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## ARTICLE VI

### TREE PROTECTION AND LANDSCAPING STANDARDS

Sec. 6-1.	General Requirements .....	1
Sec. 6-2.	Tree and Vegetation Protection .....	9
Sec. 6-3.	Landscape Design.....	13
Sec. 6-4.	Shade Coverage Requirements.....	21
Sec. 6-5.	Vehicle Use Area Landscaping .....	24
Sec. 6-6.	Street Trees.....	27
Sec. 6-7.	Right-of-Way Buffers for Subdivision Development .....	28
Sec. 6-8.	Perimeter Buffers.....	29
Sec. 6-9.	Landscape Plan Required .....	33
Sec. 6-10.	Violations .....	35
Sec. 6-11.	Legal Status of this Article.....	36
Sec. 6-12.	Enforcement .....	36
Sec. 6-13.	Appeals.....	36
	Appendices	

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#### **Sec. 6-1.      GENERAL REQUIREMENTS**

- (1)    Intent** – The purpose of the landscape regulations is to protect the general welfare of Clay County citizens and visitors by establishing minimum standards for the protection of trees and native plant communities, to promote water conservation, to enhance the county's appearance, and to provide for the proper installation and maintenance of landscapes. The landscape standards are intended to eventually result in a developed environment that is in harmony with the surrounding natural environment. The landscape regulations are to achieve these objectives:
- (a)    Conserving water by preserving existing native plants which are adapted to North Florida seasonal precipitation rates, encouraging the use of plant materials specifically suited to the growing conditions of a particular location, and establishing standards for installation and maintenance of landscape plants and irrigation systems.
  - (b)    Improving environmental quality through the retention and installation of vegetation, thereby promoting improved air and water quality through the removal of carbon dioxide and the generation of oxygen, facilitation of aquifer recharge, reduction of stormwater runoff, reduction in air and noise pollution, prevention of soil erosion and sedimentation, and mitigating heat and glare through shade and evapotranspiration.
  - (c)    Increasing land values by providing landscaping as a capital asset.

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- (d) Providing human psychological and physical benefits through the use and arrangement of landscape materials to break up and moderate the monotony and harshness of urban development.
  - (e) Providing a haven for wildlife.
  - (f) Assisting in the protection of endangered or threatened plant species, habitats, and of rare or endangered ecosystems.
- (2) **Applicability** – The general standards set forth in this section shall apply to all planting or buffering when required by county regulations except when otherwise approved pursuant to a Planned Unit Development Zoning District. Whenever plant materials are required for vehicle use area landscaping, perimeter buffers or any purpose required by this article, they shall be installed and maintained in accordance with the standards and requirements of this section.
- (3) **Definitions** – As used in this article, the following terms shall have the meanings indicated.
- (a) *Buffer* - Landscaped area that is designed to achieve separation from another area.
  - (b) *Caliper, Tree* - The trunk diameter of a tree. Caliper is measured six inches above the soil line for installed trees up to and including four inches in diameter and twelve inches above the soil line for installed trees greater than four inches in diameter. For existing trees, caliper is measured four and one-half feet above the soil line and is also referred to as diameter breast height (DBH).
  - (c) *Canopy Tree* - A species of tree that normally grows to a mature height of forty feet or more.
  - (d) *Champion Tree* - A tree that is the largest tree of its species.
  - (e) *Cultivar* - A contraction of "cultivated variety"; a group (or one among such a group) of cultivated plants clearly distinguished by one or more characteristics and which retains these characteristics when propagated; a distinct variety or race of plants that originated under cultivation and persists under cultivation. A cultivar may or may not be referable to a botanical species. Cultivars are given a name, usually distinguished by the use of single quotation marks, as in *Magnolia grandiflora* 'Little Gem'.
  - (f) *Development Site* -A legally described parcel of property capable of development pursuant to applicable county ordinances and regulations that may consist of a single phase or a group of phases.
  - (g) *Major Subdivision* - The subdivision of land into three or more residential lots for which: the construction or alteration of a stormwater drainage system is required, the construction, alteration or extension of any public or private road or utility is required; or the dedication of road right-of way is either involved or required.
  - (h) *Right-of-Way* The land that has title to, or right of use, for the road and its structures and appurtenances.
  - (i) *Street Tree* - A tree located in a planting strip between the sidewalk and the street. Street trees shall be canopy trees except where conflicts with overhead or underground utilities exist, in which case two understory trees shall be substituted for a canopy tree.
  - (j) *Understory Tree* - A species of tree that normally grows to a mature height of fifteen to thirty-five feet.

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- (k) *Undeveloped* - With respect to real property, a general lack of structures or other improvements and impervious areas exceeding five percent of the total area.
  - (l) *Undisturbed Area* - That area surrounding a tree within a circle described by a radius of one foot for each inch of the tree's diameter at breast height.
  - (m) *Vehicle Use Area* - An area for the display or parking of any and all type of vehicles and equipment, whether self-propelled or not, and all designated access or service drives upon which vehicles traverse the property. A vehicle use area does not include parking spaces or driveways associated with and immediately adjacent to detached or attached single-family residential dwellings.

**(4) Variances of Development Standards**

- (a) Administrative Variances – The zoning director shall be authorized to approve variances from certain development standards in order to protect six inch caliper and greater trees only, so that tree points may be awarded, as follows:
  - 1. Setbacks for principal and accessory buildings and structures within residential zoning districts: Front or rear setbacks may be reduced up to twenty five percent. Side setbacks may be reduced up to fifty percent.
  - 2. Setbacks for principal and accessory buildings and structures within non-residential land uses where adjacent to residential land uses: Setback may be reduced a maximum of fifteen feet provided that the reduced setback area shall contain a ten-foot landscaped area with a six-foot opaque visual barrier (either fence or vegetation) and tree planting thirty feet on center.
  - 3. Parking space quantity standards: Reduction of up to ten percent or one space whichever is more.
  - 4. Parking space size standards: Up to 1.5 feet from the required depth.
- (b) Board of Adjustment Variances Initiated by Land Owner – A land owner may apply to the Board of Adjustment for a variance authorized under this article in accordance with the procedures and standards provided generally for variances.
- (c) Board of Adjustment Variances Initiated by Zoning Director – Where the zoning director finds that tree points could be awarded for a specimen or historic tree through approval of reasonable variances by the Board of Adjustment, he or she may so notify the applicant and refer the matter to such Board for review. In such cases, no application for a tree removal permit shall be approved unless the variance is denied by the Board, and no application fee shall be charged for the variance.
- (d) No variance granted to the width of required vehicle use area landscaping or the width of required perimeter buffers specified by this article shall constitute a variance to the quantity of plantings required by this section, unless specifically authorized by the Board of Adjustment.

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**(5) Subdivision and Street Design Modifications to Protect Trees**

- (a) Design Modifications – The engineering director shall be authorized to approve modifications to the location and spacing requirements set forth in the design standards pertaining to sidewalks, roads or drainage structures in order to protect trees and native plant communities. Intersection and radius requirements, detention/retention pond capacities and offset requirements may also be modified in order to protect trees and native plant communities. Modifications to protect trees and native plant communities that would result in the reduction of spacing between utilities and trees shall require the approval of the respective utility provider.
- (b) Joint Use Driveway – Wherever a joint use driveway is required or installed at the option of the applicant, the zoning director shall be authorized to make adjustments in the location and design of landscaped areas required on the affected building site(s), but not in the number of plantings required.

**(6) Maintenance of Existing or Installed Landscapes**

- (a) Trees installed or retained as required under this section shall not be topped or severely pruned so as to appear stunted. Trees shall be pruned as needed to maintain health and form in such a way that retains or improves the natural form of the particular species; provided, topiary may be practiced upon suitable species if professionally and consistently maintained. The branches of a tree extending over any public sidewalk shall be trimmed to at least the height of eight feet above the sidewalk. The branches of a tree extending over the travel portion of any public street or alley used for vehicular traffic shall be trimmed to the height of at least fifteen feet above the street or alley. All tree pruning shall be conducted according to the standards of the National Arborist Association Standards set forth in ANSI A300 (Part 1) – 2001 Tree Pruning, which is hereby incorporated by this reference. All landscaping installed or retained to meet the requirements of this section shall be maintained in a healthy and growing condition.
- (b) Prior to or simultaneously with the submission of any application for a right-of-way permit authorizing access to an existing public roadway from a development resulting in multiple lots under separate ownership the developer thereof must submit to the county a fully executed indemnification and maintenance guarantee in favor of the county. The guarantee shall be in a form approved by the engineering director and shall secure the developer's or owner's obligation to faithfully and continually provide the protection, irrigation and maintenance necessary and proper to ensure continued vitality of trees retained for points and installed landscaping within any such right-of-way, unpurchased lot or common area of the development, and to replace any such tree that dies or becomes non-viable. With respect to unpurchased lots such obligation shall remain that of the developer until such time as the lot is purchased at which point the responsibility shall follow ownership. With respect to common areas of the development such obligation shall remain that of the developer unless or until an association of property owners within the development has been established. For the purposes of this article an established property owners association shall mean one that

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has formally assumed maintenance responsibility, has submitted to the county a fully executed indemnification and maintenance guarantee regarding the right-of-way landscaping, as provided for herein, and has been invested with the power to levy recurring assessments on property within the development sufficient to fund the cost of such maintenance, and to compel the payment of such assessments through lien and foreclosure, whereupon such association shall bear such responsibility.

- (c) With respect to a non-residential development, the obligation to faithfully and continually provide the irrigation and maintenance necessary and proper to ensure continued vitality of landscaping and protected trees installed or retained within any such right-of-way located in and adjacent thereto, and for the replacement of any such tree that dies or becomes non-viable, shall remain that of the owner thereof and any voluntary or involuntary transferee of the owner. Prior to or simultaneously with the submission of any application for a right-of-way permit authorizing access to an existing public roadway from a non-residential development, the owner thereof must submit to the county a fully executed and recordable instrument setting forth a covenant by such owner in favor of the county that such owner will perform the obligation. Such covenant shall run with the land upon which the development is located, and shall be binding upon the owner and the owner's heirs, successors and assigns with respect to such lands in perpetuity.
- (d) Installed or retained landscaping which dies after development has completed shall be replaced by the responsible party to meet the requirements of this article within thirty days.

**(7) Installation Standards for All Landscaping – General Requirements**

The property owner shall be responsible for installing landscaping, according to accepted commercial planting procedures, using plant materials of species that are native or adapted to the county.

