

Sec. 30-435. Plant material and installation standards.

- (a) *Quality.* Plant materials used to meet the requirements of this section shall meet the standards for Florida No. 1 or better, as set out in Grades and Standards for Nursery Plants, part I and part II, Department of Agriculture, State of Florida (as amended). Root ball sizes on all transplanted plant materials shall also meet state standards.
- (1) At least 50 percent of the trees and 50 percent of the shrubs used to fulfill these requirements shall be native or naturalized Southern Floridian species, as determined by accepted valid scientific reference. The "Recommended Trees and Shrubs for the City of Marco Island List" is available for reference at city hall.
 - (2) In addition, for all sites, at least 50 percent of the trees and shrubs used to fulfill these requirements shall be drought-tolerant species as listed in the South Florida Water Management District's Plants for Your Florida-Friendly Landscape. Reference to be used in the native determination may include, but not be limited to:
Long, R.W., and O. Lakela, 1976. A Flora of Tropical Florida. Small, J.K., 1933. A Manual of the Southeastern Flora. Wunderlin, R.P., 1982. Guide to the Vascular Plants of Central Florida.
 - (3) Where Florida-friendly plants are to be utilized, use the South Florida Water Management District Plants for Your Florida-Friendly Landscape (as amended) as a reference.
- (b) *Trees and palms.* All required new individual trees shall be species having an average mature spread or crown of greater than 20 feet and having trunk(s), which can be maintained in a clean condition with over ten feet of clear wood. Trees adjacent to walkways, bike paths and rights-of-way shall be maintained in a clean condition with over ten feet of clear wood. Trees having an average mature spread or crown less than 20 feet may be substituted by grouping the same so as to create the equivalent of a 20-foot crown spread. For code-required trees, at least 50 percent of the trees shall be canopy type trees and 50 percent may be palms. The minimum size of the trees at the time of installation shall be as follows:

Single-family single story structures.

Canopy trees:

(50 percent) Ten feet, four-foot spread, 1.75 inch caliper (at 12 inches above the ground).

(50 percent) Eight feet, three-foot spread, 1.50 inch caliper (at 12 inches above the ground).

All other single story structures (multifamily, commercial, and institutional).

Canopy trees: (50 percent) Twelve to 24 feet on average height, six-foot spread, three-inch caliper, six- to seven-foot clear trunk, 65 gallon minimum. Container or ball and burlaped (B&B).

Palms: (50 percent) Twelve feet clear trunk height minimum with 15-foot minimum mature clear trunk height.

All multiple story structures (single-family, multifamily, commercial, and institutional).

Canopy trees:

(25 percent) Twelve to 14 feet on average height, six-foot spread, three-inch caliper, seven-foot clear trunk, 65-gallon minimum. Container or ball and burlaped (B&B).

(25 percent) Sixteen to 18 feet on average height, seven-foot spread, four-inch caliper, seven-foot clear trunk, 100 gallon minimum. Container or ball and burlaped (B&B).

Palms:

(25 percent) Twelve-foot clear trunk height minimum with 15-foot minimum mature clear trunk height.

(25 percent) Fifteen-foot clear trunk height minimum with 18-foot minimum mature clear trunk height.

A grouping of three palm trees will be equivalent to one canopy tree. Exceptions will be made for *Roystonea* spp. (Florida Royal Palm) and *Phoenix* spp. (Canary Island Date Palm not including *Roebelenii*) which shall count one palm tree for one canopy tree. Also, exceptions will be made for *Cocos* spp. (Coconut Palm) and *Arecastrum* spp. (Queen Palm) which shall count two palm trees for one canopy tree. In side and rear yard locations, palms can only be substituted for 50 percent of the canopy tree requirement. Front yards may have 75 percent palms, and are encouraged within commercial zoning districts.

- (c) *Tree species mix.* When trees are required to be planted to meet the requirements of this code, a mix of species shall be provided. The number of species to be planted shall vary according to the overall number of trees required to be planted. The minimum numbers of species to be planted are indicated below.

