

EXHIBIT C

Tree Preservation and Landscape Standards
General Amendment No. 20-03

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Chapter 8 - TREE PRESERVATION, LANDSCAPING AND FENCING

SECTION 8.01. - GENERAL

Sec. 8.01.010. - Purpose.

This chapter establishes requirements for the preservation and protection of native trees and the provision of landscaping, buffering, and screening to provide for the orderly, attractive, and healthful development of land and promote the health, safety, and general welfare of the community.

- A. The regulations contained herein are necessary to protect the character and enhance the ecological, environmental, and aesthetic qualities of the community.
- B. The use of landscape elements can contribute to air purification, oxygen regeneration, water absorption, water purification, and noise, glare, and heat abatement indicating that the use of landscape elements is of benefit to the health, welfare, and general well being of the community and, therefore, it is proper that the use of such elements be required.
- C. The City experiences frequent droughts; therefore, it is a purpose of this chapter to encourage the use of low-water, drought-tolerant plants and trees and the grouping of vegetation by water requirements.
- D. The City values its indigenous and historic natural features; therefore, the placement of proposed buildings and improvements should be oriented in a manner that allows for the preservation of existing trees and native landscape. In addition, natural areas to be preserved should be integrated within the design of open space, screening, and landscaped areas.

Sec. 8.01.020. – Authority.

- A. The provisions of this chapter are adopted pursuant to Texas Local Government Code chs. 211 and 212 and the City Charter.
- B. The provisions of this chapter are administered by the Director of Planning and the Urban Forester under the direction of the Director. Unless otherwise indicated within this chapter, appeals of the Urban Forester's decisions shall be made to the Director. For this chapter, appeals of the Director's decisions shall be made to the City Council utilizing the procedures set forth in Section 3.14, Appeal of an administrative decision.

Sec. 8.01.030. - Applicability.

This chapter applies to all properties located within the corporate limits and the extra-territorial jurisdiction (ETJ) of the City; however, each section applies differently depending on the specific use and location. Further clarification of the applicability of individual sections of this chapter can be found described within each section. The sections listed below correspond to Table 8.01.030 and are applicable to each type of use as identified in the table.

- Subsection 8.02.030.D. Heritage Trees
- Subsection 8.02.030.E. Protected Trees
- Section 8.03. Residential landscaping
- Section 8.04. Non-residential landscaping
- Section 8.05. Review and approval process
- Section 8.06. Plant selection, installation, and maintenance
- Section 8.07. Fencing

The following table summarizes the provisions of this chapter applicable to each type of use, within both the ETJ and the City limits.

Table 8.01.030: Provisions Applicable by Use and Location

Location	Type of Use	Sec 8.02.030.D	Sec 8.02.030.E	Sec 8.03	Sec 8.04	Sec 8.05	Sec 8.06	Sec 8.07
City Limits	Single-family and Two-family	X	—	X	—	X	X	X
	All other uses	X	X	—	X	X	X	X
ETJ	Single-family and Two-family	X	—	—	—	X	X	—
	All other uses	X	X	—	—	X	X	—

X = required

Sec. 8.01.040. – Essential Terms Defined.

- A. For the purposes of this chapter, the term "residential" shall include Single-family and Two-family development and "non-residential" shall include all other uses, including Townhouse and Multi-family.
- B. For the purposes of this chapter, the term "exempt properties" shall mean all Single-family and Two-family lots platted prior to February 13, 2007.
- C. Diameter Breast Height (DBH) is the diameter of a tree measured at four and one-half feet above ground, as further defined in Chapter 16. The DBH of a tree with more than one trunk shall be calculated as the sum of the DBH of the largest trunk and one half the sum of the remaining trunks. Trees classified as Ornamental Trees by the Preferred, Controlled, and Prohibited Plant List adopted through the Development Manual with more than one trunk shall be calculated as the sum of the DBH of the largest trunk of the tree and one half the DBH of the largest trunk of the tree multiplied by the number of remaining trunks.
- D. Critical Root Zone (CRZ) is a circular region measured outward from the tree trunk representing the essential root area that must be protected for the tree's survival and is calculated as one foot of radial distance for every one inch of DBH.
- E. The definitions in Chapter 16 of this Code shall apply to these and other terms within this chapter.

Sec. 8.01.050. - Unified Development Code Development Manual.

The Unified Development Code Development Manual is a companion document to this Code, containing templates for Tree Surveys, Tree Preservation Plans, landscape and tree calculations, and other relevant information for completing a Site Plan or other required process. The Development Manual also contains the City plant lists, including the preferred, prohibited, and controlled plant lists, and the landscape and tree technical standards (Technical Standards) which provides technical guidance for the selection, planting, and maintenance of plants required by this Code.

Sec. 8.01.060. - Additional Resources.

The City encourages use of additional resources and publications that compliment this chapter and its companion manuals, to provide further details on plant selection, maintenance, and other relevant information. Recommended examples include the Austin Grow Green Guide, Lady Bird Johnson Wildflower Center Invasive Plant List, Williamson County Native Plant Society publications, and publications from local and regional water providers and conservation groups.

SECTION 8.02. – TREE PRESERVATION AND PROTECTION

The purpose of this section is to provide for the preservation, protection, removal, and mitigation of Protected Trees and Heritage Trees. The provisions of this section shall be implemented by the Urban Forester, under the direction of the Director.

Sec. 8.02.010. - Applicability.

- A. The provisions of this Section 8.02 shall apply to all non-exempt property located within the corporate limits and extraterritorial jurisdiction (ETJ) of the City.
- B. Notwithstanding the provisions contained herein to the contrary, the provisions of this Section 8.02 shall not apply to exempt property unless the use of the property shall change from a residential classification to a non-residential classification.
- C. The Protected Tree provisions of this section apply only to non-residential development as defined in Section 8.01.040 above.

Sec. 8.02.020. – Tree Classifications Established.

A. Protected Tree.

A Protected Tree is any tree, excluding Hackberry, Chinaberry, Ashe Juniper (cedar), Mountain Cedar, Blueberry Juniper, Post Cedar, Chinese Tallow, and Mesquite, that has a diameter at breast height (DBH) of 12 inches or larger, excluding Heritage Trees.

B. Heritage Tree.

- 1. The Heritage Tree classification applies to any of the following tree species that has a DBH of 26 inches or larger: Live Oak, Post Oak, Shumard Oak, Bur Oak, Chinquapin Oak, Monterey Oak, Bald Cypress, American Elm, Cedar Elm, Pecan, Walnut, Texas Ash, or Southern Magnolia.
- 2. The Heritage Tree classification may also be designated by resolution of the City Council to any tree of historical value or significant community benefit.

Sec. 8.02.030. – Preservation of Protected and Heritage Trees.

- A. Unless otherwise allowed by this chapter, no property shall be clear-cut or selectively cleared, nor shall a Protected Tree or Heritage Tree be removed, without first securing the necessary approval from the City.
- B. **Exceptions.**

1. **Residential Exemption.**

Existing residential subdivisions approved and platted prior to February 13, 2007, are exempt from the regulations in this section.

2. **Hazardous Trees.**

a. **Natural Disasters and Other Emergencies.** If a Protected Tree or Heritage Tree is determined to be causing a danger or to be in a hazardous condition due to a natural disaster such as a tornado, fire, storm, flood, or other act of God that endangers public health, welfare, or safety, the requirements of this section may be waived as deemed necessary by the Emergency Management Coordinator or their designee, and the Assistant City Manager, after consultation with the Urban Forester, with such consultation and determination to occur within one calendar day of an applicant's request to remove or prune said tree.

b. **Airport Clear Zone.** Protected and Heritage Trees located in the Airport Clear Zone are exempt from the requirements of this section.

c. **Sight Triangles.** If the Urban Forester and Development Engineer determine a protected or Heritage Tree is interfering with the safe visibility at a sight triangle of an existing public street, the tree may be removed without fulfilling the mitigation requirements of this chapter.

d. **Dead or Diseased Trees.** If the Urban Forester determines, based on a site inspection, that a Protected or Heritage Tree is already dead, dying or fatally diseased prior to starting a project, the provisions of the mitigation requirements will not apply and such determination shall be provided in writing.

