

ARTICLE 10. LANDSCAPE AND TREE PRESERVATION

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10.1 LANDSCAPE PLAN APPROVAL

A. Required Submittals

1. A landscape plan is required as part of a site plan review application for townhouse, multi-family, or non-residential, including mixed-use development as part of the preliminary site plan application for a planned unit development. The landscape plan must be approved prior to the issuance of a building permit. Landscape plans must be prepared by a landscape architect or civil engineer licensed in Louisiana. The landscape plan must meet the standards set forth in this Article and bear the landscape architect's or civil engineer's seal and signature.
2. Landscape plans must be submitted to the Executive Director and must include all submittal requirements. The Executive Director will evaluate the appropriateness of the landscape plan and may approve or approve with conditions.
3. New construction of single-family (attached or detached) and two-family dwellings do not require landscape plans.

B. Contents

Landscape plans must contain a scale drawing showing the following:

1. The location and dimensions of all existing and proposed structures, property lines, easements, parking lots and drives, rights-of-way, refuse disposal and recycling areas, pedestrian and bicycle paths, fences, mechanical equipment, overhead utility wires, retention/detention facilities, and other drainage facilities, such as drainage swales.
2. The location, quantity, size, name, and condition, both botanical and common, of all existing plant materials on-site, indicating plant material to be retained and to be removed.
3. The location, quantity, size, and name, both botanical and common, of all proposed plant material.
4. The existing and proposed grading of the site indicating contours at one foot intervals. Proposed berming must also be indicated using one foot contour intervals.
5. Elevations of all proposed fences, stairs, and retaining walls.
6. An irrigation plan by a certified irrigation designer, or a landscape architect or civil engineer licensed in Louisiana. The only irrigation information required on the landscape plan is the following:
 - a. The location and size of all water meters, including ones dedicated to the irrigation system, which must be located in the public right-of-way or a dedicated easement.
 - b. The irrigation plan must include a minimum of two hydro-zones: one for turf areas and one for prepared bed areas. Additional breakdowns may be requested after initial review of landscape plan.

7. Any other details as determined necessary by a reviewing body.

C. Stormwater Management and Alternative Landscape Design

1. In accordance with Article 11 of this Code, certain development and redevelopment actions require on-site stormwater management. In addition to the requirements of this Article for landscape plans, a stormwater management plan may also be required.
2. Alternative landscape design intended to improve stormwater quality and/or intended to decrease stormwater quantity will be considered if submitted as part of a site-specific stormwater management plan. Alternative landscape designs are subject to approval by the standards for landscape plan approval.

D. Changes to Approved Landscape Plans

1. Changes to the landscape plan that result in a reduction or addition in the net amount of plant material as specified on the approved landscape plan may be approved by the Executive Director.
2. Changes to a landscaping plan that results in a reduction in the net amount of plant material pertaining to special use permits, Small Planned Units Developments (SPUD), and Planned Unit Developments (PUD) must be approved by the decision making body granting approval. If the net amount of required plant material is not reduced, the modified landscape plan may be approved administratively by the Executive Director.

E. Certificate of Occupancy

No certificate of occupancy will be approved before completion of landscaping with the following exception. If, due to the seasonal nature of plant materials, landscaping has not been completed at the time that a certificate of occupancy could be granted, and the certificate is requested, the Executive Director and/or Zoning Administrator may grant a temporary certificate of occupancy, which will specify up to a maximum 90 day timeframe for completion of the landscaping requirements. The Executive Director and/or Zoning Administrator may grant an additional 30 days due to unforeseen circumstances.

10.2 LANDSCAPE DESIGN STANDARDS

A. Tree and Plant Palette

Required trees and plantings must comply with the list of trees and plants that are suitable for local soil and climate conditions, as listed in Section 10.12. The Executive Director may approve plants not included in the list if the species are native or naturalized to the area, and capable to withstand the seasonal temperature variations of the Caddo Parish, as well as the individual site microclimate.

B. Water Conservation

Landscape design must apply the principles of water conservation and will be reviewed for compliance with the following principles:

1. Careful landscape design that applies water conservation methods.
2. Soil protection and improvement.
3. Careful selection and design of turf areas.
4. The use of drought tolerant plant material.
5. The use of organic mulch around all plant material and areas that are not turf or hardscape.

C. Selection and Installation of Plant Materials

1. All plant materials must be of good quality and meet American Association of Nurserymen (AAN) standards for minimum acceptable form, quality, and size for species selected. Size and density of plant material, both at the time of planting and at maturity, are additional criteria that must be considered when selecting plant material.
2. All landscape materials must be installed in accordance with the current planting procedures established by the AAN. All plant materials must be free of disease and installed so that soil of sufficient volume, composition, and nutrient balance are available to sustain healthy growth. Installation of plant materials during the appropriate growing season is encouraged.
3. Where overhead utilities are present, the following provisions apply to the selection and installation of plant materials:
 - a. Only trees 25 feet in height or less at maturity are permitted within 20 feet of any overhead utilities. This includes the majority of the tree species classified as "small trees" in Section 10.12. Shrubs, grasses, vines, and other plant materials less than 25 feet in height are also permitted.
 - b. Any tree species taller than 25 feet at maturity, as classified in Section 10.12, must be planted at a setback from utility lines that is equal to or greater than the tree's height at maturity.

FIGURE 10-1: OVERHEAD UTILITY PLANTING ZONES



D. Minimum Planting Sizes

1. Shade trees, including broad-leaf evergreens, must have a minimum trunk size of three inches in diameter at breast height (DBH) at planting. For the purposes of this Code, where shade trees are required, broad-leaf evergreens are considered a shade tree.
2. Conifer evergreen trees must have a minimum height of six feet at planting.
3. Single stem ornamental trees must have a minimum trunk size of two inches in tree caliper at planting. Multiple stem ornamental trees must have a minimum height of eight feet at planting.

4. Large shrubs must have minimum height of three feet at installation. Small shrubs must have a minimum height of 18 inches at installation. Large shrubs are those shrubs that reach five or more feet in height at maturity. Small shrubs are those shrubs that may grow up to five feet in height if left unmaintained, but are generally maintained at heights of 18 to 36 inches.

E. Species Diversity

Diversity among required plant material is required for visual interest and to reduce the risk of losing a large population of plants due to disease. Table 10-1: Diversity Requirements indicates the percentage of diversity required based on the total quantity of species being used. For example, if a development requires 45 shade trees, no more than 18 trees (40%) and no less than five trees (10%) can be of one species, and there must be a minimum of five different species within the 45 trees. When the calculation of plant diversity requirements results in a fraction, said fraction is rounded up.

TABLE 10-1: DIVERSITY REQUIREMENTS			
Total Number of Plants per Plant Type	Maximum Number of One Species	Minimum Number of One Species	Minimum Number of Species
1-4	100%	N/A	1
5-10	60%	40%	2
11-15	45%	20%	3
16-75	40%	10%	5
76-500	25%	5%	8
500-1,000	30%	5%	10
1,000+	15%	4%	15

F. Existing Plant Materials

All plant materials existing on-site, including trees, may be counted toward any planting requirements of this Code so long as the location and type of plant material meets the intent of the specific planting requirements. Existing trees are credited according to the regulations of Section 10.6.B below.

G. Tree Protection During Development

During development, all precautions must be undertaken to prevent construction damage to existing trees. Protection includes prevention of injury to the trunk, branches, and root systems. No person may create a trench through the root system of an existing tree, expose the roots to the air overnight without a method for maintaining moisture, change the soil grade within the dripline of the tree, or cause soil compaction with the use of vehicles, machinery, or other method. The root systems of trees on adjacent lots must also be protected.

H. Underground Utilities and Utility Areas

1. Underground utilities, drain lines, and similar facilities which are located below landscape areas within parking lots must be installed as near to the edge of the planting area as possible, within the outer one-third of the available width of the planter, to minimize interference with tree installation.
2. Underground electric conduit, underground drain lines, communications cables, irrigation lines, and similar facilities must be installed within underground utility chases located within the first one-third of the available width of the planter, along the edge within medians, neutral grounds, peninsulas, divider islands, and interior islands. Offsets into the center of such spaces will be allowed if design dictates placement of light standards and other fixtures within the center of the space.

10.3 LANDSCAPE MAINTENANCE STANDARDS

Landscape material depicted on approved landscape plans is considered a required site element in the same manner as structures, parking, lighting, and other improvements. As such, the property owner is responsible for the maintenance, repair, and replacement of all landscape material, fences, walls, steps, retaining walls, and similar landscape elements.

- A. All plant material must be maintained in a healthy and growing condition, and must be replaced with plant material of similar variety and size if damaged, destroyed, or removed. Upon notice to the property owner, any dead, unhealthy, or missing plants must be replaced within 60 days, season permitting.

- B. Landscape areas must be kept free of trash, litter, weeds, and other such materials, and free of plants not a part of the landscape.
- C. An automatic irrigation system is required for all landscaping. The irrigation system must be designed with efficient water usage as an operational goal. The design must include appropriate shut-off devices, manual over-rides, and rain sensors. The irrigation system must be designed with zones to water plants based on similar water needs.
- D. Nothing in this section prohibits tree pruning to promote the health of a tree or for public safety purposes.

10.4 RIGHT-OF-WAY LANDSCAPE

- A. Any developer desiring to install and maintain landscape and irrigation facilities within the Parish right-of-way must first enter into and execute a "Median Right-of-Way Landscape and Irrigation Agreement."
- B. Entryway or amenity features within the Parish right-of-way may be developed under the responsibility of a homeowners association or commercial property owners association. Documents must be submitted as part of the preliminary plat review process for approval conditioned on Parish Public Works Department concurrence.

