

Landscape Design Guidelines for Commercial Development



CARROLLTON
TEXAS

Development Services
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Purpose

The City of Carrollton has developed landscape design guidelines for commercial, industrial and institutional developments and for Special Use Permits and Planned Development projects including modifications to such existing developments.

The City continues to invest heavily into the beautification of its major corridors to provide for an aesthetically pleasing infrastructure including street medians and rights-of-ways.

The City believes that proper landscape design promotes a remarkable and cohesive community, provides for a safer and more pleasant living and working environment, and aids in water and resource conservation.

These landscape design guidelines provide procedural and design guidance for project applicants whose proposals are subject to the requirements of the City of Carrollton's Comprehensive Zoning Ordinance Article XXV, "Landscaping and Buffering".



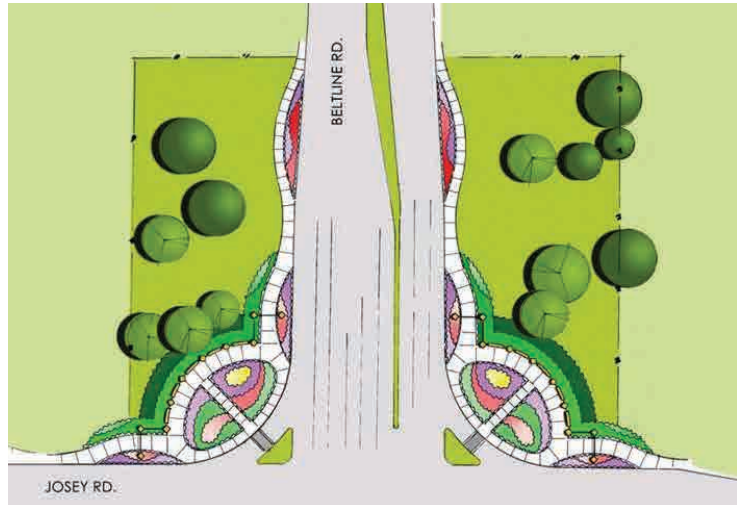
The City Arborist reviews all Landscape Planting and Irrigation plans for compliance with City codes and policies and assists the applicant in processing plans when required for Planning and Zoning Commission and City Council Public Hearings.

Design Objectives

This manual establishes landscape design principles for new and repurposed commercial project sites. This manual directs and defines the superior level of quality and aesthetics of the design-driven landscape as expected by the Planning and Zoning Commission and City Council.

Provided herein, are the “how to’s” of better landscape design. The principles as outlined in this manual promote and protect the public health, safety, and general welfare of the citizens of Carrollton by fostering the following landscape design objectives.

- Provide aesthetic enhancement of the project site.
- Screen objectionable objects from public view.
- Create and foster usable public space.
- Consider the appropriate use of plant materials.
- Foster long-term, environmentally sustainable landscaping with minimal maintenance needs.
- Consider and respond to the context of adjacent surroundings.
- Promote water conservation through the use of water-efficient landscaping.
- Advocate functional and limited use of turf grass areas.
- Foster the aggressive use of water conserving landscape irrigation technology.



Multi-Family Landscape

The landscaping required for Multi-Family developments serves many purposes and has multiple objectives, including but not limited to:

- Screening buildings and adding visual texture to walls and facades.
- Screening undesirable views such as utilities, parking structures and trash enclosures.
- Strengthening the human scale.
- Providing a buffer between pedestrian walkways and the street and buildings.
- Providing shade in public spaces and parking lots.
- Visually softening transitions between horizontal and vertical planes.
- Providing a visual and noise buffer.



Tree Placement should provide maximum shading of streets, sidewalks, and outdoor public spaces.

- Place larger trees near the street ROW, entries, and focal points.
- Provide large evergreen trees in areas with single family adjacency or commercial uses abutting the multi-family development.
- Smaller ornamental trees should be planted in natural clusters rather than in a lineal format where space allows.
- No more than 34% of a single species should be used on a site.

Prior to any construction or development a Tree Preservation Plan must be submitted and approved by the City Arborist.

