

## **SECTION 34                    LANDSCAPE REQUIREMENTS**

### **34.1    PURPOSE:**

Landscaping is accepted as adding value to property and is in the interest of the general welfare of the City. The provision of landscaped areas also serves to increase the amount of a property that is devoted to pervious surface area that, in turn, helps to reduce the amount of impervious surface area, storm water runoff, and consequent non-point pollution in local waterways. Therefore, landscaping is hereafter required of new development, except single- and two-family residential and agricultural uses, adjacent to public streets. Single- and two-family uses are generally not required to provide extensive landscaping at the time of development because they rarely fail to comply with the requirements set forth herein.

### **34.2    SCOPE AND ENFORCEMENT:**

The standards and criteria contained within this Section are deemed to be minimum standards and shall apply to all new construction, alterations, or additions (i.e., exceeding sixty percent (60%) of the original floor area, unless exempt under Chapter 245.004 Local Government Code) occurring within the City, except that single-family or duplex dwellings shall be exempt. Additionally, any use requiring a Specific Use Permit or a PD zoning designation must comply with these landscape standards unless special landscaping standards are otherwise provided for in the ordinance establishing the SUP or PD district. The provisions of this Section shall be administered and enforced by the Municipal Development Department. The landscape standards in this Section apply only to nonresidential and multi-family developments (including uses such as schools and churches within a residential zoning district).

If at any time after the issuance of a certificate of occupancy, the approved landscaping is found to be not in conformance with the standards and criteria of this Section, the Municipal Development Department shall issue notice to the owner, citing the violation and describing what action is required to comply with this Section. The owner, tenant or agent shall have thirty (30) calendar days from date of said notice to establish/restore the landscaping, as required. If the landscaping is not established or restored within the allotted time, then such person shall be in violation of this Ordinance.

### **34.3    PERMITS:**

- A. No permits shall be issued for building, paving, or construction until a detailed landscape plan is submitted and approved by the Municipal Development Department, along with the applicable required plan (i.e., Building Permit Plan, Concept Plan, or Site Plan). A landscape plan shall be required as part of the applicable required plan, as outlined in Section 12. The landscape plan may be shown on the applicable required plan (provided the plan remains clear and legible) or may be drawn on a separate sheet. Prior to the issuance of a certificate of occupancy for any building or structure, all screening and landscaping shall be in place in accordance with the landscape plan. All final finish grading, mowing of existing natural areas, fence lines, drainage ways, and right-of-way, removal of all rocks, concrete and other debris from areas which will be mowed shall be considered landscaping for the purpose of issuing a certificate of occupancy.
- B. In any case in which a certificate of occupancy is sought at a season of the year in which the Municipal Development Department determines that it would be impractical to plant trees, shrubs or groundcover, or to successfully establish turf areas, a temporary certificate of occupancy may be issued provided a letter of agreement from the property owner is submitted

that states when the installation shall occur. All landscaping required by the landscaping plan shall be installed within six (6) months of the date of the issuance of the certificate of occupancy.

- C. Streetscaping or landscaping in right-of-way or common areas must have prior approval from the City and/or the Texas Department of Transportation (TxDOT) as to locations and plant selections.

#### **34.4 LANDSCAPE PLAN:**

Prior to the issuance of a building, paving, or construction permit for any use other than single-family detached or duplex dwellings, a landscape plan shall be submitted to the Municipal Development Department. The Municipal Development Department shall review such plans and shall approve same if the plans are in accordance with the criteria of these regulations. If the plans are not in conformance, they shall be disapproved and shall be accompanied by a written statement setting forth the changes necessary for compliance.

