Deerfield Beach
Florida

City of Deerfield Beach

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Deerfield Beach, FL 33441
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Face Sheet

File Number: I.D. 2019-194

Agenda Date: 4/16/2019 **Version:** 1 **Status:** Departmental Business

In Control: City Commission

ORDINANCE 2019/ - AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, REPEALING AND REPLACING SECTION 98-80 "LANDSCAPE REQUIREMENTS" OF THE CITY LAND DEVELOPMENT CODE TO MODIFY THE CITY'S LANDSCAPING REGULATIONS; AMENDING SECTION 102-9 "LOCATION AND SIZE OF FREESTANDING AND BUILDING SIGNS" OF THE SIGN CODE TO REQUIRE THE INSTALLATION OF PLANT MATERIAL WHEN FREESTANDING SIGNS ARE INSTALLED; PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

Recommended Action:
Commission to vote on Ordinance and set public hearing for May 7, 2019

Voting Requirement:
Approval requires a 3/5 vote of the City Commission for adoption

Background/History:
Planning staff has identified various changes within the Land Development Code related to improving landscape requirements. The changes are related to all properties within the City of Deerfield Beach with the exception of Single Family Homes. A previous code change to Single Family Residential Landscape requirements was approved by the City Commission at the June 19, 2017 meeting. The Ordinance repeals the entire Section 98-80 in order to replace the section with a new organization of the requirements that will be easier to read and understand. Relevant changes to this code section include new language regarding landscape requirements by zoning type, additional details for clarity, inclusion of special districts such as the Pioneer Grove and Coastal Community architectural districts, which both have supplementary landscape requirements and new definitions for green infrastructure practices. Planning staff is also proposing an addendum to Chapter 98-80 in the form of a landscape manual. This manual will provide multiple photographs of trees and shrubs, along with pertinent information to their needs. In addition, the manual provides information related to planting methods, the nine principles of Florida-Friendly landscaping and FP&L guidelines. If approved, the manual will be made available via the City website.

The Ordinance also amends the City's sign code to require the installation of plant materials when freestanding signs are installed.

On April 4, 2019, the Planning and Zoning Board voted to recommend approval of this item.

Recommendation:

This is a recommendation for approval.

ORDINANCE NO. 2019/

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA, REPEALING AND REPLACING SECTION 98-80 "LANDSCAPE REQUIREMENTS" OF THE CITY LAND DEVELOPMENT CODE TO MODIFY THE CITY'S LANDSCAPING REGULATIONS; AMENDING SECTION 102-9 "LOCATION AND SIZE OF FREESTANDING AND BUILDING SIGNS" OF THE SIGN CODE TO REQUIRE THE INSTALLATION OF PLANT MATERIAL WHEN FREESTANDING SIGNS ARE INSTALLED; PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

WHEREAS, Section 98-80 of the City's Land Development Code provides regulations for the installation and maintenance of Florida-friendly landscaping and landscaped open spaces within the City; and

WHEREAS, the City desires to modify, clarify and enhance the City's landscaping regulations that are set forth in the Land Development Code; and

WHEREAS, the City also desires to modify the City Sign Code to require the installation of plant material when freestanding signs are installed within the City; and

WHEREAS, on April 4, 2019, the Planning and Zoning Board recommended approval of this Ordinance; and

WHEREAS, the City Commission deems it to be in the best interests of the citizens and residents of the City to approve this Ordinance.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA THAT:

Section 1. The above referenced "Whereas" clauses are true and correct and made a part hereof.

Section 2. Section 98-80 "Landscape requirements" of the City Code of Ordinances, attached as Exhibit "A", is hereby repealed in its entirety and replaced with a new Section 98-80 "Landscape requirements" to read as follows[1]:

CHAPTER 98 - LAND DEVELOPMENT REGULATIONS

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ARTICLE IV. SUPPLEMENTARY REGULATIONS

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[1] Additions to existing City Code text are shown in underline. Deletions to existing City Code text are shown in ~~strikethrough~~.

Sec. 98-80. – Landscape Requirements.

(A) *Objective and Purpose.* The objective of this Section is to provide regulations and establish standards for the installation and maintenance of Florida-Friendly Landscaping. This Section is intended to (i) promote functional and sustainable landscape as an effective means of conserving energy, (ii) maintain and improve the aesthetic quality of the City, and (iii) promote the health and general welfare of the citizens and residents of Deerfield Beach. Every effort shall be made to preserve and maintain natural plant communities within the City, as identified in the City's comprehensive plan, including but not limited to:

(1) The creation of a Florida-Friendly Landscaping Program by utilizing the following nine principles to design quality landscapes that conserve water, protect the environment, are appropriate for local conditions and are drought, wind and salt tolerant:

(a) Right plant, Right place;
(b) Water efficiently;
(c) Mulch;
(d) Recycle;
(e) Fertilize appropriately;
(f) Manage yard pests;
(g) Reduce stormwater runoff;
(h) Attract wildlife; and
(i) Protect the water front.

(2) Compliance with applicable National Pollutant Discharge Elimination System (NPDES) stormwater and surface water requirements.
(3) Prevent the destruction of the city's tree canopy and promoting the expansion of a healthy, sustainable urban forest as set forth in the comprehensive plan
(4) Promote the use of drought-tolerant trees and shrubs for energy conservation by encouraging cooling through the provision of shade and the channeling of breezes to help offset local heat island effects.
(5) Contribute to the processes of air movement, air purification, oxygen regeneration, ground water recharge and storm water retention, while aiding in the abatement of noise, glare, heat, air pollution and dust generated by major roadways and intense use areas.
(6) Preserve and improve the aesthetic appearance, character and value of commercial, industrial and residential development through the use of attractive, drought-tolerant plant material in an effort to protect and increase property values within the City while also conserving South Florida's freshwater resources.
(7) Reduce the negative impacts of invasive plant species that invade native plant communities by removing the existing invasive plant species as well as prohibiting their use and encouraging their replacement with the use of native plants.
(8) Utilizing landscape material to visually define the hierarchy of roadways and to provide shade and a visual edge along the roadways.
(9) Promoting the use of more wind tolerant trees and proper horticultural planting methods in order to maintain a more sustainable landscape.
(10) Promoting the use of low-maintenance plants that are able to tolerate short periods without rainfall and that are relatively free from pests and diseases.

(11) Promoting replacing high-maintenance and/or problem-prone plants with low-maintenance plant species that have low water and fertilizer requirements and few pest and disease problems.
(12) Promoting specific management guidelines to minimize negative secondary and cumulative environmental effects associated with the misuse of fertilizers.
(13) Design of landscape that will enhance architectural features, relate structure design to the site, visually screen sites and unsightly views, reduce noise impacts from major roadways and incompatible uses, strengthen important vistas and reinforce neighborhood site design.

(B) *Definitions.*

For the purpose of enforcing and administering this Section, the following words shall have the definition and meanings (and regulations related thereto) as herein set forth.

Berm: A linear earthen mound measured from the crown of the road or abutting finish floor elevation and has a maximum slope of three to one. The berm shall consist of clean fill composed of planting soil.

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.

Diameter breast height or DBH: The diameter of the tree trunk(s) measured at four and one half feet above grade.

Disturbed land/ground: Any land where the original natural vegetation has been removed, displaced, overtaken or raked.

Florida-friendly landscape. Landscape that adheres to the principles of Florida-friendly landscaping, include planting the right plant in the right place, efficient watering, appropriate fertilization, mulching, attraction of wildlife, responsible management of yard pests, recycling yard waste, reduction of stormwater runoff, and waterfront protections. Additional components of Florida-friendly landscape include planning and design, soil analysis, the uses of solid waste compost, practical use of sod, and proper maintenance.

Flowering Tree: A single or multi-trunked dicot tree that by virtue of its natural cycle produces visible flowers or bulbs. Flowering trees at the time of installation shall have a minimum caliper of two and one-half inches, a minimum height of ten feet; and a minimum crown spread of five feet.

Functional landscape: The combination of living and nonliving materials that, when installed or planted, creates an ongoing system providing aesthetic and environmental enhancement to a particular site and surrounding area.

Gray wood ("clear wood"): The portion of the palm trunk which is mature hardwood measured from the top of the root ball to the base of green terminal growth or fronds.

Groundcover: A dense, low-growing plant, other than sod, that by the nature of its growth characteristics completely covers the ground and does not usually exceed two feet in height.

Hedge. A continuous planting of shrubs which forms a compact, dense, visually opaque, living barrier at time of planting.

Invasive Exotic. A species or an individual of a species that is foreign to an environment and that, when introduced to that environment, outcompetes the native species.

Irrigation. To supply with water by a mechanical sprinkler system.

Landscape/landscaping: When used as a noun, this term shall mean living plant materials such as grasses, groundcover, shrubs, vines, trees or palms and nonliving durable materials commonly used in environmental design such as, but not limited to, walls or fences, aesthetic grading or mounding, but excluding pavers, paving, artificial turf, turf block, rocks and structures. When used as a verb, this term shall mean the process of installing or planting materials commonly used in landscaping or environmental design.

Lawn/turf/sod. Upper layer of soil bound by grassy plant roots.

Mulch: Organic, arsenic free, material such as wood chips, pine straw or bark placed on the soil to reduce evaporation, prevent soil erosion, control weeds and enrich the soil. Cypress Mulch is not permitted.

Multi-trunk trees: A tree that has a minimum of three trunks with no more than five trunks of equal diameters originating from the ground, no crossing branches and with angles no greater than forty-five degrees.

Native habitat: An area enhanced or landscaped with an appropriate mix of native tree, shrub and groundcover species that resembles a native plant community in structure and composition or is naturally occurring.

Native plant community: A natural association of plants dominated by one or more prominent native plant species, or a characteristic physical attribute as indicated by the City of Deerfield Beach.

Native plant species: Native plant species shall be those plant species indigenous to the ecological communities of South Florida, as indicated on lists provided by the City of Deerfield Beach or that can be scientifically documented to be native to South Florida.

Open space: All pervious landscape planting areas of the site.

Overall height: The height measured from the ground to the bend of the top most branch of the tree. Overall height on palms: the measurement from the ground to the bend of the topmost frond. All measurements shall be from the top of the root ball.

Palm tree: Any family of mostly tropical or sub-tropical monocotyledonous tree with a simple stem and a terminal crown of large pinnate or fan-shaped leaves. Palm trees shall have a minimum gray wood measurement of six feet (except for Sabal Palms which shall have eight feet) and should be clustered in groups of unequal numbers and varying sizes for most effective treatment. Each palm shall count as one tree, with three clustered palms counting as one shade tree.

Perimeter Buffer: An area of flat a grade or bermed land that is set aside along the perimeters of a parcel of land in which landscape is required to provide an aesthetic transition between adjacent plots to eliminate or reduce the adverse environmental impact, and incompatible land use impacts.

Shade/canopy tree*:* A single or multi-trunked dicot or conifer tree that by virtue of its natural shape provides at maturity a minimum shade canopy of thirty feet in diameter. Shade trees at the time of installation shall have a minimum caliper diameter of three inches; a minimum height of twelve feet; and a minimum crown spread of six feet.

Shrub: A self-supporting, woody plant full to the ground with three or more branches produced from the ground which could be maintained in a healthy state to the height indicated on the landscape plans.

Site-specific plant materials: The use of plant species selected to minimize supplemental irrigation, fertilization and pest control.

Soil/topsoil: A medium composed of at least a minimum of 50% sand and maximum of 50% muck. Palm planting soils shall compose of no more than 80% sand and remainder soil consisting of muck. It must be clear and free of construction debris, weeds and rocks, with a pH between 6.5 and 7.

Standard. A woody perennial plant with a number of stout stems, all but one of which have 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.

Tree, Dicotyledonous (Dicot) is a tree having a woody stem and branches and leaves with net venation and having a separate, distinct outer bark which can be peeled from the tree.

Tree, Monocotyledonous (Monocot) is a palm or a tree having fronds with parallel venation and no true woody bark with a minimum overall natural height of ten feet at maturity.

Tree: A self-supporting, woody perennial plant, usually with one vertical stem or main trunk, which naturally develops a distinct, elevated crown and provides, at maturity, natural characteristics of the species.

Vine: Any plant with a long, slender stem that trails or creeps on the ground or climbs by winding itself on a support. A vine at time of installation must have a minimum of three runners, no less two feet in length and shall clearly show an attachment to the structure.

(C) *Minimum Requirements for RS-5 (Residence Single Family), RS-7 (Residence Single Family).* A landscape plan is not required for any single-family home or duplex unless it is part of a development project. The following are the minimum requirements applicable to all property within the RS-5 (Residence Single Family) and RS-7 (Residence Single Family) districts.

