

SECTION 47-21. - LANDSCAPE AND TREE PRESERVATION REQUIREMENTS

Sec. 47-21.1. - Intent and purpose.

A. The intent of these regulations is to protect, preserve and enhance the natural environment and beauty of the city and promote better quality of life by creating a safe, healthy, and sustainable landscape. This will be achieved by reducing the use of fertilizers and pesticides through the use of Florida-Friendly Landscaping™ principles in landscaped areas containing trees, nectar-producing plants for wildlife pollinators, and other plants and arranging them by irrigation needs in a pleasing manner in relation to paved areas and structures. These regulations are to establish minimum standards for the development, installation, and maintenance of Florida-Friendly Landscaping™ without inhibiting creative landscape design, construction, and management.

B. These objectives are defined in general terms and their realization can only be attained by proper design.

(Ord. No. C-97-19, § 1(47-21.1), 6-18-97; Ord. No. C-15-09, § 1, 2-17-15.)

Sec. 47-21.2. - Definitions.

A. For the purpose of this section, the following terms and words shall have the meanings herein prescribed unless the context clearly requires otherwise:

1. *Berm*. A mound of earth configured in a manner which supports landscaping.
2. *Biological control*. A component of an integrated pest management strategy. It is defined as the reduction of pest populations by natural enemies and typically involves an active human role.
3. *Bioretention*. An engineered process to manage stormwater runoff using the chemical, biological, and/or physical properties found in natural, terrestrial-based communities of plants, microbes, and soils.
4. *Bufferyard*. An area or areas located on nonresidential property which extend the full length of the property lines abutting residential property which meet the requirements for a bufferyard as provided in Sec. 47-25.3
5. *Caliper*. Diameter measurement of nursery size tree trunks. Trunk caliper is measured six (6) inches from the ground on trees up to and including four (4) inches in diameter, and twelve (12) inches above the ground for trees that are larger than four (4) inches but smaller than seven (7) inches. As part of this ordinance, trees with diameters of seven (7) inches or greater is measured at four and one-half (4 ½) feet above grade. See Diameter definition.
6. *Canopy*. The upper portion of a tree consisting of limbs, branches, and leaves.
7. *Clear trunk*. The distance between the top of the root ball along the vertical trunk or trunks of a tree to the point at which lateral branching or fronds begin.
8. *Conifer*. Cone-bearing seed plant.
9. *Conspicuous flowering*. A plant which exhibits a contrasting display of reproductive parts of size, quantity and duration.
10. *Diameter*. See 'Caliper' for measuring trees less than seven (7) inches in diameter. The diameter of a dicot or conifer tree trunk seven (7) inches or greater in diameter, is measured at four and one half (4 ½) feet above grade or ground level. The diameter of a monocot is the diameter of the tree trunk measured one (1) foot above grade or ground level.
11. *Dripline*. The natural outside end of the branches of a tree or shrub projected vertically to the ground.

12. *Equivalent replacement.* A tree (or trees) which due to its classification (based on the table of tree evaluation of the department) in the case of dicot or conifer, condition, size and location, is determined by the department to be the equivalent to the tree (or trees) which it replaces. In making this determination, the department shall be guided by the standards established by the International Society of Arboriculture.
13. *Equivalent value.* An amount of money, which reflects the cost of replacing a dicot or conifer tree, determined by multiplying the cross-sectional surface area measured at four and one-half (4 ½) feet above grade commonly known as "diameter at breast height (DBH)" of the tree (measured in square inches) by the following values (based on the cost of obtaining an equivalent replacement according to classification of the tree as listed in the table of tree evaluation of the department):
 - a. Class A—Twenty-five dollars (\$25.00) per square inch.
 - b. Class B—Twenty dollars (\$20.00) per square inch.
 - c. Class C—Fifteen dollars (\$15.00) per square inch.
 - d. Class D—Ten dollars (\$10.00) per square inch.
 - e. Class E—Five dollars (\$5.00) per square inch.
 - f. Class F—Zero dollars per square inch.
 - g. Equivalent value of a monocot is determined by multiplying the number of trunk feet to the terminal bud by thirty dollars (\$30.00) per foot.
14. *Excavation.* To make a hole, unearth, scrape, or dig out for the purpose of construction, demolition, or removal with specific relation to a tree drip line and root system.
15. *Florida-Friendly Landscaping™.* Quality landscapes that conserve water, protect the environment, are appropriate for local conditions, and are drought, wind, and/or salt tolerant. Principles of Florida-Friendly Landscaping™ include planting the right plant in the right place, efficiently watering, appropriate fertilization, mulching, attraction of wildlife, responsible management of yard pests, recycling yard waste, reduction of stormwater runoff, and waterfront protection. Additional components of Florida-Friendly Landscaping™ include planning and design, soil analysis, use of solid waste compost, practical use of turf, and proper maintenance.
16. *Ground cover.* A planting of low growing plants that covers the ground in place of turf. Within the dripline of a tree, two (2) to three (3) inches of mulch may be used instead of plants.
17. *Hattracking.* To flat-cut the top of a tree, severing the leader or leaders; or pruning a tree by stubbing off mature wood; or reducing the total circumference or canopy spread not in conformance with the American National Standards Institute, A-300 standards or other accepted standards as published.
18. *Hedge.* A row of evenly-spaced shrubs or other vegetation planted to form a dense, continuous, unbroken visual screen.
19. *Hydrozone.* A distinct grouping of plants with similar water needs and climatic requirements. Also referred to as water use zone.
20. *Interior landscape area.* That landscape area located within a vehicular use area further than twenty-eight (28) feet from the perimeter and not attached to the perimeter landscape area.
21. *Integrated pest management.* A pest management strategy that focuses on long-term prevention or suppression of pest problems through a combination of techniques such as encouraging biological control, use of resistant plant varieties, and adoption of alternate cultural practices to make the habitat less conducive

to pest development. Pesticides are used only when careful monitoring indicates they are needed, or to prevent pests from significantly interfering with the purposes for which plants are being grown.

22. *Interior parking.* Parking spaces not contiguous to, nor directly abutting a perimeter.
23. *Irrigation System.* A constructed watering system designed to transport and distribute water to plants.
24. *Irrigation Zone.* A grouping of soakers, sprinkler heads, bubblers, or microirrigation emitters operated simultaneously by the control of one (1) valve.
25. *Landscape or landscaping.* Any combination of living plants (such as grass, groundcover, shrubs, vines, hedges, palms, or trees) and non-living landscape material (such as rocks, pebbles, sand, mulch, walls, fences, or decorative paving materials installed for functional or aesthetic reasons at ground level and open to the sky.
26. *Landscape area.* An area where landscaping has been or shall be installed.
27. *Landscape area, required.* Landscape areas that are directly permeable to the subgrade through a natural drainage system unless otherwise specifically permitted by the ULDR.
28. *Lawn/turf/sod.* An area of land planted with grasses or (rarely) other durable plants, which are maintained at a short height and used for aesthetic and recreational purposes.
29. *Low impact site design practices.* Practices that minimize changes to the site's soil levels and composition by preserving existing landscape, shrubs and/or trees and other natural features.
30. *Monocotyledonous (monocot) tree.* A tree having fronds with parallel veination and an indistinct, tightly held trunk surface (a palm).
31. *Mulch.* An organic soil additive or topping such as compost, wood chips, wood shavings, seasoned sawdust, bark, leaves or straw, used to reduce evaporation, prevent erosion, control weeds, enrich the soil and lower soil temperature.
32. *Native vegetation.* Any plant species with a geographic distribution indigenous to all, or part, of the state of Florida as identified in the *Guide to the Vascular Plants of Florida*, R. P. Wunderlin, 1998, University Press of Florida, Gainesville, or the *Atlas of Florida Vascular Plants*.
33. *Nectar-producing plant.* A plant that serves as a food source by producing nectar within their flowers for mainly nectar-consuming pollinators such as butterflies, moths, bees, hummingbirds and bats.
34. *Net lot area.* The total square footage of a parcel of land after subtracting the square footage area of any vehicular use area including the VUA required landscaping, building footprint, walls, walks and swimming pools or any other impervious area.
35. *One-family residence.* A building and its surrounding lot intended to be occupied by one (1) family only.
36. *Ornamental shrub.* A multi-stemmed woody plant with several permanent stems used for ornamental purposes.
37. *Palm.* A plant belonging to the monocot order of the family Palmae, distinguished by having unbranched single or multi-trunks crowned by large, compound pinnate, or palmate leaves/fronds.
38. *Parking garage.* A building or structure consisting of more than one (1) level and used to park vehicles.
39. *Peninsular or island landscape area.* A pervious area set aside for landscaping, located at the end of a parking row where it abuts an aisle or driveway, and also intermittently located within parking rows.
40. *Perimeter.* The boundary line separating one (1) parcel of land from another or a parcel of land from a right-of-way. If the property is on a waterway, the perimeter shall be the bulkhead line.

41. *Perimeter landscape area.* The landscape area directly abutting the perimeter of a VUA and within twenty-eight (28) feet of the property line.
42. *Perimeter parking.* Parking spaces contiguous to or directly abutting a perimeter landscape area.
43. *Pervious area.* That non-compacted land located at ground level, open to the sky allowing passage of air and water to the subsurface and used or set aside for landscaping.
44. *Pervious paving materials.* A porous asphaltic, concrete, or other surface having a high-void aggregate base which allows for rapid infiltration and temporary storage of rain on, or runoff delivered to paved surfaces.
45. *Plant bed.* A grouping of trees, shrubs, groundcover, perennials, or annuals growing together in a defined area devoid of turfgrass, normally using mulch around the plants.
46. *Plant communities.* An association of native plants that are dominated by one (1) or more prominent species or a characteristic physical attribute.
47. *Plant palette.* A list of site appropriate plant species of various colors, textures, and mature sizes chosen to be used in the landscape design.
48. *Planting plan.* Specifications and installation details for plants, soil amendments, mulch, edging, gravel, staking materials, and other similar materials.
49. *Point of connection ("POC").* The location where an irrigation system is connected to a water supply.
50. *Protected tree.* A tree which due to its size, shape, character, age, aesthetic value, species, historical value or any combination thereof declared by the city commission to be a locally unique example of the species.
51. *Protective barrier.* Fences or like structures at least four (4) feet in height that are conspicuously colored and are erected to prevent or obstruct passage.
52. *Prune.* To remove, cut off, or cut back parts of a tree or plant which will alter the natural shape.
53. *Right-of-way.* Land provided by dedication, deed or easement which is devoted to, required for or intended for the use by the public as a means of public traverse.
54. *Runoff.* The water that results from and occurs following a rain event, or following an irrigation event, because the water is not absorbed by the soil or landscape and flows off from the area.
55. *Shock.* A state of retarded growth or degeneration of the vital processes resulting from, but not limited to, root damage, wounds, impact, partial or total girdling, or improper cutting.
56. *Shade tree.* A single-trunked dicot or conifer tree which by virtue of its natural shape provides at maturity a minimum shade canopy thirty (30) feet in diameter as listed in the table of tree evaluation.
57. *Shrub.* A multistemmed woody plant with several permanent stems usually maturing at less than 15 feet in height.
58. *Site appropriate plant.* A plant that, after establishment, will thrive within the environmental conditions that are normal for a specific location without artificial inputs or supplements such as irrigation.
59. *Specimen tree.* Any tree which has a diameter of eighteen (18) inches or greater and is well shaped and in good health. Exceptions are the following trees which are not specimen trees:
 - a. Fruit trees that are capable of producing potentially edible fruit, including, but not limited to: mangos, avocados, or species of citrus;
 - b. Species of the genus *Ficus* except *F. aurea* (strangler fig), *F. citrifolia* (short leaf fig), *F. lyrata* (fiddle leaf fig), *F. rubiginosa* (patio fig or rustyleaf fig);
 - c.

