Reader Guide

Amendments

The following are draft amendments that seek to implement the Milwaukie Comprehensive Plan, Climate Action Plan, and Urban Forestry Management Plan related to tree preservation on residential property.

Unless otherwise noted in the document, underlined text is proposed text, and ~~strikethrough~~ text is existing code language proposed for deletion.

Context/Surrounding Code

The chapter, section, and subsection for the proposed code amendments are listed for reference in this document. Line breaks, like the one below, between subsequent amendments indicate that there is intervening text within the section or subsection that is not included in this document.

Please be advised that this document shows only sections of code for which amendments are proposed, along with limited surrounding sections for context. It does not include all sections of the Milwaukie Municipal Code.

Underline/Strikeout Amendments

Title 16 Environment

CHAPTER 16.32 TREE CODE

16.32.005 PURPOSE

The purpose of this chapter is to establish processes and standards that ensure the City maximizes the environmental, economic, health, community, and aesthetic benefits provided by its urban forest. It is the intent of this code to establish, maintain, and increase the quantity and quality of tree cover in residential zones and on land owned or maintained by the City and within rights-of-way, and to ensure our urban forest is healthy, abundant, and climate resilient.

This code is designed to:

1. Foster urban forest growth to achieve 40% canopy coverage by 2040.
2. Maintain trees in a healthy condition through best management practices.
3. Manage the urban forest for a diversity of tree ages and species.
4. Manage street trees appropriately to maximize benefits and minimize hazards and conflicts with infrastructure.
5. Ensure the preservation and planting of priority tree canopy with development and redevelopment of housing in residential zones.
6. Regulate the removal, replanting, and management of trees prior to and following development and redevelopment in residential zones.
7. Implement applicable urban forest goals, policies, objectives, and action items in the Comprehensive Plan, Climate Action Plan, and Urban Forest Management Plan.

16.32.010 DEFINITIONS

The following definitions shall apply for terminology, used in this chapter. If a definition is not listed in this chapter, the definition in Title 19 will apply. Where definitions are not provided in this chapter or Title 19, their normal dictionary meaning will apply:

"Arbor Day/Week" means a day/week designated by the City to celebrate and acknowledge the importance of trees in the urban environment.

"Arboriculture" means the practice and study of the care of trees and other woody plants in the landscape.

"City" means the City of Milwaukie.

"City Engineer" means the city engineer of the City of Milwaukie or designee.

"City Manager" means the city manager or the city manager's authorized representative or designee.

"Council of Tree and Landscape Appraisers (CTLA)" means the publishers of the Guide for Plant Appraisal.

"Crown" means area of the tree above the ground, measured in mass, ~~or~~ volume, or area and including the trunk and branches.

"Cutting" means the felling or removal of a tree, or any procedure that naturally results in the death or substantial destruction of a tree. Cutting does not include normal trimming or pruning but does include topping of trees.

"DBH" means the diameter at breast height.

"Dead tree" means a tree that is dead or has been damaged beyond repair or where not enough live tissue, green leaves, limbs, or branches exist to sustain life.

"Diameter at breast height" means the measurement of mature trees as measured at a height 4.5 feet above the mean ground level at the base of the tree. Trees existing on slopes are measured from the ground level on the lower side of the tree. If a tree splits into multiple trunks below 4.5 feet above ground level, the measurement is taken at its most narrow point below the split.

"Drip line" means the perimeter measured on the ground at the outermost crown by drawing an imaginary vertical line from the circumference of the crown, straight down to the ground below.

"Dying tree" means a tree that is diseased, infested by insects, deteriorating, or rotting, as determined by a professional certified in the appropriate field, and that cannot be saved by reasonable treatment or pruning, or a tree that must be removed to prevent the spread of infestation or disease to other trees.

"Hazardous tree" means a tree or tree part the condition or location of which presents a public safety hazard or an imminent danger of property damage as determined by an ISA Qualified Tree Risk Assessor, and such hazard or danger cannot reasonably be alleviated by treatment or pruning.

"Invasive species" means a tree, shrub, or other woody vegetation that is on the Oregon State Noxious Weed List or listed on the City of Milwaukie Invasive Tree List in the Public Works Standards.

"ISA" means the International Society of Arboriculture.

"ISA Best Management Practices" means the guidelines established by ISA for arboricultural practices for use by arborists, tree workers, and the people who employ their services.

"Major tree pruning" means removal of over 20% of the live crown, or removal of or injury to over 15% of the root system during any 12-month period.

"Master Fee Schedule" is the schedule of City fees and charges adopted by City Council for the services provided by the City.

