

Excerpts of Section 656 (Zoning Code) Part 12 (Landscape Code)

Sec. 656.1202. - Declaration of legislative intent and public policy.

It is the intent of these regulations to promote the health, safety and welfare of the current and future residents of the City of Jacksonville by establishing minimum standards for the conservation of water, the protection of natural plant communities, the installation and continued maintenance of landscaping, and the protection of trees within the City of Jacksonville in order to:

- (a) Improve the aesthetic appearance of commercial, governmental, industrial, and residential areas through the incorporation of landscaping into development in ways that harmonize and enhance the natural and manmade environment;
- (b) Improve environmental quality by recognizing the numerous beneficial effects of landscaping upon the environment, including:
 - (1) Improving air and water quality through such natural processes as photosynthesis and mineral uptake;
 - (2) Maintaining permeable land areas essential to surface water management and aquifer recharge;
 - (3) Reducing and reversing air, noise, heat and chemical pollution through the biological filtering capacities of trees and other vegetation;
 - (4) Promoting energy conservation through the creation of shade, thereby reducing heat gain in or on buildings or paved areas;
 - (5) Reducing the temperature of the microclimate through the process of evapo-transpiration; and
 - (6) Encouraging the conservation of water through the use of site specific plants, various planting and maintenance techniques, and efficient watering systems.
- (c) Provide direct and important physical and psychological benefits to human beings through the use of landscaping to reduce noise and glare, and to break up the monotony and soften the harsher aspects of urban development;
- (d) Establish procedures and standards for the administration and enforcement of this Part;
- (e) Promote the creative site development concepts in order to promote water and energy conservation;
- (f) Increase and maintain the value of land by requiring a minimum amount of landscaping to be incorporated into development;

(g) Preserve existing natural trees and vegetation and incorporate native plants, plant communities and ecosystems into landscape design where possible;

(h) Promote landscaping methods that provide for the preservation of existing plant communities, re-establishment of native plant communities, use of site specific plant materials, use of pervious paving materials, and Florida-Friendly concepts in order to promote water conservation.

(i) Assist in public information, the education of its citizens, and the effective implementation of this Part.

(j) Promote Best Management Practices (BMPs) by establishing standards for irrigation systems without inhibiting creative landscape design.

(k) Facilitate the implementation of Florida-Friendly concepts by offering flexibility and incentives in Florida-Friendly landscape design for new single-family residential developments.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2009-864-E, § 1; Ord. 2011-74-E, § 1)

Sec. 656.1203. - Definitions.

(ff) Soil texture means the classification of soil based on the percentage of sand, silt, and clay in the soil.

(pp) Shade tree means a species having a height at maturity of at least 45 feet and an average mature crown spread of no less than 30 feet, or trees having an average mature crown spread of less than 30 feet grouped so as to create a total average mature crown spread of no less than 30 feet.

(tt) Hardscape means areas such as patios, decks, driveways, in-ground swimming pools, paths and sidewalks that do not require irrigation.

Sec. 656.1211. - Florida-Friendly Landscape and Irrigation design standards.

(e) Standards for landscape materials.

(1) Quality of plants: All plant material shall be a minimum of Florida Number One as defined in the most current edition of the Grades and Standards for Nursery Plants, Part I and II, published by the Florida Department of Agriculture and Consumer Services.

(2) Appropriate plant selection: Plants shall be selected that are best suited to withstand the soil and physical growing conditions which are found in the microclimate of each particular location on a site. Plant species that are freeze and drought tolerant are preferred. Plants having similar water needs shall be grouped in distinct water use zones. Protection and preservation of native species and natural areas shall be provided. The planting of invasive plant species and controlled plant species is prohibited. Information regarding plants classified as prohibited, invasive, exotic, controlled or Florida-Friendly can be obtained from the Florida Department of

Environmental Protection, the University of Florida/IFAS Duval County Extension Office and the City of Jacksonville, Building Inspection Division, Landscape Section.