Acoelorrhaphe wrightii (paurotis palm) and Phoenix reclinata (Senegal date palm) which have less than eight (8) feet of wood height;

- d. All other multi-trunked palms not mentioned above;
 - e. Australian pine, Brazilian pepper, melaleuca, pencil tree and poison wood, carrotwood, schefflera; and
 - f. Trees which are "Class D" or lower.
60. *Standard*. A woody perennial plant with a number of stout stems, all but one (1) of which has been removed. The remaining stem then has been trained into an upright, small, tree-like form having a rounded crown usually supported by a stake.
 61. *Street*. The term street includes any road, highway and other ways greater than twenty (20) feet in width which are open to travel by the public including the roadbed, right-of-way, sidewalk and other land devoted, required or intended for general circulation which affords a primary means of access to abutting property.
 62. *Street tree*. A tree which is located within twelve (12) feet of the edge of pavement or curb of a street or such other distance as determined by the department in accordance with this section.
 63. *Table of tree evaluation*. A table prepared by the city and amended from time to time listing tree species and information pertinent to such species, on file with the department.
 64. *Tree*. A woody perennial plant, possibly shrubby when young, with one (1) main stem or trunk which naturally develops diameter and height characteristics of a particular species.
 65. *Tree abuse*. Any action or inaction which does not follow acceptable trimming practices as established by the American National Standards Institute, A-300 standards or other accepted standards as published. Abuse also includes, but is not limited to, damage inflicted upon the roots by machinery, changing the natural grade within the drip line, destruction of the natural shape or any action which causes infection, infestation or decay.
 66. *Tree Canopy Trust Fund*. The fund maintained by the city to which funds received by the city for the equivalent value of trees removed shall be deposited. Money from the fund shall be used to enhance tree canopy coverage. Trust funds shall be expended, utilized and disbursed for the planting of trees and any other ancillary costs associated with the planting of trees on public lands. Ancillary costs shall not exceed twenty percent (20%) of the cost of the particular tree planting project, and may include landscape design services, irrigation, mulch, tree grates, porous surfacing, or other materials necessary for the proper installation and maintenance of tree planting projects. These monies may also be used for the relocation of trees to public lands and for periodically distributing saplings to the public to increase tree canopy coverage.
 67. *Tree service/arborist*. Any person, company, corporation or service which does regularly, for compensation or fee, transplant, remove, prune, trim, repair, inject, or perform surgery upon a tree.
 68. *Tree removal*. To change the location of a tree, or to cause damage to or destruction of a tree or root system so as to cause a tree to die.
 69. *Trim*. To reduce, shorten or gradually diminish the size of a plant by removal of parts of a plant without altering the natural shape.
 70. *Vehicular use area (also referred to as "VUA")*. Any area used by vehicles including, but not limited to, areas for parking, display, storage or traverse of any and all types of motor vehicles, bicycles, watercraft, trailers, airplanes or construction equipment, but shall not include areas used exclusively as an airport ramp or apron.
 71. *Vine*. A plant whose natural growth characteristic produces climbing stems.

(Ord. No. C-97-19, § 1(47-21.2), 6-18-97; Ord. No. C-99-15, §§ 2, 3, 3-16-99; Ord. No. C-03-19, § 9, 4-22-03; Ord. No. C-04-8, § 1, 3-2-04; Ord. No. C-08-04, § 2, 2-5-08; Ord. No. C-08-54, § 4, 12-2-08; Ord. No. C-15-09, § 2, 2-17-15)

Sec. 47-21.3. - General provisions and design standards.

- A. Low impact site design practices, such as preserving existing native trees and vegetation, shall be used to the extent feasible. Irrigation shall not be required in area where established native vegetation is incorporated into the landscape design.
- B. The plant palette and irrigation system shall be site appropriate, based on current acceptable industry standards, for site conditions, taking into account that, in some cases, soil improvement can enhance water use efficiency.
- C. Plants shall be grouped together by irrigation demand. The percentage of landscaped area in irrigated high water use hydrozones shall be minimized.
- D. All landscapes must be designed and planted in accordance with Florida-Friendly Landscaping™ principles. The percentage of landscaped area, excluding turfgrass areas, in irrigated high water use hydrozones shall be no more than twenty percent (20%) of the total non-turfgrass landscaped area.
- E. When designing landscapes, fruit-bearing trees and plants should be considered as part of a sustainable and edible landscape.
- F. When designing landscapes to support wildlife, nectar-producing native plants, shrubs and trees should be incorporated as much as possible to provide food-sources for nectar-consuming pollinators such as butterflies, moths, bees, hummingbirds and bats.
- G. Site designs and landscape plans shall be prepared in accordance with the requirements of all applicable Florida and local laws, rules, regulations, and ordinances. All landscape and irrigation system designs shall be consistent with the standards developed pursuant to Section 373.228, Florida Statutes, as amended.
- H. The landscape plan shall consider natural drainage features to minimize runoff. The use of pervious surfaces and areas is preferred; therefore, impervious surfaces and materials within the landscaped area shall be limited to borders, sidewalks, step stones, parking lots, and other similar materials, and shall not exceed ten percent (10%) of the landscaped area. Use of pervious paving materials, where appropriate, is encouraged.
- I. The landscape plan should consider the soil requirements for trees based on their size at maturity and their distance from any adjacent paved/hardscape areas and utility infrastructure. Larger soil volumes lead to greater tree size, better tree health, longer tree life, greater environmental benefits, and fewer costs, such as those associated with tree replacement and damage by roots to property improvements and infrastructure.

(Ord. No. C-15-09, § 3, 2-17-15)

Sec. 47-21.4. - Landscaping required.

No person shall carry out any development or use any parcel of land for any purpose, nor shall any permit for building or paving be issued unless a landscaping permit is issued in accordance with the requirements of this section.

(Ord. No. C-97-19, § 1(47-21.3), 6-18-97; Ord. No. C-15-09, § 4, 2-17-15.)

Note— Formerly § 47-21.3.

Sec. 47-21.5. - Permit required.

A landscaping permit shall be required for the installation, removal, or replacement of any landscaping in accordance with the provisions of this section.

(Ord. No. C-97-19, § 1(47-21.4), 6-18-97; Ord. No. C-15-09, § 5, 2-17-15.)

Note— Formerly § 47-21.4.

Sec. 47-21.6. - Landscape plan required.

- A. Prior to the issuance of a landscape permit, a landscape plan shall be submitted to the department. The landscape plan shall include, but not be limited to, the following:
1. Name, address and telephone number of the person who has prepared the landscape plan. Landscape plans submitted for approval must be prepared by a registered landscape architect, dated, signed and stamped with his or her seal. A property owner may prepare plans or drawings for their own property. A nurseryman or nursery stock dealer may also prepare plans or drawings but only as an adjunct to merchandising his products.
 2. A landscape plan drawn at a scale no less than one (1) inch equal to thirty (30) feet showing the location, size, description and specifications of materials, grade of plantings, mulch specifications, protective structures such as curbs, the number of interior parking spaces and the square foot area of the VUA, and perimeter and interior landscape area. New trees shown shall be spaced so as not to conflict with normal canopy development. An existing desirable tree proposed to be retained on site shall be left with a root pervious area surrounding it sufficient to support the species and canopy.
 3. The landscape plan shall:
 - a. Be designed so that landscaping shall not be adversely affected by factors such as salt exposure, prevailing winds, overhead obstructions, utility services, deep shadows, unusual soil conditions and shall identify and show location of existing trees on and adjacent to the development site, and;
 - b. Take into consideration solar access for photovoltaic solar systems when determining appropriate areas on the development site for proposed tree locations.
 4. A site plan drawn at a scale of not less than one (1) inch equal to thirty (30) feet showing the property boundaries and dimensions, existing and proposed structures, pools, walks, walls, patios, VUA's, lot orientation, utility services, light poles, pad-mounted transformer locations, fire hydrants, siamese connections, existing and proposed elevations and any other factor affecting the proposed use of the property, including the use and zoning of adjacent property.
 5. A current survey when construction or alteration to a structure, or change of use or construction related to a VUA is proposed. The survey shall depict site utilization and improvements thereon and may be submitted in place of the landscape plan and site plan described in this section when the survey provides sufficient information to determine compliance with the requirements of this section.
 6. The location of all underground and overhead utilities.
 7. A landscape material schedule listing all plants being used with their botanical, common, and, where applicable, cultivar names; spacing; quantities; size of each type of plant by container size, mature height, and spread; degree of drought tolerance (as determined by the most recent edition of the South Florida Water Management District's guide *Waterwise: South Florida Landscapes*); and indication of whether native to Florida that will thrive in South Florida consistent with Florida-Friendly Landscaping™ principles.
 8. The hydrozones, as determined by the most recent edition of the South Florida Water Management District's guide *Waterwise: South Florida Landscapes*, shall be shown on irrigation and planting plans, as required.
 - 9.

A table showing the total square footage(s) of the various landscape hydrozones on the plan. If more than one (1) water meter serves the site, the total hydrozone square footages of the various hydrozones must be identified with each POC and meter providing water service.