- (a) Existing Plant Material – Upon receipt of a written request from the developer, the zoning director may adjust the application of standards contained in Sec. 6-5, Sec. 6-6, Sec. 6-7 or Sec. 6-8, in part or in whole, to allow credit for healthy plant material on a building site prior or subsequent to its development, if such an adjustment is consistent with the intent of this section. Existing plant material native to Northeast Florida should, in particular, be retained.
- (b) Protection – Landscaped areas, exclusive of those located on single-family residential lots, shall be protected from vehicular encroachment with effective wheel stops or curbs.
- (c) Anchoring – Wherever new medium or large trees are installed, they shall be provided with anchoring only when necessary to maintain the tree in a vertical upright position.
- (d) Tree Health – Trees used to satisfy the requirements of this section shall be in good health as defined herein. A determination as to the health of trees need not be made in

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advance of their use; however, poor tree health may be established at any point during the development process in either one of the following ways:

1. The applicant may claim poor tree health as a reason to remove an existing tree that must otherwise be retained to satisfy the requirements of this section. To do so, the applicant shall submit an expert evaluation by a certified arborist or an urban forester as part of his or her tree removal permit application.
  2. The landscape reviewer in coordination with the zoning director may claim poor tree health as a reason for disallowing a new or existing tree for use in satisfying the requirements of this section. The applicant may rebut such a claim by submitting an expert evaluation by a certified arborist or an urban forester to the landscape reviewer, who shall make a final determination. If the expert evaluation recommends recuperative measures to improve tree health, the landscape reviewer may condition the retention of the tree upon these measures, and may reassess the health of the tree after a one-year recuperation period.
- (e) Quality – Plant materials used in conformance with provisions of this article shall equal or exceed the standards for Florida No. 1 as established by the Florida Department of Agriculture Grades and Standards. Turf grass sod shall be clean and reasonably free of weeds and noxious pests or disease. Turf grass seed used shall meet requirements of the FDOA quality control program. The preservation and use of native vegetation is highly encouraged. Plant materials selected shall be the best suited to withstand the soil and physical conditions of the site. Plant materials that are freeze and drought tolerant are preferred.
- (f) Irrigation – Where required for high water use zone plantings, automatic irrigation systems shall be installed according to manufacturer's specifications and the Standard Plumbing Code. All automatic irrigation systems as required by this section shall be maintained in proper operating condition. Moisture sensor and/or rain gauge equipment shall be required on automatic irrigation systems to avoid irrigation during periods of sufficient rainfall. The use of low volume, emitter or target irrigation is preferred for trees, shrubs and ground covers. Irrigation systems shall be operated to conform to St. John's River Water Management District mandatory water use restrictions, when applicable. Moderate and low water use zone plantings shall not require automatic irrigation systems. See Table 2 for moderate and low water use plants.
- (g) Berms – When a berm is used to form a visual screen in lieu of, or in conjunction with, a hedge or wall, such berm shall not exceed a slope of three to one unless otherwise approved by the county engineer, and shall be completely covered with shrubs, turf grass or other living ground cover.
- (h) Ground Covers – Ground covers shall be planted in a manner so as to present a finished appearance with reasonably complete coverage under normal growing conditions within twelve months after planting.

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- (i) Hedges – Shrubs used to form hedges shall be of a non-deciduous species, shall be a minimum of twenty-four inches in height above grade at the time of planting and shall be spaced not more than thirty-six inches apart and maintained so as to form a continuous visual screen thirty inches in height above grade, under normal growing conditions, within one year after planting.
  - (j) Turf Grass – Turf grass shall be of a species normally grown as permanent lawns in the county. Turf grass areas may be sodded, plugged, sprigged or seeded except that solid sod shall be used in swales or other areas subject to erosion.
  - (k) Permanent Architectural Planters – The use of permanent architectural planters may be permitted in fulfillment of the landscape requirements when approved by the zoning director.
  - (l) Tree and Shrub Installation – Grow bags and containers including synthetic burlap shall be completely removed from the root ball prior to planting. All twine or wire shall be cut off from around the trunk at the top of the rootball. Trees and shrubs shall be mulched to a minimum depth of two inches with organic mulch at least to the perimeter of the rootball.

**(8) Standards for Trees – General Requirements**

- (a) Tree Points – Wherever the requirements of this article specify the attainment of a certain number of tree points, the number of points awarded per tree shall be as shown in Table 1, Tree Points. Points awarded for tree preservation and planting correlate to the caliper of the tree. **Tree caliper is measured six inches above the soil line for installed trees up to and including four inches in diameter and twelve inches above the soil line for installed trees greater than four inches in diameter. Caliper is measured 4.5 feet above the soil line for all existing trees (DBH).**
  - 1. Certain trees shall earn additional points as follows:
    - a. A stand of five or more native trees in a cluster with a continuous drip line shall earn additional points equal to forty percent of the original points. Each tree in the cluster must be a minimum of two inches in caliper.
  - 2. Certain trees shall earn fewer points as follows:
    - a. Native Palm and Pine Trees: One point each for every palm or pine tree over ten feet in height.
    - b. Non-Native Palm and Pine Trees: One-half point for every three palm or pine trees over ten feet in height.

**TABLE 1. TREE POINTS**

		Retained Native	Installed Native	Non-Native
Small Tree:				
	2" Caliper	2.50	2.2	2
	3" Caliper	3.75	3.3	3
Medium Tree:				
	4" Caliper	6.00	4.4	4
	5" Caliper	7.50	5.5	5
	6" Caliper	9.00	6.6	6
	7" Caliper	10.50	7.7	7
	8" Caliper	12.00	8.8	8
	9" Caliper	13.50	9.9	9
	10" Caliper	15.00	11.0	10
	11" Caliper	16.50	12.1	11
Large Tree:				
	12" Caliper +	C x 1.75*	C x 1.10*	C*
Specimen Tree or Historic Tree		C x 2.00*	n.a	C*

\* C = caliper inches

- (b) Canopy and Understory Trees – The term "canopy tree" refers to a species of tree that normally grows to a mature height of forty feet or more, while "understory tree" refers to a species that normally grows to fifteen to thirty-five feet. Wherever the requirements of this section specify the use of canopy trees or understory trees, refer to Table 2 to determine the approved tree species within each of these categories.
- (c) Small, Medium and Large Trees – The terms "small," "medium" and "large" refer to the size of a tree at the time it is installed or retained, regardless of its species, and are quantified according to the table above.
- (d) Approved Plant Species – The landscaping requirements of this section shall be achieved by using any of the plant species shown in Table 2.
- (e) Minimum Planting Area for Installed Trees – The minimum planting area for all installed trees shall be as follows:



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1. Installed canopy trees: five-foot radius from trunk perimeter.
  2. Installed understory trees: 2.5' radius from trunk perimeter.
- (f) Enforcement General Requirements – Any tree removal in violation of this article, and any failure to maintain or protect trees in accordance with the requirements of this article, shall be deemed to be a violation and subject to enforcement by the Code Enforcement Board. The property owner, or property owner's association where applicable, shall be responsible in all enforcement matters pertaining to this section.
- (g) Replacement of Equivalent Tree Caliper – As part of any enforcement action regarding a violation of the requirements of this article, the Code Enforcement Board shall be authorized to require in addition to any fines or other enforcement measures the replacement of any removed or damaged tree(s) with new tree(s) of at least four inches caliper each and having a total tree caliper equivalent to that of the removed or damaged tree(s) as space allows. Placing of the replacement trees shall be at the landscape reviewer's direction.

**Sec. 6-2. TREE AND VEGETATION PROTECTION**

- (1) **Intent** – It is the intent of this section to promote the community health and welfare by protecting trees and native plant communities for the unique benefits they provide in enhancing community appearance, and assisting in the natural control of solar and radiant heat, soil erosion, flooding, air pollution and noise. In addition, trees and woodlands offer a haven for community wildlife and provide citizens with psychological relief from the increasing complexities of a developed environment.
- Trees, as defined, regulated and protected herein, are declared to be a natural public resource and the county encourages planting, replacement and protection of trees, as herein set out, in the interest of the health, safety and welfare of present and future citizens of the county. To attain that end, it shall be unlawful to cut down, damage, poison or in any other manner destroy or cause to be destroyed any tree or native plant community as regulated under the terms of this section except in accordance with the provisions of this section.
- (2) **Applicability** – The terms and provisions of this section shall apply to all real property lying within the unincorporated areas of the county.
- (3) **Exemptions** – The following shall be exempt from the provisions of this section:
- (a) Public Educational Facilities;
  - (b) Development for which a valid concurrency reservation certificate has been issued or which is subject to a development agreement prior to January 28, 2003 and which does not require an extension after January 28, 2003;
  - (c) Proposed development as shown in a preliminary plat or preliminary site plan that was reviewed at a DRC meeting prior to January 28, 2003;
  - (d) Lands used in conjunction with a bona fide farm operation within the meaning of Section 823.14(6), Florida Statutes, and classified as agricultural land pursuant to Section 193.461, Florida Statutes;

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- (e) Lands used as botanical gardens or state-approved or government nurseries or groves;
  - (f) A protected tree that poses imminent danger to the public, health, welfare or safety, and requires immediate removal without delay. In such instances, authorization to remove a protected tree may be granted by the public safety director in emergency situations or the zoning director in non-emergency situations.
  - (g) Single-family residential lots of record prior to January 28, 2003;
  - (h) Single-family residential lots that are not part of a major subdivision created after January 28, 2003;
  - (i) Cemeteries developed prior to January 28, 2003; and,
  - (j) A development of regional impact under Section 380.06, Florida Statutes, for which a development order has been issued prior to January 28, 2003, except as may otherwise be provided in such development order.

**(4) Protection Standards**

- (a) Protected Trees – It shall be unlawful for any person to, destroy, permanently injure or remove, or to cause or permit to be destroyed, permanently injured or removed, any existing four inch or larger in caliper tree without a landscape plan approved by the zoning director.
- (b) Specimen or Historic Trees – The Board shall be authorized to designate certain existing and/or retained trees as specimen or historic trees, based on their size, age, historic association, species or unique characteristics. Trees so designated shall be protected without regard to their location, within the jurisdiction of the county. Specimen trees are trees that have been identified by a certified arborist or an urban forester as being of outstanding mature size, excellent form, and healthy examples of the species. Specimen trees shall include champion trees identified by the Florida Division of Forestry.

Historic trees are trees that have been associated with a notable local or regional historical event, person, structure or landscape.

Designation of a specimen or historic tree may occur in any one of the following ways:

1. An applicant may request such designation during the development review process. To do so, the applicant shall submit an evaluation by a certified arborist or an urban forester as part of the application. The zoning director shall present the request to the Board.
2. A property owner may request such designation at any time. To do so, the property owner shall submit an expert evaluation by a certified arborist or an urban forester. The zoning director shall present the request to the Board.
3. The Board may make such designation as part of an overall tree protection-planning program for the county or portion thereof.

Removal of any designated historic or specimen tree is prohibited unless by permission of the Board. Requests to remove a historic or specimen tree shall explain in detail why the tree is a hazard or how it is not economically feasible to develop the parcel without removing the tree.

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**(5) Tree Protection Requirements for all Retained Trees Awarded Tree Points**

- (a) Minimum Undisturbed Areas – The area surrounding a retained tree described by a radius of one foot for each inch of the tree's diameter at breast height shall constitute the minimum undisturbed area required to receive points for that tree. During development activity, encroachment into the undisturbed area for purposes described in paragraph (e) may be permitted up to twenty-five percent of the radius or up to fifty percent of the radius on one side but no closer than six feet to the trunk of the protected tree in all events; provided, pavement, including foundation up to a depth of six inches may be permitted within four feet of the trunk of a protected tree. See Figure 1.

