

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF WEST PALM BEACH, FLORIDA, AMENDING THE CODE OF ORDINANCES AT CHAPTER 94 (ZONING AND LAND DEVELOPMENT REGULATIONS), ARTICLE XIV (LANDSCAPING, LAND CLEARING, TREE PROTECTION, AND ARTIFICIAL TURF), TO MAKE VARIOUS AMENDMENTS TO SECTIONS 94-441, 94-442, 94-443, 94-445, 94-446, 94-448, AND 94-451; AMENDING ARTICLE XIX (DEFINITIONS); DECLARING THIS AMENDMENT TO BE CONSISTENT WITH THE COMPREHENSIVE PLAN OF THE CITY; PROVIDING A CONFLICTS CLAUSE, A CODIFICATION CLAUSE, AND A SEVERABILITY CLAUSE; PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

* * * * *

WHEREAS, the City's landscape requirements were updated with Ordinance 4689-16 and a second round of analysis and updating of specific sections was requested by the City Commission; and

WHEREAS, the City's objectives of improving aspects of sustainability, safety, aesthetics and value of properties within the city have progressed and the landscape requirements in specific sections needed to be updated to reflect these objectives in the public interest; and

WHEREAS, Planning Staff's evaluation and analysis of the current landscape requirements found deficiencies and inconsistencies requiring updates; and

WHEREAS, this Ordinance introduces a text amendment modifying regulations, standards, and guidelines for the design, construction, and maintenance of landscaping within the City; and

WHEREAS, discussions on artificial turf regulation were held on June 13, 2017 and November 7, 2017 at the Sustainability Advisory Committee meetings, and specific recommendations were made to the Mayor and Staff by the Committee; and

WHEREAS, a workshop was conducted with the Planning Board on October 17, 2017 and after discussion, recommendations were made to Staff by the board; and

WHEREAS, the Planning Board recommended approval (5-0) of this request to the City Commission at a Public Hearing on November 21, 2017; and

WHEREAS, the public hearings were advertised in the Palm Beach Post, and proof of publication is housed in the Development Services Department - Planning and Zoning Division records.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF WEST PALM BEACH, FLORIDA, that:

SECTION 1: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIV (Landscaping, Land clearing, Tree protection, and Artificial turf), Section 94-441 (Intent, application, exemptions and conflicts, Florida friendly landscape principles.), subsection (a), Intent, is hereby amended and shall read as follows. The remainder of this Section is unchanged.

Sec. 94-441. - Intent, application, exemptions and conflicts, Florida friendly landscape principles.

(a) *Intent* . The intent of the landscaping and tree protection requirements of this article is:

- (1) To establish standards to protect and to enhance community appearance by the installation of appropriate landscaping and screening materials within the city;
- (2) To promote the conservation of water by encouraging the preservation and expansion of native plant communities and ecosystems, the use of site specific plant materials, the utilization of Florida friendly landscape principles;
- (3) To maintain permeable land areas essential to surface water management and aquifer recharge;
- (4) To protect and expand the community wide tree canopy;
- (5) To maintain and increase the value of land by incorporating a minimum amount of landscaping into development;
- (6) To establish parameters for the use of artificial turf;
- (7) To eradicate or control certain exotic and invasive plant species which have become nuisances because of their tendency to damage public and private works, have a negative effect upon public health, or disrupt and destroy native ecosystems;
- (8) To encourage prudent and skilled workmanship for the installation and maintenance of all plant materials;

(9) To promote energy conservation through design placement of trees and shrubs, achieving cooling through the provision of shade, thereby helping to offset global warming and local heat island effects,

- ~~(9)~~ (10) To establish procedures and standards for the administration and enforcement of this article.

SECTION 2: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIV (Landscaping, Land clearing, Tree protection, and Artificial turf), Section 94-442 (Open space landscape requirements) is hereby amended at subsections (c) and (g) which shall now read as follows. The remainder of this section shall be unchanged.

Sec. 94-442. - Open space landscape requirements.

- (a) *Intent* . The intent of this section is to provide standards for landscaping open space areas when required by this chapter.
- (b) *Landscape plans* .
 - (1) Landscape plans, excluding those prepared for single-family dwelling units, shall be prepared by persons as authorized by F.S. ch. 481, pt. II (landscape architecture).
 - (2) Landscape plan requirements. When required, a landscape plan shall contain the following:
 - a. Date, north arrow, and graphic scale.
 - b. The location of all existing or proposed structures, improvements, and uses.
 - c. The location of property lines, existing or proposed setback.
 - d. The location of existing or proposed underground or overhead utility services.
 - e. Location of all proposed trees, shrubs, ground covers, and other landscape materials.
 - f. The common and botanical name, size, and location of all trees and vegetation on the site. A table showing the size and quantity of all proposed landscape materials. A key which identifies all landscape materials shown on the plan.
 - g. Tabulation clearly displaying the relevant statistical information necessary for the evaluation of compliance with the provisions of this article. This includes gross acreage or square footage, gross open space, square footage of preservation areas, square footage of paved and landscaped areas, and such other information as the city deems appropriate.
 - h. Phasing of the site including any temporary landscaping.
 - i. Location and width of any proposed dedication of property for public rights-of-way.
 - j. Location and screening of all garbage receptacles.
 - k. Location, dimensions and screening of all proposed satellite dishes and ground mounted mechanical and utility equipment.

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- l. Delineation of the existing and proposed parking spaces, or other vehicular use areas, access aisles, driveways, terminal islands, interior islands, divider medians and similar features.
 - m. Delineation of irrigation coverage, sensors location and high, medium and low zones of water usage if taking credit for these items in Florida friendly landscaping section; and details of the cross section of root ball and staking detail.
 - n. Statement that all landscaped areas, excluding those areas with native noninvasive plants, will be provided with permanent, automatic irrigation.
 - o. A tabulation clearly displaying each technique and method proposed to satisfy the Florida friendly landscape point system requirement and its accompanying point allocation.
 - p. Nature of adjacent land uses.
 - q. Existing landscaping on adjacent properties within ten feet of the property line.
 - r. Information on protection of existing trees, relocation and removal of existing trees, and mitigation proposed.
- (c) *General standards* . All open space, as required by this chapter, shall be landscaped as provided in this section.
- (1) *Landscaping generally* . All open space, excluding vehicular and pedestrian circulation features and surface parking, shall be covered with natural grass, ground cover, shrubbery, or other suitable plant material, or may have paved active recreation areas, patios, terraces, pedestrian circulation areas, swimming pools, water features, and similar site components incorporated in the open space designs. Artificial turf shall only be permitted and installed in accordance with the standards of section 94-451.
 - (2) *General landscaping standards for single-family dwelling units and all other developments* . General landscaping standards for single-family dwelling units and all other developments shall be as follows:
 - a. *Single-family dwelling units* . For single-family and duplex dwelling units, at least one shade or flowering tree shall be planted for each 1,000 square feet of open space or portion thereof. At least one shrub shall be planted for each 500 square feet of open space or portion thereof. Front yards shall be landscaped to meet the requirements of section 94-482(a).
 - b. *All other developments* . The general landscaping standards for all other developments shall be as follows:
 1. *Trees* . At least one shade tree shall be planted for each 1,500 square feet of required open space or portion thereof. At least one flowering tree shall be planted for each 6,000 square feet of required open space or portion thereof. Required trees may be planted at uniform intervals, at random, or in groupings. The calculation of trees for this provision may include those required for buffering, screening, or to improve aesthetics within the site.

