

Transmittal



Date: December 9, 2014

To: Rodney Chatman, AICP - Pinellas County Planning & Dev. Services
Pinellas County Code update - Working Group

From: Ryan Givens - Cardno

Subject: Code Section: X (Community Design Standards)

380 Park Place Boulevard
Suite 300
Clearwater, Florida 33759
USA

Phone (727) 531-3505

www.cardno.com

This transmittal includes the contents and changes made in the attached Pinellas County Code – Chapter 138 – Article X – Community Design Standards. The changes are reflective of the comments and suggestions obtained from the November 20, 2014 workgroup meeting.

Division 1 – General Community Design Elements

- Measurement of Height – minor revisions to parapet walls to allow for mechanical screening
- Surface Drainage – Clarification when the County can request a grading plan (as needed for most building permits, required for all site plans), clarified authority to county administrator or designee.

Division 2 – Parking and Loading

- Administrative Reductions – clarified transit reduction for 30 min. headways during am/pm peak times.
- Bicycle Parking – increased the minimum distance to an entrance from 50 to 100-ft.

Division 3 – Landscaping, etc.

- Upland Preservation Areas – removed requirement for 3% upland preservation for sites 10-acre or greater.
- Undesirable Tree – removed planting restriction in Pinellas County
- Tree Protection – added buttonwood to mangroves
- Minimum Plant Specifications – Updated standard to require Department of Agriculture Nursery Grade No. 1 quality, added county administrator authority to reduce standards due to market shortage, moved height requirement for Shade and Accent trees, revised quality to be Florida Grades and Standards.
- Street Trees – added reference to the Greenbook (standard specifications for Public Works Construction)
- Single-Family Landscaping Requirements – required landscaping/tree for residential properties prior to Certificate of Occupancy (new construction) *and/or* Tree Permit; added allowance for accent trees where planting area *and/or* light is greatly limited on a lot, added alternatives/allowances to planting on the same lot (pay in lieu, right-of-way, arbor structures)
- Non-Residential/Multi-Family Landscaping requirements –
 - removed automatic irrigation requirement, clarified LID is allowed,
 - exempted M-1, M-2, and WD districts from landscaping requirements along streets,
 - added buffer reduction for sites with less than 150-ft of depth,
 - reduced vehicular parking buffer width from 8 to 5-ft / reduced terminal islands from 11 to 8-ft, removed
 - Removed most Landscaping standards for stormwater ponds and water bodies; referenced the stormwater manual
- Plant List – updated foot notes pertaining to quality and sizes, removed all palms except Cabbage/Sabal Palms.

Contents

CHAPTER 138 – ZONING	3
Article X – Community Design Standards	3
DIVISION 1. – GENERAL COMMUNITY DESIGN ELEMENTS	3
Sec. 138-1500. - Deed restrictions, covenants, easements, other regulations.	3
Sec. 138-1501. - Measurement of Height and limitations	3
Sec. 138-1504. - Surface drainage.	4
Sec. 138-1505. - Setback measurements, allowances and restrictions.	4
Sec. 138-1506. - Uses over open water.....	6
Sec. 138-1507. - Dumpsters and Trash Enclosures.....	6
DIVISION 2. – PARKING AND LOADING	7
Sec. 138-1600. - Purpose and intent.	7
Sec. 138-1601. - General Requirements.	7
Sec. 138-1602. – Motor Vehicle Parking	8
Sec. 138-1603. – Bicycle Parking.....	16
Sec. 138-1604. - Off-street loading.	18
DIVISION 3 – LANDSCAPING, HABITAT PROTECTION, AND WETLAND BUFFERS	19
Section 138-1650 - Purpose and Intent.....	19
Section 138-1651 - Application of Landscape Regulations and Required Maintenance.....	19
Section 138-1652 – Upland Preservation Areas.....	21
Section 138-1653 - Undesirable Trees/Plants	22
Section 138-1654 - Tree Protection and Relocation.....	24
Section 138-1655 – Minimum Plant Material Specifications.....	27
Section 138-1657 - Street Trees.....	30
Section 138-1658 – Landscaping for Single-Family Detached, Attached, Two-Family, and Three-Family Residential Properties.	32
Section 138-1659 - Non-Residential and Multifamily Landscaping Standards	34

Section 138-1660 - Wetland Protection Buffers and Vegetation	42
Section 138-1661- <i>RESERVED</i>	44
Section 138-1662. - Low Impact Development (LID) Landscaping.....	44
Section 138-1663- <i>RESERVED</i>	46
Section 138-1664- Approved Plant List	47
DIVISION 4 - FENCES AND WALLS	68
Sec. 138-1700. – Purpose and Intent.....	68
Sec. 138-1701. – General Requirements	68
DIVISION 5 – SIGNS	70
No changes proposed – not part of the Code update project	70

CHAPTER 138 – ZONING

ARTICLE X – COMMUNITY DESIGN STANDARDS

DIVISION 1. – GENERAL COMMUNITY DESIGN ELEMENTS

Sec. 138-1500. - Deed restrictions, covenants, easements, other regulations.

Nothing contained in this chapter shall abrogate or annul any easement, covenant, or other agreement between parties; provided, however, that where this chapter imposes a greater restriction upon the uses of structures, land and water, or requires more open space than is required by other rules or regulations, or by easements, covenants or agreements, recorded deed, plat or otherwise, the provisions of this chapter shall govern.

Sec. 138-1501. - Measurement of Height and limitations

- (a) Height shall be measured based on the following provisions; other exemptions of this section may be allowed:
 - (1) For Flat roofs, height means the vertical distance from the mean elevation of the existing grade to the height finished roof surface.
 - (2) For Pitched roofs, height means the vertical distance from the mean elevation of the existing grade a point representing the midpoint of the peak and eave heights of the main roof structure.
- (b) Chimneys, water, fire, radio and television towers, smokestacks, flagpoles and similar structures and their necessary mechanical appurtenances, such as elevator shafts, ventilation equipment, etc., may be erected to a maximum of 20 feet above the height limits established in this chapter;
- (c) Parapet walls constructed on buildings with flat roofs shall be permitted to extend not higher than four (4) feet over the maximum height specified for the zoning district in which the building is located. Portions of the parapet walls, fences, or other building elements that screen mechanical equipment or similar features shall be except from height limits.
- (d) The heights of these structures or appurtenances thereto shall in no case exceed the height limitations prescribed by the Federal Aviation Administration within the flight approach zone patterns of airports. Approval by the Federal Aviation Administration of such structure heights shall be required when structures are located within the flight approach zones of airports (see airport zoning regulations).
- (e) These standards shall not apply to signs, billboards or amateur radio antennas protected under F.S. § 125.085 and F.S. § 166.0435.

Sec. 138-1502. - Boundary lines and survey.

Prior to construction on any lot or parcel, the boundaries of such lot or parcel shall be accurately marked with appropriate markers set by a surveyor registered to practice in the state. Markers shall thereafter be protected and shall be used by inspectors to determine required setbacks. A survey shall be required with all applications for a zoning clearance.

Sec. 138-1503. - Road frontage.

- (a) Except as otherwise provided in this chapter, no building shall be built, constructed, enlarged or structurally altered or moved on a lot, tract, or parcel of land which does not

abut a dedicated public right-of-way for a distance equal to the minimum lot width required in the zoning district in which the property is located.

- (b) Exemptions may be applied to legally-created lots along private roads and/or access easements.
- (c) The county administrator or designee may waive the road frontage requirement when it is impractical or impossible to provide public road frontage.
 - (1) It is intended that such waiver may be granted to properties fronting on established private roads or easements where owing to the size or configuration of properties or the size or configuration of the road or easement it would be impractical to provide public road frontage.
 - (2) It is specifically not intended that a waiver be granted for new development where normal site development and platting requirements apply or where public road frontage can reasonably be provided.
 - (3) Prior to such waiver being granted the applicant shall submit proof of a recorded ingress/egress easement for access to the property (such easement shall be reviewed and approved by the county attorney) and shall demonstrate compliance with established standards for emergency access as required by the applicable fire department. Where the curvature of such public right-of-way prevents this requirement from being met, the road frontage required in this section may be reduced up to 36 percent.

Sec. 138-1504. - Surface drainage.

- (a) ~~Prior to issuance of a building permit for any structure, a site drainage plan may be required if the proposed improvement is determined by the County to affect existing drainage patterns and, if required, shall be examined by the County.~~ the county administrator or designee shall review and make a determination whether the proposed improvement has the potential to significantly change the drainage patterns in and around the property.
 - (1) If the county administrator or designee determines significant drainage patterns may be affected, the applicant shall provide a lot grading plan and identify methods to address the new drainage patterns.
 - (2) For any development that requires a site plan, the applicant shall provide a lot/site grading plan as part of the review package.
- (b) Such examination shall determine whether the drainage of the lot or parcel is compatible with the county drainage standards established in accordance with the comprehensive plan levels-of-service adopted pursuant to state law.
- (c) Additionally, a stormwater pollution prevention plan and/or an erosion control plan, as appropriate, is required for new construction activities which will disturb existing soil conditions.
- (d) No zoning clearance shall be issued in such instances where the county administrator or designee, finds the plan to be incompatible with established drainage standards.
- (e) Surface drainage methods shall be consistent with the Pinellas County Stormwater Manual.

Sec. 138-1505. - Setback measurements, allowances and restrictions.

- (a) Setbacks shall be measured pursuant to the following standards and situations:

- (1) Setbacks shall be measured by the shortest dimension, running from the property line to the structure.
 - (2) No portion of an alley shall be considered as part of a required setback.
 - (3) Corner lots and multiple-frontage lots shall be considered to have front setbacks on all street frontages unless otherwise specified in this chapter. Side setbacks shall apply to all other sides of such a lot or parcel.
 - (4) Where right-of-way lines are established by action of the board of county commissioners for the purpose of future roads or widening of existing roads, all street setbacks shall be measured from the proposed right-of-way line.
 - (5) Wing walls shall conform to the normal setback requirements whenever they exceed the allowable height of a fence.
 - (6) Wherever a side or rear lot line in a commercial or industrial district abuts a railroad right-of-way, a railroad siding tract, or a railroad easement, the side and rear setback requirements will not apply at the abutting side or rear line and construction of buildings will be permitted up to the abutting side or rear property line.
 - (7) The portions of a lot that abut an alley shall be considered a rear property line, unless otherwise stated in this code.
 - (8) All decks which exceed one foot above grade shall be considered as structures for the purpose of setback requirements in order to preclude encroachment and violation of privacy onto neighboring properties.
 - a. This shall not include docks approved by the water and navigation authority
 - b. Where this situation does not exist such as lots which abut natural areas or similar areas where there will be no such encroachment or violation of privacy the county administrator may waive this provision and such deck shall not be considered as a structure for purpose of setback requirements.
 - c. This provision, however, in no way precludes the application of other provisions such as habitat management requirements, easement restrictions or similar provisions regulating the location of such uses.
- (b) Setbacks standards shall include the following encroachments, allowances, and/or limitations:
- (1) An open, unroofed porch, patio, or paved terrace may project into a required front setback for a distance not exceeding ten feet.
 - (2) Sills, eaves, cornices, chimneys, flues, mechanical equipment and similar projections may project into a setback area not more than three feet and shall not extend over adjacent property.
 - (3) Swimming pools and screen-only enclosures are permitted a rear property setback of eight (8)-feet or the minimum rear setback of the district, whichever is less.
 - (4) Swimming pools and screen-only enclosures located on double-frontage lots, with roadways on the opposite sides of the lot, are permitted a property setback of 15-feet or the minimum front setback of the district, whichever is less.
 - (5) Screen-only enclosures are permitted a side and rear property setback of five (5)-feet or the minimum rear setback of the district, whichever is less.
 - (6) All residential structures, and their accessory structures, on waterfront lots or parcels shall be subject to the following setbacks limitations:

- a. Where no seawall is present, structures shall be set back 25 feet from the mean high water mark in tidal areas or normal high water on lakes;
 - b. Where adequate seawalls or riprap stabilization exist, the setback requirement shall be 15 feet from the seawall or stabilization.
 - c. Swimming pools and screen-only enclosures may be constructed pursuant to subsections (2) and (3) of this section provided that certification from an engineer registered in the state, stating that the proposed structure will not affect the integrity or functioning of the seawall or its deadmen, is submitted prior to issuance of a permit.
- (c) Setbacks standards for Utility Sheds apply as follows in Residential Districts:
- (1) Utility sheds are described as stand-alone, non-inhabitable structures having 200-square feet or less area AND not having a foundation.
 - (2) Only one utility shed or storage building shall be permitted accessory to a residence. This shall not apply to properties in the A-E district or as part of a bona fide agricultural activity.
 - (3) Utility sheds 12-feet of height or less in height are permitted the following setbacks:
 - a. Five (5) foot side and rear setbacks, OR
 - b. Three (3) foot side and rear setback within a six-foot opaque fence
 - (3) Utility sheds over 12-feet of height shall comply with the district setbacks.
 - (4) All such sheds shall be designed in a manner so that water runoff from the roof of the structure is not directed onto neighboring properties.
- (d) Setbacks standards shall not supersede or allow easement encroachment. The following shall apply:
- (1) No portion of any structure shall be located within the area of a recorded public easement unless authorized by the County.
 - (2) Easement encroachment may not be authorized as a variance.

Sec. 138-1506. - Uses over open water.

No developed use, except docks, bridges and piers, shall occur over natural water areas unless so indicated as a recognized use on the Future Land Use Map.

Sec. 138-1507. - Dumpsters and Trash Enclosures.

- (a) *General Standards.* Dumpsters are permitted in all other zoning districts and within the R-1 through R-5 districts with dwellings other than single-family dwelling units, subject to the following standards:
- (1) Dumpsters shall meet the minimum setbacks of the zoning district.
 - (2) Dumpsters shall be screened from view by a solid fence or wall a minimum of six feet in height.
 - (3) Dumpsters shall be serviceable in that location by a waste hauler vehicle.
 - (4) The property owner, manager and tenant(s) shall be jointly and severally responsible to repair and maintain dumpster and trash enclosures free of garbage, trash, weeds and debris and in good repair.
 - (5) Dumpster enclosures serving residential property or, if non-residential, where the opening faces a right-of-way or other property, shall have gates across the full width of the opening. The gates must have drop pins to secure them in the open and closed position.

- (6) Dumpsters shall be subject to the performance standards in Chapter 138, Article IX Division 14.
- (7) Dumpsters shall not cause a sight distance obstruction for vehicles maneuvering on the adjacent or any nearby street system.
- (8) Dumpsters shall be landscaped pursuant to Division 3 of this article.
- (b) *Prohibition for Single-Family.* Dumpsters are prohibited on all parcels zoned R-1, R-2, R-3, and R-4 and R-5 with single-family detached and attached dwelling units.
- (c) *Dumpster Defined.* For purpose of this chapter, a dumpster shall be defined as a trash receptacle which generally is not emptied by hand, but is required to be emptied by mechanical means due to its size.
- (d) *Exemptions.* A dumpster which is located on a site on a temporary basis for the purpose of construction being done pursuant to a valid, current permit, trash collection, or cleaning of the site shall be exempt from this requirement.

DIVISION 2. – PARKING AND LOADING

Sec. 138-1600. - Purpose and intent.

This section establishes standards for the amount, location and development of motor vehicle parking, standards for bicycle parking, and standards for on-site loading areas. These regulations are designed to avoid parking shortages, to encourage compact development patterns, accommodate redevelopment, and recognize alternative modes of transportation.

Sec. 138-1601. - General Requirements.

- (a) *Required.* Any new use or change of use on a property shall be required to provide the minimum parking and loading established by this Division.
- (b) *Occupancy.* All required parking areas must be completed and landscaped prior to certificate of occupancy of any building or structure.
- (c) *Calculations for required parking spaces (motor vehicle and bicycle parking).*
 - (1) When computing parking spaces based on floor area, the use areas located inside a building or similar structure shall be included in the required parking calculation. However, interior areas used for motor vehicle parking are not included in the calculation (eg. garages).
 - (2) The minimum number of required parking spaces is computed based on the primary and accessory uses on site. When there are two or more separate primary uses on a site, the required parking for the site is the sum of the required parking for the individual primary uses.
 - (3) When more than 20 percent of the floor area on a site is in an accessory use, the required parking is calculated separately for the accessory use. (e.g. for a 30,000 square foot building with a 25,000 square foot warehouse and a 5,000 square foot office area, the required parking shall be computed separately for the office and warehouse uses.)
 - (4) When units or measurements determining the number of required off-street parking spaces result in a fractional space, then such fraction equal to or greater than one-half shall require a full off-street parking space.
- (d) *Elimination of required parking spaces.* Once an off-street parking or loading space has been provided which wholly or partially meets the regulations of this Code, such off-

street parking or loading space shall not thereafter be reduced, eliminated or made unusable in any manner except as authorized by this Code.

- (e) *Maintenance.* All required parking areas shall be permanently maintained and remain free and clear of litter and debris.

Sec. 138-1602. – Motor Vehicle Parking

Parking for motor vehicles shall be planned ~~for~~ and provided for each land use. However, motor vehicle parking should not dominate the landscape or create excessive conflicts with the orderly movement of transportation.