(1) Each lot or parcel with less than one-hundred feet of linear frontage shall contain, in the required yard areas, a minimum of three trees, of which two of these trees must be in the front yard, one of which must be a shade tree and one that must be a flowering tree. The third may be a small tree. For corner lots, an additional tree is required.
(2) Each lot or parcel with more than one-hundred feet in linear frontage shall contain, in the required yard areas, a minimum of four trees, of which three of these trees must be in the front yard, two of which must be a shade tree and one which must be a flowering tree. The fourth can be a small tree. For corner lots, an additional tree is required.
(3) Each lot or parcel, regardless of the linear frontage length, must screen the bottom portion of the building/foundation and/or any mechanical equipment with shrubs for any portion of the building/foundation or mechanical equipment which is visible from a roadway.
(4) For corner lots, the front street requirement shall include the front and corner side lot.
(5) For mitigation purposes and in order to fulfill this standard, all existing trees on the property must be healthy, vigorous and meet the minimum tree size requirement as approved by the Urban Forester.
(6) Trees used for mitigation to meet the minimum requirement standards shall not be removed unless the tree(s) are in poor health or it is determined the tree(s) are creating an unsafe situation. Mitigated tree(s) that are removed for such reasons must be replaced as required in Section 98-81.

(D) *Minimum Requirements for RM-10 (Residence, Multi-family), RM-15 (Residence, Mult-family) and RP-10 (Residence, Mobile Home Park).*

(1) Property zoned RM-10, RM-15 or RP-10 that is less than 10,000 square feet in size shall comply with the requirements for RS-5 and RS-7 above.

(2) Property zoned RM-10, RM-15 or RP-10 that is 10,000 square feet or greater in size shall be required to have one tree and ten shrubs for every 3,000 square feet (or fraction thereof) of parcel space. For the required trees, no less than 30% shall be shade trees and no less than 30% shall be flowering trees.

(E) *Minimum Requirements for RM-25 (Residence, Multi-Family), PUD (Planned Unit Development), RSO (Residential/Office), B-1 (Business, Community), B-1A (Business-Flex District), COD (Cove Overlay District), B-2 (Highway Business), B-3 (General Business), OP (Office Park), I (Industrial), I-2 (Limited Heavy) and PID (Planned Industrial District).*

(1) Landscape areas/Pervious areas. One tree and ten shrubs and ten ground covers per 1,500 SF or fraction thereof of pervious area shall be required in addition to the requirements below.

(2) Perimeter Buffers. All development projects shall have a landscape buffer adjacent to rights-of-way and abutting properties. Such minimum requirements may not be counted toward interior landscape requirements.

(a) The portion of all developments abutting rights-of-way shall have a ten foot minimum perimeter buffer width.
(b) The portion of all developments abutting an adjacent property that is not residentially zoned shall have a five foot minimum perimeter buffer width.
(c) Perimeter buffers for all rights-of-way buffers. One fourteen-sixteen foot tall tree for each forty linear feet of street frontage or fraction thereof. One eight-ten foot small tree per one-hundred linear feet or portion thereof and a twenty-four inch tall continuous hedge. Vehicle overhang from Type "D" curbing does not count towards the buffer width. However, it can count towards the pervious area.
(d) Perimeter buffers for all nonresidential properties adjacent to or abutting residential zoned properties One fourteen-sixteen foot tall tree for each twenty linear feet of property line or fraction thereof. A six foot tall wall shall be installed at the inside edge of the property. A continuous twenty-four inch tall hedge on the residential side of the wall. Vehicle overhang from Type "D" curbing does not count towards the buffer width. However, it can count for towards pervious area.
(e) Perimeter buffers for all adjacent properties not residentially zoned One fourteen-sixteen foot tall tree for each forty linear feet of property line or fraction thereof along with a twenty-four inch tall continuous hedge. Vehicle overhang from Type "D" curbing does not count towards the buffer width. However, it can count for towards pervious area.

(3) Arbor Streets.

(a) The following are the streets designated by the City as an "Arbor Street": Hillsboro Boulevard, NE 2nd Avenue, Eller Drive, NE 4th Street, SE 4th Street, Dixie Highway, SW 10th Street, SW 15th Street, SW 14th Place, SW 14th Street, SW 13th Place, SW 2nd Avenue, Martin Luther King Avenue, SW 2nd Terrace, SW 5th Court, SW 5th Street, SW 4th Street, SW 2nd Court, SW 2nd Street, SW 1st Terrace, SW 1st Court and SW 1st Avenue.

(b) The portion of all developments abutting an Arbor Street or a residentially zoned property shall have a perimeter buffer with a 15 foot width and shade trees or specimen palms over and above the minimum requirements shall be required to provide for such perimeter buffer. Additional materials shall meet at least the minimum required code specifications.

(4) Accessways. Perimeter buffers may be traversed by necessary accessways if approved in writing by the City.

(5) Berms. If berms are being provided, all berms shall have not less than a 3 to 1 slope (if going into dry or wet retention area it must have a 4 to 1 slope) measured from the crown of the roadway or abutting residential pad finish floor elevation (FFE), whichever is higher; be fully

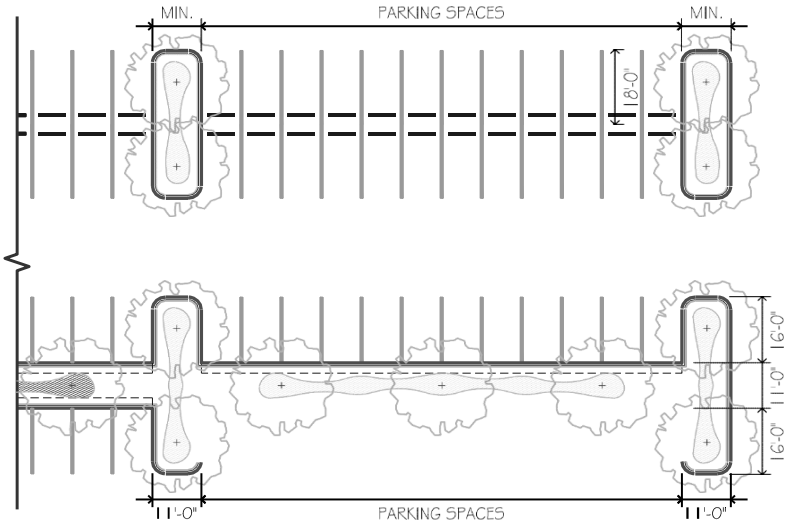
sodded and irrigated. All contour lines with heights shall be depicted on all planting plans. Berms shall consist of a minimum of 50% sand and a maximum of 50% muck, with a pH between 6.5 and 7.0, and free of construction debris, weeds, and rocks.

(6) Plant materials. The remainder of the perimeter buffer shall be covered with sod, ground cover, or other landscape treatment. In cases where nonresidential property abuts residential property, the City can require such additional landscape as is necessary to protect the aesthetics and minimize the impact on the abutting residential area.

(7) Parking islands. The following landscape requirements shall apply to the interior of parking areas containing one or more spaces. Landscape islands are for landscaping and are not to be utilized as utility or light pole islands unless the minimum distance as shown in Figure 2, Site Lighting Separation Detail and Figure 3, Fire Hydrant Separation detail are met. As such, landscaping, trees, shrubs, ground cover and sod are required.

(8) Terminal islands. Landscaped terminal islands of at least eleven feet in width (ten foot wide landscape and Type "D" curbing around it) and to the length of the adjacent parking stall shall be provided at the end of each parking row. All limerock and other incompatible materials shall be excavated from islands to a depth of two and one-half feet and backfilled with the specified planting mix.

(9) Interior islands. At least one landscaped interior island shall be provided for every ten parking spaces. Interior islands shall measure at least eleven feet in width (ten foot landscape wide area and Type "D" curbing) and to the length of the adjacent parking stall All limerock and other incompatible materials shall be excavated from islands to a depth of two and one-half feet and backfilled with the specified planting mix. As an alternative design, islands maybe consolidated to group trees if the design provides a greater degree of sustainable shade as determined by the Urban Forester.



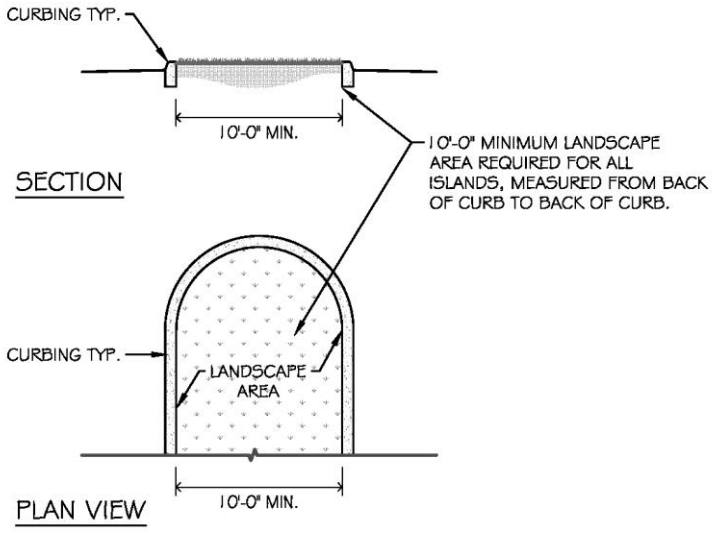


Figure 1. Landscape Island Details

(10) Optional divider medians. When provided, divider medians shall be a minimum of eleven feet in width, including Type "D" ten inside curbs. Pedestrian crossings where required are permitted by the approval of the Planning and Development Services Director. Trees and shrubs are to be utilized where practical.

(11) Landscape treatment. All interior planting areas not dedicated to trees, shrubs, or existing vegetation shall be landscaped with sod, ground cover, or other appropriate landscape treatment (no sand, rock, gravel, pavement, or bare soil). In no instance shall there be less than one shade tree and twenty shrubs for each landscaped island; this in additional to other landscape requirements.

(12) Site lighting and trees. No light poles shall be located within fifteen feet of a canopy tree or within seven and one-half feet of a palm species or small tree. All final light pole locations shall be illustrated on the planting plans with required separation and must concur with the photometric plans. Trees are required in landscape islands.

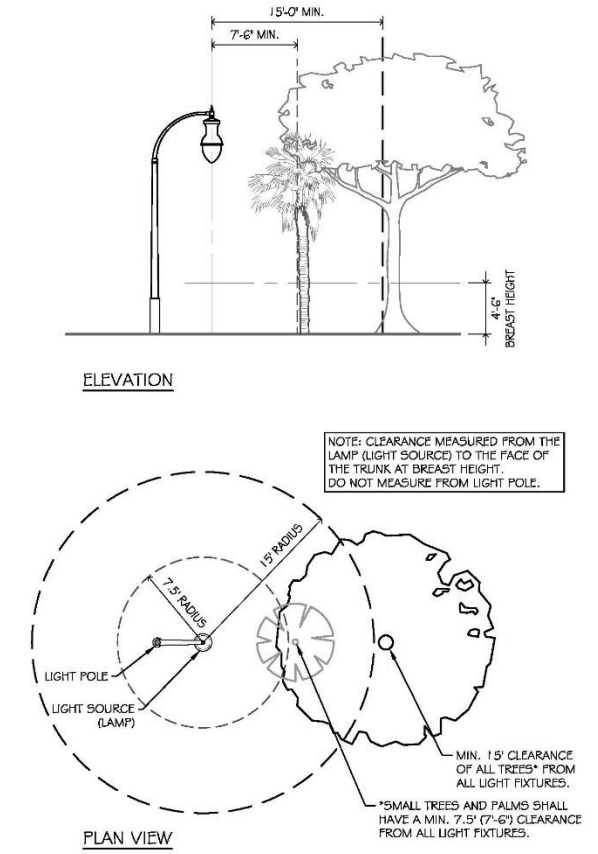


Figure 2. Site Lighting Separation Details

(13) Fire hydrant/fire valves and trees All trees and palms shall be installed seven and one half feet from the front and sides of fire hydrants and four feet from the rear. All final locations shall be illustrated on the planting plans with the required separation and must concur with the site plans. Trees and shrubs are required in landscape islands

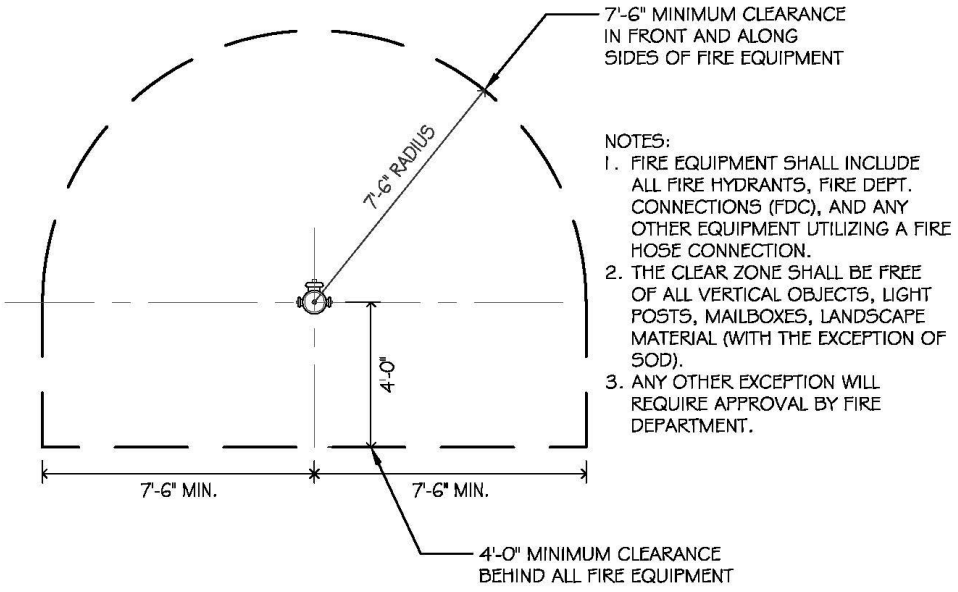


Figure 3. Fire Hydrant Separation Detail

(14) Foundation Planting along Building Facades.

a. Buildings shall contain a foundation planting strip along the full length of each façade that fronts parking or other vehicular use areas (truck courts not included) to help soften and scale the buildings. The width of the zone and degree to which it is landscaped shall be determined by the building heights. No point in the foundation planting may be less than five feet in width for required landscape and this area shall be clear of any roof overhang.
b. Height for this purpose shall be measured to the top of a parapet wall. Sides of industrial structures not oriented to residential or public view may be exempt from the above standards.
c. Foundation plantings in areas shall include low, mid and upper level landscape.
d. A group of three palms, or one palm tree that qualifies as a shade tree is required for every forty linear feet of the foundation planting along the frontage and sides that fronts public parking, These trees can be grouped where appropriate. A minimum of ten shrubs and thirty ground cover plants shall also be planted for every forty feet of façade length.
e. Required trees or palms at the time of planting shall relate to the building height. Height of palms refers to Graywood.