"Minor tree pruning" means the trimming or removal of less than 20% of any part of the branching structure of a tree in either the crown or trunk, or less than 10% of the root area during a 12-month period.

"NDA" means Neighborhood District Association.

"Noxious weed" means a terrestrial, aquatic, or marine plant designated by the State Weed Board under ORS 569.615.

"Owner" means any person who owns land, or a lessee, agent, employee, or other person acting on behalf of the owner with the owner's written consent.

"Park tree" means a tree, shrub, or other woody vegetation within a City park.

"Person" means any natural person, firm, partnership, association, social or fraternal organization, corporation, estate, trust, receiver, syndicate, branch of government, or any other group or combination acting as a unit ~~means any individual, firm, association, corporation, agency, or organization of any kind~~.

"Planning Director" means the planning director of the City of Milwaukie or designee.

"Public agency" means any public agency or public utility as defined in ORS 757.005, or a drainage district organized under ORS Chapter 547.

"Public tree" means a tree, shrub, or other woody vegetation on land owned or maintained by the City, but does not include a tree, shrub, or other woody vegetation in the right-of-way.

"Public Works Director" means the public works director of the City of Milwaukie or designee.

"Right-of-way" means ~~the area between boundary lines of a public way~~ means an area that allows for the passage of people or goods. Right-of-way includes passageways such as freeways, pedestrian connections, alleys, and all streets. A right-of-way may be dedicated or deeded to the public for public use and under the control of a public agency, or it may be privately owned. A right-of-way that is not dedicated or deeded to the public is usually in a tract or easement.

"Shrub" means any plant with multiple woody stems that does not have a defined crown and does not grow taller than a height of 16 feet.

"Street tree" means a tree, shrub, or other woody vegetation on land within the right-of-way.

"Street Tree List" is the list of tree and shrub species approved by the City for planting within the right-of-way.

"Topping" means a pruning technique that cuts branches and/or the main stem of a tree to reduce its height or width.

"Tree" means any living woody plant characterized by one main stem or trunk and many branches, or a multi-stemmed trunk system with a defined crown, that will obtain a height of at least 16 feet at maturity.

"Tree Board" means the city of Milwaukie Tree Board.

"Tree Canopy" means the aggregate or collective tree crowns.

"Tree Fund" means the Tree Fund as created by this chapter.

"Tree removal" means the cutting or removal of 50% or more of the crown, trunk, or root system of a plant, the uprooting or severing of the main trunk of the tree, or any act that causes, or may reasonably be expected to cause the tree to die as determined by an ISA Certified Arborist.

"Urban forest" means the trees that exist within the City.

"Urban Forester" means the Urban Forester of the City of Milwaukie, or designee.

"Urban Forest Management Plan" is the management plan adopted by City Council for the management of the City's urban forest.

"Utility" is a public utility, business, or organization that supplies energy, gas, heat, steam, water, communications, or other services through or associated with telephone lines, cable service, and other telecommunication technologies, sewage disposal and treatment, and other operations for public service.

16.32.023 INTERFERENCE WITH CITY

No person will prevent, delay, or interfere with the Urban Forester or designee while they are engaged in work activities including, but not limited to inspection of trees subject to the provisions of this chapter, planting, cultivating, mulching, pruning, spraying, or removing any street trees, park trees, or dead, diseased, or infested trees on private land, as authorized in this chapter.

16.32.030 PERMIT AND FEE EXEMPTIONS ON LAND OWNED OR MAINTAINED BY THE CITY AND WITHIN THE PUBLIC RIGHT-OF-WAY

A. Hazardous Tree

If a tree on public properties and rights-of-way is determined to be a hazardous tree by the Urban Forester, the City may issue an emergency removal permit. The removal shall be in accordance with ISA best management practices, and be undertaken with the minimum necessary disturbance to eliminate the imminent danger.

B. Maintenance

A permit for trees on public properties and rights-of-way is not required for regular maintenance or minor tree pruning that does not require removal of over 20% of the crown, tree topping, or disturbance of more than 10% of the root system during any 12-month period.

C. Public Infrastructure Improvements

Any tree on land owned or maintained by the City and requires removal or pruning to accommodate a city public infrastructure improvement project will require a permit and must meet replanting requirements imposed by this chapter. If it is demonstrated that tree planting, establishment, and tree care-related project costs exceed the tree removal fee costs, the permit will not be subject to a removal fee.

D. Private Utility Services and Dwelling Units

If the Urban Forester determines that a tree, shrub, or other woody vegetation proposed for removal on public properties and rights-of-way has an adverse effect on adjacent private utility services or threatens the structural integrity of a dwelling unit that cannot be mitigated by pruning, reasonable alternative construction techniques, or accepted arboricultural practices, the permit will not be subject to a removal fee.