Required Species Mix

Required Number of Trees	Minimum Number of Species
2—10	2
11—20	3
21—30	4
31+	5

- (d) *Screening/buffering.* Where screening is required (refer to Table 2) it shall be accomplished by the use of or combination of hedges, shrubs, ground covers, berming, and decorative fences or walls in combination with shrubs, vines and ground covers covering 50 percent or more of the fence or wall. The screening/buffering shall be designed to create within 12 months a 100 percent opaque visual screen/buffer, to be maintained in perpetuity, except for visibility requirements at vehicular access points, street intersections, and pedestrian access points.

- (1) *Minimum shrub sizes for opaque hedges at time of installation.* Ten-gallon container, 48-inch height, 36-inch spread minimum, with the 48-inch height measured from the top of the root ball to the extent of the upper most foliage planted four feet on center.
- (2) *Minimum shrub sizes at time of installation adjacent to right-of-way and vehicular use areas.* Three-gallon container minimum planted 36 inches on center with a minimum height of 24 inches and spread consistent to the species of plant, but meeting a Florida No. 1 or better nursery grown grade. The 24-inch height is measured from the top of the root ball to the extent of the upper most foliage.

- (e) *Ground covers.* Prior to the issuance of a site permit, certificate of completion or certificate of occupancy for any single-family residence, multifamily, commercial, or institutional development, ground coverings, as described below, shall be installed.

- (1) *Lawn grass.* All lawn areas shall be sodded and/or planted with turf species normally grown as permanent lawns within the Southwest Florida area. Solid sod shall be used in swales or other areas subject to erosion. The use of drought-tolerant species is encouraged. Reference the city public right-of-way ordinance for requirements within the public right-of-way.

- (2) *Florida-friendly landscape.* Florida-friendly landscape practices are encouraged in all zoning districts. Landscape areas utilizing Florida-friendly designs are those that comply with the principals of Florida-Friendly Landscape consistent with the standards provided in the following publications, as may be amended from time to time:

- "Florida Yards and Neighborhoods (FYN) and Environmental Landscape Management (ELM)," the University of Florida Cooperative Extension Service (UF-IFAS)
 - "Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries (2008)," Florida Water Management Districts
 - "The Florida Yards & Neighborhoods Handbook", Florida Water Management Districts
 - "Waterwise Florida Landscape Guide," Xeric Landscaping with Florida Native Plants," Association of Florida Nurseries
 - "Waterfront Property Owner's Guide," Florida Department of Environmental Protection
- Landscape designs utilizing the Florida-friendly landscape principles are encouraged for the protection of water quality and water conservation and should incorporate the following nine principals:
- a. The right plant in the right place;
 - b. Efficient watering with properly zoned irrigation systems;
 - c. Appropriate fertilization;
 - d. Mulching properly;
 - e. Attraction of wildlife;
 - f. Responsible management of yard pests with limited use of chemicals;
 - g. Recycling yard waste;

- h. Reduction of stormwater runoff; and
- i. Waterfront protection.

(3) Impervious surfaces, single-family districts. No more than 67 percent of the total lot area within a single-family zoning district shall be covered with impervious surfaces. The use of pervious pavers and synthetic turf will be included in the calculation to the extent the applicant provides credible evidence of the permeability of the surface. Impervious surfaces may not cover a French drain, if required, except that up to two four-foot-wide walkways to a dock facility may be used;

(4) *Pervious surfaces, all districts.* Pervious yard areas shall include no more than 20 percent coverage with non-organic material such as stone, gravel or pavers unless approved under Florida-friendly landscape principles by the city manager or designee. Pervious yard areas shall include no more than 30 percent organic groundcover such as mulch, bark, pine needles and yard clippings, unless approved under Florida-friendly landscape principles by the city manager or designee.

(f) *Prohibited species.* The following plant species shall not be planted:

- (1) Enterolobium cyclocarpum (Ear tree).
- (2) Melia azedarach (Chinaberry tree).
- (3) Bischofia javanica (Bishopwood).
- (4) Scaevola frutescens (Australian inkberry).
- (5) Dalbergia sissoo (Indian rosewood).
- (6) Sapium sebiferum (Chinese tallow tree).
- (7) Ardisia elliptica (Shoe button ardisia).

