted "friable" topsoil.

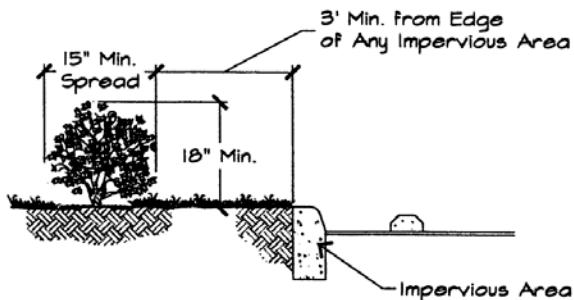
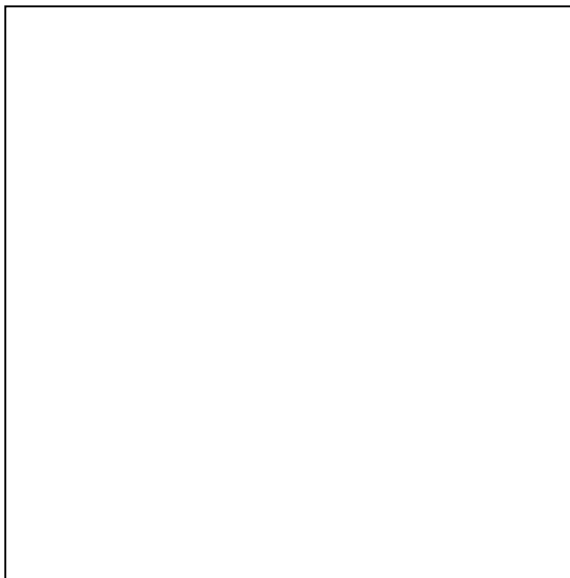


- (5) Existing vegetation. The use of existing vegetation shall be encouraged. When existing vegetation is incorporated into the landscape plan, it shall be reviewed and approved by growth management department staff as to its suitability for its intended use. Existing vegetation shall be supplemented with plantings to fulfill the landscape or buffer requirement when existing vegetation alone is insufficient.
- (6) Trees. Trees required by this article shall meet the following criteria:
  - a. Size. Trees shall have a minimum height of eight feet and minimum caliper of two inches at the time of planting.
  - b. Size substitution credit. In order to promote planting of larger size trees, the number of two inch-diameter trees that must be planted may be reduced when trees are of a larger size than two-inch caliper.
  - c. Trees shall not be planted closer than three feet from the edge of any impervious area.
  - d. Crown spread. Planted trees must be a species with an average mature spread of at least 20 feet, or they must be grouped so as to create a crown spread of 20 feet.

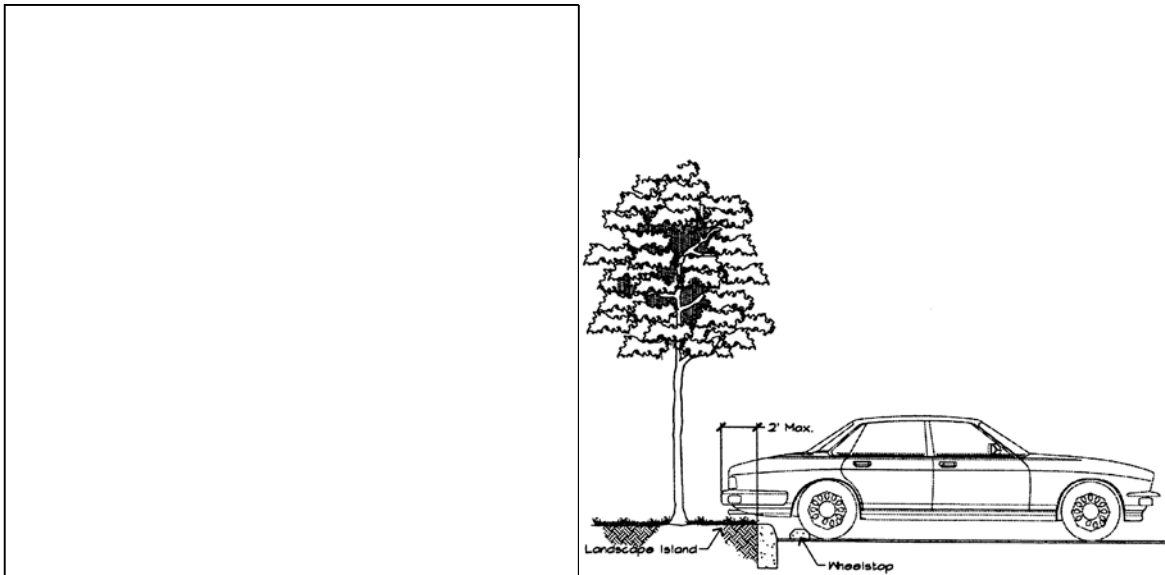


(7) Shrubs. Shrubs and hedges required by this section shall meet the following criteria except where a greater requirement is otherwise specified:

- a. Size. Shrubs shall be a minimum height of 18 inches and have a minimum spread of 15 inches at the time of planting and shall be capable of achieving a minimum height of 30 inches at maturity.
- b. Shrubs shall not be planted closer than three feet from the edge of any impervious area.



- (8) Ground covers. Ground covers other than lawn grasses shall be planted so as to provide 75 percent coverage within one year from the time of planting. Grass or other ground cover shall be placed on all landscape areas which are not occupied by other landscape material or permitted accessways.
- (9) Grasses. Lawn grasses planted for credit toward landscaping requirements shall be perennial species capable of thriving in Leon County and shall be planted so as to achieve complete coverage within two years from the time of planting. Sodding of sites shall be required. With the approval of the director, hydromulching or seeding and mulching may be approved with the exception that sodding is required in swales and other areas subject to erosion and must comply with section 5-86.
- (10) No visible plastic surface covers or synthetic plant material shall be used.
- (11) Mulches. At installation, mulches shall be applied at a minimum depth of two inches and shall not exceed three inches. Cypress mulch shall not be allowed.
- (12) Overhang. Vehicle stops or other design features shall be used so that parked vehicles do not overhang more than two feet into any landscape area.