16.32.038 LOW INCOME ASSISTANCE

To the extent that City funds are available, the City Manager may grant a property owner an exemption or a reduction in permit fees, removal fees, replanting fees and/or may provide assistance in removing a dead or diseased tree within ~~in~~ the right of way and residential zones. Eligibility and extent of assistance will be based on a percentage of the property owner's median household income for the Portland-Vancouver-Hillsboro, OR-WA Metropolitan Statistical Area. A schedule of different fee reduction and exemption will be determined by the City Manager.

16.32.040 PENALTY

A person who removes a street tree or public tree without first obtaining the necessary permit from the City, removes a tree in violation of an approved permit, or violates a condition of an approved permit must pay a fine in an amount established in the Master Fee Schedule. Any fine imposed under this section must not be less than the cost of the permit and the associated removal fee for which a permit should have been obtained.

16.32.042 TREE PRESERVATION AND PLANTING IN RESIDENTIAL ZONES

A. Applicability

The tree preservation and planting standards in this subsection apply to the following types of development in residential zones:

1. Land Divisions.

2. Construction of New Residential Dwellings Units.

B. Tree Preservation Standards

Priority tree species are required to be preserved except when their removal is required for construction, demolition, grading, utilities, and other development impacts. Not more than 33 percent of existing priority tree canopy can be removed from a development site unless mitigation is provided according to MMC 16.32.042.D. Priority trees are listed on the City of Milwaukie priority tree list. The following priority trees must be considered for preservation in order of importance. Where there are multiple priority trees at a site, the higher priority trees must be preserved except when their removal is required for construction, demolition, grading, utilities, and other development impacts. Where there are multiple trees of the same priority at a site, the trees with larger crown areas must be preserved except when their removal is required for construction, demolition, grading, utilities, and other development impacts. When the trunk of a tree crosses a property line at ground level it is considered an onsite tree for the purposes of these tree preservation standards. Required yard setbacks may be reduced and building heights may be exceeded the minimum amount needed to preserve priority trees as determined by the Urban Forester:

1. Priority 1 Trees: Climate Resilient Native Trees in good health condition that are within or abutting Natural Resource and Willamette Greenway Overlay Zones.

2. Priority 2 Trees: Climate Resilient Native Trees in good health condition that are not within or abutting Natural Resource and Willamette Greenway Overlay Zones.

3. Priority 3 Trees: Climate Resilient Non-Native Trees in good health condition.

4. Priority 4 Trees: Other Native Trees in good health condition.

5. Priority 5 Trees: Other Native Trees in less than good health condition that are within or abutting Natural Resource and Willamette Greenway Overlay Zones and not hazardous trees.

6. Priority 6 Trees: Other Non-Native, Non-Invasive Trees in good health condition.

C. Tree Canopy Standards

In addition to the preservation of existing trees, at least 40 percent tree canopy is required for a development site unless mitigation is provided according to MMC 16.32.042.D. Public right-of-way is not considered part of the development site for the purposes of these calculations. The following is eligible for credit towards tree canopy requirements when planted or preserved in accordance with City of Milwaukie standards:

1. Seventy-five percent (75%) of the mature crown area of planted onsite trees from the City of Milwaukie tree canopy list or as otherwise approved by the Urban Forester.

2. Fifty percent (50%) of the mature crown area of planted street trees in the public right-of-way directly abutting the development site.

3. The existing or mature crown area of onsite priority trees that are preserved, whichever is greater. In cases where a portion of the crown area of onsite trees extends offsite, the entire crown area is eligible for credit towards the tree canopy requirements. In cases where a portion of the crown area of offsite trees extends onsite, the crown area is not eligible for credit towards the tree canopy requirements.

4. Fifty percent (50%) of the existing crown area of street trees that are preserved in the public right-of-way directly abutting the development site.

When the trunk of a tree crosses a property line at ground level it is considered an onsite tree except when the trunk crosses a public right-of-way line at ground level it is considered a street tree for the purposes of these tree canopy standards.

D. Mitigation Standards

If the Tree Preservation and/or Tree Canopy Standards are not practicable to meet, mitigation fees must be provided to the Tree Fund as follows:

1. The per-inch tree preservation fee in the Master Fee Schedule based on the largest diameter priority tree or trees that if preserved would meet the 33 percent minimum tree canopy preservation standard.

2. The per-square foot tree canopy fee in the Master Fee Schedule based on the square footage of tree canopy that would be required to meet the 40 percent tree canopy standard.