Retained trees under four inches in caliper shall require the minimum undisturbed area as follows:

1. Canopy trees: five-foot radius from trunk perimeter.
2. Understory trees: 2.5' radius from trunk perimeter.

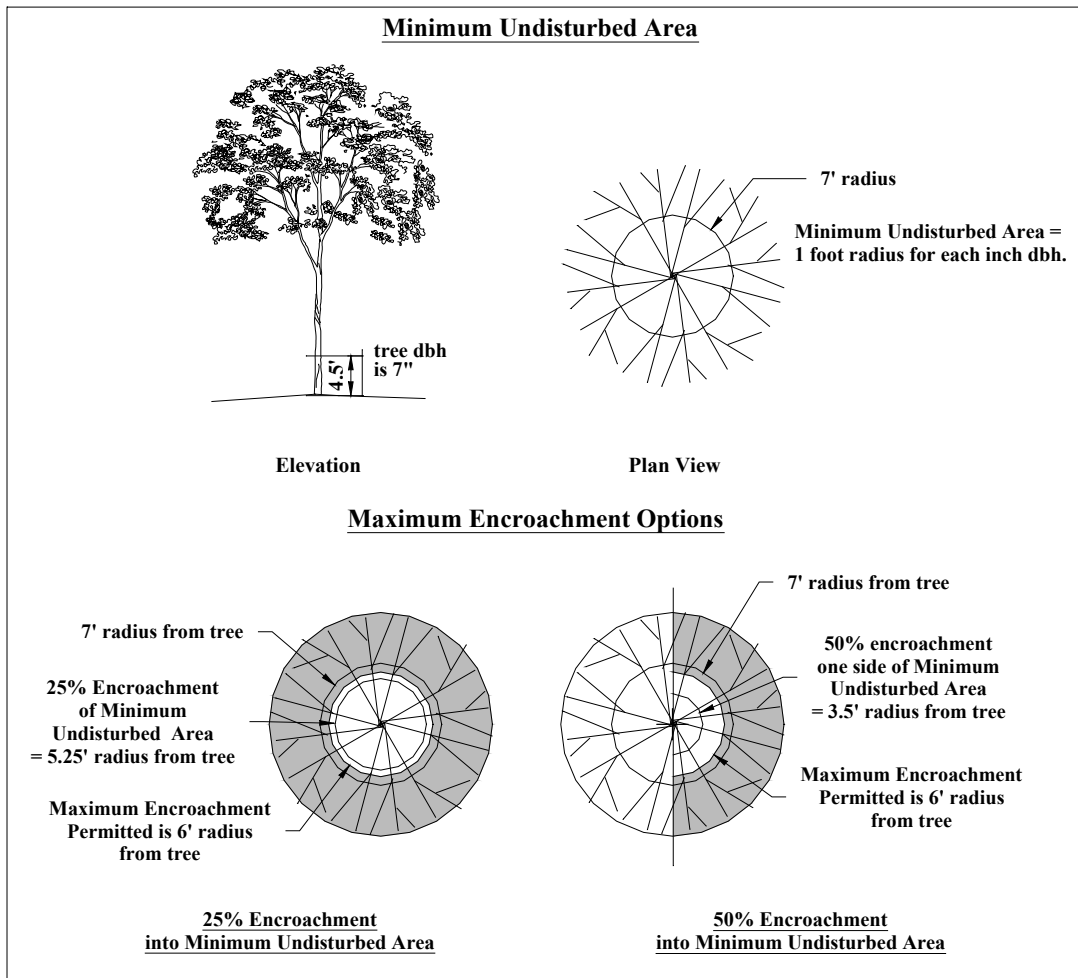
Existing trees may be relocated on the site as approved by the zoning director.

- (b) Development Prohibited Within the Undisturbed Area – All development activities except those specifically permitted in paragraph (e) shall be prohibited within the undisturbed area provided for any tree(s) for which tree points are awarded, including any construction of buildings or structures, compaction, cutaways, stormwater retention ponds and/or trenching. All temporary construction activities shall also be prohibited within the undisturbed area, including all digging, trenching, construction lay-down areas and parking of construction vehicles or employee vehicles.

Finding alternative parking arrangements for construction crews must be an integral part of the tree protection strategy.

- (c) Fencing of Undisturbed Area – Prior to the commencement of construction, the developer shall enclose at least the minimum undisturbed area with a forty-eight inch high field fence supported by standard steel posts set six feet apart or other similar barrier approved by the landscape reviewer.
- (d) Filling and Elevation Changes – The existing elevation of the undisturbed area shall not be changed except as approved by the landscape reviewer.
- (e) Permitted Activities Within the Undisturbed Area – A tree encroachment permit is required for all activities in the undisturbed area except the following:
1. Tunneled Utility and Irrigation Lines – Utility lines that are tunneled beneath tree roots in order to protect roots, rather than trenched.
  2. Sodding and Ground Cover – Placement of sod or other ground covers, and the preparation of the ground surface for such covers.
  3. Pavement – Pavement up to a depth of six inches may be permitted within four feet of the trunk.

FIGURE 1



(f) Unimproved Parking Area in Connection with Tree Points – Upon written request, the zoning director may authorize that up to fifteen percent of the required parking spaces on a building site remain unimproved and located within the undisturbed area required by this section to be used for occasional parking only (approximately one to two times per week). The unimproved parking area(s) shall conform to the following standards:

1. The spaces shall be located at the periphery of the building site, or located so that they are unlikely to be used on a continuous basis.
2. All accessways and aisles serving the occasional parking spaces shall be clearly identified.
3. Access to the occasional parking spaces shall not be blocked by curbing or other barricades that would prevent their occasional use.
4. Permanent curbing, fencing or equivalent barriers shall be located no less than six feet from the trunks of trees within the undisturbed area to protect the trees from vehicles.
5. The parking area must meet the standards for Overflow Grass Parking.

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**Sec. 6-3.        LANDSCAPE DESIGN**

- (1)    **Purpose of Landscape Design Standards** – The landscape design standards of this section are intended to protect the public health, safety and welfare by promoting the preservation of existing trees and native plant communities, furnishing an approved list of plants specifically adapted to Northeast Florida, promoting site specific placement of plant species, and incorporating xeriscape principles into landscape and irrigation design to conserve the potable water supply. All landscaping within the unincorporated areas of the county shall be designed, installed, and maintained in conformance with this section.
  
- (2)    **Tree Points** – Wherever the requirements of this article specify the attainment of a certain number of tree points, the number of points awarded per tree shall be as shown in Table 1. Existing trees shall be retained as required under Sec. 6-2.
  
- (3)    **Replacement of Removed Trees** – Qualifying existing trees shall be preserved whenever feasible in order to meet the tree point requirements. Wherever the removal of trees on a development site would result in failure to meet the minimum tree point standards shown in Table 4 on page 6-22, replacement trees shall be planted in sufficient number and size to meet these standards.
  
- (4)    **Tree Species Diversity for Planted Trees** – For development sites greater than five acres, no more than twenty percent of the trees planted shall be from the same genus (for example oak) and no more than fifty percent of those from the same species (for example live oak).
  
- (5)    **Approved Plant Species** – All plant material selected to meet the requirements of this article shall be chosen from the Table 2, or be approved by the zoning director as a suitable replacement in form and function. Cultivars of plant species in Table 2 are also acceptable. Other plant species may be included on the development site (except those in Table 3) but they shall not be counted toward meeting the requirements of this section.  
All newly installed plants require regular, moderately applied irrigation for the first one or two years to become established. The water zones shown in Table 2 reflect water requirements for an established, healthy, and mature plant, but not necessarily what moisture levels are found in its native habitat or the ideal cultural conditions for the species.  
  
Canopy and Understory trees that are appropriate for use as street trees or within interior landscaped areas of vehicle use areas are denoted by "yes" in Table 2.
  
- (6)    **Prohibited Species** – Species in Table 3 are prohibited for the purposes of planting under this article. Any plant species prohibited by the Florida Department of Environmental Protection or the Florida Department of Agriculture shall also be prohibited for the purposes of planting within the county.

**TABLE 2. APPROVED PLANT LIST**

H	High water use plant species associated with wetlands or moist soils; requires supplemental irrigation in addition to natural rainfall. This zone includes most manicured turfgrass areas.
M	Moderate water use, drought tolerant plant species that survive on natural rainfall; requires supplemental irrigation during seasonal dry periods to maintain attractive appearance. This zone includes St. Augustine, Bahia and other turf grass areas.
L	Low water use drought tolerant plant species; will survive on natural rainfall without supplemental irrigation.

**NATIVE CANOPY TREES (Mature size 40' or more in height)**

<b>Botanical Name</b>	<b>Common Name</b>	<b>Water Zone</b>	<b>Street</b>	<b>Parking</b>
<i>Acer rubrum</i>	Red Maple	H,M	Yes	No
<i>Betula nigra</i>	River Birch	H	Yes	No
<i>Carya aquatica</i>	Water Hickory	H	No	No
<i>Carya cordiformis</i>	Bitternut Hickory	M	No	No
<i>Carya glabra</i>	Pignut Hickory	M,L	No	No
<i>Carya tormentosa</i>	Mockernut Hickory	H	No	No
<i>Celtis laevigata</i>	Sugarberry	M,L	*	Yes
<i>Diospyros virginiana</i>	Common Persimmon	M	No	No
<i>Fraxinus americana</i>	White Ash	M	*	No
<i>Fraxinus caroliniana</i>	Carolina Ash	H	No	No
<i>Fraxinus pennsylvanica</i>	Green Ash	M	Yes	Yes
<i>Liriodendron tulipifera</i>	Tuliptree	H	No	No
<i>Liquidambar styraciflua</i>	Sweetgum	M,L	No	No
<i>Magnolia grandiflora</i>	Southern Magnolia	M,L	Yes	No
<i>Magnolia virginiana</i>	Sweetbay Magnolia	H	Yes	No
<i>Morus rubra</i>	Red Mulberry	L	No	No
<i>Nyssa aquatica</i>	Water Tupelo	H	No	Yes
<i>Nyssa sylvatica</i>	Black Tupelo	H	Yes	Yes
<i>Persea borbonia</i>	Red Bay	L	*	No
<i>Pinus clausa</i>	Sand Pine	L	No	No
<i>Pinus elliotii</i>	Slash Pine	L	No	No
<i>Pinus glabra</i>	Spruce Pine	H	*	Yes
<i>Pinus palustris</i>	Longleaf Pine	M,L	No	No
<i>Pinus taeda</i>	Loblolly Pine	L	No	No
<i>Platanus occidentalis</i>	Sycamore	H,M,L	*	Yes

TABLE 2. APPROVED PLANT LIST (cont.)

NATIVE CANOPY TREES (Mature size 40' or more in height)				
Botanical Name	Common Name	Water Zone	Street	Parking
<i>Quercus falcata</i>	Southern Red Oak	L	No	No
<i>Quercus hemispherica</i>	Laurel Oak	M,L	No	Yes
<i>Quercus laevis</i>	Turkey Oak	L	No	No
<i>Quercus laurifolia</i>	Diamondleaf Oak	L	No	No
<i>Quercus michauxii</i>	Swamp Chestnut Oak	H,M	*	Yes
<i>Quercus nigra</i>	Water Oak	H,M	No	No
<i>Quercus phellos</i>	Willow Oak	L	*	Yes
<i>Quercus shumardii</i>	Shumard Oak	H,M,L	*	Yes
<i>Quercus stellata</i>	Post Oak	M,L	No	Yes
<i>Quercus virginiana</i>	Southern Live Oak	M,L	*	Yes
<i>Taxodium ascendens</i>	Pond Cypress	L	*	Yes
<i>Taxodium distichum</i>	Bald Cypress	L	*	Yes
<i>Tilia floridana</i>	Florida Basswood	H	No	No
<i>Ulmus alata</i>	Winged Elm	M,L	Yes	Yes
<i>Ulmus americana</i>	American Elm	H,M	No	No
<i>Ulmus crassifolia</i>	Cedar Elm	L	*	No

NON-NATIVE CANOPY TREES (Mature size 40' or more in height)				
Botanical Name	Common Name	Water Zone	Street	Parking
<i>Carya illinoensis</i>	Pecan	H,M	No	No
<i>Phoenix canariensis</i>	Canary Island Date Palm	L	Yes	Yes
<i>Phoenix dactylifera</i>	Date Palm	L	Yes	Yes
<i>Salix babylonica</i>	Weeping Willow	H	No	No
<i>Ulmus parvifolia</i>	Chinese (Drake) Elm	M,L	Yes	Yes
<i>Washingtonia robusta</i>	Washington Palm	L	Yes	No

