

## CHAPTER 11

### TREE PROTECTION

#### **Section 11.1 Purpose.**

Trees are declared to be beneficial public resources. To that end, it shall be unlawful to cut down, damage, poison or in any other manner destroy or cause to be destroyed any tree except in accordance with the provisions of this Chapter.

#### **Section 11.2 Applicability.**

11.2.1 New development or redevelopment. All new development or reconstruction shall be in full compliance with the provisions of this Chapter, except for existing single-family owner-occupied residences in single family and two family zoning districts, which shall be exempt from the provisions of this Chapter.

11.2.2 Emergency conditions. During emergency conditions caused by a hurricane or other disaster, the provisions of this Chapter may be suspended by direction of the City Manager until the end of said emergency period. In the event that any tree shall endanger health or safety, and require immediate removal without delay, verbal authorization may be given by the DSD for the removal without obtaining a tree permit as herein required. Such verbal authorization shall be confirmed in writing by the DSD as soon as possible.

11.2.3 Nurseries, etc. All City-licensed nurseries shall be exempt from the provisions of this Chapter, but only in relation to those trees that are planted and growing for sale or intended sale to the general public in the ordinary course of said licensee's nursery business.

11.2.4 Plants in easements and rights-of-way. State, County, City and franchised utilities may remove trees that endanger public safety and welfare, which are located within utility easements and public rights-of-way or are interfering with utility service without obtaining a tree permit. In such instances State, County, City or franchised utilities shall produce written notification to the DSD 10 days prior to such removal and cooperate with the City to preserve such trees by relocation or replacement in the same vicinity or as determined by the DSD for the best public benefit. Under emergency conditions, such utilities and companies may effect removal without prior written notification and without permit as may be necessary to restore interrupted services.

11.2.5 Land clearing. On any platted, unplatted or undeveloped land, except as stated in Section 11.2.2 of this Chapter, it shall be unlawful for any person to remove, cause to be removed, or transplant any tree with a trunk diameter of 6 inches DBH or more without first having obtained a permit to do so as provided herein.

11.2.6 Specimen trees. Except as stated herein, specimen trees as designated in Sec. 11.19 shall be maintained in a living condition. It shall be unlawful for any person to remove such trees except for those designated by the DSD upon review of the property, site plan or subdivision construction plan, as trees located in a proposed construction or reconstruction area that can not

be saved or transplanted. Furthermore, it shall be unlawful for any person in the construction of any structures or other improvements to place solvents, material, construction machinery or temporary soil deposits within 6 feet or two-thirds of the dripline, whichever is greater, of any specimen tree.

**Section 11.3 Exemptions.**

The following species are exempted from the provisions of this Chapter.

<b>Common Name</b>	<b>Botanical Name</b>
Australian Pine	Casuarina equisetifolia
Brazilian Pepper	Schinus terebinthefolius
Chinaberry	Melia azedarach
Chinese Tallow	Sapium sebiferum
Citrus	Citrus species
Ear Tree	Enterolobium cyclocarpum
Eucalyptus	Eucalyptus species
Punk Tree	Melaleuca leucadendion
Silk Oak	Grevillea robusta
Woman's Tongue	Albizia lebeck

**Section 11.4 Tree removal permit.**

11.4.1 Tree removal permit application. Permission for removal, relocation or replacement of trees shall be made on an application form provided by the Development Services Department, together with all information and required exhibits and accompanied by the tree removal fee as adopted by resolution of the City Council.

11.4.2 Time of permit. Any and all permits issued by the DSD shall be declared null and void if commencement of work so permitted is not begun within 6 months from date of issuance.

11.4.3 Display of permit and site inspection. The applicant shall prominently display the tree removal permit on the site. Said permit shall be displayed continuously while trees are being removed or replaced, or work done, as authorized on the permit and for 10 days thereafter. As a condition for the issuance of the permit, the applicant shall agree in writing to entry onto his premises by representatives of the City and all law enforcement officers.

**Section 11.5 Tree removal permit requirements.**

An application for a tree removal permit shall be filed, processed and approved as follows.

11.5.1 Concurrent application. An application for a tree removal permit shall be filed concurrently with a site plan or preliminary subdivision plat application as required by this Code. No trees shall be removed until the site plan or preliminary plat is approved and the tree permit issued. The application for a tree permit shall include, in addition to the requirements of the site plan or subdivision application, the following information.

