

Seattle Permits

Tree Requirements Associated with Development

Updated July 8, 2024

Trees are valuable because they enhance the City's health and beauty. Trees need protection through careful and thoughtful design as development and density increases in Seattle. To address trees during construction, and help maintain Seattle's urban canopy, Seattle Municipal Code (SMC) 25.11 includes tree protection requirements.

The purpose of this Tip is to outline the tree protection requirements for sites undergoing development in Neighborhood Residential, Residential Small Lot, Lowrise, Midrise, Neighborhood Commercial, Commercial, and Seattle Mixed Use zones. It also details the information needed for Seattle Department of Construction and Inspections (SDCI) review of a development permit application when the tree protection requirements apply.

What are the Tree Tiers?

Seattle's tree protection regulations categorize trees into 4 different tier groups – Tier 1, Tier 2, Tier 3, and Tier 4:

Tree Tier	Description		
Tier 1	A heritage tree. A heritage tree is a tree or group of trees as defined in Seattle Municipal Code, Title 15. You can learn more about heritage trees by visiting the City's <u>Heritage Tree Program</u> .		
Tier 2	Any tree that is 24 inches in diameter at standard height (DSH) or greater, tree groves, each tree comprising a tree grove, and trees identified in Table 1 of Director's Rule 7-2023, <u>Designation of Tier 2</u> . <u>Trees</u> .		
Tier 3	Any tree that is 12 inches DSH or greater but less than 24 inches DSH and is not defined as a Tier 1 or Tier 2 tree.		
Tier 4	Any tree that is 6 inches or greater DSH but less than 12 inches DSH and is not defined as a Tier 1 or Tier 2 tree.		





700 5th Avenue, Suite 2000 P.O. Box 34019 Seattle, WA 98124-4019 (206) 684-8600

What are the Tree Protection Regulations on Developing Property?

You should consider the location and canopy spread of the existing trees on your site in the earliest stages of your design and consider ways to protect trees currently contributing to our urban canopy.

Seattle's tree protection regulations include limits on tree removal and may require tree replacement as part of a development permit.

Limits on Tree Removal and Replacement Requirements on Developing Property in Neighborhood Residential, Residential Small Lot, Lowrise, Midrise, Neighborhood Commercial, Commercial, and Seattle Mixed Use zones¹

	Tree Removal Limits	Replacement Required
Tier 1 trees	May not be removed unless hazardous or an emer- gency action.	Yes
Tier 2 trees	May not be removed unless hazardous, an emergency action, or permitted to achieve allowed development capacity per SMC 25.11.070 and 25.11.080.	Yes
Tier 3 trees	May be removed as part of a development permit.	Yes
Tier 4 trees	May be removed as part of a development permit.	No
Off-site trees with canopy or roots overhanging	Must be retained. The responsible owner of the tree may request removal that complies with SMC 25.11 (see Tip 242B).	NA

¹ In all other zones, all trees may be removed on developing property. Tier 1, Tier 2, and Tier 3 trees removed in association with development must be replaced by one or more new trees.

What Tree Information is Required to be Shown in Plan Sets?

The tree protection regulations require specific tree information to be shown on plan view sheets within a plan set. This includes:

- Tier 1, Tier 2, Tier 3, and Tier 4 trees, including off-site Tier 1, Tier 2, Tier 3, and Tier 4 trees with canopies overhanging and/or roots extending onto the lot. The tree location, size (DSH), and species must be shown.
- Tree protection areas for all Tier 1, Tier 2, and Tier 3 trees that will be retained during development are required to be identified on site plans. This includes off-site trees with canopies overhanging and/or roots extending onto the lot.
- Tree protection fencing and signage, when applicable.

If this information is not included in the plan set, your project will receive a correction during review requesting the code-required tree information be shown. Please see **How Can Small Projects Meet the Tree Protection Area Requirements**, below, for more information about meeting these code requirements for small projects. You may also contact SDCI staff via email at <u>sdci-trees@</u> <u>seattle.gov</u> or through SDCI's <u>Submit a Request</u> form if you have questions about how to show the required tree information in plan sets.