- Chapter 155 of Title XV of the Carrollton Code of Ordinances outlines the tree preservation requirements for development.



Native, naturalizing, and drought tolerant plant species are encouraged to reduce water consumption once established.

- Consider limiting turf to accent and activity areas.
- Place plants with similar water requirements together.

Ordinance Summary

- Minimum percentage of landscaping required in a multi-family development is 20%.
- Not less than 50% of the total required on-site landscaping shall be located in the designated front yard.
- Not less than 70% of the total required on-site landscaping located in the front one-half of the lot.
- An average landscape buffer of 15 feet in width shall be provided adjacent to all street rights of way or street easements.

- A maximum of 50% of the buffer area may be landscaped with turf grass.
- Two three inch caliper shade trees shall be planted for each 100 linear feet of street frontage.
- Three ornamental trees shall be planted for each 100 linear feet.
- 34 five gallon evergreen shrubs shall be planted for each 100 linear feet.
- A combination of a discontinuous earthen mound constructed to a height of three feet is required.



Visual surveillance of common open space, parking areas, and dwelling entries should not be obscured through landscaping.

- Tree and shrub species shall be selected and located to maintain safe sight line distances.

Plant selection and location should consider and avoid conflicts with both underground and above ground utilities.

- All utilities shall be located on the landscape plan.

Layered landscaping and a mix of deciduous and evergreen trees and shrubs should be incorporated in the landscape design.

- Plant palettes should emphasize massing and forms rather than individual or small groupings of shrubs and trees.

Plant selection shall consider site geology and soil conditions.

- Soils shall be amended as necessary to ensure root establishment.



Commercial Landscape



Ordinance Summary

- Minimum percentage of landscaping required on a commercial development parcel is 10%.
- Not less than 50% of the total required on-site landscaping shall be located in the designated front yard.
- Not less than 70% of the total required on-site landscaping located in the front one-half of the lot.
- An average landscape buffer of 15 feet in width shall be provided adjacent to all street rights of way or street easements.
- A maximum of 50% of the buffer area may be landscaped with turf grass.
- Two three inch caliper shade trees shall be planted for each 100 linear feet of street frontage.
- Three ornamental trees shall be planted for each 100 linear feet.
- 34 five gallon evergreen shrubs shall be planted for each 100 linear feet.
- A combination of a discontinuous earthen mound constructed to a height of three feet is required.

Commercial Parking

- Parking lots containing at least 12 but less than 100 parking spaces shall have a minimum of five percent of the parking area, inclusive of maneuvering aisles, landscaped.
- Parking lots with more than 100 parking spaces shall have a minimum of 10% of the parking area, inclusive of maneuvering aisles landscaped.
- Please refer to the parking lot section of this manual for specific parking lot planting requirements.



Detention and Retention Ponds

- **Detention and retention pond design** shall be an integral part of the overall site plan and must be considered a natural landscape feature on the site.
- The area of any detention or retention pond will not be counted toward the minimum required landscaping on a lot.
- Native and wet land appropriate plant species are encouraged in detention and retention areas.
- Within any detention area, the area designed for inundation shall be planted with species that can withstand periods of wet and periods of drought and can serve to stabilize the slopes of the pond area.



- Two ornamental trees for each 50 linear feet of pond perimeter or fraction thereof, as measured along the top of the bank
- Ten shrubs for each 50 linear feet of pond perimeter, or fraction thereof, as measured along the top of the bank.
- Plantings shall be planned to prevent obstruction of access to the pond area and maintenance structures by maturing trees and shrubs.
- 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.

Maintenance

- Detention and Retention must include a minimum 15-foot wide maintenance access to the basin and to any basin riser outlet structures.

Ordinance Requirements

- One shade tree for each 50 linear feet of pond perimeter, or fraction thereof, as measured along the top of the bank.



Parking Lot Landscaping

- **Parking Lot landscape plantings shall be coordinated with the locations of lights and utilities in mind so that there will be no interference when plantings reach maturity.**
- Parking lot islands shall be a minimum of eight feet in width and extend the length of the adjacent spaces.
- A two foot wide bumper overhang shall be provided where landscaping is adjacent to parking.
- Concrete wheel stops may be used in lieu of the overhang when site constraints exist.