- (a) Motor vehicle parking quantity standards:
 - (1) *Parking Quantity standards are established for each use:*
 - a. Each use/development shall provide the minimum required number of motor vehicle parking stalls.
 - b. In addition, some uses are limited to a maximum number of required parking stalls on the site.
 - c. *Table 138-1602.a – Motor Vehicle Parking Stall Quantity Standards* establishes the parking stall quantity minimums and limits for each use.
 - (2) Parking for motor vehicles shall be provided with one of the following standards:
 - a. The use/development shall provide the parking quantities consistent with *Table 138-1602.a – Motor Vehicle Parking Stall Quantity Standards*; OR
 - b. When the proposed use is not specifically listed, the use/development shall provide the parking quantity for a similar use listed in *Table 138-1602.a – Motor Vehicle Parking Stall Quantity Standards*. The similar use(s) shall be determined by the county administrator or designee; OR
 - c. When the use/development is located in a Special District and separate parking quantity standards are established therein, the use/development shall provide the parking quantities specified for the District; OR
 - d. The applicant may prepare a parking study to identify the parking demand for the proposed use/development. The parking shall be based on a pre-determined methodology as determined between the applicant and the County. If the County agrees with the parking study findings, the use/development may provide the parking quantity identified therein. OR
 - e. The use/development may seek flexibility from the parking quantity as a Variance or Minor Variance based on the limits and standards of Chapter 138, Article II.
 - (3) The minimum motor vehicle parking stall quantity for each site may be permitted with the following administrative reductions; whereas, the cumulative of administrative reductions for subsections a-d shall be limited to 30%.
 - a. Properties located within ¼ mile of a regularly-scheduled public transit line, with headways 30 minutes or less during am/pm peak times, may be permitted a 15 percent reduction of the required motor vehicle parking.
 - b. Where trees and/or tree stands rated 3 or greater, exist and are preserved within a proposed parking area, the use/development may be permitted up to a 15 percent reduction of the required motor vehicle parking.
 - c. Properties located within the Mixed-Use District may be permitted a 15 percent reduction of the required motor vehicle parking;

- d. Properties located within a Special District may be permitted the parking reduction allowances listed in Article VIII.
- e. The use/development may participate in a Bicycle Facility Improvement Program (BFIP) by providing on-site bicycle infrastructure to reduce the number of required motor vehicle parking by the following amounts:
 - 1. For each Bicycle Repair Station that is installed by the developer, the development is allowed a reduction of two (2) motor vehicle parking stalls. Each repair station should include a bicycle mount, tools, tire pump, or similar elements.
 - 2. For each Covered Bicycle Station with Racks that is installed by the developer, the use/development is allowed a reduction of four (4) motor vehicle parking stalls.
- f. The use/development is allowed a reduction of five (5) motor vehicle parking stalls for each designated on-site carpool/rideshare stall.

Table 138-1602.a – Motor Vehicle Parking Stall Quantity Standards		
LAND USE	MINIMUM MOTOR VEHICLE PARKING RATIO	MAXIMUM MOTOR VEHICLE PARKING RATIO
RESIDENTIAL USES		
Accessory Dwelling Unit	None	None
Assisted Living Facility	1 stall per 3 beds	None
Dwelling, Multifamily	1.5 stall per unit	None
Dwelling, Attached	1.5 stall per unit	None
Dwelling, Detached	2.0 stall per unit	None
Dwelling, Manufactured or Mobile Home	1.5 stall per unit	None
ACCOMMODATIONS		
Bed and Breakfast	1.0 stall per room	None
Hotel	1.0 stall per room	None
Motel	1.0 stall per room	
RV Park/Campground	1.0 stall per campsite	None
COMMERCIAL AND OFFICE USES		
Alcohol Dispensing	3.0 stalls per 1,000-sf	None
Bank	4.0 stalls per 1,000-sf	150% of minimum
Health Club/Fitness Center	5.0 stalls per 1,000-sf	150% of minimum
Office, General	2.5 stalls per 1,000-sf	None
Office, Medical	3.0 stalls per 1,000-sf	None
Office, Veterinary	1.5 stalls per 1,000-sf	None
Restaurant, <u>Quality</u> ⁽⁴⁾	10.6 stalls per 1,000-sf	150% of minimum
Restaurant, <u>Sit-down</u> ⁽⁴⁾	5.55 stalls per 1,000-sf	<u>150% of minimum</u>
Restaurant, <u>Fast-food</u> ⁽⁴⁾	8.20 stalls per 1,000-sf	<u>150% of minimum</u>
Restaurant, <u>Fast-food with Drive Thru</u> ⁽⁴⁾	10.0 stalls per 1,000-sf	<u>150% of minimum</u>
Retail Sales and Service	4.0 stalls per 1,000-sf	150% of minimum
Shopping Center with a mix of retail, restaurant, and/or office tenants	4.0 stalls per 1,000-sf	150% of minimum
INDUSTRIAL, MANUFACTURING AND WAREHOUSE USES		
Laboratories and Research and Development	2.5 stalls per 1,000-sf	None
Manufacturing	1.0 stall per 1,000-sf	None

Table 138-1602.a – Motor Vehicle Parking Stall Quantity Standards		
LAND USE	MINIMUM MOTOR VEHICLE PARKING RATIO	MAXIMUM MOTOR VEHICLE PARKING RATIO
Publishing and Printing	3.0 stalls per 1,000-sf	None
<u>Storage, Self / Mini Warehouse</u>	0.2 stall per 1,000-sf	<u>None</u>
Warehouse	0.5 stall per 1,000-sf	None
ARTS, RECREATION AND ENTERTAINMENT		
Commercial Recreation	6.0 stalls per 1,000-sf	None
Golf Courses	9 per golf course hole	None
Museum	1.0 stall per 1,000-sf	None
Park	4.0 stalls per acre	None
Performing Arts Center	0.25 stalls per seat ⁽²⁾	None
Theater/Cinema	0.25 stalls per seat ⁽²⁾	None
EDUCATION, PUBLIC ADMINISTRATION, HEALTHCARE, AND INSTITUTIONAL USES		
Congregate Care Facility	0.33 per bed ⁽²⁾	None
Day Care Facility, child and/or adult	3.0 stalls per 1,000-sf	None
Government Use	4.0 stalls per 1,000-sf	None
Hospital	3.5 stalls per bed ⁽²⁾	None
Library	2.5 stalls per 1,000-sf	None
Meeting Halls and other Community Assembly	8.4 stalls per 1,000-sf ⁽¹⁾	None
Nursing Home	0.35 per bed ⁽²⁾	None
Place of Worship	8.4 stalls per 1,000-sf ⁽¹⁾	None
School, Pre-K – 8	0.2 stalls per student ⁽²⁾	None
School, 9 – 12	0.5 stalls per student ⁽²⁾	None
School, Post Secondary, University, and/or Colleges	0.5 stalls per student ⁽²⁾	None
Shelter / Short-Term Housing	1.0 stall per 1,000sf	None
TRANSPORTATION AND OTHER USES		
Marina	0.30 stalls per berth	None
<p>General Notes:</p> <ol style="list-style-type: none"> 1. The Parking ratios for this use shall be based on only portions of the building that are primarily used for patrons and/or customers. Service areas, hallways, kitchens and similar building use areas may be exempt from the building area for the purposes of calculating parking. 2. The parking ratio for this use may be based on the total building capacity. 3. The use/development shall provide at least the minimum motor vehicle parking ratio but up to the maximum motor vehicle parking ratio. 4. For the purposes of determining the motor vehicle parking quantity, the land use may be further defined by the traffic impact fee study (eg Quality Restaurant verse a Sit Down Restaurant) 		

(b) Shared Parking Options:

When any parking area is used for two or more uses, the minimum total number of required parking spaces shall be determined by using one of the following:

- (1) *Option 1:* Two or more individual uses or owners may share a parking facility if the total minimum number of required spaces conforms to the parking provisions of Section 138-1602.(a) when computed separately for each use or building type; OR

- (2) *Option 2:* The individual uses may share a parking facility with reduced total amount of required parking spaces in accordance with *Table 138-1602.b - Shared Parking Matrix* and the following methodology:
- a. Determine the minimum parking quantities in accordance with the provisions of Section 138-1602.(a);
 - b. Multiply the required minimum number of parking spaces for each separate use by the corresponding percentages for each of the five time periods set forth in *Table 138-1602.b - Shared Parking Matrix*;
 - c. Add the resulting required minimum number of parking spaces in each of the five vertical columns of the table;
 - d. Select the vertical column with the highest total; and
 - e. Use this number as the required minimum number of motor vehicle parking spaces that shall be provided at any given time. When uses are located on separate lots/parcels from where the parking is located, a legal instrument shall be provided to ensure long term, legal use of the parking facility by the subject users (eg. parking agreement, easement or the like.) The legal instrument must be approved by the County Attorney.

LAND USE	WEEKDAY			WEEKEND	
	Morning 12:00am - 7:59am	Day 8:00am - 5:59pm	Evening 6:00pm - 11:59 pm	Day 12:00am - 5:59pm	Evening 6:00pm - 11:59 pm
Residential	100%	60%	90%	80%	90%
Government	5.0%	100%	0%	0%	0%
Office	5.0%	100%	10%	10%	5.0%
Retail	5.0%	70%	90%	100%	70%
Restaurant	10%	50%	100%	50%	100%
Entertainment	10%	40%	100%	80%	100%
Overnight Accommodations	75%	75%	100%	75%	100%
Place of Worship	0%	20%	10%	100%	20%
Others	100%	100%	100%	100%	100%

(c) Accessible Parking for Disabled Persons:

Motor vehicle parking for persons with disabilities shall be provided in the following manner:

- (1) *Quantity:* The use/development shall provide motor vehicle parking quantities listed in *Table 138-1602.c - Minimum Number of Accessible Motor Vehicle Parking Stalls*. The number of accessible stalls shall be a part of required parking as outlined in subsection (a) above and not in addition to.

Table 138-1602.c – Minimum Number of Accessible Motor Vehicle Parking Stalls

TOTAL MOTOR VEHICLE PARKING STALLS IN LOT	REQUIRED NUMBER OF ACCESSIBLE STALLS
Up to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	2% of total
Over 1,000	20 Plus 1 for each 100 spaces over 1,000

General Notes:

1. A minimum of four spaces for the disabled shall be provided at a hospital or physical rehabilitation center.

- (2) Size: Diagonal or perpendicular spaces for the disabled shall be a minimum of 12 feet wide and 19 feet deep.
- (3) Access:
 - a. All stalls for the disabled shall be provided with a curb cut or curb ramp to a pathway, a minimum of 44 inches wide, to provide access to the building served and shall be located so that users will not be compelled to wheel behind parked vehicles. Two accessible parking spaces may share a common access aisle.
 - b. All stalls shall have an adjacent access aisle measuring at least 60 inches wide. Parking access aisles shall be part of the accessible route to the building or facility entrance.
- (4) Location: When considering all the parking on the site, the designated disabled spaces should be located closest to primary building entrance. If there are multiple entrances or multiple retail stores, the disabled spaces must be dispersed to provide parking at the nearest accessible entrance.
- (5) Markings:
 - a. Disabled parking spaces shall be posted with a permanent above-grade sign bearing the international symbol of accessibility and the caption "Parking by disabled permit only."
 - b. Each such parking space must be prominently outlined in blue paint and must be repainted when necessary.
- (d) *Parking Location:* The location for motor vehicle parking shall be consistent with the following:
 - (1) Required motor vehicle parking should be provided on the same site as the use(s) in which it serves; AND/OR
 - (2) All or portions of the required motor vehicle parking may be provided on a separate site as the use(s) in which it serves subject to the following:

- a. The off-site parking lot is either under the same ownership or officially allowed to be used to serve the subject land uses such as a lease agreement or other legal instruments; AND
 - b. The off-site parking lot is generally within ¼ mile AND readily accessible by walking, transit, and/or shuttle service. This standard may be waived if stated otherwise in a Special District.
- (e) Development Standards for motor vehicle parking; This subsection is not applicable where parking for *Single-Family Detached, Attached, Two-Family, and Three-Family* units is provided as private driveways.
 - (1) Parking shall be provided consistent with the following standards:
 - a. Parking may be provided in a motor vehicle parking lot; AND/OR
 - b. Parking may be provided in a motor vehicle parking structure/garage; AND/OR
 - c. Parking may be provided as part of the abutting street when allowed by the roadway facility owner (i.e. local government, developer, or property owners association) and subject to the following conditions:
 - 1. Only street parking that abuts the site may be used towards satisfying the minimum parking quantity standard.
 - 2. Certain roadway improvements may be required to accommodate street parking.
 - 3. Due to physical constraints and/or roadway classifications, some roadways may not allow street parking.
 - 4. Street parking stalls shall remain available to the general public and are not be reserved for the sole use of the adjacent businesses.
 - d. *Reserved*
 - (2) Parking Stall Standards: Parking for motor vehicles shall meet the following standards:
 - a. Standard Stalls: Stalls oriented 15 to 90-degrees to a drive aisle shall be at least 9-ft X 18-ft.
 - b. Parallel Stalls: Stalls oriented parallel to a drive aisle shall be at least 8-ft X 22-ft.
 - c. Compact Stalls:
 - 1. Compact Stalls shall be at least 7-ft X 16-ft.
 - 2. Compact stalls may be used to satisfy up to 10 percent of the Minimum Parking Quantity for a site.
 - d. Stall dimensions may be reduced to allow for 2-ft of vehicular overhang when abutting a landscaping area.
 - e. Motor Vehicle Stalls located in a parking lot shall be designed to directly access a drive aisle and/or alley.
 - f. Motorcycle/Scooter Stalls:
 - 1. Motorcycle/Scooter Stalls shall be at least 4-ft X 8-ft
 - 2. Motorcycle/Scooter Stalls may be used to satisfy up to five (5) automobile spaces or five (5) percent of the required parking spaces, whichever is less. Additionally, for every three (3) motorcycle/scooter

parking spaces provided, the automobile parking requirement is reduced by one (1) space.

- (3) Parking Drive Aisle standards: Motor vehicle parking lot drive aisles shall meet the following dimensional standards:
 - a. One-Way: drive aisles shall be at least 12-ft wide.
 - b. Two-Way: drive aisles shall be at least 24-ft wide.
 - c. Drive aisles may be further reduced to respond to and protect existing trees. Any reductions must result in sound engineering practices for safe vehicle maneuvering.
- (4) Surface Materials:
 - a. Parking lot stalls, driveways and drive aisles shall be constructed of asphalt, concrete, brick, pavers, or other similar material approved by the County.
 - b. The following surface materials exemptions may apply:
 1. Up to fifty percent (50%) of the motor vehicle parking stalls may be of grid pavers, reinforced grass, or other similar material approved by the County. OR
 2. Up to one-hundred percent (100%) of the motor vehicle parking areas for the following and similar uses may be grid pavers, grass, gravel, or other similar material approved by the County:
 - i. Agricultural Uses
 - ii. Natural Resources and Wild Life Management Areas
 - iii. Nurseries / Greenhouses
 - iv. Parks and Recreation Areas
 - v. Places of Worship, Meeting Halls and other Community Assembly Facilities
 3. Non-paved surfaces of parking areas and associated drives shall be stabilized and provided with appropriate dust control.
 - c. All Accessible stalls and accessways shall be paved with asphalt, concrete or similar hard-surface material approved by the County. Accessible Parking for Disabled Persons requirements/standards may not be reduced.
- (5) Access Standards:
 - a. All motor vehicle parking lots shall be designed to allow vehicles to enter and exit the street in a forward motion. An exception is allowed where parking is provided abutting an alley.
 - b. A tandem parking arrangement may be allowed only when provided in the following situations:
 1. as part of an associated valet service, and/or
 2. as part of a multi-family development where the set of tandem stalls are assigned to the same unit, and/or
 3. as part of designated employee parking.
 - c. Motor vehicle parking lots shall provide for internal vehicle connections at logical locations between abutting parking lots and adjacent non-residential and multi-family properties. Exceptions to this standard are allowed to protect natural resources, to recognize onerous topographic features, and to comply with design restrictions from other governing agencies.

- (6) Stacking requirements for Parking Lot Entrances:
 - a. Each parking lot driveway shall provide clear, unobstructed motor vehicle stacking lane distances between the street right-of-way and any motor vehicle parking stalls.
 - b. *RESERVED*
 - c. The use/development shall provide the minimum stacking lanes subject to *Table 1381602.d – Minimum Parking Lot Stacking Standards*.

Table 138-1602.d – Minimum Parking Lot Stacking Distances	
TOTAL MOTOR VEHICLE PARKING STALLS IN LOT	MINIMUM STACKING LANE DISTANCE PER DRIVEWAY MEASURED FROM THE ROAD RIGHT-OF-WAY TO A PARKING STALL
1 – 49	25-ft
50 – 249	50-ft
250 or more	100-ft

- d. Stacking distances shall not apply to driveways or portions of the parking lot that access an alley or neighboring parking lot.
- (7) District Design Criteria:
 - a. Motor vehicle parking lots shall also be constructed consistent with any Zoning District Design Criteria and any applicable Specific Use Standards that may apply to the proposed use.
 - b. *RESERVED*
- (f) Development Standards for Residential Driveway/Garage Parking:
 - (1) Parking for Single-Family Detached, Attached, Two-Family, and Three-Family units may be provided in a driveway and/or in a garage. Parking provided as parking lots shall be applicable to the standards in subsection (e) above.
 - (2) Residential private driveways shall be subject to the following development standards:
 - a. Minimum Width: 10-ft.
 - b. Maximum Width: the portions of the driveway that connect to the public right-of-way shall be subject to the following width limitations:
 - 1. 20-ft for lots less than 80-ft wide.
 - 2. 33% of the lot width up to a maximum of 28-ft for lots 80-ft wide or more.
 - c. Minimum Depth:
 - 1. driveways that are used for parking shall provide at least 20-ft of depth as measured from the adjacent street right-of-way.
 - 2. driveways that have less than 20-ft of depth as measured from the adjacent right-of-way may not be used for motor vehicle parking. To discourage illegal parking, no structure shall be constructed/installed that results in a driveway depth that measures between 5-ft and 20-ft from the adjacent street right-of-way.
 - d. Surface Materials:

1. The portion of the driveway located within the right-of-way shall be constructed of asphalt, concrete, brick, pavers or similar materials approved by the County.
 2. The portion of the driveway located within the property boundaries shall be constructed of asphalt, concrete, brick, pavers, grid pavers, crushed stone, rock, gravel or other similar material approved by the County. Grass or landscaped strips may be provided outside the wheel support sections of the drive (e.g. ribbon driveways).
- g. Electric Vehicle Charging Stations
- (1) An Electric Vehicle Charging Station (EVCS) is an optional site element that provides power supply to electric motor vehicles.
 - (2) Where an EVCS is provided, the adjacent parking should be reserved only for vehicles that benefit from the facility.

Sec. 138-1603. – Bicycle Parking

Bicycle parking encourages shoppers, customers, employees, and other visitors to use bicycles by providing a convenient and readily accessible place to park and secure bicycles. Bicycle parking should be placed near main entrance(s) of a building and should be accessible to pedestrians and bicyclists.