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2. *Shrubs* . At least one shrub shall be planted for each 500 square feet of required open space or portion thereof.
3. *Natural Grass*. Grass areas shall not exceed 60 percent of the required landscape area.
- (3) *Amount of plant material required* . The total open space area required shall determine the number of trees and shrubs to be planted. Required open space is established by each zoning district's regulations set forth in this Code. The total amount of plant material required shall not be affected by that portion of the open space area devoted to active recreation purposes, patios, terraces, pedestrian circulation, and similar amenities.
- (d) *Substitution of palm trees* . Palm trees may be substituted for not more than 35 percent of the shade or flowering trees required by this article. However, when palm trees are substituted for shade trees, three palm trees shall be provided for each required shade tree. This 3:1 substitution shall not be required for Royal Palm Trees (*Roystonea* spp.), Senegal Date Palm (*Phoenix reclinata*), Medjool Date Palm (*Phoenix dactylifera*), Bismarck Palm (*Bismarckia nobilis*), and Silver Date Palm (*Phoenix sylvestris*).
- (e) *Landscaping of public rights-of-way* . Public rights-of-way between street or sidewalk surfaces or private areas that serve as an extension of public space shall be planted with groundcover approved by the city or natural grass per the requirements of section 94-445(4)(c). Grass areas shall be sodded. The planting of trees and shrubs within public rights-of-way is subject to the approval of the city.
- (f) *Clear vision requirements* . Landscaping shall be installed in accordance with the clear vision requirements of subsection 94-305(e).
- (g) *Florida-friendly landscape requirements* . All new developments except for those exempt pursuant to subsection 94-441(c) shall be required to apply certain Florida-friendly landscape techniques for landscaping prior to receiving a certificate of occupancy. The adopted design options and the accompanying points used to meet the Florida-friendly landscape requirements shall be clearly tabulated on the landscape plan . Such a landscape plan must satisfy a minimum total of ~~45~~25 points for a single-family dwelling unit and a minimum of ~~40~~50 points for all other developments from the following list of options. Plants may only be counted once for credit toward drought tolerant or Florida native plant points.

| Design options: | | Points |
|-----------------|---|------------------------|
| (1) | Utilization of moisture sensing controller other than rainswitch, alternate source of water such as a cistern, or highly efficient system that promotes water conservation. | 5 <u>10</u> |
| (2) | Plan submitted with low, moderate, and high water usage zones indicated. | 5 |
| (3) | Groundcover or Grass: | |

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| | | | |
|-----|---|---|-------------------------|
| | a. | 25—50 percent of the groundcover or grass areas are made up of natural drought tolerant species from the list* | 5 |
| | b. | 51 percent or more of the groundcover or grass areas are made up of natural drought tolerant grass species from the list* | 10 |
| | c. | 25—50 percent of the groundcover or grass areas are made up of Florida native plants. | 5 <u>10</u> |
| | d. | 51 percent or more of the groundcover or grass areas are made up of Florida native plants. | 10 <u>15</u> |
| (4) | Shrubs: | | |
| | a. | 25—50 percent of the required shrubs are made up of natural drought tolerant species from the list* | 5 |
| | b. | 51 percent or more of the required shrubs are made up of natural drought tolerant species from the list* | 10 |
| | c. | 25—50 percent of the required shrubs are made up of Florida native plants. | 5 <u>10</u> |
| | d. | 51 percent or more of the required shrubs are made up of Florida native plants. | 10 <u>15</u> |
| (5) | Trees: | | |
| | a. | 25-50 percent of the required trees are made up of natural drought tolerant species from the list* | 5 |
| | b. | 51 percent or more of the required trees are made up of natural drought tolerant species from the list* | 10 |
| | c. | 25-50 percent of the required trees are made up of Florida native plants. | 5 <u>10</u> |
| | d. | 51 percent or more of the required trees are made up of Florida native plants. | 10 <u>15</u> |
| (6) | Extra shade trees in vehicular use areas: | | |

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| | | | |
|-----|----|--|------------------------|
| | a. | 25 percent more than the required shade trees planted in the vehicular use areas. | 5 |
| | b. | 50 percent more than the required shade trees planted in the vehicular use areas. | 10 |
| (7) | | Natural sod area less than 50 percent of provided landscape area. | 10 |
| (8) | | Utilization of compacted mulched planting beds at least three inches in depth in all planted areas except ground covers. | 10 <u>5</u> |

*The list of drought tolerant natural grass, shrubs, and tree species is contained in Waterwise, the South Florida Water Management District plant and landscape practices guide, as may be amended. Additional low water use plant species may be accepted with verified documentation. These species should however, not include invasive species. A listing of these drought tolerant species may also be obtained from the planning department.

SECTION 3: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIV (Landscaping, Land clearing, Tree protection, and Artificial turf), Section 94-443 (Nonresidential and multifamily screening and buffering requirements.) is hereby amended and subsection (c) which shall read as follows. The remainder of this section shall be unchanged.

Sec. 94-443. - Nonresidential and multifamily screening and buffering requirements.

(c) *Screening and landscaping for vehicular use areas.* The owner of property that contains vehicular use areas shall install and maintain a landscape buffer when such uses are adjacent to or visible from a public thoroughfare. Vehicular use areas for multifamily residential uses shall provide an additional decorative wall when such uses are adjacent to a residential zoning district. Screening and landscaping shall be installed as required by the following:

- (1) *A decorative wall:* Vehicular use areas shall be screened from residential uses and districts by a 36-inch high brick, decorative concrete, other decorative masonry, or comparably durable wood or metal wall around the periphery. The screen does not include metal or wood slats in chainlink fences. The wall may not be interrupted along more than 20 percent of required length to provide vehicular ingress and egress; however, this provision may be waived to accommodate normal vehicular ingress and egress for properties possessing minimal frontage.

