



Mayor
Ben White
Mayor ProTem
Lynn McIlhaney
City Manager
Glenn Brown

Councilmembers
John Crompton
James Massey
Dennis Maloney
Lawrence Stewart
David Ruesink

Agenda
College Station City Council
Workshop Meeting
Tuesday, May 19, 2009 4:30 p.m.
City Hall Council Chambers, 1101 Texas Avenue
College Station, Texas

The Planning and Zoning Commission may or may not attend the City Council Workshop Meeting.

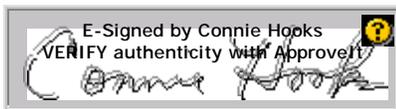
1. Call meeting to order.
2. Presentation, possible action, and discussion regarding Tree Preservation in College Station.
3. Adjourn.

APPROVED:

City Manager

Notice is hereby given that a Workshop Meeting of the City Council of the City of College Station, Texas will be held on the 19th day of May, 2009 at 4:30 pm in the City Hall Council Chambers, 1101 Texas Avenue, College Station, Texas. The following subjects will be discussed, to wit: See Agenda

Posted this 15th day of May, 2009 at 4:00 pm



City Secretary

I, the undersigned, do hereby certify that the above Notice of Meeting of the Governing Body of the City of College Station, Texas, is a true and correct copy of said Notice and that I posted a true and correct copy of said notice on the bulletin board at City Hall, 1101 Texas Avenue, in College Station, Texas, and the City's website, www.cstx.gov . The Agenda and Notice are readily accessible to the general public at all times. Said Notice and Agenda were posted on May 15, 2009 at 4:00 pm and remained so posted continuously for at least 72 hours proceeding the scheduled time of said meeting.

On Behalf of the Citizens of College Station, Home of Texas A&M University, We will continue to Promote and Advance the Community's Quality of Life

City Council Workshop Meeting

Tuesday, May 19, 2009

This public notice was removed from the official board at the College Station City Hall on the following date and time: _____ by _____.

Dated this _____ day of _____, 2009.

CITY OF COLLEGE STATION, TEXAS

By _____

Subscribed and sworn to before me on this the _____ day of _____,

_____ Notary Public – Brazos County, Texas My commission expires: _____

This building is wheelchair accessible. Handicap parking spaces are available. Any request for sign interpretive service must be made 48 hours before the meeting. To make arrangements call (979) 764-3517 or (TDD) 1-800-735-2989. Agendas may be viewed on www.cstx.gov. Council meetings are broadcast live on Cable Access Channel 19.

May 19, 2009
Workshop Agenda Item No. 2
Tree Preservation

To: Glenn Brown, City Manager

From: Bob Cowell, AICP, Director of Planning & Development Services

Agenda Caption: Presentation, possible action, and discussion regarding Tree Preservation in College Station

Recommendation(s): After consideration and discussion regarding tree preservation, provide policy direction and clarification on policy options.

Summary: At the direction of the City Council, Staff was asked to bring forth a tree preservation ordinance. Guidance to the contents and extent of this ordinance were provided by Council at their November 5, 2008 and April 23, 2009 Workshop meetings.

Stakeholder meetings have also been conducted on March 4th, 2009 and April 20th, 2009 to solicit input on possible ordinance options.

Staff has prepared and presented to Council two outlines of possible policy that could be developed into an ordinance. At the April 23rd meeting Council requested a stakeholder meeting be scheduled to enable direct stakeholder/Council interaction. This workshop item is intended to serve as the requested stakeholder input meeting.

Budget & Financial Summary: N/A – To be determined following policy direction

Attachments:

1. Tree Preservation Outlines

Tree Protection

Purpose and Intent

The purpose and intent of this Section is to promote the preservation of trees and tree stands during construction to facilitate site design and construction that contributes to the long-term viability of existing trees and to develop a process to control the removal of trees. It is further the purpose of this ordinance to prevent the untimely and indiscriminate removal or destruction of trees, maintain and enhance a positive image of the City, and to protect trees and promote the ecological, environmental and aesthetic values of the City.

