



[CITY OF MIAMI LANDSCAPE ORDINANCE]

An ordinance of the Miami City Commission amending Ordinance No. 11000, as amended, the Zoning Ordinance of the City of Miami, Florida, to provide for a new article 8.2 entitled "Landscape Ordinance"; containing a short title and applicability, intent and purpose, definitions, plans submission, minimum standards, plans review criteria, enforcement, maintenance and policies that encourage the use of environmentally-preferred landscape and irrigation methods for the City of Miami.

ARTICLE 8.2 : THE CITY OF MIAMI LANDSCAPE ORDINANCE

Sec. 8.2.1. Intent and Purpose.

It is the intent of this article to establish minimum landscape standards for the City of Miami that enhance, improve and maintain the quality of the landscape, and to:

(A) Promote Florida Friendly landscaping principles through the use of drought tolerant plant species, grouping of plant material by water requirements, the use of irrigation systems that conserve the use of potable and non potable water supplies and restrictions on the amount of lawn areas. Florida Friendly landscape principles also promote planting the right plant in the right place and appropriate fertilization and mulching.

(B) Use landscape material, specifically street trees, to visually define the hierarchy of roadways, and to provide shade and a visual edge along roadways.

(C) Prevent the destruction of the City's existing tree canopy and promote its expansion.

(D) Provide for the preservation of existing Natural Forest Communities and specimen sized trees in conformance with existing City and County codes, as may be amended from time to time; re-establish native habitat where appropriate, and encourage the appropriate use of native plant materials in the landscape.

(E) Promote the use of 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 through the added absorption of carbon dioxide and reduction of heat islands.

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

(G) Improve the aesthetic appearance of commercial, industrial and residential development through the use of appropriate plant materials, thereby protecting and increasing property values within the City, and protecting designated historic landscapes.

(H) Reduce the negative impacts of exotic pest plant species and prohibit the use of noxious exotic plants which invade native plant communities.

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

(J) Promote proper landscaping methods and selection of plant materials to avoid problems such as clogged sewers, cracked sidewalks and power services interruptions.

Sec. 8.2.2. Short title and applicability.

(A) Title. This article shall be known and may be cited as the "City of Miami Landscape Ordinance".

(B) Applicability.

(1) This article shall be a minimum standard and shall apply to the City of Miami, and

shall be enforced by the City.

- (2) The provisions of this article shall be considered minimum standards and shall apply to all public and private development when a permit is required, except for existing attached and detached single family and duplex dwellings, including any future additions or expansions shall be exempt from the provisions of this article.
- (3) Existing development shall only be required to comply with the street tree requirements and parking lot buffers. Parking lot buffers will not be required if inadequate area exists which will cause the elimination of any required parking pursuant to the City code or Zoning Ordinance. The provisions of this subsection shall only apply where a building permit is required for expansion of parking areas.

Sec. 8.2.3 Definitions.

The definitions contained in Ordinance No. 11000, the Zoning Code of the City of Miami, Florida, shall apply except as otherwise changed herein:

Automatic Irrigation System: An irrigation system with programmable controller or timing mechanism.

Buffer, perimeter landscape: An area of land which is set aside along the perimeter of a parcel of land in which landscaping is required to provide an aesthetic transition between different land uses and to eliminate or reduce the adverse environmental impact, and incompatible land use impacts.

Caliper: For trees under four (4) inches in diameter, the trunk diameter measured at a height of six (6) inches above natural grade. For trees four (4) inches and greater in diameter, the trunk diameter measured at twelve (12) inches above natural grade.

Clearance pruning: Pruning required to avoid damage or danger related to structures, power distribution and property, as defined in the current ANSI A300 Standards.

Controlled plant species: Those plant species listed in the Landscape Manual which tend to become nuisances because of their ability to invade proximal native plant communities or native habitats, but which, if located and cultivated properly may be useful or functional as elements of landscape design.

Diameter at breast height (DBH): Diameter of a tree's trunk measured at a height four and one-half (4.5) feet above natural grade. In the case of multiple-trunk trees, the DBH shall mean the sum of each trunk's diameter measured at a height of four and one-half (4.5) feet above natural grade.

Differential operation schedule: A method of scheduling an irrigation system to apply different quantities of water, and/or apply water at different frequencies as appropriate, for different hydrozones.

Dissimilar land uses: Proximate or directly associated land uses which are contradictory, incongruous, or discordant such as higher intensity residential, commercial or industrial uses located adjacent to lower intensity uses.

Drip Line: An imaginary vertical line extending from the outermost horizontal circumference of a tree's branches to the ground.

Emitters: Devices which are used to control the discharge of irrigation water from lateral pipes.

Energy conservation zone: A zone located no more than twenty-two (22) feet from a structure in a one hundred eighty (180) degree band from due east of the northeast point of the structure, to due south, to due west of the northwest point of the structure.

Environmentally Endangered Lands: Lands that contain natural forest, wetland or native plant communities, rare and endangered plants and animals, endemic species, outstanding geologic or other natural features, or land which functions as an integral and sustaining component of an existing ecosystem.

Existing development: Existing development shall mean a site with structures that were legally approved through the issuance of a certificate of use or certificate of occupancy as of the effective date of this chapter.

