# ARTICLE XXV. LANDSCAPING AND BUFFERING

#### **SECTION A. PURPOSE.**

(Ord. No. 3498, 06/05/2012); (Ord. 3943, 02/01/20)

The intent of this Article is to:

- 1. Establish minimum requirements for the installation and maintenance of landscaping and buffering elements and other means of site improvement on developed property to enhance the community's ecological, environmental, and aesthetic qualities, while at the same time allowing for design flexibility.
- 2. Reduce the negative effects caused by expanses of impervious and non-vegetated surfaces within the urban environment, such as an increase in noise, heat, and glare, and the spread of dust and debris, especially during times of drought.
- 3. Protect and conserve the community's soils and prevent soil erosion and silting of drainage structures and water bodies, as well as reducing the impact of development on the community's storm drainage system.
- 4. Preserve and improve the natural and urban environment by recognizing that the use of landscape plantings can purify the air, regenerate oxygen, recharge groundwater, slow and filter storm water runoff, provide wildlife habitat and enhance the aesthetic qualities of the City of Carrollton.
- 5. Assure an acceptable degree of transition and reduce incompatibility between abutting or nearby uses of differing character by providing visually appealing buffering between such uses.
- 6. To recognize, conserve, and add to the urban forest as part of the city's natural and green infrastructure.
- 7. To conserve water and energy.

#### SECTION B. LANDSCAPING.

(Ord. No. 3498, 06/05/2012)

1. LANDSCAPING REQUIRED:

A minimum percentage of the total area of the lot of record upon which development, construction or reconstruction occurs for any use after the effective date of this ordinance shall be devoted to landscaping as required in each zoning district, as provided in the "Minimum Landscape Percentage Required" table below. For purposes of establishing compliance with the minimum area requirements for landscaping, no land within the 100-year flood plain, as determined by the City

Manager or Designee, shall be used to determine the total area of the site, nor shall be counted as fulfilling the minimum landscape area requirements.

|                   |                                      | MINIMUM LANDSCAPE       |
|-------------------|--------------------------------------|-------------------------|
|                   |                                      |                         |
|                   | ZONING DISTRICT                      | PERCENTAGE REQUIRED     |
| (IH)              | Interim Holding                      | 0%                      |
| (SF)              | Single Family Residential (Detached) | 10%                     |
| (SF-A)            | Single Family Residential (Attached) | 10%                     |
| ( <b>D</b> )      | Duplex                               | 10%                     |
| (MHP)             | Mobile Home Park Residential         | 10%                     |
| ( <b>MF</b> )     | Multi-Family Residential             | 20%                     |
| (NS)              | Neighborhood Service                 | 10%                     |
| (0-1,0-2,0-3,0-4) | Office                               | 10%                     |
| (LR-1,LR-2)       | Local Retail                         | 10%                     |
| (LC,HC, C/W)      | Commercial                           | 10%                     |
| (FWY)             | Freeway                              | 15%                     |
| (GWY)             | Gateway Overlay                      | 20% (See Article XX.2)  |
| (LI)              | Industrial                           | 10%                     |
| (HI)              | Industrial                           | 5%                      |
| (DTC)             | Downtown Transit Center              | (See Article XX Part 1) |
| (TMTC)            | Trinity Mills Transit Center         | (See Article XX Part 2) |
| (FTC)             | Frankford Transit Center             | (See Article XX Part 3) |
| (CC)              | Corporate Commercial                 | 20% (See Article XX.1)  |
| (JBL)             | Josey Belt Line Overlay              | (See Article XX.4)      |

# Minimum Landscape Percentage Required

# 2. APPLICATION FOR NON-CONFORMING DEVELOPMENTS:

- a. The requirements for the installation and maintenance of landscape elements as set forth herein shall apply to all development and construction of structures subsequent to the effective date of this ordinance. All property with an existing structure(s) on the effective date of this ordinance which is not in compliance with the provisions of this Article shall be considered nonconforming, and shall be allowed to continue until such time as:
  - i. The total floor area of the nonconforming structure is expanded or enlarged in excess of 10 percent, but not more than 25 percent as such floor area has been established at the time of application for a building permit. Such expansion or enlargement shall cause the lot or parcel upon which such structure is located to be in compliance with not less than 25 percent of the minimum required landscape area, as provided in Section B, Subsection 1. *Landscaping Required* of this Article, or Section B, Subsection 2. *Landscaping of Large Tracts* if

applicable, for the district in which such structure is located. All other provisions of this Article shall apply;

- ii. The total floor area of the nonconforming structure is expanded or enlarged in excess of 25 percent, but not more than 50 percent as such floor area has been established at the time of application for a building permit. Such expansion or enlargement shall cause the lot or parcel upon which such structure is located to be in compliance with not less than 50 percent of the minimum required landscape area, as provided in Section B, Subsection 1. *Landscaping Required* of this Article, or Section B, Subsection 2. *Landscaping of Large Tracts* if applicable, for the district in which such structure is located. All other provisions of this Article shall apply;
- iii. The total floor area of the nonconforming structure, upon approval of the Board of Adjustment in accordance with Article XXXII of this ordinance, is expanded or enlarged in excess of 50 percent, as such floor area has been established at the time of building permit application. In such instance all provisions of this Article shall apply to the entire lot or parcel upon which such structure is located.
- iv. The parking lot is expanded. In such instance, the expansion shall be landscaped in accordance with all other provisions of this Article.
- v. The expansion onto undeveloped adjacent land; including undeveloped portions of a single lot or if additional lots are platted together. In such instance the undeveloped area(s) shall be landscaped in accordance with all other provisions of this Article.
- vi. Upon removal of an existing nonconforming structure and redevelopment of the lot with any new structure(s). In such instance all provisions of this Article shall apply to the entire lot or parcel upon which such new structure is located.
- b. On sites where additional landscaping is required in accordance with Section B, Subsection 7, Item a. *Application for Non-Conforming Development*, not less than 50 percent of the total required on-site landscaping shall be located in the designated front yard, with not less than 70 percent of the total required on-site landscaping located in the front one-half of the lots.
- c. Building area increases or parking lot increases on existing developed lots shall require the installation of a landscape buffer.

# 3. LANDSCAPING OF LARGE TRACTS:

The minimum landscaping established by this Article shall be required only upon that portion of the tract which is being developed. The area of a tract subject to these landscaping provisions shall be determined by the City Manager or Designee. In general, sites exceeding two acres in size may qualify for this provision.

In order to qualify for this provision the landscape plan must:

- a. Fully include all of the area on which the construction work is to be done; and
- b. Have an area that does not exceed 50 percent of the area of the building site, and

- c. Be inclusive of all new exterior paving additions and
- d. Provide landscape buffer plantings along adjacent streets

The limits of work must be clearly delineated on the landscape plans prior to the issuance of a building permit.