10. A layer of organic mulch three (3) inches deep is required and shall be noted on plans in plant beds, except annual beds, and individual trees in turfgrass areas. Mulch rings should extend at least three (3) feet around freestanding trees and shrubs. Mulch should be at least six (6) inches away from any portion of a building or structure, or the trunks of trees, and at least three (3) inches away from the base of shrubs.
11. If an irrigation plan is required it must include:
 - a. A minimum scale of one (1) inch equals thirty (30) feet;
 - b. The location of existing trees, vegetation, and ecological communities to remain, if applicable;
 - c. The location of existing buildings, paving, and site improvements to remain;
 - d. The location of proposed trees, vegetation, and ecological communities;
 - e. The location of proposed buildings, paving, site improvements, and water bodies;
 - f. The irrigation POCs and design capacity;
 - g. The water service pressure at irrigation POCs;
 - h. The water meter location and size;
 - i. The major components and location of the irrigation system, including all pumps, filters, valves, and pipe sizes and lengths;
 - j. Reduced-pressure-principle backflow-prevention devices for each irrigation POC on potable water systems and specifications;
 - k. The locations and specifications of controllers of rain shut-off devices and soil moisture sensors;
 - l. An irrigation legend with the following elements:
 - i. Separate symbols for all irrigation equipment with different spray patterns and precipitation rates and pressure compensating devices;
 - ii. General description of equipment; manufacturer's name and model number for all specified equipment;
 - iii. Recommended operating pressure per nozzle and bubbler and low-flow emitter;
 - iv. Manufacturer's recommended overhead and bubbler irrigation nozzle rating in gallons per minute or gallons per hour for low flow point applicators;
 - v. Minimum (no less than seventy-five percent (75%) of maximum spray radius) and maximum spray radius per nozzle; and
 - vi. Manufacturer's rated precipitation rate per nozzle at specified pounds per square inch ("psi"); and
 - m. Zone layout plan (minimum scale of one (1) inch equals twenty (20) feet):
 - i. Indicating headtype, specifications, and spacing; and
 - ii. Indicating methods used to achieve compliance with landscape irrigation design standards as required by Section 373.228, Florida Statutes, as amended.

(Ord. No. C-97-19, § 1(47-21.5), 6-18-97; Ord. No. C-12-47, § 4, 12-4-12; Ord. No. C-15-09, § 6, 2-17-15.)

Note— Formerly § 47-21.5.

Sec. 47-21.7. - Soils.

- A. Where landscape plans are required, applicants shall, as determined by Zoning Administrator or designee, seek a soil test and analysis performed by a reputable soil testing lab to determine soil texture, percentage of organic matter, measurement of pH, total soluble salts, and estimated soil infiltration rate.
- B. Existing horticulturally-suitable topsoil shall be stockpiled and respread during final site grading.
- C. Any new soil required shall be similar to the existing soil in pH, texture, permeability, and other characteristics, unless demonstrated to the City that a different type of soil amendment approach is justified.
- D. The use of solid waste compost as a soil amendment is encouraged where it is appropriate.

(Ord. No. C-15-09, § 7, 2-17-15)

Sec. 47-21.8. - Appropriate plant, sod, and tree selection, location, and arrangement.

- A. Plant selection should be based on the plant's adaptability to the existing conditions present at the landscaped area and native plant communities, particularly considering appropriate hardiness zone, soil type and moisture conditions, light, mature plant size, desired effect, color, and texture. Plant species that are tolerant to drought, wind, and/or salt are preferred. Determinations of prohibited and controlled plant species shall be pursuant to the Department of Agriculture and Consumer Services, Chapter 5B-57, Florida Administrative Code ("F.A.C."), as amended, and the Florida Exotic Pest Plant Council ("FLEPPC") Invasive Plant Species list. Plant species identified as prohibited and controlled according to Chapter 5B-57, F.A.C., and the FLEPPC Invasive Plant Species list may not be used, except as specifically allowed therein.
- B. Plants shall be grouped in accordance with their respective water and maintenance needs. Plants with similar water and cultural (soil, climate, sun, and light) requirements shall be grouped together. Consideration should be given to plantings that require minimal or no use of gasoline-powered maintenance equipment. Where natural conditions are such that irrigation is not required, the presence of site appropriate plants shall not be considered a high water use hydrozone.
- C. The combined size of all high water use hydrozones, other than turfgrass areas, shall be limited to twenty percent (20%) of the total landscaped area. In landscapes irrigated with reclaimed water, the allowable size of all high water use zones shall not be limited. These high water use limits do not apply to landscaped areas requiring large amounts of turf for their primary functions.
- D. Plants used in accordance with this article shall conform to the standards for Florida Grade One, or better, as provided for in the most current edition of *Grades and Standards for Nursery Plants*, by the Division of Plant Industry, Department of Agriculture and Consumer Affairs, State of Florida. Sod shall be clean and visibly free of weeds, noxious pests, and diseases.
- E. Fifty percent (50%) of all vegetation, excluding all turfgrass, required to be planted by this section shall be vegetation native to Florida that will thrive in South Florida, consistent with Florida-Friendly Landscaping™ principles.
- F. Shade Trees shall be of a species having an average mature crown spread of greater than twenty (20) feet and shall have trunks that can be maintained with over six (6) feet of clear trunk. Trees or palms having an average mature crown spread of less than twenty (20) feet may be substituted by grouping the same so as to create the equivalent of a twenty (20) foot crown spread in areas where shade trees cannot be planted, such as under overhead utilities. Such a grouping shall count as one (1) tree towards meeting tree requirements for any provision herein. If palms are used, they shall constitute no more than twenty percent (20%) of the total tree

requirements for any provision herein, and shall have a minimum of six (6) feet of clear trunk/gray wood at installation. On projects requiring six (6) to ten (10) trees, a minimum of two (2) species shall be utilized; for eleven (11) to twenty (20) trees required, a minimum of three (3) species shall be utilized; for twenty-one (21) to fifty (50) trees required, a minimum of four (4) species shall be utilized; and for fifty-one (51) or more trees required, a minimum of five (5) species shall be utilized.

- G. Sites with lots under three thousand (3,000) square feet or with less than five (5) feet of planting space for required buffers may use canopy trees with a mature height of twelve (12) to fifteen (15) feet, with canopy spread characteristic of the species at such height.
- H. Trees used in the required landscaping adjacent to a public street or swale are subject to approval by the City so that the sustainable character, biological diversity of tree species, and safety of the public street can be maintained, and the reduction of the urban heat island effect shall be encouraged, and "walkable" communities shall be promoted. All large trees installed within six (6) feet of public infrastructure shall utilize a root barrier system, as approved by the City. Tree root barriers shall be installed at the sidewalk edge in those circumstances where tree roots are causing, or may potentially cause, a trip hazard because of lifting of some portions of a public sidewalk.
- I. Tree and plant species on the Florida Exotic Pest Plant Council, ("FLEPPC") Invasive Plant Species list, as amended, shall not be planted as required or optional landscaping, and invasive plant species listed therein shall be removed from construction sites. Any tree not listed as an invasive tree shall require a Tree Removal Permit prior to removal.
- J. Tree species shall have a minimum height of ten (10) feet at time of installation. Minimum canopy spread shall be characteristic of the species at such height. Credit for existing native and non-invasive trees preserved on a site shall be granted toward meeting the tree requirements of any landscaping provisions of this article. No credit shall be granted for preserved trees which are in poor condition or declining health.
- K. Sites with lots under three thousand (3,000) square feet or with less than five (5) feet of non-vehicular planting space for required buffers may use canopy trees with a twelve (12) to fifteen (15) foot maturity, with canopy characteristic of the species used at such height.
- L. Shrubs used as hedges shall be a minimum height of two (2) feet at installation, full to base, and planted two (2) feet on center when measured immediately after planting. When shrubs are used as a screen around vehicular use area, said shrubs shall be a minimum of two (2) feet in height at installation above the vehicular use area that directly abuts the shrubs at time of planting. All shrubs should be placed a minimum of two and one-half (2½) feet on center from structures.
- M. Required buffer hedges shall be planted and maintained so as to form a continuous, unbroken solid visual screen, with a minimum height of three (3) feet, to be attained within one (1) year after planting.
- N. Native and non-invasive vines shall be a minimum of thirty (30) inches in supported height immediately after planting, may be used in conjunction with fences, visual screens, or walls, and shall be planted at ten (10) foot intervals to meet landscape buffer requirements.
- O. Groundcover shall be planted with a minimum of fifty percent (50%) coverage, with one hundred percent (100%) coverage occurring within six (6) months of installation.
- P. Topsoil shall be clear and free of construction debris, weeds, rocks, noxious pests, and diseases. The topsoil for all planting areas shall be composed of a minimum of fifty percent (50%) muck or horticulturally-acceptable organic material.
- Q.

All turfgrass areas shall be sodded using species suitable as permanent lawns in Broward County. Where appropriate, turf species that require minimum irrigation are encouraged. The type and location of turf areas shall be selected in the same manner as with all the other plantings. Irrigated turf areas, as opposed to non-irrigated turf areas, are considered to be a high water use hydrozone. Irrigated turf shall not be treated as a fill-in material but rather as a planned element of the landscape. Turf shall be placed so that it can be irrigated using separate zones.

- R. Irrigated turfgrass areas shall be consolidated as per Florida-Friendly Landscaping™ principles and as required by Zoning Administrator or designee. Turfgrass areas shall be identified on the landscape plan and be subject to the following requirements:
 - 1. No more than sixty percent (60%) of the landscaped area for single-family and duplex dwellings may be in turfgrass;
 - 2. No more than fifty percent (50%) of the landscaped area for multifamily dwellings may be in turfgrass; and
 - 3. No more than fifty percent (50%) of the landscaped area for other development uses may be in turfgrass.
- S. Native and drought-tolerant landscaping shall be identified on the landscape plan and be subject to the following requirements:
 - 1. A minimum of fifty percent (50%) of the non-turfgrass landscaped area of single-family and duplex dwellings must be in native or drought-tolerant landscaping; and
 - 2. A minimum of fifty percent (50%) of the landscaped area of all other development uses must be in native or drought-tolerant landscaping.

Ord. No. C-15-09, § 8, 2-17-15.)

Sec. 47-21.9. - Installation.