Facultative: Plants with a similar likelihood of occurring in both wetlands and uplands, which are not recognized indicators of either wetland or upland conditions.

Florida Friendly Landscaping: Describes best practices, materials or actions developed by the Florida Yards & Neighborhood Program that help to preserve Florida's natural resources and protect the environment.

Florida Yards & Neighborhood Program: Is a partnership of the University of Florida/Institute of Food and Agricultural Sciences, Florida's water management districts, the Florida Department of Environmental Protection, the National Estuary Program, the Florida Sea Grant College Program and other agencies, managed locally by the Miami-Dade Cooperative Extension Division of the Consumer Services Department.

Forbs: Herbaceous plants other than grasses.

Geologic feature: A natural rock or mineral formation.

Graywater: That portion of domestic sewage emanating from residential showers, residential bathroom washbasins, or residential clothes washing machines.

Ground cover: A dense, extensive growth of low-growing plants, other than turfgrass, normally reaching an average maximum height of not more than twenty-four (24) inches at maturity.

Hatrack: To flat-cut the top of a tree, severing the leader or leaders, or the removal of any branch three (3) inches or greater in diameter at any point other than the branch collar.

Hazard pruning: The removal of dead, diseased, decayed, or obviously weak branches two (2) inches in diameter or greater.

Head: A sprinkler head that provides above ground or overhead irrigation.

Heat island: An unnaturally high temperature microclimate resulting from radiation from unshaded impervious surfaces.

Hedge: A landscape barrier consisting of a continuous, dense planting of shrubs, not necessarily of the same species.

Herbaceous plant: A plant having little or no woody tissue.

Hydromulch: A sprayed application of seed, mulch and water.

Hydrozone: A zone in which plant material with similar water needs are grouped together.

Included bark: Bark that is pushed inside a developing crotch, causing a weakened structure.

Irrigation detail: A graphic representation depicting the materials to be used and dimensions to be met in the installation of the irrigation system.

Irrigation plan: A plan drawn at the same scale as the landscape plan, indicating location and specification of irrigation system components and other relevant information as required by this chapter.

Irrigation system: A system of pipes or other conduits designed to transport and distribute water to keep plants in a healthy and vigorous condition.

Landscape feature: Trellis, arbor, fountain, pond, garden sculpture, garden lighting, decking, patio, decorative paving, gazebo and other similar elements.

Landscape Manual: An illustrative interpretation of the standards provided in this code and suggested guides for landscaping in accordance with these standards. Includes native and non-native plant lists. The manual is developed by the Miami-Dade County Department of Planning and Zoning and adopted by resolution of the Board of County Commissioners.

Landscape material: Plants such as grass, ground cover, forbs, shrubs, vines, hedges, trees and non-living material such as rocks, pebbles, sand, mulch, or pervious decorative paving materials.

Landscape plan: A plan indicating all landscape areas, stormwater retention/detention areas, areas which qualify to be excluded from maximum permitted lawn area, existing vegetation to be retained, proposed plant material, landscape legend, landscape features, planting specifications, and details, and all other relevant information in compliance with this article.

Lawn area: An area planted with lawn grasses.

Manual irrigation system: An irrigation system in which control valves and switches are manually operated rather than operated by automatic controls.

Moisture and rain sensor switches: Devices which have the ability to switch off an automatic irrigation controller after receiving a predetermined amount of rainfall or moisture content in the soil.

Mulch: Materials customarily used in landscape design to retard erosion, weed infestation, and retain moisture and for use in planting areas.

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

Native plant species: Plant species with a geographic distribution indigenous to all or part of Miami-Dade County. Plants which are described as being native to Miami-Dade County in botanical manuals such as, but not limited to, "A Flora of Tropical Florida" by Long and Lakela, are native plant species within the meaning of this definition. Plant species which have been introduced into Miami-Dade County by man are not native plant species.

Native plant community: A natural association of plants dominated by one (1) or more prominent native plant species, or a characteristic physical attribute.

Natural Forest Community: All assemblages of vegetation designated as Natural Forest Communities on the Miami-Dade County Natural Forest Community Maps and approved by the Board of County Commissioners, pursuant to Resolution No. R-1764-84 and further defined in Section 24-5 of the Miami-Dade County Code.

Planting detail: A graphic representation of the plant installation depicting the materials to be used and dimensions to be met in the placement of plants and other landscape materials.

Prohibited plant species: Those plant species listed in the Miami-Dade County Landscape Manual which are demonstrably detrimental to native plants, native wildlife, ecosystems, or human health, safety, and welfare.

Shrub: A self-supporting woody perennial plant normally growing to a height of twenty-four (24) inches or greater, characterized by multiple stems and branches continuous from the base.

Site plan: A comprehensive plan drawn to scale indicating appropriate site elevations, roadways, and location of all relevant site improvements including structures, parking, other paved areas, ingress and egress drives, landscaped open space and signage.

Specimen tree: A tree with any individual trunk which has a DBH of eighteen (18) inches or greater, but not including the following:

1. All trees listed in Section 24-49(4)(f) of the Miami-Dade County Code of Ordinances;
2. Non-native fruit trees that are cultivated or grown for the specific purpose of producing edible fruit, including, but not limited to, mangos, avocados, or species of citrus;
3. Non-native species of the genus *Ficus*, except *Ficus altissima* (Lofty Fig) and *Ficus benghalensis* (Banyan Tree), and
4. All multitrunk trees in the palm family, except *Acoelorrhaphe wrightii* and *Phoenix reclinata* which have a minimum overall height of fifteen (15) feet.