## 4. LANDSCAPE PLAN REQUIRED:

- a. A landscape plan, demonstrating compliance with the provisions of this Article shall be submitted to the City Manager or Designee for a determination as to whether or not the plan meets the minimum requirements established by this Article.
- b. The landscape plan submission must include one hard copy of the drawings and specifications provided on an electronic format for review, as prescribed by the City of Carrollton. The landscape plan must have a scale of one inch equals 30 feet or larger and be formatted for a standing sheet not to exceed 36 inches by 48 inches. A plan which cannot be drawn in its entirety on a 36 inch by 48 inch sheet must be drawn with appropriate match lines on two or more sheets.
- c. Such plan shall be prepared by a landscape authority and submitted in a manner as prescribed by the City of Carrollton. The landscape plan must contain the following information:
  - i. Date, scale (both written and graphically displayed), and the names, addresses and contact information of each property owner and the landscape authority
  - ii. Project name, street address and the filed subdivision name of the property including the lot and block
  - iii. A vicinity map shall be included if the landscape plan stands alone and is not part of an entire architectural or civil set of drawings.
  - iv. The Planning Case Number, if the landscape plan is part of a zoning case submitted through the Planning Department.
  - v. Location of existing boundary lines and dimensions of the lot, the zoning classification of the lot.
  - vi. Clear delineation of all visibility triangles, easements, and utilities (including overhead power lines) and shall identify type, size (caliper or gallon size), quantity, and placement of any existing and proposed landscape plantings to be used to satisfy the requirements of this Article .
  - vii. Calculations performed relative to compliance with Section B, Subsection 1. *Landscaping Required* or Section B, Subsection 2. *Landscaping of Large Tracts* of this Article shall be included, as applicable.
  - viii. The following note: All landscape areas, whether required or not, must be equipped with a fully automatic electronic landscape irrigation system designed and installed in compliance

with current Texas Commission on Environmental Quality and City of Carrollton landscape irrigation regulations.

- d. The use of drought-tolerant, pest-tolerant and frost-resistant plant materials is recommended to satisfy the requirements of this Article. The list of plant material contained in Figure 1 of this Article shall be considered a list of plant material suitable for the climate of this area, and as such, allowable as plant material to meet the requirements of this ordinance.
- e. The use of planters may satisfy the requirements of this Article provided that the soil requirements of this Article are met, and that the planters receive landscape irrigation.

# 5. CERTIFICATE OF OCCUPANCY:

- a. All landscaping shall be completed and installed in accordance with the approved landscape plan before the final inspection of any building on the lot. A Certificate of Occupancy shall not be issued for any building on a lot until the landscaping is complete and accepted.
- b. To accommodate variations in planting and construction schedules, the City Manager or Designee may issue one temporary Certificate of Occupancy for a period not to exceed six months. The property owner must provide documented assurance that the landscaping will be completed within the six months. For the purposes of this subsection, "documented assurance" means:
  - i. A copy of a valid contract to install the landscaping in accordance with the landscape plan within the six month period.
  - ii. An affidavit from the property owner acknowledging the consequences of not complying with this ordinance.
- c. If a temporary Certificate of Occupancy is issued and, at the end of the specified time period no permanent Certificate of Occupancy has been issued because the required landscaping has not been installed in accordance with the approved landscape plan, the property owner shall be considered in violation of the zoning ordinance of the City of Carrollton, and shall be subject to the penalties established herein.

# 6. INSTALLATION AND MAINTENANCE:

- a. At the time of installation, all plantings shall have indications of normal growth and shall be sound, healthy, vigorous and free of insect and/or disease infestations, or objectionable disfigurements. All plants should have normally well-developed branching structures and vigorous and fibrous root systems which are not root- or pot-bound. All plants shall be adaptable to the climatic, sun, shade, and soil conditions of the area in which they are to be planted.
- b. All landscape areas, whether required or not, on property zoned to a multi-family or nonresidential zoning district shall have an automatic irrigation system installed meeting all applicable requirements and regulations of the Texas Commission on Environmental Quality (TCEQ) and those of the City of Carrollton, and approved by the City Manager or Designee. All portions of any irrigation system shall be continuously maintained in a condition such that the

intent of the irrigation design is fulfilled. Uncontrolled emission of water from any pipe, valve, head, emitter, or other irrigation device is prohibited by the TCEQ and the City of Carrollton and is shall be considered evidence of non-maintenance and shall be considered a violation of this Article. Landscaping other than turf grass and irrigation systems extending into right-of-way shall require a landscape license agreement with the City. Landscape irrigation main lines and electronic valves as defined by the TCEQ shall not be installed in public right-of-way. Lateral lines and heads as defined by the TCEQ may be located within public right-of-way without need for a landscape license agreement.

c. The property owner shall be responsible for the maintenance of all landscape areas. Such areas shall be regularly watered sufficiently to establish and promote vigorous growth of all trees, shrubs, and groundcovers and turf grasses. Such areas shall be maintained in a relatively weed free condition so as to present a healthy, neat and orderly appearance at all times.

All landscape shrubs, groundcovers and turf grasses shall be periodically pruned, trimmed, aerated, edged, and fertilized in accordance with generally accepted horticultural best practices.

All shade trees shall be periodically pruned to remove dead, dying or hazardous limbs, and "limbed-up" to avoid contact with pedestrians and automobiles.

All ornamental trees shall be periodically pruned only to remove adventitious "sucker" growth, and dead, dying or hazardous limbs. No "topping" of ornamental trees shall be allowed.

All plants should be periodically inspected for infestation by disease or insects. If such infestation is present, immediate steps shall be taken to eliminate it. Landscaped areas shall be kept free of debris and trash in accordance with the Carrollton Code of Ordinances.

Any plant that dies must be replaced with another living plant that complies with this Article and the approved landscape plan, if any, within 10 days after notification by the City.

Damages to utility lines and infrastructure resulting from negligence of the property owner or his agents in the installation and maintenance of required plant materials in an easement is the responsibility of the property owner.

If a public utility disturbs a landscaped area in an easement, the utility contractor shall make every reasonable effort to preserve the plant materials and return them to their prior locations after work is complete. If, however, some plant materials die, it is the obligation of the property owner to replace the plant materials.

- d. Shrubs shall be, at a minimum, five-gallon container size at the time of planting. Shrubs used as parking lot screening shall be a minimum of 24 inches in height and 14 inches in width at the time of planting. Five-gallon containerized shrubs not meeting the minimum standard for parking lot screening will not be accepted. Parking lot screening shrubs shall be grown and maintained to a minimum height of 42 inches (36 inches above curb).
- e. Turf grass areas may be sodded, plugged, sprigged, or "hydro-seeded," except that solid sod shall be used in the landscape buffer and in swales or other areas subject to erosion, as determined by the City Manager or Designee, based upon accepted engineering best practices.
- f. Shrubs and ground covers shall be planted in such a manner as to present a finished appearance and reasonably complete coverage within two years of planting. Steel or other sustainable edging

material shall separate planting beds from adjacent turf grass areas. Ground cover plants from four-inch pots shall be planted at a maximum of 12 inches on center. Ground cover plants from one-gallon containers shall be planted at a maximum of 18 inches on center.

g. Landscaping located internal to a parking lot shall be located within a landscape island or module, delineated from the surrounding paved area by a curb or barrier, constructed of masonry or concrete, of not less than six inches in height around the perimeter of the island or module.

