Sec. 41-212. Tree preservation.

(1) **Purpose.** To promote and protect the public health, safety, and general welfare by providing for the regulation of the planting, maintenance, and removal of trees, shrubs, and other plants located on roadways, parks, public areas owned or controlled by the city, and private property; and, to promote tree preservation through site design and by controlling indiscriminate removal of trees; and to contribute to the long-term viability of existing trees through their protection during construction or land disturbing activities; while balancing rights of property owners with the interests of the community. This section is specifically intended to:

(a) Prohibit indiscriminate clear-cutting.

(b) Protect and increase the value of residential and commercial properties within the city.

(c) Maintain and enhance a positive image to attract new residences and business enterprises to the city.

(d) Protect healthy quality trees and promote the natural ecological, environmental and aesthetic qualities of the city.

(2) **Definitions.** For purposes of this section, the following definitions shall apply unless the context clearly indicates or requires a different meaning. Words and terms used in this section, but not defined in this section, shall have the meanings contained in the zoning ordinance or other ordinances of the city.

(a) **Building pad:** The actual base area of a building and an area not to exceed six feet around the foundation necessary for construction and grade transitions.

(b) **Caliper:** The diameter measurement of a tree trunk. Caliper of the trunk shall be measured six inches above the ground for trees up to and including four-inch caliper size, and 12 inches above the ground for larger sizes.

(c) **Clear-cutting:** The removal of ten or more protected trees from a property within a 90-day period.

(d) **Critically alter, critical alteration:** Uprooting or severing the main trunk of a tree, or any act which causes or may reasonably be expected to cause a tree to die. This includes, but is not limited to: damage inflicted upon the root system of a tree by machinery, storage of materials, or the compaction of soil above the root system of a tree; a change in the natural grade above the root system of a tree; an application of herbicidal chemical or the misapplication of beneficial chemicals; excessive pruning; placement of non-permeable pavement over the root system of a tree; or trenching within the primary root zone. Additionally, a tree may be considered critically altered if more than 25 percent of the primary root zone is altered or disturbed at natural grade, or more than 25 percent of the canopy is removed.
(e) **Cut/fill:** Areas where the natural ground level has been excavated (cut) or where fill material has been brought in.

(f) **Diameter at breast height (DBH):** Diameter-at-breast-height is tree trunk diameter measured in inches at a height of 4.5 feet above the ground. If a tree splits into multiple trunks below 4.5 feet, the trunk is measured at its most narrow point beneath the split.

(g) **Determination of exemption:** A determination made by the landscape administrator or his or her designee that no tree permit or tree preservation is required for the site.

(h) **Drip line:** Whichever is greater:

1. A vertical line running through the outermost portion of the canopy of a tree and extending to the ground, or

2. If the tree is damaged or deformed, a circular area with a radius equal to two feet per inch of caliper.

(i) **Erosion hazard setback:** The area along a drainage channel designated as an erosion setback under the city stormwater ordinance.

(j) **Exemption area:** An area which is clearly exempt from all tree replacement and tree protection requirements of this section, as approved by the landscape administrator.

(k) **FEMA 100-year flood plain:** The area designated as being within the 100-year flood plain on the Federal Emergency Management Agency flood insurance rate map (FIRM) as of the effective date of this section. The boundary may be verified and established through field surveys based on elevation. Any changes made by FEMA to the 100-year flood plain boundary after the effective date of this section due to filling of the flood plain, channelization, or other drainage improvements shall not reduce the area in which tree preservation, replacement or protection requirements apply.

(l) **Grubbing:** Excavating or removing a significant part of the root system.

(m) **Landscape administrator:** The person appointed by the city manager to administer city ordinances related to tree preservation, or the person's designated representative.

(n) **Municipal and public domain property:** Property in which title is held in the name of a governmental entity. Examples of this include city buildings, county property, public parks, corps of engineers property, state right-of-way, libraries, fire stations, water tower sites or similar properties.

(o) **Nondisturbance area:** An area in which no development activity or vehicular traffic associated with the construction or development of land occurs.
(p) **NRCS lake tree preservation zone:** The area within an elevation two feet above the emergency spillway elevation of any NRCS lake.

(q) **Owner:** Any person with an interest in land, or a lessee, agent, employee, or other person acting on behalf of the owner.

(r) **Pruning:** The removal of dead, injured or diseased limbs or roots to maintain plant health or the removal of limbs or roots to control or direct vegetative growth.

(s) **Protected tree:** A quality tree with a trunk six inches or greater in caliper at four feet six inches above the ground. The caliper of a multi-trunk protected tree shall be determined by adding the total caliper of the largest trunk to one-half the caliper of each additional trunk.