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- (2) *A landscaped buffer* . Vehicular use areas shall be screened from thoroughfares and residential uses and districts by a landscape buffer of at least five feet in width. Hedges shall be planted within the landscape buffer and are subject to the requirements of subsection 94-445(4)e. Shade trees must be planted at 30-foot intervals. The requirements of this section shall not apply when property lines are adjacent to an existing structure.

TABLE XIV-1

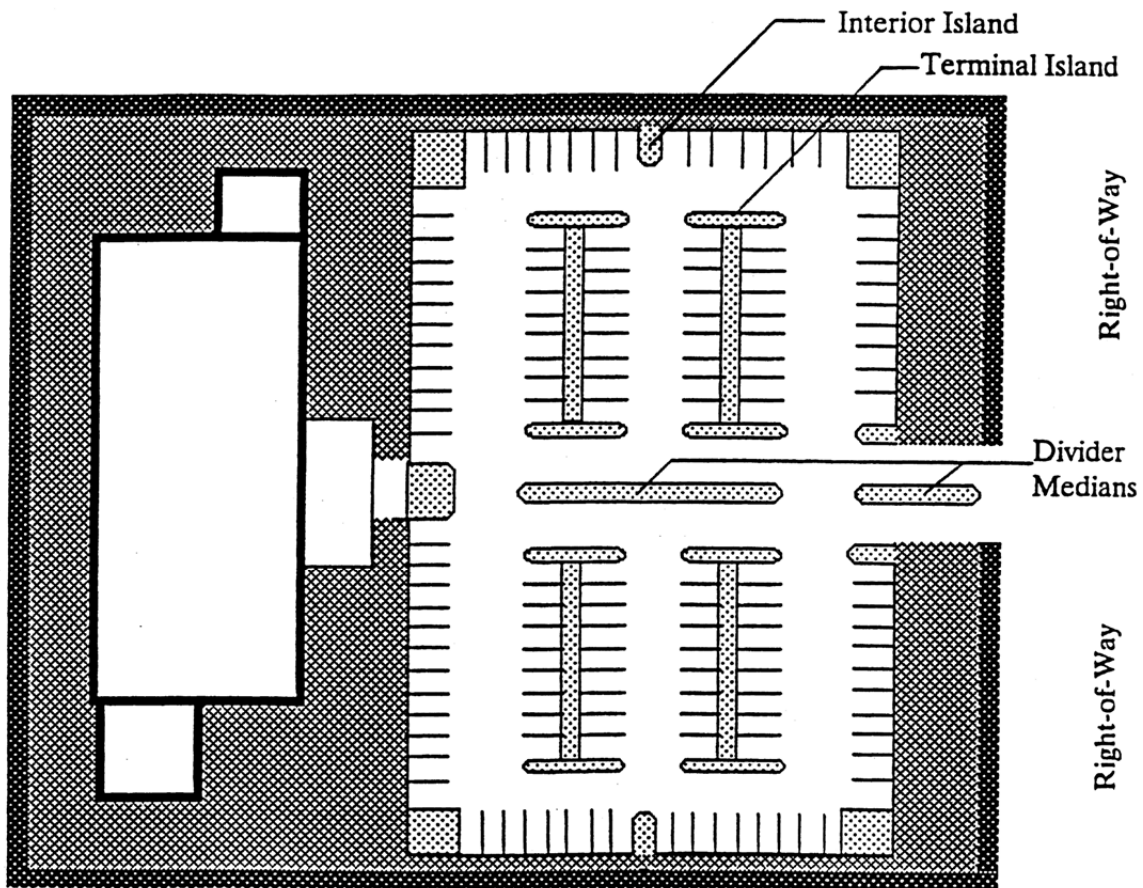
MINIMUM REQUIRED LANDSCAPE BUFFER FOR THE VARIOUS ZONING DISTRICTS





| Adjoining Proposed | Multifamily | Commercial | Industrial | Public Thoroughfare |
|----------------------------|------------------------------|------------|------------|---------------------|
| Multifamily \leq 4 units | | 0 | 0 | Setback |
| Multifamily > 4 units | 5 feet | 5 feet | 5 feet | 10 feet |
| Commercial | 5 feet plus 5-foot high wall | 5 feet | 5 feet | 5 feet |
| Industrial | 5 feet plus 5-foot high wall | 5 feet | 5 feet | 10 feet |
| Vehicular use areas | 5 feet plus 3-foot high wall | 5 feet | 5 feet | 5 feet |

- (3) *Off-street parking lots*. Off-street parking lots containing at least 12 interior parking spaces shall contain landscape areas. The total size of such landscaped areas shall be equal to ten square feet for each parking space and shall be provided within the interior of an off-street parking area. ~~Landscaped areas shall contain at least one shade or flowering tree for each 100 square feet of required landscaped area.~~ A minimum of 75 percent of all trees that are required to be planted within the interior of an off-street parking area shall be Category 1 shade trees, as designated in the landscape design manual. The shade trees shall be located in such a manner to produce maximum overhead canopy for the vehicles. All parking lot landscaped areas shall be planted with natural grass, ground cover, shrubbery, or other suitable live plant material. Parking lot landscaped areas shall be designed, planted, and maintained to permit clear vision between the height of two feet and eight feet above grade; however, this requirement shall not apply where the lack of clear vision is not deemed to be a safety hazard. Terminal islands, interior islands and divider medians should be designed to retain

maximum water in the turf areas and are subject to the following requirements. Figure XIV-1 is an example of the location and relationship between the parking lot landscape areas and the property.

