

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

### 35-523. Tree **Canopy and** Preservation.

#### STATEMENT OF PURPOSE

While allowing the reasonable improvement of land within the city and city's ETJ, it is stated public policy of the city to maintain, to the greatest extent possible, existing trees within the city and the ETJ, and to add to the tree population within the city and the ETJ to promote a high tree canopy goal. The planting of additional trees and preservation of existing trees in the city and the ETJ is intended to accomplish, where possible, the following objectives:

- To preserve trees as an important public resource enhancing the quality of life and the general welfare of the city and enhancing its unique character and physical, historical and aesthetic environment.
- To encourage the preservation of existing trees and planting of new trees for the enjoyment of future generations.
- To encourage the preservation of existing trees and planting of new trees to provide health benefits by the cleansing and cooling of the air and contributing to psychological wellness.
- To encourage the preservation of existing trees and planting of new trees to provide environmental elements by adding value to property, and reduction of energy costs through passive solar design utilizing trees.
- To encourage the preservation of existing trees and planting of new trees to provide environmental elements necessary to reduce the amount of pollutants entering streams and to provide elements crucial to establishment of the local ecosystem.
- To provide tree preservation requirements and incentives to exceed those requirements that encourage the maximum preservation of trees and planting to achieve greater overall tree canopy.
- To promote and protect the health, safety and welfare of the public by creating an urban environment that is aesthetically pleasing and that promotes economic development through an enhanced quality of life.
- To encourage the preservation of environmentally sensitive areas that protect and enhance the water quality, ecosystem and the aesthetic environment.
- To increase tree canopy coverage for the City and ETJ.
- To recognize the economic value added to properties with trees and high tree canopy coverage.

This section implements the following provisions of the master plan:

Neighborhoods, Policy 3c: Continue to implement the tree preservation ordinance and strengthen as needed.

**(a) Applicability.** (Note TAC recommends that legal looks at the language and verify there are no issues related to the provisions applied in the ETJ) Legal's response: "The current language has been upheld by the fourth Court of Appeals and the Texas Supreme Court. There is no legal reason to change it."

(1) Generally.

- A. The regulations contained in this division shall apply to any private property located within the city limits and the ETJ of the city.
- B. The regulations contained in this division shall apply to all public property held by or for the benefit of the city or any agency, board or commission thereof in accordance with the provisions of subsection (e) of this division.

Grey highlights = notes with TAC's recommendations and [staff's response](#).

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

C. The regulations contained in this division shall regulate all activities that result or may result in the removal of significant or heritage trees, or areas of tree canopy as defined herein. Said activities include any of the following:

1. Industrial, commercial, office, multi-family, residential and institutional development, including all new construction and any additions that increase the total floor area of a structure by more than two thousand five hundred (2,500) square feet.
2. Construction of a new parking lot larger than two thousand five hundred (2,500) square feet or expansion of an existing parking lot by more than two thousand five hundred (2,500) square feet.
3. Any grading, filling or clearing of land.
4. Any clear, selective or individual cutting or removal of any significant or heritage tree or areas of tree-canopy as defined.
5. Chemical or biological treatment of trees or areas of tree-canopy that may result in the death or destruction of any significant or heritage trees or areas of tree-canopy as defined.
6. Trenching or excavation that may damage or destroy any significant or heritage trees or areas of tree-canopy as defined.

D. The regulations in this section shall apply to any projects receiving any federal, state, and/or local financial assistance.

E. Tree Credit Certificate 001 issued February 10, 2000 and Tree Credit Certificate 002 issued March 26, 2002 are acknowledged and the express language of those certificates apply whenever and wherever until fully redeemed with no limitations as to any time vesting projects as expressed in those contracts or certificates. The value of the Tree Credits shall be calculated in accordance with 35-523 (f) and based on the mitigation fund fee established by ordinance 85262, adopted December 5, 1996.

**Note:** TAC suggested language that clarifies the use and credit to be given to the tree credit certificates in relation to the new amendments such as clarification on "children of tree certificates 1 and 2". [Legal's response:](#) "The tree credits should be based on the measurement of significant and heritage trees as contemplated in the original ordinance. There is no necessity of additional language".

(2) Activities Exempt. The regulations in this division shall not apply to the clearing of understory necessary to perform boundary surveying of real property or to conduct tree surveys or inventories. Clearing for surveying may 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. Except for surveys done in connection with residential development, no tree ten (10) inches or larger may be removed in any manner during such boundary or general surveying.

(3) Categories of Development Exempt. The provisions of this section shall not apply to any conservation subdivision **as defined in section 35-203**.

**(Note: TAC recommended to referenced the conservation subdivision section 35-203)**  
[\(Staff does not object\)](#)

Grey highlights = notes with TAC's recommendations and staff's response.

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

(4) Trees Exempt. This division shall not apply to:

- A. Any significant or heritage trees or areas of tree-canopy determined to be diseased, overly-mature, dying or dead, by the city arborist.
  - B. Any significant or heritage trees or areas of tree-canopy 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.
  - C. ~~Trees~~ Any significant or heritage trees or areas of tree-canopy located on property with a gross parcel size of 0.5 acre or less on which construction of single-family, two-family or three-family residential dwelling units has been completed regardless of the underlying zoning district.
  - D. Trees or areas of tree-canopy located in the clear vision area, as defined in the street improvement standards.
  - E. Trees or areas of tree-canopy preventing the opening of reasonable and necessary vehicular traffic lanes in a street or alley.
- The provisions contained in this section shall control in the event and to the extent they may conflict with other provisions contained in this chapter that do not relate to health and safety.

**(b) Administration.** The provisions of this section shall be implemented by the a city arborist under the direction of the director of planning and development services. The city arborist shall oversee regulation of the maintenance and removal of significant or heritage trees or areas of tree-canopy and shall enforce and administer the provisions of this section.

The city arborist shall work closely with all city departments and governmental entities and licensees, and franchisees thereof in order to promote and ensure the maximum protection of trees by the implementation and administration of this section. City departments with which the city arborist is authorized to interact pursuant to subsection (e) of this section include, but are not limited to the following:

~~A(1).~~ Planning and development services department shall coordinate:

- ~~A.~~ Coordination of tree preservation in the review of master development plans, planned unit development plans, subdivision plats, permits, (for phase development) and any grading, filling fillings and spoil activities when applicable.
- ~~B.~~ Coordinate and maximize the preservation of tree(s) or areas of tree canopy through the implementation of the city's landscape and streetscape standards and through the building permit application and approval process contained in this chapter.

~~B. Development services department. Coordinate and maximize the preservation of tree through the implementation of the city landscape and streetscape standards and through the building permit application and approval process contained in this chapter.~~

~~C(2).~~ Public works and capital improvement management services (CIMS) departments shall maximize Maximize the preservation of trees or areas of tree-canopy during public works and CIMS projects for public improvements such as, but not limited to, utility installation, street construction and maintenance, drainage construction and

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

maintenance, grading, filling, placement of soil, etc. and coordinate any projects that modify natural drainage areas in a way that negatively affects trees on private property or public property.

~~D(3)~~. San Antonio Water System shall maximize ~~Maximize~~ the preservation of trees or areas of tree-canopy during capital improvement projects. The arborist shall review any policies related to trees or areas of tree-canopy.

Note: TAC recommends that SAWS projects (including easements) are not subject to final tree canopy. Staff has responded that most projects that include a lift station or booster station do not require building permits therefore will not be subject to final tree canopy, however the code does not specify it. Staff is still evaluating the recommendation.

~~E(4)~~. CPS Energy shall maximize ~~Maximize~~ the preservation of trees or areas of tree canopy during capital improvement projects. The arborist shall review any policies related to trees or areas of tree-canopy.

~~F5~~. Parks and Recreation shall maximize ~~Maximize~~ the preservation of trees or areas of tree-canopy during capital improvement projects. The arborist shall review any policies related to trees or areas of tree-canopy.

~~G6~~. Any other entities which may require easements or rights-of-way shall maximize the preservation of trees or areas of tree-canopy during the project. The arborist shall review any policies related to trees or areas of tree-canopy.

**(c) Violation, Enforcement and Penalties.** The provisions of this section shall be enforced as provided in article IV, section 35-493 of this chapter.