(t) **Protective fencing:** Chain link fencing, orange vinyl construction fencing or other fencing at least four feet high and supported at a maximum of ten-foot intervals by approved methods sufficient to keep the fence upright and in place. The fencing shall be of a highly visible material.

(u) **Quality tree:** A tree species which typically has significant positive characteristics worthy of preservation, as listed in this section. (See appendix A: section A-2.)

(v) **Root zone, primary:** The area of undisturbed natural soil around a tree defined by a concentric circle with a radius equal to the distance from the trunk to the outermost portion of the drip line. (See appendix A: section A-3.)

(w) **Tree:** Any self-supporting woody plant which will attain a trunk caliper of two inches or more when measured at a point four and one-half feet above ground level and normally an overall height of at least 15 feet with a canopy of at least 15 feet in caliper at maturity. A tree may have one main stem or trunk or several stems or trunks.

(x) **Tree board:** A board appointed by the city council to carry out the duties and responsibilities set forth in this section. The planning and zoning commission shall constitute the tree board unless the city council appoints a separate tree board.

(y) **Tree protection sign:** A sign describing prohibited conduct detrimental to trees and meeting specifications of the city's building official to be posted on the site upon approval of a tree permit.

(z) **Tree survey:** A plan drawing that identifies the location of trees and contains the information set forth in subsection (5)(a) herein. The tree survey shall be prepared by an arborist, a licensed surveyor, a licensed landscape architect, or other qualified person approved by the landscape administrator. For projects of limited scope, the landscape administrator may approve a tree survey prepared by a non-professional if complete and accurate information is provided.
(aa) **Tree topping:** The severe cutting back of limbs to stubs larger than three inches in caliper within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree.

(bb) **Utility company, franchise utility, or public utility:** A company or entity, or agent for a company or entity, that provides a utility service such as the provision of gas, electric, cable, or telephone service within the city.

(3) **Permits.**

(a) **Permit required.** A tree permit shall be obtained from the landscape administrator before critically altering any protected tree, except under any of the following circumstances:

1. The protected tree endangers the public health, welfare or safety and immediate alteration is required.

2. The tree has disrupted a public utility service due to a tornado, storm, flood or other act of God. Critical alteration shall be limited to the portion of the tree reasonably necessary to reestablish or maintain reliable utility service.

3. The tree is located on the property of a licensed plant or tree nursery which has trees planted and growing on the premises for the sale or intended sale to the general public in the ordinary course of the nursery's business.

4. The tree is located on a lot of record on which a single-family or duplex residence legally exists as the primary use, except that areas of such lots within a FEMA one-hundred year flood plain, NRCS lake tree preservation zone, erosion hazard setback zone, or for protected trees 27 inches caliper or greater in size shall not be exempt.

5. The tree is dead, unless the tree was required under a landscape plan or was a required replacement tree under this section.

(b) **Permit types.**

1. Limited purpose tree permit. A limited purpose tree permit shall be approved prior to the critical alteration of one or more trees on any site where the removal of trees is not related to a construction project which requires issuance of a building permit or development permit. This shall include alteration of trees for agricultural purposes. A limited purpose tree permit shall become void 180 days after the issuance date.

2. Construction tree permit.

   a. Prior to any building, paving, grading, or construction of a subdivision or public improvements. An application for a construction tree permit shall be submitted
concurrent with a preliminary/preliminary-final plat, and shall be approved prior to issuance of a development permit. A construction tree permit shall not be required prior to construction of a subdivision or public improvements if an application for a preliminary plat or preliminary-final plat has been filed prior to the effective date of this section.

b. Prior to any building, paving, grading, or construction of a building other than a single-family or duplex residence. An application for a construction tree permit shall be submitted concurrent with a detailed site plan, and shall be approved prior to issuance of a building permit. A construction tree permit shall not be required prior to construction of such a building if an application for a site plan has been filed prior to the effective date of this section.

c. Prior to any building, paving, grading, or construction of a single-family or duplex residence on any lot containing a FEMA 100-year flood plain, NRCS lake tree preservation zone or erosion hazard setback zone. An application for a construction tree permit shall be submitted concurrent with the application for a building permit, and shall be approved prior to issuance of a building permit. A construction tree permit shall not be required prior to construction of a single-family or duplex residence if an application for a building permit has been filed prior to the effective date of this section.

d. Prior to any building, paving, grading, or construction of a single-family or duplex residence on a lot larger than 20,000 square feet but not containing a FEMA 100-year flood plain, NRCS lake tree preservation zone, or erosion hazard setback zone. An application for a construction tree permit shall be submitted concurrent with the application for a building permit, and shall be approved prior to issuance of a building permit. A construction tree permit shall not be required prior to construction of a single-family or duplex residence if an application for a building permit has been filed prior to the effective date of this section.

e. Authorization to critically alter trees on the site shall be limited to those trees identified and approved for critical alteration as shown on documentation submitted for the construction tree permit.

f. A construction tree permit shall be valid for the period of the site plan, development permit, or building permit's validity, or a maximum of two years, whichever is less.