- A. All landscaping shall be installed in accordance with the requirements of this section within ninety (90) days of issuance of the landscape permit in accordance with the landscape plan approved by the department and the requirements of this section and prior to the issuance of a certificate of occupancy or final use approval.
- B. All landscape material shall be installed in accordance with sound landscaping practices, following all applicable Florida-Friendly Landscaping™ principles. All landscape materials shall be graded at least Florida Number One. Florida-Friendly Landscaping™ may include the use of soil amendments to increase the water holding capacity of sandy soils or improve the drainage of heavy soils, or other applicable principles or techniques. The use of turf that does not need supplemental irrigation, such as Bahia, is encouraged. Alternatives to the use of turf are also encouraged, such as drought resistant shrubs and ground cover. Codominant (V-crotched) trees are not acceptable.
- C. Unless stated otherwise, required trees shall be a species designated class "C" or higher, as defined in the table of tree evaluation compiled by the department. Existing trees which are healthy, well maintained and are in class "C" or higher may be used to meet tree planting requirements and no approval shall be given for trees in poor or damaged condition regardless of classification.
- D. New trees required to be installed shall be planted so normal growth and aesthetic appearance will not be impaired nor shall potentially large trees be planted under utility lines or lighting, too close to structures or in an area where they will obstruct emergency vehicle access.
- E. Except as otherwise required for VUA's, dicot trees shall have a minimum of ten (10) feet of height. Monocots shall have a minimum of eight (8) feet of wood, except Coconut, Thrinax, Phoenix robellini, Sago, and Livingstonia palms which shall have a minimum of three (3) feet of wood when planted.

- F. Trees shall be installed as follows:
1. Shade trees shall be located a minimum of fifteen (15) feet away from structures.
 2. Nonshade trees and palms shall be located a minimum of seven and one-half (7½) feet away from structures. Palms may be planted closer to each other to form multiples or clusters.
 3. No large trees shall be located closer than twelve (12) feet to street lights. No palms may be closer than seven (7) feet from street lights. The spacing of trees from electric utility lines must follow "Right Tree, Right Place" guidelines as established by Florida Power and Light.
 4. Where a conflict in spacing or canopy spread occurs between required trees and existing offsite or onsite trees, the requirements of this section may be modified as determined by the director.
- G. Each tree shall have pervious area surrounding it sufficient to support the species, as determined by the department. The minimum planting area shall be for:
1. Shade species with a minimum caliper of three (3) inches, two hundred twenty-five (225) square feet with fifteen (15) feet being the smallest dimension.
 2. Shade species with a minimum caliper of two (2) inches, ninety (90) square feet with eight (8) feet being the smallest dimension.
 3. Other dicot tree species, sixty-four (64) square feet with eight (8) feet being the smallest dimension.
 4. Palm types, twenty-five (25) square feet with five (5) feet being the smallest dimension, except Areca, Carpentaria, Cocothrinax, Phychosperma, Rhapsis, and Sabal, sixteen (16) square feet with four (4) feet being the smallest dimension.
- H. Trees when braced shall be braced in such a fashion as to not girdle, scar, perforate or otherwise inflict damage to the tree.
- I. Shrubbery, when installed to screen a VUA, shall be a minimum of twenty-four (24) inches high at time of installation, be full to base, and be spaced a maximum of thirty (30) inches on center. Shrubbery shall be permitted to grow and shall be maintained at a minimum height of thirty (30) inches. Vines used in conjunction with wire fences to screen a VUA shall be a minimum of thirty (30) inches in height immediately after planting, have a minimum of three (3) runners with plants spaced a maximum of six (6) feet on center.
- J. All plant beds shall be excavated to a minimum depth of twenty-four (24) inches and back-filled with a suitable soil consisting of fifty percent (50%) composted organic matter, well-mixed with native soil. Backfill material shall be free from rock, construction debris, or other extraneous material. Planting beds shall be free from construction debris and planted with ground cover or lawn or when not otherwise provided in these regulations, mulched with an appropriate organic material to a minimum depth of two (2) inches.
- K. Decorative stone or gravel may be utilized up to a maximum of ten percent (10%) of the total landscape area where the stone or gravel is to be used for decorative or other approved purpose as an adjunct to planting beds.
- L. Finished grade of landscape areas shall be at or below the grade of adjacent VUA or public sidewalks, except for mounding or other surface aesthetics. Grade shall be designed to receive roof and surface runoff and to assist Florida-Friendly Landscaping™ plantings and then any overflow routed as necessary underground. Mounding or other surface aesthetics shall not inhibit or defeat intended rainwater capture, retention or percolation from a VUA.
- M. All undeveloped portions of a parcel of land shall be left undisturbed or planted with ground cover or lawn so as to leave no exposed soil in order to prevent dust or soil erosion.

(Ord. No. C-97-19, § 1(47-21.6), 6-18-97; Ord. No. C-99-15, §§ 2, 4, 3-16-99; Ord. No. C-15-09, § 9, 2-17-15)

Note— Formerly § 47-21.6.

Sec. 47-21.10. - Irrigation.

- A. Sufficient irrigation, as determined by Zoning Administrator or designee in accordance with the design of the landscaped area and the requirements of the plant material to be used, shall be supplied to all landscaped areas. When required, irrigation systems shall be installed to provide coverage to target areas, minimizing spray upon public sidewalks, streets or adjacent properties. Irrigation systems compatible with Florida-Friendly Landscaping™ principles shall be encouraged. This may include the use of low volume, low pressure, subsurface irrigation systems, and other such methods, such as rainbarrels, cisterns and handwatering, which encourage water conservation. All automatic lawn or landscape irrigation systems shall be equipped with and operate a moisture sensor or approved automatic switch which overrides the irrigation cycle when adequate rainfall has occurred.
- B. All irrigation systems shall meet the irrigation standards developed pursuant to Section 373.228, Florida Statutes, as amended. All landscape areas, excluding single-family residences and duplex dwellings, shall be provided with an automatically operating, underground irrigation system designed to have head-to-head one hundred percent (100%) coverage. Drip, trickle, or other low-volume or micro-irrigation systems shall be required for non-turf areas unless the owner demonstrates and the City agrees that the size of the area makes such systems financially infeasible or a tripping hazard associated with these systems has been identified. Irrigation systems shall be designed to minimize application of water to impervious areas.
 1. Irrigation systems shall be designed to meet the needs of the plants in the landscape.
 2. Irrigation systems shall be designed to separately serve turf and non-turf areas.
 3. Irrigation system plans and specifications shall identify the materials to be used and the construction methods.
 4. Irrigation systems shall be designed to consider soil, slope, and other site characteristics in order to minimize water waste, including overspray, the watering of impervious surfaces and other non-vegetated areas, and off-site runoff.
 5. Irrigation systems shall be designed to minimize free flow conditions in case of damage or other mechanical failure.
 6. Irrigation systems shall be designed to use the lowest quality water available at the time of the installation.
 7. A recommended seasonal operating schedule and average precipitation rates for each irrigation zone for both establishment and maintenance conditions shall be provided.
 8. Control systems shall provide the following minimum capabilities:
 - a. Ability to be programmed in minutes, by day of week, season, and time of day;
 - b. Ability to accommodate multiple start times and programs;
 - c. Automatic shut-off after adequate rainfall or detection of adequate soil moisture;
 - d. Ability to maintain time during power outages for a minimum of three (3) days; and
 - e. Operational flexibility to meet applicable year-round water conservation requirements and temporary water shortage restrictions.
 9. Recommended maintenance activities and schedules shall be provided.
 10. Precipitation rates for sprinklers and all other emitters in the same zone shall be matched, except that micro-irrigation emitters may be specified to meet the requirements of individual plants.

11. Irrigation systems shall be designed to maximize uniformity, considering factors such as emitter types, head spacing, sprinkler pattern, and water pressure at the emitter.
12. Irrigation systems with main lines larger than two (2) inches or designed to supply more than seventy (70) gallons per minute shall incorporate a means to measure irrigation water use, at a minimum of ninety-five percent (95%) accuracy across the flow range.
13. The system installer shall conduct final testing and adjustments to achieve irrigation system specifications prior to completion of the system installation and acceptance by the owner or owner's representative.
14. The system installer shall provide property owners and users with post-construction documentation, including as-built drawings, recommended maintenance activities and schedules, operational schedules, design precipitation rates, instructions on adjusting the system to apply less water after the landscape is established, water source, water shut-off method, and the manufacturer's operational guide for the irrigation controller. Property owners are encouraged to safely store such information and make it available to subsequent property owners.
15. All licensed contractors installing or performing work on automatic landscape irrigation systems must comply with the provisions of Section 373.62, Florida Statutes, as amended, which may be enforced by the City pursuant to this chapter.
16. To assist the end user to operate the system properly, the following should be provided to the owner at the time of installation:
 - a. A map of the system;
 - b. Irrigation scheduling information, with instructions for seasonal timer and sensor changes; and
 - c. An irrigation valve site map detailing valve locations, gallons per minute demands, precipitation rates, plant types within valve circuits, and operating pressure requirements for each valve.
17. The irrigation system shall be designed to correlate to the organization of plants into hydrozones. These hydrozones shall be shown on the Irrigation Plan, as required. All plants require watering during establishment. Temporary facilities may be installed to facilitate establishment. Irrigation must be conducted in accordance with South Florida Water Management District restrictions. If local water restrictions are more restrictive, then irrigation must be conducted in accordance with the stricter restrictions.
18. Pursuant to Section 373.62, Florida Statutes, as amended, rain shut-off switch equipment shall be required on automatic irrigation systems to avoid irrigation during periods of sufficient rainfall or soil moisture. The equipment shall consist of an automatic mechanical or electronic sensing device or switch that will override the irrigation cycle of the sprinkler system when adequate rainfall has occurred.
19. The installation of tracer wire along main lines and laterals is strongly encouraged to permit easy location and prevent inadvertent cutting of pipes.
20. If the water supply for the irrigation system is from a well, a constant pressure flow control device or pressure tank with adequate capacity shall be required to minimize pump "cycling".
21. Check valves must be installed at irrigation heads, as needed, to prevent low head drainage and puddling.
22. Nozzle precipitation rates for all heads within each valve circuit must be matched to within twenty percent (20%) of one another.
23. Water spray from irrigation systems shall be applied to landscape areas only and not directed toward structures.
- 24.

Irrigated areas shall not be less than four (4) feet wide, except when using micro or drip irrigation.

25. A pressure-regulating valve shall be installed and maintained if static service pressure exceeds eighty (80) psi.
26. Preserved ecological communities shall be only temporarily irrigated as needed for newly installed plants during an establishment period as required by the City.
27. On lots under five thousand (5,000) square feet in size requiring landscape upgrades, irrigation may be accomplished by the installation and use of hand watering in accordance with current water restrictions.

(Ord. No. C-97-19, § 1(47-21.7), 6-18-97; Ord. No. C-99-15, § 5, 3-16-99; Ord. No. C-04-3, § 6, 2-3-04; Ord. No. C-15-09, § 10, 2-17-15)

Note— Formerly § 47-21.7.