E. Discretionary Review Alternative

1. As an alternative to the mitigation fee payment, an applicant may apply for a Type III variance according to MMC 19.911. The applicant is required to demonstrate that the alternative proposal provides equivalent or greater environmental benefits as preserving or planting the required tree canopy. The Tree Board will review the proposal and provide a recommendation to the Planning Commission. Discretionary alternatives may include but are not limited to:

a. Techniques that minimize hydrological impacts beyond regulatory requirements (e.g. porous pavement, green roofs, infiltration planters/rain gardens, flow through planters, LIDA (low impact development approach) swales, vegetated filter strips, vegetated swales, extended dry basins, and constructed water quality wetlands).

b. Techniques that minimize reliance on fossil fuels and production of greenhouse gases beyond regulatory requirements through the use of energy efficient building technologies, on-site energy production technologies, and green buildings standards (MMC 19.510).

c. Techniques that preserve and enhance wildlife habitat beyond regulatory requirements, including, but not limited to, the use of native plant species in landscape design, removal of invasive plant species, and restoration of native habitat and preservation of habitat through the use of conservation easements or other protective instruments.

d. Techniques that preserve open space for sustainable urban agriculture through the use of conservation easements or other protective instruments at sites that are not compatible with tree canopy preservation or planting.

F. Tree Protection Standards

Trees to be retained must be protected from development impacts according to the standards in this subsection to be eligible for tree preservation and tree canopy credit. A tree protection plan by an ISA certified arborist that demonstrates adequate protection of the trees to be preserved as determined by the Urban Forester or designee is required. Tree protection methods and specifications must be consistent with ISA best management practices using either the following prescriptive path or performance path tree protection methods:

1. Prescriptive Path for Tree Protection.

a. Establish a root protection zone:

(1) For onsite trees and offsite trees with root protection zones that extend into the site - a minimum of 1 foot radius (measured horizontally away from the center of the tree trunk) for each inch of trunk diameter at breast height. Root protection zones for offsite trees may be estimated.

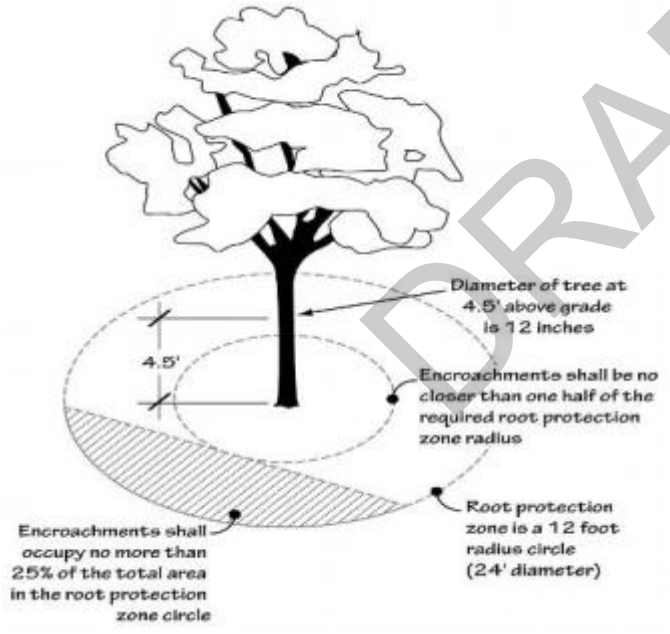
(2) For street trees – the Urban Forester may prescribe greater or lesser protection than required for onsite and offsite trees.

(3) Existing encroachments into the root protection zone, including structures, paved surfaces and utilities, may remain. New encroachments into the root protection zone are allowed provided:

(a) the area of all new encroachments is less than 25 percent of the remaining root protection zone area when existing encroachments are subtracted; and

(b) no new encroachment is closer than 1/2 the required radius distance (see Figure 16.32.042.F);

Figure 16.32.042.F - Permissible RPZ Encroachments



b. Protection fencing:

(1) Protection fencing consisting of a minimum 4-foot high metal chain link or no-climb horse fence, secured with 6-foot metal posts must be established at the edge of the root protection zone and permissible encroachment area on the development site. Existing structures and/or existing secured fencing at least 3.5 feet tall can serve as the required protective fencing.