NATIVE UNDERSTORY TREES (Mature size 12' to 40' height) AND PALMS:				
Botanical Name	Common Name	Water Zone	Street	Parking
<i>Acer barbatum</i>	Florida Maple	M	Yes	No
<i>Acer leucoderme</i>	Florida Sugar Maple	M	No	Yes
<i>Aesculus pavia</i>	Red Buckeye	M	No	No
<i>Bumelia tenax</i>	Tough Bumelia	L	Yes	No
<i>Carpinus caroliniana</i>	American Hornbeam	H,M	Yes	No
<i>Cercis canadensis</i>	Eastern Redbud	L	Yes	No
<i>Chamaecyparis throides</i>	Atlantic White Cedar	H	No	No
<i>Chionanthus virginicus</i>	Fringetree	M,L	No	No
<i>Cornus florida</i>	Flowering Dogwood	H,M	No	No
<i>Crataegus spp.</i>	Hawthorn	M,L	No	No
<i>Gordonia lasianthus</i>	Loblolly Bay	H	No	No
<i>Halesia carolina</i>	Carolina Silverbell	M	Yes	Yes
<i>Halesia diptera</i>	Two-Winged Silverbell	M,L	Yes	Yes

**TABLE 2. APPROVED PLANT LIST (cont.)**

<b>NATIVE UNDERSTORY TREES (Mature size 12' to 40' height) AND PALMS:</b>				
<b>Botanical Name</b>	<b>Common Name</b>	<b>Water Zone</b>	<b>Street</b>	<b>Parking</b>
<i>Ilex spp.</i>	Hollies	L	Yes	Yes
<i>Juniperus silicicola</i>	Southern Redcedar	L	Yes	No
<i>Juniperus virginiana</i>	Eastern Redcedar	L	Yes	No
<i>Myrica cerifera</i>	Wax Myrtle	M,L	No	No
<i>Ostrya virginiana</i>	American Hophornbeam	M,L	Yes	Yes
<i>Persea palustris</i>	Swampbay	H	No	No
<i>Pinckneya pubens</i>	Fevertree	H	No	No
<i>Prunus augustifolia</i>	Chickasaw plum	M,L	No	No
<i>Quercus austrina</i>	Bluff Oak	M	*	Yes
<i>Quercus chapmanii</i>	Chapman Oak	L	No	No
<i>Quercus incana</i>	Bluejack Oak	L	No	No
<i>Quercus myrtifolia</i>	Myrtle Oak	L	No	No
<i>Quercus nuttallii</i>	Nuttal Oak	L	*	Yes
<i>Sabal palmetto</i>	Cabbage Palm	L	Yes	Yes
<i>Salix caroliniana</i>	Willow	H	No	No
<i>Tilia caroliniana</i>	Carolina Basswood	M	No	No
<i>Vaccinium arboreum</i>	Sparkleberry	L	No	No
<i>Viburnum rufidulum</i>	Viburnum	M	No	No

<b>NON-NATIVE UNDERSTORY TREES (Mature size 12' to 40' height) AND PALMS:</b>				
<b>Botanical Name</b>	<b>Common Name</b>	<b>Water Zone</b>	<b>Street</b>	<b>Parking</b>
<i>Butia capitata</i>	Pindo Palm	M,L	Yes	Yes
<i>Callistemon rigidus</i>	Bottlebrush	M	No	No
<i>Cupressocyparis leylandii</i>	Leyland Cypress	M,L	No	No
<i>Eriobotrya japonica</i>	Loquat	M	Yes	No
<i>Ilex spp.</i>	Treeform Holly	M,L	Yes	Yes
<i>Lagerstromia indica</i>	Crape Myrtle	M,L	Yes	Yes
<i>Ligustrum japonicum</i>	Waxleaf Privet	M,L	No	No
<i>Magnolia spp.</i>	Deciduous Magnolia	H,M	No	No
<i>Ulmus parvifolia</i>	Chinese Elm	M,L	No	No

<b>NATIVE SHRUBS, SMALL PALMS AND CYCADS:</b>		
<b>Botanical Name</b>	<b>Common Name</b>	<b>Water Zone</b>
<i>Callicarpa americana</i>	Beautyberry	H,M,L
<i>Calycanthus floridus</i>	Sweetshrub	H,M
<i>Forestiera segregata</i>	Florida Privet	M,L
<i>Ilex glabra</i>	Gallberry	M,L
<i>Ilex vomitoria</i>	Yaupon Holly	L
<i>Illicium parviflorum</i>	Star Anise	H,M
<i>Myrica cerifera</i>	Wax Myrtle	M,L
<i>Rhaphidophyllum hystrix</i>	Needle Palm	M,L
<i>Sabal minor</i>	Bluestem Palmetto	H,M,L
<i>Seronoa repens</i>	Saw Palmetto	M,L



TABLE 2. APPROVED PLANT LIST (cont.)

NATIVE SHRUBS, SMALL PALMS AND CYCADS:		
Botanical Name	Common Name	Water Zone
<i>Viburnum obovatum</i>	Walters Viburnum	H,M

NON-NATIVE SHRUBS, SMALL PALMS AND CYCADS:		
Botanical Name	Common Name	Water Zone
<i>Abelia grandiflora</i>	Abelia	M
<i>Beloperone guttata</i>	Shrimp Plant	H,M
<i>Buxus microphylla</i>	Japanese Boxwood	M
<i>Buxus sempervirens</i>	English Boxwood	M
<i>Camellia japonica</i>	Camellia	M
<i>Camellia sasanqua</i>	Sasanqua Camellia	H
<i>Chamaerops humilis</i>	European Fan Palm	L
<i>Codiaeum variegatum</i>	Croton	H,M,L
<i>Cycas revoluta</i>	King Sago	L
<i>Eleagnus pungens</i>	Silverthorn	M,L
<i>Fatsia japonica</i>	Fatsia	H,M
<i>Gardenia jasminoides</i>	Gardenia	H,M
<i>Hibiscus syriacus</i>	Rose of Sharon	M
<i>Hydrangea spp.</i>	Hydrangea	H,M
<i>Ilex spp.</i>	Shrubform Holly	M
<i>Juniperus spp.</i>	Juniper	M,L
<i>Ligustrum japonica</i>	Waxleaf Privet	M,L
<i>Loropetalum chinense</i>	Chinese Witch Hazel	H,M
<i>Michelia figo</i>	Banana Shrub	H,M
<i>Nerium oleander</i>	Oleander	M,L
<i>Osmanthus fragrans</i>	Sweet Olive	M
<i>Pittosporum tobira</i>	Pittosporum	H,M
<i>Platycladus orientalis</i>	Arborvitae	L
<i>Plumbago auriculata</i>	Plumbago	H,M,L
<i>Podocarpus macrophyllus</i>	Podocarpus	M,L
<i>Pyracantha coccinea</i>	Firethorn	M,L
<i>Raphiolepis indica</i>	Indian Hawthorn	M,L
<i>Rhododendron spp.</i>	Azalea	H,M
<i>Ternstroemia gymnanthera</i>	Cleyera	M,L
<i>Trachycarpus fortunei</i>	Windmill Palm	L
<i>Viburnum odoratissimum</i>	Sweet Viburnum	H,M
<i>Viburnum tinus</i>	Laurustius Viburnum	M,L

NATIVE GROUNDCOVERS:		
Botanical Name	Common Name	Water Zone
<i>Borrchia frutescens</i>	Sea Oxeye Daisy	L
<i>Ceratiola ericoides</i>	Rosemary	M,L
<i>Crinum spp.</i>	Crinum Lily	M
<i>Gelsemium sempervirens</i>	Carolina Jessamine	M
<i>Helianthus debilis</i>	Beach Sunflower	L

TABLE 2. APPROVED PLANT LIST (cont.)

NATIVE GROUNDCOVERS:		
Botanical Name	Common Name	Water Zone
<i>Iva imbricata</i>	Seashore Elder	L
<i>Licania michauxii</i>	Gopher Apple	L
<i>Muhlenbergia capillaris</i>	Muhly Grass	L
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	H,M
<i>Paspalum spp.</i>	Paspalum	H,M
<i>Serenoa repens</i>	Saw Palmetto	M,L
<i>Sesuvium portulacastrum</i>	Sea Purslane	L
<i>Sisyrinchium spp.</i>	Blue-eyed Grass	M
<i>Sorghastrum secundum</i>	Lopsided Indian Grass	L
<i>Spartina patens</i>	Saltmeadow Cord Grass	M,L
<i>Stachytarpheta jamaicensis</i>	Blue Porter Weed	L
<i>Tripsacum dactyloides</i>	Fakahatchee Grass	L
<i>Uniola paniculata</i>	Sea Oats	L
<i>Yucca filamentosa</i>	Beargrass	L
<i>Zamia pumila</i>	Coontie	M

NON-NATIVE GROUNDCOVERS:		
Botanical Name	Common Name	Water Zone
<i>Agapanthus africanus</i>	Blue Lily of the Nile	M
<i>Ajuga reptans</i>	Bugleweed	H
<i>Aloe spp.</i>	Aloe	M,L
<i>Aspidistra elatior</i>	Cast Ironplant	M
<i>Catharanthus roseus</i>	Periwinkle, Vinca	H,M
<i>Convolvulus 'Blue Daze'</i>	Blue Daze	M
<i>Cyrtomium falcatum</i>	Holly Fern	M
<i>Dichondra micrantha</i>	Dichondra	H,M
<i>Dietes bicolor</i>	Butterfly Iris	H
<i>Dietes vegeta</i>	African Iris	M,L
<i>Ficus pumila</i>	Creeping Fig	M,L
<i>Gerbera jamesonii</i>	Gerbera Daisy	M
<i>Hedera canariensis</i>	Algerian Ivy	L
<i>Hedera helix</i>	English Ivy	L
<i>Hemerocallis spp.</i>	Daylily	M,L
<i>Juniperus spp.</i>	Juniper	M,L
<i>Liriope muscari</i>	Liriope spp.	M
<i>Miscanthus spp.</i>	Miscanthus	L
<i>Nandina domestica</i>	Dwarf Nandina	M,L
<i>Ophiopogon japonicus</i>	Mondo Grass	L
<i>Pittosporum tobira</i>	Dwarf Pittosporum	H,M
<i>Trachelospermum asiaticum</i>	Asiatic Jasmine	L
<i>Trachelospermum jasminoides</i>	Confederate Jasmine	L
<i>Tulbaghia violacea</i>	Society Garlic	M,L

**TABLE 2. APPROVED PLANT LIST (cont.)**

<i>Gelsemium sempervirens</i>	Carolina Jessamine	M
<i>Helianthus debilis</i>	Beach Sunflower	L
<i>Iva imbricata</i>	Seashore Elder	L
<i>Licania michauxii</i>	Gopher Apple	L
<i>Muhlenbergia capillaris</i>	Muhly Grass	L
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	H,M
<i>Paspalum spp.</i>	Paspalum	H,M
<i>Serenoa repens</i>	Saw Palmetto	M,L
<i>Sesuvium portulacastrum</i>	Sea Purslane	L
<i>Sisyrinchium spp.</i>	Blue-eyed Grass	M
<i>Sorghastrum secundum</i>	Lopsided Indian Grass	L
<i>Spartina patens</i>	Saltmeadow Cord Grass	M,L
<i>Stachytarpheta jamaicensis</i>	Blue Porter Weed	L
<i>Tripsacum dactyloides</i>	Fakahatchee Grass	L
<i>Uniola paniculata</i>	Sea Oats	L
<i>Yucca filamentosa</i>	Beargrass	L
<i>Zamia pumila</i>	Coontie	M

<b>NON-NATIVE GROUNDCOVERS:</b>		
<b>Botanical Name</b>	<b>Common Name</b>	<b>Water Zone</b>
<i>Agapanthus africanus</i>	Blue Lily of the Nile	M
<i>Ajuga reptans</i>	Bugleweed	H
<i>Aloe spp.</i>	Aloe	M,L
<i>Aspidistra elatior</i>	Cast Ironplant	M
<i>Catharanthus roseus</i>	Periwinkle, Vinca	H,M
<i>Convolvulus 'Blue Daze'</i>	Blue Daze	M
<i>Cyrtomium falcatum</i>	Holly Fern	M
<i>Dichondra micrantha</i>	Dichondra	H,M

**TABLE 3. PROHIBITED SPECIES**

<b>Botanical Name</b>	<b>Common Name</b>
<i>Albizia julibrissin</i>	Mimosa
<i>Broussonetia papyrifera</i>	Paper Mulberry
<i>Cinnamomum camphora</i>	Camphor
<i>Melia azedarach</i>	Chinaberry
<i>Sapium sebiferum</i>	Chinese Tallow

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- (7) **Xeriscape** – Xeriscape is a set of landscape design and maintenance principles that promote good horticultural practice and the economic and efficient use of water. The term Xeriscape is the registered trademark of the National Xeriscape Council and means water conserving, drought tolerant landscaping or simply the use of appropriate plant materials that do not require special attention and which require little supplemental water to grow properly. Xeriscape designs do not resemble desert landscapes, but reflect the lush traditional appearance of Florida gardens. Because water restrictions have become a common occurrence in Northeast Florida, the county is incorporating water conserving landscape standards into this section.