Landscape plans shall be prepared by a person knowledgeable in plant material usage and landscape design (e.g., landscape architect, landscape contractor, landscape designer, etc.) and shall contain the following minimum information:

- A. Minimum scale of one inch (1") equals fifty feet (50'); show scale in both written and graphic form.
- B. Location, size and species of all trees to be preserved (do not use "tree stamps" unless they indicate true size and location of trees).
- C. Location of all plant and landscaping material to be used, including plants, paving, benches, screens, fountains, statues, earthen berms, ponds (to include depth of water), topography of site, or other landscape features
- D. Species and common names of all plant materials to be used
- E. Size of all plant material to be used (container size, planted height, etc.)
- F. Spacing of plant material where appropriate
- G. Layout and description of irrigation, sprinkler, or water systems including location of water sources
- H. Name and address of the person(s) responsible for the preparation of the landscape plan
- I. North arrow/symbol, and a small map showing where the property is located
- J. Date of the landscape plan

#### **34.5 GENERAL STANDARDS:**

The following criteria and standards shall apply to landscape materials and installation:

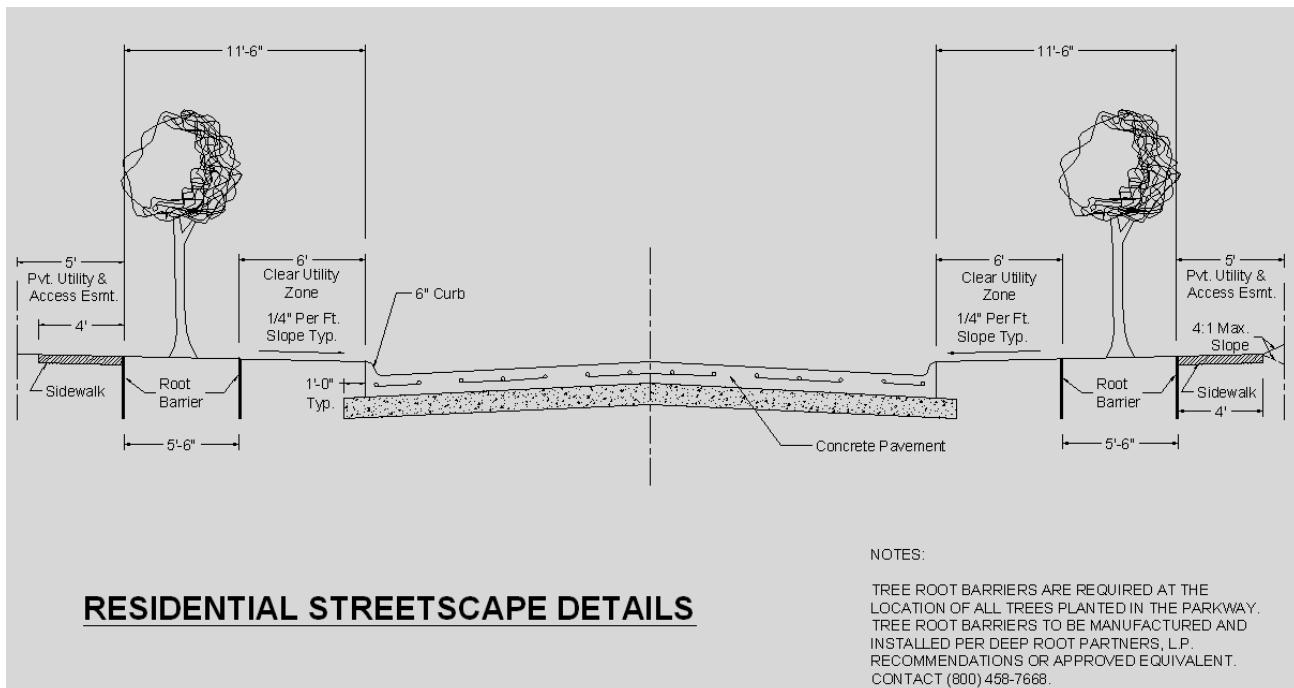
- A. All required landscaped open areas shall be completely covered with living plant material. Landscaping materials such as wood chips and gravel may be used under trees, shrubs and other plants, but shall not comprise a significant portion of the total landscaped area.
- B. Plant materials shall conform to the standards of current edition of the "American Standard for Nursery Stock" (as amended), published by the American Association of Nurserymen. Grass seed, sod and other material shall be clean and reasonably free of weeds and noxious pests and insects.