(3) General criteria for trees: Trees shall be a species having an average mature crown spread of no less than 15 feet in northeast Florida. Trees having a mature crown spread of less than 15 feet, if grouped to create an equivalent 15 foot spread, may be substituted for the required tree. Single-trunk trees shall be a minimum of two inch caliper and a minimum of ten feet overall height. Multi-trunk trees shall be a minimum of three trunks eight feet high. Trees shall be planted in no less than 16 square feet of planting area, with a minimum dimension of four feet on any side. Trees shall not be planted closer than two feet from any pavement edge or right-of-way line, as measured from center of trunk. Architectural planters for trees shall be no less than four feet by four feet in width and no less than 24 inches deep. Credits for the use of trees larger than the minimum size will be calculated as indicated in Table 1. Fractional measurements shall be attributed to the next lowest category.

(i) **Shade trees:** Shade trees shall be a species having an average mature crown spread of no less than 30 feet; provided, trees having an average mature crown spread of less than 30 feet may be grouped so as to create a total average mature crown spread of no less than 30 feet and used in lieu of a shade tree. Shade trees at the time of planting shall be a minimum of two inch caliper and ten feet high. Shade trees shall be planted in no less than 150 square feet of planting area, with a minimum dimension on any side of eight feet. Shade trees shall not be planted closer than four feet from any pavement edge or right-of-way line, as measured from center of trunk. **Those species of trees whose roots are known to cause damage to pavement shall not be planted closer than six feet to such pavement.**

(ii) **Palm trees:** Palms shall be a minimum clear trunk height of eight feet, measured from the ground level to the base of the palm fronds. **Palms may be substituted for the required trees at the ratio of two palms for each required tree or four palms for each required shade tree,** except as provided below for Phoenix Palm. Each palm shall be planted in no less than 16 square feet of planting area, with a minimum dimension of four feet. Phoenix Palm may be used as a non-shade tree without meeting the ratios for other types of palms if the palm has a 15 foot spread at maturity and a minimum clear trunk height of eight feet.

(6) Mulch: A layer of organic mulch shall be applied and maintained in all tree, shrub, ground cover planting areas and bare preserved natural areas. The mulch layer shall not exceed three inches. The use of sustainably harvested mulches such as melaleuca, eucalyptus, recycled organic mulch; dead leaves and pine straw are highly recommended. Gravel mulch is prohibited in plant beds and shall be used only if required by the National Electric Safety Code or in the bottoms of swales, catchment basins and retention areas. Upon review and approval by the Chief, gravel applied in a maximum 24 inch width may be applied at the foundation of buildings for drainage.

(f) Standards for efficient irrigation design. The irrigation system may consist of an automatic underground system, micro irrigation, quick coupling valves, or hose bibs located within 75 feet of any landscaped area. The irrigation system shall be installed according to the landscape plan approved pursuant to [Section 656.1217](#). **The Chief may waive any irrigation system requirement**

where it can be shown that this requirement is not necessary to ensure proper irrigation of the area or that other natural or manmade sources of irrigation are sufficient to provide the required irrigation system. Whenever not required, it is strongly recommended that the design requirements of Part 12, which include the BMP, Water Wise Principles and Efficient Irrigation, be followed for single family residential. These standards include, but are not limited to, the following:

(1) Irrigation systems shall be designed to meet the needs of the plants in the landscape and to separately serve turfgrass and non-turfgrass areas; the plans and specifications shall identify the materials to be used and the construction methods;

(2) The system design shall consider soil, slope, and other site characteristics in order to minimize waste water, including overspray on hardscape and other impervious surfaces and off-site runoff;

(3) Automatic irrigation controllers, when utilized, shall contain a functional sensor device for rain or soil moisture which shall be capable of being set for one minute run times, days of the week, seasons, and time of day, and which shall maintain a battery backup capability to retain programming in the event of a power failure. The controller shall operate all zones of different precipitation rates independently;

(4) Sensor devices, when utilized, shall be placed on a stationary structure, free and clear of any overhead obstructions and above the height of the irrigation sprinkler coverage;