(4) Scope and administration.

(a) Applicability. Provisions of this section shall apply to all new and existing development as stated herein. The following shall be exempt from tree preservation and replacement requirements:
1. Major drainage structures, including detention and retention basins, and including transitional slopes at the maximum slope allowed by the city's stormwater ordinance;

2. Golf courses;

3. Hike/bike trails;

4. Sports fields open for public use, such as soccer, baseball, football and the like;

5. Critical alteration of any protected tree by a utility company in order to maintain appropriate existing utility service; and

6. Construction of utilities or public infrastructure.

(b) **Conflicts with other ordinances.** All applicable provisions of the comprehensive zoning ordinance, subdivision ordinance, stormwater ordinance, building codes and other ordinances, as they exist or as amended, shall apply. The provisions of this chapter are not intended to modify or amend the site plan requirements of the comprehensive zoning ordinance with regard to the placement of building pads, roadways, easements, utilities, pedestrian ways or other buildable areas; such placement in any application shall be left to the sole discretion of the applicant so long as the same conform to the applicable requirements of the comprehensive zoning ordinance. Notwithstanding the foregoing, nothing herein shall confer any vested rights on any property subject to this chapter. Where the provisions of other ordinances conflict with this section, this section shall control.

(c) **Administrative official.** Provisions of this section shall be administered by the landscape administrator or designee.

(5) **Tree preservation permit submittal and review.**

(a) **Submittal requirements.** The landscape administrator shall establish administrative procedures necessary to implement and enforce this section.

1. Required documents. An application for a tree permit shall include:

   a. Completed application form.

   b. Tree survey at same scale as site plan or preliminary plat/preliminary-final plat with building pad, pavement areas, and other construction features which will disturb the land indicated. The tree survey shall include the following information:

        Applicant's name, address, and phone number;
Name and phone number or arborist, licensed surveyor, or landscape architect that prepared the survey;

Location map;

Property lines, with dimensions;

Engineering scale (not larger that one inch equals 200 feet, or the same scale as the site plan);

Location of all right-of-way, and easements (existing and proposed);

Location of all buildings, structures, pools, parking and vehicular maneuvering area, utilities, sidewalks, and other improvements (existing and proposed);

Adjacent land uses, and zoning of adjacent properties;

Creeks, lakes, and other water features (existing and proposed);

Location of FEMA 100-year floodplain, NRCS lake tree preservation zone, or erosion hazard setback easement;

Any proposed nondisturbance area;

Caliper size of all trees six inches or greater.

2. In specific situations, tree survey requirements may be reduced as follows:

   a. **Nondisturbance areas.** The landscape administrator may approve a non-disturbance area to be designated on the tree survey. The nondisturbance area is an area in which no construction will occur. Trees within the nondisturbance area are not required to be individually identified on the tree survey unless they will be used as credits.

   b. **Proposed exemption area.** The landscape administrator may approve a proposed exemption area to be designated on the tree survey. The proposed exemption area corresponds to areas of the site specifically exempted from tree replacement and protection requirements of this section. Trees within the proposed exemption area are not required to be individually identified on the tree survey unless they will be used as credits.

   c. **Aerial photograph.** For property containing large, heavily wooded areas, the landscape administrator may, in lieu of a tree survey, authorize the submittal of an aerial photograph accompanied by a transparent plan of the development at the same scale as the photograph, showing all non-disturbance areas and proposed exemption areas where no trees will be critically altered, provided that a tree
survey of all other areas is submitted to the landscape administrator prior to any grading or construction. The landscape administrator may approve the submission of photographs in phases for a multi-phased project.

d. Affidavit of no protected trees. If a property contains no protected tree species, the applicant may submit an affidavit of no protected trees in lieu of a tree survey. This affidavit shall act in lieu of a tree survey upon a determination by the landscape administrator that no protected trees exist on the site. After the expiration of ten business days after the submittal, the affidavit shall satisfy the requirements of this section unless, within said ten business days, the affidavit is denied by the landscape administrator due to a determination that the property contains protected trees or the trees on the site cannot be affirmatively identified as non-protected trees by the landscape administrator.

3. A tree preservation plan shall be submitted showing major site construction features, existing trees to remain, trees being removed, and replacement trees with type, location, number and size of replacement trees indicated. The tree preservation plan information may be included on the tree survey if all information can be clearly delineated. The tree preservation plan shall include the following information:

   Major site construction features;

   Proposed and existing contours;

   Identification of caliper, species, and location of trees that are to remain;

   Identification of caliper, species, and location of trees to be removed;

   Tree protection measures;

   Letter of intent.