- (a) Minimum Bicycle Parking Quantity: Bicycle parking shall be provided with one of the following standards:
- (1) The use/development shall provide the parking quantities listed in *Table 138-1603.a – Minimum Number of Bicycle Parking*; OR
 - (2) When the proposed use is not specifically listed, the use/development shall provide the parking quantity for a similar use listed in *Table 138-1603.a – Minimum Number of Bicycle Parking*. The similar use(s) shall be determined by the county administrator or designee; OR
 - (3) The use/development may seek flexibility from the bicycle parking quantity as a Variance or Minor Variance based on the limits and standards of Chapter 138, Article II.

Table 138-1603.a – Minimum Number of Required Bicycle Parking	
LAND USE	MINIMUM BICYCLE PARKING RATIO
RESIDENTIAL USES	
Accessory Dwelling Unit	None
Multifamily and other similar residential uses	2, or 1 bicycle spaces per 20 units
Single Family Attached	None
Single Family Detached, Two-Family, Three Family and manufactured homes	None
ACCOMMODATIONS	
Hotel/ Motel and similar uses	2, or 1 bicycle spaces per 20 units
RV Park/Campground	2, or 1 bicycle spaces per 20 sites
COMMERCIAL AND OFFICE USES	
Restaurant and similar uses	2, or 1 bicycle spaces per 5,000 of building square-footage
Retail Sales and Service and similar uses	2, or 1 bicycle spaces per 5,000 of building

Table 138-1603.a – Minimum Number of Required Bicycle Parking	
LAND USE	MINIMUM BICYCLE PARKING RATIO
	square-footage ⁽¹⁾
Office and similar uses	2, or 1 bicycle spaces per 10,000 of building square-footage ⁽¹⁾
INDUSTRIAL, MANUFACTURING, AND WAREHOUSING USES	
Industrial, Manufacturing, and similar uses	2, or 1 bicycle spaces per 15,000 of building square-footage
Warehouse and similar uses	2, or 1 bicycle spaces per 40,000 of building square-footage ⁽¹⁾
ARTS, RECREATION, AND ENTERTAINMENT USES	
Commercial Recreation, and similar uses	2, or 1 bicycle spaces per 5,000 of building square-footage ⁽¹⁾
Museum, Cultural, and similar uses	2, or 1 bicycle spaces per 10,000 of building square-footage ⁽¹⁾
Parks, Open Space, and similar uses	4, or 1 per 20 motor vehicle spaces
Theater/Cinema and similar uses	2, or 1 bicycle spaces per 10,000 of building square-footage ⁽¹⁾
EDUCATION, PUBLIC ADMINISTRATION, HEALTH CARE, AND INSTITUTIONAL USES	
Day-Cares	2, or 1 bicycle spaces per 10,000 of building square-footage
Schools, grades K-5	3 per classroom ⁽²⁾
Schools, graded 6-12	5 per classroom ⁽²⁾
Schools, All Others	2, or 1 bicycle spaces per 10,000 of building square-footage
<p>General Notes:</p> <ol style="list-style-type: none"> 1. The bicycle parking ratios for this use shall may be based on only portions of the building that are primarily used for patrons and/or customers. Service areas, hallways, kitchens and similar building use areas may be exempt from the building area for the purposes of calculating parking. 2. The parking ratio for this use may be based on the total building capacity. 3. Wherever this table indicates two numerical standards, the larger resulting quantity shall apply. 	

(b) Development Standards for bicycle parking:

(1) Location:

- a. For a building with one main entrance, the bicycle parking shall be within ~~50~~ 100-feet of the main entrance to the building.
- b. For a building with more than one main entrance, the bicycle parking shall be distributed along all facades with a main entrance and shall be within ~~50~~ 100-feet of at least one main entrance on each facade.
- c. For sites with more than one primary building, the bicycle parking shall be distributed evenly amongst the primary buildings and shall be within ~~50~~ 100-feet of a main entrance.

(2) Bicycle Parking Design (Bicycle Racks):

- a. Bicycle racks or similar feature shall be provided with the primary purpose to allow bicycles to be securely attached to the apparatus. Sign poles,

planters, and utility lines shall not be considered bicycle parking racks or used to satisfy the required bicycle parking.

- b. Bicycle rack design shall accommodate a high security, U-shaped lock.
- c. Bicycle racks shall be securely anchored to the ground, a building, or a paved surface.
- d. Bicycle racks shall be constructed using decorative, durable finishes that are not damaged by the constant abrasion from the bicycles.

Sec. 138-1604. - Off-street loading.

Off-street loading is generally required for certain uses and building sizes to allow for the orderly delivery of goods and services to and from the property. Off-street loadings shall be provided and developed consistent with this section.

- (a) Minimum Off-Street Loading Quantity: Loading shall be provided for the following uses and associated building areas:

Table 138-1604.a – Minimum Number of Required Off-Street Loading	
LAND USE	MINIMUM NUMBER OF LOADING
Commercial and Institutional Uses	
Buildings between 15,000 to 19,999 sf	1 berth for local delivery trucks
Buildings between 20,000 to 49,999 sf	1 berth for local delivery trucks
Buildings between 50,000 to 99,999 sf	1 berth for semi-trucks
Buildings 100,000 sf and over	2 berths for semi-trucks PLUS 1 berth for each addition 50,000 sf
Office	
Buildings 100,000 sf and over	1 berth for local delivery trucks
Industrial	
Buildings up to 9,999 sf	1 loading space
Buildings between 10,000 to 39,999 sf	1 berth for semi-trucks
Buildings between 40,000 sf and over	2 berths for semi-trucks PLUS 1 berth for each addition 50,000 sf

- (b) Development Standards for off-street loading:

- (1) Loading Location(s):

- a. All loading shall occur on-site and not occur from a public road right-of-way. Exceptions may include private, internal local streets where alternate vehicle access routes are available when loading activity occurs.
- b. In no case shall the use of a loading space or berth hinder the movement of vehicles and pedestrians over a street, alley or sidewalk.

- (2) Loading dimensions:

- a. Loading Space: loading spaces shall be at least 9-ft X 18-ft
- b. Loading Berth for Local Delivery Trucks: berths shall be at least 10-ft X 25-ft
- c. Loading Berth for Semi-Trucks: berths shall be at least 10-ft X 60-ft and shall allow for a 16-ft height clearance.

DIVISION 3 – LANDSCAPING, HABITAT PROTECTION, AND WETLAND BUFFERS

Section 138-1650 - Purpose and Intent

The purpose of this Division is to preserve the existing natural environment and provide landscape improvements on private properties and public rights-of-way in order to promote a positive urban image, enhance property values, strengthen the fabric of the surrounding community, promote context-sensitive growth that recognizes land use and transportation goals, establish a harmonious relationship between the natural and built environment, and enhance the overall aesthetic quality of development in the County. The landscape regulations are intended to achieve the following objectives:

- Conserve water by preserving existing established and native landscaping, encouraging the use of "Florida-Friendly" and native trees, palms, shrubs, grasses, and ground covers, and establishing standards for the installation of landscape material and irrigation systems.
- Reduce the visual impact of large building masses, paved surfaces and vehicular use areas.
- Improve the appearance of unincorporated Pinellas County by creating quality urban environments that are sustainable over time.
- Improve environmental quality through the use of Low Impact Development (LID) techniques that will improve water quality, facilitate aquifer recharge and reduce stormwater runoff, and reduce "heat island" effects.
- Increase land values by providing landscaping that will function as a capital asset.
- Provide for safer and more pedestrian-friendly walking environments by forming and framing public spaces with trees which provide distinct edges to sidewalks so that motorists better distinguish between their environment and one shared with people.
- Provide habitats for urban wildlife.
- Protect native plant species and habitats by eliminating invasive exotic species that threaten the ecosystem.

Section 138-1651 - Application of Landscape Regulations and Required Maintenance

- (a) All new landscaping, tree protection actions, conservation, and plant/tree maintenance shall be provided in accordance to this division. The following exceptions apply:
- (1) When the use/development is located within a Special District and separate landscaping and/or conservation standards are established therein, the use/development shall comply with the requirements specified in that district, AND/OR
 - (2) When the use/development is subject to any Specific Use Standard of Chapter 138, Article IX, and additional landscaping and conservation requirements are established, the stricter standard shall apply. AND/OR
 - (3) When the property is in or is experiencing a state of emergency such as flooding, severe winds, fire and/or hurricanes AND the plant material creates a safety hazard.
- (b) *Change in Use with no site improvements.* Sites that experience a change in land use (example Retail to Restaurant) shall provide landscaping consistent with the following:

- (1) When the change of use includes a building permit, the site shall be enhanced to include landscaping improvements consistent with the non-conforming provisions of Chapter 138 \Article II Division 6. This standard shall require limited landscaping improvements based on a proportional value of the building improvement, AND
 - (2) The site shall be required to demonstrate the property contains the landscaping material consistent with any previously-approved development plans.
 - a. If the existing site has less landscaping material than what was originally approved, the plant material shall be replaced with the same or similar species prior to certificate of occupancy.
 - b. If there is no previously-approved site plan OR the County is unable to produce/locate the previously-approved site plan, this subsection does not apply.
- (c) *Existing Development.* Existing Development not meeting the requirements contained in this section shall be brought into compliance under the following conditions:
- (1) Any portions of the site that are developed/redeveloped shall be constructed to comply with the provision of this Division; AND
 - (2) Other portions of the site shall be enhanced to include proportional landscaping improvements consistent with the non-conforming provisions of Chapter 138 Article II Division 6 based on building improvements. This standard shall require limited landscaping improvements based on a proportional value of the building improvement; AND
 - (3) The site shall be required to demonstrate the property contains the landscaping material consistent with any previously-approved development plans.
 - a. If the existing site has less landscaping material than what was originally approved, the plant material shall be replaced with the same or similar species prior to certificate of occupancy.
 - b. If there is no previously-approved site plan OR the County is unable to produce/locate the previously-approved site plan, this subsection does not
- (d) *New Development.* Any new development on a vacant site or complete redevelopment on developed property shall be required to provide landscaping, tree protection, and wetland buffers in accordance with this Division.
- (e) *Landscaping Installation.* Whenever landscape materials are required by this Division, they shall be installed and maintained in accordance with the standards and requirements of this Division. All landscaping installed or preserved to meet the requirements of this Division shall be maintained in a healthy condition. Installed or preserved landscaping which dies after the development has been completed shall be replaced to meet the requirements of this Division within thirty (30) days.
- (f) *Property Landscaping, Tree and Buffer Maintenance.* All landscaping, trees, and buffers shall be maintained by the owner, tenant or their agent in good condition so as to present a healthy, neat and orderly appearance.
- (1) All plant materials shall be maintained free from physical damage or injury arising from lack of water, chemical exposure, insects, disease, blight or other cause. Exceptions regarding damage due to lack of water shall be made when water consumption is limited by mandatory water restrictions, emergency orders or declarations by state or local agencies.

- (2) Trees shall be maintained in good health and not create a hazard to the site, neighboring properties, and/or the right-of-way. Trees shall be property pruned to remove dead and dying tree branches.
- (3) Tree and shrub trimmings shall not be discarded or stored in the right-of-way, in a street, into water bodies, wetlands, sewer system, or stormwater management facility.
 - a. This subsection shall not be construed to prohibit the placement of tree trimmings in the right-of-way as a temporary measure awaiting waste collection.
 - b. This subsection shall not apply to mulching lawn equipment or mulching in planter beds.
- (4) No mangrove plant or tree shall be removed unless permitted by the County. All trimming and maintenance of mangroves is subject to the requirements of Chapter 403.9321 through 403.9333, Florida Statutes.
- (g) *Variances.* The use/development may seek flexibility from these landscaping, tree protection, and wetland buffer standards as a Variance or Minor Variance based on the limits and standards of Chapter 138, Article II.

Section 138-1652 – Upland Preservation Areas

- ~~(a) Purpose. It is the purpose of an upland preservation area to provide for the preservation of viable upland wildlife habitats and representative native vegetative communities. The protection of these areas will help to ensure that adequate feeding, nesting and cover necessary for the continued survival of native wildlife species is available while protecting naturally occurring vegetative communities.~~
- ~~(b) Criteria. Any site with ten (10) acres or greater of contiguous ownership or under unified development control, shall be required to preserve a minimum of three (3) percent of the upland portion of a parcel as an upland preservation area upon submittal of a site plan through the site plan requirements and review procedures of chapter 138.

 - ~~(1) The upland preservation area must be shown on the plan and must be preserved during site development. The upland preservation area for one or more parcels may be provided on one or more other parcels if all parcels are contiguous and are considered as a single, master planned development under unified control.~~
 - ~~(2) Platted single family lots and sites with development approved through the site plan requirements and review procedures of the zoning ordinance which received approval prior to adoption of this article shall be exempt from the requirements of this section.~~
 - ~~(3) The upland preservation area shall be recorded in the public records of the county as a conservation easement in accordance with F.S. § 704.06 or created as a conservation easement on the record plat for the development.~~
 - ~~(4) The upland preservation parcel shall be located in a manner which maximizes the contiguity and retention of natural vegetation including understory vegetation. Where wetland vegetation exists and upland buffers are provided, the upland preservation area should, wherever feasible, be required contiguous to the buffer. Required upland buffers required pursuant to other sections of the code shall count toward the three (3) percent criteria of this section.~~
 - ~~(5) Upon site plan submittal, the County shall inspect the parcel and, utilizing the criteria of section 166-83(e) and (f), evaluate the upland native vegetation communities of the site. If the vegetation is determined to be of good quality, the~~~~

~~applicant shall provide the three percent in accordance with this section. However, if the department determines the vegetation is of poor quality, the applicant shall have two alternatives:~~

- ~~a. *Enhancement:* The upland preservation area shall be planted with one replant tree per 400 square feet and ground cover on three foot centers; such plan shall be submitted for approval to the county administrator; or~~
- ~~b. *Tree mitigation fund option:* The applicant may provide a monetary contribution to a formally adopted tree mitigation fund at a rate established by the Board of County Commissioners (BoCC).~~

Section 138-1652 - Reserved

Section 138-1653 - Undesirable Trees/Plants

Due to their characteristics as exotic, invasive, and/or hazardous species, certain tree/plant species are classified as undesirable.

- (a) Undesirable tree/plant list.
 - (1) The tree/plant species listed in *Table 138.1653.a - Undesirable Trees/Plants* are considered undesirable, non-native, problematic, invasive, or hazardous.
 - a. These species may be removed from any site subject to a no-fee permit,
 - b. These species shall not be counted towards meeting the minimum landscaping requirements for a site.
 - c. These species are not protected.
 - (2) Undesirable trees/plants are further classified as Tier 1 and Tier 2 species.
 - a. Tier 1 Undesirable Trees/Plants *shall not* be planted in Pinellas County, AND existing species shall be removed as part of site development.
 - b. Tier 2 Undesirable Trees/Plants *may* be planted in Pinellas County AND existing species may remain.

Table 138-1653.a - Undesirable Trees/Plants		
Common name	Botanical name	Permitted Action(s) and Requirements
Tier 1 – Undesirable Trees/Plants		
Abizia	Albizia spp.	<ul style="list-style-type: none"> ▪ The trees(s)/plant(s) are not protected, ▪ The trees(s)/plant(s) may be removed with a no-fee permit, ▪ The trees(s)/plant(s) may not be counted towards meeting the minimum landscaping requirements for a site, ▪ The trees(s)/plant(s) may not be planted in Pinellas County, AND ▪ The trees(s)/plant(s) shall be removed as part of site development and/or new house construction. <u>Residential Districts AE – R-5 are exempt from this requirement.</u>
Acacia	Acacia spp.	
Australian pine	Casuarina equisetifolia (Australia).	
Brazilian pepper	Schnius terebinthifolius (Brazil).	
Carrotwood	Cupaniopsis anacardioides	
Camphor	Cinnamomum camphora	
Chinaberry	Melia azedarach (SW Asia).	
Chinese Tallow	Sapium sebiferum (Asia)	
Ear	Enterolobium cyclocarpum (Central America)	
Eucalyptus	Eucalyptus spp. except silver dollar variety (Australia)	
Ficus	Ficus spp. except banyan (South America)	
Java Plum	Syzygium cumini	
Jerusalem thorn	Parkinsonia aculeata (Central America)	
Loquat	Eriobotrya japonica (China)	
Monkey Puzzle	Araucaria spp. (Australia)	
Norfolk Island pine	Araucaria excelsa (Norfolk Island)	
Poinciana	Poinciana spp. (Madagascar)	
Punk	Melaleuca quinquenervia (Australia)	
Silk Oak	Grevillia robusta (Australia)	
Toog	Bischofia javanica (Africa)	
Tier 2 – Undesirable Trees/Plants		
Avocado	Persea americana (American tropics).	<ul style="list-style-type: none"> ▪ The trees(s)/plant(s) are not protected, ▪ The trees(s)/plant(s) may be removed with a no-fee permit, AND ▪ The trees(s)/plant(s) may not be counted towards meeting the minimum landscaping requirements for a site,
Citrus	Rue family: orange, lemon, lime, kumquat, grapefruit (East Asia)	
Italian cypress	Cupressus bempervirens (South Europe)	
Jacaranda	Jacaranda Acutifolia (Brazil)	
Mango	Mangifera indica (India)	
Orchid	Bauhinia spp. (India)	

Section 138-1654 - Tree Protection and Relocation

Existing Florida-native plant material shall be given priority for preservation in site development/redevelopment. Furthermore, existing healthy trees and palms should be preserved and integrated into site landscape plans. There are no preservation goals for undesirable tree species.

(a) Tree Protection Requirements.