(2) When a root protection zone extends beyond the development site, protection fencing is not required to extend beyond the development site. Existing structures and/or existing secured fencing at least 3.5 feet tall can serve as the required protective fencing.

c. Signage designating the protection zone and penalties for violations must be secured in a prominent location on each protection fence.

d. Installation of landscaping is not an encroachment. Any in-ground irrigation systems are considered encroachments.

e. The following is prohibited within the root protection zone of each tree: ground disturbance or construction activity including vehicle or equipment access (but excluding access on existing streets or driveways), storage of equipment or materials including soil, temporary or permanent stockpiling, proposed buildings, impervious surfaces, underground utilities, excavation or fill, trenching or other work activities.

f. The fence is required to be installed before any ground disturbing activities including clearing and grading, or construction starts; and will remain in place until final inspection.

2. Performance Path for Tree Protection.

When the prescriptive path is not practicable, the applicant may propose alternative measures to modify the prescriptive root protection zone, provided the following standards are met:

a. The alternative root protection zone is prepared by an ISA certified arborist who has examined the specific tree's size, location, and extent of root cover, evaluated the tree's tolerance to construction impact based on its species and health, and identified any past impacts that have occurred within the root zone.

b. The arborist has prepared a plan providing the rationale used to demonstrate that the alternate method provides an adequate level of protection based on the findings from the site visit.

c. The protection zone is marked with signage, stating that penalties will apply for violations, and providing contact information for the arborist.

d. If the alternative tree protection method involves alternative construction techniques, an explanation of the techniques and materials used must be provided by the arborist.

G. Soil Volume Standards

Trees to be planted must be provided access to at least 1,000 cubic feet of soil volume according to the standards in this subsection to be eligible for tree canopy credit. A soil volume plan by an ISA certified arborist is required that demonstrates 1,000 cubic feet of soil volume is available per tree as determined by the Urban Forester or designee. Soil volume methods and specifications must be consistent with ISA best management practices using either the prescriptive path or performance path soil volume methods. The project arborist must verify the soil volume plan was successfully implemented prior to tree planting.

1. Prescriptive Path for Soil Volume.

a. If the existing soils at the site and abutting sites are determined by the project arborist or Urban Forester to be adequate to support healthy tree growth to maturity based on factors including but not limited to compaction levels, drainage, fertility, pH, and potential contaminants, the existing soils may be used to meet the soil volume requirements.

b. The assumed soil depth will be three feet unless otherwise determined by the project arborist or Urban Forester.

c. A soil volume area of at least 333 square feet must be accessible to each tree when the assumed soil volume depth is three feet.

d. The soil volume areas must be contiguous and within a 50-foot radius of the tree to be planted. Contiguous soil volumes must be at least three feet wide for the entire area.

e. Trees may share the same soil volume area provided that all spacing requirements are met.

f. Soil volume areas must be protected from construction impacts through any combination of the following methods:

(1) Protection fencing:

(a) Fencing consisting of a minimum 4-foot high metal chain link or no-climb horse fence, secured with 6-foot metal posts established at the edge of the soil volume area on the development site. Existing secured fencing at least 3.5 feet tall can serve as the required protective fencing.

(b) When a soil volume area extends beyond the development site, protection fencing is not required to extend beyond the development site. Existing secured fencing at least 3.5 feet tall can serve as the required protective fencing.

(c) Signage designating the protection zone and penalties for violations must be secured in a prominent location on each protection fence.

(2) Compaction prevention options for encroachment into soil volume areas:

(a) Steel plates placed over the soil volume area.

(b) A 12-inch layer of coa rse wood chips over geotextile fabric continuously maintained over the soil volume area.

(c) A 6-inch layer of crushed gravel over geotextile fabric continuously maintained over the soil volume area.

g. Soil contaminants are prohibited from the soil volume areas.

2. Performance Path for Soil Volume.

a. If the existing soils at the site and abutting sites are determined to be inadequate to support healthy tree growth to maturity based on factors such as compaction levels, drainage, fertility, pH, and potential contaminants prior to or resulting from development, a performance path soil volume plan is required.

b. Soils in areas of construction access that do not receive compaction prevention treatment and soils in areas of grading, paving, and construction are considered inadequate for tree growth unless a performance path soil volume plan is provided.

c. The performance path soil volume plan is required to demonstrate the methods that will be used to provide at least 1,000 cubic feet of soil volume with the capacity to support healthy growth to maturity per tree to be planted.

d. The soil volume areas must be contiguous and within a 50-foot radius of the tree to be planted. Contiguous soil volumes must be at least three feet wide for the entire area.

e. Trees may share the same soil volume area provided that all spacing requirements are met.

f. The following items may be addressed in performance path soil volume plans but are dependent on specific site conditions and should be verified on a project basis in coordination with other professionals such as civil and geotechnical engineers, landscape architects, and soil scientists as needed:

(1) Compaction Reduction
- (a) tilling
- (b) backhoe turning
- (c) subsoiling

(2) Soil Amendments
- (a) organic amendments
- (b) mineral amendments
- (c) biological amendments
- (d) chemical amendments