10.5 TREE PLANTING, MAINTENANCE AND REMOVAL ON STREET RIGHTS-OF-WAY AND OTHER PUBLIC GROUNDS

All electric transmission and distribution lines, wires, poles, lighting, along with any and all related facilities, in any way necessary for service by an electric public utility subject to the jurisdiction of the Louisiana Public Service Commission, shall be exempt from all of the limitations and requirements of this Code, except for requirements included in this section. Tree planting, maintenance and removal on street rights-of-way and other public grounds must meet the following standards:

A. Tree Planting

Trees may be planted within street rights-of-way or on other public grounds only after notification to the Parish Public Works Department and provided the selection and location of said trees are in accordance with the requirements of this Article.

B. Tree Removal

Trees shall not be removed from a street right-of-way or other public grounds unless approval is received from the Parish Public Works Department, with the exception that parish employees may remove trees when necessary to accomplish emergency repairs to sewer or water systems, or in order to alleviate flooding or other emergencies. A tree removal permit is required in order to remove any tree 30 inches or larger in caliper.

C. Damage to Trees

It shall be a violation of this section to damage, destroy or mutilate any tree in a public right-of-way or on other public grounds, or attach or place any rope or wire (other than one to support a young or broken tree or limb), sign, poster, handbill or any other thing to any such tree.

D. Top or Cutback to Stubs

It shall be unlawful for any person to top or cutback to stubs the crown of any tree in street rights-of-way or on other public grounds.

E. Reserved Rights

Caddo Parish reserves the right to plant, preserve, prune, maintain or remove any tree within the street rights-of-way, alleys, squares, and all public grounds when such interferes with the proper spread of light along the street from a street light, or interferes with visibility of any traffic control device or sign, or as may be necessary to preserve or enhance the symmetry and beauty of such public grounds.

F. Line of Sight

Trees shall not be planted to conceal a fire hydrant from the street or impede the line of sight on any street.

G. Storm Damage

Trees severely damaged by storms, or other accidental causes, where required pruning practices are impractical are exempt from this Article.

H. Public Utilities

Nothing in this section shall be construed to prohibit public utilities from pruning or removing trees that encroach upon electric, telephone, or cable television transmission lines, or gas, sewer or water pipes.

I. Pruning Plans

The utility provider, whether it be electric, telephone, cable television, or gas shall present yearly pruning plans for trees located within designated utility easements that cross public property. The applicable department, at their discretion, may follow-up with said utility provider to address any issues identified in the submitted plans.

J. Electric Utility Provider

The electric utility provider will provide a copy of its annual vegetation management plan submitted to the Louisiana Public Service Commission that addresses planned trimming of select electrical circuits. The applicable department, at their discretion, may follow-up with the electric utility provider to provide input regarding the plan. There will be no requirement to notify applicable departments of reactive vegetation management conducted outside of the annual vegetation management plan that is necessary to provide reliable electric service to the provider's customers.

10.6 TREE PRESERVATION INCENTIVE

The purpose of this section is to encourage the preservation and maintenance of the Parish's urban forest and rural character.

A. Applicability

1. The terms and provisions of the section apply to all new development and redevelopment for non-residential (including mixed-use), townhouse, and multi-family developments, including additions and alterations. Rights-of-way, streets, parks, and any other public property under the jurisdiction of Caddo Parish are governed by the requirements of this section. This section does not apply to lots where a site plan or preliminary site plan has been approved on the effective date of this Code.
2. This section does not apply to the maintenance of overhead or underground utility lines.

B. Tree Credit Option

1. Credit for tree preservation will be granted for only trees eight inches or greater in caliper within a property's landscape buffer or other Parish owned property. However, the applicant may select certain trees to be preserved elsewhere on the site and receive tree credits towards the landscape plan.
2. All property owners are encouraged to preserve as many existing mature trees as possible in the design and implementation of the landscape plan.
3. Each individual tree may be credited only once.
4. A tree proposed for use as a credit to satisfy a development's tree planting requirements must be shown on a tree preservation plan and approved as part of the underlying site plan review process.

- For each existing tree preserved, maintained in living and growing condition, and incorporated into the landscape design, the following credits are applied to the minimum tree requirements:

DBH* of Preserved Trees	Number of Trees Credited (Existing: Required)
8—11 inches	1:4
12—18 inches	1:5
19—24 inches	1:6
25—29 inches	1:7
Greater than 30 inches	1:8

* The DBH of a preserved tree is rounded to the nearest inch.

- Preserved trees included on the Tree and Plant Palette may provide up to 50% of the minimum tree requirement. Preserved trees may only be used as credit where adequate green area, as required herein, is provided to maintain the tree in a healthy condition.
- The landscape area surrounding a preserved tree must be located so that the trunk of the tree is as close to the center of the landscape area as possible. The applicant must incorporate generally accepted preservation practices that insure exchange of water and oxygen to the root system.

C. Tree Preservation Plan

In order to receive credit for preserved trees, the applicant must include as part of the landscape plan a Tree Preservation Plan.

- The Tree Preservation Plan must include the location, size and condition of each tree or grove to be preserved, along with an indication of proposed development features, which may impact such trees, and any other pertinent information as required by this Article to evaluate existing and proposed conditions.
- The Tree Preservation Plan must include a detailed description of all methods to be used to ensure the survival of all trees scheduled for preservation credit including information that may be required to interpret the intent and methodology proposed.
- All tree preservation methodology must conform to the standards of the Louisiana Department of Agriculture and Forestry, the Louisiana Horticulture Commission, and the International Society of Arboriculture.

D. Tree Protection During Construction

For existing trees that are to be preserved and credited, the following best practices should be followed:

- Existing trees to be preserved must be clearly tagged and have a barricade or fence along the tree's drip line prior to grading and construction. Areas to remain preserved are to be barricaded so that construction practices in the field will protect existing trees from compaction of soil, harmful grade changes, trenching, or injury from machines.
- Pavement or building foundations should not encroach into the critical root zone.
- Sidewalks or other forms of hard surfaces that do not require soil compaction and are not intended for vehicular use may be located within the critical root zone.
- No wall, pavement, or porous pavement may be placed closer than one foot for every two inches in caliper or five feet, whichever is greater, to the trunk of the tree.
- Root pruning may be necessary when the critical root zone is to be disturbed.

E. Replacement of Preserved Trees Lost During Construction

Trees identified on the tree preservation plan (per item C above), but were damaged or destroyed during construction and removed, must be replaced. Replacement trees must meet the landscape design standards of Section 10.2 of this Article.

1. The following ratio for replacement trees are applied to the minimum tree requirements:

DBH* of Lost Tree	Tree Ratio (Existing: Replaced)
8—11 inches	1:2
12—18 inches	1:3
19—24 inches	1:4
25—29 inches	1:5
Greater than 30 inches	1:6

2. If the physical limitations of the subject property cannot accommodate all required replacement trees, the developer may locate the extra trees in public rights-of-way, medians, on private open space areas, or in public park land with the approval of the Director of Shreveport Public Assembly and Recreation Department (SPAR), or the Director of Public Works for the Parish.

10.7 RESERVED

10.8 LANDSCAPE REQUIREMENTS IN ALL DISTRICTS

All portions of a lot not covered by structures or paved surfaces must be landscaped with trees, shrubs, grass, live groundcover, and other plantings. The landscape design may also include the use of stone, mulch beds, or other pervious landscaping materials.

10.9 NON-RESIDENTIAL DISTRICT AND USE LANDSCAPE REQUIREMENTS

These landscape requirements standards apply to all non-residential districts and uses. Parking lots are subject to the requirements of this section, whether accessory or principal. A planned unit development that contains landscape standards is regulated by the standards of the planned unit development.

A. Landscape Buffer

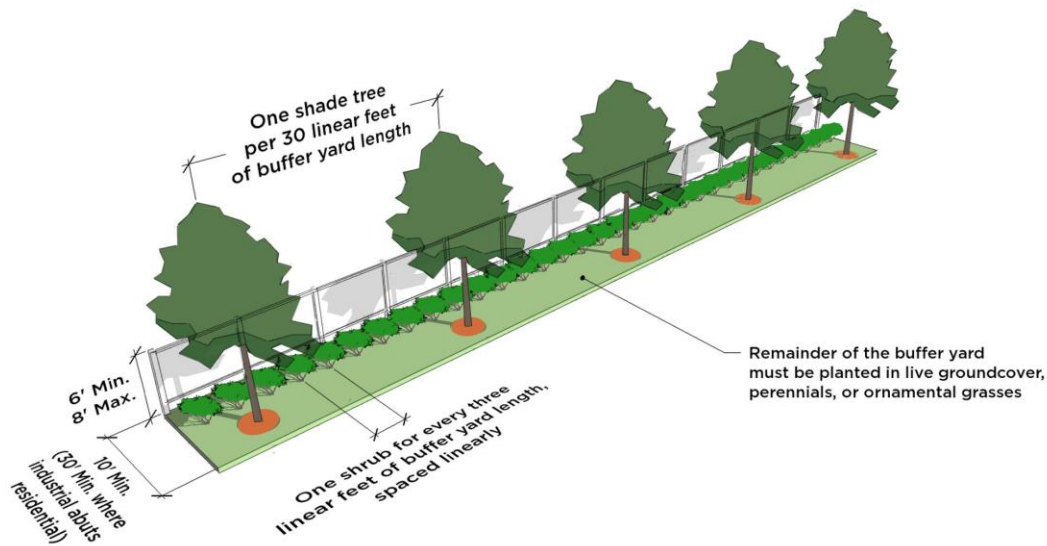
Buffer yards are located within rear and interior side yards, including the required rear or interior side setbacks, and must be reserved for the planting of material and installation of screening as required by this section. No parking spaces or accessory structures are permitted within the required buffer yard.