Landscape plantings, curbs, barriers or any combination thereof shall be situated so as not to create a visibility obstruction to moving vehicles within a parking lot.

- h. Palm trees may not be used to qualify for required trees.
- i. No artificial plant materials may be used to satisfy the requirements of this Article.
- j. Invasive plant material is prohibited in required landscape areas.
- k. Synthetic, or artificial, turf may not be used to satisfy the required landscape areas.
- 1. The building official or designee may order work stopped, by notice and served on any person engaged in the work if installation is contrary to the provisions of this Article. A person issued this notice shall stop work immediately until authorized by the building official or designee to proceed with the work.
- 7. PLANTING AREA REQUIREMENTS:
  - a. Planting areas must have the following soil depths and dimensions:
    - i. For each large shrub, a minimum of two feet (24 inches) of soil depth and 16 square feet of surface area.
    - ii. For each tree installation, a minimum of three feet (36 inches) of soil depth and 24 square feet of surface area.
  - b. Planting areas located above underground buildings or structures must have the following soil depths and dimensions:
    - i. For each large shrub, a minimum of two and one half feet (30 inches) of soil depth and 25 square feet of surface area.
    - ii. For each tree installation, a minimum of three and one half feet (40 inches) of soil depth and 36 square feet of surface area.
    - iii. The building official or designee may waive these minimum planting area requirements if the landscape authority preparing the design certifies that the proposed alternative soil depths and dimensions are sufficient to support healthy growth of the plants affected.

| Minimum Plant Specifications |                |             |             |               |
|------------------------------|----------------|-------------|-------------|---------------|
| Category                     | Min. Size      | Min. Height | Min. Spread | Notes         |
| Shade Trees                  | 3 inch caliper | 12 feet     | 4 feet      | (1), (2), (3) |
| Ornamental Trees             | 3 inch caliper | 8 feet      | 3 feet      | (2), (3), (5) |
| Multi-Stem Trees             | 3 inch caliper | 8 feet      | 4 feet      | (2), (4), (6) |
| Screening Shrubs             | 5 gallon       | 24 inches   | 14 inches   | (7)           |
| Shrubs                       | 5 gallon       | n/a         | n/a         | (7)           |
| Ground Covers                | 1 gallon       | n/a         | n/a         | (8)           |

# NOTES

- (1) Trunks free of branches to a minimum of six feet above grade
- (2) If balled & burlapped, a minimum 28 inch diameter root ball with a minimum 19 inch depth
- (3) If containerized, a minimum 45-gallon container
- (4) If containerized, a minimum 15-gallon container
- (5) A minimum of eight branches
- (6) A minimum of three canes
- (7) Fully-branched from the crown to the top of the plant, with a well-established root system reaching the sides of the container to maintain a firm ball when the container is removed, but shall not have excessive root growth encircling the inside of the container
- (8) Trailing groundcovers shall have a minimum of five runners 12 inches in length, with a well-established root system reaching to the sides of the container to maintain a firm ball when the container is removed, but shall not have excessive root growth encircling the inside of the container
- (9) Clumping groundcovers shall be the full width of the container with a wellestablished root system reaching the sides of the container to maintain a firm ball when the container is removed, but shall not have excessive root growth encircling the inside of the container

# 8. LOCATION & DESIGN:

a. Residential Zoning Districts

In all single-family and duplex residential zoning districts where landscaping is required, not less than 30 percent of the total required on-site landscaping, as provided in Section B, Subsection 1. *Landscaping Required*, shall be located in the designated front yard, with not less than 50 percent of the total required on-site landscaping located in the front one-half of the lot.

Institutional uses located in residential zoning districts shall comply with Section B, Subsection 8. *Location & Design*, Item b. *Multi-Family Residential & Non-Residential Zoning Districts*.

# b. Multi-Family Residential & Nonresidential Zoning Districts

- i. In every multi-family residential, office, neighborhood service, local retail, commercial, freeway industrial and corporate commercial zoning district where landscaping is required in accordance with Section B, Subsection 1 above, not less than 50 percent of the total required on-site landscaping, as provided in Section B(1) above, shall be located in the designated front yard, with not less than 70 percent of the total required on-site landscaping located in the front one-half of the lot.
- ii. The following landscaping shall be provided for each non-residentially or multi-family zoned tract or lot. If the landscaping required by these provisions is less than the minimum percentage required by the zoning district within which the site is located, additional on-site landscaping shall be provided so as to attain the minimum percentage required.
  - a) A landscape buffer shall average 15 feet in width, but no less than five feet minimum width at any point, adjacent to all street rights-of-way or street easements and shall be maintained as permanent green space.

A maximum 50 percent of the buffer area may be landscaped with turf grass. For landscape buffers greater than 15 feet in average width, the additional area may be landscaped in turf grass. Drives, alleys, parking and maneuvering areas, and sidewalks shall not be located within the required buffer area except to cross the buffer area to provide access to the site.

All fencing and screening walls shall be placed behind the required landscape buffer. Such landscape buffer shall be counted towards meeting the minimum square footage of required landscaping for the site, and shall contain, at a minimum, the following elements:

- 1. Two, three inch caliper shade trees, 10-12 feet in height at the time of planting, for each 100 linear feet of street frontage or fraction thereof, and;
- 2. Three ornamental trees, six-to-eight feet in height and a minimum of three caliper inches in size at the time of planting, for each 100 linear feet of street frontage or fraction thereof. Three ornamental trees may be substituted for each required shade tree if planted directly underneath overhead utility lines.

Such trees are encouraged to be placed in "natural groupings" where possible. However, if they are placed in a linear layout, the shade trees shall have a maximum spacing of 40 feet, while the ornamental trees shall have a maximum spacing of 15 feet, and either; (*Ord. No. 2484, 01/04/00*)

3. Thirty-four, five gallon evergreen shrubs, 24 inches in height at the time of planting, for each 100 linear feet of street frontage or fraction thereof, planted in groupings. Such planting shall be in a row if the landscape buffer is adjacent to a parking lot, so as to screen the parking from the street. A minimum three foot wide planting bed shall be provided for the planting of such shrubs, or;

- 4. A combination of a discontinuous landscaped earthen mound constructed to a minimum height of three feet, and evergreen shrubs.
- b) All parkway areas adjacent to a public street, including street right-of-way, but excluding sidewalks, driveways, and areas designated to provide access into the lot, shall be permanently landscaped by turf grass or other living plantings, and shall be maintained in a healthy, growing condition by the property owner at all times. Any landscaping located within public right-of-way shall not be counted toward satisfying the requirements of Section B, *Landscaping*, Subsection 1. *Landscaping Required* or Subsection 3. *Landscaping of Large Tracts* of this Article, as applicable.