(3) Topsoil Replacement (when soil contamination or soil removal occurs)

(4) Soil Under Pavement
- (a) structural soil cells
- (b) structural tree soils
- (c) soil vaults
- (d) soils under suspended pavement

H. Submittal Requirements

An ISA certified arborist that is also tree risk assessment qualified (TRAQ) must demonstrate compliance with the applicable provisions of MMC 16.32.042.B through H. Other professionals such as engineers, landscape architects, soil scientists, and surveyors may assist the project arborist as needed in preparing the required information, but the arborist must organize, review, and approve the final product. The minimum submittal requirements include an inventory of existing trees, tree preservation plan, tree canopy plan, and arborist report with the following elements:

1. Tree Inventory Requirements

a. Survey the locations of all trees at least 6-inch DBH, and trees less than 6-inch DBH as specified on the City of Milwaukie rare or threatened tree list. Trees that must be surveyed include those that are onsite, within abutting public rights-of-way, and on abutting sites with root protection zones that extend into the site. The locations and information for trees on abutting sites may be estimated.

b. Number each tree for identification at the site and on the plans.

c. Identify the common name and scientific name of each tree.

d. Measure the DBH of each tree in inches according to accepted ISA standards.

e. Measure the approximate average crown radius of each tree in feet.

f. Provide the crown area of each tree using the formula: $(\text{crown radius})^2 \times \pi$.

g. Assess the health condition of each tree using the following categories:

(1) Good (no significant health issues)
(2) Fair (moderate health issues but likely viable for the foreseeable future)
(3) Poor (significant health issues and likely in decline)
(4) Very Poor or Dead (in severe decline or dead)

h. Identify whether the tree is a priority tree and list the applicable priority tree number as described in MMC 16.32.042.B and the City of Milwaukie priority tree list.

i. Identify whether the tree will be removed or retained.

j. Organize the tree inventory information in a table or other approved format.

2. Tree Preservation Plan Requirements

a. Provide a site plan drawn to scale.

b. Include the existing tree locations and corresponding tree numbers from the tree inventory.

c. Identify priority trees and list the applicable priority tree number as described in MMC 16.32.042.B and the City of Milwaukie priority tree list.

d. Identify the following site disturbances:

(1) demolition
(2) tree removal
(3) staging, storage, and construction access
(4) grading and filling
(5) paving
(6) construction of structures, foundations, and walls
(7) utility construction
(8) trenching and boring
(9) excavation
(10) any other demolition or construction activities that could result in ground disturbances and/or tree damage

e. Locate tree and soil protection fencing to scale.

f. Locate soil compaction prevention methods to scale.

g. Identify performance path tree protection and soil volume areas.

h. Include tree and soil volume protection specifications from the arborist report on the plans including a detail of tree and soil volume protection fencing and signage.

i. The elements of the tree preservation plan may be included on multiple plan sheets for clarity.

j. The final approved set of construction drawings must include the tree preservation plan to ensure contractors, inspectors, and other professionals have access to the information.

3. Tree Canopy Plan

a. Provide a site plan drawn to scale.

b. Include the existing trees to be retained and their crown areas to scale.

c. Include the trees to be planted and their mature crown areas to scale based on the City of Milwaukie tree canopy list.

d. Identify the soil volume areas for each tree to be planted to scale.

e. For performance path soil volume areas, identify the methods and specifications as applicable for:

(1) Compaction Reduction;
(2) Soil Amendments;
(3) Topsoil Replacement; and/or
(4) Soil Under Pavement

f. Include a tree planting detail that is consistent with ISA best management practices.

g. The minimum size of planted trees is 1.5-inch caliper for broadleaf trees and 5-foot tall for conifers unless otherwise approved by the Urban Forester. Nursery stock must be in good health with the size and quality consistent with ISA best management practices and ANSI Z60.1 standards.

h. The minimum spacing and setback requirements in Table 16.32.042.H must be met based on the mature size class of the tree from the City of Milwaukie tree canopy list unless otherwise approved by the Urban Forester:

Table 16.32.042.H

Spacing/Setback	Small Stature	Medium Stature	Large Stature
between existing and new trees	15 feet	25 feet	35 feet
from habitable buildings	10 feet	15 feet	20 feet
from pavement	2 feet	3 feet	4 feet

i. Root barriers must be installed according to the manufacturer's specifications when a tree is planted within 5 feet of pavement or an underground utility box unless otherwise approved by the Urban Forester.

j. Where there are overhead high voltage utility lines, the tree species selected must be of a type which, at full maturity, will not require pruning to avoid interference with the lines.

k. Where there is existing mature tree canopy or other areas with significant shade, the species selected must be capable of growing as an understory tree according to available scientific literature. However, understory trees can only be planted when the planting of non-understory trees is precluded due to site constraints.

l. The elements of the tree canopy plan may be included on multiple plan sheets for clarity.

m. The final approved set of construction drawings must include the tree canopy plan to ensure contractors, inspectors, and other professionals have access to the information.