Use of xeriscape principles shall be required for all non-residential, multifamily, planned unit developments (common areas and rights-of-way only), planned commercial developments and planned industrial developments. One and two family residential building sites are exempt from xeriscape design requirements, although they are encouraged to comply. The xeriscape principles shall be implemented through the following standards:

- (a) **Design** – Trees for which points have been awarded under Sec. 6-2 shall be retained and incorporated into the site plan. Installed trees and plant materials shall be grouped together with plants of the same water use needs into zones. The water use zones shall correlate to the water use zone designations of plants listed in Table 2, and as described below. Plant species may be grouped with other plants of the same water use zone or with plants of a higher water use zone. Plant species of a higher water use zone shall not be placed in a lower water use zone. The water use zones shall be shown on the landscape plan. All newly installed plants require regular, moderately applied watering for the first year to become established. Installed trees and vegetation shall be spaced and located to accommodate their mature size on the site. The water use zones are as follows:
1. **High Water Use Zone** – A high water use zone consists of plants that are associated with moist soils and require supplemental water in addition to natural rainfall to survive. This zone includes most turf grass areas.
  2. **Moderate Water Use Zone** – Plants that survive on natural rainfall with supplemental water during seasonal dry periods. This zone includes St. Augustine, Bahia and other turf grass areas.
  3. **Low Water Use Zone** – A low water use zone consists of plants that survive on natural rainfall without supplemental water.
- (b) **Plant Selection** – Plant material shall be selected that is best suited to withstand the physical growing and soil 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 required to be installed by this section shall be selected from Table 2.
- (c) **Turf Grass** – Turf grass areas shall be consolidated and limited to those areas on the site that receive pedestrian traffic, provide for recreational uses, or require soil erosion control such as on slopes or in swales, or where turf grass is used as a design unifier, or other similar practical use. The Landscape Plan shall label the use of turf areas.

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- (d) Mulch – A layer of organic mulch to a minimum depth of two inches shall be specified on the landscape plans in plant beds and around individual trees in turf grass areas. Mulch shall not be required in annual beds.
  - (e) Irrigation – The irrigation system shall be designed to correlate to the organization of plants into zones as described in 1 above. The water use zones shall be shown on the Irrigation Plan, when required by this section. Irrigation shall be required as follows:
    - 1. High Water Use Zone – All portions of high water use zones shall be provided with central automatic irrigation systems.
    - 2. Moderate Water Use Zone – All portions of moderate water use zones shall be provided with a readily available water supply.
    - 3. Low Water Use Zone – All portions of low water use zones shall be provided with a readily available water supply or located such that watering from a portable source is possible.

Retained trees, shrubs and native plant communities need not be irrigated, unless directed to do so by the landscape reviewer as part of an encroachment permit. Turf grass areas shall be irrigated on separate irrigation zones from tree, shrub and groundcover beds. Reclaimed or non-potable water shall be used for irrigation if a source is determined to be available by the Clay County Utility Authority. Moisture sensor and/or rain gauge equipment shall be required on automatic irrigation systems to avoid irrigation during periods of sufficient rainfall. The use of low volume, emitter, or target irrigation is preferred for trees, shrubs and groundcovers. No significant irrigation overthrow shall be allowed onto impervious surfaces.

- (8) Screening of Utilities and Solid Waste Containers – The purpose of the screening standards for utilities and dumpsters is to improve the appearance of these facilities.
  - (a) Screening Standards – All waste disposal sites, recycling receptacles, refuse areas and other like uses shall be screened on three sides with a minimum six-foot high opaque fence or wall. Above ground utilities over eight square feet in size (height by width, of the largest side of the utility equipment) shall be vegetatively screened. Electric power poles, electric transformers, electric switchgear and traffic signal equipment shall be exempt from the screening requirement. The vegetative screening shall be installed on at least two sides of the utility equipment, and shall be located outside any fence. Access to the utility equipment for maintenance, security surveillance or repairs shall be provided. Lift stations shall be screened as shown in Appendix A. Trees, shrubs, or vines used for screening shall meet the minimum requirements of Sec. 6-1(7).

#### Sec. 6-4. SHADE COVERAGE REQUIREMENTS

- (1) Intent – The requirements of this section are intended to promote the public health, safety and welfare by protecting and enhancing to the maximum extent possible the county's existing urban woodlands, and by fostering and encouraging new or increased urban woodlands and shade coverage. It is intended that these requirements will assist in the natural control of solar

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heat, flooding, air pollution and noise, promote soil conservation, and improve the appearance of the community.

- (2) **Applicability** – The terms and provisions of this section shall apply to all real property lying within the unincorporated areas of the county.
- (3) **Exemptions** – The following shall be exempt from the provisions of this section:
- (a) Public Educational Facilities;
  - (b) Development for which a valid concurrency reservation certificate has been issued or which is subject to a development agreement prior to January 28, 2003 and which do not require an extension after January 28, 2003;
  - (c) Proposed development as shown in a preliminary plat or preliminary site plan that was reviewed at a DRC meeting prior to January 28, 2003;
  - (d) Lands used in conjunction with a bona fide farm operation within the meaning of Section 823.14(6), Florida Statutes, and classified as agricultural land pursuant to Section 193.461, Florida Statutes;
  - (e) Lands used as botanical gardens or state-approved or government nurseries or groves;
  - (f) Single-family residential lots of record prior to January 28, 2003;
  - (g) Single-family residential lots that are not part of a major subdivision created after January 28, 2003;
  - (h) Cemeteries developed prior to January 28, 2003;
  - (i) Plant sites and easements owned by or dedicated to public utilities; and,
  - (j) A development of regional impact under Section 380.06, Florida Statutes, for which a development order has been issued prior to January 28, 2003, except as may otherwise be provided in such development order.
- (4) **Minimum Shade Coverage Point Standards**
- (a) Each development site shall achieve a minimum level of shade coverage by meeting the minimum tree point standards of Table 4 on page 6-22. Any qualifying trees on the site may be counted toward these standards, including those installed or retained to meet the other landscaping and buffer requirements of this article, such as:
    - 1. Vehicle use area landscaping required by Sec. 6-5.
    - 2. Perimeter buffer plantings required by Sec. 6-8.
    - 3. Existing trees protected in accordance with Sec. 6-2;
    - 4. Street trees installed as part of the development in accordance with Sec. 6-6.
  - (b) **Replacement of Removed Trees** – Wherever the removal of trees on a development site would result in failure to meet these minimum tree points standards, replacement trees shall be required in sufficient number and size to meet these standards, as provided in Table 4.
  - (c) **Calculation of Minimum Tree Points Required** – Each development site shall contain trees of a sufficient number, size and type such that, taken as a whole, the site achieves

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the minimum tree point standards (excluding land dedicated for street rights-of-way) in Table 4.

**TABLE 4. MINIMUM SHADE COVERAGE STANDARDS**

Zoning District	Minimum Points Required Per Acre
All Residential districts (including Agricultural/Residential)	32
BA-2, BA-3, IS and IA	24
All Other Districts	16

- (d) Calculation of the Minimum Small, Medium and Large Trees Required – In order to ensure that each development site contains a desirable mixture of small, medium and large trees, a minimum number of trees in each size category shall be installed or retained on each development as follows:
1. 20 % of the total tree points under Table 4 (but not less than one) = Small Trees
  2. 10% of the total tree points under Table 4 (but not less than one) = Medium Trees
  3. 10% of the total tree points under Table 4 (but not less than one) = Large Trees
- (e) Exceptions – Where there are too few existing large trees (or no large trees) on the development site to meet the requirement of paragraph (d), or where large trees meeting the tree removal standards of Sec. 6-2 must be removed (resulting in too few retained large trees), the deficit shall be made up by installing or retaining additional medium trees at the rate of two medium trees for each large tree required.
- (f) Mitigation Fee – If a site is unable to accommodate the required number of trees and leave reasonable footprints for desired improvements, the applicant shall pay a mitigation fee to the Tree Protection Trust Fund equal to 100% of the total number of points for trees that cannot be planted on the site. Points required for small trees shall be divided by two to arrive at the number of trees for which the fee shall be assessed. The mitigation fee for small trees shall be calculated by multiplying the number of small trees as determined under this paragraph by the average of the listed wholesale price, as published by three North Florida nurseries, for a container grown and a field grown (balled and burlapped) two-inch caliper Chinese (Drake) Elm. Points required for medium trees shall be divided by four to arrive at the number for which the fee shall be assessed. The mitigation fee for medium trees shall be calculated by multiplying the number of medium trees as determined under this paragraph by the average of the listed wholesale price, as published by three North Florida nurseries for a container grown and a field grown (balled and burlapped) four-inch Chinese (Drake) Elm shall be used. Mitigation fees shall be calculated and published by the county manager annually on October 1.

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**Sec. 6-5. VEHICLE USE AREA LANDSCAPING**

- (1) **Intent** – Vehicle use area landscaping required by this section is intended to promote the public health, safety and general welfare by providing minimum requirements for installation and maintenance of landscaped areas in connection with business, institutional and industrial areas, and to preserve the value of land and buildings on surrounding properties and neighborhoods.
- (2) **Applicability** – The requirements of this section shall apply to all new vehicular use areas and those altered or improved subsequent to January 28, 2003. Landscaping shall be provided in accordance with this section prior to issuance of a certificate of occupancy.
- (3) **Exemptions** – The following shall be exempt from the provisions of this section:
- (a) Public Educational Facilities;
  - (b) Development for which a valid concurrency reservation certificate has been issued or which is subject to a development agreement prior to January 28, 2003 and which do not require an extension after January 28, 2003;
  - (c) Proposed development as shown in a preliminary plat or preliminary site plan that was reviewed at a DRC meeting prior to January 28, 2003.
  - (d) Lands used in conjunction with a bona fide farm operation within the meaning of Section 823.14(6), Florida Statutes, and classified as agricultural land pursuant to Section 193.461, Florida Statutes;
  - (e) Lands used as botanical gardens or state-approved or government nurseries or groves created prior to January 28, 2003;
  - (f) Single-family residential lots of record prior to January 28, 2003;
  - (g) Single-family residential lots that are not part of a major subdivision created after January 28, 2003; and,
  - (h) Cemeteries developed prior to January 28, 2003.
- (4) **Landscaping Adjacent to Street Right-of-Way** – Landscaping shall be provided between vehicular use areas and any adjacent public street, walk, or right-of-way in accordance with this subsection.
- (a) **Adjacent to a Right-of-Way that contains Street Trees** – If such right-of-way contains street trees, the landscaping shall meet the requirements of this paragraph.
- 1. The landscaped area shall be at least five feet wide.
  - 2. The landscaping shall include a masonry wall, solid fence, berm or hedge that is maintained between thirty and forty-eight inches in height above grade except as provided in subparagraph 3. See Sec. 6-1(7) for installation requirements for berms. Hedges shall be a minimum of twenty-four inches in height above grade at the time of planting, spaced not more than thirty-six inches apart and maintained so as to form a continuous visual screen thirty inches in height above grade, under normal growing conditions, within one year after planting.
  - 3. In order to break the visual monotony of a masonry or wood wall when such walls are used, at least one shrub or vine shall be planted abutting the wall



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within each ten feet but not necessarily evenly spaced ten feet apart; and if a wood wall is used, at least one shrub shall be planted for each ten feet. Such shrubs or vines shall be planted along the street side of the screen, shall be a minimum of twenty-four inches in height above grade at the time of planting and maintained so as to form a screen thirty inches in height above grade, under normal growing conditions, within one year after planting.