What is the Basic Tree Protection Area?

The tree protection regulations include use of development area calculations to determine if Tier 2 trees may be removed on sites undergoing development in Neighborhood Residential and Lowrise zones. The area calculations are based on the square footage of allowable lot coverage (NR/RSL zones), or of the site (LR zones), as it relates to the square footage of the basic tree protection area.

The basic tree protection area consists of the area surrounding the tree in which excavation or other construction-related activity must be avoided, unless approved by the Director. This area is delineated using the "trunk diameter method," or a circle around the tree that is equal to 1 foot radius for every 1 inch of trunk diameter. Once the basic tree protection area is established, it cannot be modified as part of the calculation to determine if a Tier 2 tree may be removed. See our guide "Site Design and Trees" at the end of this Tip to learn more about how to show the basic tree protection area calculations in the plan set when needed to confirm a Tier 2 tree may be removed.

Determining if Tier 2 Trees May be Removed in Neighborhood Residential Zones (NR and RSL)

There are three distinct regulations in SMC subsection <u>25.11.070.A</u> for the purposes of determining whether Tier 2 trees may be removed. These regulations allow analysis of a site in the context of a proposal to determine whether the retention of a tree precludes development on the site. Your project can extend into the required front and rear yards to provide flexibility for where structures may be placed on a site to possibly allow you to develop a lot and preserve a tree. Our analysis of tree removal is based on your proposal. The proposal used in the analysis must be substantially similar to the proposal submitted with permit application.

- A Tier 2 tree may be removed if you cannot achieve the maximum lot coverage permitted in Title 23 due to the size and location of the basic tree protection area. To determine whether maximum lot coverage can be achieved with your proposal, the square footage of the buildable areas of the lot must be compared to the square footage of allowable lot coverage. Generally, in NR zones, the buildable area of your lot is defined by the required yards [front, rear, and side yards]. Your lot coverage calculation must include all buildable areas of the lot that are not part of an environmentally critical area (ECA)¹. The basic tree protection area is not considered buildable area. As part of this calculation, you must (a) include all exceptions and allowances within required yards that contribute to your lot coverage and (b) evaluate whether the permitted extensions into required front and rear yards will recoup that portion of the principal buildable area encumbered by the basic tree protection area before tree removal will be approved. Follow the steps our guide "Site Design and Trees" at the end of this Tip to prepare your lot coverage diagram to determine whether removal of a Tier 2 tree is allowed.
- A Tier 2 tree may be removed if site characteristics and/or land use standards would result in a site design where a resultant portion of a principal dwelling unit, or an accessory dwelling unit, would be less than 15 feet in width because the basic tree protection area would constrain available development area to a footprint of less than 15 feet. You must document that any area less than 15 feet in width must be used for development, not simply that areas of less than 15 feet wide are present on the site.

A Tier 2 tree may be removed if necessary for the construction of new structures, vehicle and pedestrian access, utilities, retaining walls, or other similar improvements associated with development. Tree removal under this scenario will not be authorized if there are viable alternatives to proposed development that would allow retention of the tree including adequate protection of the tree during construction according to <u>SMC 25.11.060</u>.

Determining if Tier 2 Trees May be Removed in Lowrise Zones

For the purposes of determining whether Tier 2 trees may be removed pursuant to SMC subsection <u>25.11.070.B</u>, a basic tree protection area is required for any on-site Tier 2 tree and any off-site Tier 1, Tier 2, and Tier 3 tree with canopies overhanging and/or roots extending onto the development site.

The code allows a development area of 85% in Lowrise zones. As such, a Tier 2 tree in Lowrise zones may be allowed to be removed if the basic tree protection area covers more than 15% of the lot.

Your development area calculation must include all areas of the lot that are not part of an environmentally critical area (ECA)¹. See our guide "Site Design and Trees" at the end of this Tip to learn more about what needs to be shown in the plan set to confirm a Tier 2 tree may be removed in Lowrise zones.