1. As of the effective date of this Code, non-residential districts and uses require buffer along interior side and rear yards in the following cases:
 - a. Where a non-residential use is located within a residential district, excluding parks.
 - b. Where a non-residential district abuts a residential district. This does not apply to the NA, or OS Districts or to any public parks.
 - c. Where I-1 or I-2 District abuts a commercial district.
2. The minimum size and improvement of buffer yards is as follows (Figure 10-2). When the calculation of minimum buffer yard requirements results in a fraction, the fraction is rounded up to the nearest whole number.
 - a. A buffer yard must be a minimum of ten feet in width. A buffer yard must be a minimum 30 feet in width where any industrial district abuts a residential district.
 - b. One shade tree must be planted for every 30 linear feet of buffer yard length. As part of the landscape plan approval, trees may be spaced at various intervals based on specific site

requirements, but the total number of trees planted must be no less than one per 30 linear feet of buffer yard length.

- c. A solid fence or masonry wall a minimum of six feet and a maximum of eight feet in height must be erected along 100% of the yard length.
3. One shrub, measuring a minimum of 18 inches in height at planting and reaching a minimum of three feet in height at maturity, must be planted for every three linear feet of buffer yard length, spaced linearly.
4. The remainder of the buffer yard must be planted in live groundcover, perennials, or grass.

FIGURE 10-2: BUFFER YARD



B. Landscape Along Street Rights-of-Way

1. Applicability

- a. All parking lots, whether accessory or principal, require landscaping along that portion of the parking lot that abuts a street right-of-way. Street right-of-way does not include alleys.
- b. Non-residential structures that are set back from any lot line that abuts a street right-of-way by 20 feet or more are also required to provide landscape in accordance with this section in such area. This excludes all or a portion of such area when it is used for outdoor seating. This does not apply to the OS or NA Districts or to any public park use.

2. Planting Area Size

- a. The landscape planting area in the I-1 and I-2 Districts must be a minimum of 15 feet in width. In all other districts, the landscape planting area must be a minimum of seven feet in width.
- b. The Executive Director or Caddo Parish Planning and Zoning Commission may reduce the width of the required landscape edge during site plan review when the reduction is required for public improvements.

3. General Planting Requirements

All landscape areas along street rights-of-way are required to meet these general requirements:

- a. One shade tree or three ornamental trees must be planted per 500 square feet of planting area. The number of required trees is calculated solely on the area of the planting area.
- b. Landscape areas outside of required plantings must be planted with live groundcover, perennials, or grass. Any permeable surface not occupied by trees, shrubs, planting beds, signs, or other permitted fixtures must be planted with grass or other living groundcover. The landscape design may also include the use of stone, mulch beds, or other pervious landscaping materials.
- c. No site developed prior to the effective date of this Code is required to conform to the requirements of this section unless the site is being redeveloped. Redevelopment is considered to occur when a building is increased by 25% or more of the existing gross floor area and/or the addition of ten or more parking spaces to an existing parking lot.

4. Parking Lot Edge Planting Requirements

In addition to the general requirements of item 3 above, parking lot edges that abut street rights-of-way are required to meet these requirements:

- a. The planting area of a parking lot edge that abuts a street right-of-way requires ten shrubs per 500 square feet of planting area. The number of required shrubs is calculated solely on the area of the planting area. The shrub requirement is encouraged to be supplemented by an open fence of a maximum of five feet in height (Figure 10-3). Any one or more of the following alternatives to shrub plantings are also permitted:
 - i. A berm that effectively screens vehicle headlights. The berm must be 18 to 40 inches above the average grade of the street and parking lot curbs. The slope of the berm cannot exceed a 3:1 grade. Berms must be planted with grass or groundcover. Additional plantings are encouraged to provide visual interest and may be required by the Executive Director.
 - ii. A pedestrian wall a minimum of three feet to a maximum of four feet in height may be used instead of shrubs. Where feasible, plant materials should be installed between the sidewalk and the wall to provide a softening effect.
 - iii. Stormwater management techniques, such as rain gardens and bioswales, that provides screening of a minimum of three feet in height.
- b. Automobile bumpers cannot overhang into the planting area of a parking lot. If the parking stalls adjacent to the landscape edge are 18 feet deep, an additional two feet of landscape area is required. The additional two feet of landscape area will not be included in calculating the required number of plantings.

FIGURE 10-3: PARKING LOT PERIMETER LANDSCAPE

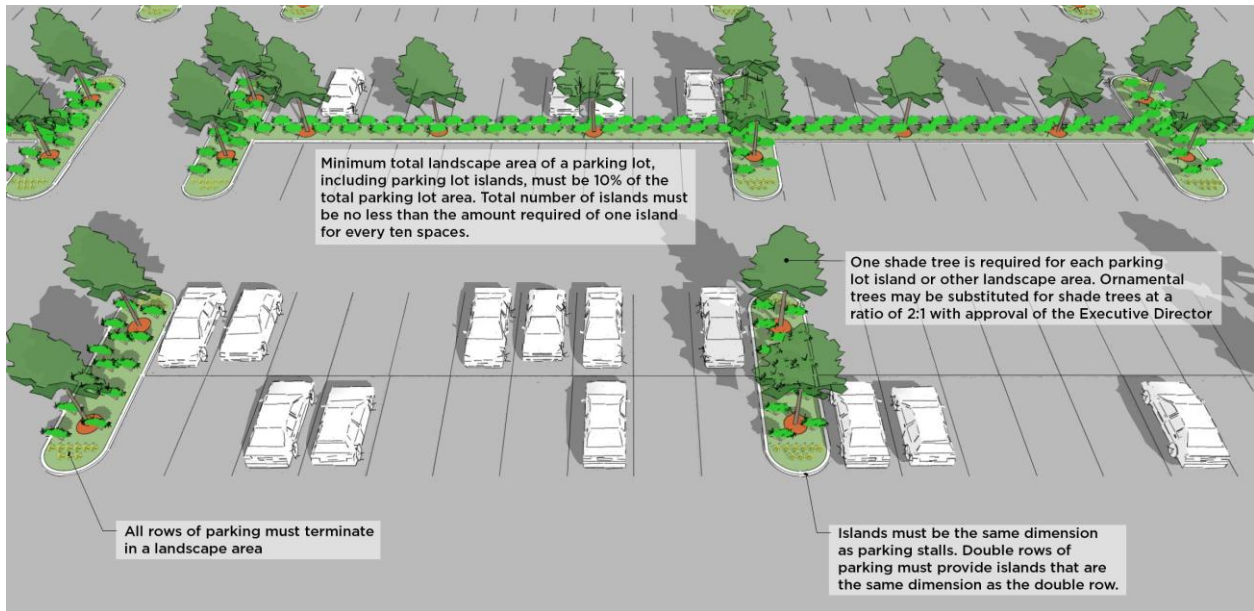


C. Interior Parking Lot Landscaping

Parking lots that abut street right-of-way, excluding alleys, of ten or more spaces must provide interior landscaping per this Section. Parking lots that do not abut street right-of-way and are not visible from the street right-of-way of 20 or more spaces must provide interior landscaping per this Section. When the calculation of interior parking lot landscape requirements results in a fraction, said fraction is rounded up to the nearest whole number.

1. The minimum total landscape area of a parking lot, including parking lot islands, must be 10% of the total parking lot area. Parking lot landscaping along a street lot line, as required above, is excluded from the calculation of total parking lot area.
2. One parking lot island is required between every ten parking spaces and all rows of parking spaces must terminate in a landscape area. As part of the landscape plan review and approval, parking lot island locations may vary from this requirement based on specific site requirements or design scheme, but the total number of islands must be no less than the amount required of one island for every ten spaces. Parking lot islands must be the same dimension as the parking stall. Double rows of parking must provide parking lot islands that are the same dimension as the double row. One shade tree is required for each parking lot island or other landscape area. Ornamental trees may be substituted for shade trees at a ratio of 2:1 with approval of the Executive Director.
3. The use of stormwater management elements such as rain gardens and bioswales is encouraged in landscape areas. When a parking lot island is designed for stormwater management, the tree requirement may be exempted as part of landscape plan approval when such trees are not typically part of such design.
4. Unless designated as a stormwater conservation area on a stormwater management plan, landscape areas must be protected by a raised six inch concrete curb. Pavement cannot be placed closer than five feet from the trunk of a tree. In cases where a tree must be within five feet of a curb or pavement, an approved root barrier device is required. The root barrier must be a rigid material system; no chemicals or flexible mesh are permitted.
5. Where an existing parking area is altered or expanded to increase the number of spaces to more than 20 spaces, interior landscaping must be provided on the new portion of the lot in accordance with the above standards.

FIGURE 10-4: PARKING LOT INTERIOR LANDSCAPE



D. Landscaping for Below-Grade Open Parking Structures

Below-grade open parking structures located in the front setback must provide the following landscape:

1. An 18 foot wide planting area must be provided between the below-grade parking structure and the street right-of-way. The landscape edge is exclusive of street rights-of-way.
2. The planting area must include a minimum three foot tall berm, measured from the lot line after grading. The berm cannot exceed a 3:1 slope. One shade tree or an ornamental tree must be provided per 50 feet of street frontage within the landscape edge between the below-grade open parking and the street right-of-way. Berms must be planted with grass or groundcover. Additional plantings are encouraged to provide visual interest and may be required by the Executive Director.

E. Landscaping for Above-Ground and/or At-Grade Parking Structures

Above-ground and/or at-grade parking structures must provide the following landscape. This does not apply to parking structures that are fronted with non-residential uses.