In each case where landscaping other than turf grass or groundcover is located within a public right-of-way, a landscape license agreement shall be executed with the City.

- c) All plantings shall be coordinated with all on-site signage and lighting, both upon installation of the planting and upon the plantings reaching maturity.
- d) All landscape material shall comply with the provisions of Section 53.40 through 53.44 of the Carrollton Code of Ordinances, (Visibility Obstructions Ordinance).
- e) All landscape material shall comply with the most recent edition of the International Fire Code, as adopted by the City of Carrollton, regarding the obstruction of fire protection equipment.
- f) Shade trees are prohibited from being planted under overhead or over underground utilities. All landscaping planted under overhead or over underground utility lines shall be of such a stature and/or have such a root system so that they will not interfere with the integrity or operation of the utility facilities.
  - 1. Any outdoor parking lot that contains at least 12 but less than 100 parking spaces shall have not less than five percent of the interior of such parking lot, inclusive of maneuvering aisles, landscaped as follows:
    - A. One, three inch caliper shade tree, 10-12 feet in height at the time of planting, for each 12 parking spaces or fraction thereof. The placement of trees shall be coordinated with the location of lights used to illuminate a parking area so that they will be of such a stature that they will not interfere with these lights at maturity.
    - B. All parking spaces shall be located within 120 feet of a tree that is located within the same parking area, measured from the trunk of the tree.
    - C. A landscaped island shall be provided at the end of each parking row and at a minimum interval of 12 parking spaces when such row is longer than 12 spaces. Such island shall be a minimum of eight feet wide, and shall extend the length of the adjacent parking space.

Landscape islands shall not be required when parking spaces are located behind a building and are screened from view of the street for warehousing, manufacturing,

assembly or wholesale uses. However, all landscaping which would otherwise be required behind the building shall be required elsewhere on the property.

- D. The total area of landscaping within parking areas shall have not more than 50 percent of its area landscaped with turf grass.
- E. Landscaped areas shall be measured from back of curb to back of curb.
- F. Where landscaping is adjacent to the front or rear of a parking space, a minimum two foot wide vehicle overhang shall be allowed in the landscape buffer. Said vehicle overhang shall be inclusive of the minimum 15-foot-wide landscape buffer required by this Article, such that there are no shrubs, trees, etc. planted within the two feet of the vehicle overhang.
- iii. Any outdoor parking lot that contains 100 or more parking spaces shall provide not less than 10 percent of the interior of such lot, inclusive of maneuvering aisles, landscaped as follows:
  - a) One shade tree for each 10 parking spaces or fraction thereof. The placement of trees shall be coordinated with the location of lights used to illuminate a parking area so that they will be of such a stature that they will not interfere with these lights at maturity.
  - b) All parking spaces shall be located within 100 feet of a tree that is located within the same parking area, measured from the trunk of the tree.
  - c) A landscaped island shall be provided at the end of each parking row and at a minimum interval of 10 parking spaces when such row is longer than 10 spaces. Such island shall be a minimum of eight feet wide, and shall extend the length of the adjacent parking space.

Landscape islands shall not be required when parking spaces are located behind a building and are screened from view of the street for warehousing, manufacturing, assembly or wholesale uses. However, all landscaping which would otherwise be required behind the building shall be required elsewhere on the property.

- d) The total area of landscaping within parking areas shall have not more than 50 percent of its area landscaped with turf grass.
- e) Landscaped areas shall be measured from back of curb to back of curb.
- f) Where landscaping is adjacent to the front or rear of a parking space, a minimum two foot wide vehicle overhang shall be allowed in the landscape buffer. Said vehicle overhang shall be inclusive of the minimum 15 foot-wide landscape buffer required by this Article, such that there are no shrubs, trees, etc. planted within the two feet of the vehicle overhang.
- iv. Site Landscaping:

In addition to landscape buffer and parking lot landscaping requirements, certain site plantings shall be required to enhance the lot.

- a) One site tree must be provided for every 4,000 square feet of lot area or fraction thereof, not including the building foot print and drive and parking aisles. Such site trees shall be a minimum of three inch caliper at the time of planting. Species shall be selected from the approved tree list within this Article.
- b) Foundation plantings shall be included in on the landscape plan. The foundation planting area must be a minimum of three feet in width and extend along at a minimum of 50 percent of the portion of the foundation that faces a street. The shrubs must be spaced no more than 36 inches apart at the time of plantings. If certain building concepts advocate for the elimination of foundation plantings, such plantings shall be incorporated elsewhere on the site.

### 9. LANDSCAPING OF DETENTION AND RETENTION PONDS:

- a. Detention and retention ponds, if required, shall be designed as an integral part of the overall site plan and shall be considered a natural landscape feature on the site.
- b. The area of any detention or retention pond shall not be counted toward the minimum required landscaped area of the lot.
- c. The landscaping plan for any detention or retention pond shall include a variety of native and wetland-appropriate species.
- d. Within any detention pond, the area designed for inundation shall be planted with vegetation that can withstand periods of inundation and drought and can function to stabilize the side slope of the pond.
- e. The following landscaping elements shall be provided for each detention or retention pond:
  - i. One shade tree for each 50 linear feet of pond perimeter, or fraction thereof, as measured along the top of the bank.
  - ii. Two ornamental trees for each 50 linear feet of pond perimeter or fraction thereof as measured along the top of the bank.
  - iii. Ten shrubs for each 50 linear feet of pond perimeter, or fraction thereof, as measured along the top of the bank.

The required trees and shrubs are encouraged to be placed in a random pattern or in natural groupings and the placement of the required landscaping elements are not limited to the top of the bank.

- f. Any detention or retention pond shall include a minimum 15 foot-wide maintenance access to the basin and any basin riser outlet structures. The planting plan shall be designed to prevent obstruction of the access by maturing trees and shrubs.
- g. Any above-ground mechanical structures related to the operation of the pond shall be identified on the landscape plan and shall be screened with evergreen trees and shrubs.

#### 10. CREDITS TOWARDS LANDSCAPING REQUIREMENTS:

a. Each existing tree in a healthy and growing state shall receive a credit toward the requirements for trees in the landscape buffer or in the parking lot provided the existing trees are located in the landscape buffer or in the parking lot. The credit shall be applied per the following requirements:

| Existing Trees          | Tree Credit |
|-------------------------|-------------|
| Less than 4" dbh        | 0           |
| 4" to less than 6" dbh  | 1           |
| 6" to less than 9" dbh  | 2           |
| 9" to less than 12" dbh | 3           |
| 12" or greater dbh      | 4           |

- b. This credit shall be subject to the following conditions:
  - i. Multi-trunk trees shall be measured as follows: The diameter at breast height (dbh) of the largest trunk plus one-half  $(\frac{1}{2})$  the dbh of each subsequent trunk shall equal the required tree size.
  - Existing trees listed on the Prohibited Plant List, Figure 2, which are in good health and in excess of four inches dbh, may be retained and receive half credit for site tree requirements. Said credit shall not count towards required street buffers or parking lot internal landscaping areas.
  - iii. At least three-fourths (3/4) of the tree dripline, at estimated mature size, must be in a permeable area.
  - iv. There shall be no changes in the original grade within the dripline areas of existing trees.
  - v. Should any tree shown on the landscape plan die, the tree shall be replaced in accordance with the provisions of Title 15, Chapter 155 of the Carrollton Code of Ordinances (Tree Preservation Ordinance).