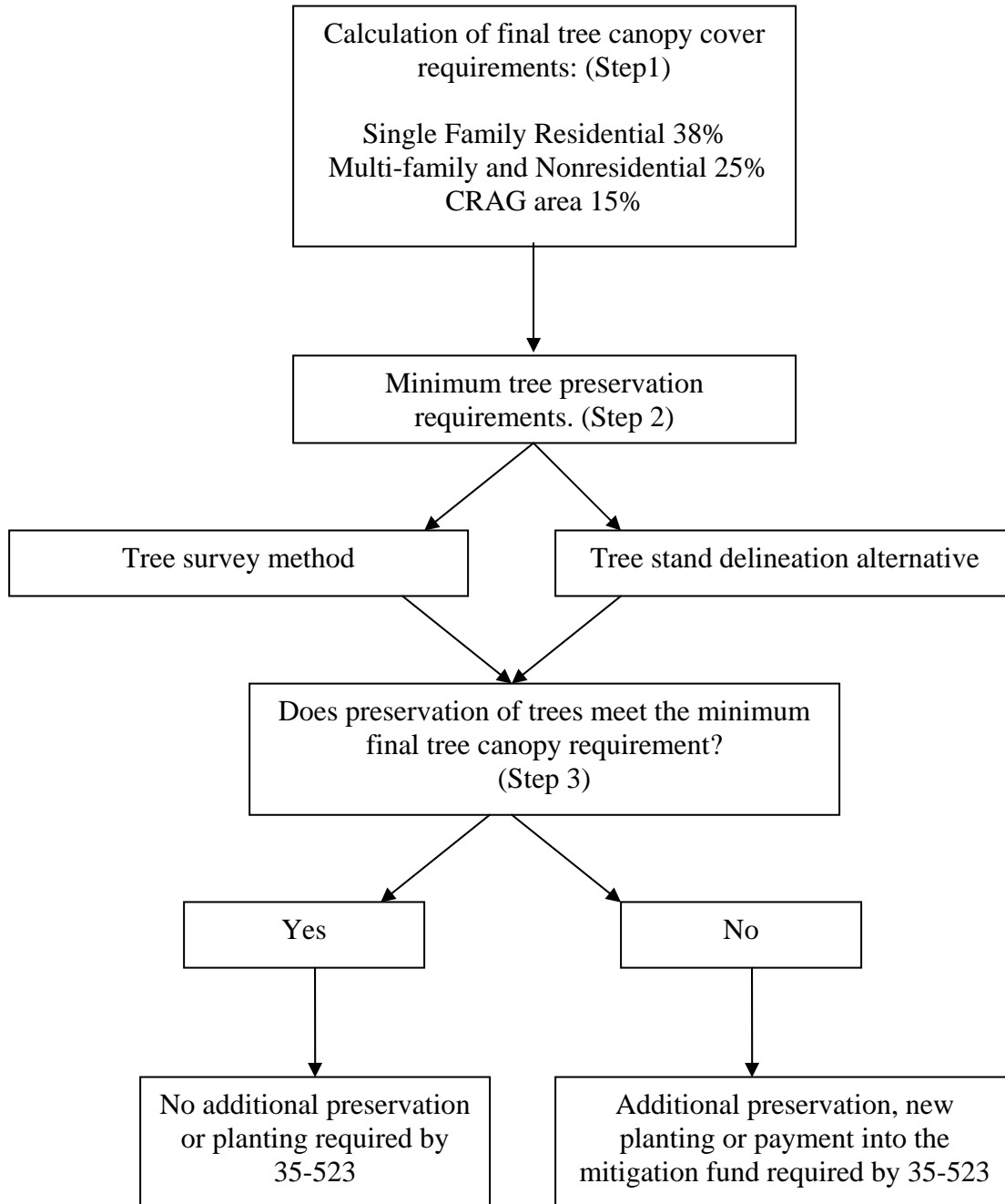
(Note: TAC recommended an introduction to the goal of the amendments and an explanation simple enough for everyone to understand and follow.) Staff recommends the following language. TAC approved it.

**(d) The following are the steps to be undertaken by the applicant and the City of San Antonio as part of the final tree canopy and tree preservation requirements as outlined below in sections (e) and (f).**

1. Step 1: Identify "final tree canopy" percent (%) based on the land use and as noted on section (e).
2. Step 2: Choose method for tree preservation (survey or tree stand delineation).
3. Step 3: Compare step 2 and step 1.
  - A. If step 2 tree preservation provides an equal or larger tree canopy cover percentage than step 1 then the final tree canopy goal has been met you are done.
  - B. If step 2 tree preservation provides a smaller tree canopy cover percentage than step 1, then additional preservation, planting or payment to the tree mitigation fund is necessary.

4. The following diagram illustrates the hierarchy of the tree canopy cover requirements.

Grey highlights = notes with TAC's recommendations and [staff's response](#).  
Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10



Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

(Note: TAC recommended removal of duplicate description of significant trees as 6 inches (5 inches and 10 inches), consider moving to survey method and a more clear description of the species.) Staff recommends moving protected trees to preservation section and in a table format (see section (f)(1)).

**(d) (moved to (f)(1) Protected Tree Designations.** The significant or heritage tree designations establish a threshold trunk size, measured in diameter at breast height (DBH), for various tree species for purposes of applying the requirements of this chapter. A significant or heritage tree is defined by DBH as set forth below. Significant trees of less than six (6) inches may be omitted from the tree survey and preserved or mitigated based on a numerical count.

(1) ~~Significant Trees.~~ A significant tree means a tree of six (6) inches or greater DBH for all tree species except the Ashe Juniper (*Juniperus ashei*), Huisache, and Mesquite are significant at ten (10) inches DBH and Arizona Ash and Hackberry are significant with at least one (1) trunk being ten (10) inches or greater DHB and the following species are significant with at least one (1) trunk being five (5) inches or greater DBH (the value of the five-inch or greater trunk is the value given to these small tree species):

- A. ~~Texas Persimmon~~
- B. ~~Texas Redbud~~
- C. ~~Texas Mountain Laurel~~
- D. ~~Condalia~~
- E. ~~Possum Haw in floodplain only)~~
- F. ~~Crabapple (in floodplain only);~~
- G. ~~Blue Wood Condalia;~~
- H. ~~Brazil Tree;~~
- I. ~~Downy Hawthorne.~~

(2) ~~Heritage Trees.~~ A heritage tree means a tree of twenty four (24) inches or greater DBH for all tree species except the following species are heritage with at least one (1) trunk being twelve (12) inches or greater DBH (the value of the twelve (12) inches or greater trunk is the value given to these small tree species):

- A. ~~Persimmon;~~
- B. ~~Rredbud;~~
- C. ~~Mountain Laurel;~~
- D. ~~Condalia;~~
- E. ~~Possum Haw (in floodplain only);~~
- F. ~~Crabapple (in floodplain only);~~

(3) ~~Non-native Trees.~~ Non-native invasive tree species are not protected and will be omitted from the tree survey. Non-native invasive tree species means the following tree species:

- A. ~~Chinese Pistache (*Pistacia chinensis*);~~
- B. ~~Chinaberry (*Melia azedarach*);~~
- C. ~~Chinese Tallow (*Sapium sebiferum*);~~
- D. ~~Tree of Heaven (*Ailanthus altissima*);~~
- E. ~~Salt Cedar (*Tamerix* species).~~
- F. ~~Japanese Ligustrum (*Ligustrum japonicum*).~~

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

**(e) Final Tree Canopy Cover.** The intent of this subsection is to promote tree canopy coverage in the City and the ETJ. The development of any property shall meet the final canopy percent requirements as described below based on the land use and can be accomplished by maximizing the preservation of trees through a tree survey method or tree stand delineation alternative and by tree planting (if necessary) or payment into the mitigation fund.

(1) Standards. Developments of all sites must provide a minimum final tree canopy cover as listed below for the entire gross project area outside of the regulatory floodplain.

A. Minimum final tree canopy coverage shall be provided at the percentages indicated below:

- 1) Single Family Residential 38%
- 2) Multi-family 25%
- 3) Other Nonresidential 20%
- 4) CRAG area 15%;
- 5) Industrial 10%

Note: TAC recommends the above distribution and proposed percentages to the final tree canopy requirements. Staff does not agree with the recommendations since it does not reflect the level of compromise reached by the tree committee, nor does it match any of the previously discussed percentages discussed in the tree committee.

A B. The final tree canopy requirements shall be accomplished after meeting all preservation requirements and other planting requirements as set forth in this Chapter;

(Note: TAC recommended that the two trees per lot to be credited for the final tree canopy requirement be spelled out.) Staff added language in section (m)(3).

C. The city arborist may allow the applicant to defer the minimum tree canopy cover requirements to the building permit phase of the development with plans depicting final canopy cover of preserved trees and newly planted trees and the method to assure that the requirements will be met before the issuance of a building permit or with a guarantee of performance executed and filed with the City of San Antonio. The city arborist shall determine the probable maximum amount of tree mitigation required (measured in dollars) that may be attributable to the development.

(Note: TAC recommended that a C of O be an option to the bond requirement. Staff suggested the above language. TAC approved it.

~~D. To attain the minimum final tree canopy cover requirements of this subsection, the applicant shall follow the same methodology used for preservation (survey or tree stand delineation) as outlined in section 35-523(f).~~

(Note: TAC recommended this paragraph be rewritten more clearly, it is difficult to understand.) Staff has no objections and recommends deletion, since the same language is already included in the survey method.

Grey highlights = notes with TAC's recommendations and **staff's response**.

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

(f) **Minimum Tree Preservation Requirements.** To comply with the minimum final tree canopy cover requirements of subsection (e) an applicant shall elect either to perform a tree survey to identify trees for preservation in accordance with the provisions of this subsection below or to conduct a tree stand delineation as an alternative to the tree survey technique.

(1) **Protected Tree Designations.** The significant or heritage tree designations establish a threshold trunk size, measured in diameter at breast height (DBH), for various tree species for purposes of applying the requirements of this chapter. A significant or heritage tree is defined by DBH as set forth below.