A. A tree survey to scale no greater than 1 inch equals 50 feet that identifies trees by location, scientific and common name and diameter at breast height (DBH). The tree survey should be part of the site development plan or subdivision plat unless, in the judgment of the DSD, the plans are illegible when combined.

B. The survey shall denote the following information

1. Existing trees to be removed, relocated or retained.
2. Replacement stock to be planted.
3. Existing trees to be removed and trees to be retained requiring protection shall be clearly designated on site. Method of designation shall be included on the plans submitted for review.
4. Existing and proposed utility easements.
5. Existing and proposed improvements on the site.

11.5.2 Nonconcurrent application. Except as otherwise provided in Section 11.5.1 of this Chapter, an application for a tree permit shall be filed, processed and approved as follows.

A. An application and 2 sets of plans shall be filed with the Development Services Department along with the tree permit fee as adopted by resolution of the City Council.

B. The application and plans shall include the following information and exhibits.

1. A diagram of the property at a scale no greater than 1 inch equals 50 feet that identifies any tree to be removed, its location, common name, DBH, any existing or proposed development on the site, details of replacement stock to be planted including location, size and species. The applicant shall submit 2 copies of the diagram with the application.
2. Name, signature, address, telephone and fax numbers and email address of the property owner.
3. Legal description of the property and property appraiser's parcel number.
4. North arrow, scale and identification of streets abutting the property.
5. Reason for removal of trees.
6. Existing trees to be removed and trees to be retained requiring protection shall be clearly designated on the site. The designation method used shall be indicated on the plan submitted for review.

C. If the DSD determines that the application is complete, said application shall be reviewed for compliance with the requirements of this Code. The DSD shall have 15 days from the date of receipt of a complete application to approve or disapprove the permit. If no action has been taken after 15 days, the permit shall be deemed approved.

11.5.3 Application Option. For any application in which the proposed site is 5 acres or more in land area, the applicant may, subject to approval of the DSD, identify trees by major tree groupings. The plan shall show existing tree groupings with tree types identified by approximate tree type and size percentages in those areas where no trees are proposed to be removed and no soil is to be disturbed in any manner. In all cases, trees to be removed and trees directly adjacent to the clearing area that are to be protected shall be identified on the plan by type and location clearly designated on site. The designation method used shall be indicated on the plan submitted for review.

**Section 11.6 Removal of trees.**

A tree may be removed if it is located in an area where a structure or improvements will be placed according to an approved plan and it cannot be relocated on the site because of age, type or size of the tree; or the tree is diseased, injured, in danger of falling too close to existing or proposed structures, interferes with existing utility service, creates unsafe vision clearance or conflicts with other ordinances or regulations.

**Section 11.7 Standards for the location, relocation or replacement of trees.**

Unless otherwise stated herein, trees shall be saved, located, relocated or replaced to ensure a minimum of 6 inches of DBH for every 2,500 square feet of the total lot area (rounded to the nearest whole number). In the event that specimen trees must be removed the DSD shall require additional replacement trees with a minimum of 3 inches DBH for every 6 inches of the specimen tree removed.

**Section 11.8 Area tree protection requirements.**

Fifteen percent of the square footage of any development shall be designated for the protection of trees. The area required to protect specimen trees may be included to satisfy this requirement. This required area may be constituted as one or more sub areas within the development. Said area may include any landscape buffer or other landscape areas required by this Code. Such designated areas shall contain sufficient land area to comply with minimum tree protection standards to adequately protect the trees contained within the areas. A minimum of 50 percent of the required minimum number of trees as required by Section 11.6 of this Chapter shall consist of existing trees within said area. This requirement may be modified if the development contains an insufficient amount of existing trees to meet this requirement, or the modification of this requirement is warranted by specific on-site conditions.

**Section 11.9 Natural vegetation retention areas.**

Areas of a development may be designated as natural vegetation retention areas indicating that

all existing vegetation shall remain undisturbed within said designated area. Under this designation, trees that contain 2 inches and up to 6 inches DBH size may be retained as replacement trees. Replacement trees shall be considered protected trees and shall be spaced sufficiently far apart to allow adequate growth room for the species.

#### **Section 11.10 Prior to commencement of construction.**

Prior to the commencement of construction, the applicant shall clearly mark any tree or tree groups to be maintained as required by Section 11.5.1 of this Chapter, in the proximity of any area where land-clearing equipment is to be operated. The markings shall remain in place during construction. Said equipment shall be operated in a manner as to not injure or destroy any trees in accordance with this Chapter.