3. **Public Utilities.**

Pruning the canopy of Protected Trees and Heritage Trees may be carried out by public utility providers in the City's right-of-way or public utility easement without prior approval by the Urban Forester, if performed by or under the supervision of an International Society of Arboriculture (ISA) Certified Arborist. [Removal of a Protected or Heritage Tree](#) ~~removal~~ requested by any utility providers in the City's right-of-way or public utility easement must be submitted to the Urban Forester for review and approval [or through a right-of-way permit in accordance with Chapter 12.08 of the City Code of Ordinances.](#)

C. **Protection of Critical Root Zone.**

1. No construction or disturbance shall occur within an area that constitutes more than 50 percent (50%) of the total CRZ and one-half the radial distance of the CRZ for each tree

being preserved, including Protected Trees, Heritage Trees, and any other trees for which credit for preservation is to be assigned per this chapter. This defined area shall be flagged and encircled with protective fencing during construction. The Urban Forester may approve construction closer to the trunk than one-half the radial distance, depending on the size, spacing, or species of the tree, the type of disturbance proposed, and uniqueness of the situation, if acceptable supplemental nutrients and/or soil aeration are provided and the probable survival rate of the tree is high.

2. Cut or fill that is greater than four inches in depth and the severing of major roots shall be considered disturbance for the purposes of this chapter.
3. Within the protected CRZ, only flatwork, decking, or similar construction, may be approved and shall not affect the branching of the tree.
4. If proposed or actual protection of the CRZ of a tree does not meet the requirements of this section, then the tree shall be considered removed and shall require mitigation in accordance with Section 8.02.040.

D. Heritage Tree Preservation Requirements.

1. The requirements of this chapter as they relate to Heritage Trees shall be applicable to all development within the City's jurisdiction including both residential and non-residential development, unless otherwise exempted by Section 8.02.030.
2. Heritage Trees shall be preserved on site unless otherwise approved for removal or relocation as outlined in Section 8.02.040.
3. Heritage Trees shall be graphically identified on Subdivision Plats, and the plat shall contain a note stating that such trees cannot be removed without prior consent from the City.
4. Each plat shall contain certification, with a plat note, that all individual lots containing Heritage Trees are configured and designed so that the lot is developable for the intended purpose without requiring removal of the Heritage Tree or exceeding the percentage of allowable disturbance within the Heritage Tree CRZ.
5. It shall be unlawful to prune a Heritage Tree without an approved Heritage Tree pruning permit per Section 3.23 of this Code. All approved pruning must be performed by an International Society of Arboriculture (ISA) Certified Arborist or under the supervision of an ISA Certified Arborist, and must follow the American National Standards Institute (ANSI) A300 standards. Heritage Tree pruning permits do not apply to lots containing constructed single-family and two-family dwellings.

6. Heritage Trees shall not be removed or damaged in rights-of-way or easements, unless specifically approved by the Urban Forester.
7. Preserved Heritage Trees may also be credited towards the landscape requirements of Sections 8.03 and 8.04.

E. Protected Tree Preservation Requirements.

1. The requirements of this chapter as they relate to Protected Trees shall be applicable to all non-residential development within the City's jurisdiction. Single- and two-family development is exempt from the Protected Tree requirements.
2. Required Protected Tree Preservation Percentages.
 - a. The minimum number of Protected Trees required to be preserved on site shall be based on the average density of all Protected Trees on the site. For multi-site unified developments, the tree preservation percentages may be averaged over the entire development provided it is identified as such on the Subdivision Plat or Site Plan for the development. Densities shall be determined based on the Tree Survey. Mitigation shall be required for trees approved for removal, using the calculations detailed in Subsection 8.02.040.C.

Table 8.02.030: Required Protected Tree Preservation

Average Tree Density	Minimum Percentage of Protected Trees Required to be Preserved
1–10 trees per acre	30%
11+ trees per acre	20%

- b. An applicant may ~~request an Administrative Exception to these percentages, per Section 3.16 of this Code, based on the tree species and location, site features, topographical limitations, existing buildings, and other site limitations or constraints~~ preserve less than the minimum percentages of Protected Trees outlined in Table 8.02.030 provided that the inches of trees removed beyond the minimum required to be preserved be mitigated at a rate of 1.5 times the calculations required in Section 8.04.020.

3. Preserved Protected Trees may also be credited towards the landscape requirements of Sections 8.03 and 8.04.

F. Tree Preservation and Mitigation Boundaries.

1. All Protected and Heritage Trees on a property shall be considered existing trees for the purpose of determining the number of Protected Trees required to be preserved in Section 8.02.030.E. 1. No trees shall be considered existing trees or credit trees if located in an area of required right-of-way dedication per Sections 12.02 and 12.03 of this Code where no public improvements are required to be constructed as a part of the scope of work.
2. Removal of Protected and Heritage Trees within an area of required right-of-way dedication shall be mitigated in accordance with this Code.

Sec. 8.02.040. – Removal of a Protected or Heritage Tree.

A. Transplanting of a Protected or Heritage Tree.

Protected and Heritage Trees may be transplanted to a suitable location either on the same property or off-site, as approved by the Urban Forester. To qualify, a tree transplanting company from the City's approved vendor list or one otherwise approved in writing by the Urban Forester, must be used and fiscal surety must be filed with the City to guarantee a two-year monitoring and maintenance program for the transplanted trees. The property owner/manager shall submit quarterly statements that demonstrate compliance with the required tree monitoring and maintenance provided by an approved tree care service. If compliance is not demonstrated, the surety will be used by the City provide the required monitoring and maintenance. Monitoring shall include soil moisture analysis, fertilization, pest and disease management, soil amendments, and any other service deemed necessary by the Urban Forester or the tree care service. This surety shall remain in place until the end of the two-year period.

B. Heritage Tree Removal Permit.

Heritage Trees may be removed only with the approval of a Heritage Tree removal permit, per Section 3.23 of this Code, and after the required mitigation has been provided. Prior to the approval of a Heritage Tree removal permit, all other efforts to preserve the tree in its natural location should be attempted, including those listed under tree preservation priorities in Section 8.02.050. Removal of a Protected Tree does not require a permit, but shall meet the required mitigation calculation as defined below.

C. Mitigation for Removal of a Protected or Heritage Tree.

The removal of Protected and Heritage Trees shall require mitigation using the calculations and procedures defined below. The tree mitigation inch-to-inch ratio applies to the DBH of the trees to be removed. Mitigation may be achieved through credit of existing trees on site, replacement trees planted either on or off-site, payment-in-lieu of replacement trees, supplemental nutrition and aeration, or a combination thereof. The Urban Forester shall have

the final decision on the selected mitigation option. In consultation with the Urban Forester, all options to consider the on-site replacement of trees shall be exhausted before other methods of mitigation shall be considered. Each method of mitigation is described within this section.

1. Mitigation Ratios.

- a. Mitigation shall be provided at a 1:1 inch basis for 40 percent (40%) of the total diameter inches of Protected Trees removed, measured at DBH.
- b. Mitigation shall be provided at a 3:1 inch basis for the total diameter inches of Heritage Trees removed, measured at DBH.
- c. Mitigation shall be provided at a 2:1 inch basis for the total diameter inches of any Protected Tree with a DBH of 26 inches or greater that is not a Heritage Tree species, as defined in Subsection 8.02.020.B.
- d. Exceptions.
 - i. No mitigation shall be required for the following tree species: Hackberry, Chinaberry, Ashe Juniper (cedar), Mountain Cedar, Blueberry Juniper, Post Cedar, Chinese Tallow, and Mesquite.
 - ii. No mitigation shall be required for Protected and Heritage Trees that are approved for removal due to poor health.

2. Mitigation by On-Site Credit Trees.

- a. Existing trees with a DBH of at least six inches and no more than 11 inches that remain on a site are considered credit trees and may be credited toward the required mitigation trees under this section, subject to approval by the Urban Forester based on the assessed health, structure, growth habit, presence of disease or decline, and the available growing space of the tree. Hackberry, Chinaberry, Ashe Juniper (Cedar), Mountain Cedar, Blueberry Juniper, Post Cedar, Chinese Tallow, and Mesquite Trees shall not be considered credit trees.
 - i. Trees classified as Ornamental Trees by the Preferred, Controlled, and Prohibited Plant List adopted through the Development Manual may be considered on-site credit trees and used as credit toward mitigation requirements. The amount of inches that may be credited for each ornamental tree shall be equal to the sum of the DBH of the largest trunk of the tree and one half the DBH of the largest trunk of the tree multiplied by the number of remaining trunks.