**FIGURE XIV-1
LANDSCAPE AREAS FOR PARKING LOTS**



-  Exterior Landscape Provided
-  Landscape Buffer
-  Vehicular Use Area
-  Interior Landscaping for Vehicular Use Area

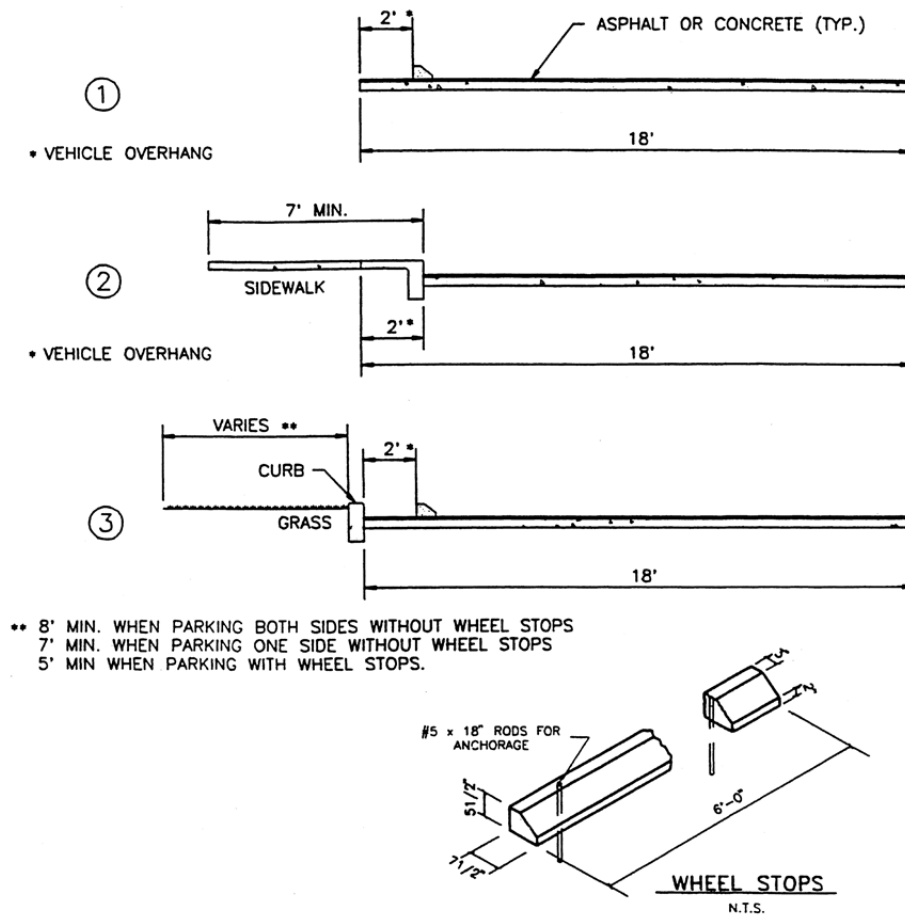
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- a. *Terminal islands* . Each row of parking spaces shall be terminated by landscaped islands of not less than five eight feet in width and not less than the length of the adjacent parking stall. Each landscaped island shall have a minimum radius of two and one-half feet at its end so as to allow car maneuvering. Each landscaped island shall contain at least one shade or flowering tree per row of parking.
 - b. *Interior islands* . One interior landscape island shall be required for every ten parking spaces in a row . Interior landscape islands shall be at least five eight feet wide measured inside the curb and shall contain at least one shade or flowering tree per row of parking.
 - c. *Divider medians*. Divider medians ~~may~~ shall be provided within the landscape area. ~~If divider medians are used, if there are more than three consecutive rows of parking, and~~ they shall form a continuous landscaped strip between abutting rows of parking spaces. The divider strips shall be located to provide placement of shade trees to maximize tree canopy coverage for parking spaces. The minimum width of such a divider median shall be five eight feet. Shade or flowering trees within a divider median shall be planted at 30-foot intervals. The clustering of divider median trees may be approved by the planning and zoning administrator. The maximum spacing of trees however, shall not exceed 50 feet.
- (4) For other paved areas utilized by motor vehicles, including aisles, loading areas, circulation areas and drive-in service areas, additional landscaping shall be provided as follows: four square feet of landscaped area shall be required for each 100 square feet, or fraction thereof.
- (5) Landscape areas and plant materials must be protected from vehicular encroachment by curbs or wheel stops. ~~pursuant to subsection 94-442(b)(4).~~ Parked vehicles shall not extend into a landscaped buffer area that is five or less feet wide unless two additional feet are added to the buffer. The two additional feet of landscaping shall contain no plant, irrigation device, or other object higher than six inches above the top of the curb of subsection (a) of this section. Landscape areas and sidewalks in the vehicular use area shall be designed in accordance with the minimum requirements set forth in Figure XIV-2. The usage of curbs is more preferable to wheel stops. However, wheel stops should be utilized when on-site drainage is a concern. Curbing and usage of wheel stops are subject to the following requirements:
- a. *Curbs*. Landscape areas shall be separated from vehicular use areas by non-mountable, concrete curbing of the type characterized as "Type D" in the current edition of the "Roadway and Traffic Design Standards Manual" prepared by the state department of transportation, or curbing of comparable durability. Extruded concrete curb shall not be placed on top of asphalt. Cemeteries shall not be required to provide curbing along internal roadways where such roadways directly abut areas of interment. Public parks and public utility facilities shall not be required to provide curbing along internal roadways. Curbing and wheel stops shall be required for cemeteries, public parks and public utility facilities in parking areas.

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- b. *Wheel stops.* Landscape areas adjacent to off-street parking areas shall be protected from encroachment or intrusion of vehicles through the use of wheel stops. Wheel stops shall have a minimum height of six inches above the finished grade of the parking area. Wheel stops shall be anchored as approved by the city engineer and shall be continuously maintained in good condition. Only one wheel stop may be used for one parking stall. One-half wheel stop placed in front of a single wheel stall shall not be accepted.
- (6) Parking areas containing more than 40 parking spaces shall have the following options to redistribute landscape area within the parking field to provide additional root zone for shade trees and produce maximum overhead tree canopy for the vehicles.
- a. Interior landscape islands within the perimeter row of the parking may be eliminated if the tree canopy located adjacent to the perimeter row of spaces has the potential to shade the row of parking spaces. If the corresponding length of landscape area is a required perimeter landscape buffer, it must be a minimum width of eight feet and can be planted with category 1 shade trees without inhibition by utility easements or overhead wires. The landscape area square footage of the eliminated islands must be added to other interior islands or the adjacent landscape buffer.
 - b. The interval of required interior landscape islands may be increased from 10 parking spaces to 12 spaces in a row if the landscape island is increased in width to 10 feet, and islands are split and alternated for each of two adjacent rows of parking to minimize overlap of tree canopies.