Parking Lots with 12-99 Parking Spaces

- A minimum of 5% of the parking area inclusive of maneuvering aisles shall be landscaped.
- One shade tree for each 12 parking spaces or fraction thereof.
- A landscape island shall be provided at the end of each parking row.



Planting Density and Visibility

- The total area of required landscaping within parking areas shall not have more than 50% of its area planted in turf grass.
- Shrubs and groundcovers shall be maintained to a maximum height of 30 inches to ensure the driver's visibility.



Parking Lots with 100 or More Parking Spaces

- A minimum of 10% of the parking area inclusive of maneuvering aisles shall be landscaped
- One shade tree for each ten parking spaces or fraction thereof.
- A landscape island shall be provided at the end of each parking row.
- Landscape islands are not required when parking spaces are located behind a building and are screened from view of the street for warehousing, manufacturing, assembly or wholesale uses.
- All Landscaping which would otherwise be required behind the building shall be required elsewhere on the property.



Approved Plant List

Large Trees

- **Bald Cypress**
Taxodium distichum
- **Bur Oak**
Quercus macrocarpa
- **Caddo Maple**
Acer saccharum 'Caddo'
- **Cedar Elm**
Ulmus crassifolia
- **Chinkapin Oak**
Quercus muehlenbergii
- **Live Oak**
Quercus virginiana
- **Mesquite**
Prosopis glandulosa
- **Pecan**
Carya illinoensis
- **Pond Cypress**
Taxodium ascendens
- **Shumard Red Oak**
Quercus shumardii
- **Southern Magnolia**
Magnolia grandiflora



Mid-size Trees

- **Arizona Cypress**
Cupressus arizonica
- **Ashe Juniper**
Juniperus ashei
- **Chinese Pistacio**
Pistacia chinensis
- **Chittamwood**
Bumelia lanuginosa
- **Eastern Red Cedar**
Juniperus virginiana
- **Elderic Pine**
Pinus elderica
- **Texas Ash**
Fraxinus texensis
- **Texas Persimmon**
Diospyros texana
- **Western Soapberry**
Sapindus drummondii



Ornamental Trees

- **Crape Myrtle**
Lagerstroemia indica sp.
- **Desert Willow**
Chilopsis linearis
- **Eve's Necklace**
Saphora affinis
- **Mexican Buckeye**
Ugnaia speciosa
- **Possumhaw Holly**
Ilex decidua
- **Red Bud, Mexican**
Cercis spp. 'mexicana'
- **Red Bud, Oklahoma**
Cercis spp. 'oklahoma'
- **Red Bud, Texas**
Cercis spp. 'texensis'
- **Sky Rocket Juniper**
Juniperus
- **Vitex**
Vitex agnus-castus
- **Yaupon Holly**
Ilex vomitoria



Shrubs

- **Abelia**
Abelia spp.
- **Autumn Sage**
Salvia greggi
- **Barberry**
Berberis vulgaris spp.
- **Cherry Laurel**
Prunus caroliniana
- **Dwarf Crepe Myrtle**
Lagerstroemia indica
- **Dwarf Wax Myrtle**
Myrica pusilla
- **Eleagnus**
Eleagnus pungens
- **Hollies** (all varieties)
Ilex spp.
- **Nandina** (all varieties)
Nandina spp.
- **Red Yucca**
Hesperaloe parviflora
- **Knock Out Roses**
Rosa spp.



- **Texas Sage**
Leucophyllum spp.
- **Yucca** (all varieties)
Yucca spp.