- C. Trees shall have an average spread of crown of greater than fifteen feet (15') at maturity. Trees having a lesser average mature crown of fifteen feet (15') may be substituted by grouping the same so as to create the equivalent of fifteen feet (15') of crown spread. Large trees shall be a minimum of three inches (3") in caliper (measured twelve inches (12") above the ground) and seven feet (7') in height at time of planting. Small ornamental trees shall be a minimum of one and one-half inch (1.5") in caliper and five feet (5') in height at time of planting.
- D. Select trees which are well suited to the area – soil type, space available for roots or mature crown size and height, disease and pest resistance, moisture levels, sturdiness, color, shape, flowers can all affect the suitability of a tree. The following species are not recommended because of their problems and nuisance factors: Arizona Ash, Fruitless Mulberry, Cottonwood, Silver Maple, Hackberry, Bradford Pear (Aristocrat, Red Spire, and Chanticleer are pear varieties which do not exhibit poor growth habits), Mesquite, Eastern Red Cedar. For help in selecting the right tree for the right place the following link to the Texas Forest Service Tree Selection Guide will guide you in making the right choice: <http://texastreeplanting.tamu.edu/> or contact the Municipal Development Department for further information.
- E. Shrubs shall be a minimum size of a three (3) gallon container grown plant with a full natural shaped crown at the time of planting. Hedges, where installed for screening purposes, shall be planted and maintained so as to form a continuous, unbroken, solid visual screen which will be six feet (6') high within three (3) years after time of planting (except for parking lot/headlight screens, which shall form a continuous, solid visual screen three feet high within two years after planting).
- F. Vines not intended as ground cover shall be a minimum of two feet (2') in height immediately after planting and may be used in conjunction with fences, screens, or walls to meet landscape screening requirements as set forth.
- G. Grass areas shall be sodded, plugged, sprigged, hydro-mulched and/or seeded, except that solid sod shall be used in swales, earthen berms or other areas subject to erosion. If grass seed is planted due to seasonal considerations that is of a temporary nature to prevent erosion (i.e. rye grass) then a permanent variety must be over seeded and established within six (6) months of the original seeding.
- H. Ground covers used in lieu of grass in whole and in part shall be planted in such a manner as to present a finished appearance and reasonably completed coverage within one (1) year of planting.
- I. All required landscaped areas shall be equipped with an automatic, underground irrigation system with freeze- and moisture sensors to prevent watering at inappropriate times. Landscaped areas having less than twenty (20) square feet in area may be irrigated by some other inconspicuous method. If appropriate xeriscape planting techniques are utilized, the Zoning Board of Adjustments may waive the requirement for an underground irrigation system (see Section 9.6.F). However, the landscaping shall be required to be maintained in a healthy, living and growing condition, and any irrigation devices shall not be visible from public streets or walkways.
- J. Earthen berms shall have side slopes not to exceed 33.3 percent (three feet (3') of horizontal distance for each one foot (1') of vertical height). All berms shall contain necessary drainage provisions as may be required by the City's Engineer.

## 34.6 MINIMUM LANDSCAPING REQUIREMENTS FOR NEW RESIDENTIAL SUBDIVISIONS OR DEVELOPMENTS:

- A. For all new residential subdivisions or developments of twenty-five (25) dwelling units or more the following landscape requirements must be met as a condition of approval of the construction and issuance of a certificate of occupancy for each residential structure.
  1. The street parkway shall be defined as the area between the back of curb or edge of pavement and the street right-of-way line.
  2. The front yard shall be defined as the area between the street right-of-way line and the front building line of the house.
  3. A minimum four (4') feet wide sidewalk shall be required to be located adjacent to the right-of-way (front property line) in a private utility/public access easement a minimum of ten (10') feet from the edge of pavement. (sidewalk may meander back and forth across the front property line provided that no portion of the sidewalk is located within seven (7') feet of the edge of pavement).
  4. A minimum of one (1) street tree shall be planted for every fifty (50') feet of street frontage in the parkway in accordance with Illustration 34-1 below.
  5. A minimum of two (2) large shade trees shall be planted at the time of construction in the front yard (care should be exercised in the placement of large shade trees so as not to obscure the view of the front entryway of the house). Two small ornamental trees may be substituted for one large shade tree (see "Recommended Plant List" in this Section).