4. Fees. At the time a tree permit application is submitted, an applicant shall pay a fee to the city in the amount specified by city council in a fee schedule. The following shall be exempt from payment of tree permit fees:

   a. City. When critically altering any protected tree not exempt from tree permit requirements, the city is exempt from the tree permit fee, but must obtain a tree permit and comply with all tree replacement and tree protection procedures as listed in this section. Protected trees proposed to be critically altered must be shown on construction plans approved by the landscape administrator.

   b. Damaged or dangerous tree. An applicant is exempt from the tree permit fee if critically altering a damaged or dangerous tree pursuant to subsection (3)(a).

(b) Review of application.
1. **Tree permit applications.** The landscape administrator shall grant a tree permit provided the requirements of this section are met. Limited purpose tree permits shall be approved within three business days after complete permit information is provided by the applicant.

2. **Grievances.** An applicant aggrieved by a decision of the landscape administrator may appeal the decision to the board of adjustment for an interpretation as provided for in section 41-234(2).

3. **Waivers.** An application for a waiver to the terms of the tree preservation section may be made. The application for a waiver shall be reviewed by the tree board, and a recommendation for approval or denial shall be forwarded to the city council. The decision of the city council shall be final. No public hearing shall be required. The tree board and city council shall consider the following factors in determining whether a waiver should be granted:
   
   a. The literal enforcement cannot be accomplished; and
   
   b. The extent to which the application meets other standards of this section; and
   
   c. The positive or negative impact of the proposed project on surrounding properties; and
   
   d. The extent to which the waiver would be mitigated by other proposed or existing landscaping.

4. **Nonsubstantive changes.** The landscape administrator shall be authorized to work with owners, developers, and builders to make nonsubstantive changes, within the scope of this section, to plans, permits and other requirements after approval by staff, city council or the tree board, as appropriate. These changes are intended to provide the greatest reasonable protection toward achieving the purposes of this section.

5. **Posting tree protection sign.** After the tree permit is issued, the permit holder shall post a tree protection sign at each entrance to the property upon which one or more trees is situated, and at any other location designated by the landscape administrator.

(6) **Standards.**

   (a) **Clear cutting.** Clear-cutting is prohibited unless specifically authorized by a limited purpose tree permit or a construction tree permit.

   (b) **New development.**

1. Residential development.
a. Construction of a single-family or duplex residential subdivision in which more than half of the lots are smaller than 20,000 sq. ft.

1) Protected trees located in a FEMA one-hundred year flood plain, NRCS lake tree preservation zone, or erosion hazard setback zone shall be subject to all tree replacement and tree protection requirements of this section.

2) In cases other than (6)(b)1.a.1) above, all protected trees 27 inches in caliper or greater shall be subject to tree replacement and tree protection requirements except where protected trees must be critically altered to:

   a) Install and maintain any utility lines;

   b) Construct public improvements at the minimum required width only;

   c) Construct streets at the minimum required width only;

   d) Construct alleys within the dedicated right-of-way at the minimum required width only;

   e) Provide any required easement up to the minimum width needed to accommodate the required service;

   f) Grade a building pad delineated on construction plans;

   g) Construct any hike/bike trails;

   h) Construct any portions of a golf course, park playing field, or school playing field but not including buildings, additional parking, club houses, or ancillary buildings; or

   i) Achieve cut and fill drainage as designed in master drainage construction plan, including detention or retention ponds. Transitional slopes to the original grade which are less steep than the original grade which are less steep than the maximum allowed slope shall not be exempt.

3) All other areas of the subdivision shall be exempt from tree replacement and tree protection requirements of this section.

2. Construction of a single-family or duplex residential subdivision in which half or more of the lots are 20,000 sq. ft. or larger

   a. Protected trees located in a FEMA one-hundred year flood plain, NRCS lake tree preservation zone, or erosion hazard setback zone shall be subject to all tree replacement and tree protection requirements of this section.
b. In cases other than (6)(b)2.a. above, protected trees shall be exempt from the tree replacement and tree protection requirements of this section in specific areas of the subdivision where protected trees must be critically altered to:

1) Install and maintain any utility lines;

2) Construct public improvements at the minimum required width only;

3) Construct streets at the minimum required width only;

4) Construct alleys within the dedicated right-of-way at the minimum required width only;

5) Provide any required easement up to the minimum width needed to accommodate the required service;

6) Grade a building pad delineated on construction plans;

7) Construct any hike/bike trails;

8) Construct any portions of a golf course, park playing field, or school playing field but not including buildings, additional parking, club houses, or ancillary buildings; or

9) Achieve cut and fill drainage as designed in master drainage construction plan, including detention or retention ponds. Transitional slopes to the original grade which are less steep than the maximum allowed slope shall not be exempt.