Ornamental Grasses

- **Chinese Silvergrass**
Miscanthus sinensis
- **Inland Sea Oats**
Casmanthium latifolium
- **Mexican Feather Grass**
Nassella tenuissima
- **Muhly Grass**
Muhlenbergia spp.
- **Pampas Grass**
Cortaderia selloana

Ground Covers

- **Asian Jasmine**
Trachelospermum spp.
- **Monkey Grass**
Liriope muscari
- **Wintercreeper**
Euonymus coloratus
- **Mexican Feather Grass**
Nassella tenuissima

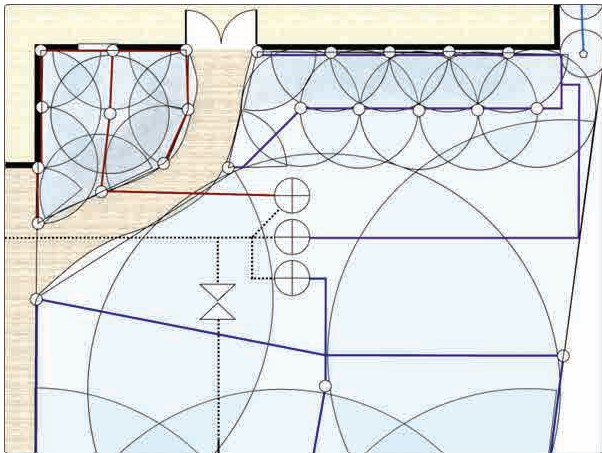
Turf Grasses

- **Bermuda Grass**
Cynodon dactylon
- **Buffalo Grass**
Buchloe dactyloides
- **Zoysia Grass**
Zoysia

Landscape Irrigation

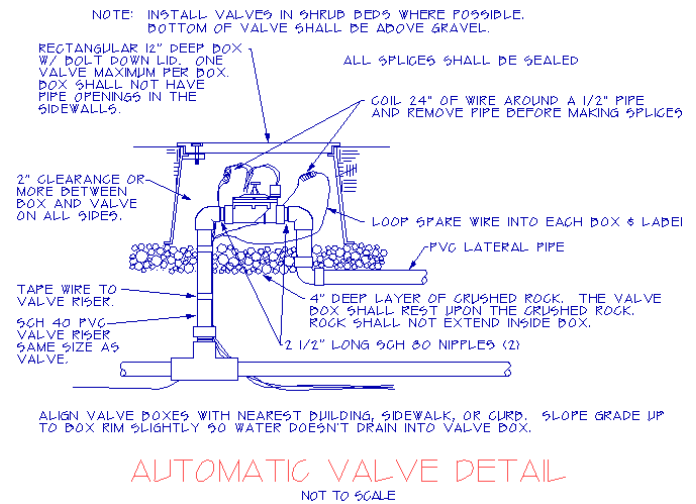
Landscape Irrigation in the City of Carrollton requires a separate building permit:

- Two sets of landscape irrigation plans shall be submitted for review and permitting.
- The permit fee is based on valuation of work. The current fee is \$4 per \$1,000.00 of valuation. The minimum permit fee for landscape irrigation is currently \$75.
- The turnaround time for permitting is usually 2-3 business days.



The landscape irrigation plan shall include the following:

- Licensed Irrigator's seal, signature, and date of signing
- All major physical features and limits of irrigated areas
- Legend, specified scale, north arrow
- The zone flow measurement per zone



Location, type, and size of each controller:

1. Water source and points of connection
2. Type and location of backflow prevention device
3. Required rain/freeze sensor
4. Water emission devices
5. Electronic valves
6. Pressure regulating devices
7. Main and lateral lines
8. Required wye-strainer

Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087, Austin, Texas 78711-3087

Connection to a potable water supply and the installation of a backflow prevention device shall be installed not more than three (3) feet from the water line and installed on the property being served by the system.