Spray head: An irrigation device which applies water to the soil or plant surface by fixed spray or mist nozzles.

Sprinkler Head: A sprinkler head that provides above ground or overhead irrigation.

Stabilized lawn area: An area of ground underlain with structural support in the form of grass pavers or stabilized soil prepared to withstand the load of intended vehicular use, such as automobiles, fire trucks and garbage trucks.

Stormwater retention/detention area: An area designed, built and used for temporary storage of stormwater. For purposes of this chapter, these areas are intended to be permanently exempt from wetland regulations.

Street Tree Master Plan: A greenprint for Miami-Dade County as adopted by the Board of County Commissioners on March 6, 2007 and as revised from time to time and the City of Miami Tree Master Plan, as adopted by the City Commission on February 22, 2007.

Tree abuse: Tree abuse shall include: Damage inflicted upon any part of a tree, including the root system, by machinery, construction equipment, cambium layer penetration, storage of materials, soil compaction, excavation, chemical application or spillage, or change to the natural grade; Hatracking; Girdling or bark removal of more than one-third (1/3) of the tree diameter; Tears and splitting of limb ends or peeling and stripping of bark resulting from improper pruning techniques not in accordance with the current ANSI A300 Standards and/or excessive root cutting.

Tree canopy: The aerial extent of the branches and foliage of a tree as defined by the drip line.

Temporary irrigation systems: A system including surface distribution elements (hose, pipe, etc.) which may be easily removed when landscape is established.

Understory: The complex of woody, fibrous, herbaceous, and graminoid plant species that are typically associated with a Natural Forest Community, native plant community, or native habitat.

Vegetation required to be preserved by law: Portions of a site, including but not limited to specimen trees, Natural Forest Communities and native vegetation which are clearly delineated on site plans, plats, or recorded restrictions, or in some other legally binding manner that are to be protected from any tree or understory removal or effective destruction and maintained without any development.

Vegetation survey: A drawing provided at the same scale as the landscape plan which includes relevant information as required by this chapter.

Vehicular use area: A hard surface area designed or used for off-street parking and/or an area used for loading, circulation, access, storage, including fire trucks, garbage trucks, or display of motor vehicles.

Vine: A plant with a flexible stem which normally requires support to reach mature form.

Xeriscape: A landscaping method that employs drought tolerant plants in an effort to conserve resources, especially water.

Sec. 8.2.4. Plans required.

8.2.4.1. General.

Landscape plan(s) shall be approved by the Office of Zoning, and where required pursuant to this code, an irrigation plan shall be approved by the Building Department prior to the issuance of any building permit or paving for new parking areas or expansion of existing parking areas.

8.2.4.2 Landscape plans.

8.2.4.2.1. Owner - builder single family or duplex dwelling:

Landscape plan(s) submitted for new one (1) family or duplex dwellings may be in the form of a plot plan or drawing prepared by the owner or the owner's representative, provided however, developments requiring review before the Urban Development Review Board shall provide Landscape Plans prepared by, and that bear the seal of, a landscape architect licensed to practice in the State of Florida, or by persons authorized by Chapter 481, Florida Statutes, to prepare landscape plans or drawings.

8.2.4.2.2. All other development:

The landscape plan for development other than provided for in subsection (1) above, shall be prepared by, and bear the seal of, a landscape architect licensed to practice in the State of Florida, or by persons authorized by Chapter 481, Florida Statutes, to prepare landscape plans or drawings. Preliminary landscape plans shall be provided as part of the submission for approval and shall:

- a. Be drawn to scale and include property boundaries, north arrow, graphic scale, and date.
- b. Include a vegetation survey, including an aerial photograph which outlines the subject site, provided at the same scale as the landscape plan.
- c. Delineate existing and proposed structures, parking spaces, driveways and other vehicular use areas, sidewalks, utilities, easements, height and voltage of power lines on the property or adjacent property.
- d. Indicate the common and scientific name and quantity of plants to be installed using the "Landscape Legend" code format as prescribed by the Director of the Planning Department.

- e. Identify all landscape features and non-living landscape materials.
- f. Show all areas of vegetation required to be preserved by law, including but not limited to trees, specimen trees, native plant species, Natural Forest Communities, native habitats and wetlands.
- g. Illustrate geologic, historic and archeological features to be preserved.
- h. Depict stormwater retention/detention areas and areas excluded from maximum permitted lawn area.
- i. Document zoning district, net lot area, maximum lot coverage, required Open Space, and maximum permitted lawn area.
- j. Complete Preparer's Statement of Landscape Compliance form.

8.2.4.2.3. Final landscape plans submitted for permit shall include all of the above, as well as the following:

- a. A fully completed, permanently affixed "Landscape Legend" as prescribed by the Director of the Planning Department.
- b. Critical layout dimensions for trees, plant beds and landscape features.
- c. Method(s) to protect and relocate trees and native plant communities during construction.
- d. Planting details and specifications.
- e. Irrigation plans, as required by this code.
- f. Irrigation details and specifications, as required.
- g. Notarized Preparer's Statement of Landscape Compliance form.