- (1) *Protected Trees.* Existing high-rated, non-invasive trees and native palms shall be protected. Any impacts to protected trees shall include mitigating actions such as replacement or relocation. Protected trees shall include:
 - a. Any existing healthy tree with a diameter breast height (dbh) of 4 inches or larger, measured at a height of 4.5 feet above the ground shall be considered a protected tree,
 - b. All healthy Sabal/Cabbage Palms six-feet in height or larger, and
 - c. All Buttonwood, Mangroves.
- (2) *Trees/Plants exempt from Protection.* The following are exempt from tree protection requirements of this section:
 - a. Existing undesirable tree species as defined in section 138-1653.
 - b. Any prohibited tree identified in this Division and/or the State of Florida.
 - c. Any tree that is a part of a nursery, commercial agricultural activity, bona fide agricultural land for ad valorem taxation purposes, or similar use.
 - d. Existing trees having a diameter breast height (DBH) less than four inches.
 - e. Existing Sabal/Cabbage Palms less than six feet in height. All other palms are exempt.
 - f. Any non-historic/specimen tree located within the planned and approved building footprint on a site. This exemption may only be applied as part of an approved site plan and/or building permit. A historic/specimen defined in *Table 138.1654.a: Tree Rating System*.
- (2) *Tree Rating Category:* As part of the permitting process, (i) existing trees with a diameter at breast height (DBH) of four inches or greater AND (ii) existing sabal/cabbage palms six-foot high or greater shall be rated on a scale of 0 through 6 based on *Table 138-1654.a. Tree Rating System*. The tree rating shall be assigned based on the tree/palm condition description listed in the table.
 - a. The Tree Rating assessment shall occur by the applicable County staff, OR
 - b. The applicant may request that a Certified Arborist at the applicant's expense, conduct a Tree Rating assessment. In this option, County staff, the county administrator or designee will review the Arborist's assessment and make the final determination.
- (3) *Permitted Action and Requirement:* Existing trees and palms shall be preserved replaced, relocated, and/or removed pursuant the permitted actions and requirements for each tree rating category as listed in *Table 138-1654.a: Tree Rating System*.

Table 138.1654.a: Tree Rating System		
TREE RATING CATEGORY	TREE/PALM CONDITION DESCRIPTION	PERMITTED ACTION(S) AND REQUIREMENT(S)
0	Undesireable Tree Species. Invasive or Exotic Tree species regardless of health and size	<ul style="list-style-type: none"> ▪ See Section 138-1353 ▪ No penalties, replacement inches or payment in lieu shall be required ▪ No Tree Credit is allowed
1	Dead/dying; hazardous	<ul style="list-style-type: none"> ▪ The tree may be removed subject to permit approval. ▪ The tree shall be removed if part of site development/redevelopment ▪ No penalties, replacement inches or payment in lieu shall be required ▪ No Tree credit is allowed
2	The tree shows staghorn (dieback), mechanical, insect and/or disease damage, and may require major repair, pruning and fertilization.; overall form and branching has been compromised; central leader is not present; severe co-dominance is evident; extreme tip dieback evident; More than 40% deadwood of the total crown area.	<ul style="list-style-type: none"> ▪ The tree may be removed subject to permit approval. ▪ No penalties, replacement inches or payment in lieu shall be required ▪ No tree credit is allowed
3	Minor insect, disease and/or physiological problems such as decay, saprophytic decays and mistletoe but is treatable; overall form is intact and in good shape, central leader is present; minor tip die back evident; There may be a need for some corrective pruning. Less than 30% deadwood of the total crown area.	<ul style="list-style-type: none"> ▪ The tree may be removed subject to permit approval. ▪ Tree replacement/mitigation shall occur on an inch-for-inch basis . However, trees located within the planned building footprint are not protected and considered exempt for any replacement/mitigation requirements. ▪ A tree credit is allowed on an inch-for-inch basis to be used towards required landscaping
4	Little or no damage, infestation or disease is evident; Problems are easily treatable; overall form is very good to excellent. Less than 10% dead wood of the total crown area.	<ul style="list-style-type: none"> ▪ The tree may be removed if a part of a development/redevelopment plan ▪ Tree replacement/mitigation shall occur on an inch-for-inch basis. However, trees located within the planned building footprint are not protected and considered exempt for any replacement/mitigation requirements. ▪ A tree credit is allowed on an inch-for-inch basis to be used towards required landscaping

TREE RATING CATEGORY	TREE/PALM CONDITION DESCRIPTION	PERMITTED ACTION(S) AND REQUIREMENT(S)
5	No damage, infestation or disease is evident; overall form is excellent. Less than 10% dead wood of the total crown area.	<ul style="list-style-type: none"> ▪ The tree may be removed if part of a development/redevelopment plan <i>AND</i> ▪ The tree may be removed if it is demonstrated that the site is not reasonably developable without removing the tree ▪ Tree replacement/mitigation shall occur on an inch-for-inch basis. However, trees located within the planned building footprint are not protected and considered exempt for any replacement/mitigation requirements. ▪ A tree credit is allowed on an inch-for-inch basis to be used towards required landscaping
6	A historic/specimen tree that include superior qualities and native to the region. No damage, infestation or disease is evident; overall form is excellent.	<ul style="list-style-type: none"> ▪ The tree may be removed if a part of a development/redevelopment plan <i>AND</i> ▪ The tree may be removed if it is demonstrated that the site is not reasonably developable without removing the tree. ▪ Tree replacement/mitigation shall occur on a two inch-for-inch basis. However, trees located within the planned building footprint are not protected and considered exempt for any replacement/mitigation requirements. ▪ A tree credit is allowed on a two inch-for-inch basis to be used towards required landscaping.

(4) *Tree Removal/Replacement Standards:*

- a. Trees having a 0, 1, or 2 tree rating may be removed and no replacement value is required.
- b. Trees having a 3, 4, 5, or 6 tree rating may be removed but the total DBH of the existing tree(s) to be removed shall be replaced with new trees based on the following ratio(s):
 1. 3, 4, and 5 rated trees shall be replaced on an inch-for-inch basis.
 2. 6 rated trees shall be replaced on a two-inch-for-inch basis.
- c. Trees having a 4, 5, or 6 tree rating may be permitted to be removed only if part of site development activity.
- d. Replacement trees shall be provided on the same site as the original tree that was removed. The following alternatives may be allowed:
 1. Replacement trees may be planted on surrounding properties generally within ¼ mile subject to the receiving property owner(s) permission. The applicant shall demonstrate that said replacement trees on other properties will meet the requirements of this division in terms of irrigation, protection, and maintenance.

2. The applicant may provide a monetary contribution to a formally-adopted tree mitigation fund at a rate established by the Board of County Commissioners (BoCC).
 3. The tree may be relocated subject to the standards of this section.
- (5) *Tree Removal permit*: A tree removal permit is required to remove any existing tree as applicable in this section.
 - (6) *Tree Preservation Credit Standards*: Preserved trees having a 3, 4, or 5 tree rating may be credited towards the required landscaping on an inch-for-inch basis. Trees having a 6 tree rating may be credited at a two-inch for inch basis. This credit shall be calculated based on diameter at breast height and applied to the minimum landscaping materials required in Section(s) 138-1658 and/or 138-1659.
- (b) Relocation of Existing Trees.
- (1) The relocation of existing trees is not required but is ~~encouraged as~~ an alternative to clearing/removal. The standards of this section shall apply to the relocation of existing trees.
 - a. *Tree removal permit*. Although a tree removal permit is required for tree relocation, the tree removal permit fee may be waived if, in the opinion of the County, appropriate measures are taken to ensure a reasonable chance of survival. Appropriate measures may include the pruning of limbs, root pruning well in advance of relocation, protection of root mass, trunk, branches, and foliage during relocation, relocation to an appropriate planting location, preparation of the new planting pit, and maintenance after completion of the relocation. It is recognized that plant mortality may occur even if such measures are taken.
 - b. *Transplant sites*. Relocated trees may be transplanted onto the same site or onto other sites under the same ownership; onto private sites under different ownership with the approval in writing of the owner of that site; or onto public property with the written consent of the County.
 - c. *Value*. Relocated trees, if transplanted onto the same site, will be counted as existing trees of the same size when determining conformance with the landscape requirements.
 - d. *Warranty*. All relocated trees which are counted towards meeting the requirements of this Division shall be warranted to be in good health for 1 full year after relocation. Any such relocated trees not in good health after the warranty period shall be replaced within 60 days with a like number of trees.

Section 138-1655 – Minimum Plant Material Specifications

Plant materials which are utilized to satisfy the required landscaping shall comply with the following minimum standards:

- (a) Plant Species Selection:
 - (1) ~~Plants species shall be conducive to the native environment and generally be drought tolerant. 1.~~ All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.
 - (2) Any plant material used to meet the minimum standards of this Division and shall be chosen from the County's approval plant as listed in Section 138-1664. Species

listed as an Undesirable Tree in this Division shall not be used towards meeting the minimum standards of this Division.

- (3) At least 60% of the plant species shall be native varieties.
- (4) The plant species may be further defined in Special Districts.
- (5) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.

(b) Plant Specification Requirements:

- (1) Plants shall meet the minimum specification as listed in *Table 138-1655.a – Plant Specification Requirements* at the time of installation.

Table 138-1655.a - Plant Specification Requirements			
PLANT	SIZE (AT INSTALLATION)	QUALITY	OTHER REQUIREMENTS
Shade Tree	<ul style="list-style-type: none"> ▪ 10' height ▪ 2.0" caliper (dbh) 	<p>Florida Grade #1</p> <p><u>Florida Grades and Standards</u></p>	<ul style="list-style-type: none"> ▪ Species diversity is preferred over monoculture. Shade trees subject to the Minimum Number of Tree Species of this Section. ▪ Must be planted a minimum of five feet from any impervious area.
Accent Tree	<ul style="list-style-type: none"> ▪ 8' height ▪ 1.5" caliper per stem 	<p>Florida Grade #1</p> <p><u>Florida Grades and Standards</u></p>	<ul style="list-style-type: none"> ▪ 2 accent trees = 1 shade tree; ▪ no more than 25% of required trees may be accent trees.
Palm Tree	<ul style="list-style-type: none"> ▪ 10' <u>12'</u> clear trunk height ▪ Certain palms noted on the approved plant list may be substituted on a 1 for 1 basis with shade tree requirements 	<p>Florida Grade #1</p> <p><u>Florida Grades and Standards</u></p>	<ul style="list-style-type: none"> ▪ 25% of required trees may be palm trees. ▪ Staggered clusters of 3 palm trees = 1 shade tree, except for specimen palm trees such as: phoenix canariensis (canary island date palm), phoenix dactylifera (edible date palm) and phoenix reclinata (senegal date palm), which count as shade trees on a 1:1 ratio.
Shrubs	<ul style="list-style-type: none"> ▪ Perimeter Hedges 24" <u>16"</u>-height and 3-gallon ▪ Interior Hedges, Foundation Plantings and/or shrubs 15" height 3-gallon 	<p>Florida Grade #1</p> <p><u>Florida Grades and Standards</u></p>	<ul style="list-style-type: none"> ▪ Species diversity is preferred over monoculture.

Table 138-1655.a - Plant Specification Requirements			
PLANT	SIZE (AT INSTALLATION)	QUALITY	OTHER REQUIREMENTS
Ornamental Grasses	<ul style="list-style-type: none"> 1-gallon 	Florida Grade #1 Florida Grades and Standards	
Ground Cover/Vines	<ul style="list-style-type: none"> 1-gallon 	Florida Grade #1 Florida Grades and Standards	<ul style="list-style-type: none"> Encouraged in lieu of turf to reduce irrigation needs.
Turf	<ul style="list-style-type: none"> N/A 	Drought tolerant varieties Florida Grades and Standards	<ul style="list-style-type: none"> Turf areas are to be consolidated and limited to areas of pedestrian traffic, recreation use and erosion control.
Mulch	<ul style="list-style-type: none"> 3-inches minimum for organic mulch 	N/A	<ul style="list-style-type: none"> Mulch and similar material must be protected from washing out of the planting bed.
<p><u>Notes:</u></p> <p>(1) <u>All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.</u></p> <p>(2) <u>In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.</u></p>			

(c) Minimum Shade Tree Species

- (1) A minimum variety of shade tree species shall be provided pursuant to *Table 138-1655.b: Minimum Number of Tree Species*.
- (2) Each species shall provide a minimum of ten percent of the total number of trees.

Table 138-1655.b: Minimum Number of Shade Tree Species	
TOTAL NUMBER OF REQUIRED TREES	REQUIRED MINIMUM NUMBER OF TREE SPECIES
1-9	1
10-19	2
20-29	3
30-49	4
50-over	5

Section 138-1657 - Street Trees

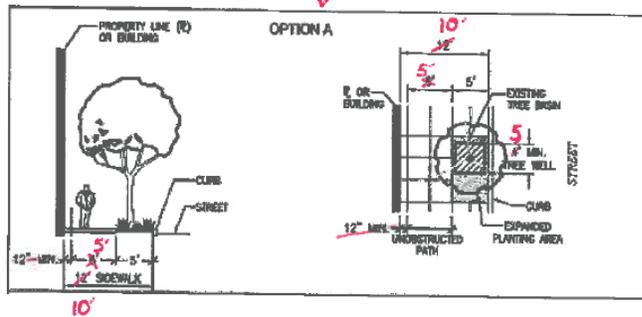
(a) Street Trees

- (1) *Applicability.* Street trees shall or may be planted in the following instances:
 - a. The subject property is located along the special, primary, secondary, and/or supporting multimodal corridor rights-of-way that are identified in the Transit Oriented Land Use Vision Map, as amended as part of the Countywide Plan rules; and
 - b. There is a minimum of 10 feet of area between the edge of pavement and property line to accommodate a 5 foot sidewalk and 5 foot tree pit or planting strip (see Figure 138-1655.a).
 - c. Street trees installation and maintenance should be conducted according to the Greenbook (Standard Specifications for Public Works Construction) recommendations.
- (2) *Installation.* Development, Redevelopment or Change of Use projects along these corridors may satisfy a portion of their tree planting requirement by planting trees in the right-of-way adjacent to the subject property. Street trees shall be installed prior to the issuance of a Certificate of Occupancy and shall be maintained by the owner or developer in a healthy, growing condition for a 3-year period. Any street trees that have been removed, has died or do not meet the minimum standards of Florida #1, shall be replaced with trees by the owner or developer within 30 days, at which time another 3-year warranty period shall begin.
- (3) *Location and Spacing.* Shade, accent trees or palm trees ~~shall~~ should be planted in tree pits or planting strips (see Figure 138-1657.a) along the frontage adjacent to the project site. In general and where practical, street trees shall be of consistent size, spacing, and like species, in order to achieve a “tree-lined boulevard” appearance.
 - a. The typical spacing for shade trees shall be between 30 feet and 45 feet on center.
 - b. Where site conditions render shade trees impractical, accent or palm trees may be allowed at a spacing of not closer than 25 feet on center and not

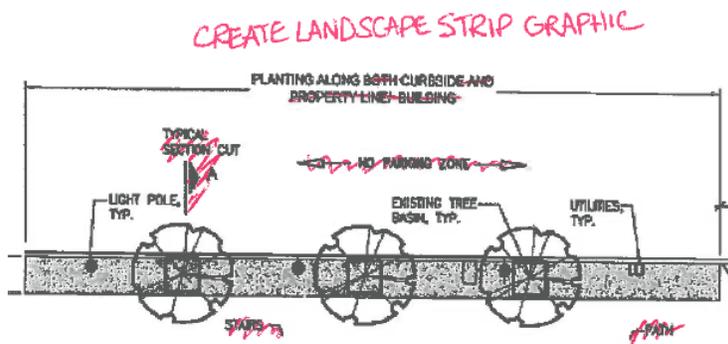
greater than 60 feet on center, with a typical spacing of between 30 feet and 45 feet, except as otherwise approved by the County.

- c. Minimum planting areas shall be in accordance with this Division.
- (4) *Tree Size and Species.* Trees shall comply with Section 138-1655. – Minimum Plant Material Specifications and the County’s approved plant list.
- (5) *Special Tree Planting Treatments.* Tree pits should be as large as possible to allow for ample growing space for tree roots and crown. The overall width of a sidewalk can limit the size of a tree pit.
 - a. The minimum tree pit dimension shall be 5 feet by 10 feet where space allows.
 - b. Corridors with narrow right-of-way widths shall be exempt from the minimum tree pit dimensions, but are required to utilize special tree planting treatments if the minimum planting area cannot be provided. Such treatments may include, but are not limited to, root barriers, structural soil, soil cells, root tunnels underneath the pavement, and/or pervious pavement.
- (6) *Maintenance.* Owners of private property are responsible for the maintenance of trees on private property and in abutting rights-of-way. Where support staking and guying of vegetation is provided at the time of installation, the stakes and guys shall be removed no later than one year after installation to prevent damage to the vegetation. Owners of private property who are responsible for the maintenance of trees on private property and in abutting rights-of-way shall not be required to pay to remove and replant any tree that they can prove by substantial competent evidence was fatally damaged by any public utility company.

CREATE TREE PIT GRAPHIC



Insert Figure 138-1657.a - Tree Pit and Landscape Strip Diagram



Insert Figure 138-1657.b - Inset Examples of Root Barriers, Structural Soil, Soil Cells, Root Tunnels

Section 138-1658 – Landscaping for Single-Family Detached, Attached, Two-Family, and Three-Family Residential Properties.