1. When the structure is located 100 feet or less from the adjacent street right-of-way, landscape is required as follows:
 - a. A minimum ten foot landscape edge is required along the perimeter of the parking structure.
 - b. Within the required landscape edge, one shade tree is required provided for every 50 linear feet of parking structure frontage, exclusive of entry drives and pedestrian access points. Ornamental trees can be substituted for shade trees at a ratio of 2:1.
 - c. Additionally, ten shrubs are required per required shade tree. If a decorative trellis is used as part of the façade structure, vines meet the minimum shrub requirement.
2. When the structure is located more than 100 feet from the adjacent street right-of-way, one shade tree is required for every 50 linear feet of parking structure frontage, exclusive of entry drives and pedestrian access points, and must be planted within a maximum of 10 feet from the exterior perimeter of the parking structure. Ornamental trees can be substituted for shade trees at a ratio of 2:1.

10.10 RESIDENTIAL DISTRICT AND USE LANDSCAPE REQUIREMENTS

These landscape requirements standards apply to all residential districts and uses. Parking lots in residential districts are subject to the requirements of Section 10.9 above, whether accessory or principal. A planned unit development that contains landscape standards is regulated by the standards of the planned unit development.

A. Landscape Buffer

Buffer yards are located within rear and interior side yards, including the required rear or interior side setbacks, and must be reserved for the planting of material and installation of screening as required by this section. No parking spaces or accessory structures are permitted within the required buffer yard.

1. As of the effective date of this Code, buffer yards are required for new construction along interior side and rear yards in the following cases:
 - a. Where an R-2 District abuts a R-A, R-E, R-1-12, R-1-10, R-1-7, R-1-5, or R-TH District. This does not apply to any single-family – detached or attached, and two-family dwellings.
 - b. Where a multi-family dwelling is located within a R-A, R-E, R-1-12, R-1-10, R-1-7, or R-1-5.
2. The minimum size and improvement of buffer yards is as follows (Figure 10-2). When the calculation of minimum buffer yard requirements results in a fraction, the fraction is rounded up to the nearest whole number.
 - a. A buffer yard must be a minimum of ten feet in width.
 - b. One shade tree must be planted for every 30 linear feet of buffer yard length. As part of the landscape plan approval, trees may be spaced at various intervals based on specific site requirements, but the total number of trees planted must be no less than one per 30 linear feet of buffer yard length.
 - c. A solid fence or masonry wall a minimum of six feet and a maximum of eight feet in height must be erected along 100% of the yard length.
2. One shrub, measuring a minimum of 18 inches in height at planting and reaching a minimum of three feet in height at maturity, must be planted for every three linear feet of buffer yard length, spaced linearly.
3. The remainder of the buffer yard must be planted in live groundcover, perennials, or grass.

B. Multi-Family Dwelling Landscaping Requirements

Multi-family dwellings that are set back from any lot line that abuts a street right-of-way by 10 feet or more are also required to provide landscape in accordance with this section in such area.

1. One shade tree or an ornamental tree must be planted per 500 square feet of planting area. The number of required trees is calculated solely on the area of the planting area.
2. A variety of ornamental trees and flowers are encouraged in addition to the required plantings.
3. Any permeable surface not occupied by trees, shrubs, and plantings beds, signs or other permitted fixtures must be planted with grass or other living groundcover. Gravel, bark mulch, or other similar materials are not acceptable.

10.11 PLANNED UNIT DEVELOPMENT LANDSCAPING REQUIREMENTS

An approved planned unit development (PUD) that contains landscape standards is controlled by the regulations of the planned unit development. Where the planned unit development does not contain specific landscape standards, the landscape standards of the underlying zoning district, as described in this Article, apply. However, the following exceptions apply to planned unit developments. These do not apply to small planned unit developments (SPUD).

- A.** For all non-residential and multi-family PUDs, a minimum 30 foot wide buffer yard is required around the entire perimeter of a planned unit development whenever the lands abutting the planned unit development are zoned for residential purposes. Landscaping and other screening features such as berms and/or fencing must be established within the required buffer area to provide a solid screen separating the development site from adjoining properties. No structures, parking, or outdoor storage is permitted in a required buffer area, although trail systems and walkways may be allowed, provided that solid screening is in place within the remaining buffer area.
- B.** A minimum 20 foot wide buffer yard is required around the common perimeter of a planned unit development, whenever the lands abutting the PUD are zoned for non-residential purposes. The buffer must be continuous in nature, except in those locations where shared parking and/or shared access or utility connections are necessary, or when critical areas extend beyond the PUD boundaries to adjacent parcels.
- C.** Maintenance responsibilities for the buffer area must be clearly identified in the preliminary application. All buffer area restrictions must be clearly noted on the preliminary and final site plan, as well as on the preliminary and final plat, to advise potential lot purchasers/lessees of said buffer restrictions and their individual responsibilities.
- D.** During the preliminary site plan review process, the Caddo Parish Planning and Zoning Commission may reduce the width of the landscape edge upon a finding that the full landscape requirement would prevent a property's reasonable development in a safe, efficient manner.

10.12 TREE AND PLANT PALETTE

- A.** The following list contains trees and shrubs that are approved for planting based upon growth habit, natural range, and aesthetic quality. This list is by no means comprehensive, and other species may be used if plant zone requirements are met according to the temperature ranges of the Shreveport/Caddo area, and if approved by the Executive Director.
- B.** The species included for Street/Parking Areas are tolerant of urban conditions, and are recommended for parkway or parking areas. Note that each species vary greatly in terms of size and appearance at maturity, and that not every tree is the right selection for every street. When selecting a street tree, it is critical to consider the physical conditions of the site, both natural and man-made. The species selected should be carefully considered for its ability to flourish while respecting functional requirements of the parkway where it is planted. These may include the accommodation of above-ground or underground utilities, vehicle clearances, solar access, and the placement of streetlights, among others. An appropriate species must be selected, and soil and hydrological conditions should be optimized, to ensure the health and longevity of the tree.

LARGE SHADE TREES (50+ FEET)														
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Street / Parking Areas	Evergreen	Fall Color	Attractive Flowers	Showy Fruit	Unique Bark / Trunk	Fragrant	Streambank	Wildlife	Drought Tolerant	Comments / Notes
Ash, Green	<i>Fraxinus pennsylvanica</i>	50'+	20'-25'	•		•		•			•	•	H	Adaptable tree; transplants well; green to purple flowers.
Ash, White	<i>Fraxinus americana</i>	50'+	40'-50'	•		•		•					M	Purple in fall; larval plant for butterflies; seeds for birds.
Beech, American	<i>Fagus grandifolia</i>	50'+	40'-50'			•			•				M	Hard to grow plants under. Should be restricted to large area use for parks and estates.
Birch, River	<i>Betula nigra</i>	40'-70'	40'-60'						•		•	•	M	Often grown multistemmed. Handsome tree used as specimen in parks and lawns. Seeds attract birds.
Catalpa, Northern	<i>Catalpa speciosa</i>	40'-60'	20'-40'				•	•				•	H	Makes a good open lawn tree in parks and other public grounds. Heavy shade beneath the canopy of catalpa trees.
Catalpa, Southern	<i>Catalpa bignonioides</i>	40'-60'	20'-40'				•	•				•	H	Can be a messy tree in manicured landscapes, but makes a good open lawn specimen tree.
Cedar, Japanese	<i>Cryptomeria japonica</i>	50'+	20'-30'	•	•	•			•				H	They offer a wide range of color and texture choices.
Cottonwood, Eastern	<i>Populus deltoides</i>	40'-50'	20'-30'						•		•	•	M	This large tree is used in parks and playgrounds. Wind rushing through the foliage creates a fluttering sound. In autumn, the foliage turns yellow. It is pollution and salt tolerant.
Cypress, Bald	<i>Taxodium distichum</i>	50'+	25'-40'	•		•		•	•		•	•	H	Is very tolerant to typical urban conditions as well as wet areas. Its slender pyramidal form, beautiful leaf texture, attractive bark and fast growing habit make this a worthwhile tree to plant.
Cypress, Pond	<i>Taxodium ascendens</i>	30'-70'	15'-20'			•			•		•	•	H	The soft, green, fern-like foliage turns coppery and then brown in autumn. Flowers insignificant, fruit purple.
Elm, American	<i>Ulmus americana</i>	50'+	50'+	•		•					•	•	H	This large, graceful, spreading tree is well suited to lawns and urban landscapes.
Elm, Slippery	<i>Ulmus rubra</i>	50'+	30'-40'	•		•					•	•	H	The large red samara in very showy before the leaves emerge in the spring landscape.
Ginkgo (Male Only)	<i>Ginkgo biloba</i>	50'+	40'-50'	•		•			•				H	It is one of the best trees to produce yellow-gold autumn color.
Hackberry	<i>Celtis occidentalis</i>	50'+	50'+			•			•		•	•	H	Good tree for park or large area use. Fruit is popular with winter birds.
Hickory, Bitternut	<i>Carya cordiformis</i>	40'-80'	30'-50'			•						•	H	Can be planted as an ornamental.
Hickory, Black	<i>Carya texana</i>	50'+	32-35			•						•	H	The seeds of black hickory are thick-shelled but edible.
Hickory, Mockernut	<i>Carya tomentosa</i>	50'+	30'-40'			•						•	H	A medium sized to large tree capable of reaching over 100 feet tall with a straight stem and a rounded crown.
Hickory, Pignut	<i>Carya glabra</i>	50'+	30'-40'			•						•	H	Autumn color can be outstanding.
Hickory, Shagbark	<i>Carya ovata</i>	50'+	20'-30'			•			•			•	M	It has a number of landscape attributes such as autumn color, branching interest and textural contrast.
Hickory, Water	<i>Carya aquatica</i>	50'+	30'-40'			•					•	•	H	Large tree with tall straight trunk, slender upright branches, narrow crown, and bitter inedible nuts.
Kentucky Coffee-Tree	<i>Gymnocladus dioica</i>	50'+	40'-50'	•		•								Makes a good lawn specimen and does well in urban settings.