8.2.4.3. *Vegetation survey.* A vegetation survey shall be provided for all sites at the same scale as the landscape plan. The vegetation survey shall be accompanied by an aerial photograph which outlines the subject site without obscuring its features. The vegetation survey shall provide the following information:

8.2.4.3.1. The accurate location and graphic representation, in relation to existing development, of all existing trees of a minimum two (2) inch DBH or ten (10) foot height or, for native trees, of a minimum one and one-half (1 1/2) inch DBH or eight (8) foot height, including those which are proposed to be removed, relocated or preserved on site in accordance with the requirements of this Code and Chapter 17 of the City Code.

8.2.4.3.2. The boundaries of any Scenic Transportation Corridor, Environmental Preservation District, native habitat, native plant community, native plant species, and/or Natural Forest Community and associated understory that exists on site, as determined by the City of Miami Commission or the Miami-Dade County Department of Environmental Resources Management.

8.2.4.3.3. A table showing the following information:

- a. The scientific and common name of each tree, each of which shall be numbered.
- b. The diameter at breast height (DBH) of each tree, or if a multiple trunk tree, the sum DBH for all trunks.

- c. An estimate of the height, canopy cover, and physical condition of each tree, and whether specimen tree(s) exist on site.

8.2.4.4. *Irrigation plans.* An irrigation plan shall be submitted if an irrigation system is required by this code or where an irrigation system is to be provided regardless of code requirements. Where a landscape plan is required, an irrigation plan shall be submitted concurrently.

8.2.4.4.1. For a new one-family or duplex dwelling the irrigation plan may be indicated on a plot plan or a separate drawing prepared by the owner or the owner's agent indicating area(s) to be irrigated, location and specifications of lines and heads and pump specifications.

8.2.4.4.2. All other development other than those provided in a subsection 8.2.4.4.1 above shall:

- a. Be drawn on a base plan at the same scale as landscape plan(s).
- b. Delineate landscape areas, major landscape features, and hydrozones.
- c. Delineate existing and proposed structures, parking areas or other vehicular use areas, access aisles, sidewalks, driveways, the location of utilities and easements, and similar features,
- d. Include water source, design operating pressure and flow rate per zone, total volume required for typical depths of application, and application rate.
- e. Include locations of pipes, controllers, valves, sprinklers, back flow prevention devices, rain switches or soil moisture sensors, and electrical supply.
- f. Include irrigation details.

8.2.5. Tree removal and preservation.

No person and no agent or representative thereof, directly or indirectly, shall cut down, destroy, move or effectively destroy through damaging any tree situated on any real property as described in Article 8.1 of Ord. No. 11000, without first obtaining approval and a tree removal permit. No permit for development activity shall be issued until it has been determined that no tree removal permit is required or that a valid tree removal permit has been issued in compliance with this article. The City of Miami Code Enforcement Department is responsible for administering and enforcing these provisions in accordance with Article 8.1 of Ord. No. 11000.

8.2.6. Minimum Standards.

The following standards shall be considered minimum requirements unless otherwise indicated:

8.2.6.1. Lawn area (turf).

8.2.6.1.1 Grass areas shall be planted in species well adapted to localized growing conditions in Miami-Dade County. Grass areas may be sodded, plugged, sprigged, hydromulched, or seeded except that solid sod shall be used in swales or other areas subject to erosion. In areas where other than solid sod or grass seed is used, overseeding shall be sown for immediate effect and protection until coverage is otherwise achieved.

8.2.6.1.2 Exclusions from maximum permitted lawn areas:

- a. Stabilized grassed area used for parking;
- b. Grassed areas designated on landscape plans and actively used for sports, playgrounds or picnic areas;
- c. Grassed areas in the right-of-way;
- d. Stormwater retention/detention areas planted in grasses which are very drought tolerant, as referenced in the Landscape Manual, as well as tolerant to wet soils.

8.2.6.1.3 Maximum permitted lawn area for all zoning districts is referenced in Table A. Very drought tolerant grasses and low growing native plants, including grasses and forbs, as referenced in the Landscape Manual, may be used as groundcover beyond the maximum permitted grass area specified in Table A.

8.2.6.2. Irrigation.

8.2.6.2.1 All newly-planted and relocated plant material shall be watered by temporary or permanent irrigation systems until such time as they are established and subsequently on an as needed basis to prevent stress and die off in compliance with existing water restrictions.

8.2.6.2.2 Irrigation shall be prohibited within native plant communities and natural forest communities, except for temporary systems needed to establish newly planted material. Temporary irrigation systems shall be disconnected immediately after establishment of plant communities.