Permit Required

1. A *Tree Removal Permit* is required prior to any land or tree disturbing activity applicable under this Subsection.
2. No person, directly, or indirectly, shall cut down, destroy, or otherwise remove trees with a diameter of eight (8) inches or greater without first obtaining a *Tree Removal Permit* and complying with the requirements of this Subsection.
3. No grading shall take place on any undeveloped property that contains trees with a diameter of eight (8) inches or greater that are subject to this Subsection without obtaining all applicable permits, including a *Tree Removal Permit*.

Prohibited Activities

1. It is unlawful for any person to remove any Protected Tree without first securing a tree removal permit as specified in Section XXX.
2. It is unlawful for any person to damage a Protected Tree, such as through tree topping, over-pruning or chemical poisoning.
3. It is unlawful for a person to continue work or removal of trees when the Administrator or his designee has issued a stop work order.

Sizes and Types of Protected Trees

1. **Specimen Trees**
Any healthy tree that has an 18 inch or greater dbh and not located in a tree stand. All trees greater than 18 inches dbh shall be considered a specimen tree unless a detailed inventory is submitted by an applicant verifying the presence of Mesquite, Bois Arc, Locust, Hackberry, Cottonwood or other species as outlined in the Tree Technical Manual are to be excluded.

2. **Tree Stands**
Three or more contiguous trees with an 8" dbh or greater, whose canopies are generally clustered together creating a contiguous drip line. Shall include any understory located within the drip line. Mesquite, Bois Arc, Locust, Hackberry, Cottonwood or other species as outlined in the Tree Technical Manual are to be excluded.
3. **Riparian Buffer**
Any tree, shrub or vegetation located adjacent to streams, lakes, ponds and wetlands. The width of the buffer being dependent on the classification of the waterway as determined in the Tree Technical Manual.

Applicability

The tree protection requirements of this Section apply to all zoning districts in the City of College Station proposed for site development and redevelopment including as follows:

1. Vacant and undeveloped land;
2. Commercial property
3. New residential developments (including single-family and duplex developments)
4. All property to be redeveloped including additions or alterations that increase the footprint of the building and require the removal of trees.
5. Streets, parks and other public property under the jurisdiction of the City of College Station.

Tree protection requirements will apply to all property in the Extraterritorial Jurisdiction (ETJ) in conjunction with development and subdivision plats.

Exemptions

The following are exempted from the requirements of this Section:

1. Existing single family and duplex developments.
2. Any tree determined to be diseased, dying, dead, creating a public nuisance or damaging a foundation by a qualified professional. Proof must be supplied prior to removal.
3. Any tree determined to be causing a danger or be in hazardous condition as a result of a natural event such as tornado, storm, flood, or other act of God that endangers the public health, welfare or safety and requires immediate removal.
4. Trees located in the visibility triangle area, as defined in Section 7.1.C, Visibility at Intersections in all Districts.

5. Public utilities may be exempted from these requirements upon filing route plans prior to tree removal or construction, which satisfactorily demonstrate that the proposed installation lies within routes previously established by a current Thoroughfare or Master Plan for transportation or public utilities, or within an existing easement recorded prior to the effective date of this ordinance.
6. The City of College Station has the right to trim, cut, and/or remove any and all trees that:
 - a. interfere with or encroach upon the operations of existing public utilities; or
 - b. create a safety issue for utility crews; or
 - c. create a safety issue for the public.
7. Nursery trees/Christmas trees that are planted and growing on the premises of a wholesale nursery that are intended for sale in the ordinary course of business.
8. Clearing of understory necessary to perform soil borings, boundary surveying of real property or to conduct tree surveys or inventories as long as the clearing for surveying shall not exceed a width of two (2) feet for general survey (i.e. of easement boundary, etc.) and eight (8) feet for survey of property boundary lines and any tree having a ten (10) inch dbh or greater shall not be removed under this exemption during such boundary or general surveying.