Structure Height (feet)	Tree or Palms (feet)
15 or less	12
15-25	14
26-35	16
36 or more	18

In situations where trees or palms cannot be planted, green walls can be used provided that the total section of green wall is a minimum of 25% of the each façade in which the green wall is proposed.

(15) Parking Structure/Multi level Garages. All parking structures require a minimum 50% screening. Such screening can be made of green walls or other decorative features to soften and buffer the parking structures on all visible sides.

(F) *Special District Provisions and all other Zoning Districts not specifically mentioned*

(1) Pioneer Grove District- LAC. Additional landscape requirements can be found in the Pioneer Grove Design Standards Booklet and Section 98-67 of the Land Development Code.

(2) Coastal Community Architectural District properties may increase their maximum palm tree percentage to 40% of overall required trees. In addition, the use of plant materials known to be tolerant to wind and salt spray is encouraged.

(3) Unincorporated County Districts. (All areas and /or parcels which still have a Broward County Zoning Designation) Proposed landscape shall utilize the landscape code requirements of the City of Deerfield Beach.

(4) Minimum landscape requirements for all zoning districts not specifically mentioned. Unless specifically approved by the City Commission through a Development Agreement or similar means, all zoning districts shall follow the guidelines of Section 98-80(d).

(5) Commercial uses within Residentially Zoned Districts. Any commercial property located within a residentially zoned district shall follow the provisions of Section 98-80(e).

(G) *Swales.*

When necessary, applicants for a development permit shall provide for swale trees adjacent to their property.

(1) Urban Swale tree location and purpose. Swale trees shall be required along existing, proposed and improved rights-of-way to provide shade for pedestrians and create an aesthetically pleasing design edge along the roadway to visually define the hierarchy of roadways. The species and location of swale trees shall not conflict with existing or proposed improvements and utilities. Consideration shall be given to the selection of the trees to avoid serious problems such as future road widening, broken pipes, clogged sewers, cracked sidewalks and power interruptions. As such, swale trees will require prior approval from the Department of Environmental Services.

(2) Size, spacing and planting width. Required swale trees at the time of planting, shall have a clear trunk of at least four and one-half feet, a height of at least 14-16 feet, and a DBH of three inches. Exception to this standard is allowed under overhead lines where the "Right Tree in Right Place" shall be utilized and adjustments in the sizes will be determined by the Urban Forester. Swale trees shall be spaced at average intervals of thirty feet. Roads and center medians fronting single-family residences shall comply with these provisions. Where possible, all trees with expected trunk diameters of four inches or greater must be located outside of the roadway clear zone as established by applicable roadway safety criteria. Average spacing requirements for single family homes on cul-de-sacs, homes which are zero-lot line and Townhouses shall be based on the total frontage of the adjacent street and not on the individual lot widths. Required swale trees shall be installed prior to the final building inspection.

(H) *Green Infrastructure Practices.*

All new development shall where possible apply Green Infrastructure practices such as those provided below:

(1) Bio Swales/ Rain Gardens. Are encouraged as landscape elements to concentrate or remove debris and pollution out of the surface run off. It consists of swaled drainage course with maintainable slopes sides filled with compatible landscape. These areas should not be sodded.
(2) Green, Living, Vertical Walls or Green Facades. Are encouraged to partially or completely cover blank walls with greenery that includes a growing medium, such as soil or a substrate, irrigation system, attachment and drainage. Living material that is less than 75% of the total area within one year shall be measured as failing.
(3) Green Roofs or Rooftop gardens are encouraged to help soften the views to the roof as an architectural element , absorb rain water, create a wild life habitat, lower the heat island effect by partially or completely covering it with landscape, growing medium, waterproofing, irrigation and drainage.
(4) Permeable Pavement: A traditionally impervious surface area, designed to allow for water to pass through and percolate through the material into the substrate in order to reduce storm water runoff.
(5) Root barriers. Root barriers are required where swale trees are planted within five feet of a sidewalk or roadway. A minimum eighteen inch deep root barrier shall be installed per manufactures specifications against the edge of the sidewalk and the edge of the pavement, and shall extend five feet in both directions parallel to the sidewalk and roadway.
(6) Structural soils. Are encouraged as a medium that can be compacted to pavement design and installation requirements while permitting root growth. It is a mixture of gap-graded gravels (mostly of crushed stone) and soil (mineral contact organic matter) that provides an integrated, root penetrable, high strength bio area underneath the pavement system.
(7) Soil (Silva) Cells. The soil cell is a modular, underground bioretention system that utilizes the proven capacity of soils for stormwater management and healthy tree growth to bring green infrastructure to the built environment. As such, this method may be utilized as an alternative for urban planting of trees or palms.

(8) Tree Well/Tree Pit: A below ground or at grade modified planting area designed to receive and treat storm water runoff.

(I) *Right of Ways and Access Intersections*.

(1) Sight triangles. Sight triangles are required to be shown on all planting plans for all intersections, and pedestrian crosswalks. The sight triangle shall include the area on each right-of-way or accessway corner that is bounded by the line that connects the sight or "connecting" points located on each of the right-of-way locations or property lines of intersecting rights-of-way or accessways.
(2) Sight triangle dimensions.
(3) Sight triangle requirements for the intersections of all rights-of-way and accessways shall conform, when necessary with the criteria outlined in the following standards:
    a. AASHTO's A Policy on Geometric Design of Highways and Streets.
    b. FDOT Roadway and Traffic Design Standards, Index Nos. 545, 546, and 700.
    c. FDOT Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways.
(4) If a private driveway intersects with any public rights-of-way, no sight distance obstruction will be permitted within the ten foot by fifty foot triangular area formed by the intersection of each side of the driveway and the ultimate rights-of-way or property lines with the driveway side of the triangle being ten feet in length, the public rights-of-way side of the triangle being fifty feet in length, and the third side of the triangle being the line connecting the ends of the two other sides.
(5) Subject to City Approval, if the public rights-of-way is a local street with a posted speed limit of twenty-five miles per hour or less, these requirements may be reduced to ten feet by thirty-five feet.
(6) For all on-site intersections of private internal accessways, driveways, and/or private drive aisles, a minimum ten feet by twenty-five foot sight triangle must be maintained from the intersecting edges of the travel way, with the ten foot side of the triangle being along the minor drive aisle and the twenty-five foot side of the triangle being along the major drive aisle.
(7) Clear visibility requirements. No structure or planting (at mature growth) that exceeds two and one-half feet in height above the street grade shall be permitted within the required sight triangles. Exceptions are permitted if the lower canopies of trees allow a clear line of sight between two and one-half feet and eight feet above the adjacent street grade and the trunks of such trees are sufficiently spaced or located so as to be unlikely to interrupt the line of sight.

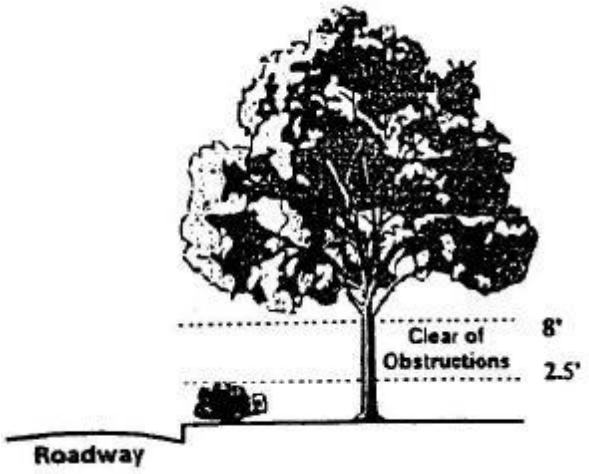


FIGURE 4 CLEAR VISIBILITY REQUIREMENTS

(J) *Screening, softening and scaling requirements*.

(1) Above-ground elements. Dumpsters, sewer lift stations, transformers, switchboxes, air conditioning units, mechanical equipment, cabinets, pedestals and all other above ground freestanding utility equipment or enclosure elements shall be fully screened on all non-accessible portions with a thirty-six inches tall, continuous hedge at time of planting.

(2) Generators.

(a) New Development. Generators and above ground gas tanks shall be fully screened on all visible non-accessible portions with hedge material equal to the height of the generator and the gas tanks.
(b) Existing Development. Except when determined by the Urban Forester that screening is impracticable, generators and above ground gas tanks installed on existing developed properties shall be fully screened on all visible non-accessible portions with hedge material equal to the height of the generator and the gas tanks.
(c) In cases where nonresidential property abuts residential property, the City can require such additional landscape as is necessary to protect the aesthetics and minimize the impact on the abutting residential area.

(K) *Plant Standards.*

The following specifications and percentages are utilized to establish diversity in height, offer color, provide shade, create understory and layering and palms and brand a sustainable and distinctive landscape design for the City. All landscaping required by this article shall comply with the following:

(1) Plant sizes. Minimum size of required trees and shrubs (at the time of planting) shall be:

Type	*Minimum DBH*	*Minimum Height/Spread*	*Percentages*
Large Tree	2.5 inches	14-16 feet., 6 foot spread, with a 5 foot clear trunk	Minimum 40% of the required trees
Medium	2 inches	12-13 feet, 5 foot spread with a 4.5 foot clear trunk	Maximum 20% of the required trees
Small Tree	1.5 inches	8-10 feet, 4.5 foot spread, 4 foot clear trunk	Maximum 20% of the required trees
Flowering Tree	Varies on which type and percentage is being utilized.	Varies on which type and percentage is being utilized.	Minimum 20% of required trees
Urban Street Tree	3" - Unless approved by the Urban Forester for proposed trees under overhead lines	14-16 feet, 6 foot spread, with a 5 foot clear trunk - Unless approved by the Urban Forester for proposed trees under overhead lines.	
Arbor Tree	Varies - Upon Urban Forester approval.	Varies - Upon Urban Forester approval.	
Specimen palm species: Royal Palms, Bismarckia, Canary Island Date palms and Medjool Date palm Copernicia baileyana, Elaeis guineenis (counted as one to one)	Heavy	10 feet of Gray wood	Maximum 20% in specimen palms or other palms for the required trees.
Other palm species (counted as 3 to 1)	N/A	12 -14 feet overall height of gray wood	Maximum 20% in Specimen palms or other palms for the required trees.
Shrubs and hedges	N/A	2 feet in overall height, 18 inch spread,18 inches on center	

Ground covers	N/A	75% coverage at installation	
Vines	N/A	Minimum 60" in supported height at time of planting	

(2) Trees and Palms.

a. All proposed trees and palms shall not be planted under roofs, overhangs or balconies.
b. All proposed trees and palms within or overhanging a pedestrian area shall have a clear trunk high enough to allow unobstructed pedestrian movement under or around.
c. All proposed trees and palms must be planted so not to touch the building at time of planting or in the near future.
d. All trees and palms shall be a minimum of four feet from any utility or hardscape. All trees and palms shall have a root barrier if they are less than six feet from a utility or hardscape.

(3) Shrubs.

a. Shrubs shall be planted in a manner that prevents branches from touching the buildings walls or walkways at the time of planting.
b. Planting shrubs around trees shall be done in a manner that prevents trunk damage.
c. Shrubs shall be planted in layers which will promote plant species diversity and enhance the City's aesthetics. This shall be done through positioning taller shrubs in the back and shorter shrubs in the front.
d. Shrubs must be planted as to not create a sight visibility hazard.

(4) New ficus species shall not be planted within ten feet of any structure, utility or street.

(5) The use of plant material that can be hazardous to persons, pets or property shall be reviewed on a case-by-case basis.

(6) Vines. At the time of planting, vines shall be sixty inches in supported height. The method of attachment and irrigation shall be indicated in the landscape plans.

(7) Cycads and Palms used as hedges. Species such as Coontie and Cardboard Plants as well as Saw Palmettos may not be mechanically cut or trimmed. They are discouraged from being placed in sight triangles or in other locations where they might be subject to improper trimming.

(8) The landscape architect shall make every effort to group plant material by watering requirements.