**Illustration 34-1: Parkway Landscaping Details**



## 34.7 MINIMUM LANDSCAPING REQUIREMENTS FOR NONRESIDENTIAL AND MULTI-FAMILY DEVELOPMENTS:

- A. For all nonresidential and multi-family developments (including schools, churches, day care facilities, and other similar uses in a residential district), at least ten percent (10%) of the street yard shall be a permanently landscaped area (see Illustration 34-1). The street yard shall be defined as the area between the building front and the front property line (which is not necessarily the edge of the pavement since the street right-of-way width allows for public utilities, traffic safety and drainage ways).
- B. A minimum ten-foot (10') landscape buffer (interior parkway) adjacent to the right-of-way of any major thoroughfare is required. Corner lots fronting two (2) major thoroughfares shall provide the appropriate required landscape buffer on both street frontages. One (1) large shade tree shall be required per fifty (50) linear feet (or portion thereof) of street frontage. Trees may be grouped or clustered to facilitate site design and to provide an aesthetically pleasing, natural looking planting arrangement. The landscaped buffer area may be included in the required street yard landscape area percentage.
- C. Landscape areas within parking lots should generally be at least one parking space in size, with no landscape area less than fifty (50) square feet in area. Landscape areas shall be no less than five feet (5') wide and shall equal a total of at least sixteen (16) square feet per parking space. There shall be a landscaped area with at least one (1) tree within sixty feet (60') of every parking space. There shall be a minimum of one (1) tree planted in the parking area for every ten (10) parking spaces for parking lots having more than twenty (20) spaces. Within parking lots, landscape areas should be located to define parking areas and to assist in clarifying appropriate circulation patterns. A landscape island shall be located at the terminus of all parking rows, and shall contain at least one tree. All landscape areas shall be protected by a monolithic concrete curb or wheel stops, and shall remain free of trash, litter, and car bumper overhangs. The area of parking lot landscaping islands shall be in addition to the required street yard landscape area percentage.
- D. Necessary driveways from the public right-of-way shall be permitted through all required landscaping in accordance with City regulations.
- E. Only shrubs, groundcovers or small ornamental trees shall be planted under existing or proposed overhead utility lines or over buried utilities.

#### **34.8 TREE PRESERVATION:**

- A. During any construction or land development, the developer shall clearly mark all trees to be maintained and may be required to erect and maintain protective barriers around all such trees or groups of trees. The developer shall not allow the movement of equipment or the storage of equipment, materials, debris or fill to be placed within the drip line of any trees.
- B. During the construction stage of development, the developer shall not allow cleaning of equipment or material under the canopy of any tree or group of trees to remain. Neither shall the developer allow the disposal of any waste material such as, but not limited to, paint, oil, solvents, asphalt, concrete, mortar, etc., under the canopy of any tree or groups of trees to remain. No attachment or wires of any kind, other than those of a protective nature, shall be attached to any tree.
- C. All existing trees which are to be preserved shall be provided with undisturbed, permeable surface area under (and extending outward to) the existing drip line of the tree. All new trees shall be provided with a permeable surface under the drip line a minimum of five feet (5') by five feet (5').

D. Any trees preserved on a site meeting the herein specifications may be credited toward meeting the tree requirement of any landscaping provision of this Section according to the following table:

<u>Diameter of Existing Tree</u>	<u>Credit Against Tree Requirement</u>
3" to 6"	1.0 tree
6" to 10"	1.5 trees
10" to 15"	2.0 trees
15" or more	3.0 trees

E. Due to their limited height, size and value as quality shade trees, mesquite and hackberry trees will receive only fifty (50%) percent of the above credit for tree preservation. All other existing trees may receive credit if they are not on the City's recommended plant material list but approved by the Director, or his designee. Should any required tree designated for preservation in the landscape plan die, the owner shall replace the tree with a two inch (2") minimum caliper tree in accordance with the credits listed above. Tree circumference shall be measured four and one-half feet (4½') above natural grade. No living trees greater than eight (8") inches in caliper may be cut, destroyed or damaged on the development site until approved as part of the site plan requirements in this Ordinance. However, certain nuisance, hazardous, diseased, or noxious trees may be required to be removed in the preparation of the site for construction as determined by a site inspection by the Director or his designee and shall not require mitigation.