- ii. Trees located within the FEMA one percent (1%) floodplain or the calculated 1% floodplain may not be considered on-site credit trees for the purposes of mitigation. Credit Trees located outside of the FEMA one percent (1%) floodplain or the calculated one percent (1%) floodplain may be credited at a ratio of 2:1 per DBH inch preserved.
- b. When mitigation is to be met by on-site credit trees, the total inches shall be based on the mitigation calculation as listed in Subsection C.1. above.
- c. Credit trees may apply towards a maximum of 75 percent (75%) of the required mitigation inches for Protected Trees.
- d. Credit trees shall not be used towards mitigation for Heritage Trees.
- e. Credit trees shall be indicated on a Tree Survey, the tree schedule, and the Mitigation Plan.
- f. Existing shade trees with a DBH of least three inches and no more than 6 inches that remain on a site may be credited toward the required mitigation trees under this section, subject to approval by the Urban Forester, and provided the following standards are met:
 - i. Trees shall meet certain locational requirements-. Such trees shall not be located in areas that:
 - a. Have been graded, cleared of vegetation, or used for construction access or staging during development,
 - b. Are directly underneath existing Protected or Heritage Trees
 - c. Have been set aside and planned for future development (parking, proposed building footprint, or any other areas to be disturbed by future development)
 - d. Are located within a Public Utility Easement
 - e. Might impact the sight visibility zones of adjacent or future streets.
 - f. Are determined by the Urban Forester to be unsuitable based on specific site conditions.
 - ii. Trees shall be in good health and within or near a tree stand;
 - iii. A tree's full Critical Root Zone shall not be impacted by -construction activity; and
 - iv. Trees shall be credited at a reduced mitigation ratio of 0.5:1 ratio.

3. Mitigation by On-Site Replacement Trees.

- a. When mitigation is to be met by the planting of on-site trees, the total inches planted shall be based on the mitigation calculation as listed in Subsection C.1. of this section.
- b. All mitigation trees shall be from the preferred plant list and generally reach the same size at maturity as the tree(s) removed.
- c. Trees planted for mitigation may be used as credit towards the landscaping requirements of Section 8.04, [Non-Residential Landscape Requirements](#).

d. On-site replacement trees planted on residential lots shall be credited toward the mitigation requirements of a residential development provided the following terms are met:

- i. The shade trees planted for on-site mitigation credit must be a minimum of three caliper inches measured at six inches above finished grade or have a three-inch DBH. The shade trees must also be installed according to all applicable requirements of Section 8.06;
- ii. The Urban Forester shall have determined that all opportunities for planting within common areas (open space lots, HOA facilities, public parks, right-of-way, etc.) within the subdivision have been exhausted.;
- iii. Credit shall only be given for shade trees planted in addition to Residential street yard requirements of Section 8.03.
- iv. A minimum 15-foot on-center spacing is maintained from other shade trees;
- v. Credit shall be given for these shade trees at a ratio of 0.5:1;
- vi. Credit shall only be given for shade trees planted on residential lots subject to a requirement for a residential building permit.

4. Mitigation by Payment or Off-Site Tree Replacement.

When it is determined by the Urban Forester that mitigation for protected or Heritage Tree removal by the planting of trees on site is not feasible or desirable, e.g. planting capacity has been reached on site, an applicant may request to use one of the following alternatives or combination thereof in lieu of replanting on site, with the approval of the Urban Forester.

- a. Planting the required number of mitigation trees that would otherwise be required on-site in a City-owned park or property or other publicly-owned property (e.g., Georgetown ISD or Williamson County property) within the City or ETJ in the locations approved by the Urban Forester; or

- b. Payment of ~~\$200.00~~ \$225.00 per DBH inches of Heritage Tree removed, \$175.00 per DBH inches of Protected Tree with a DBH of 18 inches or greater removed, or ~~\$150.00~~ \$125.00 per DBH inches of Protected Tree with a DBH equal to or greater than 12 inches but less than 18 inches removed, into a fund or account to be used by the City for planting, pruning, irrigation, maintenance, and other associated tree activities in a City Park or other City-owned property. The payment(s) shall be made prior to final approval of the project.

- i. Upon request to the Urban Forester, a reimbursement of mitigation payment may be issued due to deviations from the approved Tree Mitigation Plan during construction of a project. At the approval of the Urban Forester, a reimbursement of mitigation fees paid may be requested for the preservation of any tree identified on the Tree Preservation Plan as "removed" at time of final inspection.

5. **Mitigation by Soil Aeration and Supplemental Nutrients.**

An applicant may spend up to 30 percent (30%) of the total cost of required mitigation (based on fee-in-lieu calculation) for soil aeration and/or supplemental nutrients for on-site trees within the limits of construction, per the Technical Standards. To qualify for this mitigation option, the owner or general contractor shall select a fertilization contractor from the City's approved vendor list or one otherwise approved in writing by the Urban Forester, and ensure coordination with the City's Urban Forester. The materials and methods for the soil aeration or supplemental nutrition mitigation shall be approved by the Urban Forester prior to final application approval. Soil aeration treatment shall commence after the completion of all site construction and prior to any landscape installation. Before the Certificate Of Occupancy may be granted, the property owner shall file fiscal surety with the City to guarantee implementation of the stipulated supplemental nutrition program. All treated areas shall be mulched and remain uncompacted.

D. **Unauthorized Removal of a Protected or Heritage Tree.**

Any person who removes a Protected or Heritage Tree in violation of this chapter, accidentally or otherwise, shall be required to comply with the mitigation provisions of this section, and, if the act is intentional, to pay a fine for each tree that is removed, as allowed by law, in addition to any penalties pursuant to Chapter 15. Mitigation for projects without active permits shall be based on the mitigation provisions applicable at the time of the violation, not those at the time of platting or other approval.

Sec. 8.02.050. – **Tree Preservation Incentives and Priorities.**

A. **Tree Preservation Incentives.**

1. **Impervious Cover Increase.**

The Director may increase the amount of permitted impervious cover up to five percent (5%) for the preservation of Protected Trees beyond the amount required by Subsection 8.02.030.E. A one-percent (1%) increase in impervious cover may be granted for each one percent (1%) of Protected Trees preserved beyond the minimum required per Table 8.02.030. For example, a site required to preserve a minimum of 30 percent (30%) of total Protected Trees may receive a three-percent (3%) impervious cover bonus by preserving 33 percent (33%) of the Protected Trees on a site. The maximum impervious cover shall not exceed that specified in Section 11.02.010.

2. **Parkland Dedication Credit.**

The Parkland dedication requirement may be reduced if a Heritage Tree is saved within the dedicated Parkland lot in accordance with Section 13.08 of this Code, subject to approval by the Parks and Recreation Director.

3. **Parking Space Reduction.**

The Director may approve a reduction in the number of parking spaces required by ten percent (10%) for the preservation of a Protected Tree with a DBH of 20 inches or greater. A maximum of a 30 percent (30%) total reduction may be granted under this provision. This reduction is not applicable in the Downtown Overlay District.

B. **Tree Preservation Priorities.**

1. **Heritage Trees.**

The City values its Heritage Trees and, therefore, Heritage Tree protection may be considered for priority over conflicting UDC development requirements, including, but not limited to, setbacks, lot design standards, building heights, sidewalks, lighting, signage, parking design and numbers, drainage criteria, connectivity, driveway separation, and utility extension and location. If there is a conflict between Heritage Tree protection and other provisions of this Code, the applicant may request an alternative standard or design, provided that public health and safety shall be maintained with all proposed designs. After consultation with the Urban Forester, an alternative standard or design that gives priority to Heritage Tree protection may be approved by the Director ~~for administrative applications or the Planning and Zoning Commission for applications under their approval authority~~ through an application for an Administrative Exception under the provisions of UDC Section 3.16. ~~Appeal of a Heritage Tree protection priority decision by any of the approval authorities may be taken to the City Council. This appeal is required within 30 days of the approval authority's action.~~

2. **Protected Trees.**

The preservation of Protected Trees with a DBH of 18 inches or greater or a stand of Protected Trees with a cumulative DBH of 18 inches or greater may take priority over ~~the design and construction of public sidewalks, including the proposal of alternative locations, widths and materials, under the approval authority of the Director. The applicant may request an alternative standard or design, provided that minimum public health and safety standards are maintained, including ADA requirements conflicting~~ UDC development requirements, including, but not limited to, setbacks, lot design standards, building heights, sidewalks, lighting, signage, parking design and numbers, drainage criteria, connectivity, driveway separation, and utility extension and location. If there is a conflict between Protected Tree protection and other provisions of this Code, the applicant may request an alternative standard or design, provided that public health and safety shall be maintained with all proposed designs. After consultation with the Urban Forester, an alternative standard or design that gives priority to Protected Tree protection may be approved by the Director through an application for an Administrative Exception under the provisions of UDC Section 3.16.

SECTION 8.03. - RESIDENTIAL LANDSCAPING

Sec. 8.03.010. – Applicability.

The provisions of this section shall be considered minimum standards and shall apply to residential properties within the City limits, as defined in Section 8.01.040 of this chapter. Also refer to Section 8.05 for the residential review process and Section 8.06 for plant selection, installation, and maintenance requirements.

Sec. 8.03.020. – Shade Tree Requirement.