- (a) ~~New~~ Single-Family Detached, Attached, Two-Family, and Three-Family Residential properties shall meet the following landscape requirements prior to the issuance of a Certificate of Occupancy and/or Tree Permit:

- (1) *Minimum Trees per Lot.* Each developed lot shall have shade or accent trees planted or retained as follows:
- a. Trees shall be provided/preserved pursuant to *Table 138-1658.a – Minimum Trees Per Lot.*

Table 138-1658.a – Minimum Trees Per Lot	
Lot Size	Minimum Required Trees per lot ⁽¹⁾
Less than 3,000 sf	▪ None Required
3,001 to 6,000 square feet	▪ 2 shade trees or accent tree
between 6,001 to 9,500 square feet	▪ 4 shade trees or accent trees
between 9,501 to 16,000 square feet	▪ 6 shade trees or accent trees.
16,001 square feet or greater	<ul style="list-style-type: none"> ▪ 8 shade trees or accent trees, PLUS ▪ One additional tree is required for each 2,000 square feet, or portion thereof, in excess of 16,000 square feet
<u>General Notes:</u>	
1. <u>Shade trees shall be prioritized. Accent trees may only be used and counted towards the minimum trees per lot requirement when adequate planting space and/or light is greatly limited on the lot and would not allow for healthy shade tree growth.</u>	

- b. Existing trees shall not be removed from any lot that would result in lots/parcels with tree quantities less than what is required in this subsection.
- c. Each existing healthy tree with a canopy spread larger than 800 square feet that is preserved, shall count as 2 of the required trees.
- (2) *Minimum Shrubs in Front Yard.* Each lot shall have shrubs, accent plants, and/or ornamental grasses planted or retained in the front yard as follows:
- a. Lots measuring up to 9,500 square-feet shall have 10 plants.
- b. Lots measuring over 9,500 square-feet shall have 15 plants.
- (3) *Existing Vegetation.* Existing vegetation shall be eligible to meet the requirements of this section. This shall not apply to any species listed as an Undesirable Tree.
- (4) *Other Permeable/Unimproved Areas.* Permeable/unimproved portions of private property including required yards shall be maintained with an herbaceous layer of sod, ground cover plant material, organic mulch, synthetic turf, and/or gravel. Mulch and gravel shall be maintained so that material and sediment does not enter the public storm sewer system.
- (5) *Organic Mulch.* Organic mulch is a beneficial addition to landscaping in many situations including providing a surface covering under shrubs, or where groundcover material is maturing. The intention of these regulations is to allow mulch within a landscape while not allowing the entire yard to only be covered in mulch.
- a. *Installation standards.* Where used in lieu of sod or groundcover plant material, organic mulch shall be placed to a minimum depth of 3 inches. The top level of mulch shall not exceed the height of the immediately adjacent ground surface. Mulch shall not be placed directly against a plant stem or tree trunk. Non-organic groundcovers including decorative gravel or crushed stone shall be allowed only in planting areas (e.g., in gardens or hedge areas) and not as a substitute for sod, groundcover or organic mulch.

- b. *Limits on Installation.* Organic mulch may be used without limit underneath shrubs and trees, provided the groundcover, shrubs, trees or a combination thereof are planted and maintained at a cumulative ratio of at least 1 plant or tree, planted within the mulch per each 50 square feet of organic mulched area.
 - c. *Limits on installation in rights-of-way.* Organic mulch may be used in permeable areas of the right-of-way to keep moisture in the soil while other forms of approved groundcover plant material are maturing. Mulch is prohibited within 4 feet of the curb or edge of pavement if there is no curb. Mulch in the right-of-way must be contained within borders sufficient to prevent flotation of mulch into the roadway. With the exception of permitted driveway or sidewalk materials, the use of shell, rock or other similar hardened non-organic surface materials in the right-of-way is prohibited.
- (6) *Irrigation.* Irrigation systems are not required
 - (7) *Mobile Home Park Lots.* Individual lots in mobile home parks shall be exempt from the requirement to plant a minimum of two shade or accent trees. When determining replacement requirements for tree removal from individual lots in mobile home parks, required replacements shall not be required to be replaced on individual lots but shall be replaced into areas maintained by the park as a whole, such as common areas, buffer areas, and areas around retention ponds. Where a mobile home park does not wish to replace a tree, a fee in lieu of replacement shall be required.
 - (8) *Sight triangle.* Required landscaping to be located in the sight triangle shall not limit the line of sight between 2 feet and 8 feet above grade. If the site abuts a Florida Department of Transportation (FDOT) roadway, the landscaping shall meet the requirements of the FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, as amended.
- (b) All required landscape material shall be provided on the subject site. The following alternatives may be allowed:
- (1) The required trees/scrubs may be planted within the abutting right-of-way when allowed by the roadway facility owner (i.e. local government, developer, or property owners association). AND/OR,
 - (2) The applicant may provide a monetary contribution to a formally-adopted tree mitigation fund at a rate established by the Board of County Commissioners (BoCC). AND/OR,
 - (3) The county administrator or designee, may allow applicants to construct and maintain structures with plant material that provide similar shade and vegetation function as a tree. (eg arbors with vines, shrubs, or similar plant material.) In this alternative, the amount of required trees may be reduced based on a near equivalent shade/vegetation function of a tree.

Section 138-1659 - Non-Residential and Multifamily Landscaping Standards

- (a) *Applicability.* The following standards shall apply to landscaping for non-residential and multi-family uses/developments.
- (b) Design Standards
 - (1) *Plant Selection.* All plants used to meet the requirements of this Division shall be selected from the County's approved plant list or approved equal if sufficient

documentation is submitted that demonstrates that the plant possesses the desired characteristics. The Approved Planting List includes the common and botanical names, mature height and canopy spread, light requirements, drought tolerance, growth rate, salt tolerance, and recommended best use. Species listed as an Undesirable Tree in this Division shall not be used towards meeting the minimum standards of this section.

- (2) *Solar orientation.* Solar orientation for plantings must be considered. Plantings with similar cultural requirements shall be grouped together.
- (3) *Turf/grass.* Turf/grass areas shall not exceed 50% of the landscape area
 - a. Sports fields, golf courses, and stormwater management retention/detention ponds, swales or other stormwater management systems shall be excluded from this calculation.
 - b. The landscape plan shall label the use of turf areas, turf species and varieties, and the total turf area of the site indicated as a percentage of the landscape area.
 - c. Turf/grass shall not be placed on slopes exceeding 4:1, and shall not be planted within 10 feet of a natural water body, except where needed for erosion control.
- (4) *Soil volumes.* In order to accommodate tree root growth, all planting areas shall be excavated a minimum of 36 inches and replaced with fertile, friable soil containing natural loam. New soil must have a bulk density below the critical value for the soil type.
- (5) *Sight triangle.* Required landscaping to be located in the sight triangle shall not limit the line of sight between 2 feet and 8 feet above grade. If the site abuts a Florida Department of Transportation (FDOT) roadway, the landscaping shall meet the requirements of the FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, as amended.
- (6) *Existing Vegetation.* Existing vegetation shall be eligible to meet requirements of this section. This shall not apply to any species listed as an Undesirable Tree.
- (7) *Tree placement.* Trees shall not be located adjacent to free-standing signs or below wall signs where the tree will create a visual obstruction at the time of planting or in the future. Clustering of perimeter trees is permitted to prevent the obstruction of signs and conflicts with overhead or underground utility lines.
- (8) *Berms.* When a berm is used to form a visual screen, its slopes shall not exceed 3:1, and it shall be completely covered with shrubs, grasses and/or groundcover.
- (9) *Irrigation.* The following standards shall apply to the design, installation, and maintenance of the irrigation systems.
 - a. ~~One hundred (100) percent automatic~~ An irrigation systems shall be mandatory for any required landscaped areas.
 - b. Rain or moisture sensing shutoff devices shall be installed with any irrigation system. Drip or microjet irrigation shall be used where possible. Low trajectory spray nozzles are encouraged.
 - c. Hose bibs are not allowed for developments that are subject to site plan approval.
 - d. Existing plant communities maintained in a natural state will not require supplemental irrigation.

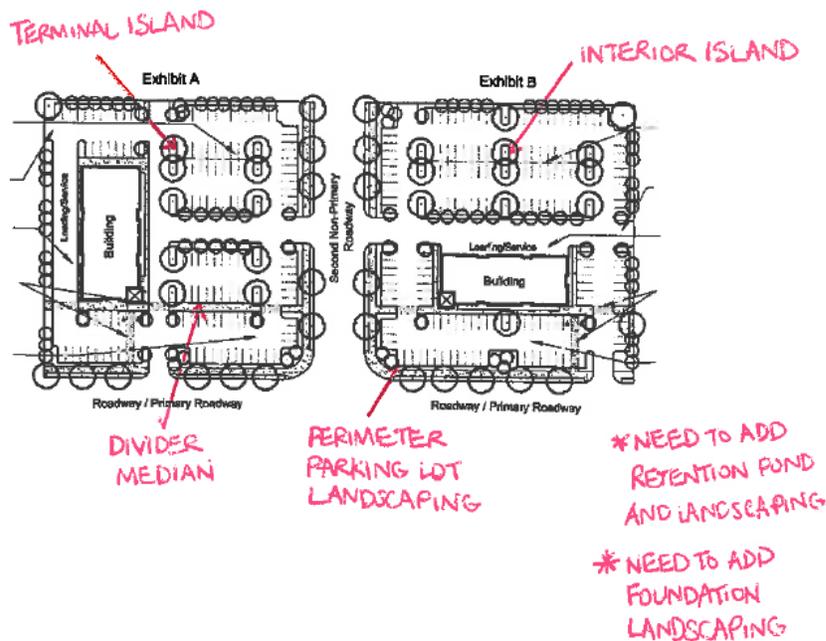
- e. Reclaimed water shall be used when service connection to a property can be made without digging under a roadway or extending a main reclaimed water line.
- f. If reclaimed water is not yet available to serve a property, installation of a lateral line shall be required for future service. This provision applies to all properties applying for site plan approval, if feasible.
- g. ~~Treated~~—Stormwater reuse, shallow wells, cisterns, and wet retention/detention ponds shall also be used as alternatives to potable water whenever available.
- h. Development proposing to irrigate with potable water must demonstrate that no alternative is available and shall be required to xeriscape a minimum of 50 percent of the provided open space area.
- i. Irrigation systems shall be designed to minimize the amount of water applied to or running off into impervious surfaces. Spray heads or nozzles shall be directed away from all travel lanes and sidewalks.
- j. Irrigation systems and landscaping may extend into the green portion of the County controlled right-of-way (between sidewalk and road) subject to the following conditions. Properties adjacent to County or State rights-of-way must obtain proper approval from the appropriate agencies.
 - 1. Repairs, maintenance, and replacement of irrigation and landscaping within the right-of-way shall be the sole responsibility of the property owner. Irrigation and landscaping within the right-of-way shall be considered an encroachment and may be removed by the County or entities having easement rights for purposes of maintenance or installation of utilities or other public improvements.
 - 2. For public health and safety reasons, the County may rescind any approval and cause removal of any irrigation line within the rights-of-way without cause or reimbursement to the property owner.
- k. Low Impact Development (LID). All landscaping may be combined with and/or designed as low impact development (LID) stormwater facilities in accordance with the Pinellas County Stormwater Management Manual.

(c) Minimum Landscaping Requirements.

- (1) *Perimeter Streets/Roadways Landscaping.* A landscape area shall be planted along all streets and roadways. Industrial Districts M-1, M-2, and WD are exempt from this requirement.
 - a. Landscaping area widths shall be provided according to the adjacent street classification.
 - 1. For local streets, the landscaping area shall be eight (8)-feet in width as measured from the right-of-way and into the site.
 - 2. For collectors, arterials, ~~freeways~~ highways and similar facilities, the landscaping area shall be ten (10) -feet in width as measured from the right-of-way and in to the site.
 - 3. Any site, or portion thereof, that has less than 150-ft of parcel depth may be permitted to reduce the required landscaping area to five (5)-feet in width.
 - b. Planting areas shall include the following minimum plant material quantities:

1. Three (3) shade trees per 100 linear feet. Other trees may be planted in lieu of shade trees for landscaping areas measuring less than 8-ft in width.
 2. 20 shrubs/plants/ornamental grass per 100 linear feet.
- c. Areas for ingress/egress are exempt.
- d. Buildings, sidewalks, patios, and paved courtyards may be placed within the required perimeter landscaping areas. However, the minimum plant material for the overall perimeter landscaping shall not be reduced; planting material may be placed elsewhere on the site.
- (2) *Perimeter Landscaping Buffer Abutting Residential.* A perimeter landscaping buffer shall be provided along property lines that abut residential uses subject to the following standards:
- a. The landscaping buffer shall be provided for the following uses:
 1. Non-residential abutting all residential uses
 2. Multifamily abutting single-family detached, attached, two-family and/or three family.
 - b. Landscaping buffers shall include the following minimum plant material quantities:
 1. Three (3) shade trees per 100 linear feet.
 2. A six-foot high fence/wall
- (3) *Perimeter Surface Parking Lot Landscaping.* A perimeter landscaping buffer shall be provided around all vehicular use areas. The required perimeter parking lot landscaping may be combined with other perimeter landscape areas (eg. buffers along streets and/or abutting a residential use)
- a. Landscaping areas shall be a minimum of ~~eight (8)~~ five (5) feet in width as measured from the edge of the vehicular use area ~~and into the site.~~
 - b. Landscaping areas shall include the following minimum plant material:
 1. Three (3) ~~shade~~ trees per 100 linear feet.
 2. A continuous hedge of at least three-feet in height. The hedge may consist of shrubs, plants, and/or ornamental grasses. Plant material shall be spaced a minimum of 30 inches on center.
 - c. For buffers that contain overhead utility lines, the requirement for shade trees may be altered to accent trees, or sabal/cabbage palms in clusters of three, at a ratio of 2.5 accent/palms for each required shade tree. These trees shall be grouped in clusters of 3 at a minimum of 12 feet on center.
- (4) *Interior Parking Lot Landscaping.* The interior portions of each parking areas shall be landscaped pursuant to the following:
- a. *Required landscaped area.* Vehicular use areas with more than ten (10) parking spaces shall provide interior parking landscaping. Terminal and interior islands and divider medians shall be used to comply with required interior parking lot landscaping.
 - b. *Terminal islands.* Each row of parking spaces shall end with terminal islands to separate parking from adjacent drive lanes. Terminal island shall be provided as follows:
 1. Each terminal island shall measure at least ~~11 feet~~ eight (8)-feet in width, measured from the inside of the curb.

2. Terminal islands shall provide at least 200-sf in landscaping area.
 3. Within terminal islands, 1 shade tree shall be required for every 150 square feet (or fraction above half thereof) of the interior parking lot landscaping, with a minimum of 1 shade tree required per terminal island.
 4. Terminal islands shall be landscaped with shrubs, accent plants, ornamental grasses and groundcover, excluding turf grass, planted to provide 100 percent coverage within 2 years.
 5. Shrubs, accent plants and ornamental grasses in islands adjacent to parking spaces shall be set back a minimum of 2 feet behind the edge of the planting area to provide for pedestrian access to parked vehicles.
- c. *Interior islands.* Interior landscaping islands shall be provided within parking areas pursuant to the following:
1. No more than an average of 24 parking spaces shall be allowed between islands in order to reduce the overall scale of the parking area.
 2. Each interior island shall measure at least eight (8) feet in width, measured from the inside of the curb. Interior islands less than eight (8) feet in width shall not be credited towards interior landscaping.
 3. Within interior islands, 1 shade tree shall be required for every 150 square feet (or fraction above half thereof), with a minimum of 1 shade tree required per interior island.
- d. *Divider medians.* Parking lots in excess of 250 spaces shall provide landscaped divider medians for a minimum of 50% of all abutting rows of parking pursuant to the following:
1. These divider medians shall be designed to form a continuous landscaped strip between abutting rows of parking areas.
 2. All access drives shall have divider medians.
 3. The minimum width of a divider median shall be four (4) feet, measured from the inside of the curb.
 4. Three (3) shade trees or six (6) accent trees shall be required for each 100 linear feet of divider median (or fraction thereof).
 5. Shrubs shall be planted in divider medians which separate parking areas from access drives to form a continuous hedge the full length of the divider median.
- ~~e. *Low Impact Development (LID).* Required parking lot landscaping may be combined with and/or designed as low impact development (LID) stormwater facilities in accordance with the Pinellas County Stormwater Management Manual.~~



Insert Figure 138-1659.a - Minimum Landscaping Requirements Site Plan Graphic Identifying Perimeter Parking Lot Landscaping, Interior Parking Lot Landscaping (terminal islands, interior islands, divider medians), Retention Pond Landscaping, Foundation Landscaping

- (5) *Stormwater Ponds and Water Bodies Landscaping.* Stormwater ponds and water bodies shall be ~~may be required~~ to be landscaped pursuant to the following: Pinellas County Stormwater Manual.
- ~~a. Development abutting a natural water body shall provide a planted upland pollution control swale along the entire length of the waterfront.~~
 - ~~b. Development sites abutting natural surface water bodies, including natural creeks, rivers, ponds, lakes, sinkholes, or wetlands which do not have existing, viable littoral zones, shall be planted with appropriate native aquatic plants along at least 85% of the littoral zone, in a band at least 10 feet in width. The pond's bank shall be planted with a non-sod herbaceous border to slow down and filter overland waters entering the pond. Wetlands comprised of native plants preserved in their natural state shall not require additional Littoral Zone landscaping.~~
 - ~~c. The perimeter of the banks of all stormwater ponds shall be planted with trees at a 20% coverage rate. The number of required trees shall be determined by calculating 20% of the area of the stormwater pond at the top of bank then dividing by 300 square feet per tree. In cases where perimeter planting is infeasible, the County shall determine alternative planting locations.~~
 - ~~d. Wet stormwater detention systems shall have littoral zones planted in accordance with Figure 138-1659.b and Tables 138-1664.i thru 138-1664.m. or an approved equal.~~

- ~~e. The plant material included in Tables 138-1664.i. thru 138-1664.m. are divided into freshwater and marine species and are further divided into Herbaceous, Shrubs, and Tree plant types.~~
- ~~f. To help with the selection of successful plants, survival zones and ratings have been assigned to each plant. The survival zones included in Tables 138-1664.i. thru 138-1664.m. indicate the preferred water depth of each plant, relative to 0.0 (normal water level). Ponds are generally assumed to have a water level fluctuation of 1.5 feet above the normal water level to allow for stormwater inundation. Uplands are assumed to begin at 1.5 feet above the normal water level.~~
- ~~g. Each plant has been assigned a rating as follows: A = highly adaptable to varying soil and hydrologic conditions, B = moderately adaptable to varying soil and hydrologic conditions, and C = specialized adaptability.~~
- ~~h. The ratings are not designed to eliminate plants from consideration; the intent is to select the majority of plants that have been generally successful and to include a minor component of the other two categories. For example, a designer should choose about 80% of "A" rated plants and 20% of "B" and "C" rated plants. This type of selection will yield a variety of plant species and eliminate the possibility of "cookie cutter" planting schemes.~~

Insert Figure 138-1659.b – Littoral Zone graphic

- (6) *Landscaping Fence/Wall for Non-Residential, Subdivision, and Multifamily Projects.* Fences and walls shall be landscaped pursuant to the following standards:
 - a. Any street-facing fence/wall shall be landscaped with
 - 1. a continuous hedge, and
 - 2. Three shade trees or six accent trees for each 100 linear feet along the fence/wall (or fraction thereof).
 - 3. These requirements may be combined with other perimeter landscaping areas (eg perimeter landscaping along a street).
 - b. When a fence/wall is erected within a perimeter landscaping areas, any required plant material shall be installed in the following arrangements:
 - 1. When the fence or wall is located along side or rear property lines, the required plant material *may* be placed on the inside of the fence/wall.
 - 2. When the fence or wall is located along a street right-of-way the following shall apply.
 - i. Required plant material *may* be placed on the inside of the fence/wall when the fence/wall is 36-inches or less in height.
 - ii. Required plant material *shall* be provided on the right-of-way side of the fence/wall (but not within the right-of-way) when the fence/wall exceeds 36 inches in height.
- (7) *Landscaping adjacent dumpster enclosures.* Dumpster enclosures visible from any street shall be landscaped with a continuous hedge. This shall not apply to portions of the enclosure with doors or gates.
- (8) *Landscaping adjacent to mechanical equipment.* Mechanical equipment, such as backflow prevention devices, utility cabinets, and air conditioners, visible from the street excluding alleys shall be landscaped on at least two sides with a

continuous hedge comprised of shrubs planted no more than 30 inches on center. This requirement may be waived if the screening will inhibit safety, accessibility and maintenance.