3. Construction of a single-family or duplex residence on a single lot smaller than 20,000 square feet.

   a. Protected trees located in a FEMA one-hundred year flood plain, NRCS lake tree preservation zone, or erosion hazard setback zone shall be subject to all tree replacement and tree protection requirements of this section.

   b. In cases other than (6)(b)3.a. above, all protected trees 27 inches in caliper or greater shall be subject to tree replacement and tree protection requirements except where protected trees must be critically altered for a:

      1) Building pad site;

      2) Driveway;

      3) Sidewalk at the minimum required width only;

      4) Patio;
5) Septic tank or lateral lines;

6) Pool and associated deck area;

7) Fences; or

8) Ancillary features normally associated with residential construction.

c. All other areas of the lot shall be exempt from tree protection and tree replacement requirements of this section.

4. Construction of a single-family or duplex residence on a single lot 20,000 square feet or larger.

   a. Protected trees located in a FEMA one-hundred year flood plain, NRCS lake tree preservation zone, or erosion hazard setback zone shall be subject to all tree replacement and tree protection requirements of this section.

   b. In cases other than (6)(b)4.a. above, protected trees shall be exempt from the tree replacement and tree protection requirements of this section in specific areas of the lot where protected trees must be critically altered for:

      Building pad site;

      Driveway;

      Sidewalk at the minimum required width only;

      Patio;

      Septic tank and lateral lines;

      Pool and associated deck area;

      Fence; or

      Ancillary feature normally associated with residential construction.

   c. All other areas of the lot shall be subject to both tree replacement and tree protection requirements, and all other provisions of this section.

5. Multi-family development.

   a. Protected trees located in a FEMA one-hundred year flood plain, NRCS lake tree preservation zone, or erosion hazard setback zone shall be subject to all tree replacement and tree protection requirements of this section.
b. In cases other than (6)(b)5.a. above, protected trees shall be exempt from the tree replacement and tree protection requirements of this section in specific areas of the development where protected trees must be critically altered to:

1) Install and maintain any utility lines;

2) Dedicate public right-of-way;

3) Construct any public or private streets at the minimum required width only;

4) Provide any required easement up to the minimum width needed to accommodate the required service;

5) Construct any fire lanes at the minimum required width only;

6) Construct any sidewalks;

7) Construct swimming pools;

8) Construct required parking;

9) Install a building pad site;

10) Construct any hike/bike trails;

11) Construct any portions of a golf course, park playing field, or school playing field but not including buildings, additional parking, club houses, or ancillary buildings; or

12) Achieve cut and fill drainage as designed in master drainage construction plan, including required detention or retention ponds. Transitional slopes to the original grade which are less steep than the maximum allowed slope shall not be exempt.

c. All other areas of the development shall be subject to both tree replacement and tree protection requirements, and all other provisions of this section.


a. Protected trees located in a FEMA 100-year flood plain, NRCS lake tree preservation zone, or erosion hazard setback zone shall be subject to all tree replacement and tree protection requirements of this section.

b. In cases other than (6)(b)6.a. above, protected trees shall be exempted from the tree replacement and tree protection requirements of this section in specific areas of the development where protected trees must be critically altered to:
1) Install and maintain any utility lines;

2) Dedicate public right-of-way;

3) Construct any public or private streets at the minimum required width only;

4) Provide any required easement up to the minimum width needed to accommodate the required service;

5) Construct any fire lanes at the minimum required width only;

6) Construct any sidewalks at the minimum required width only;

7) Construct swimming pools;

8) Construct required parking at the minimum required width only;

9) Install a building pad site;

10) Construct any hike/bike trails;

11) Construct any portions of a golf course, park playing field, or school playing field, but not including buildings, additional parking, club houses, or ancillary buildings;

12) Achieve cut and fill drainage as designed in master drainage construction plan, including required detention or retention ponds. Transitional slopes to the original grade which are less steep than the maximum allowed slope shall not be exempt.

c. All other areas of the development shall be subject to both tree replacement and tree protection requirements, and all other provisions of this section, except that tree replacement in areas reclaimed from the flood plain and used for nonresidential development shall be limited to one three-inch caliper tree for each protected tree removed.

(c) Existing development.

1. Single-family or duplex residential development.

   a. All protected trees 27 inches in caliper or greater shall be subject to tree preservation requirements regardless of location.

   b. For existing single-family and existing duplex residential development only, tree replacement requirements shall be limited to replanting of one three-inch caliper tree for each 27-inch caliper or greater protected tree removed.
2. Other existing development.

   a. Tree preservation and replacement requirements shall apply, except that additions or redevelopment shall be allowed the same exemptions as for new nonresidential or multi-family development, as applicable.