8.2.6.2.3. Irrigation systems shall be designed, operated, and maintained to:

- a. Meet the needs of the plants in the landscape
- b. Conserve water by allowing differential operation schedules based on hydrzne.
- c. Consider soil, slop and other site characteriics in order to minimize water waste, including overspray or overflow on to imperous surfaces and other non-vegetated areas, and off-site runoff.
- d. Minimize free flow conditions in case of damage or other mechanical failure
- e. Use low trajectory spray heads, and/or low volume water distributing or application devices.
- f. Maximize uniformity, considering factors such as:

- i. Emitter types,
 - ii. Head spacing,
 - iii. Sprinkler pattern, and
 - iv. Water pressure at the emitter.
- g. Use the lowest quality water feasible (graywater shall be used where approved systems are available.)
- h. Rain switches or other devices, such as soil moisture sensors, shall be used with automatic controls.
- i. Operate only during hours and on days permitted under South Florida Water Management District rules.
- j. Where feasible, drip irrigation or micro-sprinklers shall be used.
- k. During dry periods, irrigation application rates of between one (1) and one and one-half (1 ½) inches per week are recommended for turf areas.
- l. If an irrigation system is not provided, a hose bib shall be provided within seventy-five (75) feet of any landscape area.

8.2.6.3. Trees.

8.2.6.3.1. *Tree size.*

All trees, except street trees, shall be a minimum of twelve (12) feet high and have a minimum caliper of two (2) inches at time of planting, except that thirty (30) percent of the tree requirement may be met by native species with a minimum height of ten (10) feet and a minimum caliper of one and one-half (1 1/2) inches at time of planting.

8.2.6.3.2. *Street tree size and spacing.*

Street trees shall be of a species typically grown in Miami-Dade County which normally mature to a height of at least twenty (20) feet. Street trees shall have a clear trunk of four (4) feet, an overall height of fifteen (15) feet and a minimum caliper of three (3) inches at time of planting, and shall be provided along all roadways at a maximum average spacing of thirty (30) feet on center, except as otherwise provided in this Article. The thirty (30) foot average spacing requirement for multiple single family units and townhouse shall be based on the total lineal footage of roadway for the entire project and not based on individual lot widths. Street trees shall be placed within the swale area or shall be placed on private property where demonstrated to be necessary due to right-of-way obstructions as determined by the Public Works Department. Street trees planted along private roadways shall be placed within seven (7) feet of the edge of roadway pavement and/or where present within seven (7) feet of the sidewalk.

8.2.6.3.3. *Power lines.*

Where the height and location of overhead power-lines requires the planting of low growing trees, street trees shall have a minimum height of eight (8) feet, a minimum caliper of one and one-half (1 1/2) inches at time of planting, and shall meet the following requirements:

- a. Single trunk trees clear of lateral branches to four (4) feet and/or multi trunk trees or tree/shrubs, as referenced in the Landscape Manual, cleared of foliage to a height of four (4) feet.
- b. A maximum average spacing of twenty-five (25) feet on center.
- c. Maturing to a height and spread not encroaching within five (5) feet of overhead power distribution lines.
- d. Under high voltage (50kV and above) transmission lines installed independent of underbuilt distribution lines, tree height and spread shall not exceed the minimum approach distances specified in the current ANSI (American National Standards Institute) Z133.1 Standards, as referenced in the Landscape Manual.

8.2.6.4. Palms.

8.2.6.4.1. Palms which meet all of the following requirements shall count as a required street tree on the basis of one (1) palm per tree.

- a. Minimum canopy of fifteen (15) feet at maturity.
- b. Provided at an average maximum spacing of twenty-five (25) feet on center.
- c. A single trunk palm species with a minimum ten (10) inches DBH and a minimum of eight (8) feet of clear of gray wood.
- d. Queen palms (*Syagrus romanzoffiana*) shall not be allowed as street trees.

8.2.6.5. Minimum number of trees.

The minimum number of required trees, in addition to street trees, is referenced in Table A.

TABLE A

ZONING DISTRICT	NUMBER OF TREES REQUIRED		MAXIMUM LAWN AREA
	Per Acre of Net Lot Area	Per Lot	Percent of Req Open Space
RESIDENTIAL			
R-1		3	50%
R-2		3	50%
R-3	28		60%
R-4	28		40%
COMMERCIAL			
C-1	22		20%
C-2	22		20%
CBD	22		20%
OFFICE			
O	28		30%
CIVIC			
G/I*	9		60%
PR	N/A		N/A
CS	N/A		N/A
INDUSTRIAL			
I	15		20%
PLANNED UNIT DEVELOPMENTS			
PUD	28		40%

*Use dependant on character of the neighborhood.

Please refer to Special District Regulations that may modify the above requirements.

Where a conflict exists, the requirement imposing the higher standard shall apply.

8.2.6.5.1 *High density residential and commercial districts.* In high density residential or commercial zoning districts, if the minimum number of trees required cannot be reasonably planted on the ground level of the subject property, the applicant may plant twenty-five percent (25%) of the required trees on upper levels such as open recreation areas or exposed decks.

8.2.6.5.2. *Off-site tree planting.* If the minimum number of trees required cannot be reasonably planted on the subject property, the applicant may enter into an agreement with the city, as

approved by the department, to plant the excess number of required trees on public property within the City Commission district of the subject property.

8.2.6.5.3. *Tree trust fund.* If the minimum number of trees required cannot be reasonably planted on the subject property, but as an alternative to the off-site tree planting option provided in subsection 8.2.6.5.2, the applicant shall contribute into the city's tree trust fund the sum of one thousand dollars (\$1000.00) for each two (2) inch caliper tree required in accordance with Table A of section 8.2.6.5. A city resident with current proof of residency and homestead status shall contribute five hundred (\$500.00) for each two (2) inch caliper tree required in accordance with Table A of section 8.2.6.5.