LARGE SHADE TREES (50+ FEET)														
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Street / Parking Areas	Evergreen	Fall Color	Attractive Flowers	Showy Fruit	Unique Bark / Trunk	Fragrant	Streambank	Wildlife	Drought Tolerant	Comments / Notes
Magnolia, Southern	<i>Magnolia grandiflora</i>	50'+	30'-40'		•		•	•		•	•	•	M	Should be planted where lowest branches reach ground.
Magnolia, Sweet Bay	<i>Magnolia virginiana</i>	40'-60'	20'-30'	•	•		•	•		•	•	•	M	Used as specimen tree.
Mulberry, Red	<i>Morus rubra</i>	50'+	30'-40'					•			•	•	M	The ripened fruit turn from red to black and are edible and birds readily consume them.
Oak, Black	<i>Quercus velutina</i>	30'-40'	40'-50'	•		•						•	M	Wildlife enjoy the acorns of this red oak.
Oak, Bur	<i>Quercus macrocarpa</i>	50'+	50'+			•		•	•			•	H	Tolerant of urban conditions and drought. Can be used as a shade and specimen tree in home grounds and in public areas.
Oak, Cherry Bark	<i>Quercus falcata var. pagodifolia</i>	50'+	50'+	•		•						•	M	Absent from pinelands, except along streams. It is well adapted to growing in the heavy soils found in major river bottoms.
Oak, Chinkapin	<i>Quercus muehlenbergii</i>	50'+	40'-50'	•		•						•	M	In autumn the yellow-green leaves may turn yellow, red or brown.
Oak, Laurel	<i>Quercus laurifolia</i>	50'+	40'-60'	•		•						•	M	Transplants well; shiny leaves; acorns.
Oak, Live	<i>Quercus virginiana</i>	50'+	50'+		•			•				•	H	It has a commanding presence in the landscape and should only be used on very large properties or public grounds.
Oak, Nuttall	<i>Quercus nuttallii</i>	50'+	30'-40'	•		•						•	M	This member of the red oak group is an outstanding, long-lived shade tree.
Oak, Overcup	<i>Quercus lyrata</i>	30'-50'	30'-40'			•		•				•	M	A very slow growing species that is found in heavy, wet soils that may be covered by flood waters each winter and spring. It is seldom grown as an ornamental.
Oak, Sawtooth	<i>Quercus acutissima</i>	40'-50'	40'-50'	•		•		•				•	H	This drought tolerant tree from China is a clean, pest free species that makes an excellent shade tree.
Oak, Shumard Red	<i>Quercus shumardii</i>	+50'	+50'	•		•						•	H	Excellent landscape or street tree. Bright red autumn color and is reliable for color in the deep South. Its acorns, every two years, are eaten by wildlife.
Oak, Southern Red	<i>Quercus falcata</i>	+50'	+50'	•		•						•	M	Makes an excellent shade tree that is very durable; acorns are a source of food for wildlife.
Oak, Swamp Chestnut	<i>Quercus michauxii</i>	+50'	+50'	•		•		•	•			•	M	An outstanding shade with excellent fall color with leaves turning a reddish-maroon color. Wildlife eat the large acorns which may be produced on an annual basis.
Oak, Water	<i>Quercus nigra</i>	+50'	+50'	•		•						•	H	Provide wildlife food, but only produce acorns every two years.
Oak, White	<i>Quercus alba</i>	+50'	40'-50'	•		•		•				•	M	Avoid planting near paved areas; red to wine fall color.
Oak, Willow	<i>Quercus phellos</i>	+50'	+50'	•		•						•	H	Yellow fall color; not as messy as some oaks. Good shade tree. Acorns offer an abundant source for wildlife.
Pecan	<i>Carya illinoensis</i>	+50'	+50'			•		•				•	H	Nuts eaten by a number of species of wildlife. Are subject to aphids, caterpillars and other insects as well as the fungus disease, scab.
Pine, Loblolly	<i>Pinus taeda</i>	+50'	40'-50'	•	•			•	•	•	•	•	M	6-10" dark green leaves; most rapid growth of all pines.
Pine, Shortleaf	<i>Pinus echinata</i>	+50'	30'-40'	•	•			•	•	•	•	•	H	Dark, blue-green needles; seeds eaten

LARGE SHADE TREES (50+ FEET)														
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Street / Parking Areas	Evergreen	Fall Color	Attractive Flowers	Showy Fruit	Unique Bark / Trunk	Fragrant	Streambank	Wildlife	Drought Tolerant	Comments / Notes
														by birds.
Sugarberry	<i>Celtis laevigata</i>	+50'	+50'			•			•	•	•	•	H	Orange to blue-black, fruit attracts birds; yellow in fall.
Sweetgum	<i>Liquidambar styraciflua</i>	+50'	40'-50'			•					•		M	Seeds eaten by birds; spiny fruit litters the ground.
Sweetgum, Fruitless	<i>Liquidambar styraciflua</i> 'Rotundiloba'	+50'	30'-50'	•		•					•		M	This cultivar does not set fruit (gum balls) and consequently the lawn is not covered with infamous gum balls in fall and winter.
Sycamore, American	<i>Platanus occidentalis</i>	+50'	30'-40'	•		•		•	•		•		H	Used for watershed protection - it can be planted on wet sites.
Tulip Poplar (Yellow Poplar)	<i>Liriodendron tulipifera</i>	+50'	30'-40'	•		•	•			•		•	M	Cup-shaped, fragrant flowers in spring; attracts birds.
Tupelo, Black (Blackgum)	<i>Nyssa sylvatica</i>	+50'	30'-40'	•		•					•	•	M	Spectacular fall colors make it a fine choice as a street tree in residential areas.
Tupelo, Water	<i>Nyssa aquatica</i>	30'-50'	20'-30'	•		•					•	•	M	The nectar from the flowers makes a fine honey and wildlife eat the seeds produced in fall and winter.
Walnut, Black	<i>Juglans nigra</i>	30'-60'	30'-60'					•			•	•	M	Roots produce toxins which are poisonous to many plants so do not plant near fruit trees or gardens. Nuts are eaten by woodpeckers, foxes, and squirrels.

MEDIUM TREES (26-49 FEET)														
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Street / Parking Areas	Evergreen	Fall Color	Attractive Flowers	Showy Fruit	Unique Bark / Trunk	Fragrant	Streambank	Wildlife	Drought Tolerant	Notes
Bois D'arc (Osage Orange)	<i>Maclura pomifera</i>	20'-30'	20'-30'			•		•	•		•	•	H	A native tree produces a low, mounding canopy with very large fruit in autumn. This tree will grow under adverse conditions.
Cedar, Atlas	<i>Cedrus atlantica</i>	30'-50'	15'-20'		•			•					H	Bold, pyramidal form. One of the most popular evergreen conifers. A spectacular specimen for large landscape areas. Drought tolerant, when established.
Cedar, Deodar	<i>Cedrus deodara</i>	30'-50'	20'-30'		•			•					H	Large, pyramidal form with attractive foliage and graceful, arching branches.
Cedar, Eastern Red	<i>Juniperus virginiana</i>	30'-50'	15'-20'	•	•				•	•		•	H	Good ornamental that is also useful for windbreaks, shelter belts, hedges and topiary work.
Cherry, Black	<i>Prunus serotina</i>	50'+	30'-35'			•	•	•	•	•		•	M	Provides food for migratory birds in April. The white, fragrant flowers are always abuzz with insects, including honeybees.
Cherry, Laurel	<i>Prunus caroliniana</i>	30'-50'	15'-20'	•	•		•			•		•	H	Makes a nice evergreen screen or hedge.
Chinese Parasol	<i>Firmiana simplex</i>	25'	10'			•			•				H	Distinctive smooth green trunks and branches. Excellent for narrow spaces.
Chokecherry	<i>Prunus virginiana</i>	25'-30'	15'-20'			•	•	•	•	•	•	•	H	This tough, hardy and colorful ornamental is perfect for difficult spots, tolerating heat, cold, wind and poor soil.
Cypress, Leyland	<i>x Cupressocyparis leylandii</i>	20'-30'	10'-15'	•	•				•				H	Very fast growth, 3+ feet per year in youth, makes a quick solution to problem views or lack of privacy, though best reserved for estates or large commercial sites.
Elm, Cedar	<i>Ulmus crassifolia</i>	30'-50'	20'-30'	•		•					•		H	Native tree that is often found along sandy streams.
Elm, Lacebark	<i>Ulmus parvifolia</i>	30'-50'	20'-30'	•		•			•				H	Trees grow rapidly for the first few years and provide quick shade. This tree can tolerate urban conditions and a wide range of soil conditions.
Elm, Water	<i>Planera aquatica</i>	25'-35'	20'-30'	•		•			•		•	•	M	This tree is attractive to bees, butterflies and/or birds.
Elm, Winged	<i>Ulmus alata</i>	30'-50'	20'-30'	•		•					•		H	This native is an excellent shade tree for both residential sites as well as larger more open spaces.
Holly, American	<i>Ilex opaca</i>	30'-50'	20'-30'	•	•			•	•	•	•	•	H	Red berries into winter; must have both sexes for berries.
Honey Locust	<i>Gleditsia triacanthos</i>	20'-30'	25'	•		•			•			•		Excellent lawn and street tree. Picturesque form and branching. Winter character
Hornbeam, American (Ironwood)	<i>Carpinus caroliniana</i>	30'-50'	20'-30'	•		•			•			•	M	Good street tree; scarlet fall color. Common understory tree.
Kentucky Yellowwood	<i>Cladrastis kentuckea</i>	30'-50'	30'-40'	•		•	•	•	•	•			M	An excellent, easy to grow, shade tree. Turf grows reasonably well under canopy.
Magnolia, Southern	<i>Magnolia grandiflora</i> spp.	30'-50'	10'-15'	•	•		•	•	•	•	•	•	M	Naturally a small tree or large shrub. Attractive when trained as an espalier against a wall or fence. gardens.
Maple, Florida (Southern Sugar Maple)	<i>Acer barbatum</i>	20'-30'	20'-35'	•		•			•				H	Not as much fall color as sugar maple; seeds eaten by birds.
Maple, Red	<i>Acer rubrum</i>	20'-30'	20'-30'	•		•	•	•			•	•	M	Excellent tree as specimen for lawn and park settings. Excellent fall color. Good shade tree. Buds, flowers and leaves provide food for many birds.
Oak, Bluejack	<i>Quercus incana</i>	20'-30'	20'-25'	•	•	•			•			•	H	Makes a good candidate for use as a street tree or for parking lot situations. It is very tolerant of drought and should make a great addition to urban landscapes.