FIGURE XIV-2
DIMENSIONAL REQUIREMENTS AND SPECIFICATIONS FOR
CURBS AND WHEEL STOPS



SECTION 4: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIV (Landscaping, Land clearing, Tree protection, and Artificial Turf), Section 94-445 (Plant material standards and specifications.) is hereby amended as shown and shall now read as follows:

Sec. 94-445. – Plant material standards and specifications.

All plant and nonplant material shall meet or exceed the standards and specifications of this section.

- (1) *Maintenance free material.* To the extent practicable, all nonplant material shall be durable and maintenance-free.
- (2) *Plant quality* . Plant materials used pursuant to the provisions of this article shall be equal to or better than Florida Department of Agriculture Number 1 Nursery Grade Standard.
- (3) *Nonorganic plant materials prohibited* . Plastic or other nonorganic plant materials, with the exception of artificial turf, shall be prohibited from use and shall not be in compliance with the spirit or intent of this section. Artificial turf shall be subject to the requirements of section 94-451.
- (4) *Required plant material specifications.*
 - a. *Shade and flowering trees* . Shade and flowering trees planted pursuant to the provisions of this article shall be a minimum of 12 feet in height, ~~and possess a minimum of five feet of clear trunk space.~~ Up to ten percent of required trees may be reduced in size to a minimum of ten feet in height based upon species and availability. Native trees may be reduced in height to a minimum of six feet based on species and availability, if the sum of the height of the trees provided is equal to or greater to the sum of the height of the required trees. All instances of limited availability must be verified and certified by the landscape architect.
 - b. *Palm trees* . Palm species shall be a minimum of eight feet clear wood as defined in Florida grades and standards.
 - c. *Natural grass* . All natural lawn areas shall be planted with species suitable as permanent lawns in the city. Effective erosion control is mandatory in swales, rights-of-way, or other areas subject to erosion. The primary types of natural grasses used for residential, commercial, and industrial areas in South Florida are St. Augustine and Bahia cultivars. The selection of natural grass types shall be made while considering the long term economic and aesthetic effects of possible drought conditions upon the lawn areas. The following shall serve as a guide and is not meant to negate the use of other appropriate grass types for their specific site uses.

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1. *St. Augustine grass*. St. Augustine grass should be used adjacent to areas that accommodate significant pedestrian traffic or where the aesthetics of the immediate area are considered an important factor.
2. *Bahia grass*. Bahia grass should be used in large, nonmanicured, turf areas such as open fields, recreation areas, road rights-of-way or other areas that are generally viewed from a distance or from a moving automobile
- d. *Shrubs* . Shrubs for general landscape purposes planted pursuant to the provisions of this section shall be a minimum plant container size of three gallons. Container sizes for woody or herbaceous plant material, when utilized for ground cover, may vary.
- e. *Hedges* . Hedges shall be planted at a minimum of 24 inches in height and a maximum spacing of two-foot on center. The hedge shall reach a maturity height of at least 36 inches within two years of planting in the form of a solid continuous visual screen. Exceptions and substitutions from this provision may be approved by the planning and zoning administrator in order to promote the use of slow growing or native plant materials or specification of larger size plants at installation.
- f. *Root systems*. Plant materials shall be selected to minimize potential root system damage or interference with public utilities. Fruit and debris, other than leaves from installed plant materials, shall not constitute a nuisance within public rights-of-way or to abutting property owners.
- g. *Irrigation systems*. Irrigation systems can be beneficial in efficiently adding water to cultivated landscape. The following guidelines shall be implemented for developing and maintaining irrigation systems.
 1. *Irrigation of existing native noninvasive plant communities*. Existing native noninvasive plant communities and ecosystems maintained in a natural state may not require any additional irrigation water.
 2. *Reestablished or newly installed native noninvasive plant area*. Native noninvasive plant areas that are supplements to an existing plant community or newly installed by the developer may initially require additional water to become established. Where newly planted native noninvasive areas have been installed in soils appropriate to the proposed native system, additional irrigation water after the period of establishment may not be necessary.
 3. *Cultivated landscape areas*. Automatic irrigation systems shall be used for the cultivated landscape areas for all properties. Application of water through a properly maintained and regulated irrigation system can be the most efficient method of watering the landscape.
 - i. *Irrigation systems*. When irrigated, cultivated areas shall be irrigated by the use of an automatic irrigation system with controllers set to apply water as noted in this section. Irrigation controllers shall be switched to manual operation during periods of increased rainfall. Rainfall or moisture

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sensing devices are strongly encouraged to be used to avoid operation of the system during periods of increased rainfall.

- ii. *Coverage requirements* . In all areas that are to be planted in a cultivated landscape, irrigation systems shall be designed to have 100 percent coverage and eliminate water overthrow onto nonpervious areas.
- 4. *Zoning of irrigation systems*. Wherever feasible, sprinkler heads irrigating lawns or other high water demand landscape areas shall be circuited so that they are on a separate zone or zones from those irrigating trees, shrubbery or other reduced water requirement areas.
- 5. *Sod areas*. Bahia sod areas are not required to have permanent irrigation after establishment.
- h. *Berm specifications*. All berms shall be landscaped with trees, shrubs, ground cover, grass or hedges. Berms shall be installed subject to approval by the city engineer.
- i. *Prohibited trees* . The following tree species are considered invasive and will overtake other plant habitats. The following tree species are therefore considered unacceptable for use as landscape trees and shall not be planted within the city and shall be removed as required for maintenance and development:
 - 1. Casuarina species (Australian pine tree)
 - Schinus terebinthifolius (Brazilian pepper tree)
 - 3. Melaleuca quinquenervia (Melaleuca tree)
 - 4. Bischofia javanica (Bishopwood)
 - 5. Acacia auriculaeformis (Earleaf Acacia).
 - 6. Schefflera actinophylla (Schefflera).
 - 7. Albizia lebeck (Woman's Tongue).
 - 8. Cupianopsis anacardioides (Carrotwood).
 - 9. Plants listed in Rule 5B-57.007 F.A.C, noxious weed list from the Florida Department of Agriculture and Consumer Services as revised from time to time.
- j. *Limited use trees and plant materials*. Plant materials characterized by large fleshy fruit, surface or buttress roots, poisonous properties, or possible interruption of visibility shall not be planted in any parkway area, in any landscaped strip, or buffer adjacent to a public right-of-way. Trees that may cause injurious harm or toxic reactions should also be of limited use.
- k. *Use of Ficus species*. Ficus species may be planted as individual trees provided that they are no closer than 15 feet of any structure or utility. Ficus species planted within 15 feet of any structure or utility shall be permitted only if they are

contained in a planter or maintained as a hedge which is constantly cultivated and does not exceed the height limitations as provided in section 94-302.