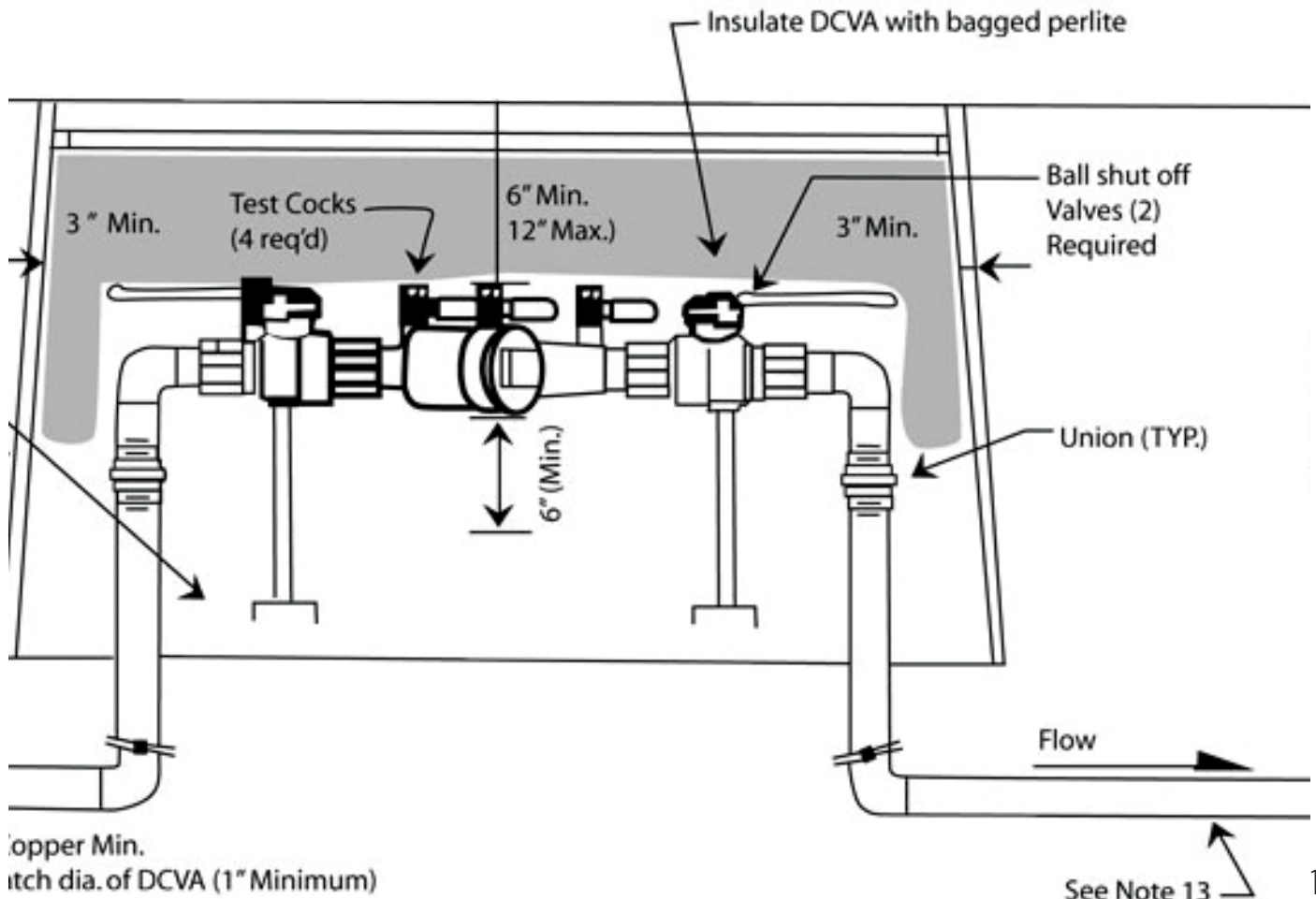
Once the irrigation system is installed, the Licensed Irrigator must provide the following for the property owner:

- A final “**walk through**” with the property owner to explain the system’s operation.
- A **maintenance checklist**, which must be signed by the property owner.
- An ‘as-built’ plan indicating the actual installation of the system.

- A **permanent waterproof sticker** which contains the irrigator’s name, license number, company name, telephone number and the dates of the warranty period shall be affixed to each automatic controller.

• **An affidavit with the statement:**

“This irrigation system has been installed in accordance with all applicable state and local laws, ordinances, rules, regulations or orders. I have tested the system and determined that it has been installed according to the irrigation plan and is properly adjusted for the most efficient application of water at this time.”