(A) Significant Trees. A significant tree means a tree of six (6) inches or greater DBH for all tree species except the following species are significant with at least one trunk being equal or greater than the respective size (DBH):

1. Ashe Juniper (*Juniperus ashei*) – ten (10) inch DBH;
2. Huisache (*Acacia farnesiana*) – ten (10) inch DBH;
3. Mesquite (*Prosopis glandulosa*) – ten (10) inch DBH;
4. Arizona Ash (*Fraxinus Velutina*) – ten (10) inch DBH;
5. Hackberry (*Celtis spp.*) – ten (10) inch DBH;
6. Texas persimmon (*Diospyros texana*) – five (5) inch DBH;
7. Texas redbud (var. *texensis*) – five (5) inch DBH;
8. Texas Mountain laurel (*Sophora secundiflora*) – five (5) inch DBH;
9. Condalia (*Condalia hookeri*) – five (5) inch DBH;
10. Possum haw (*Ilex decidua* - in floodplain only) – five (5) inch DBH;
11. Hawthorne (*crataegus texana*) – five (5) inch

(B) Heritage Trees. A heritage tree means a tree of twenty-four (24) inches or greater DBH for all tree species except the following species are heritage with at least one (1) trunk being twelve (12) inches or greater DBH (the value of the twelve (12) inches or greater trunk is the value given to these small tree species):

1. Texas persimmon (*Diospyros texana*);
2. Texas redbud (var. *texensis*);
3. Texas Mountain laurel (*Sophora secundiflora*);
4. Condalia (*Condalia hookeri*);
5. Possum haw (*Ilex decidua* - in floodplain only);
6. Hawthorne (*crataegus texana*).

(C) Non-native Trees. Non-native invasive tree species are not protected and will be omitted from the tree survey. Non-native invasive tree species means the following tree species:

1. Chinese Pistache (*Pistacia chinensis*);
2. Chinaberry (*Melia azedarach*);
3. Chinese Tallow (*Sapium sebiferum*);
4. Tree of Heaven (*Ailanthus altissima*);
5. Salt Cedar (*Tamerix species*).
6. Japanese Ligustrum (*Ligustrum japonicum*).

Grey highlights = notes with TAC’s recommendations and [staff’s response](#).

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

(2) Tree survey methodology.

A. Standards: ~~Generally~~. Table 523-1 establishes the minimum percentage of all diameter inches ~~or percent tree canopy~~ of significant or heritage trees that must be preserved or mitigated. In environmentally sensitive areas the minimum percentage shall include the understory of the preserved trees. For single-family dwellings, developers and builders may elect to preserve trees at the platting or permitting stage; if a developer or builder elects to preserve at the platting stage, this method must be used throughout completion of the project.

Note: TAC recommends that athletic fields be excluded from the preservation and final tree canopy requirements. [Staff has previously agreed to exempt the requirements from the final canopy, but not from the preservation. Staff is still evaluating the proposed changes shown below.](#)

**Table 523-1**

	Single-Family Dwellings	Multi-family and Nonresidential Uses
Significant Trees <u>6" DBH or greater</u>	35% within each platted lot, excluding street right-of-way and easements. Plus each builder on a single-family dwelling lot shall also be required to plant two (2) one and one-half (1.5) inch caliper new trees, which trees shall generally be native, large canopy trees.	40% within the entire site excluding the street rights-of-way <b>and easements and athletic fields; or for athletic fields, 25% of the entire site to be developed as such.</b>
Significant Trees under 6" DBH	35% within each <del>platted</del> <del>planted</del> lot, excluding the street right-of-way and easements or 35% of the number of total count of all such trees.	40% within the entire site, excluding street right-of- <b>and easements and athletic fields;</b> or 40% of the number of total count of all such trees; <b>or for athletic fields, 25% of the entire site to be developed as such.</b>
Heritage Trees	100% within each platted lot	100% within the entire site.
100-year floodplain(s)	80% of all the trees within the floodplain, which shall not apply toward preservation requirements on the remainder of the lot.	80% of the trees within the floodplain, which shall not apply toward preservation requirements on the remainder of the site.
Environmentally Sensitive Areas	80% of all the trees within the environmentally sensitive area including easements and rights-of-ways. Such areas shall apply toward preservation on the remainder of the site.	80% of all the trees within the environmentally sensitive area including easements and right-of-ways. Such areas shall apply toward preservation of the remainder of the site.
Mitigation Maximum	Up to <u>80%</u> <del>90%</del> of significant and heritage trees may be mitigated rather than preserved.	Up to <u>80%</u> <del>90%</del> of significant and heritage trees may be mitigated rather than preserved.

Grey highlights = notes with TAC’s recommendations and **staff’s response**.

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

**B. Methodology:** Calculation of Preservation Ratios: All percentages relating to preservation stated within this section shall be based on the initial tree survey. Any subsequent redevelopment of property must minimally preserve the applicable percentage of the total diameter inches of protected trees as indicated by the initial tree survey. To receive preservation credit in environmentally sensitive areas when using the tree survey or tree canopy method, the canopy area can be converted into diameter inches utilizing the following formula based on the dominant tree species in the area(s). Canopy area divided by shade value (Appendix E) equals number of trees, times the radius of the shade value area which will equal the diameter inches present in the environmentally sensitive area.

Formula:

**Diameter (inches) = Number of Trees x Radius**

**Number of trees = Canopy Area (sq-ft)/Shade Value (sq-ft/tree)**

**Radius = Square Root(Shade Value Area ÷ 3.14)**

*Commentary: the value is based upon the one foot tree canopy radius to one inch trunk diameter relationship.*

(3) Tree Stand Delineation Alternative.

A. Standards. As an alternative to a tree survey, a tree stand delineation (~~no heritage tree survey is required~~) may be used to meet the preservation requirements (see submittal requirements section 35-B125). In order to utilize this provision the site must have area(s) of tree canopy ~~that meet the woodlands criteria as set forth in Appendix A,~~ however the presence of understory is not required except in environmentally sensitive areas where the minimum percentage shall include the understory of the preserved trees, and must contain existing native understory vegetation. The application of this provision will be based on the ~~total gross~~ tree canopy of a site or project outside the 100-year floodplain, with no exclusions for rights-of-way or easements. A tree stand delineation shall meet the following standards:

**Table 523-1.2**

	<u>Minimum preservation requirements</u>	<u>Other requirements</u>
<u>Total tree canopy cover on site outside of the regulatory floodplain</u>	35% of total <b>non-heritage</b> tree canopy with subdivision, building permit or other permit after the Master Development Plan stage or 30% of total <b>non-heritage</b> tree canopy with Master Development Plan.	<u>Tree save areas must be designated as such when the area is platted. Tree canopy area(s) to be preserved as tree save area(s) must include tree canopy in environmentally sensitive areas if such are present on site.</u>
<u>Heritage trees</u>	<u>Heritage trees shall be preserved at 80% using the tree stand delineation method only.</u>	

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

<u>Environmentally sensitive areas within the project boundaries</u>	<u>80% of the total canopy area and 100% of the heritage trees.</u>	<u>Tree save areas in environmentally sensitive areas shall count toward preservation on the remainder of the site.</u>
<u>Regulatory floodplain</u>	<u>80% of the total canopy area and 100% of the heritage trees..</u>	<u>The trees or tree canopy in the floodplain may not be used to meet preservation requirements set forth above for the developable portion of the land.</u>
<u>Mitigation Maximum</u>	<u>Up to 80% of the total tree canopy area and up to 80% of the heritage trees may be mitigated rather than preserved.</u>	<u>A minimum of 20% of the existing pre-development tree canopy and 20% of the heritage trees shall be preserved and may not be mitigated</u>

Note: TAC recommends the removal of the Heritage tree protection as it was not originally included in the tree stand delineation method. Staff is still evaluating the recommendation.

- A tree preservation plan submitted at the master development plan stage must preserve a minimum of thirty (30) percent of contiguous tree canopy with the understory.
- If the tree preservation plan is delayed until subdivision review or any subsequent stages of development, the preservation requirement is thirty-five (35) percent of contiguous canopy with understory vegetation.
- Tree save areas will be a minimum of twenty thousand (20,000) square feet with any dimension being not less than thirty-five (35) feet.
- Tree save areas must be designated as such when the area is platted.
- Tree canopy area(s) to be preserved as tree save area(s) must include tree canopy in environmentally sensitive areas if such are present on site. These environmentally sensitive areas shall count toward preservation on the remainder of the site.
- The trees in the environmentally sensitive areas within the project boundaries are to be preserved at eighty (80) percent for significant trees and one hundred (100) percent for heritage trees.
- The 100-year floodplain areas within the project are to be preserved at eighty (80) percent for significant trees and one hundred (100) percent for heritage trees. The trees or tree canopy in the floodplain may not be used to meet preservation requirements set forth above for the developable portion of the land.
- The minimum requirements must be met without mitigation to utilize this option.

B. Subsequent Removal:

- Removal of the tree save area or any portion thereof will require the applicant to reforest to the required preservation or tree canopy cover amount.
- Mitigation trees will be as set forth in the standards of Table 523-2 using the shade value in Appendix E.

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

B. Calculation of Credits. This subsection shall be used to calculate the minimum preservation requirements in the tree stand delineation alternative.