This list is an example and shall be subject to revision as exotic plant species are determined to be noxious, invasive, cause environmental degradation to native habitats, or to be detrimental to human health, safety, or the public welfare by the Florida Exotic Pest Plant Council (FLEPPC). The current FLEPPC List of Invasive Plant Species can be found at www.fleppc.org.

(g) *Prohibited invasive exotic species.* In addition to the prohibitions outlined in subsection 30-435(f), the following species or seeds thereof shall not be grown, offered for sale, or transported inter-city or intra-city.

- (1) Melaleuca spp. (Punk tree).
- (2) Schinus terebinthifolius (Brazilian pepper).
- (3) Any member of the family Casuarinaceae (Australian pine).
- (4) Rhodomyrtus tomentosus (Down rosemyrtle).
- (5) Dioscorea bulbifera (Air potato).
- (6) Colubrina asiatica (Lather leaf).
- (7) Lygodium spp. (Climbing fern).
- (8) Syzygium cumini (Java plum).
- (9) Mimosa pigra (Catclaw mimosa).
- (10) Acacia auriculiformis (Ear leaf acacia).
- (11) Albizia lebbbeck (Women's tongue).
- (12) Ficus microcarpa (Laurel fig).

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(h) *Regulations.* Public and private trees and landscaping shall not be planted or replaced in the right-of-way until a permit has been issued by the city manager or designee in accordance with section 42-76. In addition to the standard for issuance contained in subsection 42-76(f), the following standards shall apply. In the event of a conflict, the more restrictive standard shall govern.

- (1) No permit is required to perform grass maintenance in public rights-of-way.
- (2) All permitted trees and plant material placed in public rights-of-way do not create or vest any property right in association with a permit, except in the city. Permittees shall be responsible for the maintenance of such trees and plant material, as provided herein, unless otherwise removed or specified as a condition of the permit issued pursuant to section 42-76.
- (3) A property owner desiring to privately landscape the public right-of-way shall submit a landscape and irrigation plan to the city manager or designee. The application shall include three sets of detailed

- plans indicating existing rights-of-way facilities, type and location of proposed plantings, and location of electrical and irrigation systems.
- (4) After review and acceptance of the landscape and irrigation plans, a landscape agreement shall be signed by the permittee to insure that the permittee or his or her successor or assignee shall be responsible to maintain such material and irrigation systems until removed or otherwise specified. The agreement shall be recorded in the official records of Collier County.
 - (5) Tree planting distance from the edge of the sidewalk on private property shall be no closer than 36" from the trunk of tree. Under no circumstances shall trees be planted within the flow line of a swale regardless of the setback from the edge of the sidewalk.
 - (6) Tree plantings must not interfere with line-of-sight triangles at anytime or with ingress or egress to the property.
 - (7) Trees planted in the public right-of-way in close proximity (less than ten feet) to underground utilities shall be reviewed and approved by the city manager or designee.
 - (8) Trees planted in the public right-of-way under power supply lines shall be of the type that do not grow taller than 15 feet. The owner shall be responsible to maintain trees under or adjacent to the power supply to prevent power failure.
 - (9) Existing private trees located in the public right-of-way may be adversely impacted by various underground construction activities undertaken by the city. The city shall not be responsible for any adverse impact on existing private trees in the public right-of-way from underground activities undertaken by the city.
- (i) *Synthetic turf.*
- (1) *Standards.*
 - a. The use of artificial plants and surfaces painted to appear as plant material are prohibited in a landscaped area except as provided by this section.
 - b. Synthetic turf that complies with the following standards may be permitted:
 1. Simulate the appearance of live turf, organic turf, grass, sod or lawn.
 2. Be of a type known as cut pile infill with pile fibers a minimum height of 1.75 inches and maximum height of 2.50 inches.
 3. Be a minimum 75 ounces per square yard.
 4. Be manufactured from polyethylene monofilament, Dual Yarn System.
 5. Be affixed to a permeable backing with a pervious subgrade equal or exceeding real turf permeability.
 6. Have a minimum 8-year "No Fade" warranty.
 7. Be a lead free.
 8. Be a product that is flame retardant.
 9. Turf shall not be permitted within 36 inches of an unfenced side property lot line. The 36-inch buffer shall be landscaped with living plant material.
 - d. The use of indoor or outdoor plastic or nylon carpeting as a replacement for natural or synthetic turf shall be prohibited.
 - e. A material other than polyethylene monofilament may be approved by the city manager or his/her designee if the product has been certified to meet applicable environmental and health regulations regarding lead content.
 - f. Use of synthetic turf in the public right-of-way or swale is prohibited.
 - g. Turf shall not be treated as a fill in material. but rather as a planned element of the landscape.
 - (2) *Installation.*
 - a. Synthetic turf shall:
 1. Be installed by a licensed professional pursuant to manufacturer's requirements.
 2. Be installed over a subgrade prepared to provide positive drainage and an evenly graded mass of compacted, porous crushed rock aggregate material.
 3. Be anchored at all edges and seams.
 - b. A drainage system shall be installed underneath the turf to prevent excessive runoff or pooling.
 - c. Where multiple panels are used. the change from one panel to the next shall not be readily visible and seams shall be joined in a tight and secure manner.