#### **34.9 MAINTENANCE:**

A. The owner, tenant and/or their agent, if any, shall be jointly and severally responsible for the maintenance of all landscaping. All required landscaping shall be maintained in a neat and orderly manner at all times. This shall include, but not to be limited to, mowing (of grass of six (6") inches or higher), edging, pruning, fertilizing, watering, weeding, and other such activities common to the maintenance of landscaping. Landscaped areas shall be kept free of trash, litter, weeds, and other such material or plants not a part of the landscaping. All plant material shall be maintained in a healthy and growing condition as is appropriate for the season of the year. Plant materials, which die, shall be replaced with plant material of similar variety and size, within ninety (90) days. Trees with a trunk diameter in excess of six (6") inches measured twenty-four (24") inches above the ground may be replaced with ones of similar variety having a trunk diameter of no less than three (3") inches measured twenty-four (24") inches above the ground. A time extension may be granted by the Director, or his designee, if substantial evidence is presented to indicate abnormal circumstances beyond the control of the owner or his agent.

B. Failure to maintain any landscape area in compliance with this Section is considered a violation of this Section and may be subject to penalties of Section 7.

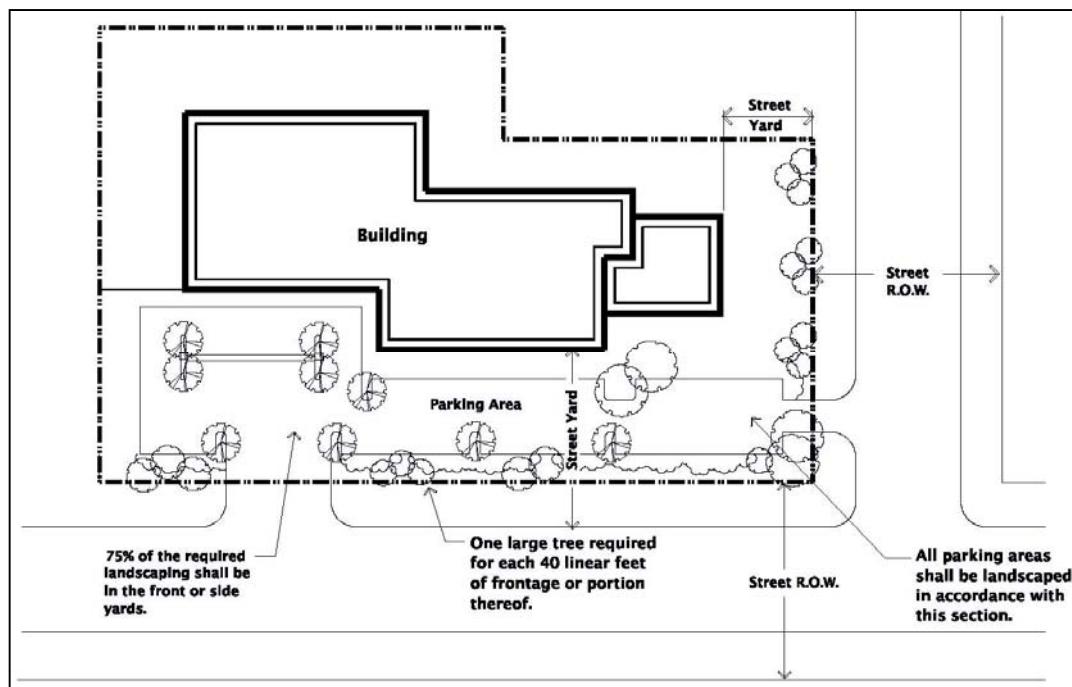
#### **34.10 SIGHT DISTANCE AND VISIBILITY:**