Sec. 47-21.11. - Maintenance.

- A. The owner, tenant and their agent, if any, shall be jointly and severally responsible for the proper maintenance and protection of landscaping and irrigation systems existing or hereafter installed. Maintenance shall include watering, weeding, mowing, fertilizing, treating, mulching, trimming, removal or replacement of dead or diseased plants and removal of refuse and debris on a regular basis so as to continue a healthy growing condition and present a neat and well-kept appearance at all times.
- B. Shade trees shall be maintained at a minimum canopy diameter of thirty (30) feet in accordance with the American National Standards Institute, A-300 standards or similar accepted standards as published.
- C. A landscaped sight triangle shall be provided and visibility maintained as provided in Section 47-2.2.
- D. Plant materials which block visibility shall be removed by the property owner or maintained so as to allow clear visibility of oncoming traffic.
- E. Landscaping shall be inspected periodically by the department to insure proper maintenance. The owner, tenant or their agent shall be notified in writing, of any areas which are not being properly maintained and shall provide corrective action within thirty (30) calendar days from the time of notification.

(Ord. No. C-97-19, § 1(47-21.8), 6-18-97; Ord. No. C-15-09, § 11, 2-17-15)

Note— Formerly § 47-21.8.

Sec. 47-21.12. - Landscape requirements for vehicular use areas.

- A. In order to improve the appearance of VUA's and to protect and preserve the appearance, character and value of the surrounding neighborhoods, promote better air quality and thereby promote the general welfare by providing for installation and maintenance of landscaping, screening and aesthetic qualities, the following minimum VUA landscape requirements are established. This section is not applicable to underground or building enclosed VUA's. A landscape permit shall be issued before or in conjunction with a paving or resurfacing permit, but shall not include the application of a liquid coating for the purpose of preserving the existing pavement.
 1. *Vehicular use areas.* On the site of a building or structure or on an open lot providing a VUA, landscaping shall be provided in a square footage area equal to a minimum of twenty percent (20%) of the gross VUA. This square footage shall abut and extend no further than ten (10) feet away from a VUA. The landscape area required from a VUA shall consist of perimeter, peninsular and interior landscape areas as follows.
 2. *Perimeter landscape area.*
 - a.

Along the perimeter of a parcel of land which abuts a street, exclusive of vehicular access points, a perimeter landscape area shall be provided. The depth of the perimeter landscape area shall be a minimum of five (5) feet, a maximum of twenty-eight (28) feet, and an average of ten (10) feet. The ten (10) feet of perimeter landscape area closest to the VUA may be counted as part of the twenty percent (20%) minimum VUA landscape requirement.

- b. Along the perimeter of a parcel of land which does not abut a street the minimum depth of the landscape area shall be two and one-half (2½) feet. Parcels of land with less than one hundred-foot front width may provide a perimeter masonry wall at least thirty (30) inches in height between the VUA and the abutting property in lieu of the perimeter landscape area.
 - c. When a perimeter landscape area is required pursuant to other provisions of this Code or as a condition of plat, site plan or other development approval, the greatest depth required shall prevail.
 3. *Interior landscape area.* At least thirty (30) square feet of interior landscape area shall be provided for every interior parking and loading space and shall not be part of any perimeter landscape area.
 4. *Peninsular and island landscape areas.*
 - a. Peninsular and island areas shall be located at the end of a row of more than two (2) consecutive parking spaces where the row terminates at an aisle or driveway and either:
 - i. Intermittently at least every ten (10) parking spaces in a row; or
 - ii. Intermittently at no more than a maximum of every twenty (20) parking spaces in a row when a minimum width of eight (8) feet plus one (1) foot for every extra parking space over ten (10) is added to one or both of the adjacent islands in the row.
 - b. When a row of parking spaces is located in a manner where motor vehicles back out directly onto a public right-of-way or alley, as allowed by Section 47-20, Parking and Loading Requirements, backout parking spaces for residential uses and motels and hotels shall have one (1) peninsular landscape area for every two (2) spaces. For all other uses there shall be one (1) peninsular landscape area for every four (4) spaces.
 - c. Peninsular and island areas shall be a minimum of three-quarters (¾) the length of the adjacent parking space by a minimum of eight (8) feet in width.
 - d. All peninsular and island landscape areas shall be planted with at least one (1) tree.
 - e. Peninsular and island landscape areas placed intermittently every ten (10) parking spaces are not necessary when the landscape area adjacent to the front of the parking spaces is fifteen (15) feet or more in depth.
 5. *Storage and loading areas.* When portions of a VUA are utilized for storage, loading dock, tractor/trailer truck maneuvering, or aircraft maneuvering, and when it is shown that relocation of required landscaping does not defeat the purpose of the VUA landscape and parking requirements, the department may permit the relocation of peninsular and island landscape areas and other interior landscape areas to a location in public view adjacent to the internal buildings. When there are no buildings, the relocated landscape area shall be added to the minimum depth of the perimeter landscape area.
- B. *VUA criteria.*
1. VUAs shall be visually separated from streets, waterways and abutting properties. A continuous visual barrier a minimum of thirty (30) inches in height is required. Visual barriers may consist of any of the following or combination thereof: a masonry wall, mounding, berm, and groupings of shrub plants.
 - 2.

When a cross-easement agreement to operate abutting properties as essentially one (1) contiguous VUA is in force, the screening requirements between the two (2) properties shall be waived until the agreement is terminated. However, other minimum perimeter and interior landscape requirements of all parcels of land involved shall be provided.

3. Utilities and site amenities such as walkways, flagpoles, transformers, fire hydrants, sewer and water supply lines, trash enclosures, and similar items located on the site shall not be placed in or under required tree planting areas. Lighting fixtures with an overall height of more than ten (10) feet shall be located a minimum of fifteen (15) feet away from shade trees.
4. All landscape areas shall be protected from vehicle encroachment, including the nose of peninsular and island landscape areas.
5. Vehicle overhangs do not count toward minimum landscape area requirements.
6. Every effort shall be made to design around existing, large desirable trees. Parking spaces which are lost because of saved trees and supporting root system pervious area may be counted as spaces installed by the director, up to ten percent (10%) of the required parking count.
7. Parts or all of the requirements of this section may be waived by the department if the VUA is only periodically or intermittently used for vehicular parking such as parking lots at houses of worship or recreational facilities.

C. *VUA planting requirements.*

1. One (1) tree and six (6) shrubs shall be required for every one thousand (1,000) square feet, or fraction thereof, of VUA.
 - a. The first twenty-five percent (25%), or fraction thereof, of the required trees shall be shade species with a three and one-half (3 ½) inch minimum trunk caliper, and shall be evenly distributed between interior and perimeter landscape areas.
 - b. Twenty-five percent (25%) of the required trees shall be shade species with a two and one-half (2 ½) inch minimum trunk caliper.
 - c. Twenty percent (20%) of the required trees shall be conspicuously flowering species.
 - d. Twenty percent (20%) of the required trees shall be palm species.
 - e. Ten percent (10%) of the required trees shall be optional species.
2. The types of trees and the percentage requirements provided in this subsection C may be varied by the department if it is found that installation of a different type of tree would create a more compatible image with trees located on adjacent sites.
3. Where a business uses a VUA as display area, the first twenty-five percent (25%) of the width of the VUA along the major street may be considered as display area. Shade trees are not required to be placed in this first twenty-five percent (25%), but if not planted in the first twenty-five percent (25%) these trees shall be redistributed to the other seventy-five percent (75%) of the site.

- D. *Failure to install.* It shall be unlawful to occupy or use, or cause to be occupied or used, any VUA unless the required landscaping has been installed and approval has been obtained for the use of such VUA. Approval for use of a VUA shall be by certificate of occupancy or use approval by the director. When a VUA is used without first having obtained approval, the director shall notify the owner or occupier of the land, in writing, to stop the use. If this notice is not complied with by the owner or occupier of the land, the VUA shall be barricaded and remain unoccupied and barricaded until the required landscaping is installed and use approval issued.

E.

Exceptions. The board of adjustment may approve VUA's which do not comply with the provisions of this section for a specified length of time, not to exceed one (1) year, when the board finds that such approval is necessary to relieve hardship and would not violate the intent and purpose of these regulations. Prior to the expiration of the approved time period, the board may approve an extension of the time not to exceed one (1) year.

F. *Existing vehicular use areas.* Existing VUA's shall be considered as new and brought into conformity with the minimum requirements of this section upon the occurrence of any one (1) of the following conditions:

1. When a vehicular use area is expanded or enlarged by a cross easement agreement or by additional paving resulting in an increase of twenty-five percent (25%) or more of the existing vehicular use area square footage.
2. When there is an addition which increases the total ground floor area of all existing buildings on the property more than twenty-five percent (25%).
3. When a building or use has lost its nonconforming status in accordance with Section 47-3, Nonconforming Uses, Structures and Lots.
4. When there has been a denial of a change of use, pursuant to Section 47-3.5 and the change of use will result in a use, structure or both being required to meet the ULDR requirements.

G. *Retroactive VUA landscaping.*

1. Any owner of a parcel of land upon which there is located a vehicular use area which existed prior to July 7, 1977 shall meet at least fifty percent (50%) of the requirements of new vehicular use areas. If a vehicular use area cannot be redesigned and the owner is unable to meet this fifty percent (50%) requirement without reducing the number of required parking spaces or reducing the number of parking spaces provided for use of the parcel which would be required if based on the minimum off-street parking requirements for such use in effect on March 6, 1990, the owner shall comply to the maximum extent possible without reducing the number of required parking spaces.
2. The department shall be authorized to inspect each VUA and provide, as necessary, written notification to the owner, tenant or agent, if any, of the terms and provisions of these regulations. The owner shall submit a landscape plan to the department and obtain any required permits within thirty (30) days from receipt of notification. Installation shall be completed within ninety (90) days from receipt of the initial notification.

(Ord. No. C-97-19, § 1(47-21.9), 6-18-97; Ord. No. C-99-15, § 6, 3-16-99 Ord. No. C-15-09, § 12, 2-17-15)

Note— Formerly § 47-21.9.

Sec. 47-21.13. - Landscape requirements for all zoned districts.