1. Tree canopy crossing lot lines.

- a. Generally the credit to trees indicated for protection shall only be provided to trees whose primary trunk is located on the site subject to development. Where the primary tree trunk is located on the property subject to development a root protection zone shall be provided as defined in §35-523(i) and any tree canopy area that crosses into the adjacent site shall be applied as follows:
  - i. Where more than 50% of the tree canopy area is on the property subject to development, the property will be credited for all of the tree canopy area.
  - ii. Where less than 50% of the tree canopy area is on the property subject to development, the property will be credited half of the tree canopy area.

In locations that meet the woodlands criteria, the property line will be used to measure the limits of the canopy to be credited for the subject property(ies) regardless of where the trunk is located. In such cases a woodland canopy cover credit may be available in accordance with subsection (i) (9).

2. Tree canopy credit for newly planted trees. Newly planted trees will receive 75% of the mature canopy area per species as listed in Appendix E. To receive tree canopy credit each newly planted tree will require a minimum of 162 square feet in previous planting area for non-residential and multi-family uses. Planting standards and soil specifications must adhere to those of the International Society of Arboriculture <http://www.isa-arbor.com/publications/cadDetails.aspx>. Additional canopy area may be claimed if structural soils or low impact development (LID) practices are used as provided in §35-523(i)(10).

Note: TAC recommends a 95% shade value credit in lieu of the 75% as proposed. Staff does not agree with this recommendation since there was an extensive discussion during the tree committee meeting regarding the allowed percent value that range from 100% to 50% and 75% was a compromise. In addition, the 75% shade value is the highest credit currently allowed under the landscape ordinance.

(3) Subsequent Removal. Removal of the tree save area or any portion thereof will require the applicant to reforest to the required preservation or tree canopy cover amount. Mitigation trees will be as set forth in the standards of Table 523-2 using the shade value in Appendix E.

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

(4) Mitigation. Protected trees that are required to be preserved are to be mitigated at the ratio described in Table 523-2.

(5) Diversity and Desirability. As the particular site conditions warrant, the applicant shall make a reasonable effort to preserve a diversity of species of trees as determined by the city arborist.

(6) Site Design. The location of all proposed buildings and improvements shall be oriented by the applicant, to the extent the applicant determines possible, in a manner which allows for preserving of the greatest number of trees and in doing so the applicant is encouraged to design by taking into consideration the site's limitations and assets. Trees located within the existing right-of-way shall not be counted as it pertains to the minimum preservation percentage when using the tree survey methodology. Applicants are encouraged to preserve trees to meet the landscape and streetscape standards which could reduce or eliminate the irrigation requirements.

(7) Rights-of-Way. Unless otherwise allowed by this division, trees located within existing rights-of-way or easements may be damaged, destroyed, or removed only if prior approval is granted by the city arborist. If tree(s) are approved to be removed, mitigation will be at 1:1 unless Heritage-size which are mitigated at 3:1 (with the exception of species listed in Table 523-2, Column B, Row 1 which will be mitigated at 1:1) and are to be maintained by the project applicant.

(8) Trees on Public Property. The city shall have the right to maintain trees, plants, and shrubs within the lines of all public property as may be necessary to ensure the safety, protect facilities and improvements, and maintain the health and aesthetics of such public grounds. In order to achieve the above, the city or its municipal utility entities may remove or cause or order to be removed any tree which is located on public property and determined to be in conflict with a public purpose or to be a public hazard through coordination with the city arborist or city forester.

(9) Historic Trees. In order to protect historic trees, as defined, the city arborist shall defer the approval of tree preservation plans to review by the historic preservation officer who shall seek the advice of the historic design and review commission in instances where a historic tree is proposed to be removed. The commission may recommend additional replacement standards, recommend a cash payment to be deposited to the tree mitigation ~~replacement~~-fund to offset the cost of future tree planting on public property, or recommend that the application for permit and tree preservation plan be denied. Provided, however that no later than thirty (30) days after the final application for removal of the historic tree was received, the historic preservation officer ~~director of planning and development services~~ shall advise the applicant by certified mail, return requested, or hand delivery of his decision. The final application will be deemed approved if not acted upon by the historic preservation officer before the expiration of the thirty-day time period herein established. Such action may be appealed pursuant to section 35-~~481~~ 489 of this chapter.

**(f)(g)Mitigation/Alternative Mitigation Methods.** Significant or heritage trees may be removed in excess of the minimum preservation requirement contained in subsection (e) provided the excess removal is properly mitigated. If mitigation is required to compensate for

Grey highlights = notes with TAC’s recommendations and [staff’s response](#).

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

removing trees in excess of the number of diameter inches allowed to be removed within the surveyed area to be calculated for tree preservation under the minimum preservation requirements, the mitigation may be achieved in one of the ways prescribed in Table 523-2, below:

Note: TAC recommends the following changes. [Staff has no objections](#).

**Table 523-2 Mitigation**

(A) Method	(B) Description	(C) Restrictions
1. Establishment and maintenance of new trees at the required ratio on-site	Significant 1:1 Heritage 3:1 All tree species of Ash (all Fraxinus species) Hackberry (all Celtis species) Huisache, Ashe Juniper and Mesquite will be mitigated at 1:1.	No more than twenty-five (25) percent of the replacement trees shall be of the same species for the purposes of mitigation. Replacement trees must be at least <u>one and one-half inch (1.5") DBH</u> <del>three-inch diameter</del> .
2. Payment to the tree mitigation fund	<u>In lieu of meeting the minimum preservation or final canopy standards of this section, a payment to the tree mitigation fund may be provided in accordance with 35-C110. See subsection (h) of this section.</u>	See subsection <u>(h) Tree Mitigation Fund of this section for the authorized collection and disbursement of these funds.</u>
3. Protection and maintenance of smaller trees within surveyed area	Protection and maintenance of existing trees within the surveyed area that are smaller than the size requirements for a protected tree.	Such trees must be at least two and one-half (2 1/2) inches DBH. See column B ratios for diameter-inches required.
4. Protection and maintenance of natural areas within the surveyed area	Protection and maintenance of existing natural areas, i.e., prairie, <u>steep slope</u> , etc.	Area(s) must contain desirable plants as determined by the city arborist and/or by Texas Parks and Wildlife Dept.

In considering a mitigation method, the city arborist may weigh the value of smaller trees, clumps of trees, and natural vegetation that could be retained to meet the requirements of this section, such as mitigation method above, or the amount of vegetation to be retained on the site and/or added according to a landscape plan to determine the extent additional trees may not be required. For these reasons, indiscriminate clearing of smaller trees and shrubs or understory is discouraged. Small tree species shall be mitigated based on the one trunk that is five (5) inches or greater for significant status and the one trunk that is twelve (12) inches or greater for heritage status. Small tree species that achieve heritage status shall be mitigated on a 1:1 basis.

**(gh) 100-Year Floodplain(s) and environmentally sensitive areas.** Significant trees shall be preserved at eighty (80) percent preservation within the 100-year floodplains and environmentally sensitive areas. Heritage trees shall be preserved at one hundred (100) percent preservation within the 100-year floodplains and environmentally sensitive areas. The 100-year floodplain shall be determined by the floodplain administrator. Mitigation shall be prohibited in floodplains and environmentally sensitive areas except when a variance is granted by the Planning Commission. If trees are required to be removed by a governmental entity due to existing off-site conditions, then mitigation shall not be required by the applicant. The city arborist, the director of public

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

works, the director of planning and development services, the bexar county flood control division manager and one (1) representative from the Cibolo Creek Watershed, the Leon Creek Coalition, the Salado Creek Foundation, the San Antonio River Oversight Committee, and the Land Heritage Institute (for the Medina River) shall recommend a standard for treatment of drainageways, which standard shall be approved by the city council.

**(hi) Tree Preservation Incentives.** An individual may apply for, and subject to verification, shall receive incentives for tree preservation as follows:

(1) **Parking Space Reduction.** Upon application and verification by the city arborist, an individual shall be entitled to a reduction in the minimum parking requirements of section 35-526 of this chapter to help meet the minimum tree preservation requirements. For the purpose of providing an incentive, the said minimum parking requirements of section 35-526 of this chapter may be reduced by one (1) parking space for every four (4) diameter inches of trees that have been protected or mitigated on a site. The city arborist shall issue a certificate to the appropriate city department(s) confirming that a reduction has been earned under this section. Up to fifteen (15) percent of the required spaces may be waived, however, a waiver in excess of fifteen (15) percent of the required spaces must be approved by the director of planning and development services or his designee, and no waiver may exceed thirty (30) percent of the required spaces. A waiver of up to fifty (50) percent of the minimum parking spaces required by Table 526-3 may be granted if the plan will result in the preservation of woodlands or significant stands of trees in a natural state as in section 35-526. If used, the incentive provided by this subsection shall control over any other conflicting provision of this chapter.

(2) **Sidewalks.** Where the director of planning and development services determines that preservation of trees warrants the elimination, reduction in width, or modification to the sidewalk and curb requirements in accordance with the tree preservation standards, a waiver may be granted.

(3) **Tree Cluster(s).** In order to emphasize the importance of preserving trees in a cluster during development, additional tree preservation credit will be given as follows:

A. Cluster(s) of three (3) or more trees less than ten (10) feet apart without existing understory will be calculated at one hundred five (105) percent for each tree within the cluster with a minimum DBH size of two and one-half (2 1/2) inches inch diameter.