Preservation

1. Prior to construction or development on a site that contains one (1) or more protected trees, a tree preservation plan must be approved by the City. If the site does not contain any protected trees, a letter, prepared by a registered surveyor, engineer, architect or landscape architect, shall be submitted to the City, which verifies that protected trees are not on the subject site.
2. Requirements
 - a. Any tree designated as a specimen tree shall be preserved.
 - b. Any designated tree stands shall be preserved.
 - c. Any specimen tree or tree stand located in the Riparian Buffer shall be preserved.
 - d. All percentages relating to preservation stated within this section shall be based on the initial tree inventory plan. Any subsequent redevelopment of property must minimally preserve the applicable percentage of the total dbh of specimen trees indicated by the initial tree survey.
 - e. A notation shall be placed on the Site Plan or Final Plat identifying each Specimen Tree and Tree stand required to be preserved under this subsection. The notation shall limit any future unauthorized land

disturbing activity or construction that would impact and/or damage the tree(s) to be preserved or protected.

3. Standards

- a. Protected trees, which are not required to be removed but have been identified on the tree preservation plan to be preserved, must be protected under the following conditions:
 1. No materials intended for the use in construction or waste materials accumulated due to excavations or demolition shall be placed within the limits of the critical root zone.
 2. No equipment shall be cleaned or other foreign materials deposited or allowed to flow overland within the critical root zone of a protected tree. This includes without limitation, paint, oil, solvents, asphalt, concrete, mortar or similar materials.
 3. No signs, wires or other objects, other than those of a protective nature shall be attached to any protected tree. However, lighting of a decorative nature may be attached to a protected tree. The lighting shall be attached in a manner as not to damage the protected tree.
 4. No vehicular and or construction traffic or parking shall take place within the limits of the critical root zone of any protected tree other than on an existing paved surface. This restriction does not apply to access within the critical root zone for purposes of clearing underbrush by hand, vehicular traffic necessary for routine utility maintenance or emergency restoration of utility service or routine mowing operations.
 5. Grade changes shall be allowed within the limits of the critical root zone of any protected tree only upon approval by the City.
 6. No paving with asphalt, concrete or other impervious materials shall be placed within the critical root zone of a protected tree. However, paving may encroach up to five feet from the trunk upon approval by the City.
 7. In those situations where a protected tree is within 50 feet of a construction area, a protective fence, minimum of four feet in height, shall be erected and maintained outside of the critical root zone of each protected tree or tree group.
 8. No person, directly or indirectly, shall prune, cut down, destroy, remove or move, or effectively destroy through damaging, any protected tree on City-owned property unless otherwise permitted by this chapter.

Tree Removal Permitting Process

Protected Tree Removal Permit

This process is reserved for those situations provided for in Section XXXX and where the subdivision or site plan process does not apply. Applications for Protected Tree Removal Permits are reviewed by the Administrator or his designee.

a. Tree Removal Permit Application

The application for a Protected Tree Removal Permit shall be made by the owner of the property on which the Protected Tree is located, and shall be accompanied by documentation showing:

- (1) the approximate location of the tree;
- (2) the DBH of the tree;
- (3) the species and/or common name of the tree;
- (4) the approximate size of the lot, tract or parcel on which the tree is located;
- (5) reason for the proposed removal;
- (6) other information as required by the Administrator;
- (7) a Tree Replacement Plan, as provided for in Section XXX

b. Application Review

Upon receipt of the application, the Administrator or his designee shall inspect the subject tree and approve or deny the application in accordance with the provisions of this Section.

c. Tree Protection Removal and Replacement

- (1) Replacement trees in accordance with Section XXXX shall be required if any Protected Tree is removed. The tree removal permit may or may not be granted in conjunction with a development permit application.
- (2) A Tree Replacement Plan shall accompany any Tree Removal Permit application. The Tree Replacement Plan will be reviewed in conjunction with the Protected Tree Removal Permit application and will be approved or denied by the Administrator.