1. *Plant Species.* A minimum of 60 percent of plant material added shall be Florida native or drought tolerant species selected from the city list or the list of species in the most recent edition of South Florida Water Management District Waterwise South Florida Landscapes.

SECTION 5: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIV (Landscaping, Land clearing, Tree protection, and Artificial turf), Section 94-446 (Plant material installation and maintenance.) is hereby amended at subsection (2) which shall now read as follows. The remainder of this Section shall be unchanged.

Sec. 94-446. – Plant material installation and maintenance.

Plant material shall be installed and maintained as provided in this section.

(1) *Installation .*

- a. Landscaping shall be installed showing skilled workmanship and according to accepted planting procedures.
- b. Plant materials shall be located and installed to provide proper growing conditions and good drainage of root systems.
- c. Soil in landscaped areas shall be free of debris, including paving base or fill material, and calcareous materials such as shell, lime rock, concrete, plaster, and stucco. Soil in landscaped areas shall consist of sand, peat, muck, and similar materials to produce a plastic and friable state. Such soils shall be at a minimum depth of six inches below the root ball and at least ten inches on all sides of the root ball. Planting areas are to be totally excavated whenever plant materials are installed 24 or less inches apart. Planting areas containing excessive calcareous materials shall be excavated to a minimum depth of two feet.
- d. A minimum of three inches of compacted, sustainably harvested, non-cypress organic mulch shall be placed around all newly installed trees, shrubs and ground cover planting areas. The use of melaleuca mulch is encouraged. Mulch consisting of any exotic invasive species must be certified seed-free by the producer.
- e. The planting of shade, flowering or fruit trees shall be installed in a sound workmanship like manner according to accepted and proper planting procedures. All trees shall be properly guyed and staked at the time of planting. Trees shall be re-staked in the event of blow-overs or other failure of the staking and guying. All guy wire and staking material should be removed as soon as the tree will stand on its own but no more than one year after planting.

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- f. Verification required. Written verification of proper landscaping installation by the landscape architect of record shall be provided to the city and shall include the following:
 - 1. Species, including quality, type, quantity, and any other original plant specifications;
Design or location;
 - 3. Irrigation; and
 - 4. All other landscape structures and material used or installed in accordance with the site plan.
 - g. Review. The city will inspect and review the project for compliance after the verification has been received from the landscape architect.
 - h. Deviation. Any deviation from the approved landscape plan will be relayed to the planning and zoning administrator for further review prior to the issuance of the certificate of occupancy.
- (2) *Maintenance* . All landscape areas shall be maintained on a regular basis, to include weeding, watering, fertilizing, pruning, mowing, edging, mulching, replacement of dead or missing landscaping, removal of prohibited plants, and other horticultural practices that are needed to keep landscaping in good condition, free from disease, insect pests, weeds, refuse, and debris. Landscape maintenance shall be carried out in a manner that will not disrupt, inconvenience or endanger any member of the public, or pedestrian, or motor vehicles. Landscaping shall be maintained in good condition, shall present a healthy, neat, and orderly appearance, and shall be free from refuse and debris. All unhealthy or dead material shall be replaced within three months. All landscaped areas, excluding reestablished or newly installed native noninvasive plant areas, Bahia sod, and areas of artificial turf installed in accordance with the provisions of section 94-451, shall be provided with a permanent automatic irrigation system.
- a. *Mulching* . In order to preserve soil moisture, at least three inches of compacted, clean, weed free, sustainably harvested, non-cypress mulch shall be maintained over all appropriate planting areas at all times.
 - b. *Tree trimming* . Standards for trimming shall be performed in accordance with the latest pruning standards for shade trees recommended by the National Arborist Association or other professional arborist association, currently the ANSI A-300 (Part 1) Pruning, a copy of which is on file in the planning, zoning and building department. Trees in the swales and parkways shall be trimmed by the adjacent property owner to prevent impedance or interference with traffic or travel on sidewalk, street, or createsing a danger to traffic by impeding or obstructing the view of intersections. Tree trimming on all properties except single family and duplex homes shall be done under the guidance of a certified arborist. Trees shall only be trimmed in the following manner:

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1. All cuts shall be clean, flush with the branch collar and made at junctions, laterals or crotches. For overhead utility lines, the drop crotch trimming method shall be followed.

Removal of dead wood, overlapping branches, weak or insignificant branches and suckers shall be done simultaneously with any crown reduction.
3. Tree topping or hatracking is prohibited. The severe cutting back of limbs to stub larger than three inches in diameter within the tree's crown to such an extent so as to remove the canopy and disfigure the tree shall not be done on any tree. Trees severely damaged by natural causes or under utility wires or other obstructions where other pruning practices are not possible may be exempted from this ordinance at the determination of the planning and zoning administrator or designee.
4. Trimming above 13.5 feet for clearance , lions tailing, and shaping or shearing of shade trees into rounded or lollipop shapes is prohibited.
5. Palm trees shall be pruned to remove seed pods and dead fronds, and live, healthy fronds above horizontal shall not be removed.
- c. *Tree abuse.* Tree abuse shall not be permitted. The following shall be considered tree abuse:
 1. Damage inflicted upon any part of a tree including the root system by machinery, storage materials, excavation and chemical application.
 2. Damage inflicted by cutting a tree which permits infection or pest infestation.
 3. Improper cutting of a tree, permanently reducing the function of the tree, or causing it to go into shock; cutting which destroys the natural shape; hatracking; tears and splitting of limb ends or peeling, stripping of the bark.
 4. Girdling a tree with use of wires, weed eaters or mower damage.
 5. Removal of the bark more than one-tenth of the tree.
 6. Improper staking techniques resulting in damage to the tree or the use of nails directly into the trunk.
- d. *Mowing.* Natural grass shall be mowed as required in order to encourage deep root growth and therefore the preservation of irrigation water.
- e. *Edging.* All roadways, curbs and sidewalks shall be edged when necessary in order to prevent encroachment from the adjacent grassed areas. The use of weed-eaters to trim lawn grasses around a tree will be done so as not to remove bark causing the deterioration and eventual death of the tree.
- f. *Watering .* Watering of planted areas should be managed so as to maintain healthy flora, make plant material more drought tolerant, avoid excessive turf growth, minimize fungus growth, stimulate deep root growth, minimize leaching of fertilizer, and minimize cold damage.