Rigid compliance with these landscaping requirements shall not be such as to cause visibility obstructions and/or blind corners at intersections. Visibility clearance shall be provided such that

no landscaping, fence, wall, architectural feature, screening, earth mounding (berms), signs, etc. shall obstruct the vision of a motor vehicle operator approaching any street, alley or driveway intersection as provided herein. Whenever an intersection of two (2) or more public rights-of-way occurs, a triangular visibility area, as described below, shall be created. Landscaping within the triangular visibility area shall be designed to provide unobstructed cross-visibility at a level between thirty inches (30") and eight feet (8'). A drive access serving large vehicles, such as delivery trucks, shall provide an unobstructed cross-visibility at a level between thirty inches (30") and nine feet (9'). Trees may be permitted in this area provided they are trimmed in such a manner that no limbs or foliage extend into the cross-visibility area. The triangular areas are:

- A. The areas of property on both sides of the intersection of an alley access way and public right-of-way shall have a triangular visibility area with two (2) sides of each triangle being a minimum of twenty feet (20') in length from the point of intersection and the third side being a line connecting the ends of the other two (2) sides.
- B. The areas of property located at a corner formed by the intersection of two (2) or more public rights-of-way (or a private driveway onto a public road) shall have a triangular visibility area with two (2) sides of each triangle being a minimum of twenty-five feet (25') in length along the right-of-way lines (or along the driveway curb line and the road right-of-way line) from the point of the intersection and the third side being a line connecting the ends of the other two (2) sides. For any intersection where the posted speed limit for cross traffic is forty-five miles per hour (45 mph) or more the sides of the visibility triangle shall be increased to forty-five feet (45') per side along the right-of-way.
- C. Landscaping, except required grass and low ground cover, shall not be located closer than three feet (3') from the edge of any access way pavement.
- D. In the event other visibility obstructions are apparent in the proposed landscape plan, as determined by the Municipal Development Department, the required landscaping set forth herein may be reduced or relocated to the extent to remove the conflict.

**Illustration 34-2: Landscape Requirements**





## RECOMMENDED PLANT LIST

### Large Trees

(within parking areas or as street trees)

*Green Ash (Fraxinus Pennsylvanica)*  
*White Ash (Fraxinus Americana)*  
*Bald Cypress (Taxodium distichum)*  
*Pond Cypress (Taxodium mucronatum)*  
*American Elm (Ulmus americana)* (Existing specimens are to be preserved since they are among Terrell's largest native shade trees, but not recommended for planting.)  
*Lacebark Elm (Ulmus parvifolia)*  
*Cedar Elm (Ulmus crassifolia)* (Avoid Winged Elm [*Ulmus alata*], which is similar but not adapted.)  
*Ginkgo (Ginkgo biloba)*  
*Chinquapin Oak (Quercus muehlenbergii)*  
*Live Oak (Quercus virginiana)*  
*Shumard Oak (Quercus shumardii)*  
*Water Oak (Quercus nigra)*  
*Chinese Pistache (Pistacia chinensis)*  
*Sweetgum (Liquidambar styraciflua)*

### Large Trees

(non-vehicular areas)

*Arizona Cypress (Cupressus glabra)*  
*Southern Magnolia (Magnolia grandiflora)*  
*Bur Oak (Quercus macrocarpa)*  
*Pecan (Carya illinoiensis)*  
*Common Persimmon (Diospyros virginiana)*  
*Western Soapberry (Sapindus Drummondii)*

### Small Trees

*Eve's Necklace (Sophora affinis)*  
*Possumhaw Holly (Ilex decidua)*  
*Yaupon Holly (Ilex vomitoria)*  
*Crape Myrtle (Lagerstroemia indica)*  
*Southern Wax Myrtle (Myrica cerifera)*  
*Lacey Oak (Quercus glaucooides)*  
*Vasey Oak (Quercus pungens var. vaseyi)*  
*Aristocrat Pear (Pyrus calleryana 'Aristocrat')* (Avoid Bradford Pear [P. c. 'Bradford'])  
*Eldarica Pine (Pinus eldarica)*  
*Mexican Plum (Prunus mexicana)*  
*Golden Rain Tree (Koelreuteria paniculata)*  
*Redbud (Cercis canadensis)*  
*Shining Sumac (Rhus copallina)*  
*Rusty Blackhaw Viburnum (Viburnum rufidulum)*