Determining if Tier 2 Trees May be Removed in Midrise, Commercial, Seattle Mixed Zones

In Midrise, Commercial, and Seattle Mixed Zones, the code allows a development area of 100%, therefore, on-site Tier 2 trees in those zones may be removed when development is proposed. No analysis or calculation is required.

What if I Want to Retain a Tree that Can be Permitted for Removal?

Given the benefits of urban trees, you may consider protecting a Tier 2 tree as part of your project despite the code allowance for removal. We encourage you to work with an arborist early in your development process to identify sites that are good candidates for tree retention as part of your site design.

Footnote 1. Lot coverage and development area calculations do not include portions of the lot containing a biodiversity area or corridor, riparian corridor, priority habitat, priority area setback, wetland, wetland buffer, or steep slope erosion hazard area unless an ECA modification, reduction or waiver is granted.

If an applicant chooses to retain one or more Tier 2 trees that would be allowed to be removed due to the basic tree protection area calculation in Lowrise, Midrise, Commercial, or Seattle Mixed zones, specific modifications to development standards may be approved to help locate the proposed development on the site while protecting the tree. Development in those zones subject to design review may use the available design review departures in Title 23. Developers interested in retaining trees can email <u>SDCI-trees@</u> <u>seattle.gov</u> to consult with SDCI arborists for ideas on how best to protect trees during construction.

What are the Tree Protection Area Requirements During Construction?

The basic tree protection area, delineated using the "trunk diameter method" to determine if Tier 2 tree removal is allowed, is likely larger than necessary to protect most trees during development and is not required during construction. Understanding the difference between the basic tree protection area and the tree protection area needed during construction is helpful when determining whether a site is a good candidate for tree retention.

A tree protection area is required for all Tier 1, Tier 2, and Tier 3 trees to be retained during development, including all off-site Tier 1, Tier 2, and Tier 3 trees with canopies overhanging and/or roots extending onto the development site. The tree protection area is an area surrounding a tree defined by a specified distance, in which excavation and other construction-related activities must be avoided, unless approved by the Director. The tree protection area is variable depending on species, age and health of the tree, soil conditions, and proposed construction.

The tree protection area for off-site Tier 1, Tier 2, and Tier 3 trees with canopies overhanging or roots extending onto the lot must include the entire area within the tree's drip line. Existing development that is retained or replaced and temporary reductions per SMC subsection <u>25.11.060.A.4.d</u> are allowed within the tree protection area for off-site Tier 1, Tier 2, and Tier 3 trees.

If the required tree protection area of off-site trees in LR, MR, Commercial, and Seattle Mixed zones is impacting your proposal, specific modifications to development standards may be approved as a Type I decision or Type II design review departures in Title 23 may be available to help locate the proposed development on the site while protecting the tree(s). The tree protection area is required to include fencing, signage, and other safety requirements as required in SDCI's <u>Tree and Vegetation Protection Detail</u> unless modifications have been approved.

How is the Tree Protection Area Determined?

If you choose to retain a Tier 1, Tier 2, or Tier 3 tree or <u>SMC 25.11</u> does not allow for the removal of a tree, a tree protection area that is adequate to protect the tree during construction is required. Required tree protection areas must be shown on all plan view sheets submitted with development permit applications.

In order to determine the tree protection area, SMC subsection <u>25.11.060</u> requires that you first establish a "tree protection radius." In most cases, the tree's drip line can be used as the tree protection radius.

The drip line is defined as "an area encircling the base of a tree, the minimum extent of which is delineated by a vertical line extending from the outer limit of a tree's branch tips down to the ground. The drip line may be irregular in shape to reflect variation in branch outer limits." When there is variation in branch outer limits, the drip line is determined by the average extent of the branch outer limits. Other methods may be used to establish the tree protection radius; however, they must use ANSI A300 standards or their successor and be prepared by a certified arborist using the tree protection evaluation requirements in <u>SMC 25.11.060.C</u>.