# 11. ALTERNATE LANDSCAPE PLANS:

The City Manager or Designee may approve a modification of the landscape requirements which may result in a substitution or reduction of landscape plantings, and/or landscape areas of this Article in conjunction with the submittal of a Technical Site Plan or Alternate Landscape Plan application, or may recommend such approval to the City Council, who may approve such modification in conjunction with a Special Use Permit request if the proposed Alternate Landscape Plan:

- a. Meets the stated purpose and intent of this Article; and
- b. Provides the minimum required landscaping elements and yard area requirements when the site is considered as a whole; and
- c. Results in a superior landscape plan than that which could be achieved by strictly following the minimum requirements of this Article and;
- d. Incorporates the retention of significant trees and naturally occurring vegetation; or,

- e. Better accommodates or improves the physical conditions of the subject property through the addition of any or all of the following:
  - i. An enhanced landscape buffer consisting of no less than 20 percent greater average width than otherwise required.
  - ii. Enhanced off-street parking paving consisting of no less than five percent decorative or permeable paving, or plantings consisting of no less than 20 percent greater than otherwise required.
  - iii. Enhanced Pedestrian Paving consisting of no less than 25 percent decorative paving materials. Said enhanced pedestrian paving shall not be located in the right-of-way.
  - iv. Art for Public Enjoyment visible from the street and accessible to the public with a marker describing the artist and piece.
  - v. Public Open Space Area(s) with pedestrian-friendly facilities such as plazas, water features, seating areas, etc. open to the public.
  - vi. Conservation Easement(s), being an agreement between the developer and the City of Carrollton for the purposes of preserving natural, undisturbed vegetation;
  - vii. Enhanced Right-of-Way or Street Median Plantings in the vicinity, in partnership with the City of Carrollton including a Landscape License Agreement.
- f. Does not reduce the required landscape buffer area by greater than 20 percent, and
- g. The aggregate reduction of landscaping cannot exceed 10 percent.

Staff Level Approval will consist of a team review which will include the City Arborist, Building Official, Director of Development Services and the Chief Planner.

A landscape plan depicting a reduced width landscaped buffer of more than 20 percent, or one which shows a lesser percentage (greater than 10 percent) of the site landscaped may be approved by the Planning and Zoning Commission with submittal of a Technical Site Plan or Alternate Landscape Plan application or approved by the City Council in conjunction with a Special Use Permit when it is shown that the physical constraints of the property preclude strict compliance of this section.

The alternate landscape plan shall be submitted in the same form as required by Section B, Subsection 3, Item b. Landscape Plan Required of this Article and shall be subject to the same enforcement requirements established in this Article.

The alternate landscape plan shall clearly delineate and identify the deviations from the provisions of this Article, and shall be clearly labeled as "Alternate Landscape Plan".

# **SECTION C. BUFFERING.**

### 1. SCREENING WALL BETWEEN COMMERCIAL AND RESIDENTIAL DISTRICTS:

- a. Except as provided in Section C. *Buffering*, Subsection 3. *Screening Wall Between Educational, Governmental or Recreational Facility and Residential Districts* and Subsection 4. *Loading and Vehicle Service Areas*, a solid, opaque masonry screening wall, not less than six (6) feet in height measured at the highest finished grade, and designed by a Professional Engineer registered in the State of Texas, shall be provided and maintained along the property line of any parcel within the (NS), (O-1, O-2, O-3, O-4), (LR-1, LR-2), (CC), (LC), (TC), (HC), (C/W), (FWY), (LI) or (HI) districts where:
  - i. Such parcel abuts any residentially zoned property, including where such parcel is separated from the residentially zoned property by an alley; or
  - ii. Any use within the (NS), (O-1), (O-2), (O-3), (O-4), (LR-1), (LR-2), (CC), (LC), (TC), (HC), (C/W), (FWY), (LI) or (HI) districts that fronts upon another street but sides or backs to the street upon which such single-family attached, single-family detached, or duplex structure fronts. (Reference Figure 4.1, Appendix A)
- b. Such wall shall be approved by the City Manager or Designee, and constructed prior to the issuance of a letter of acceptance by the Engineering Department for the construction of any building or portion thereof within the (NS), (O-1), (O-2), (O-3), (O-4), (LR-1), (LR-2), (CC), (LC), (TC), (HC), (C/W), (FWY), (LI) or (HI) districts.

## 2. SCREENING WALL BETWEEN MULTI-FAMILY AND SINGLE-FAMILY DISTRICTS:

- a. A solid, opaque masonry screening wall, not less than six feet in height measured at the highest finished grade, and designed by a Professional Engineer registered in the state of Texas, shall be provided and maintained along the property line of any parcel within any (MF) Multi-Family Residential District where such parcel abuts any property zoned to a (SF) Single-Family or (D) Duplex Residential District. Such wall shall be approved by the City Manager or Designee, and constructed prior to the issuance of a letter of acceptance by the Engineering Department for the construction of any building or portion thereof within a (MF) Multi-Family district.
- b. No screening wall shall be required; however, between any (MF) Multi-Family zoned property and any (D) Duplex zoned property where such properties are separated by an alley, and where such alley jointly serves the multi-family and duplex zoned properties.
- c. The provisions of Section C. *Buffering*, Subsection 1. *Screening Wall Between Commercial and Residential Districts* and Subsection 2. *Screening Wall Between Multi-Family and Single-Family Districts* shall not apply to any property line which abuts an (IH) Interim Holding District, nor to any property located within an (IH) Interim Holding District.

# 3. SCREENING WALL BETWEEN EDUCATIONAL, INSTITUTIONAL, GOVERNMENTAL, OR RECREATIONAL FACILITY AND RESIDENTIAL DISTRICTS:

- a. A solid, opaque masonry screening wall, not less than six feet in height measured at the highest finished grade, and designed by a Professional Engineer registered in the State of Texas, shall be provided and maintained along the property line of any lot or parcel used for educational, institutional, or governmental services, any public recreation or community center, or any public tennis court or swimming facility where such use abuts any residentially zoned property, and:
  - i. Where any outside storage is located on any part of the lot or parcel of such use; or
  - ii. Where any vehicle storage, repair, service, wash, or maintenance area is located on any part of the lot or parcel of such use; or
  - iii. Any loading or delivery area of such use, excluding trash receptacles, is located within 75 feet of any residentially zoned property.
- b. Where the provisions of Section C. *Buffering*, Subsection 3. *Screening Wall Between Educational, Institutional, Governmental or Recreational Facility and Residential Districts*, Item (a) are not applicable, a solid, opaque masonry screening wall, not less than six feet in height measured at the highest finished grade, and designed by a Professional Engineer registered in the State of Texas, shall be provided and maintained along the property line of any lot or parcel used for educational, institutional, or governmental services, any public recreation or community center, or any public tennis court or swimming facility where:
  - i. Any portion of a parking area or driveway servicing such facilities is located within 25 feet from any residentially zoned property, regardless of whether such uses are separated by an alley. A screening wall shall not be required where such facilities are separated from any residentially zoned property by a public street.