- d. An infill medium consisting of clean silica sand or other approved mixture shall be brushed into the fibers to ensure that the fibers remain in an upright position and to provide ballast that will help hold the turf in place and provide a cushioning effect. Rubber is prohibited.
 - e. Areas of living plant material shall be installed or maintained in conjunction with the installation of synthetic turf when utilized in the front yard area. Living plant material shall include shrubs, vines, trees and groundcovers in separate planter areas and tree wells.
 - f. Synthetic turf shall be separated from planter areas and tree wells by a concrete mow strip, bender board, or other barrier with a minimum three-eighths inch thickness to prevent the intrusion of living plant material into the synthetic turf areas.
 - g. Use of an irrigation system for non-active use turf shall be prohibited.
 - h. An existing irrigation system that will not be utilized for the synthetic turf may remain, however, heads shall be removed, and pipes shall be capped below ground.
- (3) *Maintenance.*
- a. Synthetic turf shall be maintained in a green fadeless condition and free of weeds, debris, tears, holes, and impressions.
 - b. Synthetic turf shall be prohibited in the public rights-of-way and swales within the City of Marco Island. The city, city employees or its contractors or subcontractors are not responsible to repair or replace any synthetic turf located within the public right-of-way, swales or easements damaged as a result of an associated city project or work order. Replacement of any synthetic turf material removed or damaged to repair or maintain roadways or utilities in the public right-of-way, swales or easements shall be the responsibility of the property owner and such repairs shall be made within 30 days or result in a code compliance violation.
- (4) *Material specifications and plans.*
- a. Materials specifications and plans shall be provided to the city manager or their designee for review and approval prior to the installation of the synthetic turf.
 - b. The submittal shall include:
 - 1. A landscape plan showing the area of synthetic turf, area of living plant material, and separation material between these areas.
 - 2. A dimensioned cross section of proposed materials and installation details, including subgrade, drainage, base or leveling layer, and infill.
 - 3. Edge material and detail for treatment of seams; and
 - 4. Material description and specifications, including manufacturer, installer (with contact information), and warranty information.
- (5) *Exceptions.*
- a. Sports courts.
 - 1. An exception to the material selection, design and installation specifications for synthetic turf shall be allowed for sports courts. Sports courts shall include putting greens, miniature golf courses, bocce courts, lawn tennis courts, volleyball, badminton, soccer courts and other similar courts for sports typically played on grass surfaces. The material specifications and plans provided to the city manager or their designee for review and approval may include deviations from the requirements for synthetic turf that is designed to simulate lawn turf or grass. The specifications submitted shall show that the materials and installation are consistent with products designed specifically for sports courts.
 - 2. Sports courts deviating from the synthetic turf standards above [subsection] (i)(1) will be considered impervious surface.
 - 3. Sports courts shall not be between the front of the house and the right-of-way, except for corner and shoulder lots, which will be allowed in only one of the two front yards.

(Ord. No. 02-22, § 5, 7-15-2002; Ord. No. 05-02, § 1, 3-21-2005; Ord. No. 09-14, § 4, 10-19-2009; Ord. No. 10-04, § 2.5., 4-19-2010; Ord. No. 11-07, § 2, 6-20-2011; Ord. No. 15-04, § 1, 3-2-2015; Ord. No. 21-18, § 2, 12-6-2021)