

SEC. 26-205 Tree Preservation and Replacement Standards

1. Purpose
 - a. The purpose of this section is to encourage the preservation of desirable trees, woodlands, and natural features. The intent of the preservation of existing tree resources within the community is to:
 - i. Preserve and improve visual landscape character and aesthetics;
 - ii. Promote filtering of air pollutants, oxygen regeneration, ground water recharge, reduce stormwater runoff, improve water quality, stabilize soil, attract wildlife, and prevent erosion;
 - iii. Reduce the effects of urban heat island;
 - iv. Protect tree plantings that provide functional traffic calming benefits; and
 - v. Protect property values.
2. Applicability. Except where specifically exempt in this section, requirements stated herein are applicable to all existing private and public properties, public right-of-way, all vacant and undeveloped land, properties proposed for subdivision, properties applying for conditional use permit, properties applying for site plan review, properties applying for building permits, and all properties to be redeveloped including additions and alterations.
3. Plan Submission Requirements for Tree Preservation
 - a. Tree Preservation Plans (TPP) approved by the Director of Public Services shall be required on all new construction, demolition, excavation, and site redevelopment requiring permits from the Department of Public Services.
 - b. TPP are not required for single-family construction activities when the gross area of an addition to an existing building, accessory structure, parking lot, or outside storage yard is less than one thousand (1000) square feet or increases site coverage by less than ten (10%) percent, whichever is greater.
 - c. TPP submitted to the City for review shall have a scale of 1" = 50' or larger, be on standard size drawing sheets no larger than 36"x 48", and contain the following information:
 - i. Drawing scale & drawing orientation (north arrow).
 - ii. Property lines, easements, right-of-way (including dimensions).
 - iii. Existing and proposed contours at 5 feet intervals or less.
 - iv. Limits of disturbance and clearing limits.
 - v. Location and dimensions of existing and proposed buildings, parking/vehicular use areas, paved surfaces, walls, fences, lights, and other site features.
 - vi. Size and location of existing and proposed public and private utilities.
 - vii. Location, size, and species of existing trees to remain on site.
 - viii. Location, size, and species of existing trees to be removed from site.
 - ix. Layout and details of tree protection measures as identified and required by this section herein (i.e. tree protection fencing, root pruning, tree protection mats, silt fencing).
 - x. Name, address, and phone number of the property owner.
 - xi. Name, address, and phone number of the Professional Landscape Architect or Certified Arborist responsible for the production of drawings.

- d. TPP submitted for all properties except those with a primary existing and future use of individual single-family or two-family residential shall be prepared, signed, and sealed by a Missouri Landscape Architect, Urban Forester, or Certified Arborist.
 - e. TPP submitted for properties with an existing and future use of individual single-family or two-family are not required to be sealed by a Missouri Landscape Architect, Urban Forester, or a Certified Arborist.
4. Protected Tree Classification. The following trees shall be classified as Protected Trees.
- a. Any tree located within public right-of-way or public property (i.e. Parks). Removal of existing trees located in public right-of-way not under City of Crestwood jurisdiction (i.e. MoDOT) may require additional review and approval or other requirements in addition to that required by this section.
 - b. Any tree previously installed, preserved, and/or maintained as part of a submittal process with the City to satisfy landscape code requirements (i.e. buffer plantings, street tree plantings, parking lot landscape, open space tree plantings).
 - c. Any tree located on private property that meets the following conditions:
 - i. DBH of eighteen (18) inches or more, or a circumference measurement of fifty-six (56) inches or more at breast height (4.5 feet above ground).
 - ii. Tree is in fair condition or better. Fair condition is defined as having the following characteristics:
 - 1. The tree exhibits minor signs of pest problems, trunk damage, and decline. No more than thirty percent of the tree canopy exhibits crown decline and dieback.
 - 2. Branching habit indicates poor pruning or damage, which requires moderate corrections. Co-dominant stems may be present.
 - 3. Tree shape and form is in acceptable condition for that species.
 - 4. Tree has limited concerns for its use and function in its site location.
 - iii. Tree Species is not classified as an invasive species as defined by the Missouri Department of Conservation.
 - iv. Tree removal is associated with new construction, demolition, excavation, and site redevelopment requiring permits from the Department of Public Services.
5. Tree Removal and Replacement Standards
- a. Removal of Protected Trees. Protected Trees as stated herein shall not be damaged or removed at any time until the following conditions are satisfied:
 - i. A tree removal permit application has been filed, reviewed, and granted written approval by the Director of Public Services for removal of a protected tree(s) located within public right-of-way or on public property and protected tree(s) installed, preserved, and/or maintained as part of a submittal process with the City to satisfy any code requirements.
 - ii. The permit and/or site plan review application has been filed, reviewed, and granted written approval by the Director of Public Services for any protected tree removal associated with private development and/or construction activities.
 - iii. A Protected Tree may be removed without written approval only if required as an emergency measure to remedy an unsafe condition potentially injurious to

the public, in which case the person or commercial entity shall immediately report the action to the City and be required to replace the tree as required by this Ordinance.