It is not the intent of this subsection to require a screening wall between the parking area or driveway of such facility and any other educational, institutional, governmental, or public recreational facility. (*Ord. No. 1947, 10/19/93*); (*Ord. No. 2099, 09/05/95*)

- c. Where an opaque screening device of at least six feet in height does not exist along the property line of an educational, institutional, governmental, or recreational facility which existed on the effective date of this subsection, and would otherwise be required by Section C *Buffering* Subsection 3 *Screening Wall Between Educational, Governmental or Recreational Facility and Residential Districts*, Item (a) or Item (b) above, erection of a masonry wall shall be required only in accordance with Article XXII of this ordinance.
- d. Where an opaque screening device of at least six feet in height is located on the property line separating such educational, institutional, governmental, or recreational use and the adjacent residentially zoned property, and such screening device existed on the effective date of this subsection, no further screening provisions shall be required.

Where the requirements of Section C. *Buffering*, Subsection 3. *Screening Wall Between Educational, Institutional, Governmental or Recreational Facility and Residential District* Items (a) or (b) apply, and where such screening device is located on the property of the educational, institutional, governmental, or recreational facility, the removal of such screening wall subsequent to the effective date of this subsection shall constitute a violation of this ordinance. It shall be the responsibility of the educational, institutional, governmental, or recreational facility to ensure that the provisions of this Article are complied with.

- e. No screening device shall be required between the parking area or driveway of such facility and any public park or greenbelt, as designated by the Comprehensive Plan. (*Ord. No. 1641, 07/17/90*)
- f. The provisions of Section C. *Buffering*, Subsection 1. *Screening Wall Between Commercial and Residential Districts* shall not apply to an office or administrative building of an exclusively educational or governmental use, regardless of the zoning of the property upon which such use is located, under the following circumstances:
  - i. No outside storage is located on any part of the lot or parcel of such use; and
  - ii. No vehicle storage, repair, service, wash, or maintenance areas are located on any part of the lot or parcel of such use; and
  - iii. All loading and delivery areas, excluding trash receptacles, are located in excess of 75 feet from any adjacent residentially zoned property, and are not located between the office or administrative building and any residentially zoned property.

All other provisions of Section C. Buffering, Subsection 3. Screening Wall Between Educational, Institutional, Governmental or Recreational Facility and Residential District shall still apply. (Ord. No. 2055, 02/21/95)

# 4. LOADING AND VEHICLE SERVICE AREAS:

a. All loading areas, freight docks, truck berths or truck parking areas, vehicle repair, service, wash or maintenance bays or areas, garages or garage doors, or any similar facility for any type of vehicle on any parcel within the (NS), (O-1), (O-2), (O-3), (O-4), (LR-1), (LR-2), (CC), (LC), (TC), (HC), (C/W), (FWY), (IP), (LI), or (HI) districts shall be screened from any adjacent residentially zoned property by a solid, opaque masonry wall of not less than six (6) feet in height measured at the highest finished grade, and designed by a Professional Engineer registered in the state of Texas.

Where a solid, opaque masonry screening wall separating nonresidential and residential uses is already provided in accordance with Section C. *Buffering*, Subsection 1. *Screening Wall Between Commercial and Residential Districts*, an additional screening wall relative to such loading, parking or service areas is not required. (*Ord. No. 1659, 10/02/90*); (*Ord. No. 1932, 08/17/93*)

- b. All vehicle repair, service, wash, or maintenance bays incidental to any use on any parcel within the (NS), (O-1), (O-2), (O-3), (O-4), (LR-1), (LR-2), (CC), (LC), (TC), (HC), (C/W), (FWY), (IP), (LI), or (HI) districts shall not face less than 45 degrees from any adjacent residentially zoned property unless such repair, service, wash or maintenance bays are located in excess of 75 feet from the adjacent residentially zoned property. (*Ord. No. 1557, 07/11/89); (Ord. No. 1659, 10/02/90); (Ord. No. 1932, 08/17/93)*
- c. Any vehicle repair, service, wash or maintenance bays, incidental to any use on any parcel within the (NS), (O-1), (O-2), (O-3), (O-4), (LR-1), (LR-2), (CC), (LC), (TC), (HC), (C/W), (FWY), (IP), (LI), or (HI) districts, which are located within 100 feet of any arterial thoroughfare identified on the Carrollton Thoroughfare Plan, and which face less than 45 degrees from such arterial thoroughfare shall be screened from the view of the street by a solid, opaque wall or fence of not less than six feet in height, measured at the highest finished grade, and constructed in accordance with the standards prescribed by the City of Carrollton. (*Ord. No. 1557, 07/11/89); (Ord. No. 1659, 10/02/93); (Ord. No. 1932, 08/17/93)*

The provisions of this paragraph shall not apply, however, to any vehicle repair, service, wash or maintenance bays which are incidental to a gasoline service station.

# 5. OUTDOOR RECEPTACLES: (Ord. 3439, 05/03/11)

Receptacles greater than 100 gallons (or 15.5 cubic feet) in volume, located in any district, shall be screened on all sides by a solid, masonry, opaque wall not less than six feet in height measured at the highest finished grade. The height of the receptacle shall not be permitted to exceed the height of the visual screening device. The masonry screening wall shall contain architectural features that coordinate with the exterior building façade.

An opaque metal or wood gate architecturally compatible with the exterior building facade shall be provided, except if the opening is not visible from a street. Gates shall remain closed except for the servicing of receptacles or for depositing items. All wood material shall be stained, pressure treated or adequately sealed to prevent decay. Cedar or redwood or other naturally decay-resistant woods may be used without the requirement of staining or other treatments. All edges of wood or metal

gates shall be framed on the outside face with metal tubing. All metal shall be painted, powdercoated, or otherwise colored to match the exterior building facade.

Receptacles completely hidden from view from any street or a residentially zoned property shall not be required to provide enclosures.

Receptacles already enclosed by a solid, opaque visual screening device of at least six feet in height measured at the highest finished grade shall not be required to provide additional screening.

For all other requirements for outdoor receptacles, refer to Article XXVII, Section J.

#### 6. OUTSIDE STORAGE:

Where outside storage is permitted, such areas shall be screened in accordance with Article XXVI of this ordinance.