(9) A minimum of 50% of all tree, palm and plant species shall be a native species.

a. Tree species diversity. The tree species diversity with no more than 30% of one species shall be as follows:

Number of Trees	*Minimum Number of Species**
1—4	1
5—0	2
11—25	4
26—50	5
51+	6
* Not more than 20% of the tree requirement shall be palm species with the exception of Coastal Community Architectural District	

b. Ground cover species diversity.

Required Number of Shrubs	Minimum Number of Species
2—100	2
101—150	3
151—200	4
201—250	5
251—over	6

(10) Plant quality. Plant materials used in accordance with this code shall conform to the standards for Florida grade No. 1 or Florida Fancy as provided for in the most recent edition of the Florida Grades and Standards for Nursery Plants, State of Florida Department of Agricultural and Consumer Services. For standards not addressed in the Florida Grades and Standards for Nursery Plants, plant materials shall conform to the American National Standards Institute ANSI Standards Z60.1.

(11) Existing landscape material. At the discretion of the Urban Forester, vegetation and plant material that exists on a site prior to its development may be used to satisfy the minimum landscape requirements of this section, provided that such vegetation meets the landscape standards in this section. However, no credit shall be permitted for:

(a) Vegetation not properly protected from damage during construction.
(b) Plant species classified as "prohibited", invasive exotic or "controlled."
(c) Vegetation that is dead, dying, diseased, or infested with insects.
(d) Existing plant material noted as prohibited, which is to be removed from the site.

(12) Relocation of landscape material. Where it is not feasible to retain existing healthy tree(s), those trees shall be relocated elsewhere on the property. If this is not possible, then the tree(s) may be relocated to another property deemed appropriate by the Urban Forester. All relocated tree(s) shall be guaranteed for one year. For any tree(s) which cannot be relocated, or which dies within one year of relocation, the applicant or property owner shall replace the tree(s) according to the standards established in this chapter. No existing tree(s) on-site may be removed or transplanted without receipt of a permit from the city.

(13) Replacement of landscape material. All landscape, including credited landscape per an approved plan, that subsequently dies, shall be replaced according to the standards established in this chapter.

(14) Ground treatment. Pervious areas within required planting areas not dedicated to trees, shrubs or other vegetation shall receive appropriate landscape treatment and present a finished appearance and complete coverage upon planting. No sand, gravel, pavement or base soil shall be permitted. The following standards shall apply:

(a) Ground cover. Ground cover may be planted in lieu of sod. Ground cover shall provide not less than 75% coverage upon planting and 100% coverage within three months after planting. All ground cover shall be planted so as to not touch the buildings walls or walkways at the time of planting. Planting ground cover around trees shall be done in a manner that prevents trunk damage. Ground cover must have a clear, discernable border so that it does not spread.

(b) Sod. Sod shall not be treated as fill in material, but rather as a major planned element of the landscape, be consolidated and limited to those areas on the site that require pedestrian traffic, provide recreation use, soil erosion control for slopes/swales and shall be placed so that it can be irrigated separately from planting beds. All sod areas, including but not limited to, swales, lake maintenance easements and retention areas shall be sodded to the waterline. All sod shall be a solid Florida friendly types (Zone Ten) laid on a smooth planting base with tight joints, no overlaps at 100% coverage at the time of planting and cut to fit all landscape planters and curbed areas. Sod shall be green, adequate soil backing, healthy, clean and visibly free of weeds, pests and diseases. Sod areas shall be identified and labeled on the landscape plans. Seeding and plugs are prohibited on developable land. However, seeding can be approved per the discretion of the Urban Forester on vacant lots. Additionally, artificial turf is not permitted in the front yard or street front yard of a residential or commercial property.

(L) *Installation standards.*

All landscape in all districts shall be installed according to sound nursery practices in a manner designed to encourage vigorous growth. All required landscape material shall be healthy and in place prior to and at the time of issuance of the final certificate of occupancy.

(1) All trees, palms, shrubs and ground cover shall require the planting of soil around the rootball (not underneath) at a minimum of two times the size of the rootball. Also, the plant material is encourage (when possible) to be planted at a point higher than the crown of the road for natural drainage when possible.

(2) Mulch. Three inches of shredded, organic, arsenic free mulch shall be installed around each tree planting for a minimum of eighteen inches beyond its trunk in all directions, including palms, and throughout all hedge, shrub and ground cover planting; mulch shall be pulled a minimum of six inches away from trees and palms. Mulch can not be "volcanoed" around trees. NOTE: Cypress much is prohibited to help reduce the destruction of the native Cypress trees for mulch. Mulch may not be placed in locations where it can be washed away to a local catch basin or drain.

(3) All trees/palms shall be properly guyed and staked at the time of planting, including restaking in the event of blow overs or other failures of the staking and guying for one year from landscape final approval or establishment. All guying and staking shall be removed within one year of approval or establishment and if the tree cannot stand on its own, it shall be replaced. The use of nails, wire, rope, or any other method which damages the trees or palms is prohibited. The use of plastic or non-biodegradable staking material is prohibited except in certain site conditions.

(4) All plants shall be installed so the top of the rootball is 10% above the surrounding soil grade. All synthetic string, synthetic burlap, cords or wire baskets shall be removed prior to planting.

(5) All parking islands, medians and other landscape areas shall be installed with continuous Type "D" curbing to prevent damage to the planting material and the displacement of soil and mulch. Also, all landscape islands, divider medians and planters shall be excavated of lime rock and/or compacted soil to a depth of thirty inches and backfilled with specified planting mix to the top of the curb. Additionally, all areas along buildings shall be excavated to a depth of twelve inches and backfilled with specified planting mix.

(6) A root barrier system, structural soil or Silva cells shall be installed in situations where a tree or palm is planted within five feet of a hard scape surface such as roadways and sidewalks.

(7) Fertilizer Applications.

a. Any person who commercially applies fertilizer or exterior pest controls to any property within the City of Deerfield Beach must be certified to do so by the Florida Department of Agriculture and Consumer Services FDACS.
b. All plantings shall be fertilized at the time of installation with an appropriate fertilizer consistent with site conditions or at such higher standard as may be determined by the Urban Forester.
c. Fertilizer shall not be applied within two and one-half feet of any impervious area such as roadways and sidewalks.

d. Fertilizer shall not be applied with ten feet of any sea wall, pond, stream, watercourse, lake, canal, storm drain or wetland.
e. All properties are discouraged from using any fertilizer from the months of May to September of any year. All properties are discouraged from using any fertilizer at any time in which the soil is saturated.

(8) All plant rootball sizes shall conform or exceed the minimum standards in the current edition of Florida Grades and Standards.

(9) All landscape, including trees, palms, shrubs, vines and ground covers shall be guaranteed for one year after final landscape approval. A written warranty shall be submitted to the City prior to final landscape approval.

(10) All invasive and exotic pest plants shall be removed prior to final inspection.

(11) All landscape substitutions shall require Urban Forester approval prior to installation.

(12) Landscape inspections:

a. A pre-inspection of the site with the landscape contractor and Urban Forester shall be required to discuss all the City's requirements for plant installation, answer any questions, determine site conditions for appropriate use and selection of landscape material prior to installation.
b. A final landscape inspection shall be required upon completion prior to a certificate of occupancy or completion.
c. All trees planted shall be free of ant mounds at time of inspection.

(M) *Irrigation Standards*.

(1) All properties except single family homes shall be irrigated to maintain required plant materials. Irrigation systems shall be installed underground and comply with the following: Wherever practical, high water and low water use areas shall be circuited as noted below.
(2) All required planting areas shall be served by a permanent irrigation system maintained in good working order and designed to minimize water on impervious areas. Drip irrigation systems, where practical, shall be encouraged.
(3) Irrigation systems shall be designed to apply water onto shrub and tree areas less frequently than those onto sodded areas. Irrigation systems shall be designed to have 100% coverage with 50% overlap.
(4) Rain sensors shall be installed on systems with automatic controllers.
(5) All irrigation systems utilizing non-potable water shall be from a rust free water source.
(6) Irrigation controllers shall be switched to manual operation during periods of increased rainfall unless rain sensors are incorporated into the system.
(7) The following standards shall be considered the minimum requirements for landscape irrigation design within the jurisdiction of the South Florida Water Management District:

(a) Sprinkler zoning. Sprinkler heads irrigating sodded 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.

(b) Control systems. Automatically controlled irrigation systems shall be operated by an irrigation controller that is capable of watering high water requirement areas on a different schedule from low water requirement areas.

(8) Use of non-potable water for use in the irrigation of sod and plant material is required when determined to be available.

(9) Detailed irrigation plans must be submitted to the Planning and Development Services Department for review and approval prior to application to the Building Department for permitting. In addition to all other necessary inspections, the Urban Forester shall test the final system to assure that it satisfies the intent of this section.

(10) "As built" drawings, showing water source, manifold, pipe size, number, make, pattern of heads to be used and gallons per zone, must be submitted to the Planning and Development Services Department prior to a certificate of occupancy or completion.

(N) *Maintenance.*

(1) Responsibility. The owner, tenant, and their agent, if any, shall be jointly and severally responsible for the maintenance of all landscape which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.

(2) Median and swale agreements. Parties subject to maintenance agreements with the city relative to medians and swales within the public rights-of-way shall be subject to the above requirements plus any other provisions of the agreement.

(O) *Plant List.*

The approved plant list and invasive-exotic species list may be found in the City of Deerfield Beach Landscape Manual. Any tree or shrub not specifically listed will be reviewed and evaluated by the City Forester.

Section 3. Section 102-9 "Location and size of freestanding signs and building signs" of the City Land Development Code is hereby amended to read as follows:

Sec. 102-9. – Location and size of freestanding signs and building signs.

(a) *Freestanding signs.*

(1) *Location.* All signs must front on a public road right-of-way or a paved dedicated access easement, whichever is the principal access to the property, and be set back from the right-of-way as set forth below.

(2) *Setback and size.* All setbacks referred to herein are from the property line abutting the public right-of-way. The maximum size allowed for the sign varies in relation to the setback as follows for all zoning districts unless expressly specified otherwise in this Code:

Setback	Maximum Height of Sign Structure	Maximum Size of Sign Structure	Maximum Size of Sign Face Within the Structure
20 feet or more	10 ft.	80 sq. ft.	40 sq. ft.
10 feet to 19 feet	8 ft.	48 sq. ft.	24 sq. ft
2 feet to 9 feet	5 ft.	25 sq. ft.	15 sq. ft
0 feet to 1 foot		No Signs Permitted	

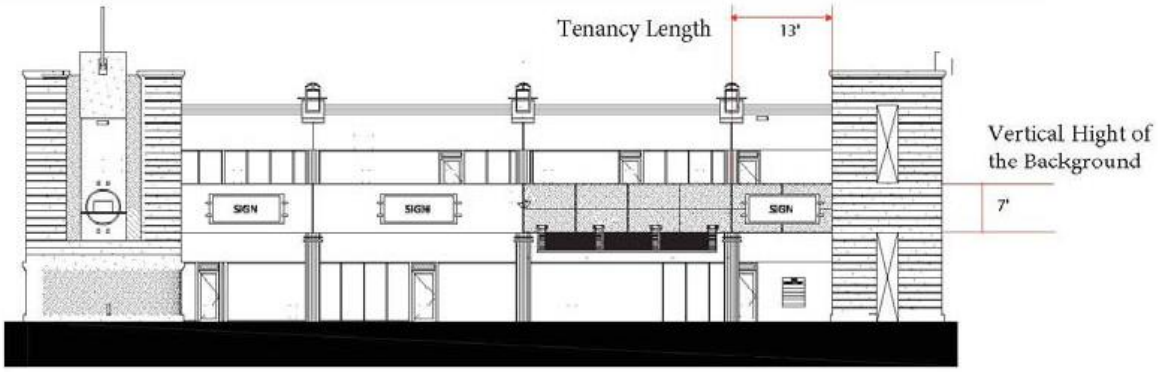
(3) *Sight visibility.* No sign over three feet in height shall be placed in that area defined as a vision triangle at street or driveway intersections.

(4) The limitations described in this section 102-9 do not apply to traffic control device signs.

(5) The address or address range shall be prominently displayed in numbers not less than four (4) inches in height. Address numbers shall be consistent in color and font to the sign.

(b) *Multi-story buildings.* No signs shall be located higher than the first story except those signs identifying the building complex or a major occupant and where the sign conforms to the building regulations for the district in which it is located.

Two Story Building Example for Commercial and Industrial Districts

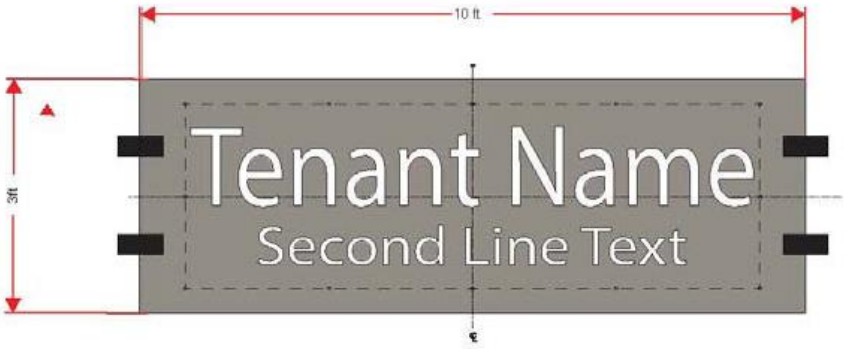


Requirements:

Max. Number of LineText:	2 lines
Max. Vertical Sign Height:	75% (5')
Max. Sign Length:	75% (10')
Max. Sign Area:	32 Sq. Ft.