A. The following is a chart which provides the landscape requirements for each zoning district:

Zoning District	Landscape Requirements
RS-4.4, RS-8	1, 10, 16
RC-15, RD-15	1, 2, 10, 15, 16
RM-15, RML-25, RMM-25, RMH-25, RMH-60, MHP	1, 2, 3, 10, 15, 16
R-O, R-O-C	1, 2, 3, 4, 10, 16
R-O-A	1, 2, 5, 10, 16
CB, X-Use	1, 2, 7, 8, 10, 16
B-1, B-2, B-3, I, CF, CF-H, CF-S, CF-HS, P, T, U, I	1, 2, 6, 7, 8, 10, 16
AIP, CC	1, 2, 7, 8, 13, 10, 16
GAA	1, 2, 8, 9, 13, 10, 16

H-1	1, 2, 7, 8, 10, 16
PEDD	1, 2, 7, 8, 11, 12, 10, 16
PRD, ABA, IOA, NBRA, SBMHA, SLA	1, 2, 14, 10, 16
RAC (see <u>Section 47-21.11</u>)	

B. *Landscape requirements.*

1. Yards and other portions of a parcel of land not utilized for structures, required walks, vehicular use area including VUA required landscaping, decking, pool and other impervious areas, shall be covered with a lawn or ground cover and shall comply with the following:
 - a. There shall be at least one (1) tree for each one thousand (1,000) square feet of net lot area or portion thereof. This tree planting requirement is in addition to the VUA landscaping requirements. Twenty (20) percent of the trees shall be shade trees.
 - b. For a one-family residence a minimum of four (4) trees are required. At least three (3) of the four (4) required trees shall be located in the front yard, one (1) of which must be a shade tree. At least one (1) tree shall be located in the back yard. If palms are used to meet this requirement, a cluster of three (3) palms, one of which must have at least eight-foot of trunk wood height, shall equal one (1) required tree.
 - c. The director may revise the shade tree requirement provided in subsection a. and the requirements of subsection b. if it is found that the applicant is unable to meet the planting requirements for reasons such as constraints of the planting area, inconsistency with existing desirable trees, building design, existing utilities that would be compromised, safety considerations or other factors exist that support a modification of the requirements because it would further the overall purpose of the landscape regulations.
2. When the parcel of land includes offstreet parking for other than a one family dwelling, VUA landscaping shall be required in accordance with this section.
3. A minimum of thirty-five percent (35%) of the gross lot square footage shall be in landscaping, maintained by an irrigation system. The minimum twenty percent (20%) VUA landscaping may be used toward fulfilling the gross thirty-five percent (35%) minimum. Sandy beach on oceanfront parcels of land may be included in the gross minimum, but need not be planted nor maintained by an irrigation system.
4. When no parking areas or circle driveways are between the front property line and front building setback line, the minimum gross lot landscape requirement may be reduced to twenty-five percent (25%) of the parcel of land.
5. A minimum of forty percent (40%) of the gross lot square footage shall be in landscaping, maintained by an irrigation system. The minimum twenty percent (20%) VUA landscaping may be used toward fulfilling the gross forty percent (40%) minimum. Sandy beach on oceanfront parcels of land shall be included in the gross minimum, but need not be planted nor maintained by an irrigation system. When no fences, walls or planter boxes having an overall height of more than thirty-six (36) inches, walks wider than five (5) feet, or parking areas or circle driveways are between the front property line and the front building set back line, the minimum gross lot landscape requirement may be reduced to thirty percent (30%) of the total square footage of the parcel of land.
6. The first twenty (20) feet of the yard fronting on those streets subject to the Interdistrict corridor requirements as provided in Section 47-23.9 shall be in landscaping. No paving, parking, or walkway shall be allowed in said twenty-foot area, other than necessary access from a right-of-way, unless otherwise specifically permitted in

Section 47-23.9, Interdistrict corridor requirements.

7. For parcels on a waterway, the first twenty (20) feet of the yard fronting on the waterway shall be landscaping. Measurement shall be from the existing bulkhead line. When the parcel is used for marina or yacht club purposes or for other businesses which are established primarily to repair or service watercraft, the waterway landscape area setback is not required.
8. When a parcel of land is used for residential purposes, a minimum amount of open space and landscaping shall be provided as required by Section 47-18.21.H.2, Mixed Use Development. When the minimum twenty percent (20%) VUA landscaping is provided, such landscape area may be used toward fulfilling the minimum requirement. Sandy beach on oceanfront parcels of land may be included in the gross minimum, but need not be planted nor maintained by an irrigation system.
9. Location of landscaping on G-A-A zoned parcels shall be subject to restrictions of the Federal Aviation Administration.
10. To reduce exposure to epidemic tree loss and maximize genetic diversity, a wide variety of trees should be planted in the urban forest. Variety also minimizes the number of trees having the same growth speed and ultimate mature age. This diversity or tree mix is based on the overall number of trees required with not more than one-half (½) of the required tree count being in one (1) genus. At least forty percent (40%) of all required trees shall consist of native species. In nonresidential zoning districts lying east of the Intracoastal Waterway, if any portion of a development site is across a right-of-way from a development site with residential zoning or a residential use, shade trees shall be required along the right-of-way abutting the side of the development site across from the residential zoned or used site. The location and number of the shade trees shall be determined by the department based on the height, bulk, mass and design of the structures on the site and the proposed development's compatibility to surrounding properties. The requirement for shade trees, as provided herein, may be located within the public right-of-way as approved by the entity with jurisdiction over the abutting right-of-way. This requirement may be varied as approved by the department based on existing or proposed physical conditions which may prevent the ability to comply with the requirements of this subsection. This requirement shall be in addition to the requirements provided in Section 47-25.2, Adequacy Requirements.
11. In the PEDD zoning district, when a fence or wall is located adjacent to a street, the setback area between the property line and the fence or wall shall be landscaped with one (1) vine, shrub, standard, or flowering tree placed at least every nine (9) running feet or portion thereof along such fence or wall.
12. The requirements for PEDD may be modified by Section 47-15, Port Everglades Development District.
13. The first one-half (½) of the required setback abutting the street shall be in landscaping and permanently maintained by the owner or occupant in such a manner as to provide a park-like setting for the industrial buildings. No paving, parking or walkways shall be allowed in said area other than necessary access from a right-of-way.
14. A minimum of twenty-five percent (25%) pervious area is required for single and multiple family development.
15. For multi-family, townhouse or cluster development, there shall be at least twelve (12) ornamental shrubs for each one thousand (1,000) square feet of net lot area or portion thereof. Shrub planting requirements are in addition to the VUA requirements. At least forty (40) percent of all required shrubs shall consist of native species.
- 16.

Street trees. In order to provide for adequate landscaping along streets within the city, street trees shall be required along the length of the property abutting a street. Required street trees shall be planted in an area located between the roadway and the property line. Where such a planting strip does not exist or is impractical to provide, street trees may be located in a perimeter planting area where this perimeter landscaping area adjoins the street right-of-way.

A minimum of fifty percent (50%) of the required street trees shall be shade trees, and the remaining street trees may be provided as flowering or palm trees. Street trees shall be provided at a ratio of one street tree per forty (40) feet of street frontage, or greater fraction thereof, not subtracting ingress and egress dimensions. Where overhead utilities exist, required street trees may be small trees provided at a ratio of one street tree per twenty (20) feet of street frontage.

The street trees shall be planted at a minimum height and size in accordance with the requirements of Section 47-21, Landscape and Tree Preservation Requirements, except in the downtown RAC districts the requirements of Sec. 47-13.20.H.8 shall apply. The requirements for street trees, as provided herein, may be located within the public right-of-way as approved by the entity with jurisdiction over the abutting right-of-way.

The use of structural soil is required in paved sites to provide adequate soil volumes for tree roots under pavements.

(Ord. No. C-97-19, § 1(47-21.10), 6-18-97; Ord. No. C-01-10, § 3, 4-5-01; Ord. No. C-02-32, § 2, 10-15-02; Ord. No. C-08-04, § 3, 2-5-08; Ord. No. C-08-54, § 5, 12-2-08; Ord. No. C-15-09, § 13, 2-17-15)

Note— Formerly § 47-21.10.

Sec. 47-21.14. - Additional landscape requirements for special uses and districts.

A. In addition to the requirements for land zoned in certain districts, additional landscaping shall be required for certain special districts and uses as follows:

1. *Downtown Regional Activity Center (RAC).*

a. Within the RAC districts newly planted street trees shall be limited to the following species:

RAC Street	Tree Species*
Broward Boulevard	Royal Palm (<i>Roystonea elata</i>)
Andrews Avenue	Sabal Palm (<i>Sabal palmetto</i>) Carpentaria Palm (<i>Carpentaria acuminata</i>)
Federal Highway	Sabal Palm (<i>Sabal palmetto</i>) Gumbo Limbo (<i>Bursera simarouba</i>) Live Oak (<i>Quercus virginiana</i>) Weeping Wild Tamarind (<i>Lysiloma sabicu</i>)
East 8th Avenue	No designated tree
East 3rd Avenue	Royal Palm (<i>Roystonea elata</i>) Live Oak (<i>Quercus virginiana</i>) Carpentaria Palm (<i>Carpentaria acuminata</i>)
East 1st Avenue	Gumbo Limbo (<i>Bursera simarouba</i>)
West 1st Avenue	No designated tree
West 3rd Avenue	No designated tree
Flagler	Live Oak (<i>Quercus virginiana</i>)
West 2nd Avenue	Little Leaf Calophyllum (<i>Calophyllum antillarum</i>)
West 4th Avenue	Live Oak (<i>Quercus virginiana</i>)

West 5th Avenue	Live Oak (<i>Quercus virginiana</i>)
South 7th Street	No designated tree
East South 6th Street	Royal Palm (<i>Roystonea elata</i>)
West South 6th Street	No designated tree
South 5 Street	No designated tree
S.E. 5th Court	Gumbo Limbo (<i>Bursera simarouba</i>) Maypan Palm (<i>Cocos nucifera</i> var. <i>Maypan</i>)
S.E. 4th Street	Weeping Wild Tamarind (<i>Lysiloma sabicu</i>)
Las Olas Boulevard	Sabal Palm (<i>Sabal palmetto</i>) Live Oak (<i>Quercus virginiana</i>) Maypan Palm (<i>Cocos nucifera</i> var. <i>Maypan</i>) Carpentaria Palm (<i>Carpentaria acuminata</i>)
South 2nd Street, east of city parking garage	Royal Poinciana (<i>Delonix regia</i>) Live Oak (<i>Quercus virginiana</i>)
South 2nd Street, west of city parking garage	Weeping Wild Tamarind (<i>Lysiloma sabicu</i>) Sabal Palm (<i>Sabal palmetto</i>)
South 1st Street	No designated tree
North 1st Street	No designated tree
North 2nd Street	Live Oak (<i>Quercus virginiana</i>) Washington Palm (<i>Washingtonia robusta</i>)
North 3rd Street	Weeping Wild Tamarind (<i>Lysiloma sabicu</i>)
North 4th Street	Gumbo Limbo (<i>Bursera simarouba</i>)
North 5th Street	No designated tree

*Black Olive (*Bucida buceras*) trees existing as street trees prior to March 26, 1999 are legal and their existence shall not cause a development to be nonconforming, and shall be considered to meet the street tree requirements for any redevelopment or reconstruction of existing structures adjacent to or in front of said Black Olive trees, but such trees shall not be permitted to be planted or replaced with Black Olive subsequent to this date.