B. Cluster(s) of three (3) or more trees less than ten (10) feet apart with existing understory will be calculated at one hundred fifteen (115) percent for each tree within the cluster with a minimum DBH size of two and one-half (2 1/2) inches inch diameter.

(4) **Landscape Credits.** Landscape credits may be awarded as provided in section 35-511, above. Trees installed to meet the requirements of the Landscape Buffer §35-510 and/or Landscape ordinance §35-511 may be used to meet the requirements of the post-development final tree canopy §35-523.

(5) **Understory.** ~~The city arborist may determine that the preservation of native understory plants together with trees grouped in significant stands may result in a reduction of new plantings needed to meet the landscape requirements and/or an increase of credit given for elective points and/or the elimination of an irrigation system requirement of section 35-511. Emphasis is on the preservation of said significant stands and accompanying native understory plants and therefore, the smaller tree diameters~~

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

~~may be counted one (1) for one (1) in terms of meeting the minimum tree preservation requirements. It is at the discretion of the city arborist as to the maximum number of trees, less than the significant tree size, that may be allowed to be used for obtaining additional landscape points under this incentive. The city arborist, may determine that the preservation of existing predevelopment native understory plants together with trees grouped in significant stands or native "natural" areas may result in a reduction of new tree plantings needed to meet the requirements of tree canopy in subsection (e). Such areas may receive up to 1.5 tree canopy credit. In addition, such areas can be used to meet the landscape requirements and/or an increase of credit given for elective points and/or the elimination of an irrigation system requirement of §35-511.~~

(6) Minimum Lot Size and Setbacks. The board of adjustment may waive the minimum lot size and setback requirements of the applicable zoning district for an individual lot or lots where the applicant demonstrates the following:

- A. Compliance with the minimum lot size or setback requirement is needed to preserve a significant tree or heritage tree; and
- B. If the tree permit application is pursuant to a proposed subdivision plat, the average lot size of the proposed subdivision will equal or exceed that of the applicable zoning district; and
- C. The public purpose involved in protecting the tree exceeds the public purpose of complying with minimum lot size or setback requirements; and
- D. The resulting lot sizes or setbacks do not violate the master plan or the applicable neighborhood plan.

(7) State Certification in Lieu of Compliance. The city arborist shall assist those who wish to have a site certified under the Texas Parks and Wildlife, Texas Wildscape Program in lieu of meeting city requirements in this division as long as twenty (20) percent of existing trees on-site are preserved.

(8) Energy conservation credit. Planted or preserved large canopy shade trees (medium to large designated in Appendix E) located on the western or southern exposures of a habitable building may receive additional tree canopy credit for post-development final tree canopy cover requirements. The trees must be located a minimum of 10 feet but a maximum of 30 feet in distance from the building. Tree canopy cover may be credited at 1.5 times the existing or newly planted trees meeting the aforementioned specifications.

(9) Woodland Large contiguous canopy cover credit. Woodlands, as defined, Existing contiguous tree canopy of 20,000 square feet or greater, with no dimension less than 35 ft, excluding regulatory floodplains, that are preserved beyond the minimum preservation requirements with the existing native understory according to §35-523(e) shall receive a tree canopy cover credit of 1.5 times the area and 2 times if the area joins with an abutting contiguous tree canopy area on the adjacent property. To receive credit, the adjoining properties must indicate tree save areas in perpetuity through subdivision platting or a dedicated conservation easement.

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

(10) Significant Tree canopy credit. A canopy cover credit of 1.5 times the tree canopy area of a significant tree preserved beyond the minimum preservation requirements may be counted toward meeting the post-development final canopy coverage using the tree survey method only.

(11) Heritage Tree canopy credit. A canopy cover credit of 2.0 ~~3-0~~ times the tree canopy area of a heritage tree preserved beyond the minimum preservation requirements may be counted toward meeting the post-development final tree canopy coverage using the tree survey or tree stand deliniation method. To use this credit when using the tree stand deliniation method a heritage tree survey is required.

(12) Athletic Fields shall be deleted from the gross area for the final tree canopy cover requirements, however the tree preservation requirements shall remain at 25% for both methods tree survey or tree stand deliniation.

(13) Use of landscaped low impact development (LID) practices. A canopy cover credit of 1.5 times the existing canopy cover of trees shall be provided for areas where tree preservation is maintained in conjunction with LID practices such as the use of structured soils including infiltration trenches, bioswales, micro-bioretention areas and where such locations receive appropriate amounts of stormwater runoff. To receive 1.5 times credit, the landscaped LID must be approved by application of §35-504 standards. Such LID areas may also be used to comply with the buffer and/or landscape requirements of §35-510 and §35-511.

**Summary of Tree Canopy Credit Options:**

	<u>Credit Amount</u> <i>(counted by multiplying the existing canopy cover of trees)</i>
<u>Understory Preservation</u>	<u>1.0 to 1.5</u>
<u>Energy Conservation</u>	<u>1.5</u>
<u>Woodland canopy</u>	<u>1.5 (on property)</u> <u>2.0 (with abutting property)</u>
<u>Significant tree canopy</u>	<u>1.5</u>
<u>Heritage tree canopy</u>	<u>2.0</u>
<u>Low impact development</u>	<u>1.5</u>

**(ij) Root Protection Zone.**

(1) Root Protection Zone. A root protection zone must be established around the trunk of each tree preserved or mitigation tree. For multi-family and nonresidential construction the root protection zone shall be an area defined by an average radius extending outward from the trunk of the tree a distance of one (1) linear foot for each inch (DBH). The root protection zone area shall be preserved at natural grade, with natural groundcover. No cutting, filling, trenching, root disturbance, soil disturbance, or construction impacts shall occur closer to the trunk than one-half ( 1/2) the root protection zone radius except in parking areas where approved alternative materials and methods are used, construction may be as close as five (5) feet from the root flares on one side of the tree. Filling shall be allowed to accomplish water conservation goals established by the City of San

Grey highlights = notes with TAC's recommendations and [staff's response](#).

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

Antonio or by a public utility. Native understory vegetation within the root protection zone shall be preserved, however this requirement does not apply to root protection zone areas that have been landscaped using native, drought tolerant plants. The root protection zone may be shifted and clustered as long as there is no construction closer to the trunk than one-half ( 1/2) the root protection zone radius. The construction of sidewalks shall be allowed in the root protection zone, as long as excavation does not exceed three (3) inches.

The area contained within a root protection zone required under this subsection must be left in a pervious condition after construction and development are completed unless approved alternative construction methods are used. The arborist shall establish a written set of technical criteria on which such approval shall be based. These criteria will be updated at least every five (5) years with the assistance of a committee consisting of, at a minimum, the city arborist, the regional urban forester from the Texas Forest Service, a landscape architect and an engineer. During construction activity on the site, at least a six-inch layer of coarse mulch shall be placed and maintained over the root protection zone. The impervious cover may encroach within the root protection zone if said encroachment is approved by the city arborist.

~~(2) Warranty. In lieu of establishing root protection zone(s) as prescribed in subsection 35-523(i) or adhering to alternate construction methods as approved by the city arborist, a developer or property owner may choose to provide a tree preservation warranty for multi-family and nonresidential construction only. In the event a developer or property owner chooses to provide a tree preservation warranty as provided for herein the owner of the property must provide a tree preservation warranty to the city arborist, which shall obligate the then owner of the property to replace any tree (or trees) reflected on the tree survey and which are the subject of the warranty. The term of the warranty shall be five (5) years from the date that a building permit is filed for building construction projects or five (5) years from the date construction is commenced for infrastructure improvements related to development projects. Each tree that is covered by a tree preservation warranty must be identified on a tree survey prepared in accordance with subsection 35-B123(c)(1)A and submitted with the tree preservation warranty. If any tree required to be preserved and which is the subject of a tree preservation warranty shall die during the term of the tree preservation warranty, the tree shall be replaced in accordance with the mitigation provisions of subsection 35-523(f). All replacement trees shall be planted in accordance with the standards set forth in subsection 35-523(l). The city may require such owner to replace a tree (or trees) that has died at any time during the term of the tree preservation warranty, and, if such owner fails to replace the tree within ninety (90) days of the city's written request to replace same, the city at its sole option may refuse to issue any new building permits, accept any development application, or accept any infrastructure improvements from such owner. Nothing in this subsection shall exclude any and all remedies otherwise provided by law.~~

~~The tree preservation warranty shall be filed in the records of the development services department of the city. A fee shall be assessed for each warranty tree identified on the preservation plan.~~

~~The seller of property subject to a tree preservation warranty shall provide a copy of the warranty and attached tree survey to prospective buyers.~~

#### **(jk) Tree Protection During Construction.**

(1) Generally. It is the applicant's responsibility to insure that all parts of the tree preservation plan are transferred to each appropriate person concerned with the

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

development project. All trees that will be credited for preservation shall conform to these standards including single-family residential construction. The City Arborist shall determine the credit ratio for any tree preserved in a single family residential construction which roots are not fully protected and are not subject to the requirements of the root protection zone.

Note: TAC recommends the language be reworded to be more clear. Staff recommends the above.