4. In lieu of the vine or shrub requirements of subparagraph 3 the zoning director may approve a masonry wall having a significant design variation evenly spaced at intervals of not more than twenty feet.
5. The remainder of the required landscaped areas shall be landscaped with turf grass, ground cover or other landscape materials.
6. All ground between the right-of-way and vehicular use areas shall be landscaped or retained as natural buffer areas.

(b) Adjacent to a Right-of-Way that does not contain Street Trees – If such right-of-way does not contain street trees the landscaping shall meet the requirements of this paragraph.

1. The landscaped area shall be at least fifteen feet wide.
2. Sufficient canopy trees to receive at least six tree points per one hundred lineal feet or fraction thereof, in planting areas of the size required (6), and arranged so that the trees are distributed along the distance. The zoning director may waive this requirement and allow the use of understory trees for a maximum of twenty-five percent of the requirement, if one of the following conditions exist:
  - a. Mature, healthy, stable canopy tree(s) exist on the site or within ten feet of the property line on the adjacent property.
  - b. Unusual lot configuration precludes the use of canopy trees.
  - c. Placement of existing structures on the building site precludes the use of canopy trees
3. The landscaping shall include a masonry wall, solid fence, berm or hedge that is maintained between thirty and forty-eight inches in height above grade except as provided in subparagraph 4. See Sec. 6-1(7) for installation requirements for berms. Hedges shall be a minimum of twenty-four inches in height above grade at the time of planting, spaced not more than thirty-six inches apart and maintained so as to form a continuous visual screen thirty inches in height above grade, under normal growing conditions, within one year after planting.
4. In order to break the visual monotony of a masonry or wood wall when such walls are used, at least one shrub or vine shall be planted abutting the wall within each ten feet but not necessarily evenly spaced ten feet apart; and if a wood wall is used, at least one shrub shall be planted for each ten feet. Such shrubs or vines shall be planted along the street side of the screen, shall be a minimum of twenty-four inches in height above grade at the time of planting,

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and maintained so as to form a visual screen thirty inches in height above grade, under normal growing conditions, within one year after planting.

5. In lieu of the vine or shrub requirements of subparagraph 4, the zoning director may approve a masonry wall having a significant design variation evenly spaced at intervals of not more than twenty feet.
6. The remainder of the required landscaped areas shall be landscaped with turf grass, ground cover or other landscape materials.
7. All ground between the right-of-way and vehicular use areas shall be landscaped or retained as natural buffer areas.

(5) **Landscaping in Interior Areas** – Landscaping areas shall be provided for interior vehicular use areas so as to provide visual and climatic relief from broad expanses of pavement and to define logical areas for pedestrian and vehicular circulation. In connection therewith, the following standards shall apply:

- (a) At least ten percent of the gross area of the interior vehicular use area shall be landscaped. This interior landscaped area shall contain sufficient canopy trees to receive at least two tree points per 150 square feet of gross landscaped area or fraction thereof. The use of pine trees to meet the required points shall be limited to a maximum of twenty percent of the required points.
- (b) Interior landscaped areas shall be dispersed so as to define aisles and limit unbroken rows of parking to a maximum of one hundred linear feet. Interior landscaped areas shall not be less than three hundred square feet in area.

(6) **Minimum Planting Areas For Trees**

- (a) **Understory Trees** – The minimum planting area for understory trees shall be a two and one-half foot radius from the trunk perimeter. Retained trees used to meet the requirements of this section must be located within an undisturbed area as required by Section 6-2(4)(a).
- (b) **Canopy Trees** – The minimum planting area for canopy trees shall be a five-foot radius from the trunk perimeter. Retained trees used to meet the requirements of this section must be located within an undisturbed area as required by Section 6-2(4)(a).

(7) **Visibility** – To maintain a "clear sight triangle", landscaping at the intersections of driveways and streets shall be limited to the following provisions:

- (a) **Permitted Planting** – The only planting allowed within a "clear sight triangle" is turf grass, ground cover, or shrubs maintained at thirty inches or less. No trees shall be allowed within the triangle. Limbs from adjacent trees should be pruned and maintained to a height of at least fourteen feet above the ground surface to insure visibility.

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- (b) Driveway and Street Intersection – Where a driveway intersects a street, the triangle shall be measured ten feet each way from the point of intersection at the pavement.
  - (c) Street and Street Intersection – Where a street intersects another street, the triangle shall be measured thirty feet back from the point of intersection of the pavement. A driver should have a clear sight area along the intersecting road from the corner for 250 feet.

**Sec. 6-6. STREET TREES**

- (1) **Intent** – When planted along a street, trees have an aesthetic impact on the neighborhood in addition to providing valuable shade to sidewalks and streets. Also a traffic calming tool, street trees have an effect on motorists to further increase the safety of pedestrians. The intent of this section is to promote such impact and effect.
- (2) **Applicability** – Street trees shall be planted in the rights-of-way on both sides of local and collector roads in conjunction with new residential subdivision, commercial or industrial developments.
- (3) **Exemptions** – The following shall be exempt from the provisions of this section:
  - (a) Public Educational Facilities;
  - (b) Development for which a valid concurrency reservation certificate has been issued or which is subject to a development agreement prior to January 28, 2003 and which do not require an extension after January 28, 2003;
  - (c) Proposed development as shown in a preliminary plat or preliminary site plan that was reviewed at a DRC meeting prior to January 28, 2003;
  - (d) Lands used in conjunction with a bona fide farm operation within the meaning of Section 823.14(6), Florida Statutes, and classified as agricultural land pursuant to Section 193.461, Florida Statutes;
  - (e) Lands used as botanical gardens or state-approved or government nurseries or groves created prior to January 28, 2003;
  - (f) Cemeteries created prior to January 28, 2003; and,
  - (g) A development of regional impact under Section 380.06, Florida Statutes, for which a development order has been issued prior to January 28, 2003, except as may otherwise be provided in such development order.
- (4) **Size, Species and Spacing** – All street trees shall be canopy trees and when installed shall be of at least twelve feet in height and two inches caliper. The species of canopy tree shall be in accord with the Approved Plant List contained in Section 6-3. Other species may also be used if approved in advance by the landscape reviewer and the Clay County Utility Authority as being equivalent in function and quality. The planting of street trees shall be at intervals of not more than one tree per fifty lineal feet or less than one tree per eighty lineal feet, dependent on local conditions, and in a planting area as shown in the street section detail in Appendix B. Where canopy trees would conflict with overhead utilities, two understory trees shall be

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required in lieu of each required canopy tree and shall be planted at intervals of not more than two trees per forty to sixty lineal feet.

**Sec. 6-7. RIGHT-OF-WAY BUFFERS FOR SUBDIVISION DEVELOPMENT**

- (1) **Intent** – Right-of-way buffers required by this section are intended to separate residential land uses from the noise and glare of lights from roadways outside the development. Right-of-way buffers may be counted toward satisfying open space requirements and may be used for passive recreation. Pedestrian or bicycle trails may also be placed within such buffers provided that: (a) protected trees removed for such a trail shall be replaced, (b) the total width of the right-of-way buffer shall be maintained, and (c) all other regulations of this section shall be met. Slopes within right-of-way buffers shall not exceed three to one.
- (2) **Applicability** – The terms and provisions of this section shall apply to all new major residential subdivisions lying within the unincorporated areas of the county.
- (3) **Exemptions** – The following shall be exempt from the provisions of this section:
- (a) All major subdivisions for which a valid concurrency reservation certificate has been issued or are subject to a development agreement prior to January 28, 2003 and which do not require an extension after January 28, 2003;
  - (b) Proposed development as shown in a preliminary plat or preliminary site plan that was reviewed at a DRC meeting prior to January 28, 2003; and,
  - (c) A development of regional impact under Section 380.06, Florida Statutes, for which a development order has been issued prior to January 28, 2003, except as may otherwise be provided in such development order.
- (4) **Right-of-Way Buffer Standards** – Landscaping shall be provided between the right-of-way on roadways that are external to the development and residential lots or between easements paralleling such right-of-way and residential lots, in accordance with the requirements of this subsection.
- (a) The landscaped area shall be at least ten feet wide.
  - (b) The landscaping shall include sufficient canopy trees to receive at least six points per one hundred lineal feet or fraction thereof, in planting areas of the size required by Sec. 6-1(8), and arranged so that the trees are distributed along the distance. The zoning director may waive this requirement and allow the use of understory trees for a maximum of twenty-five percent of the requirement if one of the following conditions exist:
    - 1. Mature, healthy, stable canopy street tree(s) exist on the site or within ten feet of the property line on the adjacent property.
    - 2. Unusual lot configuration precludes the use of canopy trees.
    - 3. Placement of existing structures on the building site precludes the use of canopy trees.

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4. Adherence to the requirements of this section is inconsistent with the Comprehensive Plan or the purpose and intent of the Zoning District in which the property is located.
- (c) The landscaping shall include a masonry wall, solid fence, berm or hedge at least thirty inches in height above grade except as provided in paragraph (d). See Sec. 6-1(7) for installation requirements for berms. Hedges shall be a minimum of twenty-four inches in height above grade at the time of planting, spaced not more than thirty-six inches apart, and maintained so as to form a continuous visual screen thirty inches in height above grade, under normal growing conditions, within one year after planting.
  - (d) In order to break the visual monotony of a masonry or wood wall when such walls are used, at least one shrub or vine shall be planted abutting the wall within each ten feet but not necessarily evenly spaced ten feet apart; and if a wood wall is used, at least one shrub shall be planted for each ten feet. Such shrubs or vines shall be planted along the street side of the screen, shall be a minimum of twenty-four inches in height above grade at the time of planting, and maintained so as to form a visual screen thirty inches in height above grade, under normal growing conditions, within one year after planting.
  - (e) In lieu of the vine or shrub requirements of paragraph (d), the zoning director may approve a masonry wall having a significant design variation evenly spaced at intervals of not more than twenty feet.
  - (f) With the exception of approved natural buffer areas, the remainder of the required landscaped areas shall be landscaped with turf grass, ground cover or other landscape materials.
  - (g) All ground between the right-of-way and the residential lots shall be landscaped or retained as natural buffer areas.