   (d) **Demolition.** The landscape administrator may issue a limited purpose tree permit to allow critical alteration of a protected tree if such critical alteration is necessary to allow demolition of a structure. The protected tree covered by the permit shall be exempt from the tree replacement and tree protection requirements of this section.

   (e) **Selective thinning.** The landscape administrator may issue a limited purpose tree permit for selective thinning of certain protected trees from a densely forested area. The landscape administrator will, as part of the tree permit review process, determine whether the selective thinning proposed will be performed in a professionally accepted manner that will enhance the likelihood of survival for the remaining trees. If the landscape administrator issues a permit for selective thinning, the protected trees covered by the permit shall be exempt from the tree replacement and tree protection requirements of this section.

   (f) **Diseased trees.** Upon issuance of a limited purpose tree permit, a diseased protected tree may be critically altered to reduce the chances of spreading the disease to adjacent healthy trees. If the landscape administrator issues a limited purpose tree permit for such purpose, the protected trees covered by the permit shall be exempt from the tree replacement and protection requirements of this section.

   (g) **Ground level cuts.** Tree trunks must be cut at ground level where removal of a tree may damage root systems of an adjacent tree. Stump grinding in such situations is allowed with the approval of the landscape administrator.

   (h) **Removal of underbrush.** Removal of underbrush, not including grubbing under drip lines, shall not require a tree permit.

   (i) **Grubbing under drip lines.** The landscape administrator shall issue a limited purpose tree permit allowing the clearing and grubbing of brush located within or under the drip lines of protected trees.

(7) **Tree replacement.**

   (a) Unless specifically exempted, the following tree replacement procedures shall apply to any person who critically alters a protected tree for which a permit is required. Replacement trees shall be in addition to trees required under the landscape section of the zoning ordinance.

   1. The protected tree shall be replaced with a quality tree or trees as approved on the tree preservation plan.
a. Size and number. A sufficient number of trees shall be planted to equal or exceed, in caliper, the caliper of each tree critically altered, measured at four feet six inches above ground level. Each replacement tree shall be a minimum of three inches caliper at six inches above ground level and seven feet in height when planted, or six inches caliper at one foot above ground level, and 15 feet in height when planted, as applicable. The following formula shall be used to calculate the number of trees to be replaced:

**TABLE INSET:**

<table>
<thead>
<tr>
<th>Caliper of Critically Altered Tree</th>
<th>Replacement Ratio (in inches of caliper)</th>
<th>Minimum Caliper of Replacement Tree</th>
<th>Examples</th>
</tr>
</thead>
</table>
| 6"--16"                            | 1:1                                    | 3"                                  | If a 15-inch diameter tree is critically altered, replace with:  
|                                    |                                        |                                     | -five 3" trees, or  
|                                    |                                        |                                     | -four 4" trees, or  
|                                    |                                        |                                     | -three 5" trees, or  
|                                    |                                        |                                     | -three 6" trees |
| >16"                               | 1:2                                    | 6"                                  | If a 22-inch diameter tree is critically altered, replace with:  
|                                    |                                        |                                     | -eight 6" trees, or  
|                                    |                                        |                                     | -five 9" trees, or  
|                                    |                                        |                                     | -four 11" trees |

b. Credits. When any quality tree of 3" or more in caliper is preserved that would otherwise have been exempt, credits toward the total inches of caliper of replacement trees required for the development site will be given as per the following formula. Credits shall not reduce the minimum size of any replacement tree planted.

**TABLE INSET:**

<table>
<thead>
<tr>
<th>Caliper of Preserved Exempt Tree</th>
<th>Credit Against Tree Replacement Requirements</th>
<th>Examples</th>
</tr>
</thead>
</table>
| 3"--16"                          | Equal to caliper of preserved tree           | One protected, exempt, 14-inch tree is preserved; developer receives a replacement credit of 14". If developer has critically altered a 22-inch caliper tree requiring replacement, the total replacement requirement would be reduced by 14 inches, and eight inches total caliper replacement would be required. This could be achieved by:  
|                                  |                                              | -Two 6" caliper trees, or  
|                                  |                                              | -One 8" caliper tree |
| >16"                             | Twice the caliper of preserved tree          | One protected, exempt, 18-inch caliper tree is preserved; developer receives a replacement credit of 36 inches. If developer has critically altered a 30-inch caliper tree requiring replacement, the total replacement requirement would be reduced by 36 inches. |
c. Location. Each replacement tree shall be planted on the same property as the tree that was critically altered. However, if the landscape administrator deems that the replacement tree cannot be planted on the same property in accordance with accepted arborists' standards, the landscape administrator may, as part of the city's reforestation plan, allow the following:

1) Replacement on public property, or

2) Replacement on private property if also approved by the chief building official, or

3) Require payment to the reforestation fund in accordance with subsection (7)(a)3. below.

d. Responsibility to replace trees. The requirement to replace trees shall apply to both the person altering a protected tree and the owner of the property.

e. Replacement of dead trees. A replacement tree planted on the same property as the critically altered tree must be replaced if it dies. This requirement applies to the owner of the property.