- A. At time of home construction, all new single or two-family homebuilders shall provide shade trees from the preferred plant list within each street yard at a ratio of one tree per each 50 feet of street frontage or portion thereof, exclusive of driveway.
- B. Existing trees preserved within the street yard may count toward the shade tree requirement using the ratios provided for in Subsection 8.04.020.B. If existing trees are to remain, the tree protection measures of Subsection 8.02.030.C shall be followed.

Sec. 8.03.030. – Residential Lawns.

Any lawn or turf areas on a residential property shall be fully sodded or seeded in a warm weather grass variety in conformance with Subsection 8.06.020.C. ~~Synthetic or artificial turf is not allowed.~~

Sec. 8.03.040. - Residential Parking Areas.

Pursuant to Subsection 6.05.020.C.8., some parking areas located in the required residential front yard may require screening from the street view.

SECTION 8.04. - NON-RESIDENTIAL LANDSCAPE REQUIREMENTS

Sec. 8.04.010. - Applicability.

The provisions of this section shall be considered minimum standards and shall apply to the development of all non-residential properties within the City limits, as defined in Section 8.01.040 of this chapter, regardless of zoning district, with the exception of the construction of accessory structures necessary for or directly related to the ownership or raising of livestock for agricultural purposes, including, but not limited to, barns, shelters, sheds or other structures. Additional plantings in excess of the minimum requirements are encouraged. Also refer to Section 8.05 for the review and appeal process and Section 8.06 for plant selection, installation, and maintenance requirements.

Sec. 8.04.020. – Landscape Tree Credits.

- A. A tree credited towards a landscape requirement must meet the locational requirements of the provision for which credit is awarded (i.e. within the specified bufferyard) and, unless otherwise noted, may not be credited towards more than one landscape requirement.
- B. In order to maximize the preservation of existing trees, surveyed trees in good health that have a DBH of at least six inches and are listed in the City preferred plant list may provide credit towards the landscaping requirements of the following sections. Each existing tree preserved may provide landscape tree credits as indicated in the following table.

Table 8.04.020.B: Landscape Credits for Existing Trees

DBH in Inches	Credit
6 to 19	1 tree
20 or greater	2 trees

- C. Additionally, trees planted to meet the mitigation requirements of Subsection 8.02.040.C may provide credit towards the landscaping requirements of the following sections.
- D. Credit shall not be awarded unless protection of the CRZ of the credited tree is carried out as required for protected and Heritage Trees in Section 8.02.030. Credit may be withheld,

during review or inspection of the project, based on the assessed health, structure, growth habit, presence of disease or decline, and the available growing space of the tree.

Sec. 8.04.030. – Street Yard Landscaping.

Each non-residential property shall provide pervious landscaped area and plantings within the street yard. These requirements are based on the size of the street yard as indicated below. Plantings provided to meet required parking lot and Gateway Overlay District landscaping requirements may be used to meet this provision, provided they are located within the street yard.

- A. Street yards less than ~~50,000~~10,000 square feet shall provide:
 - 1. Landscape area totaling 20 percent (20%) of the street yard; and
 - 2. One (1) shade tree and three (3) shrubs per ~~5,000~~2,500 square feet of street yard.
- B. Street yards between ~~50,000~~10,000 and ~~500,000~~100,000 square feet shall provide:
 - 1. Landscape area totaling 20 percent (20%) of the street yard; and
 - 2. ~~Ten~~Four (4) shade trees and ~~30~~twelve (12) shrubs per the first ~~50,000~~10,000 square feet of street yard, plus one and half (1.5) shade trees and ~~three~~four (4) shrubs per every additional 10,000 square feet of street yard thereafter.
- C. Street yards larger than ~~500,000~~100,000 square feet shall provide:
 - 1. Landscape area totaling 20 percent (20%) of the street yard; and
 - 2. ~~Fifty-five~~Eighteen (18) shade trees and ~~175~~forty-eight (48) shrubs per the first ~~500,000~~100,000 square feet of street yard, plus ~~one~~two (2) shade trees and ~~three~~five (5) shrubs per every additional ~~25,000~~20,000 square feet of street yard thereafter.
- D. Plantings within a required street yard may be planted in zones to distribute the plantings throughout the street yard and focus the largest percentage of plantings along the right(s)-of-way.
 - 1. When this option is used, required street yard plantings shall be distributed as follows:
 - a. Low Level Zone. Ten percent (10%) of the required plantings shall be planted within twenty-eight (28) feet of the building façade.

b. Mid Level Zone. Thirty percent (30%) of the required plantings shall be planted within the Low Level and High Level zones.

c. High Level Zone. Sixty percent (60%) of the required plantings shall be planted between the right-of-way and Mid Level zone.

2. The distribution of plantings within a required street yard shall be required for all phased development. All plantings required at ultimate buildout in the High Level Zone shall be installed as a part of phase 1.

Sec. 8.04.040. – Parking Lot Landscaping.

All non-residential surface parking areas or lots shall contain areas constructed, planted, and maintained as landscaped islands, peninsulas, or medians and shall contain shade trees to reduce the thermal impact of parking lots. ~~Enclosed parking structures and vehicle display and sales areas are exempt from the parking lot landscaping requirements set forth herein.~~ Landscaping provided to meet this section shall consist of landscaped areas and shade trees as outlined below and may also be credited towards the street yard landscaping requirements, if they are located within the street yard.

A. Landscape Area.

1. Twenty square feet of pervious landscape area shall be provided within the parking lot for each parking stall located between the building line and the street right-of-way.
2. Ten square feet of pervious landscape area shall be provided within the parking lot for each parking stall not located between the building line and the street right-of-way.

B. Shade Trees.

1. A minimum of one shade tree is required per every 12 parking stalls provided.
2. Each parking stall in excess of the required shall be calculated as one and one-half stalls for purposes of required shade trees.
3. In order to maximize the distribution of shade, shade trees shall be planted throughout the interior of the parking lot so that no parking stall is located further than 50 feet from the trunk of a tree unless otherwise approved by the Director.
4. Planting areas for each tree shall have a minimum undisturbed pervious area of at least 100 square feet and have a minimum interior dimension of eight feet wide,

exclusive of the curb dimensions, and shall be planted or covered with grass, mulch, ground cover, or other approved landscape materials. These areas shall be non-compacted or excavated and filled with quality soil in accordance with the Technical Standards. These areas shall also be free of other structures such as lighting or utility poles.

C. Exemptions.

Enclosed parking structures and vehicle display and sales areas, as defined in this Code, are exempt from the parking lot landscaping requirements.

Sec. 8.04.050. – Gateway Overlay District Landscaping.

The landscaping requirements in this section are associated with the Gateway Overlay Districts established and detailed in Section ~~4.09~~4.11. The following standards are required for all non-residential properties located along the corridors listed in Section ~~4.13~~4.11.020, unless otherwise specified.

A. General.

1. The Gateway Overlay District landscape area shall be calculated by multiplying the lot width (measured in feet) along the gateway roadway right-of-way times the depth (in feet) of the landscape buffer. This square footage divided by 1,000 determines the landscape units for calculation.
2. All tree and plant species shall be from the City preferred plant list or the downtown gateway tree list, as included in the Development Manual.
3. Plantings provided to meet the requirements for gateway overlay district landscaping may also be credited towards the street yard landscaping requirements.

B. Scenic and Highway Gateway Overlay Districts.

1. The landscape area shall contain at least 80 percent (80%) live vegetative coverage excluding the area required for driveways, sidewalks, bicycle paths, and drainage features, as allowed with limitations in Section ~~4.13.030~~4.11.030. Fencing is not allowed within the landscape area.
2. Within the landscape area, plantings are required at a minimum ratio of two shade trees and five five-gallon shrubs for every 1,000 square feet of land. Existing trees that are preserved within the landscape area may count toward the required tree plantings, pursuant to Section 8.04.020.

C. Downtown Gateway Overlay District.

1. Landscape Buffer.

A ten-foot deep landscape buffer is required adjacent to the designated gateway roadway and will be measured from the property line.

2. Landscape Area.

- a. The landscape area shall be landscaped and maintained with at least 80 percent (80%) live vegetative coverage excluding the area required for driveways, sidewalks, bicycle paths, as allowed with limitations in Section ~~4.13.020~~4.11.030. Fencing is not allowed within the landscape area.
- b. Within the landscape area, plantings are required at a minimum ratio of two shade trees and two five-gallon shrubs for every 1,000 square feet of land. Existing trees that are preserved within the landscape area may count toward the required tree plantings, pursuant to Section 8.04.020.
- c. Downtown trees shall be spaced in a formal manner and shall meet the location requirements of Subsection 8.06.030.D. Only specific tree species are allowed in the Downtown Gateway Overlay, based on their height and size, which can be found in the plant list in the Development Manual.