- (9) *Foundation Landscaping.* Foundation planting shall be provided ~~around the perimeter of each building~~ along the base of street-facing building facades subject to the following:
- a. Planting areas shall be a minimum of five-feet in width as measured from the building edge and outward.
 - b. Planting areas shall include the following minimum plant material:
 1. Two(2) accent trees per 100 linear feet.
 2. 20 shrubs/plants/ornamental grass per 100 linear feet.
 - c. The following conditions or features are exempt:
 1. alley-facing facades
 2. areas of ingress/egress,
 3. patios and paved courtyards, and/or
 4. similar elements as above.
 - d. Where the foundation landscaping requirements conflict with any applicable buffering standards from Article IX Specific Use Standards AND/OR the Design Criteria for the underlying zoning district, the most restrictive standard shall apply.
 - e. Foundation landscaping may be designed/construction as Low Impact Development (LID) stormwater facilities.

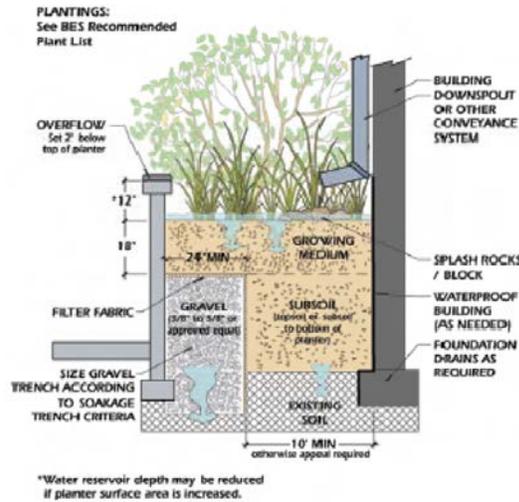


Figure 138-1657.c LID Foundation Landscaping

- (10) *Buffer Averaging Option.* Portions of the minimum required perimeter landscaping/buffers may be reduced up to one-third of the minimum width. However additional landscaping areas shall be provided in other portions of the site to result in an overall buffer width that exceeds the minimum standard.

(d) All required landscape material shall be provided on the subject site. The following alternatives may be allowed:

- (1) The required trees/scrubs may be planted within the abutting right-of-way when allowed by the roadway facility owner (i.e. local government, developer, or property owners association). AND/OR,
- (2) The applicant may provide a monetary contribution to a formally-adopted tree mitigation fund at a rate established by the Board of County Commissioners (BoCC). AND/OR,
- (3) The county administrator or designee, may allow applicants to construct and maintain structures with plant material that provide similar shade and vegetation function as a tree. (eg arbors with vines, shrubs, or similar plant material.) In this alternative, the amount of required trees may be reduced based on a near equivalent shade/vegetation function of a tree.

Section 138-1660 - Wetland Protection Buffers and Vegetation

(a) *Wetland Protection Buffers.* It is the purpose of an upland buffer to further protect wetlands, their associated wildlife and water quality from adjacent development impacts. Such impacts include siltation, eutrophication, noise, artificial light intrusion and human and domestic animal intrusion. Upland buffers will also provide for preservation of upland wildlife habitat.

- (1) Upland buffer requirements.
 - (a) Upland buffers shall be required immediately adjacent to a wetland in accordance with *Table 138-1660.a Wetland Protection Upland Buffers*, or as otherwise specified in this section.
 - (b) The upland buffers shall be required upon submittal of a site plan through the County's site plan regulations and review procedures. The buffers must be shown on the site plan and must be preserved during site development.
- (2) The upland buffer and its associated wetlands shall be recorded in the public records of the County as a conservation easement in accordance with F.S. § 704.06 or created as a conservation easement on the record plat for the development.
- (3) The following exemptions shall apply to the wetland protection buffer requirements:
 - a. Previously platted single-family lots are exempt; however, replats and subdivisions are applicable to these standards.
 - b. Catwalks, boardwalks, and walkways
- (4) Where the wetland protection upland buffers conflict with any applicable buffering standards from Article IX Specific Use Standards AND/OR the Design Criteria for the underlying zoning district, the wetland buffers shall prevail.
- (5) Wetland Protection Upland Buffer areas may be combined with any required open space area from Article IX Specific Use Standards AND/OR the Design Criteria for the underlying zoning district,

Table 138-1660.a – Wetland Protection Buffers		
WETLAND PROTECTION BUFFER TYPE	ADJACENT WETLAND FEATURE	MINIMUM REQUIRED WETLAND PROTECTION BUFFER
Type 1	Isolated Wetlands	15-ft
Type 2	Creeks, channels, ditches, canals or other waterways which are not designated as preservation land use areas and which are connected with waters of the state as defined in the Florida Administrative Code	15-ft outside the top of bank or contiguous wetlands, whichever is greater
Type 3	County approved retention ponds adjacent to wetlands which provide the intent as described in purpose of this section.	15-ft from edge of wetlands to top of bank of retention pond
Type 4	All other wetlands	50-ft
General Notes:		
1. Isolated wetland means any wetland as defined in this article which is not contiguous with the waters of the state as defined in the Florida Administrative Code.		

- (2) Alternative Wetland Protection Buffer Options
 - (a) *Option 1:* Buffers may be reduced up to one-third of the minimum width for portions along a wetland, so long as, additional widths are provided in other areas to result in an overall buffer width average that complies with Table 138-1660.a.
 - (b) *Option 2:* The required wetland protection buffers may be reduced by 25 percent when the buffer area is planted/enhanced with native vegetation. Restoration planting shall be installed at a ratio of 3 Shade Trees, 2 accent/palm trees, and 30 shrubs per 100 linear feet.
- (3) *Activities prohibited within upland buffers.* In general, the following activities within a buffer shall be prohibited:
 - a. Placement of a structure, road, utilities, and retention pond.
 - b. Planting of exotic vegetation.
 - c. Removal of native vegetation, to include mowing or trimming, except as might be required for health, welfare and safety purposes as determined by the county.
 - d. Fill with dirt, topsoil, sand, gravel or other similar material.
 - e. Excavation.
 - f. Maintaining livestock.
 - g. Storage of equipment, supplies, materials, machinery, portable buildings, etc.
 - h. Application of herbicides, pesticides, fertilizers, or chemical agents injurious to vegetation.
- (b) *Wetland Vegetation.* All mangroves and other wetlands, regardless of size, are recognized to be of special ecological value. No wetland vegetation shall be removed, trimmed, pruned, chemically treated, filled upon or altered without a permit or

exemption. Guidelines for trimming or pruning of mangroves shall be made available from the County.

- (1) Where wetlands are approved for removal by a permit which was issued by the Pinellas County Water and Navigational Control Authority, a permit under the provisions of this Division pertaining to those wetlands shall not be required. However, wetlands removal not authorized by the water and navigational control authority permit, and otherwise subject to the County's jurisdiction, shall be subject to enforcement action.
- (2) Due to the vegetative characteristics of these plant communities, wetlands will be exempted from the tree survey requirements, except that they shall be designated by name and their boundary surveyed.
- (3) Applicants must provide mitigate for all regulated wetland impacts and must demonstrate that the proposed mitigation measures are consistent with the County's intent to protect and manage fish, wildlife and hydrologic features. All required mitigation shall provide for equivalent habitat value to the wetland system impacted.

Section 138-1661- RESERVED

Section 138-1662. - Low Impact Development (LID) Landscaping

Low Impact Development (LID) is an ecologically-based stormwater management approach favoring soft engineering to manage rainfall on site through a vegetated treatment network. The goal of LID is to sustain a site's pre-development hydrologic regime by using techniques that infiltrate, filter, store, and evaporate stormwater runoff close to its source. Contrary to conventional "pipe-and-pond" conveyance infrastructure that channels runoff elsewhere through pipes, catchment basins, and curbs and gutters, LID remediates polluted runoff through a network of distributed treatment landscapes. The toolbox of LID-integrated management practices, including structural and nonstructural designs, is most effective when applied in a treatment train, or series of complementary stormwater management practices and techniques. Typically, LID practices will not completely replace more conventional "bottom-of-the-hill" stormwater management practices, but can be used to complement these practices and to ensure that the entire stormwater management system meets the Pinellas County water resources objectives.

(a) Low Impact Development (LID) Planting Zones

Surface grade and ponding area of a bioretention structure are the first factors to consider when choosing which plants to specify. Stormwater planters and some rain gardens have uniform surface grades. In these designs, ponding will be equal across the structure and all plants will have the same conditions (Zone A). In bioretention swales and some rain gardens, soil surface is sloped, resulting in differing planting conditions across the structure (Zones A and B). Plants located at the bottom where ponding occurs, will have different requirements than those placed on the sideslopes, which receive runoff, but not ponding. A third planting area may occur outside of Zones A and B, on the upper edges of rain gardens and bioswales (see Figure 138-1662.a). This area is not a functional component of the bioretention area, and therefore can be treated as a traditional landscape area.

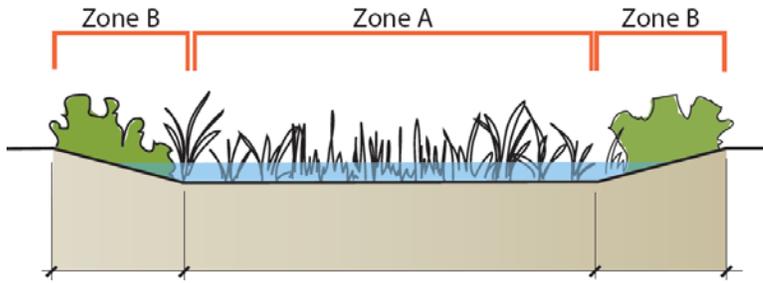


Figure 138-1662.a Planting Zones

(b) Low Impact Development (LID) Plant Species Selection

Once the plant zones are identified (Zone A only or both Zone A and Zone B) for a structure, the plants may be selected. Plant selection should take into account the following factors;

1. tolerant of varied moisture conditions (wet and dry),
2. tolerant of varied soil types and growing conditions,
3. available in Central Florida plant nurseries,
4. low maintenance requirements,
5. are not invasive weeds,
6. do not have aggressive/invasive root systems, and
7. exhibit an attractive appearance.

When selecting plants, additional site-specific information, such as tolerance to high and low temperatures, coastal conditions and prevailing winds should be considered. In addition, project specific aspects of the design, for example right-of-way vegetation height limits, may further influence selection.

The following are examples of LID techniques which may receive stormwater credit. For a full explanation of LID/Stormwater management requirements refer to the Pinellas County Stormwater Management Manual.

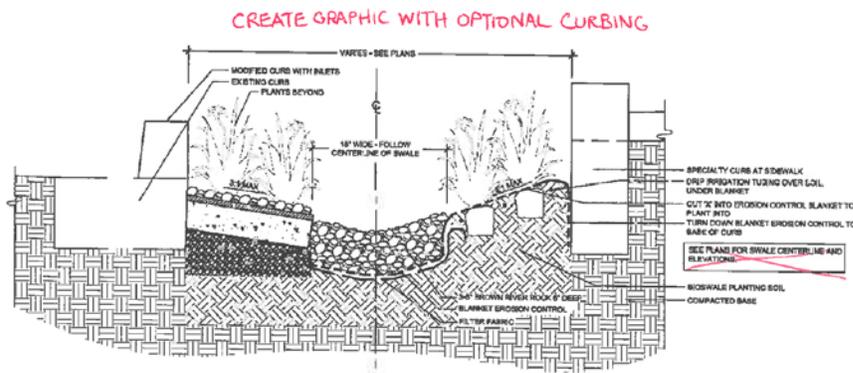


Figure 138-1662.b Bioretention Swales

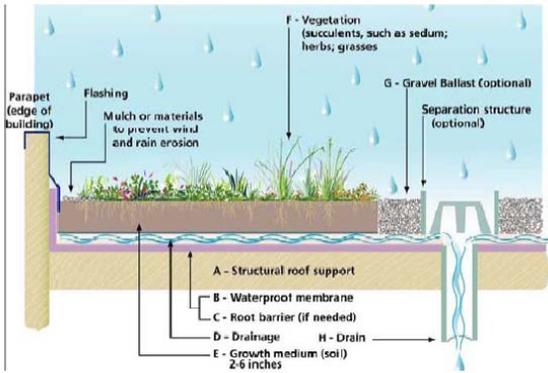


Figure 138-1662.c Green Roofs

Section 138-1663- *RESERVED*

Section 138-1664- Approved Plant List

The following tables include the approved plant species that may be used to satisfy the minimum landscaping requirements of this Division. In addition, species listed in a Special District, Overlay district, Stormwater Manual, or other adopted County ordinance may be permitted.

Table 138-1664.a. – Trees: Shade										
common	botanical	native	light*	drought tolerance	mature height	mature canopy spread	best use	foliage	growth rate	salt tolerance
cypress, bald	<i>Taxodium distichum</i>	yes	fs, ps, psh	med	60'-80'	25'-35'	buffer	deciduous	moderate	low
elm, drake	<i>Ulmus parvifolia</i>	no	fs, ps, psh	med	35'-45'	35'-50'	street, island, buffer	evergreen	moderate	low
elm, florida	<i>Ulmus americana</i> 'floridana'	yes	ps, psh	med	60'-80'	50'-60'	street, island, buffer	deciduous	fast	low
elm, winged	<i>Ulmus alata</i>	yes	fs, psh	high	45'-70'	30'-40'	street, island, buffer	deciduous	fast	low
loblolly bay	<i>Gordonia lasianthus</i>	yes	psh	med	35'-60'	10'-15'	street	evergreen	moderate	low
magnolia, southern	<i>Magnolia grandiflora</i>	yes	fs, ps, psh	med	60'-80'	30'-40'	buffer	evergreen	moderate	med
magnolia, sweetbay	<i>Magnolia virginiana</i>	yes	fs, ps, psh	low	40'-50'	15'-25'	foundation	evergreen	moderate	low
maple, red	<i>Acer rubrum</i>	yes	fs, ps, psh	med	60'-75'	25'-35'	street, buffer	deciduous	fast	low
mastic	<i>Sideroxylon foetidissimum</i>	yes	fs	high	30'-60'	30'-50'	buffer	evergreen	moderate	low
oak, chapman's	<i>Quercus chapmanii</i>	yes	fs	high	30'-45'	20'-30'	island, buffer	semi-deciduous	slow	high
oak, live	<i>Quercus virginiana</i>	yes	fs, ps, psh	high	60'-80'	60'-120'	street, buffer	evergreen	moderate	med

Table 138-1664.a. – Trees: Shade

common	botanical	native	light*	drought tolerance	mature height	mature canopy spread	best use	foliage	growth rate	salt tolerance
sweetgum	<i>Liquidambar styraciflua</i>	yes	fs, ps, psh	med	60'-75'	35'-50'	buffer	deciduous	moderate	med
sycamore	<i>Platanus occidentalis</i>	yes	fs	high	75'-90'	50'-70'	buffer	deciduous	fast	med
tupelo, black	<i>Nyssa sylvatica</i>	yes	fs, ps, psh	high	65'-75'	25'-35'	street, island, buffer	deciduous	moderate	med

* fs = full shade, ps = partial shade, psh = partial shade

(1) All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.

(2) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.