The tree protection area is determined by the project arborist using the tree protection radius as a starting point and any proposed reduction or encroachment in SMC subsection <u>25.11.060.A.4</u>, as follows:

- Any new development or construction-related activity may not be closer than one half of the tree protection radius. Existing encroachments closer than one half of the tree protection radius may remain or be replaced if no appreciable damage to the tree will result.
- The area of the outer half of the tree protection radius located on the project site may be reduced up to 35%. Existing similar development within the tree protection area may remain or be replaced if no appreciable damage to the tree will result. Off-site development within the tree protection radius is not included when calculating the 35%.
- The tree protection area may be temporarily reduced or relocated during a specific construction activity that is not likely to cause appreciable damage to the tree. Appropriate mitigation measures must

be implemented per ANSI A300 standards or their successor, and the tree protection area must be returned to its permanent size and location after the specific construction activity is complete. Any temporary movement of the tree protection area must be documented in the plan set. Temporary movement of the tree protection area not shown in the plan set may result in a Notice of Violation.

The arborist report needs to include the rationale for determining the initial tree protection radius and ultimate tree protection area using the evaluation and requirements in <u>SMC 25.11.060.C</u>. (Please see Figure 1, Tree Protection Area.) This approach is not "one size fits all." It is intended to allow the project arborist to propose a tree protection area that is specific to the tree, the site, and the proposed project and its construction impacts. The proposed tree protection area will be confirmed by SDCI arborists based on the requirements in SMC subsection <u>25.11.060</u>. If you have questions about how to determine the tree protection area, you can email <u>SDCI-trees@seattle.gov</u> to consult with SDCI arborists.

How Can Small Projects Meet the Tree Protection Area Requirements?

The tree protection regulations include specific tree protection area requirements (see <u>SMC subsection</u> <u>25.11.060</u>). However, many small projects do not include excavation and/or construction-related activity within close proximity to trees (e.g., single-family residential alterations/additions, foundation repair, development with footprint of existing structures) and will not adversely impact trees and modifications to the standard tree protection area requirements may be approved.

In these cases, the tree protection area requirements can be met by including one or more of the following modified tree protection area methods on plan view sheets:

Clearly note on all plan view sheets a defined "development impact area." The development impact area is the area on the site affected by proposed site improvements, site access, storage/stockpiling of materials, or construction activities such as grading, filling, trenching, or other excavation necessary to install utilities or access. Include the following note on all plan view sheets: Tree Protection/Development Impact Area Requirements: (1) Retention of all trees 6 inches or greater is required. (2) No tree removal or damage is authorized. (3) Excavation and ground disturbance is prohibited outside the development impact area. (4) Construction-related activities, such as site access, heavy equipment use, storage, or stockpiling is prohibited outside the development impact area unless located on existing hard surfaces.



- In lieu of SDCI's standard tree and vegetation protection detail, show the following tree protection measures (select from one or more below):
 - Thick layer of woodchips covering the area that is under the drip line, which is not developed with existing hard surfaces, minimum 6-inch thickness arborist wood chip or coarse woodchip. Where access from equipment is needed either steel plates or heavy-duty ground mats to reduce soil compaction.
 - In cases where root zone is already developed with hard surfaces a plywood box to protect the lower trunk. Flagging of low limbs to avoid contact with equipment.
 - Lighter duty orange fencing where no ground disturbance from equipment is proposed.

What are the Tree Replacement Requirements on Developing Property?

In all zones, you must replace each Tier 1, Tier 2, and Tier 3 tree authorized for removal in association with development. Replacement must include one or more new trees, to result, upon maturity, in a canopy cover that is at least roughly proportional to the canopy cover prior to tree removal. Alternatively, the applicant may elect to make a voluntary payment in lieu of tree replacement on-site. See <u>Director's Rule 8-2023</u>, Payment in lieu of tree replacement pursuant to the Tree Protection Code.

While each tree must be mitigated by either replacement or a payment in lieu, a combination of planting trees on site, planting trees off-site and/or payment in lieu is allowed when more than one tree is removed from a site. Where there is on-site tree replacement in association with development, removal of all invasive vegetation is required. When on-site replacement is proposed, such trees may count toward the Green Factor requirements under <u>SMC 23.86.019</u>. Required street trees do not meet tree replacement requirements.