8.2.6.5.4. Grassed areas that are to be used for organized sports such as football and soccer or other similar sports or playgrounds, that are clearly identified on a landscape plan shall not be counted toward calculating tree and maximum lawn area requirements.

8.2.6.5.5. Trees shall be planted to provide shade to residential structures of a height of thirty-five (35) feet or less. At least two (2) required lot trees shall be positioned in the energy conservation zone as defined herein. All exterior air conditioning units, except for air conditioning units placed on the roof, shall be shaded by trees and/or shrubs as referenced in the Landscape Manual.

8.2.6.5.6. Palms of a fourteen (14) foot minimum overall height and minimum caliper of three (3) inches at time of planting shall count as a required tree on the basis of two (2) palms-per tree, except as provided herein for palms used as of street trees. No more than thirty (30) percent of the minimum tree requirements shall be palms.

8.2.6.5.7. Existing trees required by law to be preserved on site and that meet the requirements of Section 8.2.6.3, may be counted toward fulfilling the minimum tree requirements.

8.2.6.5.8. Prohibited and controlled tree species shall not be counted toward fulfilling minimum tree requirements. Prohibited trees shall be removed from the site after obtaining approval of a tree removal permit.

8.2.6.5.9. No less than thirty (30) percent of the required trees and/or palms shall be native species.

8.2.6.5.10. No less than fifty (50) percent of the required trees shall be low maintenance and drought tolerant species.

8.2.6.5.11. Eighty (80) percent of the trees shall be listed in the Miami-Dade Landscape Manual, the Miami-Dade Street Tree Master Plan and/or the University of Florida's Low-Maintenance Landscape Plants for South Florida list.

8.2.6.5.12. In order to prevent adverse environmental impacts to existing native plant communities, cabbage palms (*Sabal palmetto*) that are harvested from the wild shall not be used to satisfy minimum landscaping requirements. Only existing cabbage palms (*Sabal palmetto*) which are rescued from government approved donor sites, transplanted within the site, or commercially grown from seed shall be counted towards the minimum tree and native plant requirements.

8.2.6.5.13. When trees are planted within the right-of-way, the owners of land adjacent to the areas where street trees are planted must maintain those areas including the trees, plants and sod, using pruning methods specified in this Code. A covenant executed by those owners is required, or a special taxing district must be created to maintain these areas. Where the State, County or municipality determines that the planting of trees and other landscape material is not appropriate in the public right-of-way, they may require that said trees and landscape material be placed on private property.

8.2.6.5.14. Consideration shall be given to the selection of trees, plants and planting site to avoid serious problems such as clogged sewers, cracked sidewalks, and power service interruptions.

8.2.6.6. Shrubs.

8.2.6.6.1. All shrubs shall be a minimum of eighteen (18) inches in height when measured immediately after planting. Shrubs shall be provided at ratio of ten (10) per required tree. No less than Thirty (30) percent of the shrubs shall be native species and no less than fifty (50) percent shall be low maintenance and drought tolerant. Eighty (80) percent of the shrubs shall be listed in the Miami-Dade Landscape Manual, the Miami-Dade Street Tree Master Plan and/or the University of Florida's Low-Maintenance Landscape Plants for South Florida list.

8.2.6.6.2. When used as a visual screen, buffer, or hedge, shrubs shall be planted at a maximum average spacing of thirty (30) inches on center or if planted at a minimum height of thirty-six (36) inches, shall have a maximum average spacing of forty-eight (48) inches on center and shall be maintained so as to form a continuous, unbroken and solid visual screen within one (1) year after time of planting. Shrubs used as a buffer, visual screen, or hedge need not be of the same species.

8.2.6.7. Vines.

Vines shall be a minimum of twelve (12) inches in length immediately after planting and may be used in conjunction with fences, screens, or walls to meet physical barrier requirements as specified. Planting of perimeter walls with vines is recommended as a deterrent to painting of graffiti.

8.2.6.8. Ground Cover.

Ground cover plants used in lieu of grass, in whole or in part, shall be planted in such a manner as to present a finished appearance and reasonably complete coverage within one (1) year after planting.

8.2.6.9. Mulch.

8.2.6.9.1. Mulches shall be applied and maintained in accordance with the most recent edition of the Florida Yards & Neighborhoods Handbook titled "A Guide to Florida Friendly Landscaping" by the University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS) and available online at <http://www.floridayards.org/landscape/FYN-Handbook.pdf>.

8.2.6.9.2. Cypress mulch shall not be used because its harvest degrades cypress wetlands.

8.2.7. Plant quality.

8.2.7.1. Plants installed pursuant to this Code shall conform to, or exceed, the minimum standards for "Florida Number One" as provided in the most current edition of "Grades and Standards for Nursery Plants, Part I and II, " prepared by the State of Florida Department of Agriculture and Consumer Services.

8.2.7.2. Trees installed pursuant to this Code shall have one (1) primary vertical trunk and secondary branches free of included bark up to a height of six (6) feet above natural grade.