Sec. 8.04.060. – Bufferyards.

A. General.

1. Bufferyards are required between certain land uses to prevent or minimize potential nuisances such as noise or light and to provide a transition between uses that may not be compatible with each other.
2. Landscaping required within bufferyards shall be provided in addition to the landscaping required in other sections of this chapter.
3. All open space within a bufferyard shall be planted with grass or other vegetative ground cover.
4. A bufferyard may be designed with clusters of plantings to create a more desirable design.

5. No light fixtures, parking, dumpsters, storage, recreation facilities, accessory buildings, or alleys shall be permitted within a required bufferyard.
6. A bufferyard may be interrupted in order to provide access (pedestrian or vehicular) to adjacent parcels.
7. Detention or retention ponds may be permitted to extend into a required bufferyard, but only if the Development Engineer determines that there is no other feasible option for the detention of stormwater. If the pond is located within the required bufferyard, the requirements of this section shall be met in full within the remaining buffer area and additional screening or aesthetic treatment of the pond may be required depending on the location and circumstances of the site.
8. Where buffer requirements are in conflict with other requirements of this Code, the most restrictive standards shall apply.
9. Required fencing shall be located along property lines unless physical constraints exist that would prohibit such placement, as determined by the Director.

B. Bufferyard Required.

1. Table 8.04.060 indicates the level of bufferyard required between each zoning district or land use. Letters "a" to "e" correspond with the information below Table 8.04.060 and identify the type of bufferyard required and the specific situations in which the bufferyard is required. A box with a "—" indicates that a bufferyard is not required between those development types. The planting requirements of each type of bufferyard can be found in Subsection C. below.

Table 8.04.060: Bufferyard Level Required

		Adjacent District																ETJ*	
		AG	RE	RL	RS	TF	MH	TH	MF1	MF2	CN	C-1	C-3	OF	PF	BP	IN		MU-DT
Bufferyard Required	AG	c	c	c	c	c	c	c	c	c	—	—	—	—	—	—	—	—	c
	MH	a	a	a	a	a	—	—	—	—	—	—	—	—	—	—	—	—	a
	TH	a	a	a	a	a	b	—	—	—	—	—	—	—	—	—	—	—	a
	MF1	a	c	c	c	c	c	—	—	—	—	—	—	—	—	—	—	—	c
	MF2	a	c	c	c	c	c	—	—	—	—	—	—	—	—	—	—	—	c
	CN	a	a	a	a	a	a	a	a	a	—	—	—	—	—	—	—	—	a
	C1	c	c	c	c	c	c	c	c	c	—	—	—	—	—	—	—	—	a

C3	c	c	c	c	c	c	c	c	c	c	—	—	—	—	—	—	—	—	a
OF	c	c	c	c	c	c	c	c	c	c	—	—	—	—	—	—	—	—	a
PF	c	c	c	c	c	c	c	c	c	c	—	—	—	—	—	—	—	—	a
BP	c	c	c	c	c	c	c	c	c	c	—	—	—	—	—	—	—	—	a
IN	e	e	e	e	e	e	e	e	e	e	d	d	d	d	d	—	—	d	e
MU-DT	a	a	a	a	a	a	—	—	—	—	—	—	—	—	—	—	—	—	a

* Shall only apply in the case of one or more single-family homes that are platted or planned for residential use on the Future Land Use Map in the ETJ.

- a. A low level bufferyard is required when non-residential development, as defined in Section 8.01.040, is proposed adjacent to residential development.
- b. A low level bufferyard is required when a single-lot development is proposed in a TH District adjacent to an individual lot development in the MH District or when non-residential development, as defined in Section 8.01.040, is proposed adjacent to residential development.
- c. A medium level bufferyard is required when non-residential development, as defined in Section 8.01.040, is proposed adjacent to residential development.
- d. A medium level bufferyard is required when a property zoned IN District develops adjacent to a C-1, C-3, OF, PF, or MU-DT District.
- e. A high level bufferyard is required when a property zoned IN District develops adjacent to a RE, RL, RS, TF, TH, MF-1, or MF-2 District or when adjacent to an existing single-family home in the AG District or ETJ.

- 2. A non-residential use developed in a residential zoning district will be required to provide a low level bufferyard adjacent to residential development.
- 3. No bufferyards are required internal to a housing diversity development.
- 4. No bufferyards are required internal to a multi-site unified development that is platted or site planned as such.
- 5. An Administrative Exception to the requirement of a bufferyard may be approved by the Director per Section 3.16 of this Code if it is determined that the application of a bufferyard is not necessary and does not meet the intent of this section.

C. Specific Bufferyard Requirements.

- 1. A low level bufferyard shall consist of the following:
 - a. A ten-foot wide planting area;
 - b. Two evergreen ornamental trees and four evergreen shrubs per each 50 linear feet of bufferyard.

2. A medium level bufferyard shall consist of the following:
 - a. A 15-foot wide planting area;
 - b. One shade tree, two evergreen ornamental trees and eight evergreen shrubs per each 50 linear feet of bufferyard.
3. A high level bufferyard shall consist of the following:
 - a. A 30-foot wide planting area;
 - b. A solid six-foot high screening wall constructed of brick, stone, reinforced concrete or other similar two-sided masonry materials; and
 - c. Two shade trees and four evergreen ornamental trees per each 50 linear feet of bufferyard.

Sec. 8.04.070. - Screening.

A. General.

1. All planting materials used for screening purposes shall be of an evergreen species. Screening is required in order to minimize visual impacts from surrounding properties and rights-of-way. Unless otherwise provided, screening requirements are in addition to all other landscape requirements and may not be credited or counted toward meeting other requirements.
2. All mechanical equipment and screening must be shown on the Landscape Plan.

B. Parking Lot Screening.

1. Vehicular parking areas shall be screened from street view and adjacent properties using methods as described below.
 - a. All parking lot screening shall be achieved through one of the following methods:
 - i. A planting screen (hedge);
 - ii. A berm;
 - iii. A wall; or

- iv. A combination of any of the above.
 - b. Live screening shall be a minimum of two feet tall at time of planting, with predominately a mature height of three to four feet within two years, as determined by a landscape architect or other licensed professional.
 - c. Live screening shall be planted in a prepared bed at least three feet in width.
 - d. Plantings, fences, or walls shall be set back a minimum of three feet from the curb or wheel stop to allow for the overhang of the vehicle.
 - e. A change in grade or elevation that provides an equivalent level of screening for the parking lot as the vegetative screen may be substituted for the requirements above, as determined by the Director.
2. Screening shall not be required between properties for parking spaces provided in conjunction with shared access and/or shared parking between those properties.

C. Screening of Mechanical Equipment.

- 1. All mechanical equipment (e.g. air handling equipment, compressors, duct work, transformers, and elevator equipment), including roof-mounted equipment, shall be screened from view from all public rights-of-way and adjoining properties.
- 2. Screening shall result in the mechanical equipment blending in with the primary building, and not appearing separate from the building.
- 3. Screening shall consist or be constructed of the following materials, depending on the location of the equipment to be screened. When possible, materials should be consistent with the primary building materials.
 - a. Planting screens;
 - b. Brick, stone, reinforced concrete, or other similar masonry materials;
 - c. Redwood, cedar, preservative pressure treated wood, or other similar materials; or
 - d. Metal screening or louvers painted to blend with the primary building.
- 4. All fence posts shall be rust-protected metal, concrete-based masonry, or concrete pillars.

D. Screening of Waste or Recycling Containers.

1. All waste and/or recycling containers shall be completely screened from public view at any adjoining street or property line.
2. All enclosures are to be at least one foot above the height of the waste and/or recycling container.
3. Waste and/or recycling container screening shall be maintained by the owner at all times.
4. Waste and/or recycling containers shall be located at least 15 feet from shade trees.
5. Dumpsters, compactors, and other similar waste and/or recycling containers.
 - a. Dumpsters, compactors, and other similar waste and/or recycling containers shall be located a minimum of 50 feet from the property line of any single- or two-family zoned property and no closer to any street than the principal structure.
 - b. Dumpsters, compactors, and other similar waste and/or recycling containers shall be placed on reinforced concrete pads that are a minimum of six inches in thickness and sloped to drain.
 - c. Screening shall be provided on four sides and be comprised of:
 - i. Brick, stone, reinforced concrete or other similar masonry materials that have a similar finish to the primary finish;
 - ii. Redwood, cedar, preservative pressure treated wood or other similar materials;
or
 - iii. Screening, comprised of large evergreen shrubs, may be proposed as an alternative if the Director determines it meets the intent of the screening requirement.
 - d. All fence posts shall be made of rust-protected metal, concrete based masonry, or concrete pillars.
 - e. Dumpster, compactors, and other similar waste and/or recycling containers enclosures shall have steel framed gates with spring-loaded hinges or the equivalent. The enclosure shall have fasteners to keep the gate closed and tiebacks to secure the gate in the open position when accessed.
 - f. Six-inch diameter concrete filled steel pipes shall be located in corners and possible impact areas to protect the enclosure from truck operations.