Protected Tree Removal Through the Subdivision Process

Tree removal request, tree surveys and tree replacement plans for all projects requiring plat approval shall be submitted in conjunction with the subdivision approval process.

a. Tree survey and tree replacement plan:

- (1) Tree surveys and tree replacement plans will be reviewed by a City-approved third party as part of the plat approval process.
- (2) A tree survey will not be required if a land surveyor certifies that there are no protected trees on the proposed site.
- (3) A partial tree survey may be permitted if the Administrator determines that the replacement and protection requirements of this Section have been met.
- (4) A tree inventory in lieu of a tree survey may be accepted to document trees that are outside the limits of subdivision improvements.

b. Tree Protection, Removal and Replacement:

The subdivider shall configure a subdivision in such a manner that Protected Trees will not be damaged during the construction of required subdivision improvements. With respect to said improvements, the following will apply:

- (1) Thirty percent (30%) of the total diameter inches of Protected Trees, located within the boundaries of the plat shall be preserved. The calculation for the thirty percent (30%) to be preserved shall be calculated with the Riparian Buffer being preserved first. Replacement trees shall be required if any of the remaining seventy (70) percent of the total diameter inches are removed.
- (2) The Tree Replacement Plan will be reviewed in conjunction with the preliminary plat review process and will be approved or denied by the Planning and Zoning Commission.
- (3) The Critical Root Zone of any Protected Tree not being removed shall be preserved and shall be shown on the Tree Protection Plans as generally described in the Tree Technical Manual.
- (4) During subdivision improvements construction, tree protection criteria as listed in Section XXX shall apply to all Protected Trees being preserved and shall be shown on the Tree Protection Plans, Tree Replacement Plans, and the Subdivision Construction Plans as generally described in the Tree Technical Manual.
- (5) Tree Protection Plans and Tree Replacement Plans shall be submitted in conjunction with any subdivision improvement construction plans.

Protected Tree Removal Through the Site Plan Process

Tree removal requests, Tree Surveys, Tree Protection Plans and Tree Replacement Plans for all projects requiring site plan approval, shall be submitted as part of the site plan application approval process.

a. Tree Survey and Tree Replacement Plan:

- (1) A Tree survey, Tree Protection Plan, and Tree Replacement Plan shall accompany all site plans submitted.
- (2) A Tree Survey will not be required if a land surveyor certifies that there are no Protected Trees on the proposed site.
- (3) A Tree Inventory in lieu of a Tree Survey may be accepted by the Administrator to document trees outside the limits of construction.

b. Tree Protection, Removal and Replacement:

- (1) Thirty percent (30%) of the total diameter inches of Protected Trees, located within the boundaries of the lot shall be preserved. The calculation for the thirty percent (30%) to be preserved shall be calculated with the Riparian Buffer being preserved first.

- Replacement trees shall be required if any of the remaining seventy (70) percent of the total diameter inches are removed.
- (2) A Tree Replacement Plan and Tree Protection Plan shall accompany the site plan application.
 - (3) When replacement trees are required, replacement shall be in accordance with Section XXX, Tree Replacement.
 - (4) The Critical Root Zone of any Protected Tree not being removed shall be preserved and shown on the Tree Protection Plans as generally described in the Tree Technical Manual.
 - (5) During site construction, tree protection measures as described in the Tree Technical Manual shall apply to all Protected Trees being preserved.