#### **Section 11.11 During construction.**

During the construction stage of development, a temporary barrier at least 3 feet in height shall be formed to create a minimum radius of 6 feet from the base of the tree or trees. It shall include at least 50 percent of the area under the drip line of the tree. The developer shall not cause or allow the cleaning of equipment or material within the drip line of any tree or groups of trees to be maintained. Neither shall the developer cause or allow the disposal of waste material, such as paint, oil, solvents, asphalt, concrete, mortar or any other material harmful to the life of a tree within the drip line of any tree or groups of trees. No attachment, wire (other than protective guy wires), signs or permits may be fastened to a tree. Nothing contained herein shall be construed to prevent the designation of driveways or parking areas beneath tree branches so long as the impervious surface amounts to no more than 50 percent of the total area under drip line of the tree. In no event shall the impervious area be located closer than 6 feet from the trunk of the tree. In no event shall motorized equipment be allowed to park on or traverse the area that is to remain in its natural state surrounding a tree that is to be preserved.

#### **Section 11.12 Natural soil level.**

Except for palm trees, all trees and replacement stock shall have their natural soil level maintained. Tree wells and/or planter islands shall be provided, if necessary, to maintain the natural existing soil level. All efforts shall be made to maintain natural drainage to such trees.

#### **Section 11.13 Tree maintenance and survival.**

11.13.1 Tree Maintenance. All tree planting and replacement shall be of a sound workmanship manner and according to accepted good planting procedures. The owner of the property shall be responsible for the maintenance of all trees required by this Code, which shall be maintained in good condition so as to present a healthy and safe appearance.

11.13.2 Tree survival. Except for any exemptions contained in this Chapter, all trees relocated, replaced or existing as required by this Code shall be replaced by the property owner or lessee in the event said trees are not maintained in a healthy condition. If the development otherwise meets the minimum requirements of the Code, the DSD may waive the replacement

requirements. To ensure survival of trees, the DSD shall also utilize the provisions of the Tree Protection Manual for Builders and Developers published by the Florida Department of Agriculture and Consumer Services, Division of Forestry, or other comparable protection requirements.

**Section 11.14 Street trees to be planted.**

11.14.1 Official street trees. The following list constitutes the official street tree species for Orange City, Florida. No species other than those included in this list may be planted as street trees without written permission of the City Tree Board.

SMALL TREES	MEDIUM TREES	LARGE TREES
Dahoon Holly	Dogwood	Bald Cypress
Hop Hornbeam	Sable (Cabbage) Palm	Winged Elm
Redbud	Hackberry	Red Maple
Chickasaw Plum	American Holly	Laurel Oak
Bottlebrush	Loblolly Bay	Live Oak
Pindo Palm	Cherry Laurel	Washington Palm
	Pumpkin Ash	Sycamore
	East Palatka Holly	Southern Magnolia
	Wax Myrtle	Sweet Gum
	Crape Myrtle	Date Palm
	Drake Elm	

11.14.2 Spacing. The official street tree species, size and classes listed in Section 11.14.1 of this Chapter shall be planted in according to the following spacing distance: Small trees, 30 feet; medium trees, 40 feet; large trees, 40 feet, except in special plantings designed or approved during the site plan process.

11.14.3 Distance from curb or sidewalk. The official street tree species size classes listed in Section 11.14.1 of this Chapter shall not be planted closer to any curb or sidewalk than the following: Small trees, 2 feet; medium trees, 3 feet; and large trees, 4 feet.

11.14.4 Distance from street corners and fire hydrant. No street tree shall be planted closer than 20 feet from any street corner, measured from the point of nearest intersecting curbs or curb lines. No street tree shall be planted closer than ten feet of any fire hydrant.

11.14.5 Public tree care. The City shall have the right to plant, prune, maintain and remove trees, plants and shrubs within or extending over right-of-way lines of all streets, alleys, avenues and lanes, squares and public grounds, as may be necessary to insure public safety or to preserve or enhance the symmetry and beauty of such public grounds. The City Tree Board may remove or cause to be removed, any tree or part thereof that is in an unsafe condition or which, by reason of its nature, is injurious to sewers, electric lines, gas lines, water lines or other public improvements, or is infected with any injurious fungus, insect or pest. This Section does not prohibit the planting of street trees by adjacent property owners providing that the selection and location of said trees is in accordance with Sections 11.14.1 through 11.14.5 of this Chapter.