6. Location of waste and/or recycling container enclosures shall also comply with the standards of the waste collection service provider. When the standards of this section and the service provider conflict, the standards of this section shall apply.

E. Screening of Loading Docks.

1. Loading and service areas shall be located at the side or rear of buildings and be completely screened from public view at any adjoining street or property line.
2. Screening shall be provided on three sides of the area by a wall or other screening mechanism, not less than eight feet in height, comprised of:
 - a. A wall that has a similar finish to the primary structure; or
 - b. Screening comprised of large evergreen shrubs may be proposed as an alternative if the Director determines it meets the intent of the screening requirement.
3. Loading areas shall not be located closer than 50 feet to the property line of a single-family or two-family residence, unless located completely within an enclosed building.

SECTION 8.05. - REVIEW AND APPROVAL PROCESS

Sec. 8.05.010. - Residential Review.

A. Tree Preservation Plan.

A Tree Preservation Plan shall be required with each residential application for subdivision. No grading, excavation, trenching, or tree removal shall occur until the Tree Preservation Plan has been approved and tree protection fencing is in place. The plan shall consist of the following elements to ensure that each lot is buildable without the removal of Heritage Trees.

1. **Tree Survey and/or Tree Inventory.**
 - a. A Tree Survey shall graphically identify the location, size, and species of all Heritage Trees and other existing trees to be credited toward mitigation requirements.
 - b. A Tree Schedule shall accompany a Tree Survey and shall list each Heritage Tree shown on the survey and indicate the status of each tree.
 - c. Tree Surveys shall be valid for a period of ten years with recertification of any trees shown on the survey to have a DBH of 24 inches or larger after five years. A new Tree Survey shall be required for separate phases of long term projects that extend longer than ten years.

- d. In order to promote the preservation of quality trees, reduce the mitigation owed for contribute value to the built environment, and to identify opportunities to increase the value and accessibility of impressive trees, a Tree Inventory shall be required when:
 - i. A Tree Preservation Plan proposes to satisfy, in any part, the mitigation requirements of UDC Section 8.02.040 with the preservation of On-Site Credit Trees,
 - ii. A residential subdivision is to be planned and developed in three (3) or more phases, or
 - iii. Alternative tree preservation and mitigation standards are being requested through a Planned Unit Development (PUD), a Development Agreement, a Request for the Creation of a Municipal Utility District (MUD), or a Subdivision Variance.
- e. A Tree Inventory shall be prepared by an arborist licensed by the International Society of Arboriculture (ISA) and contain the following information.
 - i. The same information provided in a Tree Survey and a Tree Schedule;
 - ii. A determination on the health of each tree - i.e. Dead, Poor, Good, Excellent;
 - iii. Description of any diseases present on trees of "Dead" or "Poor" health;
 - iv. Proposed measures to be taken to prevent spread of disease through the project site;
 - v. Existing canopy cover (as a percentage of the project area); and
 - vi. A description of a tree's aesthetic value (i.e. size, evaluation as a specimen of the species, size and quality of the canopy, etc.).
- f. Tree Inventories shall be valid for a period of ten years with recertification of any trees shown on the survey to have a DBH of ten to 11 inches or DBH of 24 inches or larger after five years. A new Tree Inventory shall be required for separate phases of long term projects that extend longer than ten years.

2. Critical Root Zone (CRZ) Protection Plan, If Applicable.

A CRZ protection plan is required for subdivision Construction Plans where Heritage Trees are present and are planned to remain showing where tree protection fencing will be located. City tree protection details from the Technical Standards shall be included with the plan.

3. Mitigation Plan, If Applicable.

A Mitigation Plan shall include the mitigation required by this chapter any time Heritage Trees are proposed to be removed. The plan shall list each Heritage Tree species and DBH to be removed, as identified on the Tree Preservation Plan, and provide calculations for both mitigation by tree replacement and/or by payment and identify which mitigation option is proposed to be used. The Urban Forester shall have the final decision on the selected mitigation option subject to appeal under Section 8.01.020. If mitigation is to be met by the on-site planting of trees, a mitigation tree planting plan shall be included depicting the location, size, ~~and~~ species of the trees, and timing of installation.

B. Landscape Plan.

A Landscape Plan, in the form of required plantings shown on the plot plan for the building permit or a drawing showing requirements prepared by the owner or the owner's representative, shall be submitted for all new single-family or two-family development at time of building permit review. The plan shall show the proposed location and species of required trees to be planted and any heritage or landscape credit trees proposed to be preserved. Trees identified on this plan to be preserved require fenced protection during construction per Subsection 8.02.030.C. and the Technical Standards.

Sec. 8.05.020. - Non-Residential Review.

A. Tree Preservation Plan.

A Tree Preservation Plan is required for every application for non-residential development required by and subject to the provisions of this Code. No grading, excavation, trenching, or tree removal shall occur until the Tree Preservation Plan has been approved. The plan shall consist of the following elements:

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1. **Tree Survey and/or Tree Inventory.**

- a. The Tree Survey shall graphically identify the location (including if the tree is located in the floodplain or an area of right-of-way dedication), size and species of all Protected and Heritage trees with a DBH of 12 inches or greater.

- b. Tree Surveys shall be valid for a period of ten years with recertification of any trees shown on the survey to have a DBH of ten to 11 inches or DBH of 24 inches or larger after five years. A new Tree Survey shall be required for separate phases of long term projects that extend longer than ten years.

- c. In order to promote the preservation of quality trees, reduce the mitigation owed, and contribute value to the built environment, and to identify opportunities to increase the value and accessibility of impressive trees, a Tree Inventory shall be required when:
 - i. A Tree Preservation Plan proposes to satisfy, in any part, the mitigation requirements of UDC Section 8.02.040 with the preservation of On-Site Credit Trees;
 - ii. A Site Development Plan is to be developed in three or more phases; or
 - iii. Alternative tree preservation and mitigation standards are being requested through a Planned Unit Development (PUD), a Development Agreement, a Request for the Creation of a Municipal Utility District (MUD), or a Subdivision Variance.

- d. A Tree Inventory shall be prepared by an arborist licensed by the International Society of Arboriculture (ISA) and contain the following information.
 - i. The same information provided in a Tree Survey and a Tree Schedule;
 - ii. A determination on the health of each tree (i.e. Dead, Poor, Good, Excellent);
 - iii. Description of any diseases present on trees of "Dead" or "Poor" health;
 - iv. Proposed measures to be taken to prevent spread of disease through the project site;
 - v. Existing canopy cover (as a percentage of the project area); and
 - vi. A description of a tree's aesthetic value (i.e. size, evaluation as a specimen of the species, size and quality of the canopy, etc.)

- e. Tree Inventories shall be valid for a period of ten years with recertification of any trees shown on the survey to have a DBH of ten to 11 inches or DBH of 24 inches or larger after five years. A new Tree Inventory shall be required for separate phases of long term projects that extend longer than ten years.

2. **Tree Schedule, If Applicable.**

A tree schedule shall accompany a Tree Survey and shall indicate the status of all surveyed trees on site.

3. **Critical Root Zone (CRZ) Protection Plan, If Applicable.**

A CRZ protection plan is required for every application required by and subject to the provisions of this Code where Protected or Heritage Trees are present and are planned to remain showing where tree protection fencing will be located. City tree protection details from the Technical Standards shall be included with the plan.

4. **Mitigation Plan, If Applicable.**

A Mitigation Plan shall include the mitigation required by this chapter any time protected or Heritage Trees are proposed to be removed. The Mitigation Plan shall identify each tree to be removed (as indicated on the Tree Preservation Plan), label the DBH and status (Protected or Heritage Tree), and provide calculations each mitigation option available and identify which mitigation option is proposed to be used. If mitigation is to be met by the on-site planting of trees, a mitigation tree planting plan shall be included depicting the location, size, ~~and~~ species of the trees, and timing of installation. If Heritage Tree mitigation is required, a separate line item from the Protected Tree mitigation shall be required.