Tree Replacement

- a. When Protected Trees are removed, tree replacement shall be required.
- b. Replacement trees will also be required to replace any trees that were planted or identified to be preserved in a Tree Replacement Plan, but died within two (2) years of the date of the Certificate of Occupancy or acceptance letter of subdivision public improvements is issued.
- c. Replacement trees of the same or similar species as the Protected Tree to be removed shall be planted as required in the tree replacement schedule in subsection (g) below. Each replacement tree shall be a minimum of four inches (4") caliper and a minimum of ten feet (10') in height and five foot (5') spread, when planted. All replacement trees shall comply with generally accepted criteria such as those provided in the Tree Technical Manual.
- d. Each replacement tree shall have an irrigation system or watering schedule in accordance with the generally accepted methods in the Tree Technical Manual.
- e. Each replacement tree shall be planted on the same subdivision or development site from which the tree was removed. In the event that there is not a suitable location for the replacement tree(s) on the same site, as determined and certified by a landscape architect and approved by the Administrator, or if the City Arborist determines that replacement trees are unable to survive on the site based on information submitted by the landscape architect, the owner of the site will be allowed to do one of the following: (1) make a cash payment in the Tree Fund in accordance with the tree replacement schedule provided in paragraph (f) below, which shall be used to fund tree plantings or tree replacement on public property, or (2) plant trees on public property according to the tree replacement schedule provided in paragraph (f) below, as approved by the City Arborist.
- f. The tree replacement ratio is listed below and the replacement inches shall be calculated as follows: total diameter of trees in a single category multiplied by the tree replacement ration for that category equals the tree

replacement required for that category of trees. The tree replacement ratio applies to the DBH of the existing tree to be removed. (Example: If an existing 12 inch tree is removed, 12 inches of tree replacement results. If an 18 inch tree is removed, 54 inches of tree replacement is needed)

DBH of Existing Tree	Tree Replacement Ratio
8 to 17 inches	1.0
18 inches or greater	3.0

- g. Acceptable types of replacement trees are designated in the Approved Planting List.
- h. If ten or more replacement trees are required, no more than twenty-five (25) percent of the trees shall be of the same species.

Tree Replacement Fee

DRAFT

- a. Fees are based on the ratios listed in subsection (f) above. Payment is calculated at \$150 per inch replaced. For example, a 10 inch tree removed, multiplied by the 1.0 ratio, requires 10 replacement inches. 10 replacement inches multiplied by \$150 equals \$1,500. The City Council shall review the fee amount provided from time to time and adjust as necessary.
- b. The tree replacement fee shall be tendered in the form of a cashier's check or other form of payment acceptable by the City, payable to the City of College Station.
- c. The payment shall be submitted at the time of site plan approval; prior to subdivision construction plan acceptance; prior to plat recordation; or upon the tree removal permit approval, depending on the applicable review process.

Tree Credits

- a. Trees with diameters of three (3) to eighteen (18) inches located on site may be credited toward the replacement trees required under this section.
- b. Up to fifty (50) percent of the inches to be replaced may be done through tree credits.
- c. The trees selected for consideration toward the amount of replacement trees required shall be indicated on the tree survey and the Tree Replacement Plan.
- d. The trees shown on the tree survey and the Tree Replacement Plan as the trees proposed for tree credits shall be protected in the same manner as a Protected Tree.
- e. The Administrator or his designee will review the trees proposed for tree credits provided in the tree survey and Tree Replacement Plan and will approve or deny the use of the recommended trees as credits towards the replacement trees required. The Administrator's decision will be based on the assessed health, structure, habitat, disease, or decline of the tree.

Preservation Incentives

1. All protected trees and tree stands that are preserved beyond the minimum 30% preservation requirement, shall be credited towards landscaping requirements.
2. Parking lot design:
 - A) Parking lot design variations may be permitted in an effort to preserve specimen trees and tree stands. The Administrator or his designee shall review any proposed parking lot variation and approve or deny the design based on the following criteria:
 - 1) Health of the tree
 - 2) Accessibility
 - 3) Safety of vehicular traffic
 - 4) Other criteria the Administrator deems necessary

3. **Subdivision design:**
The following incentives may be considered and must be commensurate with the quality and character of trees to be preserved:
 - 1) Alternative street design
 - 2) Alternative sidewalk locations
 - 3) Block length variation
4. **Buffer requirements:**
 - A) protected trees may be credited toward required buffer plantings if they are an integral part of a required buffer design.
5. **Density:**
 - A) Clustering of homes with required on-site open space being utilized for the preservation of stands of trees.
6. **Other Incentives that is commensurate with the quality and character of the trees to be preserved as approved by City Council. This may include items such as fee waivers or credits, reduced open space/ park land dedication requirements.**