MEDIUM TREES (26-49 FEET)

Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Street / Parking Areas	Evergreen	Fall Color	Attractive Flowers	Showy Fruit	Unique Bark / Trunk	Fragrant	Streambank	Wildlife	Drought Tolerant	Notes
Persimmon, Common	<i>Diospyros virginiana</i>	30'-50'	30'-40'			•		•	•		•	•	H	Produces fruit that is a valued wildlife food.
Pine, Spruce	<i>Pinus glabra</i>	30'-50'	20'-30'		•			•				•	M	Used for windbreaks, screening, and background massing. Seeds serve as a source of food for birds and mammals.
Pistache, Chinese (Male Only)	<i>Pistacia chinensis (male only)</i>	30'-50'	30'-40'	•		•			•				H	Desirable ornamental tree with attractive umbrella-like crown that turns a brilliant crimson in fall. Dependable tree for street or lawn, patio or garden corner planting. Pest resistant.
Sassafras	<i>Sassafras albidum</i>	30'-50'	20'-30'	•		•	•	•	•	•		•	H	Yellow, orange, pink, scarlet fall color; attracts birds.
Silverbell, Carolina	<i>Halesia carolina</i>	20'-30'	15'-20'	•			•	•	•		•		M	Similar culture to dogwood; white, bell-shaped flowers.
Soapberry, Western	<i>Sapindus saponaria var. drummondii</i>	20'-30'	20'-30'	•				•					H	It is a relatively clean tree. Autumn color is outstanding.
Tickle-Tongue (Prickly Ash)	<i>Zanthoxylum clava-herculis</i>	20'-30'	15'-30'					•	•	•	•		H	Best used as a border tree or with massing.

SMALL TREES (10-25 FEET)														
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Street / Parking Areas	Evergreen	Fall Color	Attractive Flowers	Showy Fruit	Unique Bark / Trunk	Fragrant	Streambank	Wildlife	Drought Tolerant	Notes
Buckeye, Red	<i>Aesculus pavia</i>	10'-20'	10'-20'	•			•	•				•	M	Salmon/red flwrs in spring; attracts humming birds and bees.
Crabapple	<i>Malus spp.</i>	20'-25'	15'-20'			•	•	•		•		•	M	Can be used in many types of landscape settings as they tolerate urban conditions well.
Crape Myrtle	<i>Lagerstroemia indica</i>	15'-20'	15'-20'	•		•	•		•				H	Ornamental tree that comes in many flower colors, heights, widths, autumn color of foliage and growth habits.
Devil's Walking Stick	<i>Aralia spinosa</i>	15'-20'	5'-10'			•	•				•	•	M	Excellent for woodland gardens and other naturalistic sites.
Dogwood, Flowering	<i>Cornus florida</i>	40'	15'-20'	•		•	•	•					M	4" white bracts in April; fruit attracts birds; red fall color.
Dogwood, Rough-Leaf	<i>Cornus drummondii</i>	20'	20'	•		•	•	•					H	A large specimen tree can be quite attractive in flower and for sure in the fall when there is a heavy fruit set.
Dogwood, Stiff	<i>Cornus foemina</i>	15'	10'	•		•	•	•			•	•	M	A reasonably attractive specimen and very easy to grow.
Fringetree, American	<i>Chionanthus virginicus</i>	15'-20'	12'-20'	•		•	•					•	M	Excellent specimen tree or in groups, borders or near large buildings.
Hawthorn, Mayhaw	<i>Crataegus opaca</i>	15'-20'	15'-20'				•	•	•		•	•	M	Tolerates a wide variety of moisture, drainage and light conditions. Fruit is highly prized for making jelly.
Holly, Dahoon	<i>Ilex cassine</i>	15'-20'	10'-15'		•								M	This native makes a nice specimen, particularly in a tub or container, is good in naturalistic plantings.
Holly, Deciduous (Possumhaw)	<i>Ilex decidua</i>	20'	20'	•		•	•					•	M	White flwrs in spring; orange berries into winter (female).
Holly, Yaupon (Female)	<i>Ilex vomitoria</i>	20'-25'	10'-15'		•			•			•	•	H	Grows in a wide range of soil conditions from wet to dry. This easy to grow, deer resistant plant has few insect and disease pests.
Magnolia, Pyramid	<i>Magnolia pyramidata</i>	30'-40'	15'-20'				•	•	•	•	•	•	L	The flowers are fragrant, showy, creamy-white and exude a strong turpentine scent.
Magnolia, Saucer	<i>Magnolia x soulangiana</i>	20'-25'	10'-15'	•		•	•		•				M	The most widely grown and easiest to grow of the oriental magnolias. Can be used as a specimen, accent, in group or mass plantings. Deer resistant.
Magnolia, Sweetbay	<i>Magnolia virginiana</i>	10'-20'	10'-20'	•	•		•	•		•	•	•	M	This elegantly shaped flowering tree is a great choice for a specimen or patio tree.
Maple, Japanese	<i>Acer palmatum</i>	15'-20'	15'-20'	•		•			•				M	An excellent landscape choice. There are hundreds of different cultivars that vary greatly in height, spread and leaf types.
Pawpaw	<i>Asimina triloba</i>	15'-20'	10'-15'			•	•					•	M	A shrub or small tree that tolerates shade. Flowers open greenish-brown and become deep red.
Plum, American	<i>Prunus americana</i>	10'-15'	10'-15'				•	•		•		•	M	Attractive masses of white flowers are present in late winter or early spring.
Plum, Mexican	<i>Prunus mexicana</i>	15'-20'	15'-20'			•	•	•	•	•		•	M	An excellent tree for natural settings and in woodland edges.
Redbud, Eastern	<i>Cercis canadensis</i>	15'-20'	15'-20'	•		•	•	•					H	Rosy-pink flowers in spring; drought-tolerant; yellow in fall.
Serviceberry, Shadblow	<i>Amelanchier arborea</i>	15'-20'	15'-20'	•		•	•	•				•	M	Well adapted for naturalistic plantings adjacent to ponds, lakes and other bodies of water, even in damp soils.
Silverbell, Two-Winged	<i>Halesia diptera</i>	20'-35'	20'-25'	•			•	•			•	•	M	White to pink, bell-shaped flowers in spring.

SMALL TREES (10-25 FEET)

Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Street / Parking Areas	Evergreen	Fall Color	Attractive Flowers	Showy Fruit	Unique Bark / Trunk	Fragrant	Streambank	Wildlife	Drought Tolerant	Notes
Snowbell, American	<i>Styrax americanus</i>	8'-10'	3-5'	•			•			•		•	M	Fragrant white flowers mid-spring; rounded form.
Snowbell, Bigleaf	<i>Styrax grandifolius</i>	15'-20'	20-25'	•			•			•		•	M	
Southern Wax Myrtle	<i>Myrica cerifera</i>	15'-20'	10'-15'	•	•			•		•	•	•	M	Useful as screening, for hedges, and birds eat the fruit.
Sparkleberry	<i>Vaccinium arboreum</i>	10'-15'	5-10'	•		•	•	•	•	•		•	H	Tree-like shrub; white flowers; dark berries in fall.
Stewartia, Virginia	<i>Stewartia malacodendron</i>	8'-10'	5'-10'				•	•	•				M	Waxy white flowers; cinnamon colored bark; slow grower.
Sumac, Shining	<i>Rhus copallina</i>	8'-10'	5'-10'	•		•	•	•				•	H	Used as an ornamental; many birds and mammals eat seeds.
Sumac, Smooth	<i>Rhus glabra</i>	8'-10'	5'-10'	•		•	•	•				•	H	Common tree used in open fields, along roadways, and other disturbed sites.
Sumac, Stagmom	<i>Rhus typhina</i>	15'-20'	15-20'	•		•	•	•	•			•	M	This sumac tolerates a wide range of growing conditions.
Viburnum, Arrowwood	<i>Viburnum dentatum</i>	8'-10'	5-10'	•		•	•	•				•	M	An excellent shrub for naturalistic settings growing in shade to full sunlight.
Viburnum, Possumhaw	<i>Viburnum nudum</i>	5'-8'	3-5'	•		•	•	•			•	•	M	An excellent viburnum for shaded gardens and other naturalistic sites.
Viburnum, Rusty Blackhaw	<i>Viburnum rufidulum</i>	15'-20'	10-15'	•		•	•	•	•			•	H	An excellent selection for naturalistic sites planted as an understory shrub to tall pines and other trees.
Witch Hazel, Common	<i>Hamamelis virginiana</i>	15'-20'	15'-20'	•		•	•			•			M	Creamy to bright yellow flowers in fall; golden fall color.
Witch Hazel, Vernal	<i>Hamamelis vernalis</i>	10'-15'	10'-15'	•		•	•			•		•	M	Easy to grow in a wide variety of garden soils and situations; best in sun to part shade and fertile, well drained soils.