B. **Landscape Plan.**

A Landscape Plan, prepared by a landscape architect licensed in the State of Texas, is required to be submitted and approved as part of a Site Plan application prior to issuance of a building permit for such development. Projects or limits of construction less than 5,000 square feet in size do not require preparation by a landscape architect. A Landscape Plan shall include the following:

1. **Planting Plan.**

The planting plan is a dimensioned and labeled drawing demonstrating compliance with all applicable requirements of this chapter. The plan shall include all dimensions, types and quantity of materials, width of bufferyards and overlay districts, and size and spacing of vegetative materials. Existing trees to be used as landscape credit shall also be shown with the size indicated. All proposed mechanical equipment shall be depicted. Plans for projects involving additions to existing sites shall locate and identify any existing landscaping.

2. **Landscape Summary Table.**

The landscape summary table delineates all requirements of this chapter as they apply to the project as well as how those requirements are addressed on the planting plan. The landscape summary table shall list each planting requirement and indicate the number of plants required as well as the number proposed. The summary table shall list any landscape tree credits to be utilized and identify those plantings that are low water users. The landscape summary table may be located on the planting plan. The template for the landscape summary table can be found in the UDC Development Manual.

3. Irrigation Statement.

The landscape architect shall identify on the planting plan the type of irrigation to be installed for the landscaping design.

4. Preparer's Seal and Statement of Compliance.

The Landscape Plan shall be signed and sealed by the designer and include a statement of compliance certifying that the plans submitted for approval comply with the requirements of this chapter. The seal and statement shall be shown on the planting plan.

C. Changes to Approved Plans.

Adjustments to approved plans during construction that affect trees or landscaping must be reviewed and approved by the Urban Forester and/or the Planning Department.

Sec. 8.05.030. - Inspection and Approval of Installation.

A. Residential Installation.

Installation of required landscaping for all new single-family or two-family development shall be inspected at time of final building inspection. The owner or owner's representative may certify in writing that landscaping has been installed according to the approved plan.

B. Non-Residential Installation.

1. Certification of Landscape Compliance.

Prior to final inspection for certificate of occupancy and once all landscaping has been installed, the original sealer of the Landscape Plan shall submit a letter certifying the installed landscaping is in compliance with the requirements of this chapter and the approved Landscape Plan. If the installed landscaping is not in compliance with the approved Landscape Plan, a final "as-built" Landscape Plan indicating actual planting shall be submitted to the Planning Department for review and inspection.

2. Irrigation Inspection Letter.

At time of final inspection for certificate of occupancy, the landscape architect shall provide a letter to the City indicating that the irrigation system has been installed in accordance with the requirements for irrigation per the approved Landscape Plan.

3. Inspection.

The Planning Department and the Urban Forester shall, at time of final inspection, inspect all projects to ensure compliance with the approved Landscape Plan prior to issuance of a certificate of occupancy. With this inspection, the Urban Forester or the Director may reject any tree or vegetation that does not reflect the approved plans or does not meet the requirements of this chapter and require replacement plantings.

Upon the installation of trees, the owner or landscape architect shall notify the Urban Forester that the work is ready for final inspection. If faulty work or substandard plant material is found, the owner shall be notified of the necessary changes.

Sec. 8.05.040. - Postponement of Installation of Required Landscaping.

In the case of weather restrictions, seasonal or inclement, the owner of a residential or non-residential property may post fiscal surety for the full cost of the materials and installation of any remaining landscaping. The owner will then have 30 days from either 1) the date of the start of the next planting season, or 2) the last day of the inclement weather situation to complete the installation. The City may draw on the fiscal surety and pay to complete the planting if it is determined that the owner has breached the obligations secured by the fiscal surety. A conditional certificate of occupancy shall be issued until such time that all landscaping is installed. See procedures for filing fiscal surety for new development in the UDC Development Manual.

Sec. 8.05.050. - Alternative Landscape Standards.

Alternative landscape standards, certified by a landscape architect, may be proposed and submitted to the Director for approval of an Administrative Exception per Section 3.16 of this Code, provided the aesthetic, buffering, and environmental intent of the requirements of this chapter are met. The Director may approve alternatives including but not limited to site design, spacing, locations, numbers, and species. The use of above ground architectural planters may contribute toward up to ten percent (10%) of the fulfillment of landscape requirements, as approved by the Director.

SECTION 8.06. - PLANT SELECTION, INSTALLATION, AND MAINTENANCE

Sec. 8.06.010. – General.

- A. Unless otherwise noted, the plant selection, installation, and maintenance requirements of this section shall apply to the required plantings for both residential and non-residential development. The standards herein do not apply to those plantings voluntarily planted and not otherwise required by this chapter.
- B. Plant materials required by this chapter shall conform to the American Standard for Nursery Stock.
- C. Consideration shall be given to the selection of trees, plants, and planting locations to avoid problems such as clogged sewers, cracked sidewalks or foundations, and power service interruptions.
- D. All planting shall be designed to consider the level of expected maintenance and provide a neat and clean appearance.
- E. All required landscape areas shall consist of at least 50 percent (50%) plant material.
- F. The installation of fountains, public spaces, exterior furniture, bicycle racks, and other outdoor pedestrian amenities, located within or adjacent to landscaping, is encouraged; however, hardscape features shall not predominate the use of living plant materials.

Sec. 8.06.020. - Plant Materials and Size Requirements.

A. Species.

- 1. All required plant materials shall be selected from the City preferred plant list. Other plant materials may be used if determined by the Director to be equivalent in quality, adaptability, and low-maintenance as those listed therein.
- 2. When more than five trees or ten shrubs are to be planted to meet the requirements of this chapter, a mix of species shall be provided wherein no more than ~~25~~twenty-five percent (25%) of plantings may be from the same species.
- 3. Of the required plant materials, at least 50 percent (50%) shall be low-water users, as identified on the preferred plant list.
- 4. Prohibited plant species, as identified on the prohibited plant species list in the UDC Development Manual, are required to be removed at time of site development, unless they are located in an area designated on the Landscape Plan as an approved natural area. The retention of any of these species must be based on the health and welfare of surrounding Protected and Heritage Trees and must be approved by the Director. No

new plants identified on the prohibited plant species list shall be installed and existing plants are excluded from meeting any planting requirements.

5. Controlled plant species, as identified on the controlled plant species list in the UDC Development Manual, are excluded from meeting any planting requirements. No new plants identified on the controlled plant species list shall be planted, unless approved by the Director. Controlled plant species do not have to be removed from a site.

B. **Minimum Size Requirements for Plants and Trees.**

Unless otherwise specified in this chapter, plants and trees required by this chapter shall be of the following minimum sizes at the time of planting.

1. **Landscape Trees.**

- a. Shade trees planted to meet the requirements of this chapter shall be a minimum of three caliper inches measured at six inches above finished grade or have a three-inch DBH.
- b. Ornamental trees planted to meet the requirements of this chapter shall be at least 15-gallon container grown nursery stock.

2. **Mitigation Trees.**

Mitigation trees, as required by Section 8.02.040 of this chapter, shall be a minimum of three caliper inches measured at six inches above finished grade or have a three-inch DBH.

3. **Shrubs.**

Shrubs planted to meet the requirements of this chapter shall be at least one-gallon container grown nursery stock, unless otherwise specified by this Code.

4. **Vines, Ornamental Grasses and Ground Cover.**

- a. Vines planted to meet the requirements of this chapter shall be at least one-gallon container-grown nursery stock.
- b. Groundcover planted to meet the requirements of this chapter shall be at least four-inch container-grown nursery stock.
- c. Ornamental grasses planted to meet the requirements of this chapter shall be at least one-gallon container-grown nursery stock.

C. Lawn or Turf Grasses.

1. Grassed areas should be planted with drought resistant species normally grown as permanent lawns, such as Bermuda, Zoysia, Buffalo, or any other variety as approved by the Director. Heavily shaded properties that receive less than six hours of sun may be planted with Saint Augustine or other shade grass.
2. Grassed areas may be sodded, plugged, sprigged, or seeded except that solid sod shall be used in swales ~~or~~ on 3:1 or greater slopes or other areas subject to erosion.
 - a. For all other areas where sod is not required, the use of sod shall be limited to the remaining balance of the percentage of plant materials not classified as low water users (for example, if fifty percent (50%) of plant materials used are classified as low water users, sodded areas shall be limited to fifty percent (50%) of all landscape area).
 - b. The restriction to the use of sod does not apply to areas designated as dog parks, open recreation/common amenity areas or parks, or where sod is required by this Code.
3. Synthetic or artificial lawns ~~or plants are not~~ may be allowed provided the following standards are met:
 - a. Synthetic or artificial lawns may be used in playscapes, sports fields, and other similar recreational fields, and areas that are screened from streets and adjacent properties. On residential properties, synthetic or artificial lawns shall be limited to the rear yard only.
 - b. Synthetic or artificial lawns shall be certified by a Professional Engineer that it will allow rainwater to infiltrate at the same rate as natural turf.
 - c. Synthetic or artificial lawns shall be prohibited within required bufferyards and gateway overlay district landscape areas.
 - d. Synthetic or artificial lawns shall be made of polyethylene or polypropylene. Residential properties may use a nylon material. Other similar materials may be considered by the Urban Forester, or designee.
 - e. Synthetic or artificial lawns shall utilize heat blocking or other dissipating features to limit heat gain.
 - f. Synthetic or artificial lawns shall be a two-tone color or better.