### Evergreen Shrubs

(acceptable for low [5' or less] screening)

*Dwarf Abelia (Abelia grandiflora 'Edward Goucher')*  
*Japanese Boxwood (Buxus microphylla var. japonica)*  
*Elaeagnus pungens 'Fruitlandii'*  
Berries Jubilee Holly (*Ilex cornuta* 'Berries Jubilee')  
*Carissa Holly (Ilex cornuta 'Carissa')*  
*Dazzler Holly (Ilex cornuta 'Dazzler')*  
*Dwarf Burford Holly (Ilex cornuta 'Dwarf Burford')*  
*Dwarf Chinese Holly (Ilex cornuta 'Rotunda')*  
*Dwarf Yaupon Holly (Ilex vomitoria 'Nana')*  
Nandina (*Nandina domestica*)

### Evergreen Shrubs

(acceptable for 6' screening)

*Glossy Abelia (Abelia grandiflora)*  
*Cleyera (Ternstroemia gymnanthera)*  
*Burford Holly (Ilex cornuta 'Burford')*  
*Chinese Horned Holly (Ilex cornuta)*  
*Mary Nell Holly (Ilex x 'Mary Nell')*  
*Needlepoint Holly (Ilex cornuta 'Needlepoint')*  
*Waxleaf Ligustrum (Ligustrum japonicum)*

### Large Evergreen Shrubs/Small Trees

(screening over 6' tall)

*Leyland Cypress (Cupressocyparis leylandii)* (30-40')  
*Nellie R. Stevens Holly (Ilex cornuta 'Nellie R. Stevens')* (10-15')  
*Cherry Laurel (Prunus caroliniana)* (12-20')  
*Glossy Ligustrum (Ligustrum lucidum)* (20-25')  
*Little Gem Magnolia (Magnolia grandiflora 'Little Gem')* (to 20')  
*Chinese Photinia (Photinia serrulata)* (12-20') (Avoid Red-Tip Photinia [P. x fraseri])

### Other Shrubs

*Barberry (Berberis spp.)*  
*American Beautyberry (Callicarpa americana)*  
*Indian Hawthorn (Raphiolepis indica)*  
*Wilson Holly (Ilex x altaclarensis 'Wilsonii')*  
*Earth-Kind (TAMU) Roses*  
*Savannah Holly (Ilex x 'Savannah')*  
*Rose-of-Sharon (Hibiscus syriacus)*  
*Autumn Sage (Salvia gregii)*  
St. Johnswort (*Hypericum patulum* 'Henryi')  
*Spiraea spp.*  
*Chastetree (Vitex agnus-castus)*  
*Juniper (Juniperus spp.)*  
Loropetalum

### Ground Covers

*Purpleleaf Honeysuckle (Lonicera japonica 'Purpurea')*  
*English Ivy (Hedera helix)* (shade only)  
*Asian Jasmine (Trachelospermum asiaticum)*  
*Trailing Juniper (Juniperus spp.)*  
*Harbour Dwarf Nandina (*Nandina domestica* 'Harbour Dwarf')*  
*Mondo Grass (Ophiopogon spp.)*  
*Vinca minor (Avoid *V. major*)*  
*Liriope muscari (Avoid *L. spicata*)*  
*Hardy Plumbago (*Ceratostigma plumbaginoides*)*

### Notes:

1. Plants in *italics* are preferred due to their lower water demand, as designated in "Landscape Water Conservation ... Xeriscape", published on the web at: <http://aggie-horticulture.tamu.edu/extension/xeriscape/xeriscape.html>.

2. *Additional plant materials may be approved on the landscape plan for landscaped areas, as may be appropriate for the use and effect intended.*
3. Additional information about selecting the best varieties of plants for your region can be obtained from the Urban Landscape Guide: <http://floriculture.tamu.edu:7998/urbanlandscapeguide/zipcode.html>