(5) Irrigation zones shall be divided according to available flow rate and matched precipitation rates (inches per hour) for heads within each zone, so that spray heads, rotors, and micro irrigation and shall not be mixed on the same zone; pipelines shall be designed to provide the system with the appropriate pressure required for maximum irrigation uniformity; sprinkler heads in turfgrass areas shall be spaced for head-to-head coverage. Whereby head spacing will not exceed 50 percent spray diameter; irrigation areas shall be no less than four feet wide except when adjacent to a contiguous property or when utilizing micro or drip irrigation;

(6) Irrigation systems shall be fitted with backflow prevention to protect the water source against backflow using a pressure regulating device;

(7) Irrigation systems shall not be required for preserved plant communities that are maintained in their natural state and barricaded and not impacted by development. The location and technique for barricading of these areas shall be shown on the site clearing plan. Manual or controlled irrigation systems shall be required on a temporary basis during the re-establishment of native plant communities. Once the native plants are re-established, the system may be removed or abandoned.

(8) Irrigation systems shall be designed to use the lowest quality water feasible.

Sec. 656.1212. - Maintenance and protection of landscaping and irrigation systems.

(c) Tree pruning. Required trees shall be allowed to develop into their natural habit of growth and shall not be topped, pleached or pruned into topiary, espalier or other unnatural shapes. Trees may be pruned to maintain health and vigor by removal of dead, weak, damaged or crowded limbs, diseased and insect infested limbs, and branches which rub other branches. **If trees are pruned in a manner which would prevent them from reaching the mature crown spread required by [Section 656.1211\(e\)\(3\)](#)**, or if mature trees are pruned to a height or canopy spread below the requirements

of [Section 656.1211\(e\)\(3\)](#), then the property owner shall provide for mitigation of such trees pursuant to [Section 656.1206\(h\)](#)

** Section 656.1211 (e)(3) provides :Shade trees shall be a species having an average mature crown spread of no less than 30 feet.*

Sec. 656.1213. - Credit for existing trees and understory.

Whenever the provisions of this Subpart require trees and other landscaping, such requirement may be satisfied by the preservation of existing trees and understory, located in uplands or upland buffer areas, as specified herein, provided all other requirements are met.

(b) **Existing trees**, including trees located in preserve areas, **may be utilized to satisfy any requirement for trees, subject to the following conditions:**

(1) An area within the dripline of the tree or trees at least one foot in diameter for each inch of trunk diameter shall be preserved in its natural state or covered with pervious landscape material; provided, **however, that the minimum area preserved shall be at least 150 square feet for shade trees and at least 25 square feet for all other trees. Such area shall be maintained at its original grade with no trenching or cutting of any roots and there shall be no storage of fill, compaction of soil or any concrete, paint, chemicals or other foreign substance in or on the soil;**

(2) The tree or trees shall not be damaged from skinning, barking, bumping, and the like;

(3) The tree or trees shall be healthy, free from disease, damage and active insect infestation potentially lethal to the tree;

(d) If, at any time within one year after all associated land alteration and construction activities are completed, a tree or understory vegetation for which credit was given according to Table 1 is dead or irreparably damaged or unhealthy as a result of these activities, then the tree or understory vegetation shall be removed and replaced with a tree or trees or such understory vegetation as would have originally been required.

Sec. 656.1214. - Vehicular use area interior landscaping.

(c) **Criteria for distribution:** Landscape areas shall be distributed throughout the VUA in such a manner as to provide visual and climatic relief from broad expanses of pavement and at strategic points to channelize and define vehicular and pedestrian circulation. Landscape areas shall contain the following:

(1) At least 25 percent of the landscape areas shall be covered with shrubs; the remainder in shrubs, groundcover, mulch or grass, except that mulch shall cover no more than 25 percent of the landscape areas. Plants shall be spaced so as to achieve 90 percent coverage of the landscape areas within two years. Preserved existing understory vegetation may be used to fulfill the landscape area requirement so long as the vegetation meets the height and coverage requirement of the required landscaping;

(2) Not less than one tree for every 4,000 square feet, or fraction thereof, of the VUA. **At least 50 percent of the trees shall be shade trees.** Trees shall be distributed so that all portions of the VUA are within a 55-foot radius of any tree.