Enforcement

- a. The City Arborist, Building Official or an authorized representative of the City shall have the authority to place a Stop Work Order on any activity involving the removal of Protected Tree(s), or Tree Stand(s) or that may otherwise endanger trees contrary to the provisions of this Subsection and the Tree Technical Manual and Site Design Standards. The Building Official may deny all Permits and Certificates of Occupancy for any site which is not in compliance with this Subsection and applicable Criteria Manuals.
- b. A person is criminally responsible for a violation of this subsection if the person removes, assists in the removal or causes the removal of a tree without complying with the requirements of this subsection or owns part or all of the land where the violation occurs.
- c. Each tree removed in violation of this Subsection shall constitute a distinct and separate offense.
- d. Each tree preserved or planted under this Subsection that is removed, destroyed or dies within three (3) years of approval shall constitute a distinct and separate offense.
- e. It shall be an affirmative defense that trees are injured or destroyed by natural causes, natural disasters, including but not limited to tornadoes, straight-line winds, ice storms, fire, floods, hail, or lightning strikes, or through the independent unauthorized actions of third parties.

Exceptions

1. During the period of an emergency, such as a tornado, storm, flood or other natural disaster, the requirements of this section may be waived as deemed necessary by the City Manager or his designee. In addition to rights granted by easement, utility service providers, lawfully within the right-of-way, may remove trees during the period of an emergency that are determined by the provider to be a danger to public safety and welfare by interfering with utility service.
2. The City shall have the right to plant, prune, remove and maintain any Protected Tree located on a right-of-way, easement, public parkland or any other City-owned property as may be necessary to ensure public safety. The City may remove or cause or order to be removed any Protected Tree or part thereof, which is in an unsafe condition, or which by reason of its nature or location unreasonably interferes with the construction, maintenance or replacement of wastewater lines, water lines, drainage facilities, streets or other public improvements.

Waivers

1. If enforcement of a City department policy, rule or design will result in removal of a protected tree, the City Arborist may request that the responsible City department waive or modify the policy, rule, or design standard to the extent necessary to save the tree.
2. The responsible City department may waive or modify the policy, rule or design standard after determining that a waiver or modification will not result in a serious or imminent adverse effect.

Definitions

Critical Root Zone (CRZ) – the area within a concentric circle around a tree that is centered on the trunk location. Calculated as two (2) diameter feet of area per one (1) inch diameter tree.

Crown – shall mean all portions of a tree, excluding the trunk and roots.

Drip Line – shall mean the periphery of the area underneath a tree which would be encompassed by perpendicular lines dropped from the farthest edges of the crown of the tree.

Diameter at breast height (DBH) – diameter of tree trunk measured in inches at 4 ½ feet above grade.

Removal – an act that causes or may be reasonably expected to cause a tree to die, including:

- a) uprooting;
- b) severing the main trunk;
- c) damaging the root system; and
- d) excessive pruning

Riparian buffer - shall mean a corridor of trees, shrubs and herbaceous vegetation adjacent to streams, lakes, ponds, and wetlands. It creates a transitional zone between aquatic and upland habitats for stream stabilization, water quality protection, wildlife and aquatic habitat and floodplain management. The recommended width is dependent upon priorities in accomplishing the above goals and can range between 40-feet and 150-feet.

Tree Inventory – shall mean a drawing showing the tag number, species, size and approximate location of all existing Protected Trees.

Tree Protection Plan – shall mean a plan submitted by the developer or owner that provides the method of protecting trees during construction that may or may not include protection details, standards, notes, and construction plans in accordance with generally accepted methods such as those provided in the Tree Technical Manual.

Tree Replacement Plan – shall mean a plan submitted by the developer in a form or manner specified by the Administrator, providing the method of replacement for the proposed Protected Trees to be removed that may or may not include a plan that identifies the location, size, and species of all new trees proposed as replacement for the Protected Trees being removed and fees in lieu of replacement trees.