- b. When planted in non-pervious areas, dicot street trees shall be accompanied by expandable tree grates or porous aggregate system which are at least five (5) feet square, with three-eighths ($\frac{3}{8}$) inch slot openings. Area must meet current ADA standards.
- c. All newly planted dicot street trees shall have a minimum caliper of two and one half ($2\frac{1}{2}$) inches.
- d. All newly planted monocot street trees shall have a minimum overall height of twelve (12) feet.
- e. Planting plans shall obtain the approval of the department. The necessity for installation of an irrigation system for street trees and the type and kind to be used shall be determined by the city based on tree species requirements.
- f. The RAC requirements may be appealed by written request to the department. Such appeal shall be accompanied by a plan which shows the location, size, description and species of landscape improvements proposed. The department may find that the applicant is unable to observe planting requirements for reasons such as the lack of available plant material, constraints of the planting area or inconsistency with existing street trees or building design. In the department's discretion, when the appeal provides landscaping which is harmonious with adjacent landscaping and uses and is otherwise consistent with the intent and purpose of this subsection, they may approve modifications to Code requirements.

Signs. The landscape area required by the sign regulations of this chapter shall be planted with shrubs or ground cover. Asphalt and rock shall be removed and the area refilled with clean, fertile soil, as necessary, before planting. The area shall be protected from vehicle encroachment by a barrier placed around the outside edge of the required landscape area.

3. *Townhouse developments/zero-lot-line homes/cluster dwellings.* Townhouse developments/zero-lot-line homes/cluster dwellings shall be subject to the same open space and planting requirements as the district in which it is located subject to the following:
 - a. The development area of the calculated in the lot coverage measurement shall be exempt from the calculation of the required landscape area.
 - b. Individual lots owned in fee simple within a townhouse development, zero-lot-line development or cluster development are exempt from the requirements to provide landscaping in the rear yards except for those areas subject to common easements.
4. *Parking garages.*
 - a. Structures which enclose parking shall provide a landscape area between the street and that portion of structure enclosing the parking utilizing trees and ground cover. The minimum square footage of the landscape area to be provided shall be determined by multiplying by five (5) the lineal street frontage of the parcel of land upon which the parking garage is located, and adding four hundred (400) square feet for each corner of the parcels adjacent to a street.
 - b. Parking garages constructed in residentially-zoned districts shall meet the landscape requirement of the district in which the garage is located. No paving or walkways shall be allowed in the yard fronting on the principal street other than necessary access from that right-of-way.
5. *House of worship.* The landscaping requirements for a house of worship shall be the same as the zoning district in which the house of worship is located. VUA landscaping shall be required. A landscaping irrigation system shall be installed.
6. *Backout parking.* Except when used for a single family dwelling, when a parcel of land has a VUA designed to permit motor vehicles to back directly out onto a public right-of-way, including an alley, a landscape area at the front of the parking spaces unobstructed by a fence or wall shall be provided. The landscape area shall be a minimum of five (5) feet in width and shall contain not less than ten (10) square feet for each linear foot of VUA fronting on the street. The landscaping for this area shall consist of hedges and trees. There shall be no more than two (2) parking spaces in a row without a tree island when the parking serves a residential or hotel/motel use, and no more than four (4) parking spaces in a row without a tree island when the parking serves any other use. A poured six (6) inch high concrete curb shall be placed across the nose of tree islands.
7. *Noncontiguous parking lots.*
 - a. Freestanding, noncontiguous, or remote VUAs shall be landscaped according to minimum VUA requirements and maintained by an irrigation system.
 - b. The parcel shall contain no dumpster or structures other than fences, walls or lights poles. If a dumpster or structure is located on the property, the requirements of the zoning district where the VUA is located shall apply.
8. *Fences and walls.* On a parcel of land in a non-residential district, when a fence or wall is located adjacent to a street, it shall be subject to the requirements of Section 47-19.5.
- 9.

Bufferyard requirement. The landscape area required by bufferyard requirement as provided in Section 47-25.3, Neighborhood Compatibility Requirements, is intended to provide a heavily-vegetated view from the residential parcel. The tree requirements for the bufferyard are in addition to trees required to be installed to comply with general tree planting requirements and trees required for a VUA and include a minimum of one (1) tree for every three hundred (300) square feet or fraction thereof of bufferyard area. Trees shall be dicot types obtaining a fifteen-foot minimum height at maturity as listed in the table of tree evaluation and monocots obtaining a twelve-foot minimum height at maturity. The species mix shall be at least two-thirds ($\frac{2}{3}$) dicots.

10. *Self storage/mini warehouse facility.* The twenty-foot yard required as provided in Section 47-18.29 shall be in landscaping. A vehicular use area may also be located between the structure and street and may divide the landscape area as long as there is a total of twenty (20) feet in landscape area. This twenty (20) feet landscape area may be used to meet the landscape area required pursuant to Section 47-18.29.

(Ord. No. C-97-19, § 1(47-21.11), 6-18-97; Ord. No. C-99-15, §§ 7, 8, 3-16-99; Ord. No. C-03-19, § 10, 4-22-03; Ord. No. C-15-09, § 14, 2-17-15; Ord. No. C-17-02, § 6, 3-7-17)

Note— Formerly § 47-21.11.

Sec. 47-21.15. - Tree preservation.

A. *Tree removal.*

1. It shall be unlawful to remove a tree described as follows without first obtaining a tree removal permit:
 - a. A dicot or conifer tree having a diameter of three (3) inches or more or a monocot having eight (8) feet or more of wood, on other than a developed one family residential lot;
 - b. On a developed one family residential lot, if:
 - i. The tree is to be removed in anticipation of redevelopment and it is a dicot or conifer tree having a diameter of three (3) inches or more or a monocot having eight (8) feet or more of wood;
 - ii. No redevelopment is anticipated and the tree to be removed is a dicot or conifer having a diameter of eight (8) inches or more measured four and one-half ($4\frac{1}{2}$) feet above grade; or
 - iii. A palm in the genus of *Cocos*, *Roystonea* and *Phoenix* (except *roebellini*) with eight (8) feet or more of wood.

For the purposes of this section, redevelopment is defined as a change of use, an added use such as an additional living unit or an office, or remodeling or demolition of more than fifty (50) percent of the existing interior. Room additions to a structure, which will continue as a one family use do not constitute redevelopment. An application for a building permit to redevelop a one family property within twelve (12) months of previously unpermitted tree removal shall be construed as anticipation of redevelopment and will require tree removal permits and equivalent replacement.

2. Application for a tree removal permit shall be made to the department. Upon receipt of an application for tree removal, the department shall determine the equivalent replacement or equivalent value of each tree to be removed. No permit nor replacements shall be required for removal of *Schinus* spp. (Pepper Trees, Florida Holly), *Metopium toxiferum* (Poison Wood), *Casuarinas* spp. (Australian Pine, Beefwood), *Melaleuca* spp. *quinquineria* and *M. leucadendron* (Paper Bark Trees), *Euphorbia tirucalli* (Pencil Tree), *Bischofia javanica* (*Bischofia*, Bishopwood), *Acacia auriculaeformis* (Earleaf Acacia), *Araucaria excelsa* (Norfolk Island Pine), *Cupaniopsis anacardioides* (Carrotwood) or *Brassia actinophylla* (*Schefflera*).

3.

Effort shall be made to design around existing, large, desirable trees. If, as determined by the department, there are large desirable existing tree(s) and the proposed placement of the site plan elements will not save such tree(s) and sufficient root system to support the tree(s), and such tree(s) are capable of being protected by a reasonable modification of said plan, then a tree removal permit may be denied by the department. In addition, if a permit is sought to remove an existing, large, desirable tree because its root system is causing damage to the associated sidewalks, paved areas, or septic systems, or if falling tree debris is staining nearby surface area, then the tree removal permit may be denied by the department if alternatives such as sidewalk bridging, canopy reduction, or trimming have not been considered or attempted, and such action would address the problem while preserving the tree. An alternative or redesigned site plan shall then be submitted.

4. The department shall issue a tree removal permit when the applicant for such permit has agreed to fulfill one (1) of the following requirements:
 - a. That the tree, if transplanted, will be moved by the applicant following the American National Standards Institute A-300 standards or similar accepted standards as published, to another location within the city and guaranteed by the permit holder for one (1) year for trees of less than or equal to six (6) inches in caliper and for two (2) years for trees greater than six (6) inches in caliper.
 - b. That the tree, if destroyed, will be replaced by trees of equivalent replacement, as determined by the department, planted on the site from which the tree was removed. Sufficient room shall remain on the site to allow replacements to establish a mature canopy spread, based on usual growth characteristics of the species. A replacement planting plan may be required.
 - c. That the tree, if destroyed, will be replaced by new trees of equivalent replacement upon public lands and guaranteed by the donor for three hundred sixty-five (365) days. The replacement species, size and planting location shall be determined by the department.
 - d. That a tree, if destroyed, will be replaced by a container grown tree or trees of equivalent replacement delivered to the city nursery or other location. The delivery location, as well as the replacement species and size, shall be determined by the department.
 - e. That the tree, if destroyed, will be replaced by the applicant by providing the equivalent value to the city's tree canopy trust fund.
 - f. That a specimen tree having a caliper measurement of eighteen (18) inches or more shall be limited to the option of providing equivalent value by cash only deposited to the tree canopy trust fund at the time the removal permit is issued.
5. Any tree removed without a permit having first been issued by the department shall be replaced by equivalent replacement or equivalent value. If the tree removed was a tree required by ordinance, the equivalent replacement shall be made by planting the largest tree reasonably available upon the site. Any remainder of equivalent replacement shall be planted on public property by the violator, at a location determined by the department and guaranteed for three hundred sixty-five (365) days. If the tree removed was a nonrequired tree, equivalent replacement or value shall be provided in accordance with subsection A.4.
6. In the event that insufficient trunk remains of the removed tree so that equivalency cannot be determined thereby, size and equivalency shall be estimated based upon trees of the same species existing in the vicinity, considering, among other things, aerial photographic records and other available data relative to the area.
7. Failure of an applicant to replace a removed tree within sixty (60) days after being notified by the department shall be a violation of this section. Removals necessitated by permitted construction may be replaced after the sixty-day limit, but prior to the issuance of a certificate of occupancy or final use approval.