11.14.6 Tree topping. It shall be unlawful as a normal practice for any person, firm or City department to top any street tree, park tree or other tree on public property. Topping is defined as the severe cutting back of limbs to stubs larger than 3 inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical, may be exempt from this article at the determination of the City Tree Board.

11.14.7 Pruning, corner clearance. Every owner of any tree overhanging any street right-of-way within the City shall prune the branches so that such branches shall not obstruct the light from any street lamp or obstruct the view of any street intersection and to create a clear space of 8 feet above the surface of the sidewalk. Said owners shall remove all dead, diseased or dangerous trees, or broken or decayed limbs, that constitute a menace to the safety of the public. The City shall have the right to prune any tree or shrub on private property when it interferes with the proper spread of light along the street from a streetlight, or interferes with visibility of any traffic control device or sign.

11.14.8 Dead or diseased tree removal on private property. The City shall have the right to cause the removal of any dead or diseased trees on private property within the City, when such trees constitute a hazard to life and property, or harbor insects or disease that constitute a potential threat to other trees within the City. The City Tree Board will notify in writing the owners of such trees. Removal shall be done by said owners at their own expense within sixty days of the date of service of notice. In the event of failure of owners to comply with such provisions, the City shall have the authority to remove such trees and charge the cost of removal on the owners' property tax notice.

11.14.9 Interference with City Tree Board. It shall be unlawful for any person to prevent, delay or interfere with the City Tree Board, or any of its agents or assignees, while engaging in and about the planting, cultivating, mulching, pruning, spraying or removing of any street tree, park tree, or tree on private grounds, as authorized in this Code.

11.14.10 Exceptions.

A. In the event that any tree shall be in hazardous or dangerous condition as determined by the City Tree Board so as to endanger health or safety and require immediate removal without delay, verbal authorization for removal may be given by the City's Public Works Superintendent, City Manager, Chief Building Official or DSD.

B. During the period of emergencies such as hurricane, windstorm, flood, freeze or other disasters, the requirements of this Chapter may be waived by the City Manager. Said waiver must be for a time certain and may not be for an indefinite period.

**Section 11.15 Tree bank.**

Should it be physically impossible according to accepted good planning procedures to replace all required replacement trees. The DSD may allow the developer to make a contribution to the

City's tree bank based on the banking formula listed here. Contributions to the tree bank shall be reserved to enhance City property and rights-of-way with tree installation, replacement and maintenance.

#### TREE BANKING FORMULA

4.93 square inches x number of replacement trees x \$27.00

Notes:

4.93 square inches = cross-Sectional area of a 2<sup>1</sup>/<sub>2</sub>" caliper tree measured at 12" height (2<sup>1</sup>/<sub>2</sub>" measured at 12" height is equal to 2" measured at DBH).

4.93 x \$27.00 (accepted national value per square inch) = \$133.00 for 2" tree (rounded to the nearest dollar).

*Example:* 35" specimen tree to be removed = five replacement trees at 2" caliper DBH = \$133.00 x 5 = \$665.00 to be tree banked with the City.

#### **Section 11.16 Stop work order.**

The DSD shall issue a "stop work order" to any person found in the act of cutting down, destroying, damaging or removing trees in violation of this Code.

#### **Section 11.17 Appeals.**

Any person may appeal a decision of the DSD in the enforcement or interpretation of any of the terms or provisions of this Chapter as provided for by Chapter 3, Section 3.6 of this Code.

#### **Section 11.18 Violations and penalties.**

Violations shall be processed and penalties levied as provided for by the City Code of Ordinances.

### Section 11.19 Specimen Trees

<b>Common Name</b>	<b>Botanical Name</b>	<b>DBH (inches and larger)</b>
Bald Cypress	<i>Taxodium distichum</i>	12
Camphor	<i>Cinnamomum camphora</i>	18
Elm	<i>Ulmus</i> spp.	18
Hickory	<i>Carya</i> spp.	18
Laurel Oak species	<i>Quercus laurifolia</i>	18
Live Oak	<i>Quercus virginiana</i>	18
Loblolly Bay	<i>Gordonia lasianthus</i>	12
Red Bay	<i>Persea borbonia</i>	12
Red Maple	<i>Acer rubrum</i>	18
River Birch	<i>Betula nigra</i>	12
Shumard Oak	<i>Quercus shumardii</i>	18
Slash Pine	<i>Pinus elliottii</i>	18
Southern Magnolia	<i>Magnolia grandiflora</i>	12
Southern Red Cedar	<i>Juniperus virginiana</i>	12
Swamp Bay	<i>Persea palustris</i>	12
Sweet Bay Magnolia	<i>Magnolia virginiana</i>	12
Sweetgum	<i>Liquidambar styraciflua</i>	18
Sycamore	<i>Platanus occidentalis</i>	18
Turkey Oak	<i>Quercus laevis</i>	12