(3) All required shade trees shall measure a minimum of ten (10) feet in height and two (2) inches diameter breast height (dbh) at the time of planting. All shade trees shall be rated Florida Grade No. One and selected from the following list unless an alternative that meets the intent of this Division has been approved by Development Review Services.

common	botanical	native	light**	drought tolerance	mature height	mature canopy spread	best use	Foliage	Growth Rate	Salt Tolerance
bay, swamp*	<i>Persea palustris</i>	yes	fs, ps	low	30'-40'	20'-30'	buffer	evergreen	moderate	low
buttonwood, green	<i>Conocarpus, erectus</i>	yes	fs	high	30'-45'	20'-30'	island, buffer	evergreen	moderate	high
buttonwood, silver	<i>Conocarpus, erectus</i> 'sericeus'	yes	fs	high	30'-45'	20'-30'	island, buffer	evergreen	moderate	high
cedar, southern red	<i>Juniperus silicicola</i>	yes	fs, ps	high	30'-45'	20'-30'	buffer, foundation	evergreen	fast	high
crape myrtle, 'Natchez'	<i>Lagerstroemia indica</i> 'natchez'	no	fs	high	10'-30'	15'-25'	street, island, buffer	deciduous	moderate	med
crape myrtle, 'Muskogee'	<i>Lagerstroemia indica</i> 'muskogee'	no	fs	high	10'-30'	15'-25'	street, island, buffer	deciduous	moderate	med
crape myrtle, 'Tuskegee'	<i>Lagerstroemia indica</i> 'tuskegee'	no	fs	high	10'-30'	15'-25'	street, island, buffer	deciduous	moderate	med
holly, american	<i>Ilex opaca</i>	yes	fs, ps	high	35'-50'	15'-25'	street, foundation	evergreen	slow	high
holly, dahoon	<i>Ilex cassine</i>	yes	fs, psh	med	20'-30'	8'-12'	street, foundation	evergreen	moderate	med
holly, east palatka	<i>Ilex attenuate</i> 'east palatka'	yes	fs, ps, psh	high	30'-45'	10'-15'	street, foundation	evergreen	moderate	med
holly, weeping yaupon	<i>Ilex vomitoria</i> 'pendula'	yes	fs	high	15'-30'	6'-12'	foundation	evergreen	moderate	high
holly, yaupon	<i>Ilex vomitoria</i>	yes	fs, ps, psh, s	high	15'-25'	15'-20'	street, foundation	evergreen	moderate	high
ligustrum	<i>Ligustrum japonicum</i>	no	fs, ps	med	25'-40'	25'-35'	street, island, buffer	evergreen	moderate	med
lychee	<i>Litchi chinensis</i>	no	fs	med	20'-30'	20'-30'	buffer, foundation	evergreen	moderate	low
magnolia, 'little gem'	<i>Magnolia grandiflora</i> 'little gem'	no	fs, ps	med	30'-35'	8'-12'	buffer	evergreen	slow	med
marlberry	<i>Ardisia escallonioides</i>	yes	ps, psh	med	12'-20'	6'-12'	buffer, foundation	evergreen	moderate	low
mysine	<i>Myrsine guianensis</i>	yes	psh, s	high	15'-20'	8'-12'	foundation	evergreen	moderate	med

Table 138-1664.b. – Trees: Accent

common	botanical	native	light**	drought tolerance	mature height	mature canopy spread	best use	Foliage	Growth Rate	Salt Tolerance
oak, sand live	<i>Quercus virginiana</i> 'geminata'	yes	fs, ps	high	20'-40'	20'-40'	island, buffer	evergreen	fast	low
olive, european	<i>Olea europaea</i>	no	fs	med	26'-49'	30'-40'	street, island	evergreen	slow	med
plum, chickasaw	<i>Prunus angustifolia</i>	yes	fs, ps, psh	high	12'-20'	15'-20'	street, foundation	deciduous	moderate	low
plum, flatwoods	<i>Prunus umbellata</i>	yes	fs, ps	med	12'-20'	12'-20'	buffer	deciduous	moderate	low
plum, pigeon	<i>Coccoloba diversifolia</i>	yes	fs, ps	high	15'-25'	20'-30'	island, buffer	evergreen	moderate	high
podocarpus (tree form)	<i>Podocarpus macrophyllus</i>	no	fs, ps, psh	high	30'-40'	20'-25'	street, island, buffer	evergreen	slow	med
seagrape (tree form)	<i>Coccoloba uvifera</i>	yes	fs	high	25'-30'	20'-30'	island, buffer	evergreen	moderate	high
simpson's stopper	<i>Myrcianthes fragrans</i>	yes	ps, psh, s	high	20'-30'	15'-20'	island, buffer	evergreen	slow	high
sweet acacia	<i>Acacia farnesiana</i>	yes	fs	high	15'-25'	15'-25'	street, buffer	semi- evergreen	slow	med
varnish leaf	<i>Dodonaea viscosa</i>	yes	fs	high	10'-15'	6'-15'	island, foundation	evergreen	moderate	med
viburnum, walter's (tree form)	<i>Viburnum obovatum</i>	yes	ps, psh	high	8'-25'	6'-10'	island, buffer	evergreen	moderate	low

* Swamp Bay is susceptible to Laurel wilt disease; ** fs = full shade, ps = partial shade, psh = partial shade, s = shade

- (1) All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.
- (2) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.
- (3) All required accent trees shall measure a minimum of eight (8) feet in height and 1.5 inches diameter breast height (dbh) at the time of planting.

common	botanical	native	Light Requirements			Water Requirements			Growth Rate	Salt Tolerance
			sun	mix	shade	low	med	high		
bismarck palm [△]	<i>Bismarckia nobilis</i>			×			×		slow	med
cabbage palm+	<i>Sabal palmetto</i>	X	X			X			slow	high
caranday palm	<i>Copernicia alba</i>		×	×			×		slow	med
date palm, canary island ^{△*}	<i>Phoenix canariensis</i>		×			×			slow	med
date palm, medjool ^{△*}	<i>Phoenix dactylifera</i>		×				×		moderate	high
date palm, pygmy	<i>Phoenix roebelenii</i>			×			×		slow	low
date palm, sylvester	<i>Phoenix sylvestris</i>		×				×		moderate	med
foxtail palm	<i>Wodyetia bifurcata</i>		×				×		fast	med
mule palm	<i>Butiagrus nabonnandii</i>	X	×	×			×		moderate	med
pindo palm	<i>Butia capitata</i>		×	×		×			slow	high
ribbon palm	<i>Livistona decora</i>		×	×			×		slow	med
royal palm, Cuba [△]	<i>Roystonea regia</i>			×			×		moderate	med
royal palm, Florida [△]	<i>Roystonea elata</i>	X		×			×		moderate	med
taraw palm	<i>Livistona saribus</i>		×	×			×		moderate	med
windmill palm	<i>Trachycarpus fortunei</i>			×		×			slow	med

^{*}This palm tree is susceptible to Texas Phoenix Palm Decline (TPPD) and must have a preventative injection of OTC (oxytetracycline hydrochloride) Tree Injection Formula into the trunk of the palm 3-4 times annually.—All required palm trees shall measure a minimum height of ten (10) feet clear trunk at the time of planting.
Palm trees identified with an [△] may be substituted on a 1 for 1 basis with shade tree planting requirements.
Palm trees identified with a + may be substituted on a 3 for 1 basis with shade tree planting requirements but cannot constitute more than 20% of the required trees. All palm trees shall be credited on a 1 for 1 basis towards accent tree planting requirements. All palm trees shall be rated Florida Grade No. One and selected from the following list unless an alternative that meets the intent of this Division has been approved by Development Review Services.

common	botanical	native	Light Requirements			Water Requirements			Plant Density	Growth Rate	Salt Tolerance
			sun	mix	shade	low	med	high			
anise, yellow	<i>Illicium parviflorum</i>	X		X			X		dense	moderate	low
bluestem palmetto	<i>Sabal minor</i>	X		X		X			open	slow	med
dwarf bamboo palm	<i>Chamaedorea radicalis</i>			X	X		X		dense	moderate	low
elderberry	<i>Sambucus nigra</i>		X	X			X		moderate	fast	med
european fan palm	<i>Chamaerops humilis</i>		X	X			X		moderate	slow	med
fetterbush	<i>Lyonia lucida</i>	X	X	X			X		moderate	slow	low
fiddlewood	<i>Citharexylum fruticosum</i>	X		X		X			dense	slow	med
gallberry	<i>Ilex glabra</i>	X		X			X		open	slow	low
hibiscus	<i>Hibiscus rosa-sinensis</i>		X				X		moderate	fast	low
holly, dwarf yaupon	<i>Ilex vomitoria</i> 'schilling dwarf'			X			X		moderate	slow	med
ixora	<i>Ixora coccinea</i>		X				X		dense	slow	low
marlberry	<i>Ardisia escallonioides</i>	X		X			X		moderate	moderate	low
needle palm	<i>Rhapidophyllum hystrix</i>	X	X			X			moderate	slow	low
podocarpus	<i>Podocarpus macrophyllus</i>			X			X		dense	moderate	med
privet, Florida	<i>Forestiera segregata</i>	X	X			X			dense	moderate	med
staggerbush	<i>Lyonia ferruginea</i>	X	X			X			moderate	slow	low
seagrape	<i>Coccoloba uvifera</i>	X	X			X			dense	moderate	high
simpson's stopper, dwarf	<i>Myrcianthes fragrans</i>	X		X		X			moderate	slow	high

common	botanical	native	Light Requirements			Water Requirements			Plant Density	Growth Rate	Salt Tolerance
			sun	mix	shade	low	med	high			
viburnum, sweet	<i>Viburnum odoratissimum</i>			X			X		dense	moderate	low
viburnum, walters	<i>Viburnum obovatum</i>			X		X			dense	moderate	Low

(1) All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.

(2) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.

(3) All required shrubs shall measure a minimum of 24 1/2-inches in height in a 3-gallon container at the time of planting. Shrubs required to create a hedge shall be planted not more than 30 inches on center.

All shrubs shall be rated Florida Grade No. One and selected from the following list unless an alternative that meets the intent of this Division has been approved by Development Review Services.

common	botanical	native	Light Requirements			Water Requirements			Growth Rate	Flower Color	Flower Characteristic
			sun	mix	shade	low	med	high			
allamanda, yellow	<i>Allamanda cathartica</i>			X		X			fast	yellow	year-round
azalea	<i>Rhododendron spp.</i>	X		X			X		slow	various	spring
bird of paradise	<i>Strelitzia reginae</i>		X			X			slow	orange	spring, summer
bougainvillea	<i>Bougainvillea glabra</i>		X			X			fast	purple, red, lavender, yellow	year-round
butterfly weed	<i>Asclepias tuberosa</i>	X	X			X			fast	red, yellow	spring, summer
buttonsage	<i>Lantana involucrata</i>	X	X				X		moderate	white	year-round

common	botanical	native	Light Requirements			Water Requirements			Growth Rate	Flower Color	Flower Characteristic
			sun	mix	shade	low	med	high			
cardboard plant	<i>Zamia furfuracea</i>		X			X			slow	no flowers	no flowers
cast-iron plant	<i>Aspidistra elatior</i>				X	X			slow	brown	year-round
christmasberry	<i>Lycium carolinianum</i>	X		X			X		moderate	blue, white, yellow	fall, summer
coontie	<i>Zamia floridana</i>	X		X		X			slow	no flowers	no flowers
copperleaf	<i>Acalypha wilkesiana</i>		X			X			fast	red	summer
crinum lily	<i>Crinum spp.</i>		X			X			moderate	white	year-round
croton	<i>Codiaeum variegatum</i>			X		X			slow	no flowers	no flowers
dwarf sugar palm	<i>Arenga engleri</i>			X			X		slow	no flowers	no flowers
finger palm	<i>Rhapis humilis</i>			X	X		X		moderate	no flowers	no flowers
firebush	<i>Hamelia patens</i>	X		X		X			fast	orange-red	year-round
firespike	<i>Odontonema strictum</i>		X			X			moderate	red	fall, winter
flax lily	<i>Dianella spp.</i>		X			X			moderate	blue, violet	summer
ginger, shell	<i>Alpinia zerumbet</i>			X			X		moderate	white	year-round
golden dewdrop	<i>Duranta repens</i>			X		X			fast	pale blue	fall, spring, summer
hawthorn, indian	<i>Raphiolepis indica</i>			X		X			slow	pink	fall, spring
hibiscus, red	<i>Hibiscus coccineus</i>	X		X			X		fast	red	summer

Table 138-1664.e. – Foundation (and Accent) Plants

common	botanical	native	Light Requirements			Water Requirements			Growth Rate	Flower Color	Flower Characteristic
			sun	mix	shade	low	med	high			
iris, african	<i>Dietes vegeta</i>		X			X			slow	white	year-round
lady palm	<i>Rhapis excelsa</i>				X	X			slow	yellow	spring
milkweed, scarlet	<i>Asclepias curassavica</i>		X			X			fast	red, yellow	spring, summer
philodendron	<i>Philodendron martianum</i>				X		X		slow	green	year-round
plumbago	<i>Plumbago auriculata</i>		X			X			fast	blue	year-round
palmetto, saw	<i>Serenoa repens</i>	X	X			X			slow	yellow, white	spring
seashore palm	<i>Allagoptera arenaria</i>		X	X			X		slow	no flowers	no flowers
snowberry	<i>Chiococca alba</i>	X	X			X			moderate	yellow	year-round
snow bush	<i>Breynia disticha</i>		X			X			moderate	white	fall, summer
Spanish bayonet	<i>Yucca aloifolia</i>	X		X		X			moderate	white	spring, summer
thryallis	<i>Galphimia glauca</i>		X				X		moderate	yellow	year-round
turk's cap	<i>Malvaviscus arboreus</i>		X			X			fast	red, white	fall, spring
varnish leaf	<i>Dodonaea viscosa</i>	X		X		X			moderate	yellow	fall, spring, summer
white indigo berry	<i>Randia aculeata</i>	X		X		X			slow	white	year-round
wild coffee	<i>Psychotria nervosa</i>	X			X		X		moderate	white	spring, summer
wild coffee, bahama	<i>Psychotria ligustrifolia</i>	X		X			X		moderate	white	year-round
wild coffee, shortleaf	<i>Psychotria sulzneri</i>	X		X			X		moderate	green	spring, summer

Table 138-1664.e. – Foundation (and Accent) Plants

common	botanical	native	Light Requirements			Water Requirements			Growth Rate	Flower Color	Flower Characteristic
			sun	mix	shade	low	med	high			
<p>(1) All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.</p> <p>(2) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.</p> <p>(3) All required foundation and accent plants shall be a minimum of 15 inches in height in a 3-gallon container at the time of planting. All plants shall be rated Florida Grade No. One and selected from the following list unless an alternative that meets the intent of this Division has been approved by Development Review Services.</p>											

Table 138-1664.f. – Ornamental Grasses

common	botanical	native	Light Requirements			Water Requirements		
			sun	mix	shade	low	med	high
elliott's love grass	<i>Eragrostis elliottii</i>	X	X			X		
fakahatchee grass	<i>Tripsacum dactyloids</i>	X	X				X	
fakahatchee grass, dwarf	<i>Tripsacum floridanum</i>	X	X				X	
gulf muhly grass	<i>Muhlenbergia capillaris</i>	X	X			X		
purple lovegrass	<i>Eragrostis spectabilis</i>	X		X		X		
sand cordgrass	<i>Spartina bakeri</i>	X	X			X		
salt marsh cordgrass	<i>Spartina patens</i>	X	X			X		
sea oats	<i>Uniola paniculata</i>	X	X			X		
<p>(1) All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual</p>								

Table 138-1664.f. – Ornamental Grasses								
common	botanical	native	Light Requirements			Water Requirements		
			sun	mix	shade	low	med	high
<p><u>published by the Florida Department of Agriculture and Consumer Services.</u></p> <p><u>(2) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.</u></p> <p><u>(3) All required ornamental grasses (foundation plants) shall be in a minimum 1-gallon container at the time of planting. All grasses shall be rated Florida-Grade No. One and selected from the following list unless an alternative that meets the intent of this Division has been approved by Development Review Services.</u></p>								

Table 138-1664.g. - Ground Cover								
common	botanical	native	Light Requirements			Water Requirements		
			sun	mix	shade	low	med	high
aztec grass	<i>Ophiopogon spp.</i>			X		X		
beach sunflower	<i>Helianthus debilis</i>	X	X			X		
beach morning glory	<i>Ipomoea imperati</i>	X	X			X		
blue daze	<i>Evolvulus glomerata</i>		X			X		
coral honeysuckle	<i>Lonicera sempervirens</i>	X		X		X		
jasmine, Asiatic (minima)	<i>Trachelospernum asiaticum</i>			X		X		
jasmine, downy	<i>Jasminum multiflorum</i>			X			X	
juniper, Parson	<i>Juniperus davurica</i>		X			X		
juniper, shore	<i>Juniperus conferta</i>		X			X		
lantana, trailing	<i>Lantana montevidensis</i>		X			X		
liriope, evergreen giant	<i>Liriope 'evergreen giant'</i>		X			X		
mimosa, sunshine	<i>Mimosa strigillosa</i>	X	X			X		
perennial peanut	<i>Arachis glabrata</i>		X			X		
porterweed, blue	<i>Strachytarpheta urticifolia</i>	X	X			X		
quailberry	<i>Crossopetalum ilicifolium</i>	X	X	X		X		
railroad vine	<i>Ipomoea pescaprae</i>	X	X			X		

common	botanical	native	Light Requirements			Water Requirements		
			sun	mix	shade	low	med	high
sage, tropical	<i>Salvia coccinea</i>	X	X			X		
sea oxeye daisy	<i>Borrchia frutescens</i>	X	X				X	
sea purslane	<i>Sesuvium portulacastrum</i>	X	X			X		
twinflower	<i>Dyschoriste oblongifolia</i>	X	X			X		

(1) All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.

(2) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.

All required ground cover shall be in a minimum 1-gallon container at the time of planting.

All ground cover shall be rated Florida Grade No. One and selected from the following list unless an alternative that meets the intent of this Division has been approved by Development Review Services.

common	botanical	foliage	flower color	flower characteristics	salt tolerance
blackgum	<i>Nyssa sylvatica</i>	deciduous	greenish-white	spring, summer	low
black mangrove	<i>Avicennia germinans</i>	evergreen	white	year-round	high
buttonwood	<i>Conocarpus erectus</i>	evergreen	purple, white	year-round	high
coastal plain willow	<i>Salix caroliniana</i>	deciduous	greenish-yellow	spring	low
inkberry	<i>Scaevla plumieri</i>	evergreen	white	fall, spring	high

Table 138-1664.h. – Special Habitat Vegetation

common	botanical	foliage	flower color	flower characteristics	salt tolerance
mysrine	<i>Myrsine guianensis</i>	evergreen	greenish-yellow	spring	high
red mangrove	<i>Rhizophora mangle</i>	evergreen	yellow	year-round	high
red maple	<i>Acer rubrum</i>	deciduous	red fruit	spring	low
red mulberry	<i>Morus rubra</i>	deciduous	purple fruit	fall	low
saltbush	<i>Baccharis halimifolia</i>	semi-evergreen	white	fall	high
seagrape	<i>Coccoloba uvifera</i>	evergreen	white	spring, summer	high
sweetbay magnolia	<i>Magnolia virginiana</i>	evergreen	white	spring	low
white mangrove	<i>Laguncularia racemosa</i>	evergreen	white	year-round	high

These trees may be planted as replants in special situations or as landscape trees only if the appropriate habitat is available. Their use must be preapproved by Development Review Services.

(1) All new and replacement plantings shall be graded State Department of Agriculture Nursery Grade No. 1 or better, as specified by the State Division of Plant Industry Grades and Standards for Nursery Plants manual published by the Florida Department of Agriculture and Consumer Services.

(2) In the event of a market shortage, the county administrator or designee may at his/her discretion, approve a reduction of the required caliper to the largest available Grade No. 1 equivalent plant.