2. Scheduling of replacement trees. Replacement trees shall normally be planted within 90 days of critical alteration. If replacement trees cannot be planted within 90 days of critical alteration, the landscape administrator may approve a delay in replacement of up to six months after the date of critical alteration. The applicant shall provide the landscape administrator with an affidavit that all replacement trees will be planted within six months. The landscape administrator may require the applicant to furnish the city a cash deposit or surety bond in the approximate amount of the cost to replace the trees.

3. Reforestation fund. If an applicant cannot replace trees on the same property, and if the landscape administer does not approve replanting on an alternate site, the application shall make a payment into the reforestation fund.

   a. The amount of payment required for each replacement tree shall be calculated based on a schedule published and reviewed annually by the landscape administrator which sets forth the average cost of a quality tree added to the average cost of planting a tree.
b. It shall be the responsibility of the landscape administrator to develop and administer a written plan for the planting, growing, replanting, and appropriate irrigation of trees on all municipal and public domain property. The tree board shall present the plan to the council and, when adopted by the council, the plan shall represent the reforestation plan for the city.

c. Reforestation funds shall be expended only for purchasing, planting, growing and/or irrigating trees as per the city's reforestation plan. Reforestation funds shall not be used for routine maintenance.

d. Funds paid into the reforestation fund shall be spent within three years of payment or shall be returned to the payer.

e. The landscape administrator shall submit periodic reports to the city council of the deposits and disbursements from the reforestation fund.

4. For existing single-family and existing duplex residential development only, tree replacement requirements shall be limited to replanting of one three-inch caliper tree for each 27-inch caliper or larger protected tree removed.

(8) Tree protection. The following procedures shall apply to any protected tree for which a permit is required, unless specifically exempted.

(a) Construction plan requirements. All construction plans shall indicate tree protection measures.

(b) Prohibited activities in primary root zone. The following activities are prohibited within the limits of the primary root zone of any protected tree subject to the requirements of this section.

1. Material storage. No materials intended for use in construction or waste materials shall be placed within the limits of the primary root zone of any protected tree.

2. Equipment cleaning/liquid disposal. No cleaning or other liquids shall be deposited or allowed to flow overland within the limits of the primary root zone of a protected tree. This includes, but is not limited to paint, oil, solvents, asphalt, concrete, mortar or similar materials.

3. Tree attachments. No signs, wires or other attachments, other than those of a protective nature, shall be attached to any protected tree.

4. Construction equipment/vehicular traffic. Unless otherwise approved by the landscape administrator, no vehicular and/or construction equipment traffic or parking shall take place within the limits of the primary root zone of any protected tree other than on existing street pavement. This restriction does not apply to single incident access within the primary root zone for purposes of clearing underbrush, establishing
the building pad and associated lot grading, vehicular traffic necessary for routine utility maintenance, emergency restoration of utility service, or routine mowing operations. No heavy equipment, including but not limited to trucks, tractors, trailers, bulldozers, and bobcat tractors, shall be allowed inside the drip-line of any protected tree on any construction site without the specific approval of the landscape administrator.

5. **Grade changes.** Unless specifically allowed by this section, no grade changes shall be allowed within the limits of the primary root zone of any protected tree unless the landscape administrator and/or the city engineer approves adequate construction methods.

6. **Impervious paving near non-exempt trees.** Unless a health, safety and welfare issue arises due to access and circulation requirements, no paving with asphalt, concrete or other impervious materials may be placed within 75 percent of the limits of the primary root zone of a protected tree except as otherwise allowed in this section.

7. **Impervious paving near exempt, preserved trees.** For any exempt tree that is being preserved:

   a. No paving with asphalt, concrete or other impervious materials may be placed within a five-foot radius of the trunk, and

   b. A total of 400 square feet of area on the primary root zone shall be kept free of impervious materials. This pervious area may be in the shape of a circle, rectangle, or other shape, and shall include and be contiguous with the area within a five-foot radius of the trunk.

   c. **Protective measures required prior to construction.** Prior to construction, the contractor or subcontractor shall construct and maintain, for each protected tree on a construction site, a protective fence and where necessary, bark protection (see appendix A: section A-3). All protective measures shall be in place prior to commencement of any site work and remain in place until all exterior work has been completed.