8.2.8. Buffers between dissimilar land uses.

Where dissimilar land uses exist on adjacent properties, and where such areas will not be entirely visually screened by an intervening building or structure from abutting property, that portion shall be provided with a buffer consisting of a six (6) foot wall or fence with a life expectancy of at least ten (10) years, or shrubs which normally grow to a minimum height of six (6) feet. Where chain link fencing is used, shrubs shall also be required. Said buffer shall form a continuous screen between the dissimilar land uses within one (1) year after planting. Buffers screening dissimilar uses shall include trees planted at a maximum average spacing of thirty (30) feet on center within a minimum five (5) foot landscaped strip.

8.2.9. Landscaped areas in parking lots.

All required and/or provided surface off-street parking facilities and parking lots shall be landscaped in accordance with the following standards:

8.2.9.1. The total area of all interior landscaped areas shall not be less than ten (10) square feet for each parking space provided on the site.

8.2.9.2. In order to maximize the distribution of shade, trees shall be planted throughout the interior of the parking lot at a minimum density of one (1) tree per eighty (80) square feet of landscaped area, exclusive of parking lot buffers.

8.2.9.3. A landscaped area with a tree shall be required at the end of all parking rows, particularly when abutting an aisle or building. Planting areas for each tree shall have a minimum area of fifty (50) square feet and a minimum width of five (5) feet, exclusive of the curb dimension, and shall be planted or covered with other landscape materials.

8.2.9.4. For each row of parking there shall be landscaped areas with trees within the first ninety (90) linear feet, and one (1) landscaped area provided with a tree for each additional ninety (90) linear feet. When a minimum six (6) foot clear landscape area is provided between two rows of parking, the landscape areas with trees every ninety (90) linear feet is not required. This six (6) foot wide landscape area shall be planted with trees no greater than thirty (30) feet on-center.

8.2.9.5. For each row of parallel parking there shall be a minimum of two (2) landscape areas with trees within the first seventy-five (75) linear feet, and one (1) landscape area with a tree for each additional seventy-five (75) linear feet. The landscape areas shall be equally spaced wherever possible.

8.2.9.6. All required trees shall be of an approved shade tree variety which shall attain a minimum mature crown spread greater than fifteen (15) feet.

8.2.9.7. All parking stalls, access aisles and driveways in a residential area shall be separated from any building by a minimum of thirty (30) inches and landscaped with shrubbery, ground-cover, or other suitable material.

8.2.9.8. All parking lots adjacent to a right-of-way or private street shall be screened by a continuous planting and/or three (3) foot high wall with a seven (7) foot landscaped strip incorporating said planting and/or wall on private property.

8.2.9.9. A landscape area that is a minimum of five (5) feet in width shall be provided when parking stalls, access aisles, or driveways are located along any side or rear lot line. The landscape areas shall be planted with a continuous hedge, and with trees no greater than thirty (30) feet on center, when the landscaped area does not abut a parking row. In certain instances, a solid and continuous masonry wall, a minimum of five (5) feet in height, whose surfaces are stuccoed, painted, tiled, or textured in such a way as to provide a decorative effect if approved, may be used in lieu of the landscape area.

8.2.9.10. These requirements are in addition to any applicable required open space as provided in this Code.

8.2.10. Stormwater retention/detention areas.

8.2.10.1. Stormwater retention/detention areas shall be designed to maximize the perimeter dimension, where feasible.

8.2.10.2. Stormwater retention/detention areas shall be planted throughout with native herbaceous facultative plants, with the following exceptions:

- a. In areas that are designated and actively used for play and/or picnic areas, overflow parking, or sports shall be planted with grasses which are very drought tolerant, as referenced in the Landscape Manual, as well as tolerant to wet soils.
- b. In areas where the minimum required stormwater retention capacity would be adversely affected.

8.2.10.3. The minimum required number of native herbaceous facultative plants shall be one (1) plant per square foot of retention/ detention area, including the slope. Minimum required herbaceous plant container size shall be one and one-half (1 1/2) inches, commonly, referred to as a liner. Sprigging, seeding, plugging, hydro-mulching or sodding with native herbaceous facultative plants grown from local seed sources may be used in lieu of liners. Herbaceous plants shall be planted in such a manner as to present a finished appearance and reasonably complete coverage within one (1) year after planting.

8.2.10.4. Native facultative trees or shrubs may be used in lieu of native herbaceous facultative plants, provided that the minimum required stormwater retention capacity is not adversely affected.

8.2.11. Landscape Plan Review Criteria.

All landscape plans shall be reviewed by the Office of Zoning. Where existing trees lie within Natural Forest Communities, Environmental Preservation Districts, and/or Scenic Transportation Corridors, landscape plans shall be reviewed and approved by the Historic Preservation Division of the Planning Department as prescribed in Chapter 17 of the City Code. Landscape plans shall be reviewed in accordance with Section 8.2.1 and the guidelines and illustrations provided in the Landscape Manual as well as the Guide to Florida Friendly Landscaping provided by the Florida Yards and Neighborhoods Program.

8.2.12. Preparer's Certification of Landscape Compliance at time of final inspection.

8.2.12.1. A notarized Preparer's Certification of Landscape Compliance form bearing the original letterhead of the designing firm and licensing number shall be submitted to and approved by the Office of Zoning prior to issuance of any Certificate of Use or Certificate of Occupancy. The notarized Preparer's Certification of Landscape Compliance form shall contain a statement, signed and sealed by the landscape architect or by person(s) authorized to prepare plans by Chapter 481, Florida Statutes, who prepared the approved plans, that the landscape and irrigation plans have been implemented and that all requirements of this article have been met. Any changes or substitutions to the approved plan shall be approved by the original designing firm prior to the implementation of said changes and substitutions. All changes or substitutions to the approved plan shall be noted on all copies. Changes and substitutions of plant material shall be of similar quality, quantity and size, as originally approved and shall be in compliance with the intent and requirements of this code.