Proposed Wall Sign:

Max. Number of LineText:	2 lines
Max. Vertical Sign Height:	3'
Max. Sign Length:	10'
Max. Sign Area:	30 Sq. Ft.



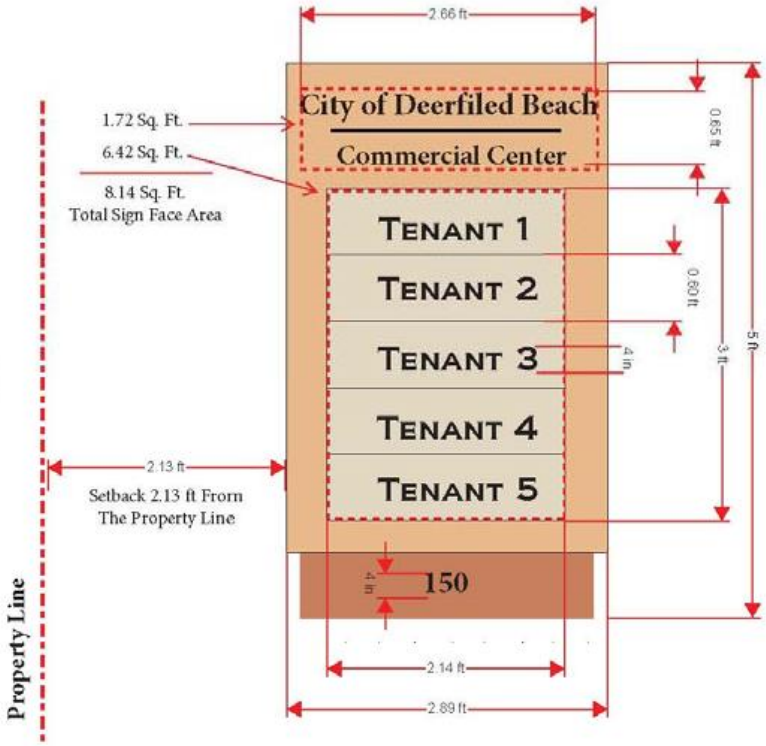
Multi-tenant Freestanding Sign Example for Commercial and Industrial Districts

Setback, Size, Hight Requirement:

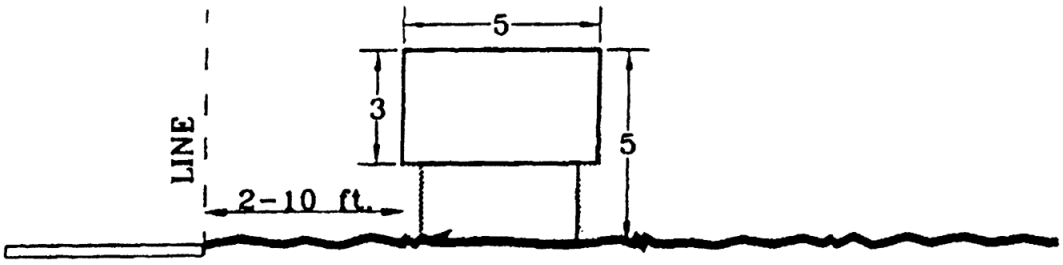
Setback:	2-9 feet
Max. Sign Face:	15 Sq.Ft.
Max. Sign Structure:	25 Sq. Ft.
Max. Sign Height:	5 ft
Min. Address Height:	4 in
Min. Tenant Height:	4 in
Max. Tenant Height:	6 in

Proposed Freestanding Sign:

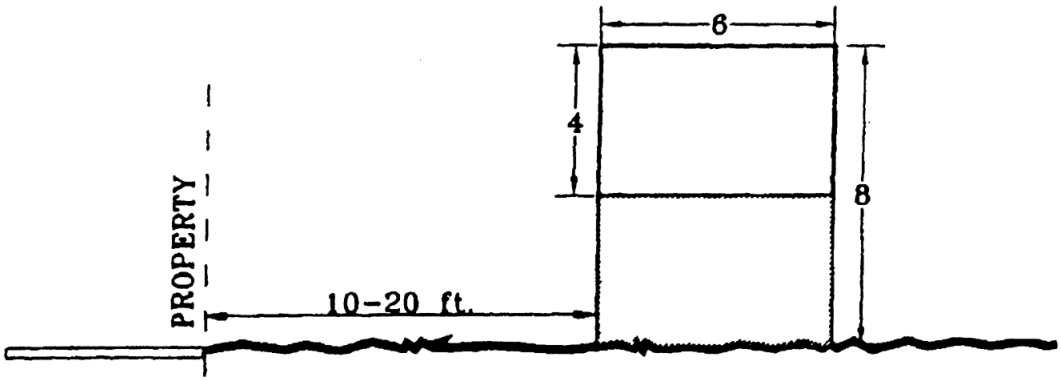
Setback:	2.13 feet
Max. Sign Face:	8.14 Sq.Ft.
Max. Sign Structure:	14.4 Sq. Ft.
Max. Sign Height:	5 ft
Min. Text Address Height:	4 in
Min. Text Tenant Height:	4 in
Max. Text Tenant Height:	4 in



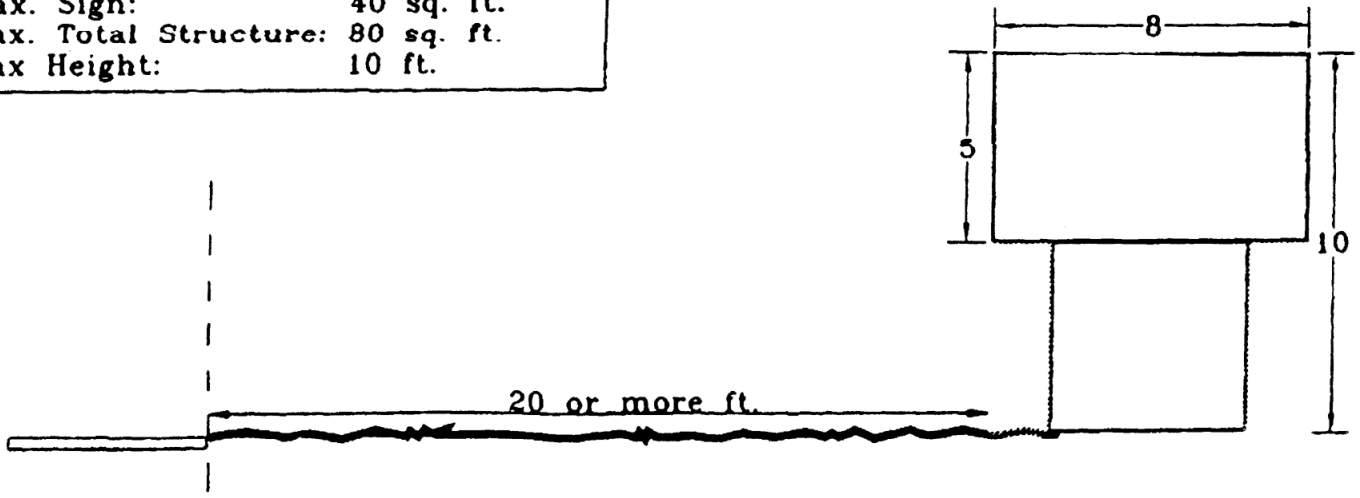
Setback:	2 - 10 ft.
Max. Sign:	15 sq. ft.
Max. Total Structure:	25 sq. ft.
Max Height:	5 ft.



Setback:	10 - 20 ft.
Max. Sign:	24 sq. ft.
Max. Total Structure:	48 sq. ft.
Max Height:	8 ft.



Setback:	20 or more ft.
Max. Sign:	40 sq. ft.
Max. Total Structure:	80 sq. ft.
Max Height:	10 ft.



(c) *Landscape installation required.*

(1) In order to enhance the structure in compliance with Section 102-12 of the Land Development Code, all freestanding sign installations shall require the installation and maintenance of (i) plant materials with a minimum of one shrub for every two feet of linear width of the sign structure on each side; and (ii) groundcover with a minimum of five feet around the perimeter of the sign base, designed in such a manner so as to not block the message on the sign.

(2) Trees or palms shall be required to enhance the sign without blocking it.

(3) Installation of the required plant materials and groundcover shall occur prior to final inspection of the sign structure and the plant materials must be shown on the landscape plan or building permit application submitted for approval.

Section 4. It is the intention of the City Commission and it is hereby ordained that the provisions of this ordinance shall become and be made a part of the City Code of the City of Deerfield Beach, Florida.

Section 5. Should any section or provision of this Ordinance or any portion thereof be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the remainder hereof other than the part declared to be invalid.

Section 6. All ordinances or parts of ordinances that are inconsistent or in conflict with the provisions of this Ordinance are repealed.

Section 7. This Ordinance shall be in full force and effect immediately upon its passage and adoption.

PASSED FIRST READING ON THIS _____ DAY OF _____, 2019

PASSED SECOND READING ON THIS _____ DAY OF _____, 2019

_____

BILL GANZ, MAYOR

ATTEST:

_____

SAMANTHA GILLYARD, CMC, CITY CLERK

EXHIBIT A

~~Sec. 98-80. - Landscape requirements.~~

~~(a) The objective of this article is to provide regulations for the installation and maintenance of Florida-Friendly Landscaping and landscaped open space, to utilize landscaping and landscaped open space as an effective means of conserving energy, to preserve open space, to maintain and improve the aesthetic quality of the City Deerfield Beach, thereby promoting the health and general welfare of the citizenry. In addition, it is the policy of the city commission that every effort shall be made to preserve and maintain natural plant communities within the city, as identified in the City's comprehensive plan. Specific examples include:~~

~~(1) Promote Florida-Friendly Landscape principles by using drought-tolerant plants, grouping plant material by water requirements, using irrigation systems that conserve water, maximize the use of appropriate mulch and limit the amount of fertilizer used.~~

~~(2) Provide food, cover and habitat for birds, butterflies and other wildlife.~~

~~(3) Prevent the destruction of the city's tree canopy and promote the expansion of a healthy, sustainable urban forest as set forth in the comprehensive plan.~~

~~(4) Promote the use of drought-tolerant trees and shrubs for energy conservation by encouraging cooling through the provision of shade and the channeling of breezes, thereby helping to offset global warming and local heat island effects.~~

~~(5) Contribute to the processes of air movement, air purification, oxygen regeneration, ground water recharge and storm water retention, while aiding in the abatement of noise, glare, heat, air pollution and dust generated by major roadways and intense use areas.~~

~~(6) Improve the aesthetic appearance of commercial, industrial and residential development through the use of attractive, drought-tolerant plant material, thereby protecting and increasing property values within the City while also conserving South Florida's precious freshwater resources.~~

~~(7) Reduce the negative impacts of invasive plant species that invade native plant communities by prohibiting their use and encouraging the use of native plants.~~

~~(8) Promote the use of trees to protect and buffer the effects of high winds on structures.~~

~~(9) Promote the principle of planting the right tree or plant in the right place to avoid problems such as clogged sewers, cracked sidewalks and power service interruptions.~~

~~(10) Promote the principle of choosing low-maintenance plants that are able to tolerate short periods without rainfall and that are relatively free from pests and diseases.~~

~~(11) Promote the principle of replacing high-maintenance and/or problem-prone plants with low-maintenance plant species that have low water and fertilizer requirements and few pest and disease problems.~~

~~(12) Implement Florida-Friendly Landscaping principles as identified by the Florida Yards and Neighborhoods program operated by the University of Florida's Institute of~~

Food and Agricultural Services Extension ("UF/IFAS Extension") and Best Management Practices ("BMPs") identified in the Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries (2008) as amended and as provided by law.

(13) Specific management guidelines to minimize negative secondary and cumulative environmental effects associated with the misuse of fertilizers.

(b) *Perimeter landscape requirements.* Landscape buffer strips shall be required around the perimeter of all property lines, exclusive of single-family and individual duplex development. The minimum width of such buffer strips shall be as follows:

(1) Abutting public right-of-way, excepting alleys: Ten feet;

(2) Abutting rear or side common property lines, except where a building is constructed: Five feet.

These landscape strips shall be landscaped with trees, sod, ground cover or hedge material. The swale area between the property line and the street pavement shall be sodded with St. Augustine Floratam sod with a working irrigation system (an automatic working irrigation system with 100 percent coverage). Street trees are required at 30 feet o.c. approved species list on file with the planning and development services department. Most trees as specified in the "approved" listing will be permitted to be used in the perimeter strip adjacent to the street right-of-way. Use of palms shall be at the discretion of the urban forester and three palms shall be required to equal one canopy tree. Sabal palms shall always be planted in clusters. Trees near where access ways intersect with the street right-of-way shall be placed so that they do not obstruct the visibility of traffic. They also shall have the limbs and foliage kept trimmed to six feet minimum height from the ground. Shrubs and ground covers shall not exceed two and one-half feet in height within the sight triangle.