- (13) Sidewalks. Widths of sidewalks shall not be included within any landscape area calculation.
- (14) Utility conflicts. Where utilities conflict with proposed plantings, trees shall be selected from a list provided by the city. Where underground utilities conflict with proposed plantings, tree placement shall be a minimum of ten feet from the underground utility and a root barrier of two feet deep shall be installed.
- (15) Irrigation. All required landscaped areas and buffer strips shall be provided with an automatic irrigation system. The irrigation methods to be used shall be indicated on the landscape plan. All irrigation lines shall be installed so as not to impact the critical protection zone of existing trees. Xeriscaping shall be encouraged.
- (16) Use of landscape areas or land use buffers. No accessory structures, garbage or trash collection points or receptacles, parking or any other functional use contrary to the intent and purpose of this section shall be permitted in a required buffer or landscape area. This does not prohibit the combining of compatible functions such as landscaping, drainage facilities, passive recreation areas and preservation areas into an effective and beneficial multiple use of the subject land resource.
- (17) *Landscape maintenance plan.* The landscape maintenance plan shall not conflict with the urban forest management plan. Plant material shall be replaced within a time period appropriate

to the growing season of the species in question, but at least within 90 days after replacement is necessary, unless a different time requirement is specified in a notice of violation issued pursuant to this chapter.

- a. All landscape plans shall include a schedule of maintenance specifications which address techniques for removing and plans for controlling invasive or noxious vegetation, selective view trimming, removal of dead and hazardous trees or limbs, pruning, fertilization, water requirements, pest management, mulching and other cultural requirements necessary to provide guidance in maintaining landscape material in order to accomplish design goals.
  - b. Trees larger than four-inch caliper shall have the applicant submit a planting/maintenance schedule which shall include the following:
    1. A defined watering schedule with a water source, already established on site with output equivalent to no less than one inch of rainfall per week. Soaker hoses are an acceptable method of irrigation until plantings are established.
    2. Mulch shall be placed at a depth of two to three inches thick around the base of the tree, without tree bark contact, at a distance equivalent to the critical protection zone (CPZ).
    3. Tree pit excavation shall be a minimum of four times the size of the root ball.
    4. Tree pits and backfill soil material shall be site inspected prior to placement of trees by city environmental inspectors.
    5. Tree rings (circular soil mound) shall be placed at edge of root ball, to ensure water drains through the root ball.
    6. Tree fertilizer is not required unless soil amendments are tested. Soils found to be deficient of various nutrients shall not be used. Commercial fertilizer applications shall be in accordance with the requirements of the chapter 9, article V, of the Code of General Ordinances regarding fertilizer use, and performed by an individual holding a city approved best management practice training certificate.
    7. For specific tree species, a list of various biotic predators of diseases, and recommended action in the form of a landscape maintenance plan, shall be submitted with the environmental permit application.
- (18) Visual screen for arterial roadways. Arterial roadways, when constructed within areas zoned for residential use, shall provide a continuous visual screen consisting of vegetation, fencing, berms, embankments, or a combination of such materials, as appropriate. The screen shall be at least eight feet in height. Vegetative screens shall comprise plant material that reaches the required height at maturity. When the existing vegetation is inadequate to function as a visual screen, it shall be augmented by two staggered rows of shrub material that will provide such a screen at maturity.
- (n) *Maintenance of required landscaping and trees.* It shall be the responsibility of the owner to maintain in perpetuity all landscaping, landscaped areas, buffer areas, and trees required, both planted and existing, by this chapter. Vegetation shall be maintained in a vigorous and healthy condition. Failure to do so shall be a violation of this chapter and shall be addressed through procedures provided for in article VII. No required landscape area shall be used for accessory structures, garbage or trash collection, parking or any other functional use contrary to the intent and purpose of this chapter.
- (o) *Landscape and preserved urban forest area non-conformance caused by public projects.* Should the portion of a developed area which has been landscaped or preserved as urban forest to satisfy the provisions of this ordinance be subsequently destroyed as a result of projects undertaken by local or state government, such that the area no longer complies with the provisions of this ordinance, the re-establishment of such areas shall not be required when there is no feasible method of relocating these areas to other locations on the site. In such cases an amendment to the

environmental management permit for the affected site shall be required which reflects the changes made.

- (p) *Coordination with sign ordinance.* The location of all existing or proposed signs shall be included on all environmental management permits. Placement of the signs shall take into consideration the required landscape material. The urban forest and landscaping management plan shall incorporate any proposed view trimming techniques. Topping is not an acceptable method of view trimming.

(Ord. No. 04-O-02, § 2, Exh. 1(§ 4.5), 3-31-2004; Ord. No. 04-O-49, § 3, 9-22-2004; Ord. No. 05-O-23, § 3, 7-13-2005; Ord. No. 05-O-57, § 5, 10-26-2005; Ord. No. 06-O-07AA, § 3, 1-25-2006; Ord. No. 06-O-42AA, § 6, 7-12-2006; Ord. No. 09-O-31AA, § 8, 10-29-2009; Ord. No. 10-O-16, § 4, 4-28-2010; Ord. No. 10-O-14AA, § 2, 2-23-2011; Ord. No. 12-O-14AA, § 6, 5-23-2012; Ord. No. 13-O-03, § 5, 8-28-2013)