(d) Each row of parking spaces shall be terminated by a landscape island with inside dimensions of not less than five feet wide and 17 feet long, or 35 feet long if a double row of parking. Each terminal island shall contain one tree. Each side of the terminal island adjacent to a travel lane shall have a continuous six inch high curb of concrete or other appropriate permanent material. Terminal islands will be credited toward the satisfaction of the landscape area requirements of this Section;

Section 656 (3)(i) provides : (i) **Shade trees: Shade trees shall be a species having an average mature crown spread of no less than 30 feet; provided, trees having an average mature crown spread of less than 30 feet may be grouped so as to create a total average mature crown spread of no less than 30 feet and used in lieu of a shade tree. Shade trees at the time of planting shall be a minimum of two inch caliper and ten feet high. **Shade trees shall be planted in no less than 150 square feet of planting area, with a minimum dimension on any side of eight feet. Shade trees shall not be planted closer than four feet from any pavement edge or right-of-way line, as measured from center of trunk. Those species of trees whose roots are known to cause damage to pavement shall not be planted closer than six feet to such pavement.***

Sec. 656.1217. - Landscape and Irrigation system plans required.

(a) Prior to the issuance of any building permit or paving permit, a landscape plan shall be filed with, reviewed by, and approved by the Chief. The landscape plan shall be prepared by either the owner, if for minor work or for a single-family residential lot, or a licensed, registered landscape architect, bearing his seal, or shall be otherwise prepared by persons authorized to prepare landscape plans or drawings pursuant to F.S. Ch. 481, Pt. II (Landscape Architecture).

(b) The landscape plan required hereunder shall be drawn to scale, including dimensions and distances and shall:

(1) Delineate the vehicular use areas, access aisles, driveways, and similar hardscape features;

(2) Include either a quick coupler, hose bib or irrigation system plan as part of the landscape plan submittal;

(3) Include plans for a quick coupler or hose bib systems; include the point of connection, well, water meter or other approved water source, backflow prevention device, pipe sizes and locations, sleeve sizes and locations and detail of quick coupler, valves and hose bibs; a hose vacuum breaker is required at each hose bib;

(4) Include plans for an automatic irrigation system - Refer to subsection (c) of this Section for the plan requirements;

c) The required automatic, quick coupler or hose bib irrigation system plan shall be provided prior to the issuance of the building permit or other City issued permit. If an automatic irrigation system is provided in lieu of an approved quick coupler or hose bib plan and the plans were not part of the approved building permit, then the automatic irrigation system plans must be submitted to the Building Inspection Division for review and approval prior to the issuance of a Certificate of Occupancy. The plans must be drawn to scale, including dimensions and distances, and shall include:

(1) Irrigation point(s) of connection (POC) and design capacity; water meter or well size and location; type of water, potable or reclaimed; backflow prevention device at each POC as may be required by local codes;

(2) Location of main line and all lateral pipes with sizes; location of control valves with sizes and zone number clearly identified; automatic controller, sensor devices; specific irrigation heads by type; location of pump;

(3) Delineation of high water use zones, moderate use zones and low water use zones, as set forth in [Section 656.1211](#);

(4) Watering schedule with precipitation rates in inches per hour and minutes per zone which shall not exceed maximums set by the St. Johns River Water Management District, with all of the product data sheets for deriving precipitation rates for each valve circuit attached;

(5) Irrigation legend with the following elements: separate symbols for all irrigation equipment with different spray patterns and precipitation rates and pressure compensating devices; general description of equipment; manufacturer's name and model number for all specified equipment; recommended operating pressure per nozzle and bubbler and low flow emitter; manufacturer's recommended over-head and bubbler irrigation nozzle rating in gallons per minute (gpm), or gallons per hour (gph) for volume point applicators; minimum (no less than 75 percent of maximum spray radius) and maximum spray radius per nozzle; and manufacturer's rated precipitation rate per nozzle at specified psi.

Excerpts of Section 656 (Zoning Code) Part 12 (Landscape Code)

Specifically Applicable to Downtown Investment Authority jurisdiction for shade trees.

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