4. Arborist Report

a. Provide a written narrative that summarizes the information from the tree inventory, tree preservation plan, and tree canopy plan.

b. Provide findings and calculations that demonstrate whether the priority tree preservation standards in MMC 16.32.042.B have been met.

c. Provide findings and calculations that demonstrate whether the tree canopy standards in MMC 16.32.042.C have been met.

d. If the tree preservation and/or tree canopy standards have not been met, provide calculations for the applicable tree mitigation fees as required by MMC 16.32.042.D.

e. If a discretionary review alternative is proposed in place of providing mitigation fees, provide findings that demonstrate the alternative proposal provides equivalent or greater environmental benefits as preserving or planting the required tree canopy consistent as required by MMC 16.32.042.E.

f. Provide findings that demonstrate compliance with the tree protection standards in MMC 16.32.042.F.

g. Provide findings that demonstrate compliance with the soil volume standards in MMC 16.32.042.G.

I. Non-Development Tree Permit Requirements

1. Applicability: A permit is required prior to the removal of the following trees in residential zones on property that is outside the right-of-way and not owned or maintained by the City:

a. Trees that are at least 6-inch DBH.

b. Trees that are less than 6-inch DBH as specified on the City of Milwaukie rare or threatened tree list.

c. Trees that were planted to meet any requirements in MMC 16.32.042.

Permits are not required in residential zones when tree removal is approved with development listed in MMC 16.32.042.A. Permits are also not required in residential zones for the removal of trees that were grown commercially for agricultural or horticultural purposes including fruit trees, nut trees, or holiday trees.

2. Type 1 Tree Removal Permit: The following review criteria and approval standards will be applied to type 1 tree removal permits by the Urban Forester:

a. Review Criteria: The City will not issue a type 1 permit for the removal of a healthy, functioning tree without a demonstration by the applicant that extraordinary circumstances exist. Maintenance or the replacement of pavement, removal of tree litter, or other minor inconveniences do not constitute extraordinary circumstances. Decisions regarding removal of healthy, functioning trees are fact-specific and are made on a case-by-case basis by the Urban Forester. In determining whether extraordinary circumstances exist that warrant the major pruning or removal of a healthy tree, the Urban Forester will consider:

(1) Whether the species of tree is appropriate for its location;

(2) Whether the species of tree is an invasive species;

(3) Whether the crown, stem, or root growth has developed in a manner that would prevent continued healthy growth or is negatively impacting other trees;

(4) Whether maintenance of the tree creates an unreasonable burden for the property owner; and

(5) Whether the removal will have a negative impact on neighborhood character and any adopted historic or other applicable design guidelines.

b. Approval Standards: A type 1 permit will be issued only if the following criteria are met as determined by the Urban Forester:

(1) The proposed tree removal will be performed according to current ISA Best Management Practices and an ISA Certified Arborist will be on site for the duration of the tree work.

(2) The tree proposed for removal meets one or more of the following criteria:

(a) The tree is dead or dying and cannot be saved as determined by an ISA Certified Arborist in accordance with ISA standards.

(b) The tree is having an adverse effect on adjacent infrastructure or buildings that cannot be mitigated by pruning, reasonable alternative construction techniques, or accepted arboricultural practices.

(c) The tree has sustained physical damage that will cause it to die or enter an advanced state of decline. The City may require additional documentation from an ISA Certified Arborist to demonstrate that this criterion is met.

(d) The tree poses an unreasonable risk to the occupants of the property, the adjacent property, or the general public, as determined by an ISA Certified Arborist in accordance with current ISA Tree Risk Assessment standards.

(e) The tree is on the Oregon State Noxious Weed List.

(f) The tree is part of a stormwater management system and has grown too large to remain an effective part of the system.

(g) The tree location conflicts with areas of public street widening, construction or extension as shown in the Transportation System Plan and there is no practicable alternative to removing the tree.

(h) Tree removal is required for the purposes of a building or land use permit, utility or infrastructure installation or utility or infrastructure repair and there is no practicable alternative to removing the tree.

(i) The tree is recommended for removal by a designated fire marshal for Clackamas County because it presents a significant fire risk to habitable structures or limits emergency access for rescue workers, and the risk or access issue cannot be abated through pruning or other means that results in tree retention.