8. Trees which have been planted and are being grown in a state-certified plant nursery or botanical garden for sale to the general public and are being transplanted in order to be utilized as landscape material do not require tree removal permits.
9. A monetary guarantee may be required to insure compliance with requirements. This bond, cash, letter of credit, or certificate of deposit in favor of the city shall be computed based upon the equivalent value of the tree or trees in question. The subsequent deposit of this monetary guarantee into the tree canopy trust fund shall immediately fulfill tree replacement requirements. Otherwise, when tree planting is used to fulfill the tree replacement conditions, the security shall be held by the city and the guarantee period shall extend at least three hundred sixty-five (365) days past the replacement planting date. The monetary guarantee shall be in addition to any bond required by any other governmental entity.
10. In the event of storms, accidents or other acts of God of an emergency nature by reason of which life, limb or property is in immediate jeopardy, or for trees which have died due to lightning, disease, storm damage, or other natural causes, part or all of the terms and provisions of this section may be waived by the department.

B. Tree services and arborists.

1. All tree services working within Fort Lauderdale shall have a current Broward Tree Trimmer License and comply with all applicable Broward Tree Trimmer license regulations.
2. Vehicles used by a tree service/arborist operating within the city shall be clearly marked with the name of the tree service/arborist. Certified arborists shall display the certified logo and registration number, if any.
3. A photocopy of the current business tax receipt shall be available for inspection at each job site.
4. Standards for cutting on or repair to dicotyledonous species shall be in accordance with the American National Standards Institute A-300 standards or similar accepted standards as published.
5. Persons engaged in business as a tree service in the city shall adhere to the American National Standards Institute, A-300 standards or similar accepted standards as published on all tree species within the City of Fort Lauderdale.

C. Tree protection.

1. Trees retained on a site shall be protectively barricaded before and during construction activities as approved by the department. A monetary performance assurance instead of or in addition to a protective barricade may be required to ensure protection of a tree or trees or to guarantee restoration of an equivalency. The amount of said assurance shall be based upon the equivalent value of the tree or trees specifically covered. Any assurance required for a "protected tree" shall be four (4) times the equivalent value for that tree.
2. Underground utility lines shall be routed around existing trees to the outside of the dripline. If this is not possible, as determined by the department, a tunnel made by a power-driven soil auger may be used under the tree.
3. Installation of fences and walls shall take into consideration the root systems of existing trees. Post holes and trenches located close to trees shall be dug by hand and adjusted as necessary to avoid damage to major roots. Continuous footers for masonry walls shall be ended at locations where larger roots are encountered and the roots bridged.
4. Any tree which has been declared by resolution of the city commission to be a "protected tree" shall not be removed unless such removal has been approved by resolution of the city commission. When a protected tree is on or adjacent to a site to be developed or redeveloped, the owner, developer or contractor shall take all

reasonable measures to prevent damage to the tree and root system out to the natural dripline. The extent of the dripline will be based on diameter and species without respect to previous pruning activities.

5. Any owner, tenant, contractor or agent thereof who fails to provide tree protection as stated herein shall be guilty of tree abuse.

D. *Tree abuse.*

1. Tree abuse is prohibited. Abused trees may not be counted toward fulfilling landscape requirements. Tree abuse shall include:
 - a. Damage inflicted upon any part of a tree, including the root system, by machinery, storage of materials, soil compaction, excavation, vehicle accidents, chemical application or change to the natural grade.
 - b. Damage inflicted to or cutting upon a tree which permits infection or pest infestation.
 - c. Cutting upon any tree which permanently reduces the function of the tree or causes it to go into shock;
 - d. Cutting upon a tree which alters the natural shape.
 - e. Hatracking.
 - f. Bark removal of more than one-third ($\frac{1}{3}$) of the tree diameter.
 - g. Tears and splitting of limb ends or peeling and stripping of bark.
 - h. Use of climbing spikes on any species of tree for any purpose other than total tree removal.
 - i. Severe neglect of tree nutrition or adequate irrigation necessary for continued growth.
 - j. Pruning of live palm fronds, which initiate above the horizontal plane.
2. Trees shall be cut in the following manner:
 - a. All cuts shall be clean and at junctions, laterals or crotches. Tunneling or drop crotch trimming for overhead utility lines shall be followed.
 - b. Removal of dead wood, crossing branches, weak or insignificant branches, and suckers shall be accomplished simultaneously with any reduction in crown.
3. An owner of a parcel of land upon which tree abuse has occurred may be required to replant an equivalent replacement upon such parcel, or at a different location selected by the department, within sixty (60) days after being notified by the department.

(Ord. No. C-97-19, § 1(47-21.12), 6-18-97; Ord. No. C-99-15, §§ 2, 9, 3-16-99; Ord. No. C-04-8, § 2, 3-2-04; Ord. No. C-06-45, § 25, 1-4-07; Ord. No. C-08-04, § 4, 2-5-08; Ord. No. C-15-09, § 15, 2-17-15)

Note— Formerly § 47-21.12.

Sec. 47-21.16. - Removal of trees and dead trees constituting a public nuisance.

- A. The existence of any tree, dead tree or stump upon any parcel of land within the city which threatens or endangers the public health, safety or welfare, or which could foreseeably cause the spread of disease or infestation to surrounding plant life, is hereby prohibited and declared to be a public nuisance.
- B. The department shall give notice to the owner upon whose parcel of land such nuisance is located, advising the owner of the same.
- C. Such notice shall be served by personal service or certified mail. In the event that the address of the owner is unknown or such certified mail is returned unclaimed or refused, such notice may be served by posting the same in a conspicuous place on the premises upon which the nuisance is located.

- D. Such notice shall command the owner to forthwith remove such tree, dead tree or stump no later than thirty (30) days after receipt or posting of the aforementioned notice, whichever is applicable. In the event that such nuisance is not removed by the owner, the city may remove the same or have the same removed and the cost thereof shall constitute a charge and lien against the owner's property to the same extent and character as the lien now granted by law for special assessments for the cost of local improvements.
- E. Liens shall be forthwith due and payable, unless the time for payment thereof shall be extended by the city commission, and there shall be applicable thereto the same penalties and rights for sale and forfeiture as may be provided by law for special assessments for the cost of local improvements.
- F. Each day any such violation exists shall constitute a separate offense.

(Ord. No. C-97-19, § 1(47-21.13), 6-18-97; Ord. No. C-15-09, § 16, 2-17-15)

Note— Formerly § 47-21.13.

Sec. 47-21.17. - Street tree planting.

- A. There are many reasons to plant street trees. Depending on canopy density, trees reduce temperatures. They provide shade and visual interest by leaf and bloom color, bark texture, profile and scaffold architecture. They also provide protection and security to the ever increasing pedestrian traffic.
 - 1. *Sidewalk and swale tree planting.* These are usually individual trees planted at or near the street curb line for aesthetic, environmental and security reasons. Many sidewalk trees are planted and/or maintained by adjacent property owners. It is their voluntary contribution to the city tree canopy.
 - 2. *Median tree planting.* Street medians form a special area of public park land. Proximity and speed of vehicular traffic influence the tree size category and placement. Tree species classification and size selection is in inverse correlation with proximity and speed of roadway traffic. As speed of traffic increases and median width narrows, size of tree selected should decrease or be moved farther into the center of the median. Median tree plantings serve to provide:
 - a. Security to pedestrians crossings wide streets.
 - b. A screen for drivers from headlight glare of oncoming traffic.
 - c. Blockage of direct sun into the eyes of drivers, especially commuters traveling east and west. An indication of the course of the roadway in the distance.
 - d. A protective barricade to head-on collisions with out-of-control vehicles which cross into the median.
 - 3. *Arbor streets.* The majority of the property owners abutting any street may request establishment of an arbor street. An arbor street is one (1) determined by the city to be suitable for extensive planting of trees. Requests shall be in writing and submitted to the department. The request shall:
 - a. Be on a standard form obtainable from the city;
 - b. Designate areas to be improved by tree planting;
 - c. Contain names of all owners wishing trees to be planted adjacent to or upon their properties;
 - d. Evidence a commitment to contribute to the cost of and provide subsequent care, feeding and maintenance of such plantings; and
 - e. Contain a proposed planting plan.

B.

The department shall coordinate with and obtain recommendations from the appropriate city departments reviewing the arbor street application. Review shall take into consideration the general safety and welfare of the public, the interests of affected property owners, utilities, and municipal services, present and future and shall include but not be limited to onsite inspections of the proposed planting area.

- C. When the arbor street request has been reviewed by all departments concerned, the representative of the city shall submit any objections and amendments to the applicants. Should the area be determined by the city to be unsuitable for arbor street purposes, the applicants will be notified of the unsuitability.
- D. The application shall constitute an agreement between the city and the applicants. The city commission must approve the application by resolution. The arbor street project shall be implemented in accordance with provisions of the approved plan, and as city resources may permit. The applicants shall supply the planting labor, the city shall supply the trees, or vice versa as the approved plan provides.
- E. Trimming of arbor street plantings by adjacent property owners is permitted and all such work shall adhere to the American National Standards Institute, A-300 standards or similar accepted standards as published. Trees existing within an area designated in an arbor street agreement are not to be removed without permit.

(Ord. No. C-97-19, § 1(47-21.14), 6-18-97; Ord. No. C-15-09, § 17, 2-17-15)

Note— Formerly § 47-21.14.

Sec. 47-21.18. - Prohibited landscaping.

It shall be unlawful to install or relocate Schinus spp. (Pepper Trees, Florida Holly), Araucaria heterophyllum Metopium toxiferum (Poison Wood), Casuarinas spp. (Australian Pine, Beefwood), Melaleuca quinquinervia and M. leucadendron (Paper Bark Trees), Euphorbia tirucalli (Pencil Tree), Bischofia javanica (Bischofia, Bishopwood), Acacia auriculaeformis (Earleaf Acacia), Araucaria excelsia (Norfolk Island Pine), Cupaniopsis anacardioides (Carrotwood) or Brassia actinophylla (Schefflera).

(Ord. No. C-99-15, § 10, 3-16-99; Ord. No. C-15-09, § 18, 2-17-15)

Note— Formerly § 47-21.15.