7. ELECTRICAL AND SERVICE METER BANKS AND AIR CONDITIONING UNITS:

All service meters and air conditioning units which can be seen from the street must be screened in such a manner as to buffer the site of the units from the street. Such techniques may include, but not limited to:

- a. Painting the meters and units to compliment the color of the adjacent façade, and/or
- b. Screening the meters and units behind ornamental grating, and /or
- c. Screening the meters and units behind a row of evergreen shrubbery, or
- d. A mixture of the above.

#### 8. MAINTENANCE:

All areas adjacent to any screening wall or fence, or areas adjacent to a public street or right-of-way, shall be maintained in a clean and orderly condition by the property owner, free of debris and trash, in accordance with the applicable codes of the City of Carrollton.

#### 9. ALTERNATE SCREENING MATERIAL:

- a. Upon approval of the Planning & Zoning Commission, other material or screening devices which meet the intent of this Article, as determined by the Planning & Zoning Commission, may be utilized to satisfy the requirements of Section C.
- b. Unless specifically approved by the Planning & Zoning Commission, a chain link fence with slat inserts shall not constitute an acceptable screening device to satisfy the requirements of this Article. (*Ord. No. 2615, 06/05/01*)

#### 10. CONFLICTS:

Where the screening or buffering standards prescribed by this Section are in conflict with special screening or buffering requirements which have been established within certain zoning districts of this ordinance, then the more restrictive requirements shall apply.

#### 11. FENCES IN RESIDENTIAL ZONING DISTRICTS:

In any residential zoning district or any non-residential zoned district adjacent to residentially zoned property, no fence shall be erected which is electrically charged in any form or manner, or is composed of barbed wire, concertina wire, razor wire or similar material. (*Ord. No. 1844, 11/03/92*); (*Ord. No. 2484, 01/04/00*)

### 12. FENCES ADJACENT TO SCREENING WALLS:

Where a screening wall is provided between any residential subdivision and any thoroughfare, the following requirements shall apply.

- a. Subsequent to September 5, 1995, no new fence shall be erected:
  - i. Which is located in a required side or rear yard setback and which is parallel to, or approximately parallel to, a screening wall, and which exceeds the height of such screening wall or,
  - ii. Which is located in a required side or rear yard setback and which is perpendicular to, or approximately perpendicular to, a screening wall, and which exceeds the height of such screening wall.
- b. Subsequent to September 5, 1995, no existing screening wall shall be raised in height unless such extension is done in a manner consistent with the color, material, or character of the existing wall, and such extension occurs along the entire length of such screening wall, including where such wall may be interrupted by streets, alleys, or other access ways.
- c. Such provisions shall not apply where the screening wall is separated from the residential subdivision by a public alley.

For any subdivision approved subsequent to January 1, 1994, which has a wrought iron or other similar non-opaque fence adjacent to any thoroughfare, no fence shall be erected which is located within the required side or rear yard which is parallel to or approximately parallel to, such wrought iron or similar non-opaque fence. (*Ord. No. 2099, 09/05/95*)

#### 13. RETAINING WALLS:

Retaining walls, four feet or greater in height, that face or have exposure to any public thoroughfare, shall be veneered with brick or stone unless an alternate is approved by the Planning and Zoning Commission. A denial of the request by the Planning & Zoning Commission may be appealed to the City Council if the appeal is filed with the Planning Department within 10 days of the action of the Planning & Zoning Commission. A maximum of 50 percent of the total linear feet of a continuous

retaining wall, in existence at the time of the adoption of this provision, may be replaced without meeting this requirement. (*Ord. No. 2572, 11/07/00*)

#### FIGURE 1 APPROVED PLANT LIST (Ord. No. 3498, 06/05/2012)

### SHADE TREES

The trees listed below shall be used to meet the minimum landscape requirements established in Section B. *Landscaping*, Subsection 1. *Landscaping Required* of this Article. Plants not listed below may be used to provide landscaping in excess of the minimum requirements of this Article.

#### Large Size Trees:

| Bald Cypress<br>Bigtooth Maple<br>Bois d' Arc<br>Bur Oak<br>Caddo Maple<br>Cedar Elm<br>Chinkapin Oak<br>Drake Elm<br>Escarpment Live Oak<br>Live Oak<br>Mesquite | Taxodium distichum<br>Acer grandidentatum<br>Maclura pomifera<br>Quercus macrocarpa<br>Acer saccharum 'Caddo'<br>Ulmus crassifolia<br>Quercus muehlenbergii<br>Ulmus parvifolia 'Drake'<br>Quercus fusiformus<br>Quercus virginiana<br>Prosopis glandulosa | Pond Cypress<br>Shumard Red Oak<br>Slippery Elm<br>Southern Magnolia | Taxodium ascendens<br>Quercus shumardii<br>Ulmus rubra<br>Magnolia grandiflora |
|---|--|--|--|
| Mesquite<br>Pecan   | Prosopis glandulosa<br>Carya Illinoensis   |  |  |
|   |  |  |  |

#### **Mid-size Trees:**

| Arizona Cypress<br>Ashe Juniper<br>Chinese Pistachio<br>Chittamwood<br>Eastern Red Cedar<br>Eldarica Pine<br>Havard Shin Oak<br>Lacey Oak<br>Texas Ash<br>Texas Persimmon | Cupressus arizonica<br>Juniperus ashei<br>Pistacia chinensis<br>Bumelia lanuginosa<br>Juniperus virginiana<br>Pinus eldarica<br>Quercus havardii<br>Quercus laceyi<br>Fraxinus texensis<br>Diospyros texana | Texas Oak<br>Texas Walnut<br>Western Soapberry<br>Winged Elm | Quercus buckleyi<br>Juglans microcarpa<br>Sapindus drummondii<br>Ulmus alata |
|---|---|--|--|
|---|---|--|--|

#### **ORNAMENTAL TREES, SHRUBS**

The plant material listed below shall be used to meet the minimum landscape requirements established in Section B. Landscaping, Subsection 1. Landscaping Required of this Article. The use of these is not intended to reduce plant species from which to select from or inhibit creativity but rather ensure plant performance. Plants not listed below may be used to provide landscaping in excess of the minimum requirements of this Article.