Appendix A

## RECOMMENDED PLANT LIST

### CANOPY TREES

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
American Elm	<i>Ulmus americana</i>	80-100	**	Yes
Bald Cypress	<i>Taxodium distichum</i>	80-100	**	Yes
Laurel Oak	<i>Quercus laurifolia</i>	80	***	Yes
Live Oak	<i>Quercus virginiana</i>	60	***	Yes
Red Bay	<i>Persea borbonia</i>	50-60	**	Yes
Red Maple	<i>Acer rubrum</i>	60	**	Yes
River Birch	<i>Betula nigra</i>	50-60	** (if planted in moist area)	Yes
Shumard Oak	<i>Quercus shumardii</i>	80	**	Yes
Slash Pine	<i>Pinus elliotii</i>	100	***	Yes
Southern Magnolia	<i>Magnolia grandiflora</i>	80	***	Yes
Southern Red Cedar	<i>Juniperus virginiana</i>	50-60	***	Yes
Sweet Bay Magnolia	<i>Magnolia virginiana</i>	90	**	Yes
Sweetgum	<i>Liquidambar styraciflua</i>	80	**	Yes
Sycamore	<i>Platanus occidentalis</i>	100	***	No
Turkey Oak	<i>Quercus laevis</i>	40-50	***	Yes

### UNDER STORY TREES

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
American Holly	<i>Ilex opaca</i>	45	***	Yes
Bottlebrush	<i>Callistmon rigidus</i>	15	**	No
Chickasaw Plum	<i>Prunus angustifolia</i>	15	**	No
Crape Myrtle	<i>Lagerstroemia indica</i>	25	***	No
Dahoon Holly	<i>Ilex cassine</i>	25-40	**	Yes
Dogwood	<i>Cornus florida</i>	20-30	**	Yes
Drake Elm	<i>Ulmus parvifolia</i>	40-50	**	No
East Palatka Holly	<i>Ilex Attenuata</i>	30	**	Native Hybrid
Loquat	<i>Eriobotrya japonica</i>	15-25	**	No
Redbud	<i>Cercis Canadensis</i>	15-25	**	Yes
Wax Myrtle	<i>Myrica cerifera</i>	15-25	***	Yes
Winged Elm	<i>Ulmus alata</i>	40-50	**	Yes
Yaupon Holly	<i>Ilex vomitoria</i>	8	***	Yes

## SHRUBS

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
American Beautyberry	<i>Callicarpa americana</i>	8	***	Yes
Anise Tree	<i>Illicium anisatum</i>	20	*	No
Azalea	<i>Rhododendron</i> spp.	5-10	*	No
Camellia	<i>Camellia japonica</i>	6-10	**	No
Chinese Fringe Flower	<i>Loropetalum chinense</i>	6-10	***	No
Compact Walter's Viburnum	<i>Viburnum obovatum</i> "compacta"	3-6	***	Yes
Dwarf Burford Holly	<i>Ilex cornuta</i> 'Burfordi'	5-20	**	No
Dwarf Chinese Holly	<i>Ilex cornuta</i> 'Rotunda'	5-20	**	No
Dwarf Pittosporum	<i>Pittosporum tobira</i> 'Wheeler'	3	**	No
Dwarf Shore Juniper	<i>Juniperus conferta</i> 'Compacta'	2	***	No
Dwarf Yaupon Holly	<i>Ilex vomitoria</i> 'Nana'	5	**	No
Florida Anise	<i>Illicium floridanum</i>	15	**	Yes
Gardenia	<i>Gardenia jasminoides</i>	8	**	No
Indian Hawthorn	<i>Raphiolepis indica</i>	5	***	No
Japanese Privet, Ligustrum	<i>Ligustrum japonicum</i>	15	**	No
Gold Mound Lantana	<i>Lantana camara</i>	3	***	No
Nick's Compact Juniper	<i>Juniperus chinensis</i> 'Pfitzeriana Compacta'	2-3	***	No
Pfitzer Juniper	<i>Juniperus chinensis</i> 'Pfitzeriana'	3-5	***	No
Pineapple Guava	<i>Feijoa sellowiana</i>	14	**	No
Pittosporum	<i>Pittosporum tobira</i>	6	**	No
Plumbago	<i>Plumbago auriculata</i>	5	***	No
Podocarpus	<i>Podocarpus macrophylla</i>	35	***	No
Sandankwa Viburnum	<i>Viburnum suspensum</i>	6	**	No
Sweet Viburnum	<i>Viburnum odoratissimum</i>	8	**	No
Yellow Anise	<i>Illicium parviflorum</i>	15	**	Yes
Fire Bush	<i>Hamelia patens</i>	8	**	Yes