(j) An ISA certified arborist determines that thinning of interior trees within a stand of trees is necessary for overall stand health, the thinning will

result in no less than 80 percent canopy cover at maturity for the area to be thinned, and that thinning of non-native trees is maximized prior to thinning of native trees.

(3) Unless removed for thinning purposes (criterion j) the Urban Forester will condition the removal of each tree upon the planting of a replacement tree as follows:

(a) The minimum size of replacement trees is 1.5-inch caliper for broadleaf trees and 5-foot tall for conifers unless otherwise approved by the Urban Forester. Nursery stock must be in good health with the size and quality consistent with ISA best management practices and ANSI Z60.1 standards.

(b) Replacement trees must be planted in a manner consistent with ISA best management practices.

(c) The replacement tree must substantively replace the function and values of the tree that was removed wherever practicable. For example, a long-lived evergreen native tree that abuts a Natural Resources Overlay Zone must be replaced with a long-lived evergreen native tree that abuts a Natural Resources Overlay Zone.

(d) If planting a replacement tree is not practicable, the Urban Forester may allow a tree replacement fee in lieu according to the Master Fee Schedule based on the cost of planting and maintaining a replacement tree for three years.

3. Type 2 Tree Removal Permit: A type 2 tree removal permit may be approved by majority vote of the Tree Board if the type 1 tree removal approval standards cannot be met. The type 2 process is more discretionary than the type 1 process and may consider a range of options in approving, approving with conditions, or denying a tree removal permit application. Type 2 tree removal permit considerations may include but are not limited to:

a. Solar access for urban agriculture and renewable energy systems;
b. Landscape redesign;
c. Quality of tree species, condition, and location;
d. Contribution to the environment;
e. Contribution to the community;
f. Aesthetics;
g. Mitigation proposals such as tree replacement, restoration or preservation of wildlife habitat, and wood repurposing.

4. Ongoing Maintenance: Trees that require a permit to remove or replace must be maintained according to ISA best management practices. Management requirements include but are not limited to:

a. Proper pruning of branches and roots;
b. Protection from damage from construction, vehicle parking, storage, waste, and contaminants;
c. Watering for early tree establishment;
d. Removal of vines and other vegetation growth that could result in tree death, smothering, or structural damage; and

e. Replacement of trees that die.

J. Enforcement

1. City Authority: The City has the ultimate authority to:

a. Interpret the provisions of MMC 16.32.042 and determine whether code criteria have been met.

b. Establish conditions of permit and land use approval to ensure MMC 16.32.042 is properly implemented.

c. Create rules and procedures as needed to implement MMC 16.32.042. Rules and procedures may include but are not limited to:

(1) Priority tree lists.
(2) Tree protection standards, specifications, and procedures.
(3) Tree planting standards, specifications, and procedures.
(4) Tree establishment and maintenance standards, specifications, and procedures.
(5) Performance bonding, letters of credit, and cash assurances to help ensure proper tree protection, planting, and establishment.
(6) Tree protection inspections and oversight.
(7) Soil protection inspections and oversight.
(8) Performance path tree protection standards and specifications.
(9) Performance path soil volume standards and specifications.
(10) Fees for permit applications, reviews, mitigation, inspections, and violations.

2. Penalties: The following penalties apply to violations of the provisions of 16.32.042:

a. Illegal tree removal:

(1) Not less than the amount established in the Master Fee Schedule and up to the appraised value of the illegally removed tree as determined by an ISA certified arborist plus the arborist's reasonable appraisal fee.

(2) Revocation, suspension, or ineligibility for a building or land use permit for a period of up to 3 years when the tree removal was to potentially facilitate development as determined by the Urban Forester.

(3) Revocation, suspension, or ineligibility for a City business license for a period of up to 3 years for the owner or responsible party.

b. Topping, pruning, or other damage to a tree crown or roots in a manner that is inconsistent with ISA best management practices:

(1) Up to the amount established in the Master Fee Schedule or up to the appraised loss in value of the illegally topped or pruned tree as determined by an ISA certified arborist plus the arborist's reasonable appraisal fee.

(2) Restoration of the tree crown, trunk, or root system as prescribed by an ISA certified arborist and approved by the Urban Forester.

(3) Revocation, suspension, or ineligibility for a City business license for a period of up to 3 years for the owner or responsible party.

c. Tree protection zone violations:

(1) Up to the amount established in the Master Fee Schedule.

(2) Restoration of the tree protection zone as prescribed by an ISA certified arborist and approved by the Urban Forester.