(2) Protection Barrier. ~~Except for single-family residential construction,~~ a protection barrier shall be erected at the edge of the root protection zone for all trees, understory and/or natural areas to be preserved to meet the requirements of the tree preservation, landscape and/or streetscape standards. The barrier shall be in place before any site work is initiated and maintained throughout the construction process. However, on one (1) side of the tree the protective barrier can be erected a minimum distance of sixty (60) inches from the trunk(s) of individual significant, heritage or mitigation trees or islands of such trees and understory and maintained until construction is completed. This protective barrier may be comprised of snow fencing, vinyl construction fencing, chain link, geotextile material or other similar sturdy material. During construction, no excess soil, additional fill, equipment, liquids or construction debris shall be placed inside the protective barrier nor shall any soil be removed within the barrier.

(3) Grading. The proposed finished grade within the root protection zone of any tree to be preserved shall not be raised or lowered more than three (3) inches. Approved welling methods for tree preservation may be used within the root protection zone. Other welling and/or retaining methods may be used to protect and/or provide lateral support to the area outside the root protection zone.

(4) Branch/Root Pruning and Wounded Trees. All broken branches and exposed roots two (2) inches in diameter or greater of significant, heritage or mitigation trees shall be cut cleanly and in accordance with ANSI-A300 standards. In the case of oak species, in order to prevent infection by oak wilt spores, wounds must be painted with an acceptable wound dressing within thirty (30) minutes.

(5) Equipment/Vehicle Storage and Parking Areas. Prior to construction or land development, the developer or builder shall establish designated parking areas for the parking and maintenance of all vehicles, trailers, construction equipment, and related items, as well as stockpile areas for the storage of construction supplies and materials. The location and dimensions of said designated areas shall be clearly identified on construction and site plans and at the construction site.

(6) Boring of Utilities.

A. For purposes of this subsection, "boring" means the practice of tunneling below the effective root system of a tree for the purpose of running underground utilities.

B. Boring is permitted, but not required, under protected trees where needed to provide underground utility access. The minimum length of the bore shall be the width of the tree's canopy. The minimum depth is twenty-four (24) inches.

(7) Tree Protection Details. Tree protection notes and details shall be included on subdivision plans, tree preservation plans and/or landscape plans. The applicant shall

Grey highlights = notes with TAC's recommendations and staff's response.

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

also include tree protection notes and details with the bid documents given to the contractor.

**(k)** **General Maintenance.** Significant, heritage, or mitigation trees must be maintained in a healthy condition at all times. The property owner is responsible for irrigating, fertilizing, pruning and other maintenance of all trees as needed. Except for residential development, mitigation trees that are planted on the property and that die within twelve (12) months of final inspection are subject to the mitigation requirements set forth in subsection (e) at a ratio of one-inch mitigation for every one (1) inch of a significant, heritage, or mitigation trees that dies. However, a significant or heritage or mitigation tree that dies from other than natural causes shall be mitigated at a ratio as defined in Table 523-2. Any tree that dies must be replaced with another living tree of the same category type or better within ninety (90) days after notification by the city. The director of development services may extend this time period up to an additional ninety (90) days due to weather considerations. If the plants have not been replaced after appropriate notification and/or extension, the property owner shall be in violation of this section. If a public utility disturbs trees, it shall make every reasonable effort to preserve the trees and return them to their prior location and condition after the utility work is completed. If nonetheless, trees die, replacement is not the responsibility of the property owner if the death or destruction of the trees is due to the action of a public utility.

**(l)** **General Planting Standards.**

(1) Mitigation or replacement trees required by this section must have a minimum caliper of one and one-half inches (1.5") ~~three (3) inches~~ measured six (6) inches above grade at the time of installation and, shall be planted in a pervious area of at least one hundred sixty-two (162) square feet per tree.

(2) No artificial plant materials may be used to satisfy the requirements of this section.

(3) For single-family residential construction, the two (2) trees required to be planted per residential lot shall be ~~class 1 trees, of one and one-half inch (1.5")~~ two-inch caliper, and shall be a species that matures to a minimum height of thirty (30) feet (Appendix "E") unless there is a conflict with overhead utilities where the trunk would be within twelve (12) feet of overhead utilities. In such incidences the tree will be from the small tree species as listed in Appendix "E". The two trees per lot shall be counted towards the final tree canopy requirement.

(4) Plant materials required by this section must comply with the following minimum size requirements at the time of installation:

- A. In satisfying the requirements of this section, the use of mulch material shall be provided at the time of planting.
- B. Each replacement tree must be planted at least thirty (30) inches away from any impervious surface.
- C. Plant areas must be protected from vehicular traffic through the use of concrete curbs, wheel stops or other permanent barriers.

(5) Transplanting existing trees shall be considered an acceptable method for preserving a tree if:

- A. The tree is a significant or heritage tree; and
- B. The tree is transplanted on the same lot, parcel, or development site; and

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

C. The applicant provides a feasibility report prepared by a certified arborist or landscape architect which describes the following:

1. Digging method;
2. Relocation sites;
3. Method of transport;
4. Time of year transplanting will take place;
5. Storage methods (if any); and,
6. Maintenance programs before, during, and after transplanting.

D. The applicant shall comply with the requirements of the feasibility report, which shall be considered a condition of the tree permit.

(6) No more than twenty-five (25) percent of the replacement trees shall be of the same species for the purpose of mitigation.

**(mn) Variance Procedure.**

(1) Variances. Variances to the terms and requirements of this division may be granted by the city arborist where a literal enforcement of the provisions of this division will result in an unnecessary hardship. No variance may be granted unless:

- A. Such variance will not be contrary to public interest;
- B. Such variance will be in harmony with the spirit and purpose of this division;
- C. The variance will not substantially weaken the general purposes of this division or the regulations herein established for the protection of trees; and
- D. The variance granted is limited in scope of relief to only that which is necessary to relieve the hardship condition.

(2) Request for Variance. An applicant ~~A person~~ who feels they qualify for a variance, under the conditions outlined in subsection (a) above, from the literal application of this division to their property may request a variance from such application of one (1) or more of the provisions of this division. All requests for variances shall be made in writing to the city arborist, and shall include:

- A. The subject of the requested variance; and
- B. The justification for granting a variance.

(3) Burden.

- A. The party requesting a variance has the burden of demonstrating that sufficient evidence exists for the granting of a variance to application of this division. The city arborist shall consider and provide a written response to all such requests for variances as quickly as possible but not more than thirty (30) days from the date a valid request for variance is received. The response shall be served by certified mail, return receipt requested, or by hand delivery.
- B. If granted. If a variance is granted as requested, or with modification, the recipient of the variance may develop their property according to all applicable provisions of this division, to the extent such provisions have not been waived or modified by the variance.

Grey highlights = notes with TAC's recommendations and **staff's response**.

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

(4) Appeal. Any person who properly requests a variance pursuant to this section and objects to the decision of the city arborist which denies all or part of the relief requested may appeal such denial to the director of planning and development services or his designee by filing a request for appeal within ten (10) working days from the date notice of denial is received by the requesting party. All such appeals shall be made in writing to the office of the director of planning and development services and shall include all pertinent information which the person requesting the appeal wishes to be considered. The director of planning and development services may require additional information from or request a meeting with the person making the appeal. The written decision of the director of planning and development services, or authorized designee, on the appeal shall be rendered within fifteen (15) working days and shall be delivered to the appealing party by certified mail, return requested, or by hand delivery. If the director of planning and development services or authorized designee fails to render an opinion on the appeal within the fifteen-day period, the relief requested in the appeal shall be granted.

(5) Planning Commission.

A. If the director of planning and development services denies all or part of the relief requested in an appeal, the aggrieved party may appeal to planning commission by filing a notice of appeal with the director of planning and development services ~~office of the city clerk~~ no later than the tenth working day following the party's receipt of the written decision of the director of development services. ~~A true and correct copy of the notice of final appeal must also be filed with the office of~~ The the director of planning and development services ~~who~~, upon receipt of such notice, shall immediately transfer copies of all documents and information relevant to the appeal to the executive secretary to the planning commission. The executive secretary of the planning commission shall schedule the hearing of the appeal at the earliest available regularly scheduled meeting of the planning commission which will allow compliance with the requirements of the Texas Open Meetings Act.

B. A decision of the planning commission ~~that is adverse to the applicant~~ shall be appealable ~~by the applicant~~ to the city council for final action by filing a notice of final appeal with the office of the city clerk no later than the tenth working day following the party's receipt of the written decision of the planning commission. A true and correct copy of the notice of final appeal must also be filed with the office of the director of planning and development services. The city clerk shall schedule the hearing of final appeal at the next available regularly scheduled meeting of the city council which will allow compliance with the requirements of the Texas Open Meetings Act.

C. Where this division requires either the city or applicant to respond, or take other action, within a specific number of days, such calculation shall begin on the first working day after the date of receipt of the information that necessitated response or action.

#### **(no) Tree Mitigation Fund.**

(1) Fund Established. The director of finance is hereby directed to establish a dedicated account to be entitled tree mitigation fund (hereinafter the "fund").

(2) Penalties. Section 35-493 of this chapter provides for sections imposing civil penalties in addition to criminal penalties. Civil penalties collected pursuant to such section shall be recorded in the fund created pursuant to this section, unless expressly prohibited by law. Likewise, all funds received from the payment of mitigation fees pursuant to subsection (f) shall be recorded in the fund.

Grey highlights = notes with TAC's recommendations and **staff's response**.