8.2.12.2. For a new single family or duplex residence on its own lot or applicable existing development, the owner or owner's agent may certify in writing that landscape and irrigation have been installed according to approved plan(s).

8.2.12.3. The Planning Department and the Office of Zoning shall have the right to inspect all projects for compliance prior to issuance of a Certificate of Use or Certificate of Occupancy.

8.2.13. Landscape adjustment.

Unless otherwise required by this zoning ordinance, as amended, the Code of the City of Miami, as amended, or the Florida Building Code, as amended; Landscape Ordinance requirements may be waived by the Planning Director pursuant to a Class II Special Permit as specified below.

8.2.13.1. *Criteria to be considered in the granting of waivers of Landscape Ordinance Requirements.*

In addition to the considerations listed in Section 1305.2 and elsewhere in this ordinance, the following shall also apply to the review of Class II Special Permits being reviewed pursuant to this Section:

- a. Waivers of Landscape Ordinance requirements may be granted when, to do so promotes the intent of the particular district where the proposal is located; and help mitigate any potential adverse effect of a specific proposal whose implementation is found to be in compliance with the intent and findings of a commission approved Planning study or conceptual plan for the subject area.
- b. Waivers of Landscape Ordinance requirements may be granted when, the observance of applicable guides and standards for which the waiver is being requested would put the proposed project into a variance situation which is against the public interest.

8.2.13.2. *Specific findings required.*

Specific findings shall be made by the Planning Department which establish how the above criteria are met. Additionally, any conditions, restrictions and limitations deemed appropriate by the Planning Director shall be implemented in order to ensure compliance with the considerations set forth above, as well as in Section 1305 of this Ordinance.

8.2.14. Landscape maintenance.

8.2.14.1. An owner is responsible to ensure that landscaping required to be planted pursuant to this chapter is installed in compliance with the Landscape requirements; maintained as to present a healthy, vigorous, and neat appearance free from refuse and debris; and sufficiently fertilized and watered to maintain the plant material in a healthy condition.

8.2.14.2. If any tree or plant dies which is being used to satisfy current landscape code requirements, such tree or plant shall be replaced with the same landscape material or an approved substitute.

8.2.14.3 Trees shall be pruned in the following manner:

- a. All cuts shall be clean, flush and at junctions, laterals or crotches. All cuts shall be made as close as possible to the trunk or parent limb, without cutting into the branch collar or leaving a protruding stub.
- b. Removal of dead wood, crossing branches, weak or insignificant branches, and sucker shall be accomplished simultaneously with any reduction in crown.
- c. Cutting of lateral branches that results in the removal of more than one-third (1/3) of all branches on one (1) side of a tree shall only be allowed if required for hazard reduction or clearance pruning.
- d. Lifting of branches or tree thinning shall be designed to distribute over half of the tree mass in the lower two-thirds (2/3) of the tree.
- e. No more than one-third (1/3) of a tree's living canopy shall be removed within a one (1) year period.
- f. Trees shall be pruned according to the current ANSI A300 Standards and the Landscape Manual.

8.2.15. Prohibitions.

8.2.15.1. *Prohibited plant species.* Prohibited species shall not be planted and shall be removed from any site which is subject to the requirements of this chapter.

8.2.15.2. *Controlled plant species.* Controlled species shall not be planted within five hundred (500) feet of a Natural Forest Community or native habitats as defined herein.

8.2.15.3. *West Indian Mahogany.* West Indian Mahogany, *Swietenia mahagoni*, shall not be planted within five hundred (500) feet of a rockland hammock or pine rockland.

8.2.15.4. *Tree abuse.* Tree abuse is prohibited. Abused trees shall not be counted toward fulfilling the minimum tree requirements.

8.2.16. Conflicts with other ordinances or regulations.

If this chapter conflicts with other ordinances or regulations, the more stringent limitation or requirement shall govern or prevail to the extent of the conflict.

8.2.17 Enforcement.

8.2.17.1. The Code Enforcement Department shall withhold approval of a final building inspection prior to the issuance of a Certificate of Use or Certificate of Occupancy until a notarized Preparer's Certification of Landscape Compliance form has been submitted and approved.

8.2.17.2. The Code Enforcement Department shall have the right to inspect the lands affected by this Code and is authorized to issue cease and desist orders and citations to the current owner and the Contractor, if applicable, for violations.

8.2.17.3. Failure to install or maintain landscaping according to the terms of this article shall constitute a violation of this Code. Also, failure to plant, preserve, or maintain each individual tree shall be considered to be a separate violation of this Code. Each day in which either landscaping or individual trees are not installed or maintained according to the terms of this article shall constitute a continuing and separate violation of this Code. Further, failure by the current owner or the Contractor to provide the required landscaping and watering of such landscaping within ninety (90) days after the South Florida Water Management District ends the emergency Phase II and Phase III water restrictions shall constitute a violation of this Code.