(c) *Off-street parking area landscape requirements.* All parking areas shall be surrounded by at least a five-foot wide planting area. Rows of parking spaces shall be terminated with landscaped islands of not less than ten feet in width and 18 feet in length.

In addition to the above required terminal islands, one interior island shall be provided for every 20 spaces. Each interior island shall also be not less than ten feet in width and 18 feet in length. The location of interior islands may be staggered in order to avoid regimented appearance or to retain existing trees. Terminal and interior islands shall be completely curbed to protect landscaping from vehicular encroachment. Wheel stops or curbing shall be provided in each parking space.

(d) *Sight distance for landscaping adjacent to public rights-of-way.* When an access way intersects a public right-of-way, or when the subject property abuts the intersection of two or more public rights-of-way, all landscaping within the triangular areas described below shall provide unobstructed cross-visibility at a level between two and one-half feet and six feet. However, trees or palms having limbs and foliage trimmed in such a manner that no limbs or foliage extend into the cross-visibility area shall be allowed, provided that they are located so as not to create a traffic hazard. Landscaping, except required grass or ground cover shall not be located closer than three feet from the edge of any access way pavement. The triangular areas referred to above are:

(1) The areas of property on both sides of an access way formed by the intersection on each side of the access way and the public right-of-way line with two sides of each triangle being ten feet in length from the point of intersection and the third side being a line connecting the ends of the other two sides.

(2) The area of property located at a corner formed by the intersection of two or more public rights-of-way with two sides of the triangular area being 30 feet in length along the abutting public right-of-way lines, measured from their point of intersection, and the third side being a line connecting the ends of the other two lines.

(e) *Florida Friendly*. The University of Florida IFAS Extension, and the Florida Department of Environmental Protection have partnered to create a Florida-Friendly Landscaping Program to create nine principles to create quality landscapes that conserve water, protect the environment, are appropriate for local conditions and are drought, wind and salt tolerant. The nine principles are:

(1) Right plant, right place;

(2) Water efficiently;

(3) Mulch;

(4) Recycle;

(5) Fertilize appropriately;

(6) Manage yard pests;

(7) Reduce stormwater runoff;

(8) Attract wildlife;

(9) Protect the water front.

(f) *Trees and shrubs; required minimum quantities*.

(1) *Trees*. One tree for each interior and each terminal island, plus one tree for each 30 linear feet (excluding driveways) or periphery of property, plus one tree for each 1,500 square feet of permeable area.

(2) *Shrubs and groundcovers*. Twenty shrubs or ground cover plantings for each tree required. Ground covers may not exceed 25 percent of the total number of such plantings provided for non-residential properties.

(3) *Mulch*. Mulches shall be applied and maintained in accordance with the most recent edition of the Florida Yards and Neighborhoods Handbook titled "A Guide to Florida Friendly Landscaping" by the University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS). Cypress mulch shall not be used because its harvest degrades cypress wetlands.

(g) *Material and size criteria*. All trees required under the provisions of this section shall be a species having a mature height of not less than 25 feet, a mature crown spread of not less than 15 feet, and a clear trunk at maturity of at least six feet. Any shrub or tree species whose roots are likely to cause damage to public roadways or other public improvements shall not be planted nearer than 15 feet to any property line abutting these improvements.

Trees shall be planted in a bedded area no smaller than five feet by five feet. All measurements shall be from the top of the root ball.

(h) *Quality.*

(1) *Plant material.* Plant material to be used in conformance with the provisions of these regulations shall conform to the standards for Florida Grade No. 1 or better, as given in the current "Grades and Standards for Nursery Plants," State of Florida, Department of Agriculture, Tallahassee.

(2) *Artificial turf.* No artificial turf, artificial grass, astro turf or other imitation grass may be used in place of any required lawn or required landscape area.

(3) Topsoil shall be clean and reasonably free of construction debris, weeds, rocks and noxious pests and disease. The topsoil for all planting areas shall be amended with horticulturally acceptable organic material. The minimum topsoil depth shall be six inches for groundcover areas, four inches for seeded grass areas and two inches for sodded grass areas.

(4) All grass areas shall be sodded with a species of grass that will survive as a permanent lawn in Broward County (Zone 10) provided with appropriate and adequate watering and fertilization. Sod provided must be true to type, viable, reasonably free of weeds, insects and disease, and capable of growth and development. Sod shall be aligned with tightly fitted joints and no overlap of butts or sides. Sod pieces shall have adequate soil backing for continuous root growth and irrigation retention. Subgrade of lawn areas shall be reasonably free of all stones, sticks, rocks, roots and other matter prior to the placement of sod. The subgrade must be covered with a suitable soil composite that permits viable sod growth. Excessively large turf areas, such as play fields, may be grassed by other methods with approval by the landscape architect for the city.

(i) *Variety.* The number of different species of trees required shall be as follows:

Required Number of Trees	**Minimum Number of Species**
1—10	2
11—30	3
31—60	4
61—100	5
101—over	6

-

Required Number of Shrubs	Minimum Number of Species
1—100	2
101—150	3
151—200	4
201—250	5
251—over	6

(1) At least ten percent of all required trees and shrubs shall be of a flowering species.

(2) No more than 20 percent of all required trees shall be of a palm species unless, approved by the urban forester and determined by the geographic location of the property to the beach.

(3) Native materials shall comprise at least 50 percent of the total provided trees, shrubs and groundcover.

(4) For areas abutting the beach, only those plant materials designated as "tropical" by the urban forester shall be planted.

(j) *Size.*

(1) Shade trees at the time of installation shall have a minimum caliper diameter of three inches; a minimum height of 12 feet; and a minimum crown spread of six feet.

(2) Flowering trees shall have a minimum installation size of ten feet in height; two and one-half inches of caliper diameter breast height; and a minimum crown spread of five feet.

(3) Palm trees shall have a minimum grey wood measurement of six feet (except for Sabal Palms which shall have eight feet) and should be clustered in groups of unequal numbers and varying sizes for most effective treatment. Each palm shall count as one tree, with three clustered palms counting as one shade tree.

(4) A minimum of 50 percent of the required trees on a lot or parcel shall be of an installed size relating to the structure height as follows:

Structure Height (feet)	Tree Height (feet)	Palm Height GW* (feet)

To 15	12	8
15—25	14	12
26—35	16	18
36 or more	18	22

-

*GW=Grey Wood

(5) Shrubs at the time of installation shall be not less than two feet in height with a minimum spread of 24 inches. Shrubs shall be planted with a spacing between the plant centers equal to the spread of the installed plants.

(6) Vines shall be not less than two feet in height or width at the time of installation.

(7) Ground cover areas at the time of installation shall be planted with a minimum of 75 percent coverage with 100 percent coverage occurring within three months of installation.

(8) All grass areas not using St. Augustine grass shall be landscaped using a species of turf or ground cover capable of meeting the Florida-Friendly requirements and approved by the Urban Forester. Excessively large turf areas, such as play fields and grounds, may be grassed by other methods with approval of the Director of Planning and Development Services.

(k) *Common and botanical names of approved trees.*

Shade

Live Oak (Quercus virginiana)

Laurel Oak (Quercus laurifolia)

Mahogany (Swietenia mahogoni)

Silver Buttonwood (Conocarpus erectus "sericeus")

Pigeon Plum (Coccolobis laurifolia)

India Tamarind (Tamarindus indica)

Seagrape (Coccolofa uvifera)

Gumbo Limbo (Bursera simaruba)

Beauty Leaf (Calophyllum spp.)

- ~~Pongam (Pongamia pinnata)~~
- ~~Bald Cypress (Taxodium distichum)~~
- ~~Slash Pine (Pinus elliottii)~~
- ~~Satinleaf (Chrysophyllum Oliviforme)~~
- ~~Cattley Guava (Psidium Cattleianum)~~
- ~~Jambolan Plum (Syzygium Cumini)~~
- ~~Wax Myrtle (Myrica Cerifera)~~
- ~~Black Ironwood (Krugiodendron ferreum)~~
- ~~Green Buttonwood (Conocarpus erectus)~~
- ~~Clusia (Clusia rosea)~~
- ~~Pigeon Plum (Coccoloba diversifolia)~~
- ~~Dahoon Holly (Ilex cassine)~~
- ~~Slash Pine (Pinus elliotti)~~

~~Flowering~~

- ~~Pink Trumpet Tree (Tabebuia pallida)~~
- ~~Tree of Gold (Tabebuia argentea)~~
- ~~Queen's Crape Myrtle (Lagerstroemia speciosa)~~
- ~~Crape Myrtle (Lagerstroemia indica)~~
- ~~Golden Shower Tree (Cassia spp.)~~
- ~~Jacaranda (Jacaranda acutifolia)~~
- ~~Royal Poinciana (Delonix regia)~~
- ~~Frangipani (Plumeria rubra)~~
- ~~Orchid Tree (Bauhinia spp.)~~
- ~~Geiger Tree (Cordia sebestena)~~
- ~~Yellow Poinciana (Peltophorum pterocarpum)~~
- ~~African Tulip Tree (Spathodea campanulata)~~
- ~~Yellow Elder (Stenolobium Stans)~~