4. Winter Rye shall be considered only as a temporary measure to reduce soil erosion through the winter season and shall be completely replaced with permanent turf grass during the following planting season.

Sec. 8.06.030. - Installation Requirements.

- A. All required landscape materials shall be installed according to American Association of Nurserymen (AAN) standards and as per the Technical Standards.
- B. In order to conserve water, reduce maintenance, and promote plant health, plant species should be staggered or clustered as necessary based on their water and light needs and growth rate and size.
- C. Landscaping shall be designed to meet the City's traffic safety standards as adopted in the Code of Ordinances and must maintain safe and unobstructed visibility along and at intersections of roadways, driveways, drive aisles, access easements, recreational paths, and sidewalks.
- D. **Location.**
 1. Required landscaping shall be placed upon that portion of a tract or lot that is being developed. Undeveloped portions of a tract or lot shall not be considered landscaped, except as specifically approved by the Director.
 2. All new shade trees shall be planted so they have a minimum pervious area of four feet from the trunk in all directions.
 3. All new ornamental trees shall be planted so they have a minimum pervious area of three feet from the trunk in all directions.
 4. Trees or plants shall not be placed in locations within easements that may interfere with site drainage.
 5. Ground cover shall be planted to provide for quick coverage and to discourage erosion and weed growth.
 6. **Tree and Utility and Signage Conflicts.**
 - a. Special attention shall be given to the use of appropriate species located under or adjacent to overhead power lines or near underground utility lines, or near existing and proposed signage. Plans proposing species that do not address this provision will not be approved.

- b. Overhead power lines require the planting of low growing trees, maturing to a height and spread not encroaching within five feet of the lines.
- c. When there is a conflict between the location of required trees and overhead or underground utility lines, or signage, ~~the Director may approve alternative tree locations, spacing, species, and/or numbers~~ one or more of the following options may be used to satisfy the minimum number of trees required:
 - i. Required trees may be planted so that no more than twenty-five percent (25%) of the mature tree canopy size encroaches onto a utility easement, sign, or other point of conflict; or
 - ii. When applicable, the required gateway landscape area may be extended a minimum of ten (10) feet beyond any conflicting utility easement; or
 - iii. Additional ornamental trees and shrubs may be used to meet required shade trees at a ratio defined below:
 - Two (2) ornamental trees shall be planted for every shade tree, or
 - One (1) ornamental tree and twenty (20) shrubs shall be planted for every shade tree.

7. Landscaping in the Right-of-Way.

- a. The placement of shrubs, trees, irrigation, or hardscape features in the right-of-way shall require approval of a License to Encroach. Turf grasses shall not require a License to Encroach. See the UDC Development Manual for more information.
 - b. The City may at any time require such landscaping to be removed, without responsibility or liability to the City, and require replacement of any required plantings at the owner's expense.
 - c. No landscaping, excluding grass, shall be placed in an area of right-of-way where a roadway improvement has been funded for such location, unless and until such project has been completed.
- E. Landscape berms installed to meet the provisions of this chapter shall have a maximum side slope of three feet to one foot and shall be stabilized with vegetation, including turf grass or groundcover, to prevent washout. Planting beds are allowed on landscape berms.

Sec. 8.06.040. - Maintenance Requirements.

A. Maintenance Responsibility.

The current property owner or the manager or agent of the owner, shall be responsible for the maintenance of all required tree, ~~and~~ plant materials and landscape areas. A homeowners association shall assume responsibility for the maintenance of designated common areas.

B. Health and Viability of Plant Materials.

1. Landscaping shall be sufficiently fertilized and watered as necessary to maintain the plant material in a healthy condition.
2. Landscape areas shall be maintained so as to present a healthy, neat, and orderly appearance at all times and shall be kept free of refuse and debris.

C. Dead Trees, Plants or Materials.

1. Maintenance will include the replacement of all dead plant material, including mitigation trees, if that material was used to meet any of the requirements of this chapter.
2. Dead trees or plants shall be replaced with the same amount, type, and size of landscape material originally required or an approved substitute.
3. Existing trees that were required to be preserved during site construction must survive for at least a two-year period after the certificate of occupancy is issued or shall be replaced according to the current mitigation requirements of this chapter.
4. Dead trees or plants shall be replaced within six months of notification or by the beginning of the next planting season, whichever comes first.

D. Protected or Heritage Tree Damage.

No act shall be allowed, accidentally or otherwise, that may reasonably be expected to cause a Protected or Heritage Tree to die or be damaged or to otherwise harm the aesthetic value, including, but not limited to, topping or excessively pruning more than 30 percent (30%) of the viable portion of a Protected (non-residential only) or Heritage Tree crown; inappropriate shaping (i.e., topiary); damaging the root system; compacting the soil; changing the natural grade or paving. The remedies for such act shall be determined as follows:

1. If the Urban Forester determines the tree has been damaged, the property owner shall be required to take action to assure the future vitality of the tree, including but not limited to chemical treatment, construction of protective barriers, or any other methods as may be required by the Urban Forester.

2. If the Urban Forester determines that the damage is so great that the tree is no longer reasonably sustainable, the tree shall be required to be removed at the expense of the property owner, in addition to the mitigation provisions in Section 8.02.040 and possible penalties pursuant to Chapter 15. Mitigation for projects without active tree removal permits or approval shall be based on the mitigation provisions at the time of the violation, not the standards at the time of platting or other approval.

E. Heritage Tree Pruning Permit.

Pursuant to Section 3.23 of this Code, it shall be unlawful to prune a Heritage Tree without an approved Heritage Tree pruning permit. All approved pruning must be performed by an International Society of Arboriculture (ISA) Certified Arborist or under the supervision of an ISA Certified Arborist, and must follow the American National Standards Institute (ANSI) A300 standards. Heritage Tree pruning permits do not apply to lots containing constructed single-family and two-family dwellings.

F. Synthetic or artificial lawn.

Synthetic or artificial lawn shall be maintained so as to maintain its pervious surface condition.

Sec. 8.06.050. - Irrigation Requirements.

- A. All non-residential development shall use one of the following irrigation methods to ensure survival of the required plant material in landscaped areas:

1. Conventional System.

An automatic or manual underground irrigation system that may be a conventional spray or bubbler type heads.

2. Drip Irrigation System.

An automatic or manual underground irrigation system in conjunction with a water-saving system such as a drip or micro irrigation system.

3. Temporary and Above-Ground Watering.

Landscape areas utilizing low water usage plants and installation techniques, including areas planted with native grasses and wildflowers, may use a temporary and above-ground system providing irrigation necessary to establish the areas.

- B. Trees shall have at least one bubbler installed per newly installed tree.
- C. Irrigation lines shall be arranged so as to not require trenching that will affect the roots of any trees to be preserved. Lateral trenching should be used when it is necessary to trench in the CRZ and areas should be hand dug.
- D. No irrigation shall be required for undisturbed natural areas or undisturbed existing trees, as approved by the Director. Tree wells and islands count as disturbance when containing existing trees and will require irrigation.
- E. Irrigation systems shall be programmed to meet the watering restrictions of the water provider and to not water during rain events.

Sec. 8.06.060. - Removal of Required Landscape Trees, Shrubs and Turf.

If a property owner of a non-residential development wishes to remove healthy trees, shrubs, or turf that were part of a previous approval, a request may be made to the City using the procedures in the Development Manual. Based on the information submitted, the City will decide if the request will be granted on a case-by-case basis. Justifiable reasons for such requests include, but are not limited to:

1. Tree canopies have become crowded and are hindering growth of other trees;
2. Trees are blocking existing signage;
3. Trees are causing a potential line-of-sight hazard; and
4. The overall health of the tree.

For any tree approved for removal, mitigation is required using the calculations in Subsection 8.02.040.C. Mitigation trees must be planted along the same side of the building or same area of the parking lot, and in the instance that the removed tree was planted to satisfy a landscape requirement under Section 8.04, the replacement tree must be planted in the same landscape area (i.e. gateway landscape area, street yard, etc.) and reach a similar size as the removed tree(s), unless an alternative location or species is approved by the Urban Forester. Other conditions of approval may be required by the Urban Forester and/or the Director.