- b. Removal of Tree(s) Prior to Landscape Disturbance / Site Development. Any trees which have been removed from a property within twelve (12) months prior to application for new construction, demolition, excavation, and site redevelopment requiring permits from the Department of Public Services, shall be deemed to have been in good condition unless otherwise previous conditions can be documented, including photo documentation, by the property owner.
- c. Replacement of Protected Trees. Protected Trees proposed for removal shall be replaced as follows:
 - i. Street Trees and Trees Located on Public Right-of-Way shall be replaced at a minimum one to one ratio, or as needed to meet minimum street tree requirements as specified by the ordinance, or as recommended by the Director of Public Services or his/her third-party consultant.
 - ii. Protected Trees located on public or private property which are not classified as street trees shall be replaced at a ratio of three (3) caliper inches of replacement tree for every nine (9) DBH inches of protected tree that is removed. If circumference was used as the measurement method, protected trees shall be replaced at a ratio of three (3) caliper inches of replacement tree for every twenty-eight (28) inches of protected tree circumference at breast height that is removed. Tree replacement may be waived by the Director of Public Services if the owner can verify that the Open Space Tree requirement stipulated in Section 26-200 can be met or exceeded on the property after the removal of the protected tree(s).
 - iii. In instances where insufficient site space or other limiting factors prevents the replanting of required replacement trees, a monetary payment may be made to the City's Tree Fund in-lieu of planting at a rate of \$250 per caliper inch of required tree replacement not planted.
 - iv. Replacement Trees must meet the following minimum criteria:
 - 1. Replacement trees shall be of a similar type and have similar characteristics to the removed Protected Tree.
 - 2. Replacement canopy trees shall be a minimum of two (2) inches or greater in caliper. Replacement ornamental trees shall be a minimum of one and one-half (1.5) inches or greater in caliper.
 - 3. Replacement evergreen trees shall be a minimum six (6) feet installed height and have an intact central leader. An evergreen tree with a six (6) to eight (8) foot installed height shall be equivalent to three caliper inches of replacement tree.
 - 4. Species classified as an invasive species by the Missouri Department of Conservation or the City of Crestwood are not permitted as replacement trees.

5. Replacement tree(s) to be planted on public right-of-way or as a street tree shall be selected from the Acceptable Species within the City of Crestwood Master Tree Species list.
 - d. Protected tree removal and replacement standards provided herein shall not apply to routine maintenance, removal of invasive species, removal of hazardous trees, or removal of protected trees on City-owned property or parkland that the Director of Public Services deems necessary to serving public welfare or benefiting to the community.
6. Tree Protection Standards. Any existing tree identified for preservation on a Tree Preservation Plan submitted and approved by the Director of Public Services shall be protected as indicated on the approved plan and as described herein.
 - a. Tree protection measures identified by a Tree Preservation Plan, or otherwise required as stated herein or by Director of Public Services issued permit, should be in place and fully installed prior to redevelopment or construction of a site.
 - b. Developer(s) of a site shall be responsible for the replacement of protected trees damaged beyond repair if the trees are harmed due to lack of protection or through negligence on the part of the developer/contractor.
 - c. Tree Protection Measures. Measures utilized by developers and their contractors for before and during construction and development of a site shall include the following:
 - i. Tree Protection Fencing. Tree protection fencing shall have a minimum height of four (4) feet and be installed in such a manner that it maintains its rigidity and effectiveness as a barrier. Standard materials used for tree protection fencing shall include plastic mesh construction or chainlink fencing. Other suitable tree protection fencing materials may be used with approval from the Director of Public Services. Tree protection signs shall be provided along the perimeter of the Tree Protection Zone and shall be maintained throughout the duration of construction.
 - ii. Root Pruning: Existing trees to remain on site in which critical root zones may potentially be impacted from grading, excavations, wall or foundation construction, or utility trenching shall be root pruned prior to construction activities. Root pruning shall be performed using either manual or mechanical methods such as chainsaws, vibrating knife, rock saw, narrow trencher or other equipment approved by the Director of Public Services. The use of equipment that tears, rips, or pulls roots is prohibited.
 - iii. Tree Protection Mats: If construction equipment, vehicle, or heavy foot traffic is anticipated and unavoidable within the critical root zone of an existing tree to be saved, tree protection matting should be installed prior to construction activities. Tree Protection matting should be installed over a sufficient layer of mulch or wood chips to assist with the dispersion of heavy loading.
 - iv. Siltation Fencing: Where there is potential for erosion from construction activities, siltation fencing should be installed to prevent erosion and sediment buildup within established tree protection zones. Siltation fencing should be installed outside of the critical rootzone of tree(s) to prevent damage to roots. Siltation fencing shall remain in place for the entirety of construction and shall