Installation & Maintenance

Proper initial landscape installation and subsequent maintenance is required on commercial properties to uphold the intent of Article XXV, the landscaping and buffering ordinance which serves to:

- Establish minimum requirements for the installation and maintenance of landscaping and buffering elements and other means of site improvements on developed property.
- Reduce the negative effects caused by expanses of imperious and non-vegetated surface within the urban environment.
- Protect and conserve the community's soils and prevent soil erosion and silting of drainage structures and water bodies.
- 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 stormwater runoff, provide wildlife habitat, and enhance the aesthetic qualities of the City.
- Assure an acceptable degree of transition and reduce incompatibility between abutting or nearby uses.



All landscaping shall be completed and installed in accordance with the approved landscape plan before a certificate of occupancy shall be issued for any building on a lot.

- A temporary Certificate of Occupancy for a period not to exceed six (6) months may be issued to accommodate variations in planting and construction schedules.
- If the required landscaping has not been installed in accordance with the approved plan by the end of the temporary Certificate of Occupancy, the property owner shall be considered in violation of the zoning ordinance and shall be subject to the penalties established within the ordinance.



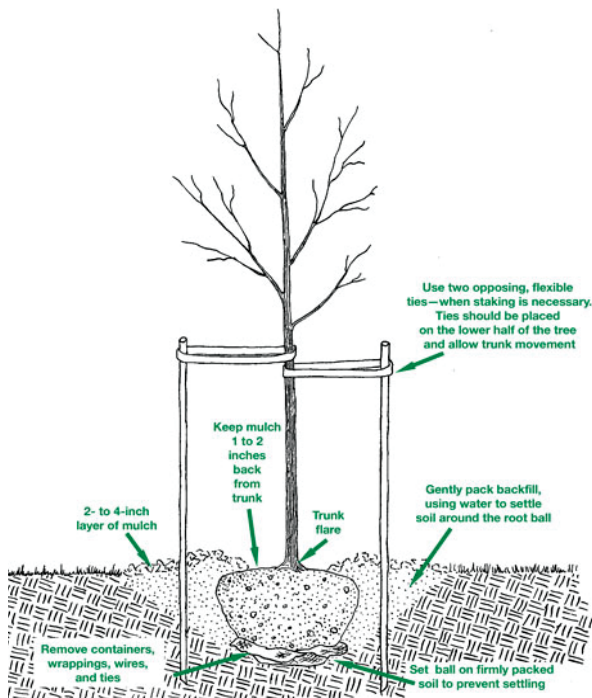
Installation Guidelines

All Plantings Shall

- Have indications of normal growth.
- Be sound, healthy, and vigorous.
- Be free of insects and disease.
- Have well developed branching structures.
- Have fibrous root systems that are not root bound.
- Be adaptable to the area in which they will be planted.

Turf Grasses

- Turf grass planted in the landscape buffer area, drainage swales, or areas susceptible to erosion must be planted with solid sod.
- Turf grass plantings elsewhere may be sodded, plugged, sprigged, seeded, or hydro-seeded.



Woody Shrubs

- Shall be, at a minimum, five-gallon container at the time of planting.
- Shrubs used as parking lot screening shall be a minimum of 24" in height and 14" in spread at the time of planting.
- Shrubs shall be planted in such a manner as to present a finished appearance and reasonably complete coverage within two (2) years of planting.

Ground Covers

- Ground covers shall be planted in such a manner as to present a finished appearance and reasonably complete coverage within two (2) years of planting.
- Ground cover plants from four-inch (4") pots shall be planted at a maximum of twelve inches (12") on center.
- Ground cover plants from one-gallon containers shall be planted at a maximum of eighteen inches (18") on center.

Maintenance Guidelines

- All areas shall be regularly watered sufficiently to establish and promote vigorous growth of all trees, shrubs, groundcovers, and turf grasses.
- All areas shall be kept in a relatively weed free and orderly appearance.
- All plantings 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 and hazardous growth, 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, and hazardous limbs.
- No 'topping' of ornamental trees shall be allowed.
- All landscaped areas shall be kept free of debris and trash in accordance with the Carrollton Code of Ordinances.