**Sec. 6-8. PERIMETER BUFFERS**

- (1) **Intent** – Perimeter buffers required by this section are intended to separate land uses from each other and are intended to minimize noise, the glare of lights and to visually screen buildings. Perimeter buffers may be counted toward satisfying zoning district yard setback requirements, may be counted toward satisfying open space requirements, and may be used for passive recreation. Pedestrian or bicycle trails may also be placed within such buffers provided that: (a) protected trees removed for such a trail shall be replaced, (b) the total width of the perimeter buffer is maintained, and (c) all other regulations of this section are met. Slopes within perimeter buffers shall not exceed three to one.
- (2) **Applicability** – The terms and provisions of this section shall apply to all real property lying within the unincorporated areas of the county.
- (3) **Exemptions** – The following shall be exempt from the provisions of this section:
  - (a) Public Educational Facilities;

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- (b) Development for which a valid concurrency reservation certificate has been issued or which is subject to a development agreement prior to January 28, 2003 and which do not require an extension after January 28, 2003;
  - (c) Proposed development as shown in a preliminary plat or preliminary site plan that was reviewed at a DRC meeting prior to January 28, 2003;
  - (d) Lands used in conjunction with a bona fide silvicultural operation and classified as agricultural land pursuant to Section 193.461, Florida Statutes; and,
  - (e) A development of regional impact under Section 380.06, Florida Statutes, for which a development order has been issued prior to January 28, 2003, except as may otherwise be provided in such development order.
  - (f) The perimeter of a non-residential development which is located immediately adjacent to a residential lot which is under common ownership. (Rev. 04/28/09)
- (4) **Perimeter Buffer Standards** – The required perimeter buffer between land uses is set forth in Table 5. If the land next to the proposed development is vacant, the perimeter buffer required shall be determined by the existing land use of the adjacent vacant parcel with the parcel having the more intensive land use responsible for the buffer. If the adjacent parcel has a land use of higher intensity, was developed prior to the effective date of this ordinance and did not include a buffer, the proposed development will be responsible for the required perimeter buffer. If the proposed development is next to an existing development having a land use of lower intensity, the proposed development shall be responsible for the perimeter buffer.
- (5) **Screening** – Screening shall be installed within the perimeter buffers required hereunder. In meeting the screening standards, staggered hedgerow plantings shall be installed on three-foot centers to achieve the opacity set forth in this subsection. For examples of the following perimeter buffers see Appendix C.
- (a) **Perimeter Buffer "A"** – Within a perimeter buffer classified in Table 5 as Type "A", required screening shall consist of the following:
    1. Evergreen plants which, at the time of planting, shall be six feet in height and provide an overall screening opacity of eighty percent; or,
    2. A masonry wall six feet in height, architecturally finished on all sides, and if a block wall, painted on all sides; or,
    3. A solid wooden fence six feet in height, finished side out; or,
    4. A berm in combination with 1, 2 or 3 to achieve a minimum height of six feet and eighty percent opacity at the time of installation; and
    5. A row of evergreen or deciduous canopy trees which are not less than ten feet high at the time of planting, a minimum of two-inch caliper, spaced not more than fifty feet apart, and planted within ten feet of the property line; and,
    6. Turf grass, low growing evergreen plants or evergreen ground cover planted over the remaining balance of the buffer.
    7. In lieu of the requirements of 1 through 6 above, an undisturbed wooded area, having an opacity of 85% during all seasons and a minimum width of thirty feet, may be permitted with the zoning director's approval.

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(b) Perimeter Buffer "B" – Within a perimeter buffer classified in Table 5 as Type "B", required screening shall consist of the following:

1. Evergreen plants which, at the time of planting, shall be six feet in height and provide an overall screening opacity of eighty percent; or,
2. A masonry wall six feet in height, architecturally finished on all sides, and if a block wall, painted on all sides; or,
3. A solid wooden fence six feet in height, finished side out; or,
4. A berm in combination with subparagraphs 1, 2 or 3 to achieve a minimum height of six feet and eighty percent opacity at the time of installation; and,
5. A row of evergreen canopy trees which are not less than ten feet high at the time of planting, a minimum of two-inch caliper, spaced not more than thirty feet apart, and planted within ten feet of the property line.
6. Turf grass, low growing evergreen plants or evergreen ground cover planted over the remaining balance of the buffer.
7. In lieu of the requirements of 1 through 6 above, an undisturbed wooded area, having an opacity of 85% during all seasons and a minimum width of fifty feet, may be permitted with the zoning director's approval.

(c) Perimeter Buffer "C" – Within a perimeter buffer classified in Table 5 as Type "C", required screening shall consist of the following:

1. A row of evergreen canopy trees which are not less than ten feet high at the time of planting, a minimum of two-inch caliper, spaced not more than thirty feet apart, and planted within ten feet of the property line; and
2. A masonry wall, architecturally finished on all sides, a minimum height of six feet and, if a block wall, painted on all sides; and
3. Turf grass, low growing evergreen plants or evergreen ground cover planted over the balance of the buffer.
4. In lieu of the requirements of 1 through 3 above, an undisturbed wooded area, having an opacity of 85% during all seasons and a minimum width of seventy-five feet, may be permitted for all development other than mining and excavation, with the zoning director's approval. For mining and extracting developments, an undisturbed wooded area, having an opacity of 85% during all seasons and a minimum width of one hundred feet where adjacent to residential and seventy-five feet where adjacent to non-residential, may be permitted in lieu of the requirements of 1 through 3 above with the approval of the zoning director.
5. Utility plant sites shall be permitted to substitute a chain link fence with slats that provides 95% opacity in lieu of the masonry wall requirement. Where adjacent to residential properties, the fence shall be screened from the adjacent residential properties with evergreen plants that will grow to an approximate height of six feet. Plants shall be a minimum of thirty inches in height at planting and may be clustered in groups or spaced ten feet apart, on average, along the fence.

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- (d) Where contiguous properties are similar in use and do not require perimeter buffers according to Table 5, canopy tree planting shall still be required. Within ten feet of the property line and spaced no more than fifty feet apart, a row of evergreen or deciduous canopy trees which are not less than ten feet in height or two inch in caliper shall be planted in areas of the size required by Sec. 6-1(8).

**TABLE 5. PERIMETER BUFFER SCREENING**



Perimeter Buffer Screening									
Proposed Zoning District	Abutting Zoning District								
	Residential - (Single - Two - and Three-Family) Outdoor/Passive Recreation	Residential - (Multifamily) Cultural/Institutional Office/Professional Services	Neighborhood Business and Commercial	General Commercial	Regional Business/Commercial Regional Cultural/Entertainment	Industrial Utility Plant Sites	Agricultural (except Silviculture)	Solid Waste Facility <sup>1</sup> Correctional Facility	Mining and Extracting <sup>1</sup>
Residential - (Single - Two - and Three-Family) Outdoor/Passive Recreation	None	20/B	10/A	20/B	30/C	30/C	10/A	100/C	200/C
Residential - (Multifamily) Cultural/Institutional Office/Professional Services	20/B	None	10/A	20/B	30/C	30/C	20/B	100/C	200/C
Neighborhood Business and Commercial	10/A	10/A	None	10/A	20/B	20/B	20/B	100/C	100/C
General Commercial	20/B	20/B	10/A	None	10/B	20/B	20/B	80/C	100/C
Regional Business/Commercial Regional Cultural/Entertainment	30/C	30/C	20/B	10/A	None	20/B	30/B	80/C	100/C
Industrial Utility Plant Sites	30/C	30/C	20/B	20/B	20/B	None	30/C	60/C	None
Agricultural (except Silviculture)	10/A	20/B	20/B	20/B	30/B	30/C	None	100/C	100/C
Solid Waste Facility <sup>1</sup> Correctional Facility	100/C	100/C	100/C	80/C	80/C	60/C	100/C	None	200/C
Mining and Extracting <sup>1</sup>	200/C	200/C	100/C	100/C	100/C	None	100/C	200/C	None

<sup>1</sup> Where any land use other than another mining and extracting land use, solid waste facility or correctional facility is proposed for land adjacent to the existing mining and extracting land use, solid waste facility or correctional facility, the existin

**Legend:**

buffer width in ft. / buffer type

For Example: 20/B means a 20 foot wide buffer of type "B". The requirements for a type "B" buffer can be found in subsection (5)(b)

**Sec. 6-9. LANDSCAPE PLAN REQUIRED**

- (1) Prior to any land clearing, grubbing or disturbance to the existing root system of an area subject to any provision of this article, a landscape plan shall be filed with, reviewed and approved by the landscape reviewer. The landscape plan shall be prepared by a licensed landscape architect, bearing his or her seal, or shall be otherwise prepared by persons authorized to prepare

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landscape plans or drawings pursuant to Chapter 481, Part II, Florida Statutes. For residential lot development, individual landscape plans may be drawn by the owner or builder when required to assess compliance with the approved subdivision landscape plan.

**(2) Landscape Plan Requirements** – The landscape plan required hereunder shall be drawn to scale, including dimensions and distances and shall:

- (a) Delineate the vehicular use areas, access aisles, driveways, and similar features, where applicable;
- (b) Include, either as part of the landscape plan or as a separate irrigation plan the irrigation system design indicating the location of sprinklers or hose bibs;
- (c) Identify the water use zones and designate whether each such zone is a high, moderate or low water use zone;
- (d) Indicate the location and identify by botanical or common name, the existing and planted vegetation in addition to a plant schedule;
- (e) Designate by name and location and characteristics all other landscape materials to be used;
- (f) Show all landscape features, including areas of vegetation required to be preserved, in context with the location and outline of existing and proposed buildings and other improvements upon the site if any;
- (g) Include a tabulation clearly displaying the relevant statistical information necessary to evaluate compliance with the provisions of this section, including gross acreage, number of trees to be planted or preserved, square footage of paved areas, and such other information as may be required by the Zoning Department in a table similar to Table 6;
- (h) Identify all overhead and underground utilities and easements located on the property and in the right-of-way adjacent to the property to which the landscape plan applies, including overhead and underground service lines to all proposed buildings; and,
- (i) Indicate all drainage structures.

**(3) Fees for Landscape Plan Submittal** – Fees based on the size of the development site shall be submitted with the landscape plan. The fees are as follows:

- (a) One acre or less .....\$ 10.00
- (b) More than one acre but less than five acres .....\$ 25.00
- (c) More than five acres but less than ten acres.....\$ 50.00
- (d) More than ten acres .....\$100.00

**TABLE 6. SAMPLE CALCULATION**

<b>Area Calculation</b>			
Gross Area (acres):	_____		
- ROW Area (acres):	_____		
= Net Area (acres):	_____		
<b>Required Shade Coverage Point Calculation</b>			
_____ net acres x _____ pts/acre = _____ points required			
<b>Minimum Size Distribution Calculation</b>			
20% small = .2 x _____ points required			
10% medium = .1 x _____ points required			
10% large = .1 x _____ points required			
or			
20% small = .2 x _____ points required			
10% medium = .1 x _____ points required + 2(10% large)			
<b>Street Trees</b>			
(number)	cal. size	native/non-native	planted/retained @ _____ pts each = _____ pts
<b>Right-of-Way Buffer</b>			
(number)	cal. size	native/non-native	planted/retained @ _____ pts each = _____ pts
<b>Vehicle Use Area</b> _____ square feet of pavement _____ % landscape area			
(number)	cal. size	native/non-native	planted/retained @ _____ pts each = _____ pts
<b>Perimeter Buffer</b>			
(number)	cal. size	native/non-native	planted/retained @ _____ pts each = _____ pts
<b>Total Points</b>			
(Street trees) + (Right-of-way) + (Vehicle Use Area) + (Perimeter Buffer) = _____			

**Sec. 6-10. VIOLETIONS**

- (1) Upon determining that a violation of any provision of this article has occurred, the code enforcement officer shall have the authority to issue a warning requiring such violation to be corrected within forty-eight hours. In addition, the code enforcement officer may issue a stop work order requiring the suspension of all work until the violation is corrected and, in the case of a violation involving the absence of a landscape plan, until a valid landscape plan has been approved. Any landscape plan submitted in connection with a stop work order issued under this section shall be accompanied by a fee in the amount of five hundred dollars.
- (2) A written notice or order shall be issued to the violator by personal service or certified mail. If these forms of notification are ineffective, the county shall post a notice in a conspicuous place on the premises where the violation has occurred or is occurring. The notice shall briefly set forth the general nature of the violation and specify the manner in which the violation shall be corrected.
- (3) A violation of this article and the subsequent imposition of a stop work order shall be corrected by:

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- (a) Submitting a new or revised landscape plan which shall indicate how future violations will be avoided and how the damage caused to the site by the violation will be mitigated; and
  - (b) Replacing each protected tree removed with a new planted tree, or a transplanted tree. The total caliper inches of the replacement trees shall equal the total caliper inches of the protected trees removed. The replacement trees shall conform to the provisions of this section governing the relocation and replacement of protected trees except that the minimum caliper of the replacement trees shall be four inches. For each replacement tree that is not planted, the violator shall pay a mitigation fee determined as provided in Sec. 6-4(f).
- (4) The acceptance of a phase of development or the issuance of a certificate of occupancy shall be withheld until the requirements of this article have been satisfied.
  - (5) A person who willfully and knowingly shall violate any of the provisions of this article shall be guilty of an offense that, pursuant to Section 125.69, Florida Statutes, and any successor thereto, shall be prosecuted in the same manner as misdemeanors are prosecuted, and upon conviction, shall be punished by a fine not to exceed five hundred dollars or by imprisonment in the county jail, not to exceed sixty days, or by both such fine and imprisonment.
  - (6) In addition to other remedies and notwithstanding the existence of an adequate remedy at law, the county may seek injunctive relief in the circuit court to enforce the provisions of this article. The county shall be awarded reasonable attorney's fees and costs, including appellate fees and costs in an action where the county is successful in obtaining affirmative relief.