(d) **Construction methods.**

1. **Boring.** Boring of utilities under protected trees shall be required in those circumstances where it is not possible to trench around the primary root zone of the protected tree. When required, the length of the bore shall be the width of the primary root zone at a minimum and shall be a minimum depth of 48 inches.

2. **Grade change.** The landscape administrator may approve a grade change within the primary root zone of a protected tree as per this section and/or the city engineer.
3. **Trenching.** All trenching shall be designed to avoid trenching across the primary root zone of any protected tree, unless otherwise approved by the landscape administrator. Mechanical trenching within the primary root zone shall not be allowed. Trenching by hand shall not critically alter the root system. The placement of irrigation systems and underground utility lines such as electric, phone, gas, etc., shall be located outside of the primary root zone of protected trees. The minimum required single head supply line for irrigation systems is allowed to extend into the primary root zone perpendicular to the tree trunk and in the manner that has the least possible encroachment into the primary root zone.

4. **Root pruning.** All roots two inches or larger in caliper which are exposed as a result of trenching or other excavation shall be cut off square.

   (9) **Tree planting.**

   (a) In addition to the tree preservation and tree replacement provisions of this section, all applicable tree planting requirements of the landscape section of the city zoning ordinance shall apply.

   (b) Selection and planting of all replacement trees shall comply with section 41-211 of this chapter.

(10) **Enforcement.**

   (a) **Development agreement.** The city shall not approve a development agreement unless it provides that all construction activities shall meet the requirements of this section.

   (b) **Building permit or development permit.**

1. No building permit or development permit shall be issued unless:

   a. A construction tree permit has been approved, or

   b. An affidavit of no protected trees has been submitted and approved, or

   c. A determination of exemption has been made by the landscape administrator or designee.

2. No building permit or development permit shall be issued unless the applicant signs an application or permit request which says that all construction activities shall meet the requirements of this section. The building official shall make available to the applicant:

   a. A copy of the tree preservation ordinance or a condensed summary of the relevant aspects pertaining to the type of permit requested; and

   b. Specifications for tree protection sign(s).
(c) **Acceptance of improvements.** The city may refuse to accept any public improvements until the person pays all penalties for violations of this section; provided, however, that acceptance of public improvements shall be authorized before all trees shall be replaced if, with the landscape administrator's approval, the person furnishes the city with a cash deposit or surety bond in the approximate amount of the cost to replace the tree.

(d) **Certificate of occupancy.** No certificate of occupancy (C.O.) shall be issued until any and all penalties for violations of this section have been paid to the city. No C.O. shall be issued until all required replacement trees have been planted or appropriate payments have been made to the reforestation fund; provided, however, that a C.O. may be granted before all trees have been replaced if, with the landscape administrator's approval, the person furnishes the city with a cash deposit or surety bond in the approximate amount of the cost to replace the tree.

(11) **Violations.**

(a) A person commits an offense if the person critically alters a protected tree not meeting an exception listed in this section without first obtaining a tree permit from the city.

(b) A person commits an offense if the person critically alters a tree in violation of a tree permit.

(c) Any person who violates subsection (11)(a) by critically altering a protected tree without first obtaining a tree permit from the city, or subsection (11)(b) by critically altering a tree in violation of the permit, or subsection (7) by failing to follow the tree replacement procedures, shall be guilty of a misdemeanor and upon conviction shall be fined $100.00 per caliper inch of the tree(s) critically altered, not to exceed $500.00 per incident. The unlawful critical alteration of each protected tree shall be considered a separate incident and each incident shall subject the violator to the maximum penalty set forth herein for each tree.

(d) Any person, firm, corporation, agent or employee thereof who violates any provisions of this section other than those listed in above shall be guilty of a misdemeanor and upon conviction hereof shall be fined not to exceed $500.00 for each incident. The unlawful critical alteration of each protected tree shall be considered a separate incident and each incident subjects the violator to the maximum penalty set forth herein for each tree.

(e) Allegation and evidence of a culpable mental state is not required for the proof of an offense defined by this section.

(Ord. No. 2001-02-013, § 1A, 2-6-01; Ord. No. 2002-08-084, § 1.59, 8-20-02; Ord. No. 2002-08-084, § 1.59, 8-20-02; Ord. No. 2004-09-103, § IV, 9-21-04)

**Note:** Former § 41-115.
Sec. 41-213. Communications antennas, satellite dishes and support structures/towers.

(1) The purpose of this chapter is to establish guidelines for the siting of communications antennas, satellite dishes and support structures/towers.

(2) The intent of this chapter is to:

(a) Encourage the location of towers in nonresidential areas;

(b) Minimize the total number of towers throughout the community;

(c) Encourage the joint use (co-location) of new and existing towers;

(d) Protect the character and integrity of the historic districts; and