## PALMS

Common Name	Scientific Name	Mature Height (feet)	Drought Tolerance	Florida Native
Cabbage Palm	Sabal palmetto	40	***	Yes
Canary Date Palm	Phoenix canariensis	40	*	No
Chinese Fan Palm	Livistonia chinensis	25	**	No
Dwarf Palmetto	Sabal minor	6	***	Yes
European Fan Palm	Chamaerops humilis	10	**	No
King Sago Palm	Cycas revolute	8	*	No
Lady Palm	Rhapis excelsa	7	*	No
Pindo Palm	Butia capitata	15	**	No
Saw Palmetto	Serenoa repens	6	***	Yes
Washington Palm	Washingtonia robusta	80	**	No

## GROUNDCOVERS

Common Name	Scientific Name	Mature Height (inches)	Drought Tolerance	Florida Native
Algerian Ivy	Hedera canariensis	Vine	**	No
Blue Pacific Juniper	Juniperus conferta 'Blue Pacific'	24	**	No
Cast Iron Plant	Aspidistra elatior	24	***	No (heavy shade tolerance)
Confederate Jasmine	Trachelospermum jasminoides	Vine	**	No
Coontie	Zamia Floridana	12-24	***	Yes (heavy shade tolerance)
English Ivy	Hedera helix	Vine	**	No
Evergreen Giant Liriope	Liriope muscari 'Evergreen Giant'	18	**	No
Holly Fern	Cyrtomium falcatum	24	**	No (heavy shade tolerance)
Trailing lantana	Lantana montevidensis	12-18	***	No
Leatherleaf Fern	Rumohra adiantiformis	24-36	**	No
Mondo Grass	Ophiopogon japonicus	6-12	**	No
Parson's Juniper	Juniperus chinensis 'Parsonil'	24	***	No
Society Garlic	Tulbaghia violacea	18	**	No
Virginia Creeper	Parthenocissus quinquefolia	vine	**	Yes

## FLOWERS AND ACCENT PLANTS

Common Name	Scientific Name	Mature Height (inches)	Drought Tolerance	Florida Native
Bee Balm, Horsemint	Monarda punctata	36	***	Yes
Black-eyed Susan	Rudbeckia hirta	24	**	Yes
Blanket flower, Gaillardia	Gaillardia pulchella	24	**	Yes
Bougainvillea	Bougainvillea spectabilis	72	***	No
Butterfly Weed	Asclepias tuberosa	24	**	Yes
Coral Honeysuckle	Lonicera sempervirens	vine	**	Yes
Coreopsis	Coreopsis tinctoria	24	**	Yes
Daylily	Hemerocallis sp.	36	*	No
Dune Sunflower	Helianthus debilis	18	**	Yes
Firecracker Plant	Russelia equiseformis	24	***	No
Muhly Grass	Muhlenbergia capillaris	36	***	Yes
Passion Flower	Passiflora incarnata	vine	**	No
Pentas	Pentas lanceolata	12-24	***	No
Saltmeadow Cordgrass	Spartina patens	24	**	Yes
Scarlet Milkweed	Asclepias curasavica	36-48	*	Naturalized
Spiderwort	Commelina erecta	24	***	Yes
Tropical Sage	Salvia coccinea	24	**	Yes
Texas Sage	Leucophyllum frutescens	48	**	No
Trumpet Vine	Campsis radicans	vine	**	Yes
Vinca or Periwinkle	Vinca Minor	6-12	**	Naturalized

### ***Drought Tolerance***

- \* Somewhat Drought Tolerant — may need occasional irrigation year round
- \*\* Moderate Drought Tolerant — may need occasional irrigation during the dry season
- \*\*\* Very Drought Tolerant — irrigation not necessary except during prolonged drought (once plants are established)