VINES				
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Notes
American Wisteria	<i>Wisteria frutescens</i>	15'-20'	20'-30'	American wisteria is often used as an ornamental planting. The 'Dam B' cultivar has blue flowers in racemes and flowers late May to June and sporadically throughout the summer and fall.
Coral Honeysuckle	<i>Lonicera sempervirens</i>	15'-20'	5'-10'	Trumpet-shaped flowers mid-spring that will attract humming birds.
Creeping Fig	<i>Ficus pumila</i>			Climbs on walls made of almost any material.
Cross Vine	<i>Bignonia capreolata</i>	30'-50'	15'-20'	Long-lived; slow to establish; self-seeds; orange in fall.
Jasmine, Confederate	<i>Trachelospermum jasminoides</i>	10'-15'	10'-15'	This vine is noted for its highly fragrant, star-shaped flowers that can virtually cover a mass of foliage when in bloom.
Leatherflower	<i>Clematis crispa</i>	8'-10'	5'-10'	Blue, pink, lavender or white; dies to ground each year.
Passionflower	<i>Passiflora incarnata</i>	15'-20'	15'-20'	Lavender flowers; edible fruit; attracts butterflies.
Trumpet Creeper	<i>Campsis radicans</i>	25'-40'	5'-10'	Vigorous climber that produces beautiful orange, trumpet-shaped blooms, attractive to hummingbirds. Provide support such as trellis, fence or arbor for excellent colorful accent to patio, pathways or garden perimeter.
Virginia Creeper	<i>Parthenociss quinquefolia</i>	50'+	15'-20'	Fast-growing vine clings to walls and other surfaces for a quick cover. Dark-green leaves turn brilliant orange-red in fall. Good groundcover.
Virgin's Bower	<i>Clematis virginiana</i>	12'-15'	12'-15'	White flowers in late summer to early fall.
Yellow Jessamine	<i>Gelsemium sempervirens</i>	15'-20'	15'-20'	Foliage bronzes in winter; all parts of plant are toxic.

SHRUBS				
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Notes
Abelia	<i>Abelia x grandiflora</i>	5'-8'	3'-5'	No common insect or disease problems. Drought tolerant. White flowers in May until frost; fragrant. 'Edward Goucher' abelia has lavender flowers.
Althea	<i>Hibiscus syriacus</i>			This hardy, deciduous, vase-shaped, woody shrub blooms for several weeks beginning in midsummer.
Amazon Series Dianthus	<i>Dianthus 'Amazon Series'</i>	1'-2'	1'-2'	A wonderful plant for display in the garden and for use as a cut flower.
American Beautyberry	<i>Callicarpa americana</i>	8'-10'	5'-10'	Excellent native shrub for naturalistic sites like the edges of woodlands and other places where natives are featured. This shrub is quite drought tolerant.
Arborvitae	<i>Arborvitae sp.</i>			A very hardy arborvitae with dark green foliage that retains its color through the winter.
Arrowwood Viburnum	<i>Viburnum dentatum</i>	8'-10'	5'-10'	This is an excellent shrub for naturalistic settings growing in shade to full sunlight.
Aspidistra	<i>Aspidistra elatior</i>	2'-5'	2'-3'	Purple flowers near base of plant not often seen. Often used as a groundcover under live oaks. Do not use in sun.
Aucuba	<i>Aucuba japonica</i>	5'-8'	5'-10'	Dark green and yellow variegation. Needs well-drained soil. Other varieties available 'variegata' such as 'Goldieana' with a variegated spot in center of foliage and 'Nana,' a dwarf variety.
Azalea	<i>Rhododendron spp.</i>	Varies		Many different cultivars exist of this very popular flowering shrub. Although most bloom in spring, many cultivars that bloom at other times of the year are becoming more popular.
Banana Shrub	<i>Michelia figo</i>	15'-20'	5'-10'	Has an upright, positive form and used as accent, specimen, and in shade gardens.
Barberry, Japanese	<i>Berberis thunbergii</i>	2'-5'	3'-5'	Tolerant of pollutants in urban environment. Drought resistant. Will not grow in wet, poorly drained soils.
'Belinda's Dream' Rose	<i>Rosa 'Belinda's Dream'</i>	2'-5'	3'-5'	This is a shrub rose that has been compared to hybrid tea roses. It is noted for its outstanding fragrance and the foliage is bluish-green.
Boxwood, Common	<i>Buxus sempervirens</i>	3'-4'	3'-4'	A favorite plant for topiary and other speciality pruning as would be the case in pattern gardens.
Boxwood, Japanese	<i>Buxus microphylla japonica</i>			Tolerates heat, humidity and nematodes better than most boxwoods. Foliage may bronze in cold winters.
Boxwood, Korean	<i>Buxus sinica var. insularis 'Wintergreen'</i>	2'-5'	2'-3'	An excellent choice for hedges of moderate heights. It produces dark green, dense foliage and holds its color well during the winter months when some boxwood turn a bronze color due to cold temperatures.
Boxwood, Littleleaf	<i>Buxus microphylla</i>	5'-8'	3'-5'	Very popular boxwood for parterre work. Takes pruning quite well, although several prunings may be required annually to maintain a crisp hedge or strong pattern in the garden.
Camellia	<i>Camellia japonica</i>	10'	10'	There are many varieties of Camellia japonicas, and they come in many shapes, sizes, and colors of flowers.
Camelot White Foxglove	<i>Digitalis purpurea 'Camelot White'</i>	2'-5'	1'-2'	Best grown in part shade in the hot, sunny South. Flowers are good for cuts and butterflies are attracted to them.
Chinese Holly	<i>Ilex cornuta</i>	10'-15'	5'-10'	Excellent as a screen or barrier plant.
Chinese Mahonia	<i>Mahonia fortunei</i>	5'-8'	3'-5'	While the foliage texture is coarse, visually it appears softer than most other mahonias.
Chinese Witchhazel	<i>Loropetalum chinense</i>	8'-10'	5'-10'	Used as specimen, in mass plantings, shrubs, and in containers. It is almost pest free and easy to grow in most garden soils and shade situations.
Cleyera	<i>Temstroemia gymnanthera</i>	8'-10'	5'-10'	This evergreen can be used as a small specimen evergreen tree standing alone and is equally effective used in mass as a privacy hedge.
Daylily	<i>Hemerocallis fulva</i>	2'-5'	2'-3'	There are over 60,000 registered varieties and the flowers come in many colors, shapes, sizes and forms.
'Diamonds Blue' Delphinium	<i>Delphinium chinensis</i>	2'-4'	1'-2'	Delphiniums may be annuals, biannuals or perennials.
Drift Rose Series	<i>Rosa 'Meijocosa'</i>	1'-2'	2'-3'	Small, low, spreading roses are invaluable for use in confined areas as a long blooming selection that is also a good groundcover and growing in containers.

SHRUBS				
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Notes
Dwarf Nandina	<i>Nandina domestica</i> 'Purpurea Nana'	2'-3'	2'-3'	Does not flower or fruit. Tolerates drought, sun and shade.
Dwarf Palmetto	<i>Sabal minor</i>	5'	5'	Palm-like appearance. Fan-shaped leaves. Naturalistic settings. Understory plantings.
Elaeagnus, Thorny	<i>Elaeagnus pungens</i>	10'-15'	15'-20'	This huge, sprawling shrub grows well in a wide range of soil conditions, including fairly dry ones.
False Indigo	<i>Baptisia australis</i>	2'-5'	3'-5'	Beautiful indigo blue flowers followed by seed pods that turn an attractive black when mature. Plants may be sheared after flowering to keep height down and encourage a more rounded growth of specimen. Clumps slowly develop over time and plants appear more shrub-like.
Fatsia	<i>Fatsia japonica</i>	5'-8'	3'-5'	This shrub cannot tolerate wet, heavy soils nor bright sunlight or sub-freezing temperatures. One of the best broadleaf plants for shady areas.
Florida Jasmine	<i>Jasminum floridum</i>	2'-5'	3'-5'	It tolerates high temperatures and humidity. It blooms over a period of several months, but never has a big flush of flowers.
Flowering Quince	<i>Chaenomeles speciosa</i>	8'-10'	5'-10'	Many cultivars with broad color range of flowers. Mature plants can stand drought.
Forsythia	<i>Forsythia x intermedia</i>	8'-10'	5'-10'	It makes a good accent or specimen plant and adapts well to being planted on slopes.
Fortune's Osmanthus	<i>Osmanthus x fortunei</i>	10'-15'	5'-10'	This osmanthus can be used as a screen, a clipped hedge, in containers and as a specimen plant.
Frostproof Gardenia	<i>Gardenia augusta</i> 'Frostproof'	5'-8'	5'-10'	A bit hardier than the species. Has peak bloom in spring followed by sporadic blooming in summer.
Fuzzy Deutzia	<i>Deutzia scabra</i>	8'-10'	3'-5'	Easy to grow in the average garden soil, needs full sun and annual pruning after spring flowering to remove weak, broken, or dead branches.
Garden Hydrangea	<i>Hydrangea macrophylla</i>	5'-8'	3'-5'	Plants may be regular size and up to 8-10 feet, while the dwarf varieties are only 2-3 feet.
Gardenia	<i>Gardenia jasminoides</i>	2'-5'	3'-5'	Gardenias make a nice moderately low privacy hedge and also are especially nice in the shrub border growing as specimen plants.
Holly Fern	<i>Cyrtomium falcatu</i>	2'-3'	2'-3'	Needs shade, moisture, humidity shade and a well-drained soil. Can be used as a ground cover.
Holly Osmanthus	<i>Osmanthus heterophyllus</i>	10'-15'	5'-10'	A small tree or large shrub lends itself well to pruning and can be used as sheared hedge, barrier plant, it also makes a good screen and can be grown in containers.
Huckleberry	<i>Gaylussacia dumosa</i>	8'-10'	3'-5'	Native, semi-evergreen shrub has highly irregular, spreading branches that often give it a sculptured effect.
Indian Hawthorn	<i>Raphiolepis indica</i>	4'-6'	4'-6'	Needs full sun or will develop a fungal leaf spot. 'Clara' and 'Snow' are recommended cultivars.
Japanese Holly	<i>Ilex crenata</i>	8'-10'	5'-10'	Has dense, compact growth on a rounded plant. Best used in mass plantings, along walks, or as tall ground covers.
Japanese Pieris	<i>Pieris japonica</i>	8'-10'	5'-10'	It is excellent for woodland gardens, in a container, and in the shade garden.
Japanese Privet (Wax Leaf Ligustrum)	<i>Ligustrum japonicum</i>	10'-15'	10'-15'	Commonly used as a clipped or unclipped hedge, as a topiary, and in large containers.
Juniper	<i>Juniperus spp.</i>	Varies		This is a large group of evergreen plants of varying sizes and growth patterns.
Lanceleaf Tickseed	<i>Coreopsis lanceolata</i>	2'-5'	1'-2'	This is an excellent bedding plant for summer color.
Leatherleaf Mahonia	<i>Mahonia bealei</i>	5'-8'	3'-5'	It is very good for shady areas and can be used in foundation plantings, and in masses or groups.
Little Suzy Black Eyed Susan	<i>Rudbeckia fulgida var. speciosa</i> 'Viette's Little Suzy'	2'-5'	2'-3'	Bright, daisy-like, golden yellow flowers with brownish-purple centers. Sturdy, compact, upright habit which makes it a wonderful bedding plant for mixed borders and wildflower gardens. Very drought tolerant.
Mock Orange	<i>Philadelphus coronarius</i>	10'-15'	5'-10'	Used as specimen, in shrub border, and in screens.
Nandina	<i>Nandina domestica</i>	5'-8'	5'-10'	Easy to grow almost anywhere.
Oakleaf Hydrangea	<i>Hydrangea quercifolia</i>	5'-8'	5'-10'	Has distinctive, deeply lobed, oak-like leaves that turn reddish in fall.
Oleander	<i>Nerium oleander</i>	15'-20'	10'-15'	Used in screening, containers, mass plantings and as specimen plant.