(3) All special habitat vegetation shall be a minimum of 15 inches in height in a 3-gallon container at the time of planting. All plants shall be rated Florida Grade No. One and selected from the following list unless an alternative that meets the intent of this Division has been approved by Development Review Services.

common	botanical	survival zone - low	survival zone - high	container size	mature height	mature canopy spread	salt tolerant	rating
red mangrove	<i>Rhizophora mangle</i>	-1.0	+0.5	3 gallon	*	multi-stemmed	yes	B
black mangrove	<i>Avicennia germinans</i>	-0.5	+1.0	3 gallon	*	multi-stemmed	yes	A
white mangrove	<i>Laguncularia racemosa</i>	0.0	+1.0	3 gallon	*	multi-stemmed	yes	A
buttonwood	<i>Conocarpus erectus</i>	+0.5	+1.5	3 gallon	*	multi-stemmed	yes	A
christmasberry	<i>Lycium carolinianum</i>	+0.5	+1.5	3 gallon	10'	multi-stemmed	yes	A
florida privet	<i>Forestiera segregate</i>	+1.0	+1.0 and above	3 gallon	10'	single-stemmed	yes	A
marsh elder	<i>Iva frutescens</i>	+1.0	+1.0 and above	3 gallon	3'-5'	single-stemmed	yes	B
beach elder	<i>Iva imbricata</i>	+1.0	+1.0 and above	3 gallon	3'-5'	single-stemmed	yes	B
sea grape	<i>Coccoloba uvifera</i>	+1.0	+1.0 and above	3 gallon	10'	single-stemmed	yes	B
hercules club	<i>Zanthoxylum clava-herculis</i>	+1.0	+1.0 and above	3 gallon	30'	single-stemmed	yes	B
hog plum	<i>Ximenia americana</i>	+1.0	+1.0 and above	3 gallon	10'	single-stemmed	yes	B
*mature height of shrubs and small trees depends on recent freezes.								

common	botanical	survival zone - low	survival zone - high	container size	mature height	salt tolerant	rating
saltmarsh bulrush	<i>Scirpus robustus</i>	-1.0	-0.5	bare root	16" -20"	yes	B
smooth cordgrass	<i>Spartina alterniflora</i>	-1.0	+1.5	1 gallon	16" -20"	yes	A
black needle rush	<i>Juncus roemerianus</i>	-1.0	+1.5	1 gallon	40"	yes	B

Table 138-1664.j. – Marine Herbaceous							
common	botanical	survival zone - low	survival zone - high	container size	mature height	salt tolerant	rating
salt jointgrass	<i>Paspalum vaginatum</i>	-0.5	+0.5	plugs/sod	8"-10"	yes	B
giant leather fern	<i>Acrostichum spp.</i>	-0.5	+0.5	1 gallon	3'-4'	yes	B
saltwort	<i>Batis maritima</i>	-0.25	+0.5	1 gallon	1'	yes	C
perennial glasswort	<i>Sarcocornia perennis</i>	-0.25	+0.5	1 gallon	8"-10"	yes	C
saltgrass	<i>Distichlis spicata</i>	0.0	+0.75	1 gallon	sod/16"-20"	yes	A
marsh hay	<i>Spartina patens</i>	0.0	+1.0	1 gallon	16"-20"	yes	A
seashore dropseed	<i>Sporobolus virginicus</i>	0.0	+1.0	1 gallon	18"-20"	yes	B
sea oxeye daisy	<i>Borrchia frutescens</i>	+0.5	+1.5	1 gallon	16"-20"	yes	B
beach sunflower	<i>Helianthus debilis</i>	+1.0	+1.0 and above	1 gallon	16"-20"	yes	A
blanket flower	<i>Gaillardia pulchella</i>	+1.0	+1.0 and above	1 gallon	8"-12"	yes	B
railroad vine	<i>Ipomoea pes-caprae</i>	+1.0	+1.0 and above	1 gallon	8"-12"	yes	B

Table 138-1664.k. – Freshwater Shrubs								
common	botanical	survival zone - low	survival zone - high	container size	mature height	mature canopy spread	salt tolerant	rating
button bush	<i>Cephalanthus occidentalis</i>	-0.5	+0.5	3 gallon	8'	2 - 4 stems	no	B
swamp dogwood	<i>Comus foemina</i>	-0.5	+2.0	3 gallon	20'	single-stemmed	no	A
fetterbush	<i>Lyonia lucida</i>	0.0	+0.75	3 gallon	8'	single-stemmed	no	C
virginia willow	<i>Itea virginica</i>	0.0	+1.0 and above	3 gallon	3'-5'	single-stemmed	no	B
st. john's wort	<i>Hypericum spp.</i>	0.0	+1.0 and above	3 gallon	5'	single-stemmed	no	B
winterberry (possum haw)	<i>Ilex decidua</i>	+0.5	+1.0 and above	3 gallon	12'	multi-stemmed	no	C
purple anise	<i>Illicium floridanum</i>	+0.5	+1.0 and above	3 gallon	10'	single-stemmed	no	C
large gallberry	<i>Ilex coriacea</i>	+0.5	+1.0 and above	3 gallon	15'	multi-stemmed	no	C
gallberry	<i>Ilex glabra</i>	+0.5	+1.0 and above	3 gallon	6'	multi-stemmed	no	C
yaupon holly	<i>Ilex vomitoria</i>	+0.5	+1.0 and above	3 gallon	25'	multi-stemmed	yes	A
wax myrtle	<i>Myrica cerifera</i>	+1.0	+1.0 and above	3 gallon	20'	multi-stemmed	no	B
saw palmetto	<i>Serenoa repens</i>	+1.0	+1.0 and above	3 gallon	3'-4'	6 or more fronds	yes	B
coontie	<i>Zamia pumila</i>	+1.5	+1.5 and above	3 gallon	1'-2'	3 - 5 fronds	yes	B
winged sumac	<i>Rhus copallina</i>	+1.5	+1.5 and above	3 gallon	10'	single-stemmed	no	C

common	botanical	survival zone - low	survival zone - high	container size	mature height	mature canopy spread	salt tolerant	rating
chickasaw plum	<i>Prunus angustifolia</i>	+1.5	+1.5 and above	3 gallon	20'	single-stemmed	no	B
simpson's stopper	<i>Myrcianthes fragrans</i>	+1.5	+1.5 and above	3 gallon	25'	single-stemmed	no	A
wild coffee	<i>Psychotria nervosa</i>	+1.5	+1.5 and above	3 gallon	2'	single-stemmed	no	B
beautyberry	<i>Callicarpa americana</i>	+1.5	+1.5 and above	3 gallon	6'	single-stemmed	no	A
firebush	<i>Hamelia patens</i>	+1.5	+1.5 and above	3 gallon	10'	single-stemmed	no	A

common	botanical	survival zone - low	survival zone - high	container size	mature height	salt tolerant	rating
blackgum (tupelo)	<i>Nyssa sylvatica var. biflora</i>	-0.5	+0.5	3 gallon	80'	no	B
pond cypress	<i>Taxodium ascendens</i>	-0.5	+0.75	3 gallon	80'	no	A
bald cypress	<i>Taxodium distichum</i>	-0.5	+0.75	3 gallon	80'-100'	no	A
pop ash	<i>Fraxinus caroliniana</i>	-0.5	+1.0	3 gallon	40'	no	A
sweetbay	<i>Magnolia virginiana</i>	0.0	+1.0	3 gallon	60'	no	B
loblolly bay	<i>Gordonia lasianthus</i>	0.0	+1.0	3 gallon	70'	no	C
dahoon holly	<i>Ilex cassine</i>	0.0	+1.0	3 gallon	40'	no	B
swamp redbay	<i>Persea palustris</i>	0.0	+1.5	3 gallon	40'	no	C
redbay	<i>Persea borbonia</i>	+0.5	+1.5	3 gallon	70'	no	B

Table 138-1664.I. – Freshwater Trees							
common	botanical	survival zone - low	survival zone - high	container size	mature height	salt tolerant	rating
sweetgum	<i>Liquidambar styraciflua</i>	+0.5	+1.5	3 gallon	50'	no	B
red maple	<i>Acer rubrum</i>	+0.75	+0.75 and above	3 gallon	80'	no	B
water oak	<i>Quercus nigra</i>	+0.75	+0.75 and above	3 gallon	80'	no	B
laurel oak	<i>Quercus laurifolia</i>	+0.75	+0.75 and above	3 gallon	80'	no	B
sabal palm	<i>Sabal palmetto</i>	+1.0	+1.0 and above	3 gallon	50'-80'	yes	A
american elm	<i>Ulmus americana</i>	+1.0	+1.0 and above	3 gallon	60'-70'	no	A
winged elm	<i>Ulmus alata</i>	+1.0	+1.0 and above	3 gallon	50'	no	A
sugarberry	<i>Celtis laevigata</i>	+1.0	+1.0 and above	3 gallon	80'	no	A
red mulberry	<i>Morus rubra</i>	+1.0	+1.0 and above	3 gallon	50'	no	A
southern magnolia	<i>Magnolia grandiflora</i>	+1.5	+1.5 and above	3 gallon	80'	no	B
southern red cedar	<i>Juniperus virginiana</i>	+1.5	+1.5 and above	3 gallon	50'	yes	A
slash pine	<i>Pinus elliotii</i>	+1.5	+1.5 and above	3 gallon	90'	no	A
live oak	<i>Quercus virginiana</i>	+1.5	+1.5 and above	3 gallon	50'	yes	A
longleaf pine	<i>Pinus palustris</i>	+1.5	+1.5 and above	3 gallon	90'	no	A
pignut hickory	<i>Carya glabra</i>	+1.5	+1.5 and above	3 gallon	70'	no	A

Table 138-1664.m. – Freshwater Herbaceous							
common	botanical	survival zone - low	survival zone - high	container size	mature height	salt tolerant	rating
fragrant water lily	<i>Nymphaea odorata</i>	-3.0	-1.0	bare root	floating leaves	no	A
spatterdock	<i>Nuphar advena</i>	-3.0	-1.0	bare root	floating leaves	no	A
bulrush	<i>Scirpus validus or californicus</i>	-3.0	-0.5	bare root	3'-5'	yes	A
pickerelweed	<i>Pontederia cordata</i>	-2.0	-0.5	bare root	2'-3'	no	A
arrowhead (type 2)	<i>Sagittaria lancifolia</i>	-2.0	-0.5	bare root	2'-3'	no	A
arrowhead (type 1)	<i>Sagittaria graminea</i>	-2.0	-0.5	bare root	2'-3'	yes	A
arrowhead (type3)	<i>Sagittaria latifolia</i>	-2.0	-0.5	bare root	2'-3'	no	B
floating hearts	<i>Nymphoides aquatic</i>	-2.0	-0.5	bare root	0.5'	no	C
fireflag (arrowroot)	<i>Thalia geniculata</i>	-1.5	0.0	bare root	5'	no	A
sawgrass	<i>Cladium jamaicense</i>	-1.0	+0.5	gallon	4'	yes	C
bacopa (water hyssop)	<i>Bacopa monnieri</i>	-0.5	0.0	bare root	4" (groundcover)	yes	A
lemon bacopa	<i>Bacopa caroliniana</i>	-0.5	0.0	bare root	4" (groundcover)	no	B
green arum	<i>Peltandra virginica</i>	-0.5	0.0	bare root	1'	no	C
lizard's tail	<i>Saururus cernuus</i>	-0.5	0.0	bare root	1'	no	B
red ludwigia	<i>Ludwigia repens</i>	-0.5	0.0	bare root	4" (groundcover)	no	B
knotweed (smartweed)	<i>Polygonum spp.</i>	-0.5	0.0	bare root	2'	no	B
yellow canna	<i>Canna flaccid</i>	-0.5	+0.5	bare root	3'	no	B

common	botanical	survival zone - low	survival zone - high	container size	mature height	salt tolerant	rating
soft rush	<i>Juncus effusus</i>	-0.5	+0.5	bare root	2'	no	C
cinnamon fern	<i>Osmunda cinnamomea</i>	-0.5	+0.5	4" pot	2'	no	C
spike rush	<i>Eleocharis spp.</i>	-0.5	0.5	bare root	1.5'	no	A
iris	<i>Iris spp.</i>	-0.5	+0.5	bare root	2'	no	C
swamp lily	<i>Crinum americanum</i>	-0.5	+1.0	bare root	2'	yes	B
swamp fern	<i>Blechnum serrulatum</i>	0.0	+0.5	4" pot	2'	yes	B
red root	<i>Lachnanthes caroliana</i>	0.0	+0.5	bare root	2'	no	C
royal fern	<i>Osmunda regalis</i>	0.0	+0.5	4" pot	2'	no	C
chain fern	<i>Woodwardia areolata</i>	0.0	+1.0	4" pot	2'	no	B
sand cordgrass	<i>Spartina bakeri</i>	0.0	+1.0	1 gallon	2'	yes	A
sunshine mimosa	<i>Mimosa strigillosa</i>	+1.5	+1.5 and above	4" pot	groundcover	yes	A
muhly grass	<i>Muhlenbergia capillaris</i>	+1.5	+1.5 and above	1 gallon	groundcover	no	B

DIVISION 4 - FENCES AND WALLS

Sec. 138-1700. – Purpose and Intent

Fences and Walls should be used to defined ownership, create privacy, ensure protection, and provide screening. Walls and fences should be designed and sited to ensure their intended purpose while recognizing and responding to the community character and ensuring public safety.

Sec. 138-1701. – General Requirements

(a) Applicability

- (1) This section is applicable to any new fences or walls.
- (2) Where the requirements of this Fence and Walls section conflicts with any applicable buffer standard from Article IX Specific Use Standards AND/OR the Design Criteria for the underlying zoning district, the most restrictive standard shall apply. However, no fence or wall shall be required in a location that would otherwise create a safety hazard (eg. sight visibility)
- (3) *RESERVED*

(b) *Residential, Office, Commercial, and Mixed Use Districts.* The following standards shall apply to fences and walls on individual lots/parcels in these districts.

- (1) Height. Fences and walls are limited to the following height limits.
 - a. Fences and walls in the required side and rear setback areas of an individual lot/parcel shall be limited to six feet in height.
 - b. Fences and walls in the front setback of an individual lot/parcel and along street rights-of-way shall be limited as follows:
 1. Opaque and chain link fences are limited to:
 - i. Three-feet in height along local streets,
 - ii. Eight-feet along freeways,
 - iii. Six-feet along all other roadways.
 2. Semi-opaque fences and walls such as lattice, wrought-iron, or similar material shall be limited to:
 - i. Four-feet along local streets,
 - ii. Eight-feet along freeways,
 - iii. Six-feet along all other roadways
 3. The following exceptions apply:
 - i. On corner lots, double frontage lots, or other multiple frontage lots, the fence and wall may be permitted up to six feet in height for the portion of the front setback that is behind the front building facade from which the property is addressed.
 - ii. A fence or wall of a particular height is allowed when specifically required in Article IX Specific Use Standards and/or within a Special District.
 - iii. Security walls and fences for airports, ports, public institutions, sports fields/courses, and similar uses are exempt from any height restrictions.

- (2) *RESERVED*
- (c) *Industrial Districts.* The following standards apply to fences and walls on individual lots/parcels in Industrial districts.
- (1) Height. Fences and walls are limited six-feet subject to the following exceptions:
- A fence or wall of a particular height is allowed when specifically required in Article IX Specific Use Standards and/or within a Special District.
 - Security walls and fences for airports, ports, public institutions, sports fields/courses, and similar uses are exempt from any height restrictions.
- (2) *RESERVED*
- (d) Perimeter Fences and walls around a Community/Development
- (1) The following subsections are applicable to fences and walls that are intended to enclose the perimeter of a community/development containing multiple lots/parcels.
- (2) Fences and walls may be permitted to enclose the perimeter of a community/development when:
- reviewed and approved as a part of a site plan OR as a modification to an approved site plan,
 - the community/development includes multiple lots/parcels,
 - easements and/or tracts are present to accommodate the fence/wall structure(s),
 - there is an entity or legal instrument in place to ensure the long-term maintenance of the fence/wall. The legal instrument must be approved by the County Attorney.
- (3) The perimeter fence or wall shall be landscaped consistent with *Article X Division 3 – Landscaping, Tree Protection and Conservation AND/OR Article IX Specific Use Standards*. The greatest standard shall apply.
- (4) Perimeter fences and walls are limited to the following heights:
- Eight-feet where adjacent to roadways classified as freeways, arterials, and/or collector streets;
 - Six-feet where adjacent to a local street or alley.
 - Security walls and fences for airports, ports, public institutions, sports fields/courses, and similar uses are exempt from any height restrictions.
- (e) Materials and conditions.
- (1) Fences or walls may be constructed of any of the following standard fencing materials: wrought iron, brick, concrete block, plastic, vinyl, chain link, wood or similar materials.
- (2) Barbed wire or electrical strands type or similar type of fencing is prohibited in Residential and Commercial Districts except:
- barbed wire may be used on security fences in commercial districts.
 - barbed wire may be used as part of agricultural activities.
- (3) All fences and walls shall be maintained in good repair and all surfaces thereof shall be kept painted or have similar protective coating where customarily necessary.

- (4) Any departure from the materials prescribed by this section shall require the approval of the county administrator or designee.
- (f) *Measurement of height.*
 - (1) The maximum height of fences or walls shall be measured from normal grade to the uppermost horizontal member or members including wire strands.
 - (2) No post, pilaster, or light with a cross-sectional dimension of 18 inches or less shall be counted toward height except within a front yard setback area of individual lots.
 - (3) Berms or other mounds above normal grade shall be considered part of the height measurement.
 - (4) Permitted barbed wire may be allowed additional 18-inches above the maximum fence height.
- (g) *Visibility at intersections.*
 - (1) No fence or wall shall be permitted at a corner within 15 feet of the intersection of the right-of-way lines.
 - (2) Fences and Walls shall conform the sight-visibility triangle requirements of **Sec. XXX.**
- (h) No portion of any concrete, block, or brick wall or similar permanent construction shall be located within the area of recorded easement unless authorized by the easement owner, and/or county engineering department.

DIVISION 5 – SIGNS

No changes proposed – not part of the Code update project