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

(3) Use of Funds. The funds collected from civil penalties and mitigation fees in the fund shall be utilized to pay for the planting ~~and maintenance~~ of trees to include a maintenance period not to exceed three years. Generated funds may be used by the City Forester to plant trees on public or private properties. Trees planted with mitigation funds shall not be used to meet any municipal code requirements for preservation, mitigation, landscaping, buffers, streetscape or other requirements. ~~The~~ the funding of tree preservation including the yearly digital imagery and planting programs shall ~~to~~ be administered by the parks & recreation ~~designated~~ department and city forester. The director of the parks & recreation ~~designated~~ department shall seek the advice of the parks and recreation board ~~open space committee~~ in regard to the selection of projects to be funded. A portion of the fund may be used, on an annual basis, to fund activities directed towards educating the public on the importance of trees in the environment, ecological issues and pollution prevention.

(4) Funds to be Kept Separate. The balance within the fund shall be recorded and accounted for in a manner that distinguishes them from other general funds of the city and shall be disbursed in a manner consistent with the purposes for which this fund has been established. The balance of this fund shall not be transferred to the general fund at the end of each budget year, but rather, the balance remaining in the fund at the close of the city's fiscal year shall roll over and become the beginning balance for the next fiscal year.

**(op)** **Public Projects.** Municipal and utility entities shall obtain a tree permit before any vegetation is removed or new construction activity takes place. Special attention will be given to the preservation of trees in public rights-of-way that are to help satisfy the objectives of the streetscape planting standards of this article (section 35-512). The city arborist shall approve an application for the reasonable removal of a protected tree in connection with construction, maintenance or repair of public facilities in or above a public street, alley, rights-of-way, easement or other public land.

(1) Preservation ~~Generally~~. A minimum of twenty-five (25) percent of all diameter inches of protected trees within the project boundary/limits must be preserved.

(2) Calculations of Preservation Ratios. All percentages relating to preservation stated within this section shall be based the initial tree survey. Any subsequent redevelopment of public property must minimally preserve the applicable percentage of the total diameter inches of protected trees as indicated in the initial tree survey.

(3) Tree Retention Ratio. A minimum of twenty (20) ~~ten (10)~~ percent of the total diameter inches within the surveyed area must be retained in their original location when possible. Removal of additional trees, up to the percentage prescribed in this section, requires mitigation (see subsection (f) above).

(4) Design, Diversity and Desirability. The location of all improvements shall be orientated by the applicant, to the extent the applicant determines possible, in a manner which allows for the preserving of the greatest number of trees and in doing so is encouraged to acquire rights-of-way in such a manner. Applicants are also encouraged to preserve trees to meet the landscape and streetscape standards. Also as the particular site conditions warrant, the applicant shall preserve a diversity of species.

**(a) (p)** **Tree Canopy Investment Fund.**

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

(1) Fund Established. The director of finance is hereby directed to establish a dedicated account to be entitled Tree Canopy Investment Fund.

(2) Tree Canopy Investment Fund Fees.

(i) A fee of fifteen dollars (\$15.00) per lot shall be assessed for each residentially platted lot or for each residential building permit issued.

(ii) A fee of twenty-five dollars (\$25.00) per acre or portion thereof shall be assessed for each commercially platted lot or a fee of twenty-five dollars (\$25.00) per acre for each lot for which a commercial building permit is issued by the development services department.

(iii) Fees collected pursuant to the Tree Canopy Investment Fund shall be assessed at the time a tree permit is issued and recorded in the fund created pursuant to this section, unless expressly prohibited by law.

(3) Use of Funds. The funds collected shall be utilized to pay for the planting and maintenance of trees including the yearly digital imagery to proactively enhance the city's tree canopy area. In addition, 10 % of the funds collected will be kept in a separate budget line to be used for any litigation necessary in the enforcement of this section. The program is to be administered by the parks & recreation development services department ~~designated department~~. The director of the parks & recreation ~~designated~~ department and the city forester shall advise on the selection of projects to be funded.

(4) Funds to Be Kept Separate. The balance within the fund shall be recorded and accounted for in a manner that distinguishes them from other general funds of the city and shall be disbursed in a manner consistent with the purposes for which this fund has been established. The balance of this fund shall not be transferred to the general fund at the end of each budget year, but rather, the balance remaining in the fund at the close of the city's fiscal year shall roll over into the balance for the next fiscal year.

**~~(r)~~(g) Definitions.** Definitions that appear below shall apply only to this section and shall prevail if in conflict with definitions found elsewhere in this chapter.

100 year floodplain. Use of the term 100 year floodplain shall refer to the Regulatory floodplain as defined in Appendices A and F.

Environmentally sensitive areas. Areas that require protection of native landscape, plant life, wildlife or ecological values. Environmentally sensitive areas shall include steep slopes and riparian buffers.

Floodplain. Use of the term floodplain shall refer to the Regulatory floodplain as defined in Appendices A and F.

Minimum Canopy Unit. The smallest tree canopy area in square feet that can be designated on a tree preservation plan to receive preservation credit.

Riparian Buffer. Vegetated areas, including buffer strips, adjacent to the regulatory floodplain that help to shade and partially protect a stream, creek or tributary from the impact of adjacent land uses. Riparian buffers are measured as follows:

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

- 1) A 60 foot wide tree and understory preserve area parallel to the 100-year floodplain in the Edwards Aquifer Recharge Zone or Contributing Zone.
- 2) A 30 foot wide tree and understory preserve area parallel to the 100-year floodplain outside of the Edwards Aquifer Recharge Zone or Contributing Zone.

Spoil Activities. Disturbances to the earth that include any soil and/or earth material generated from grading and/or clearing a site as well as material in excess from a site subject to development.

Steep slope. A slope exceeding twenty (20) percent or 1 foot vertical for every 5 feet horizontal. **For the purpose and applicability of the ESA, the steep slope area shall exceed a minimum of 0.5 acres.**

Note: TAC recommends a minimum area to be considered a steep slope to avoid confusion. Staff recommends a 0.5 acre area as a minimum.

Tree canopy. The outer limits of a tree's foliage consisting of leaves, branches and stems, that cover the ground when viewed from above. This may also include understory vegetation.

\* \* \* \* \*

### **35 A101. Generally.**

\* \* \* \* \*

**Regulatory ~~100-year~~ floodplain.** The land within the community subject to a one (1) percent or greater chance of flooding in any given year flooding during a 100-year frequency storm event assuming ultimate development has occurred throughout the watershed. For the purposes of this section the ~~The~~ regulatory ~~100-year~~ floodplain is limited to the reach of the stream which is designated as an area of special flood hazard on the currently effective FEMA Flood Insurance Rate Maps (FIRM Panels). NOTE: As the City's floodplain ordinance (Appendix F of the Unified Development Code) is approved by FEMA as a condition of participation in the National Flood Insurance Program (NFIP), the City's regulatory floodplain is considered FEMA's regulatory floodplain. *(note: to be consistent with Appendix F, section 106)*

\* \* \* \* \*

**Tree save area.** An area left undisturbed in its natural condition pursuant to the tree preservation/tree stand delineation option.

\* \* \* \* \*

**Tree stand delineation.** An optional alternative method for the "on-the-ground" tree survey and inventory required for the tree preservation plan using a current aerial photograph (a minimum resolution of six-inch pixels) with an overlay of the development. ~~The area shall have at least one (1) six-inch or greater caliper tree per three hundred twenty five (325) square feet of land and where the branches and leaves form a continuous canopy and shall include areas with a continuous canopy of trees over an area of at least twenty thousand (20,000) square feet, and may be delineated through an aerial photograph. An area of contiguous wooded vegetation shall~~

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

~~include both understory and protected trees.~~ An outline of the tree area(s) and the portion of that area ~~(the tree save areas with the associated understory)~~ that are to be preserved to meet the requirements as per the tree preservation standards in section 35-523.

\* \* \* \* \*

**Woodland.** For use within subsections 35-523(e) ~~(3)~~, an area of contiguous wooded vegetation where trees are at a density of at least one (1) significant or greater caliper tree per three hundred twenty-five (325) square feet of land and where the branches and leaves form a continuous canopy. A woodland shall include areas with a continuous canopy of trees over an area of at least twenty thousand (20,000) square feet and with any dimension being not less than thirty-five (35) feet. A woodland may be delineated through an aerial photograph or a ground survey. A woodland shall include both understory and protected trees.

\* \* \* \* \*

**Woodlands tree save area.** Any area identified to be saved through the use of the tree stand delineation process as an alternative to an "on-the-ground" tree survey and inventory with calculations.

\* \* \* \* \*

### **Sec. 35-B123. Tree Permit--Tree Preservation Plan Option.**

(a) Number of Copies. The applicant shall submit a tree preservation/affidavit application with three (3) sets of tree preservation plans, a survey showing the location of all significant, heritage, or mitigation trees, including clusters, an inventory with calculations, and tree protection notes as provided herein. The applicant shall also provide a Habitat Compliance Form consistent with section 35-B133, as applicable.