SHRUBS				
Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Notes
Penny Mac Hydrangea	<i>Hydrangea macrophylla</i> 'Penny Mac'	4'-6'	3'-4'	This wildly popular selection requires minimal care, yet provides a prolific display of fantastic mop-head flowers repeatedly throughout summer. Blooms tend to be blue in acid soils and pink in more alkaline soils. Mass for a dramatic effect or combine with perennials and shrubs in beds and borders.
Pinnate Prairie Coneflower	<i>Ratibida pinnata</i>	2'-3'	1'-2'	A slender, hairy-stemmed plant bearing flower heads with drooping, yellow rays surrounding a roundish to ellipsoid, grayish central disk darkening to brown as rays drop off.
Pittosporum, Japanese	<i>Pittosporum tobira</i>	6'-8'	6'-8'	Creamy white fragrant flowers in the spring. This drought-tolerant plant is poisonous to animals, particularly cattle. Also tolerant of salt. A variegated variety has a white leaf margin.
Podocarpus	<i>Podocarpus macrophyllus</i>	15'-20'	5'-10'	It is used as a hedge, clipped hedge, topiary and for wildlife food. The arils of the fruit have been reported edible by humans. When established, it is drought tolerant.
Possumhaw	<i>Ilex decidua</i>	15'-20'	5'-10'	A narrow, upright, rounded cultivar whose leaves are narrow, turn yellow and hang on the plant into the fall.
Primrose Jasmine	<i>Jasminum mesnyi</i>	4'-6'	4'-6'	Drought tolerant. Used to stabilize banks on road cuts.
Privet	<i>Ligustrum spp.</i>	Varies		A very versatile landscape plant for hedges, foundation plantings, topiary or screens. Hard to beat for adding form, adaptability and color contrast to the landscape. Evergreen.
Purple Coneflower	<i>Echinacea purpurea</i>	2'-5'	1'-2'	This is a wonderful perennial that blooms during the summer months. The flowers are more pink than purple.
Pyracantha	<i>Pyracantha sp.</i>	10'-15'	10'-15'	Used for espalier, screening, barrier planting and specimen plant. This pyracantha has drought tolerance.
Red Leaf Photinia	<i>Photinia fraseri</i>	8'-10'	8'-12'	Excellent medium shrub for hedge or screens. New growth explodes in bright bronze-red in early spring, maturing to large, dark green leaves. Evergreen, can be used as espalier or as a patio tree.
Sago Palm	<i>Cycas revoluta</i>	8'-10'	5'-10'	very desirable evergreen plant displaying a stout trunk and long leaves with many narrow stiff leaflets. The leaves of this palm-like tree form an open rosette.
Sasanqua	<i>Camellia sasanqua</i>	15'-20'	5'-10'	Easy to grow and rewarding with abundant flowers in fall and winter. They may be used as specimens, espaliers, and screening.
Shishi Gashira Camellia	<i>Camellia sasanqua</i> 'Shishi Gashira'	4'-5'	6'-8'	A versatile performer displaying profuse, hot pink, semi-double blooms with golden yellow stamens in the center and glossy, dark green foliage. Excellent choice for a colorful low hedge or high profile groundcover.
Southern Arrowwood	<i>Viburnum recognitum</i>	5'-15'	5'-10'	<i>Spiraea tomentosa</i> grows to up to four feet high, and prefers moist to wet soil and full sun.
Spirea	<i>Spirea spp.</i>	Varies		Although many species and varieties of spirea are available, all have small leaves less than 2" long, showy flowers, are drought tolerant and were widely used around homes in antebellum days.
Sweet Osmanthus	<i>Osmanthus fragrans</i>	15'-20'	10'-15'	This large shrub or small tree may be used as a screen, hedge or in containers.
Sweet Shrub	<i>Calycanthus floridus</i>	10'-15'	5'-10'	Flowers are very fragrant and the leaves are aromatic when crushed. Produces nice autumn color. Well adapted for naturalistic sites where natives are featured. Normally produces multiple stems.
Sweet Viburnum	<i>Viburnum spp.</i>	Varies		Most have white clusters of flowers in the spring. Tolerant of drought but must be grown in well-drained soils.
Texas Mountain Laurel	<i>Sophora secundiflora</i>	8-10'	10'-15'	This is an excellent small evergreen tree and large shrub for the residential scale where conditions are favorable for their use.
Upright Prairie Coneflower	<i>Ratibida columnifera</i>	2'-3'	1'-2'	A colorful addition to natural-looking, easy-care borders. The drooping petals and columnar center have the effect of a Mexican sombrero.
Virginia Willow, Sweetspire	<i>Itea virginica</i>	4'	4'	Understory flowering shrub. Red fall color. Native shrub. Naturalistic settings. Detail plantings.
Wax Leaf Viburnum	<i>Viburnum japonicum</i>	8'-10'	5'-10'	This viburnum produces large glossy foliage and upright plant form that is ideal for use as a privacy hedge.
Weigela	<i>Weigela florida</i>	5'-8'	5'-10'	This flowering shrub is well adapted for a mixed border of shrubs.

GRASSES & GRASS-LIKE

Common Name	Scientific Name	Height (feet)	Width / Spread (feet)	Notes
Big Blue Lilyturf	<i>Liriope muscari</i> 'Big Blue'	1'-2'	1'-2'	Abundant blue flower spikes rise above the attractive, tufted arching, grasslike foliage followed by clusters of black berries. Superior edging, border or groundcover.
Butterfly Iris	<i>Dietes bicolor</i>	2'-5'	3'-5'	Flowers over extended period. Mass planting. Detail design.
Common Periwinkle	<i>Vinca minor</i> 'Variegata'	> 1'	1'-2'	Evergreen perennial displays profusion of lilac blue flowers. Terrific groundcover for flower beds. Creamy white margin to dark green leaves. Use on banks and steep slopes. Roots as it spreads.
Fountain Grass	<i>Pennisetum alopecuroides</i> spp.	1'-3'	1'-3'	Graceful mounding form. Excellent in masses. Winter character.
Liriope, Variegated	<i>Liriope muscari</i> 'Variegata'	1'-2'	1'-2'	A clump forming plant of strap-like, arching, medium green leaves which are variegated with creamy yellow margins. Used as a ground cover, in borders, as edging and in containers. Has lavender flowers.
Moss Phlox	<i>Phlox subulata</i>	>1"	12"	This is an old fashioned perennial that is well adapted to dry rocky soils and other places with shallow soils. Provide a well-drained soil and full sunlight.
Pampas grass	<i>Cortaderia selloana</i>	10'-15'	5'-10'	Ornamental grass with showy, white 30-inch plumes held above narrow, sharp-edged foliage that forms large clumps. Good, natural-looking screen/windbreak or landscape accent.
Pink Muhly Grass	<i>Muhlenbergia capillaris</i>	2'-5'	2'-3'	This is a showy clump forming grass that can get to 4 feet tall and wide. Pink plumes in late summer, early fall.
Purple Poppy Mallow	<i>Callirhoe involucrata</i>	> 1'	1'-2'	This trailing, native perennial looks good trailing over walls and makes an excellent ground cover. It flowers from late spring until frost. It is drought tolerant and grows best in a well drained soil.
Sea Myrtle	<i>Baccharis halimifolia</i>	6"-10"	5'-10'	Female plant covered with shiny white "clouds" in fall.
Wild Blue Phlox	<i>Phlox divaricata</i>	>1"	12"	Semi-evergreen foliage.
Yellow Flag Iris	<i>Iris pseudacorus</i>	2'-5'	2'-5'	Mass plantings. Yellow flowers. Wetland plant. Naturalistic settings.