not be removed until vegetation on site has established adequately enough to prevent erosion.

- v. Tree Protection Supervisor: A developer and/or their contractor(s) shall provide a designated tree protection supervisor on-site whenever equipment or trucks are placed or are moving near the trees to be protected in order to ensure compliance with all tree protective measures.
 - d. Tree Protection Zone. Tree protection fencing shall be placed at the dripline or limits of the Critical Root Zone, as approved by the Director of Public Services of each tree to be protected within the area of disturbance. The fencing shall be used to create a designated Tree Protection Zone that shall be installed prior to construction of any type commencing and must be maintained for the entirety of construction. The tree protection zone shall comply with the following:
 - i. Construction equipment, vehicles, trailers, excessive foot traffic, and storage of materials must remain outside of the tree protection zone.
 - ii. Erosion control measures shall be installed to prevent siltation or erosion within the tree protection zone.
 - iii. Trenching or excavation is prohibited within the tree protection zone.
 - iv. No grade or earthwork changes are to be made within the tree protection zone.
 - v. Spoils from trenching or other excavations shall not be placed within the tree protection zone.
 - vi. Underground utilities and irrigation lines shall be routed around tree protection zones. Where underground utility and irrigation lines must pass through a tree protection zone, they shall be tunneled or bored.
 - vii. No burn piles or debris pits shall be placed within the tree protection zone.
 - viii. No ashes, garbage, chemicals, or other debris shall be dumped in the tree protection zone.
 - ix. Herbicides used within the tree protection zone must be safe for use around trees.
 - x. Removal of brush or other landscape material if required within the tree protection zone shall be accomplished using hand-operated equipment.
7. City Tree Fund
- a. The City shall maintain an account where compensatory payments for tree replacements and violations, donations, and other tree and urban forestry related proceeds can be deposited. City Tree Fund Money may be used at the discretion of the Director of Parks and Recreation, the Director of Public Services, or his/her designee to plant and maintain trees located within the City of Crestwood public right-of-way and public lands and provide funding for other applicable urban forestry efforts.
8. Damage to Protected Trees. It shall be unlawful for any person or entity to top or mutilate any Protected Tree as classified herein.
- a. "Topping" is defined as the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree.
 - b. "Mutilate" is defined as damaging, cutting, carving, transplanting or removing any tree; attaching any rope, wire, nails, advertising posters or other contrivances to any tree,

allowing any gaseous liquid or solid substance which is harmful to such trees to come in contact with them; or setting fire or permitting any fire to burn when such fire or the heat thereof will injure any portion of any tree.

- c. Trees severely damaged by storms or other causes or certain trees under utility wires or other obstructions where other pruning practices are impractical may be exempted at the determination of the Director of Public Services.

9. Variances.

- a. Any tree preservation plan or tree removal request submitted to and denied by the Director of Public Services may be appealed and a variance request may be made within thirty (30) days of the receipt of a notice of denial.
- b. Appeals and requests for variance shall be sent to the Director of Public Services specifying the grounds for appeal including but not limited to demonstration of undue hardship. The Director of Public Services shall transmit the appeal and variance request to the Planning Commission.
- c. The Planning Commission will review the appeal and provide a decision on the variance request.

10. Violation and Penalties.

- a. Any person who violates any provision of this section or who fails to comply with any notice issued pursuant to the provisions of this section, upon being found guilty of violation, shall be subject to penalties described in Sec.26-030 Enforcement of the Crestwood Development Code.
- b. If, as a result of the violation of any provision contained in this section a Protected Tree is damaged, mutilated, or killed, the cost of repair or replacement shall be the responsibility of the party in violation. The replacement value of Protected Trees shall be determined by the Director of Public Services or his/her third-party consultant using the latest edition of "The Guide for Plant Appraisal", as published by the International society of Arboriculture.
- c. Payments for violations of this section shall be made into the City Tree Fund.