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1. *Watering of plants and trees.* Watering of plants and trees should always be in a sufficient amount to thoroughly soak the root ball of the plant and the surrounding area, there by promoting deep root growth and drought tolerance.
 2. *Operation of automatic irrigation systems.* Operation of automatic irrigation systems should be in accordance with section 90-93.
 3. *Maintenance of irrigation systems.* Irrigation systems shall be constantly maintained to eliminate waste of water due to loss of heads, broken pipes, misadjusted nozzles or other causes.
- g. *Removal of debris* . Fruit and debris, other than leaves from installed plant materials, shall not constitute a nuisance within public rights-of-way.

SECTION 6: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIV (Landscaping, Land clearing, Tree protection, and Artificial turf), Section 94-448 (Protection of trees and other vegetation.) is hereby amended at subsections (d) and (e) which shall now read as follows. The remainder of this Section shall be unchanged.

Sec. 94-448. – Protection of trees and other vegetation.

(d) *Permits required.*

- (1) *Tree alteration permit.* Historic trees, specimen trees, and any other trees or vegetation located on property subject to the provisions of this section shall not be removed, relocated, or replaced unless a tree alteration permit is obtained. Tree alteration permit applications shall be provided by the planning and zoning administrator. The application shall include a written statement that specifies the location of the property, expected use of the property, and reasons for removal, relocation, or replacement. The planning and zoning administrator may require submission of a landscape plan or aerial photograph when a permit is requested.
- (2) *Removal of trees and shrubs* . A permit to remove trees and vegetation shall not be issued unless one or more of the following conditions exists:
 - a. The tree is not a designated historic or specimen tree per section 94-448(c)(1)b.
 - b. The tree cannot be relocated on or off the site because of its age, type, or size.
 - c. The trees or shrubs constitute an unreasonable impediment to development of a permitted use of the property by virtue of their location in a buildable area or yard area where structures or improvements are to be placed.
 - d. The trees or shrubs are diseased, injured, in danger of falling, too close to existing or proposed structures, interfere with existing or proposed utility services, create

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unsafe visual conditions affecting vehicular traffic, conflict with requirements of other ordinances of this chapter, or are a threat to the public health, safety, and welfare.

- e. The trees that are prohibited trees as specified in subsection 94-445(4)i.
- f. The planning and zoning administrator's decision for removal will be in the public interest.

(3) *Tree relocation and replacement* . The applicant for a tree removal permit shall be required to relocate or replace trees to be removed or provide payment in lieu thereof into the landscape trust account for trees that cannot be relocated, replaced or installed due to preexisting site development constraints as determined by the planning and zoning administrator. Native trees and palms in good condition must be preserved on site or relocated. Relocated trees shall be installed in a sound and skilled manner according to accepted planting practices and shall be in accordance with the following:

- a. If the tree is transplanted, it shall be moved by the property owner in accordance with the National Arborist Association Standards or other professional arborist association, currently the ANSI A-300 standards, to another location within the city and maintained by the new property owner.
- b. If a tree on public property is willfully destroyed by anyone except the city forester/arborist, the tree must be substituted with an equivalent replacement that is approved by the forester/arborist or designer on the site from which the destroyed tree was removed.
- c. No permit shall be required for the removal of trees that are dead, severely diseased, are invasive exotic species, or are destroyed by natural causes. This includes trees that are planted in a certified nursery or botanical garden.

(e) *Tree replacement.*

(1) *Characteristics.* Replacement trees shall have shade and screening potential equal to or superior to that of the trees they replace at the time of the initial installation, except as provided as follows:

- a. Trees that are 20 feet or more in canopy size shall be mitigated based upon the size of the existing tree canopy, not the number of trees (i.e., if 100 square feet of existing canopy is removed, 100 square feet of canopy shall be planted). Suggested tree species listed by canopy coverage category can be referenced as provided in the landscape design manual, as amended from time to time, and available for inspection in the planning and zoning division.
- b. Palm trees shall be mitigated on a one for one basis. When palm trees are substituted for shade trees, the equivalent canopy shall be replaced according to the category of the replacement species.

(2) *Payment in lieu.* If it is determined by the planning and zoning administrator that the application for tree removal meets the permit requirements of subsections (d)(1) and

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(d)(3) above, but replacement, relocation or installation of trees and shrubs is not feasible due to site constraints, the following shall apply:

- a. The applicant/owner shall make payment to the city's landscape trust account in lieu of actual tree or shrub replacement or installation. Funds collected pursuant to this section shall be expended for the purchase of trees for placement on public properties within the city.
 - b. The payment due shall be calculated based upon the costs for the number and type of tree(s) and/or shrubs required to be replaced or installed based upon the current edition of the plant finder catalog, plus installation cost equal to one times the cost.
- (3) *Minimum standards.* All replacement trees shall be equal to or better than Florida Department of Agriculture Number 1 Nursery Grade Standard. All trees replaced or relocated pursuant to this section must be in a healthy, living condition one year from the date of planting. Replacements that are not established, have failed to a degree that survival is not probable, or have died must be replaced with healthy specimens. Such replacements must continue until a tree is established at the approved location.
- (4) *Waivers of replacement standards.* Minimum standards may be waived if the applicant can demonstrate that current market conditions result in a shortage of appropriate replacement trees.

SECTION 7: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIV (Landscaping, Land clearing, Tree protection, and Artificial turf), Section 94-451 (Artificial Turf.) is hereby amended and shall read as follows:

Sec. 94-451. – Artificial turf

- (a) The use and location of artificial turf shall be limited to the following:
 - (1) The construction of non-city-owned athletic fields and playgrounds associated with a non-city-owned community center, park, school, or university;
 - (2) As part of the construction of any nonresidential development; or
 - (3) On roof top terraces.
 - (4) On residential lots in the rear setback and side setback; or
 - (5) In multifamily residential developments as part of a recreation or amenity area.
- (b) Artificial turf proposed under the provision of subsection (a)(1) above shall only be installed upon approval of a class A special use permit, pursuant to the procedures and standards set forth in this chapter.
- (c) In all areas of installation, artificial turf shall be treated as impervious surface area. The quantity of artificial turf to be incorporated into a project shall be limited by the maximum

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percentage of impervious surface for the subject property within the applicable zoning district.