(b) Format. The tree survey shall be drawn to scale with sufficient clarity to indicate the location and extent of the work proposed, and show in detail that it conforms to the requirements of this section. The survey shall be submitted on a tree preservation (TP) sheet(s) and shall relate to the civil drawings. A survey that cannot be drawn on a single sheet shall be drawn with appropriate match lines on two (2) or more sheets. A TP survey sheet may also include the tree inventory, calculations, and the tree protection notes at the discretion of the applicant. It shall be the responsibility of the permit holder to maintain a copy of the tree permit, the data and drawings required by this section, and the conditions of approval imposed by the city arborist readily available at the site at all times during which the authorized work is in progress. All tree preservation plans shall be submitted in the form required by the city arborist and shall contain and provide tree protection notes, details and specifications clearly indicating the trees which will remain and the trees which are to be removed.

(c) Contents.

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

- (1) The tree preservation plan contains three (3) components: a tree survey, the tree inventory, and the tree protection notes.
  - A. Multi-family residential, commercial and other development:
    1. The Tree Survey. The tree survey shall, at a minimum, provide the following:
      - i. A vicinity map, project name, street address (or plat #, parcel #, or legal description), date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan;
      - ii. The location, species and size in diameter inches of each significant, heritage, (see subsection 35-523(d)) or mitigation trees, and any cluster or natural areas used to meet the requirements within the project area. Each tree is to be given a unique number which cross references or identifies the trees in the inventory. Warranty trees are to be clearly labeled on plan and inventory.
      - iii. The location of property lines, existing site grades and proposed site grades, location and width of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project;
      - iv. Approximate centerlines of existing watercourses and the location of the 100-year floodplain; approximate location of significant drainage features and any major topographical features;
      - v. The location and dimensions of all staging areas and/or designated parking areas for the parking and maintenance of all vehicles, trailers, construction equipment, and related items as well as stockpile areas for the storage of construction supplies and materials; and
      - vi. The location of all improvements and their

Grey highlights = notes with TAC's recommendations and [staff's response](#).

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

proximity to significant or heritage trees.

2. The Tree Inventory. A tree inventory shall include:
    - i. The diameter inches of and species of each significant, heritage, (see subsection 35-523(d)) or mitigation trees and optional cluster trees; tree number, species, DBH, location, and disposition of each tree;
    - ii. Reasons for removal of any such trees;
    - iii. Calculations indicating total diameter inches, inches preserved, and percent preservation, with a delineation of significant and heritage trees; and
    - iv. The tree designation (significant or heritage tree) and desirability percentage; and
    - v. The tree planting designation (quantity, size and type) and desirable location.
  3. The Tree Protection Notes. The tree protection notes shall include written information containing acceptable activities on the site and within the root protection zone of each tree, cluster or natural area to be preserved to meet the requirements for this standard, including:
    - i. Details and graphics illustrating the protective measures such as fencing and alternative construction methods; and
    - ii. Specifications denoting the criteria for methods and materials used for tree protection.
- B. Residential:
1. The Tree Survey. For lots located inside the city limits, the developer or property owner must provide a tree survey of the area contained in the front and rear yard setbacks, as established in the lot layout standards of this chapter, of the

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

lots that are to be made ready for construction. For such lots located in a planned unit development, the developer or property owner must provide a tree survey of that portion of the front and rear yards within twenty (20) feet of the front and rear property lines respectively. For lots that are to be made ready for construction located outside the city limits, but in the ETJ and/or a planned unit development, the developer or property owner must provide a tree survey of that portion of the front and rear yards within twenty (20) feet of the front and rear property lines respectively. The tree survey shall, at a minimum, provide the following:

- i. A vicinity map, project name, street address (or plat #, parcel #, or legal description), date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan;
- ii. A current aerial photograph (a minimum resolution of six-inch pixels) with an overlay of the development, an outline of the tree area(s) and the tree area(s) and understory that are to be preserved to meet the requirement standards;
- iii. The location of property lines, existing grades and proposed grades, location and width of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project;
- iv. Approximate centerlines of existing watercourses and the location of the 100-year floodplain; approximate location of significant drainage features and any major topographical features;
- v. The location and dimensions of all staging areas and/or designated parking areas for the parking and maintenance of all vehicles, trailers, construction equipment, and related items as well as stockpile areas for the storage of construction supplies and materials;
- vi. The location of all improvements and their

Grey highlights = notes with TAC's recommendations and staff's response.

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

- proximity to significant or heritage trees; and
  - vii. Location, size, and species of all heritage trees.
2. The Tree Inventory. A tree inventory shall include:
- i. The calculations for the preservation ratio of trees to be preserved; and
  - ii. Reasons for removal of any such trees; and
  - iii. The tree planting designation (quantity, size and type) and desirable location.
3. The Tree Protection Notes. The tree protection notes shall include written information containing acceptable activities on the site and within the root protection zone of each tree, cluster or natural area to be preserved to meet the requirements for this standard, including details and graphics illustrating the protective measures such as alternative construction methods.

\* \* \* \* \*

### **35-B125. Tree Permit--Tree Stand Delineation Plan Option.**

As an alternative option to the tree preservation plan, a tree stand delineation plan may be submitted. The tree tree stand delineation plan ~~that is required with the master development plan~~ shall include at a minimum a current aerial photograph, satellite, photographic, or digital imagery and stored and analyzed by computer generated software such as but not limited to ArcView or AutoCAD with a minimum resolution of six-inch pixels with a scale of one inch equals four hundred feet (1"= 400'), and additional information contained herein.

- (a) Number of Copies. The applicant shall submit a tree preservation/affidavit application with three (3) sets of the tree stand delineation plan.
- (b) Format.
  - (1) A vicinity map, project name, street address (or plat #, parcel #, or legal description), date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan;
  - (2) A tree preservation plan sheet with a current aerial photograph (a

Grey highlights = notes with TAC's recommendations and [staff's response](#).

**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

minimum resolution of six-inch pixels) with an overlay of the development, an outline of the tree area(s) and the tree area(s) and understory that are to be preserved to meet the requirement standards; and

- (3) Any aerial photograph that cannot be plotted on a single sheet shall be plotted with appropriate match lines on two (2) or more sheets. A tree preservation survey sheet may also include the tree area calculations and the tree protection notes at the discretion of the applicant. It is the applicant's responsibility to insure that all parts of the tree preservation plan are transferred to each appropriate person concerned with the development project.

(c) Contents.

- (1) The location of property lines, existing grades and proposed grades, location and widths of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project;
- (2) Basic descriptive information regarding the vegetation type(s) that are within the existing tree area(s) and within those areas that are to be preserved; and
- (3) Tree protection notes, details and specifications that include the written and graphic information of acceptable and non-acceptable activities on the site and within the tree save areas to be preserved to meet the requirements for this standard.

(4) Tree Stand Delineation Plans shall identify all heritage trees and tabulate total diameter inches and shall calculate final ~~post-development tree canopy cover with planted trees~~. The tree planting plans shall include designation (quantity, size and type) and desirable location.

\* \* \* \* \*

**35-C110. Tree Preservation Fees.**

The following fees are established for purposes of issuing permits or taking related actions for purposes of the tree preservation standards. All fees shall be paid prior to issuance or certification of the action taken, and shall be earmarked as provided in section 35-C101, above.

**Basic Fees**

	Residential	Commercial
Tree Permit	\$35.00/Lot \$2,000.00 Maximum	\$75.00/Acre
Affidavit Option 1 No Protected Trees	\$35.00/Lot \$1,000.00 Maximum	\$75.00/Acre \$2,000.00 Maximum
Plan Review Fee	\$100.00	<del>\$100.00</del> \$75.00

Grey highlights = notes with TAC's recommendations and [staff's response](#).  
**Yellow** highlights = changes proposed by TAC or staff after meeting on 2/16/10

Tree Preservation Preliminary Plan Review	\$100.00	Per hour (One (1) hour minimum)
---	----------	---------------------------------

**Miscellaneous Fees**

Note TAC recommends the following changes. Staff is still evaluating the recommendation.

Tree Certification Credit	\$100.00/project & \$1.00/inch (Tree Mitigation Fund)
Tree Mitigation	<del>\$200.00/inch</del> using the 1:1 ratio for <del>\$400.00/inch</del> Significant Trees (Tree Mitigation Fund) <del>\$600.00/inch</del> using the 3:1 ratio for <del>\$300.00/inch</del> Heritage Trees (Tree Mitigation Fund)
Tree Maintenance License	\$165.00/Three Years - Regular License (Four Hours Continuing Education) \$60.00 Temporary License
Commencing Development Without a Tree Permit-- Residential	\$70.00/Lot \$2,000.00 Minimum per Development
Commencing Development Without a Tree Permit-- Commercial	\$150.00/Acre \$2,000.00 Minimum per Development

\* \* \* \* \*

**35-F106 Special Floodplain Definitions**

\* \* \* \* \*

**Regulatory floodplain** is the land within the community subject to a one (1) percent or greater chance of flooding in any given year assuming ultimate development has occurred throughout the watershed. For the purposes of this section the regulatory floodplain is limited to the reach of the stream which is designated as an area of special flood hazard on the currently effective FEMA Flood Insurance Rate Maps (FIRM Panels). NOTE: As the city's floodplain ordinance (this

Grey highlights = notes with TAC's recommendations and [staff's response](#).

Yellow highlights = changes proposed by TAC or staff after meeting on 2/16/10

Appendix F of the Unified Development Code) is approved by FEMA as a condition of participation in the National Flood Insurance Program (NFIP), the city's regulatory floodplain is considered FEMA's regulatory floodplain.