#### **ORNAMENTAL TREES:**

| Crepe Myrtle      | Lagerstroemia indica sp.  |
|-------------------|---------------------------|
| Desert Willow     | Chilopsis linearis        |
| Golden Raintree   | Koelreuteria paniculata   |
| Leyland Cypress   | Cupressocyparis leylandii |
| Mexican Buckeye   | Ugnadia speciosa          |
| Mexican Plum      | Prunus mexicana           |
| Possumhaw Holly   | Ilex decidua              |
| Red Bud, Mexican  | Cercis spp. 'mexicana'    |
| Red Bud, Oklahoma | Cercis spp. 'oklahoma'    |
| Red Bud Texas     | Cercis spp. 'texensis'    |
| Vitex             | Vitex agnus-castus        |
| Wax Myrtle        | Myrica cerifera           |
| Yaupon Holly      | Ilex vomitoria            |
|                   |                           |

#### **SHRUBS:**

| Abelia             | Abelia spp.             | Hollies, all varieties  | Ilex spp.             |
|--------------------|-------------------------|-------------------------|-----------------------|
| Althea             | Hibiscus syiacus        | Juniper, all varieties  | Juniperus spp.        |
| Autumn Sage        | Salvia greggi           | Ligustrum               | Ligustrum japonica    |
| Bamboo             | Phyllostachys spp.      | Nandina, all varieties  | Nandina spp.          |
| Barberry           | Berberis vularis spp.   | Oleander, all varieties | Nerium spp.           |
| Boxwood            | Buxus spp.              | Photinia                | Photinia x Frasieri   |
| Cherry Laurel      | Prunus caroliniana      | Red Yucca               | Hesperaloe parviflora |
|                    |                         | Rose, all varieties     | Rosa spp.             |
| Dworf Cropo Myrtlo | Langostromia indica spp | Sumage all variation    | Dhug ann              |

Dwarf Crepe Myrtle Dwarf Pomegranate Dwarf Wax Myrtle Eleagnus Flowering Quince Forsythia

Langostromia indica spp. Punica granatum nana Myrica pussila Eleagnus pungens Chaenomeles speciosa Forsythia x intermedia

Sumac, all varieties Texas Sage, all varieties Leucophyllum spp. Texas Sotol Yucca, all varieties

Rhus spp. Dasyliron spp. Yucca spp.

# GRASSES, GROUNDCOVERS, SCREENING SHRUBS

The plant material listed below shall be used to meet the minimum landscape requirements established in Section B. *Landscaping*, Subsection 1. *Landscaping Required* of this Article. The use of these is not intended to reduce plant species from which to select from or inhibit creativity but rather ensure plant performance. Plants not listed below may be used to provide landscaping in excess of the minimum requirements of this Article.

# TURF GRASSES:

#### **GROUNDCOVERS:**

| Bermuda Grass          | Cynadon dactylon    | Asian Jasmine                 | Trachelospermum spp.  |
|------------------------|---------------------|-------------------------------|-----------------------|
| Buffalo Grass          | Buchloe dactyloides | English Ivy (in shade on      | ly) Hedra helix       |
| Rye Grass              | Lolium multiflorum  | Holly Fern (in shade onl      | y) Cyrtomium falcatum |
| (as winter cover only) |                     | Mondo Grass                   | Ophiopogon japonicus  |
|                        |                     | Monkey Grass                  | Liriopi muscari       |
| Zoysia grass           | Zoysia spp.         | Vinca (in shade <i>only</i> ) | Vinca major           |
|                        |                     | Wintercreeper                 | Euonymous coloratus   |

#### **ORNAMENTAL GRASSES:**

| Chinese Silvergrass   | Miscanthus sinensis    | Boston Ivy        | Parthenocisus tricupidata   |
|-----------------------|------------------------|-------------------|-----------------------------|
| Inland Sea Oats       | Casmanthium latifolium | Carolina Jessamin | e Gelsemium sempervirens    |
| Mexican Feather Grass | Nassella tenuissima    | Crossvine         | Bignonia spp.               |
| Muhly Grass           | Muhlenbergia spp.      | Honeysuckle,      | Coral Lonicera sempervirens |
| Pampas Grass          | Cortaderia selloana    | Trumpet Vine      | Campsis radicans            |
|                       |                        | Virginia Creeper  | Parthenocisus quincifolia   |
|                       |                        | Wisteria          | Wisteria cinensis           |

VINES:

# PLANTS FOR DETENTION & RETENTION PONDS

The plant material listed below shall be used to meet the minimum landscape requirements established in Section B. *Landscaping*, Subsection 1. *Landscaping Required* of this Article. The use of these is not intended to reduce plant species from which to select from or inhibit creativity but rather ensure plant performance. Plants not listed below may be used to provide landscaping in excess of the minimum requirements of this Article.

#### **TREES:**

Texas Ash

VINES:

Fraxinus texensis

#### **ORNAMENTAL TREES:**

| Bald Cypress | Taxodium distichum       | Dough loof dogwood  | Comus duunus on dii |
|--------------|--------------------------|---------------------|---------------------|
| Pond Cypress | Taxodium ascendens       | Rough leaf dogwood  | Cornus drummondii   |
| Cedar Elm    | Ulmus crassifolia        | Possumhaw holly     | Ilex decidua        |
| River Birch  | Betula nigra 'dura heat' | Southern wax myrtle | Myrica cerifera     |
|              |                          |                     |                     |

#### **SHRUBS:**

| Nandina<br>Indigo bush<br>American beautyberry<br>Red Yucca<br>Dwarf wax myrtle | Nandina spp.<br>Amorpha fruticosa<br>Callicarpa americana<br>Hesperaloe parviflora<br>Myrica pusilla | Virginia creeper<br>Carolina Jessamine<br>Coral honeysuckle<br>Crossvine | Parthenocissus quincifolia<br>Gelsemium sempervirens<br>Lonicera sempervirens<br>Bignonia capreolata |
|---|--|--|--|
| Obedient Plant  | Physostegia virginiana   |  |  |

#### NATIVE GRASSES:

| Big Bluestem         | Andropogon gerardii      |
|----------------------|--------------------------|
| Brushy Bluestem      | Andropogon glomeratus    |
| Eastern gama grass   | Tripsacum dactyloides    |
| Inland sea oats      | Chasmanthium latifolium  |
| Indian grass         | Sorghastrum nutans       |
| Gulf Muhly           | Muhlenbergia capillaries |
| Lindheimer muhly     | Muhlenbergia lindheimer  |
| Seep muhly           | Muhlenbergia reverchonii |
| Seep muhly           | Muhlenbergia reverchonii |
| Gulf coast penstemon | Penstemon tenuis         |

#### **HERBACEOUS PLANTS:**

| Snake Herb            | Dyschoriste linearis     |
|-----------------------|--------------------------|
| Black Dalea           | Dalea frutescens         |
| Partridge pea         | Chamaecrista fasciculate |
| Maximillian Sunflower | Helianthus maximilianii  |
| Turks Cap             | Malvaviscus drummondi    |

#### FIGURE 2 PROHIBITED PLANT LIST (Ord. No. 3498, 06/05/2012)

The following plant materials are prohibited. Due to their detrimental impact on foundations, sidewalks, and other impervious areas, their negative impact on the built environment, and/or their intolerance to natural conditions, these plant materials shall not be used. If these materials are existing, they do not have to be removed from the site. They may not however, be counted towards meeting any landscaping required by this Article.

| Fraxinus veluta        |
|------------------------|
| Populus deltoides      |
| Morus alba "fruitless" |
| Celtis occidentalis    |
| Albixia jubibrissin    |
| Morus alba             |
| Acer saccharinum       |
| Platanus occidentalis  |
| Saliz babylonica       |
|                        |