Tree Survey – shall mean a drawing of the proposed preliminary plat or site plan showing the size, location, species, Critical Root Zone of all existing Protected Trees, any Protected Tree to be removed, a table summarizing all Protected Trees and the total number of caliper inches of Protected Trees, in accordance with generally accepted methods such as those provided in the Tree Technical Manual.

Tree Technical Manual – shall mean the standards and specifications based on generally accepted practices developed by the City Arborist for sound arboricultural practices, techniques and procedures which shall serve as guidelines for trees regulated by this section, including but not limited to tree selection, planting, pruning, alteration, treatment, protection, and removal.

Tree Topping – shall mean the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree that removal of the top canopy disfigures and invites disease to the tree.

Tree Preservation Draft Outline – Alternate Option

Purpose & Intent

Applicability

1. Vacant and undeveloped land
1. Commercial property
2. New residential developments (including single-family, duplex and multi-family developments)
3. All property to be redeveloped including additions or alterations that increase the footprint of the building and require the removal of trees.
4. Streets, parks and other public property under the jurisdiction of the City of College Station.
5. Exterritorial Jurisdiction (ETJ)

Exemptions

1. Existing single family and duplex developments.
2. Public Utility maintenance
3. Sanitary landfills
4. Nursery/Christmas Trees
5. Other, as defined by the Administrator

Tree Preservation (Required)

Prohibition of the removal of trees, tree stands and other vegetation located within the Riparian Buffer as defined by the City. Except for utility placement and road crossings.

Tree Protection (Encouraged)

1. Specimen Trees
Any tree in fair or better condition which equals or exceeds a XX inch or greater dbh. All trees greater than XX inches dbh shall be considered a specimen tree unless a detailed inventory is submitted by an applicant verifying the presence of Mesquite, Bois Arc, Locust, Hackberry, Cottonwood or other species as outlined in the Tree Technical Manual, which are to be excluded.

2. **Specimen Tree Stands**

A contiguous grouping of trees in fair or better condition with a XX inch dbh or greater, whose canopies are generally clustered together creating a contiguous drip line. Shall include any understory located within the drip line. Mesquite, Bois Arc, Locust, Hackberry, Cottonwood or other species as outlined in the Tree Technical Manual are to be excluded.

Tree Density (Required)

All sites shall be required to achieve a tree density factor of X units per acre, exclusive of any landscaping and buffer yard planting requirements. For barren sites, unit values of tree plantings shall be doubled (i.e. half the tree density).

Density Calculations:

- a) **Density Factor Required** - acres of site to be developed multiplied by x = density requirement (i.e. 2.2 acres x 20 = 44 unit tree density factor required).
- b) **Existing Density Factor** - calculate existing density factor of trees to be protected during construction(exclusive of riparian buffer) by converting dbh of individual existing trees to density factor units (based on City provided table).
- c) **Replacement Density Factor** - calculate required replacement density factor by subtracting existing density factor from the required density factor.
- d) Convert the replacement density factor to caliper inches. The total value must be greater than or equal to the replacement density factor (conversion based on City provided table).

Tree Replacement Alternatives

In the event that it is not possible to achieve minimum density and spacing requirements on site, then the following replacement alternatives may be accepted:

- 1. Cash payment in a tree fund in accordance with tree replacement schedule found in the Tree Technical Manual.
- 2. Tree planting on public lands.
- 3. Tree conservation easement located on other private property.

Preservation Incentives

- 1. All specimen trees and tree stands that are preserved beyond the replacement density factor, may be credited towards meeting landscaping requirements provided they meet the approved plant list.
- 2. **Parking lot design:**
Parking lot design variations may be permitted in an effort to preserve

specimen trees and tree stands. The Administrator or his designee shall review any proposed parking lot variation and approve or deny the design based on the following criteria:

- a) Health of the tree
- b) Accessibility
- c) Safety of vehicular traffic
- d) Other criteria the Administrator deems necessary

3. Subdivision design:

The following incentives may be considered and must be commensurate with the quality and character of trees to be preserved:

- a) Alternative street design
- b) Alternative sidewalk locations
- c) Block length variation

4. A 20% Administrative Adjustment may be granted in an effort to aid in tree protection.
5. Other Incentives that are commensurate with the quality and character of the trees to be preserved as approved by City Council.