~~Jatropha (Jatropha Hastata)~~

~~Tabebuia/SSP. (Caraiba Heterophylla)~~

~~Southern Magnolia (Magnolia Grandiflora)~~

~~Golden Raintree (Koelreuteria Formosana)~~

~~Bird of Paradise (Strelitzia nicolai)~~

~~Clerodendrum (Clerodendrum spp.)~~

~~Palm~~

~~Cabbage Palm (Sabal palmetto)~~

~~Royal Palm (Roystonea spp.)~~

~~Washington (Washingtonia robusta)~~

~~Coconut Palm (Cocos nucifera) Maypan and Malayan varieties~~

~~Paurotis Palm (Acoelorrhaphe wrightii)~~

~~Chinese Fan Palm (Livistonea chinensis)~~

~~Pindo Palm (Butia capitata)~~

~~Carpentaria (Carpentaria Acuminata)~~

~~Queen Palm (Syagros romanzoffiana)~~

~~Screw Pine (Pandanus Utilis)~~

~~Canary Island Date Palm (Phoenix canariensis)~~

~~Alexander Palm (Ptychosperma Elegans)~~

~~Reclinata Date Palm (Phoenix Reclinata)~~

~~Pygmy Date Palm (Phoenix Roebelenii)~~

~~Travelers Tree (Ravenala madagascariensis)~~

~~Majesty Palm (Ravenea rivalaris)~~

~~Montgomery Palm (Veitchia montgomeryana)~~

~~Foxtail Palm (Wodyetia bifurcata)~~

~~Macarthur Palm (Ptychosperma macarthurii)~~

~~Adonidia (Adonidia merrillii)~~

~~Piccabeen (Archontophoenix cunninghamiana)~~

~~Areca (Dypsis lutescens)~~

~~Bismarck Palm (Bismarckia nobilis)~~

~~(l) *Approved shrub and ground cover material.*~~

~~Shrubs:~~

~~Copper Leaf (Acalypha wilkesiana)~~

~~Natal Plum (Carissa grandiflora)~~

~~Fire Bush (Hamelia patens)~~

~~Privet (Ligustrum lucidum)~~

~~Pittosporum (Pittosporum spp.)~~

~~Coco Plum (Chrysobalanus icaco)~~

~~Ixora (Ixora coccinea)~~

~~Orange Jasmine (Murraya paniculata)~~

~~Surinam Cherry (Eugenia uniflora)~~

~~Viburnum (Viburnum spp.)~~

~~Wax Myrtle (Myrica cerifera)~~

~~Juniper (Juniperus spp.)~~

~~Japanese Boxwood (Buxus microphylla)~~

~~Podocarpus (Podocarpus spp.)~~

~~Powder Puff (Calliandra Haematocephala)~~

~~Yaupon (Ilex vomitora)~~

~~Fire Thorn (Pyracanthus Coccinea)~~

~~Raphiloepis (Raphiolepis indica)~~

~~Hawaiian Seagrape (Scaevola Frutescens)~~

~~Thryallis (Galphemia Gracills)~~

~~Gardenia (Gardenia Jasminoides)~~

~~Hibiscus (Rosa - Sinensis)~~

~~Dwarf Oleander (Nerium Oleander Petite Pink)~~

~~Parlor Oak (Nicodemia Diversifolia)~~

~~Lead Wort (Plumbago Auriculata)~~

~~Dwarf Schefflera (Sceffelera arboricola)~~

~~Leather Fern (Acrostichum danaeifolium)~~

~~Allamanda (Allamanda cathartica)~~

~~Ginger (Alpinia spp.)~~

~~Bird of Paradise (Strelitzia reginae)~~

~~Dwarf Clusia (Clusia r."nana")~~

~~Croton (Codiaeum spp.)~~

~~Zamia (Zamia furfupacea)~~

~~Coontie (Zamie pumila)~~

~~Hawaiian Ti Plant (Cordyline terminalis)~~

~~Crinum Lily (Crinum spp.)~~

~~Crown-of-thorns (Euphorbia milii)~~

~~Eugenia spp.~~

~~Dwarf Ficus (Ficus m."Green Island")~~

~~Ilex spp.~~

~~Pinwheel Jasmine (Tabernaemontana spp.)~~

~~Philodendron (Philodendron spp.)~~

~~Ground Cover:~~

~~African Bush Daisy (Gamolepis Chrysanthemoides)~~

~~Allamanda, Wild (Urechites lutea)~~

~~Apple Gopher (Licania michauxii)~~

~~Artillery Plant (Pilea microphylla)~~

~~Foxtail Fern (Asparagus densiflorus "Meyers")~~

~~Blue Daze (Evolvulus spp.)~~

~~Bougainvillea (Bougainvillea spectabilis)~~

~~Bromeliads (Bromeliaceae)~~

~~Cardamon Ginger (Elettaria cardamomum)~~

~~Carissa, Dwarf (Carissa macrocarpa)~~

~~Cast Iron Plant (Aspidistra elatior)~~

~~Crown-of-Thorns (Euphorbia milli)~~

~~Daylily (Hemerocallis spp.)~~

~~Dwarf Peace Lily (Spathiphyllum `Wallisii')~~

~~Egyptian Star Flower (Pentas lanceolata)~~

~~Fern, Holly (Cyrtomium falcatum)~~

~~Fern, Leather Leaf (Rumohra adiantiformis)~~

~~Fern, Sword (Nephrolepis sp.)~~

~~Fig, Creeping (Ficus pumila)~~

~~Garlic, Society (Tulbaghia violacea)~~

~~Heather, False (Cuphea hyssopifolia)~~

~~Ivy, Algerian (Hedera canariensis)~~

~~Jasmine (Jasminum spp.)~~

~~Jasmine, Confederate (Trachelospermum jasminoides)~~

~~Jasmine, Small Leaf Confederate (Trachelospermum asiaticum)~~

~~Juniper (Juniperus spp.)~~

~~Lantana, Dwarf (Lantana depressa)~~

~~Lantana, Trailing (Lantana montevidensis)~~

~~Lily Turf, Creeping (Liriope spicata)~~

~~Lirope (Liriope muscari)~~

~~Mondo Grass (Ophiopogon japonicus)~~

~~Oats, Sea (Uniola paniculata)~~

~~Oyster Plant (Rhoeo spathecea)~~

Peperomia (Peperomia obtusifolia)

Periwinkle (Catharanthus roseus)

Pittosporum, Dwarf (Pittosporum tobira 'Wheeleri')

Puncture Vine (Trilobus terrestris)

Purslane, Sea (Sesuvium portulacastrum)

Railroad Vine (Ipomoea pes-caprae)

Sunflower, Beach (Helianthus debilis)

Wandering Jew (Zebrina pendula)

Agapanthus (A. Africanus)

(m) *Existing trees.* Existing healthy trees of desirable species shall be retained on site to the extent possible and except as provided for in section 98-81 and may be credited toward meeting the required number of trees if such an adjustment is in keeping with and will preserve the intent of this section. Where it is not feasible to retain existing healthy trees, those trees shall be relocated on the property if possible, and if not possible, to other locations deemed appropriate by the city. All relocated trees shall be guaranteed for one year. For any tree which cannot be relocated, or which dies within one year of relocation, the applicant or property owner shall comply with section 98-81(d)(5)(a). No existing trees on-site may be removed or transplanted without receipt of a permit from the city.

(n) *Minimum landscape requirements for zoning districts.* Lawns or landscape material shall be placed on all areas not covered by structures, parking, walks and drives, and shall extend to any abutting street pavement edge and to the main waterline of any abutting canal, lake or waterway (not to exceed 30 feet from said waterline to property line).

(1) *RS-5 and RS-7.* Each lot or parcel with less than 100 feet of linear frontage shall contain, in the required yard areas, a minimum of three trees, of which two of these trees must be in the front yard, one of which must be a shade tree and one of which must be a flowering tree. Each lot or parcel with more than 100 feet in linear frontage shall contain, in the required yard areas, a minimum of four trees, of which three of these trees must be in the front yard, two of which must be a shade tree and one of which must be a flowering tree. For corner properties, trees planted in corner side yard shall count toward the front yard requirement. Each lot or parcel, regardless of the linear frontage length, must screen the bottom portion of the building/foundation and/or any mechanical equipment with shrubs for any portion of the building/foundation or mechanical equipment which is visible from a roadway. For corner lots, the front street requirement shall include the front and corner side lot.

(2) *RM-10.* For any lot developed for four units and under and being less than 10,000 square feet in size, the requirement for RS-5 and RS-7 shall apply. Any parcel over 10,000 square feet shall fall under the following criteria for remaining zoning districts.

(3) *RM-15, RM-25, RP-10, PUD, B-1, B-2, B-3, I, PID, A, S, CF*. Each lot or parcel shall contain trees and shrubs in accordance with the provisions of section 98-80(f) of this Code.

These requirements will be in addition to other required landscaping as per this Code.

(o) *Arbor streets*. On certain major thoroughfares of the city, a tree installation program in the swale area will be encouraged. To achieve this purpose, shade trees over and above the minimum requirements shall be required. Additional materials shall meet minimum code specifications.

(p) *Screening*. Whenever a more intensive user abuts or faces a less intensive use, careful attention will be given to maintaining an attractive vista by providing a landscape screen on the site of the more intensive property user. In addition, when a heavy user has high visibility from a public right-of-way, screening material will be required.

(q) *Plans required for landscape approval*. For all development and uses requiring site plan review, a landscape plan and tree survey shall be submitted for the entire parcel, which plan complies with the requirements stated herein. Building foundation plantings (including recreational areas) shall also be included. Should there be more than one identical building on the premises, a "typical" building plan may be shown. Such plan shall be prepared, signed and sealed by a State of Florida registered landscape architect. The design shall be drawn to a scale no smaller than one inch equals 30 feet and include the following information:

(1) Location of all existing or proposed structures, improvements and site uses, property dimensioned and referenced to property lines, setback and yard requirements and spatial relationships;

(2) Existing and proposed site elevations, grades and major contours, including water management required retention ponds;

(3) Location of existing or proposed utility services, including drainfields and septic tanks;

(4) Common and botanical name of species;

(5) Height, caliper and spread of species at time of planting;

(6) Center to center distance between individual shrubs;

(7) Total number of all materials by species (i.e. trees, shrubs, ground cover) summarized in legend format.

(r) *Installation*. All landscaping shall be installed in a sound, workmanlike manner and according to accepted good planting procedures as prescribed by the American Society of Landscape Architects, with the quality of plant materials as heretofore described. All landscaping shall be completed to meet all the provisions herein, prior to the issuance of a certificate of occupancy.

(1) Trees shall be protected from lawn equipment by provision of 24-inch beds at base;

(2) All trees and shrubs will be planted in a planting soil consisting of a mixture of 50 percent mulch and 50 percent clean brown sand. Planting holes will be twice the size of

ball of the tree or shrub being planted. The burlap shall be removed from the top one-third of the ball of material;

(3) All material shall be treated with fertilizer tablets immediately after planting;

(4) All mulch must be pulled back a minimum of three inches from the tree to expose the root flare;

(4) Three inches of mulch is required around all planting material;

(5) Irrigation shall commence immediately upon installation and provision made for continued irrigation to reduce the probability of shock;

(6) Guying and propping of trees shall be performed as follows: Palms shall be supported by props. The trunks shall be padded and two by fours banded with no nails in the trunk of the tree. Canopy trees shall be guyed with trunks and limbs to be protected from wire by hose.

(7) All landscape materials are to be guaranteed for a minimum of one year with a copy of the guarantee to be submitted prior to the issuance of the certificate of occupancy.

(8) The urban forester must be notified prior to installation as to time of the installation to verify compliance with this section and to inspect materials.

(9) Tree staking, strapping and other such supports shall be removed within three months of installation. The prolonged use of tree supports may constitute tree abuse as stated in section 98-81.

(s) *Irrigation*. Excepting single-family zoning districts, all cultivated landscape and sodded areas in all zoning districts, including the swale, shall be irrigated by an underground automatic sprinkler system. Wherever practical, high water and low water use areas shall be circuited as noted below.

(1) Irrigation controllers shall be switched to manual operation during periods of increased rainfall unless rain sensors are incorporated into the system.

(2) Irrigation systems shall be designed to have a minimum of 100 percent coverage on a day when winds are no more than five miles an hour.

(3) The following standards shall be considered the minimum requirements for landscape irrigation design within the jurisdiction of the South Florida Water Management District:

a. *Sprinkler zoning*. 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.

b. *Control systems*. Automatically controlled irrigation systems shall be operated by an irrigation controller that is capable of watering high water requirement areas on a different schedule from low water requirement areas.

(4) Landscape irrigation systems shall be designed so that, to the greatest extent practical, water being applied to non-pervious areas is eliminated.

(5) Use of non-potable water for use in the irrigation of lawn and plant material is required when determined to be available.

(6) Detailed irrigation plans must be submitted to the Urban Forester for review and approval prior to application to the Building Department for permitting. In addition to all other necessary inspections, the Urban Forester shall test the final system to assure that it satisfies the intent of this section

(7) "As-built" drawings, showing water source, manifold, pipe size, number, make, pattern of heads to be used and gallons per zone, must be submitted with building plans for review and approval by the building official.

(t) *Certificate of installation.* The same qualified firm which prepared the approved plans shall certify the finished installation of the plant material on a project prior to an application for final inspection of the installation. This certification shall verify that the plant material specified and shown in the plans is, in fact, in place per the approved plans. Any deviations from the approved plan shall be approved by the development review committee prior to the implementation of the deviations. All deviations from the approved plan shall be noted and explained. The format of the certification shall be in letter form bearing the original letterhead of the designing firm and containing a statement that all requirements have been met, and shall be accompanied by a signed and sealed "as-built" plan, pursuant to applicable Florida Statutes.

(u) *Maintenance.* The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance and protection of all landscaping existing or hereafter installed, which shall be maintained in a healthy growing condition and shall be kept free from refuse and debris. Maintenance shall include watering, weeding, mowing, fertilization, treating, mulching, pruning, removal/replacement of dead or diseased trees and removal of refuse and debris on a regular basis so as to present a neat and well-kept appearance at all times. Hatracking is considered a violation of this Code. All tree pruning shall comply with ANSI 300 Standards as set forth in the National Arborist Association and approved by the American National Standards Institute, a copy of which is on file at the city planning and development services department.

(v) *Tree removal permits.* Tree removal permits shall be required prior to removal of all non-exempt trees in accordance with this Code.

Deerfield Beach
LANDSCAPE MANUAL

Deerfield
Beach FL

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Deerfield Beach FL

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NINE PRINCIPLES OF A FLORIDA-FRIENDLY YARD

Right Plant, Right Place

Achieving a healthy, low-maintenance home landscape starts with putting the right plant in the right place. Select plants that match a site's soil, light, water, and climatic conditions. Buy quality plants that welcome wildlife, consider plant size when you make your purchase, and aim for a diversity of trees, shrubs, groundcovers, and flowers. Once these plants are established, they'll require little—if any—supplemental water, fertilizer, or pesticides, saving you time and money. Help stop the spread of invasive plants by removing them from your yard (Native Plants in Florida's Natural Areas).

Water Efficiently

Choosing the right plant for the right place goes a long way towards conserving water. So does grouping plants with similar water needs together and zoning your irrigation system appropriately. Watch for signs of wilt before you irrigate, be a weather watcher (don't irrigate if it's going to rain), and water early in the morning if you can, following any restrictions in your area. Handwater when possible, using a watering can, pail, or hose. Check your irrigation system regularly; repair any leaks, clogs, or breaks; and make sure all sprinklers are irrigating your plants, not the sidewalk. Florida law requires a working rain shut-off device or switch on any automatic irrigation system installed after May 1, 1991 (FS 373.662). But even if your irrigation system is older, you can still inexpensively add a rain or soil moisture sensor. Calibrate your irrigation system for maximum efficiency. Mulch and mow properly to increase plant health and drought tolerance, and use microirrigation wherever possible. A rain barrel is a great way to save water and money.

https://ffl.ifas.ufl.edu/homeowners/nine_principles.htm

For more detailed information please refer to:
https://www.sfwmd.gov/community-residents/florida-friendly-landscaping

Fertilize Appropriately

Fertilize according to UF/IFAS recommended rates and application timings to prevent leaching—fertilizer leaking down through the soil rather than being absorbed by plant roots. Look for fertilizers with slow-release nitrogen and little or no phosphorous. Never fertilize within 10 feet of any water body, and don't fertilize before a heavy rain. If you spill fertilizer on the lawn or on a sidewalk or driveway, sweep it up and put it back in the bag. For a quick summer greenup, use iron supplements (ferrous sulfate or chelated iron) on your turf instead of nitrogen fertilizer. Avoid "weed and feed" products that contain both fertilizers and herbicides, as these can damage some plants. Always follow the fertilizer label directions. If you use reclaimed water for irrigation, be aware that it does contain some nutrients and adjust the amount of fertilizer accordingly.

The City of Deerfield Beach strongly recommends that you only fertilize once per year. The best time to fertilize in South Florida is in the fall, prior to the colder months.