- (d) With the exception of those circumstances in which artificial turf is installed pursuant to subsection (a)(1) above, artificial turf shall not be:
- (1) A part of any landscape buffers required by this article;
 - (2) Visible from a road or street ~~the public thoroughfare~~;
 - (3) Installed within permanent drainage features (e.g., ponds, swales);
 - ~~(4) Installed in any residential zoning district.~~
- (e) *Minimum material standards* . All artificial turf shall comply with each of the following minimum standards:
- (1) Artificial turf shall consist of green lifelike individual blades of grass that emulate natural turf in look and color. ~~and shall have a minimum pile height of 1.5 inches and shall have a minimum tufted weight of 56 ounces per square yard.~~
 - (2) Where artificial turf is utilized for institutional recreational uses (e.g., playgrounds, athletic fields), the artificial turf product installed shall be designed for the intended use and meet the appropriate additional standards.
 - (3) Artificial turf installations shall have a minimum permeability of 30 inches per hour per square yard.
 - (4) All artificial turf shall have a minimum eight year manufacturer's warranty that protects against color fading and a decrease in pile height.
 - (5) Artificial turf shall be lead free.
 - (6) All materials must include test documentation which declares that the artificial turf yarn and backing materials are disposable under normal conditions, at any US landfill station (Total Content Leach Protocol (TCLP) test). Documentation must also be provided that identifies all components that are recyclable and all components that consist of recycled material.
 - (7) The use of indoor or outdoor plastic or nylon carpeting as a replacement for artificial turf or natural turf shall be prohibited.
- (f) *Installation, maintenance and repair* .
- (1) All artificial turf shall, at a minimum, be installed according to the manufacturer's specifications.
 - (2) All artificial turf installations shall be anchored to ensure that the turf will withstand the effects of wind.
 - (3) All seams shall be ~~nailed and glued, not sewn,~~ secured and edges shall be trimmed to fit against all regular and irregular edges to resemble a natural look.
 - (4) If artificial turf is planned to be installed immediately adjacent to a seawall, the artificial turf shall be pinned or staked behind the seawall. No artificial turf or

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installation mechanism shall be attached directly to or placed on a seawall or seawall cap.

- (5) Proper drainage shall be provided for all artificial turf installations to prevent excess runoff or pooling of water.
 - (6) Artificial turf shall be visually level, with the grain pointing in a single direction.
 - (7) An appropriate solid barrier device (e.g., concrete mow strip, bender board) is required to separate artificial turf from soil and live vegetation.
 - (8) Precautions for installation around existing trees shall be monitored and may be restricted to ensure tree roots are not damaged with the installation of the base material and that the overall health of the tree will not be compromised
 - (9) All artificial turf shall be maintained in a green fadeless condition and shall be maintained free of dirt, mud, stains, weeds, debris, tears, holes, and impressions. Maintenance shall include, but not be limited to cleaning, brushing, debris removal; repairing of depressions and ruts to maintain a visually-level surface; elimination of any odors, flat or matted areas, weeds, and invasive roots; and all edges of the artificial turf shall not be loose and must be maintained with appropriate edging or stakes.
 - (10) All artificial turf must be replaced if it falls into disrepair with fading or holes or loose areas. Replacement and/or repairs shall be done with like for like materials from the same manufacturer and done so in a manner that results in a repair that blends in with the existing artificial turf.
- (g) An owner or applicant shall obtain a duly-authorized building permit from the city's development services department prior to the installation of any artificial turf.

SECTION 8: The Code of Ordinances of the City of West Palm Beach at Chapter 94 (Zoning and Land Development Regulations); Article XIX (Definitions), Section 94-611 (Definitions) is hereby amended to add or amend the following definitions which shall read as follows. All other definitions in this section shall remain unchanged.

Shade tree means a hardwood tree ~~that reaches a minimum height of 15 feet at maturity, a minimum spread of at least 15 feet which, by virtue of its natural shape,~~ provides at maturity a canopy with a minimum diameter of 25 feet and provides relief from direct sunlight for at least six months each year.

Tree means a self-supporting, woody plant of a species which normally grows to an overall height of a minimum of 15 feet, and three inches in caliper ~~an erect standing wood plant having an average mature crown of greater than 20 feet and having a trunk which can be maintained with at least six feet of clear wood at maturity.~~

SECTION 9: The City Commission of the City of West Palm Beach hereby finds and determines that the amendment described in this Ordinance are consistent with the standards set forth in Section 94-32 of the Zoning and Land Development Regulations, as follows:

- A. *Changed Conditions.* The revisions to the landscape code are necessary to bring the Code into conformance with current environmental and economic conditions.
- B. *Code Compliance.* The text amendments conform with all portions of the Zoning and Land Development Regulations.
- C. *Compatibility.* The text amendments do not create any incompatibilities.
- D. *Public Utilities.* The text amendments encourage water conservation, reducing demand to the water supply and has positive effects on drainage. There will not be any negative affects to capacities for other public facilities.
- E. *Natural Environment.* The text amendments encourage water conservation and preservation and expansion of the tree canopy, resulting in positive impacts on the natural environment.
- G. *Property Values.* The text amendments encourage the addition of landscaping and trees, and the maintenance of same, to add value to properties.
- H. *Orderly and Logical Development.* The text amendments will not affect the development pattern in a negative way, and will provide a positive result when applied to new and existing development.

SECTION 10: The Landscape Design Manual, as amended from time to time, is hereby adopted by this reference. The Landscape Design Manual shall be maintained in the Planning and Zoning Division and shall be available at all times for public inspection.

SECTION 11: All ordinances or parts of ordinances in conflict with this Ordinance are hereby repealed.

SECTION 12: Should any section or provision of this Ordinance or any portion, paragraph, sentence or word thereof be declared by a court of competent

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jurisdiction to be invalid, such decision shall not affect the validity of the remainder of this Ordinance.

SECTION 13: Authority is hereby granted to codify the amendments set forth in this Ordinance.

SECTION 14: This Ordinance shall take effect in accordance with law.

FIRST READING THIS 29TH DAY OF JANUARY, 2018.

SECOND READING AND PASSAGE THIS 12TH DAY OF FEBRUARY, 2018.



ATTEST:

X

Hazeline F. Carson

CITY CLERK

Signed by: Hazeline F Carson

**CITY OF WEST PALM BEACH BY
ITS CITY COMMISSION:**

X

Geraldine Muoio

PRESIDING OFFICER

Signed by: Geraldine Muoio

**APPROVED AS TO FORM AND
LEGALITY:**

4/6/2018

X

Nancy Urcheck

CITY ATTORNEY

Signed by: Nancy DeSimone Urcheck