Enforcement

1. The City Arborist, Building Official or an authorized representative of the City shall have the authority to place a Stop Work Order on any activity involving the removal of Specimen Tree(s), or Tree Stand(s) or that may otherwise endanger trees contrary to the provisions of this Subsection and the Tree Technical Manual and Site Design Standards. The Building Official may deny all Permits and Certificates of Occupancy for any site which is not in compliance with this Subsection and applicable Criteria Manuals.
2. A person is criminally responsible for a violation of this subsection if the person removes, assists in the removal or causes the removal of a tree without complying with the requirements of this subsection or owns part or all of the land where the violation occurs.
3. Each tree removed in violation of this Subsection shall constitute a distinct and separate offense.
4. Each tree preserved or planted under this Subsection shall be maintained and preserved in accordance with the Tree
5. It shall be an affirmative defense that trees are injured or destroyed by natural causes, natural disasters, including but not limited to tornadoes, straight-line winds, ice storms, fire, floods, hail, or lightning strikes, or through the independent unauthorized actions of third parties.

Waivers

Waivers to the requirements of this section shall be heard by the Design Review Board (DRB).

Definitions

A tree in fair or better condition: must meet the following minimum requirements:

- a) Life expectancy of greater than 10 years
- b) Relatively sound and solid trunk with no extensive decay or hollow, and less than 20% radial trunk dieback.
- c) No more than one major and several minor dead limbs
- d) No major insect or pathological problem.

Barren Site – property that is either barren of existing trees and vegetation, or those properties that do not contain any specimen trees or tree stands.

Critical Root Zone (CRZ) – the area within a concentric circle around a tree that is centered on the trunk location. Calculated as two (2) diameter feet of area per one (1) inch diameter tree.

Crown – shall mean all portions of a tree, excluding the trunk and roots.

Drip Line – shall mean the periphery of the area underneath a tree which would be encompassed by perpendicular lines dropped from the farthest edges of the crown of the tree.

Diameter at breast height (DBH) – diameter of tree trunk measured in inches at 4 ½ feet above grade.

Removal – an act that causes or may be reasonably expected to cause a tree to die, including:

- a) uprooting;
- b) severing the main trunk;
- c) damaging the root system; and
- d) excessive pruning

Riparian buffer - shall mean a corridor of trees, shrubs and herbaceous vegetation adjacent to streams, lakes, ponds, and wetlands. It creates a transitional zone between aquatic and upland habitats for stream stabilization, water quality protection, wildlife and aquatic habitat and floodplain management. The recommended width is dependent upon priorities in accomplishing the above goals and can range between 40-feet and 150-feet as measured from the top of the bank.

Tree Density Factor – a unit of measure used to prescribe and calculate required tree coverage on a site. Unit measurements are based upon tree size.

Tree Protection Plan – shall mean a plan submitted by the developer or owner that provides the method of protecting trees during construction that may or may not include protection details, standards, notes, and construction plans in accordance with generally accepted methods such as those provided in the Tree Technical Manual.

Tree Preservation & Replacement Plan – shall mean a plan submitted by the developer in a form or manner specified by the Administrator, providing the method of replacement for the proposed Protected Trees to be removed that may or may not include a plan that identifies the location, size, and species of all new trees proposed as replacement for the Specimen Trees being removed and fees in lieu of replacement trees.

Tree Technical Manual – shall mean the standards and specifications based on generally accepted practices developed by the City Arborist for sound arboricultural practices, techniques and procedures which shall serve as guidelines for trees regulated by this section, including but not limited to tree selection, planting, pruning, alteration, treatment, protection, and removal.

Tree Topping – shall mean the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree that removal of the top canopy disfigures and invites disease to the tree.