Mulch

Mulch helps retain soil moisture, protects plants, and inhibits weed growth. It gives your landscape a neat, uniform appearance and is a great Florida-Friendly choice for hard-to-mow slopes and shady spots. Keep a 2- to 3-inch-deep layer of mulch on plant beds. Always leave at least 2 inches of space around tree trunks to prevent rot. Create self-mulching areas under your trees by letting fallen leaves lie. Be sure to choose sustainably harvested mulch like melaleuca, pine straw, or eucalyptus. **The City of Deerfield Beach prohibits the use of cypress mulch.**

https://ffl.ifas.ufl.edu/homeowners/nine_principles.htm
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Deerfield Beach FL

Attract Wildlife

Animals have trouble living in today's heavily urbanized landscape. By providing food, water, and shelter for birds, butterflies, bats, and others, you can help these displaced Floridians while bringing beauty and benefits to your home landscape. Select plants with seeds, fruit, foliage, flowers, or berries that animals can eat. Supply water, such as a rain garden or bird bath. Leave snags (dead trees), if they do not create a hazard, for birds to perch and nest in. Increase vertical layering to provide more cover and feeding for wild critters. Build a small bat house, or plant host plants for butterflies, to attract these Floridian friends to your yard. Reducing insecticide use can be good for you and many animals and beneficial insects. They eat pests and help pollinate your flowers!

Manage Yard Pests Responsibly

Concerns for human and environmental health have led scientists to recommend Integrated Pest Management (IPM), a strategy that helps gardeners manage pests with as few chemicals as possible. To prevent disease and insect outbreaks, select pest-resistant plants and put them in suitable locations. Use appropriate amounts of water and fertilizer, and mow grass at its proper height. When problems do arise, remove the affected leaves or plant parts, or pick the insects off by hand. Don't treat by default—some of the insects you see may be beneficial, actually helping to control pest insect populations. Spot-treat only, rather than blanket spraying, and use selective rather than broad-spectrum insecticides. Always read and follow insecticide label instructions. With these and other IPM techniques, you can create and sustain a low-maintenance, cost-efficient, healthy landscape that uses as few chemicals as possible—for your family's health and the health of the environment.

https://ffl.ifas.ufl.edu/homeowners/nine_principles.htm

For more detailed information please refer to:
https://www.sfwmd.gov/community-residents/florida-friendly-landscaping

Recycle Yard Waste

Landscape maintenance activities like mowing, pruning, and raking generate yard waste that you can recycle to save money. Decomposed organic matter, like pruned branches or grass clippings, releases nutrients back to the soil in a form that plants can easily use. Try composting, combining "green" (nitrogen-rich) and "brown" (carbon-rich) materials, such as grass clippings, weeds, plant trimmings, egg shells, coffee grounds, tea bags, twigs and branches, pine needles, corncobs, and shredded cardboard. Turn or stir the pile as you build it, and add water so microorganisms can break down the material, but make sure you cover the pile to protect it from rain. Add this nutrient-rich mixture to your soil and enjoy the benefits: looser soil with greater water-holding capacity and increased fertility—not to mention less garbage going to the landfill!

Reduce Stormwater Runoff

Florida's waterways are vulnerable to everything we put on our home landscapes. Fertilizers and pesticides can leach through the soil or run off into storm drains. Along with landscape debris and eroded soil, these can wreak havoc on our water quality and the fragile ecosystems our water resources support. Florida-Friendly Landscaping seeks to retain and use as much of the rainfall and irrigation water that lands on our home landscapes as possible. Creating shallow rain gardens, or shaping the earth on slopes with berms (rises) and swales (dips), can help slow runoff from heavy rains and allow the water time to soak into the ground. Make sure your downspout is pointed into the garden, not towards a sidewalk or driveway. Wherever possible, maintain permeable walkways, driveways, and patios of brick, gravel, earth, or crushed shell, to allow rain to soak into the ground.

https://ffl.ifas.ufl.edu/homeowners/nine_principles.htm
For more detailed information please refer to:
https://www.sfwmd.gov/community-residents/florida-friendly-landscaping

Protect the Waterfront

Florida boasts over 10,000 miles of rivers and streams, about 7,800 lakes, more than 700 freshwater springs, and the U.S.'s second-longest coastline. Even if you don't live immediately on one of these water bodies, you do live in what's known as a watershed (a drainage area). What you do in your home landscape has much further-reaching consequences than you might think. One of the most important steps you can take to protect any water body is maintaining a 10-foot "maintenance-free zone" around it. Do not fertilize, or use pesticides in this zone. Don't let any grass clippings or pet wastes get into the water, as these carry nutrients and harmful bacteria. Seawalls, rip rap, and gabions can keep help minimize shoreline erosion, and if you maintain a riparian (water's edge) zone, install native aquatic plants such as giant bullrush and maidencane, and remove invasive exotic species like water hyacinth and purple loosestrife. A stormwater pond or canal can become an aesthetically pleasing and lively place, edged with plants and home to wildlife. Work with your neighbors or homeowner association to make your stormwater pond a Florida-Friendly neighborhood amenity.

https://ffl.ifas.ufl.edu/homeowners/nine_principles.htm

For more detailed information please refer to:
https://www.sfwmd.gov/community-residents/florida-friendly-landscaping

PLANT IDENTIFICATION DIAGRAM

Other important tree features
(Trunk, leaf underside, etc.)

Flower

Scientific name
&
Common Name

Chrysophyllum oliviforme
Satin Leaf Tree

Evergreen. Wet and / or shady areas, Wind tolerant.
Height Range: 20'-30'
Spread: 20' -25'
Tree Size: Medium
Tree Type: Native
Growth Rate: Slow
Growth Habit: Oval
Drought tolerance: High
Blooming Season: N/A

Leaf

General information about each tree

Fruit

Overall tree image

LARGE TREES GREATER THAN 30 FEET

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Acer rubrum
Red Maple

This deciduous tree displays red coloring during different seasons of the year. Good for wet sites.
Height Range: 50' -60'
Spread: 15' -25'
Tree Type: Native,
Growth Rate: Fast
Growth Habit: Oval, Round
Upright
Drought tolerance: Low
Fertilization Requirements: Low

Bursera simaruba
Gumbo Limbo

Shiny red and peeling bark.
Wind tolerant.
Height Range: 25'-40'
Spread: 25' -30'
Tree Type: Native
Growth Rate: Medium
Growth Habit: Round
Drought tolerance: High
Fertilization Requirements: Low

Calopyllum brasiliense
Brasilian Beautyleaf

Evergreen tree that has a good salt tolerance.
Height Range: 30'- 40'
Spread: 30' -50'
Tree Type: Shade
Growth Habit: Upright, pyramidal
Growth Rate: Moderate
Growth Habit: Oval; Round; Pyramidal
Drought tolerance: High
Fertilization Requirements: Low

LARGE TREES GREATER THAN 30 FEET

Cassia javanica
Apple Blossom Shower

Flowering tree grows in part shade/part sun; tree grows in full sun. Makes a durable street tree throughout its range and is quite drought-tolerant once it becomes well-established.
Height Range: 30'-40'
Spread: 20' -30'
Tree Type: Flowering
Growth Rate: Moderate
Blooming Season: Spring

Ceiba speciosa
Floss Silk Tree

A great exotic looking tree for quickly creating tropical effects.
Height Range: 35'-50
Spread: 40' -55'
Tree Type: Flowering
Growth Rate: Fast
Growth Habit: Round, pyramidal
Drought tolerance: High
Blooming Season: Winter
Fertilization Requirements: Low

Clusia rosea
Pitch Apple

Medium-sized tree with stiff, thick leaves, salt tolerant. Can be used to shade buildings or patios.
Height Range: 25'-35'
Spread: 15' -25'
Tree Type: Native
Growth Rate: Slow
Growth Habit: Round spreading
Blooming Season: Summer
Fertilization Requirements: Low

LARGE TREES GREATER THAN 30 FEET

Coccoloba uvifera
Sea Grape

Salt tolerant. Good seaside plant. Broad spreading.
Height Range: 25'-35'
Spread: 20' -30'
Tree Type: Native
Growth Rate: Moderate
Growth Habit: Vase
Drought tolerance: High
Fertilization Requirements: Low

Conocarpus erectus
Green Buttonwood

Evergreen tree that prefers full sun. Salt and wind tolerant. Good for residences, parks and common areas
Height Range: 30'-40'
Spread: 20' -30'
Tree Type: Native
Growth Rate: Moderate
Growth Habit: Vase, spreading.
Drought tolerance: High
Fertilization Requirements: Low

Delonix regia
Royal Poinciana

Fast growing tree. Produces showy reddish, orange flowers in summer. Long seed pods can be a nuisance. Subject to wind damage. Needs space to develop root system to reduce likelihood of toppling.
Height Range: 35'-45'
Spread: 40' -60'
Tree Type: Flowering
Growth Rate: Fast
Growth Habit: Vase; Spreading
Blooming Season: Summer

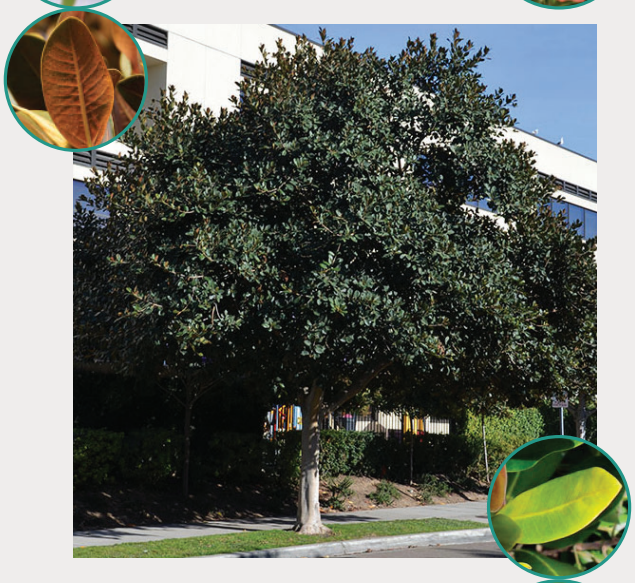
LARGE TREES GREATER THAN 30 FEET

Elaeocarpus decipiens Japanese Blueberry

Evergreen tree that prefers full to partial sun.
Height Range: 30'-40'
Spread: 30' -40'
Tree Type: Shade
Growth Rate: Slow
Growth Habit: Pyramidal
Drought tolerance: High
Fertilization Requirements: Low
Blooming Season: Spring

Ficus rubiginosa Rusty Leaf Fig

Excellent evergreen tree that tolerates salt spray conditions. Drought tolerant once established and thrives in full sun or partial shade environments.
Height Range: 35'-50'
Spread: 35' -60'
Tree Type: Shade
Growth Rate: Fast
Growth Habit: Round



Lysiloma latisiliquum Wild Tamarind

Short trunk topped with long, somewhat arching branches. Good for parks, boulevards, and open areas.
Height Range: 40'-60'
Spread: 30'-40'
Tree Type: Native
Growth Rate: Moderate
Growth Habit: Umbrella
Drought tolerance: High
Fertilization Requirements: Low
Blooming Season: Spring

LARGE TREES GREATER THAN 30 FEET

Magnolia grandiflora ‘blanchard’
DD Blanchard Magnolia

Has large, leathery leaves and showy flowers.
Height Range: 50’-70’
Spread: 20‘-35’
Tree Type: Native
Growth Rate: Moderate
Growth Habit: Oval
Drought tolerance: High
Fertilization Requirements: Low
Blooming Season: Spring, Summer

Pachira aquatica
Guiana Chestnut tree

The pachira needs plenty of sunlight, Deciduous tree with showy fragrant flowers.
Height Range: 50’-60’
Spread: 20’ -30’
Tree Type: Shade
Growth Rate: Slow
Growth Habit: Columnar
Drought tolerance: High
Fertilization Requirements:
Blooming Season: Spring & Summer

Pinus elliotii ‘var densa’
South Florida Slash Pine

Evergreen conifer that has relatively long needles. Needles grow in clusters of 2 - 3 and measure approximately (12 inches) in length. It doesn’t do well in grade changes and traffic above root system.
Height Range: 80’-100’
Spread: 35‘ -50’
Tree Type: Native
Growth Rate: Fast
Growth Habit: Oval
Drought tolerance: High

LARGE TREES GREATER THAN 30 FEET

Piscidia piscipula Jamaica Dogwood

Deciduous tropical tree and one of the most outstanding for woodworking. Higly salt tolerant.
Height Range: 35'-50'
Spread: 35' -60'
Tree Type: Native
Growth Rate: Fast
Growth Habit: Spreading
Drought tolerance: High
Fertilization Requirements: Low
Blooming Season: Spring

Podocarpus gracilior Weeping Podocarpus

Evergree tree growing in full sun or partial shade, it will tolerate a wide range of well-drained soils and should be protected from frost.
Height Range: 30'-50'
Spread: 25' -35'
Tree Type: Shade
Growth Rate: Slow
Growth Habit: Oval, weeping.
Drought tolerance: High

Polyalthia longifolia Mast Tree

A gloriously columnar tree with an extremely weeping nature. The Mast Tree is considered an evergreen in its native habitat and prefers direct sun.
Height Range: 30'-65'
Spread: 6' -8'
Tree Type: Architectural accent or visual divider.
Growth Rate: Fast
Growth Habit: Columnar.
Drought tolerance: High