**Sec. 6-11. LEGAL STATUS OF THIS ARTICLE**

To the extent of any conflict with other regulations of the county, and except as herein specifically provided, this article supersedes such other regulations with respect to the subject matter hereof.

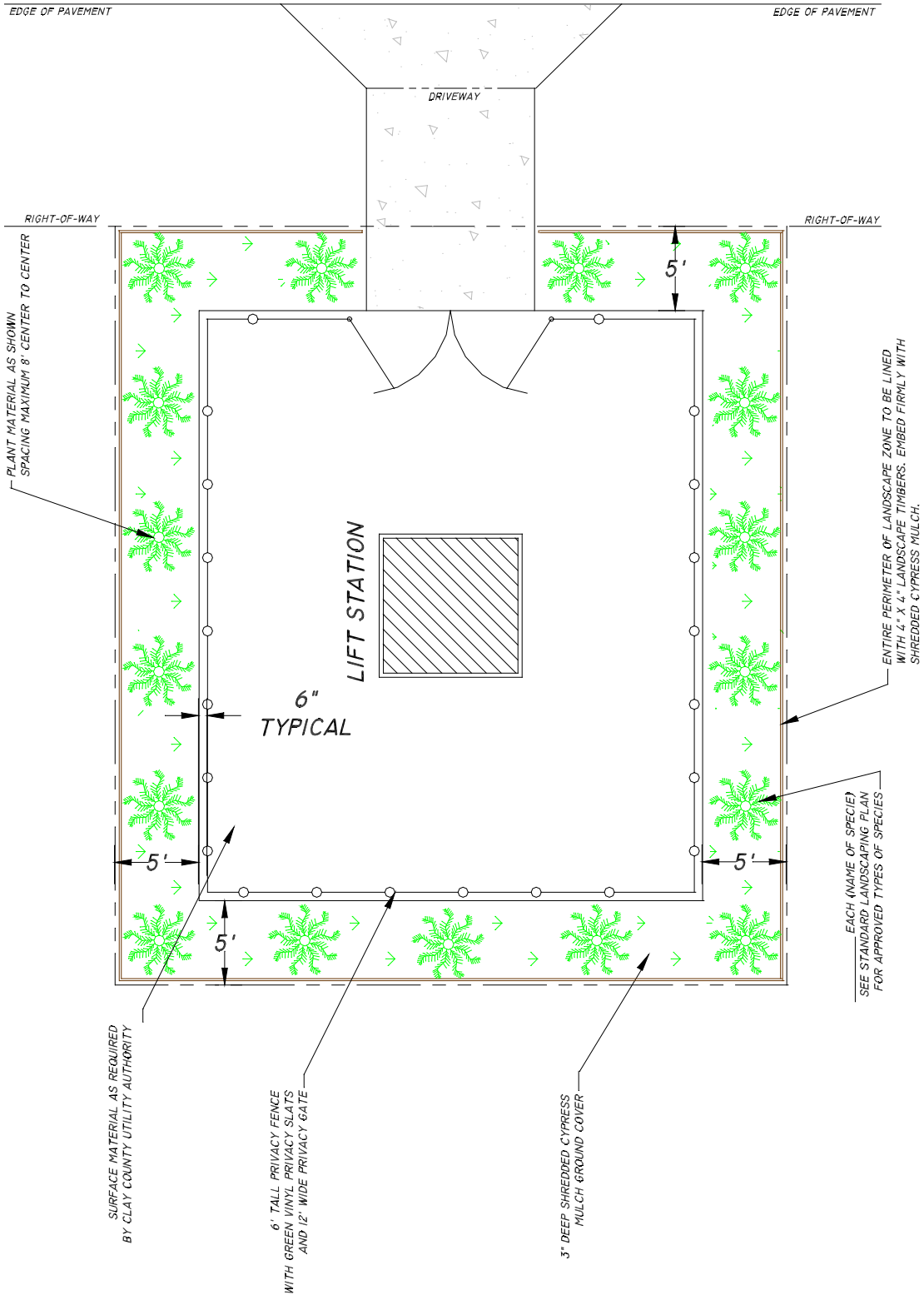
**Sec. 6-12. ENFORCEMENT**

- (1) The requirements of this article shall be enforced as follows:
  - (a) The Landscape Reviewer shall administer and enforce the provisions of this article and shall possess and utilize knowledge of horticultural practice and standards.
  - (b) The code enforcement board established under Sec. 2-104 of the Clay County Code shall have the authority and jurisdiction to enforce the provisions of this article in accordance with the provisions and procedures set forth in Chapter 2, Article IV of the Clay County Code.

**Sec. 6-13. APPEALS**

Any person adversely affected by a decision of any county official or employee in the interpretation of this article may appeal such decision to the Board of Adjustment.

# Appendix A

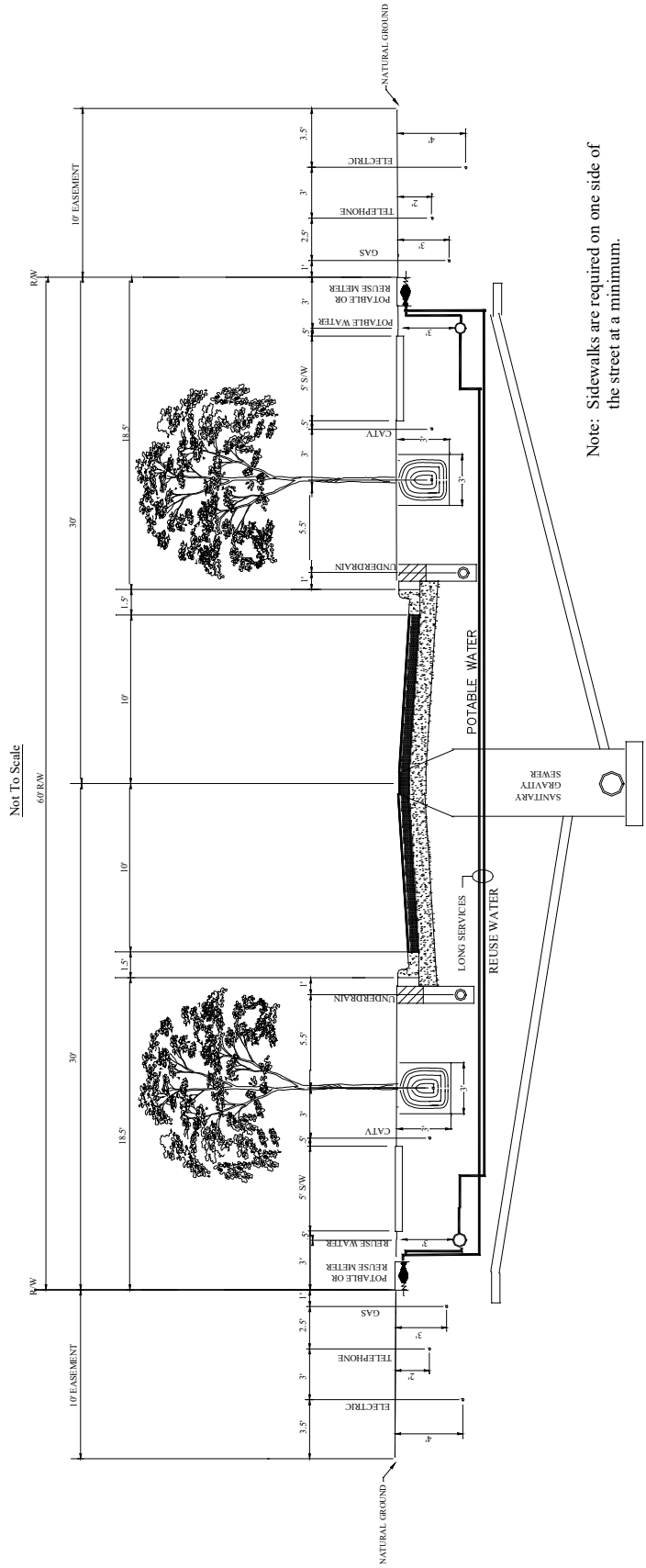


## LIFT STATION DETAIL

SCALE: N.T.S.

# Appendix B

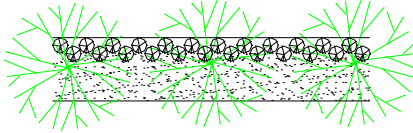
## TYPICAL SECTION FOR 60' R/W WITH GRAVITY SEWER AND REUSE



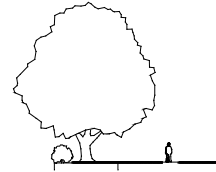
## Appendix C

### Perimeter Buffer "A"

6' Evergreen Shrubs with  
Deciduous Canopy Trees  
planted 50' on center  
and Turf Grass

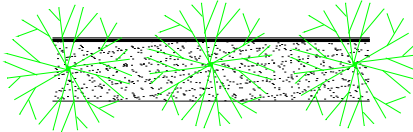


Plan View



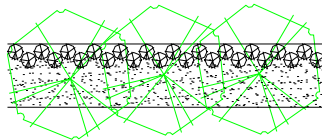
Elevation

6' Wall or Fence with  
Deciduous Canopy Trees  
planted 50' on center  
and Turf Grass

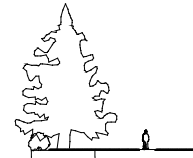


### Perimeter Buffer "B"

6' Evergreen Shrubs with  
Evergreen Canopy Trees  
planted 30' on center  
and Turf Grass

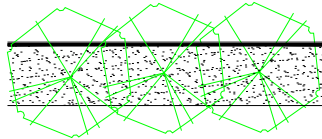


Plan View



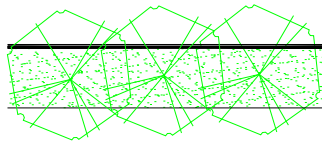
Elevation

6' Wall or Fence with  
Evergreen Canopy Trees  
planted 30' on center  
and Turf Grass

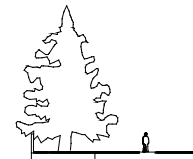


### Perimeter Buffer "C"

6' Wall or Fence with  
Evergreen Canopy Trees  
planted 30' on center  
and Turf Grass



Plan View



Elevation

## Perimeter Buffer Examples