A list of acceptable replacement trees can be found on the <u>Green Factor Tree List</u>. When off-site replacement is proposed, preference for the location is on public property. Additional information about tree replacement requirements can be found in <u>Director's Rule 12-2023</u>.

You are required to document how your project meets tree replacement requirements in the plan set. The following information is required:

- Tier, size (DSH), genus and species of each tree to be removed
- Genus and species and size at planting of each replacement tree
- Replacement option (on- or off-site)
- If payment in lieu is elected, the calculation of required fee per <u>Director's Rule 8-2023</u>
- Location of on-site replacement trees shown in plan set

When is an Arborist Report Required and What Information is Needed?

SDCI requires an arborist report if you propose a tree protection area smaller than the established tree protection radius for any Tier 1, Tier 2, Tier 3, or Tier 4 tree to be retained during development. If a report is required, it must be completed by a certified arborist on <u>SDCI's Tree Service Provider Registry</u> and include an assessment of any anticipated impacts to the tree/s resulting from the proposed development.

The arborist report must include:

A complete and accurate inventory of all Tier 1, Tier 2, Tier 3, and Tier 4 trees on-site or off-site with canopies overhanging and/or roots extending onto the site

- Accurate identification including common name and scientific name (genus and species)
- Diameter at Standard Height (DSH)
- A scaled drawing that locates all trees in relation to existing site conditions such as buildings, driveways, rockeries, fences, utilities, etc.
- Dripline diameter and dimensioned/scaled representation on a site plan
- General tree health (pre-development condition)
- A tree risk assessment, if the tree or tree health will be impacted by development
- Signature and credentials of the registered Tree Service Provider completing the report
- Pruning plan, if pruning is proposed to accommodate development
- Monitoring plan, if impacts to tree health is anticipated due to proposed development

If needed to evaluate the proposed tree protection area/s and determine the long-term survival and health of trees to be retained during development, SDCI may require that the report include:

- An assessment of the proposed design determining if the proposed disturbance will negatively impact the tree's health. No disturbance is allowed in the inner half of the tree protection area.
- An evaluation of each tree's health, location, and extent of anticipated disturbance to support any proposed encroachment into up to 35 percent of the outer tree protection area.
- Fact-based information for methods to minimize impacts of excavation and other construction-related activities by suggesting design changes and/or alternative construction methods. Specifically, how anticipated impacts could be reduced, minimized, and/or mitigated. Examples include air-excavation, pier and beam construction, slab on-grade, etc.

If the project includes on-site tree replacement, the report must also include:

- Specifications for soil improvement, including decompaction, amendment, and mulching;
- Proposed irrigation and what type of system(s) needed to meet maintenance requirements for 5 years of watering; and

Signature of arborist, verifying that the replacement trees are appropriately sited and specified, and that the replacement trees meet the requirements of <u>25.11.090</u> and associated Director's Rules.

What Information is Needed on the Plan Set?

Site plan drawings in submitted architectural, civil (CSC and DWC), and landscape plan sheets must clearly show and label the information below. Occasionally, projects will need to provide tree related information on architectural elevations and/or structural foundation plans or detail sheets. We will issue a correction notice if there are inconsistencies between your submitted drawing sheets (survey, architectural, civil CSC & DWC, and landscape site plans).

- All Tier 1, Tier 2, Tier 4, and Tier 4 trees on-site or offsite with canopies overhanging and/or roots extending onto site. Be sure to identify those that will be retained during development and those that are proposed for removal. Only on-site trees will be evaluated for removal; off-site trees with canopies overhanging and/ or roots extending onto site will be considered as trees that will be retained during development.
- A table listing common name, genus, species, trunk diameter at standard height (DSH), general health, tier, and whether the trees are proposed for removal or retention.
- Documentation of development capacity calculation per <u>SMC 25.11.070.A</u> or <u>25.11.070.B</u>.
- All areas of over-excavation for proposed construction located within 5 feet of tree protection areas.
- Delineation of tree protection areas for all Tier 1, Tier 2, and Tier 3 trees to be retained during development, including off-site trees with canopies overhanging and/or roots extending onto the site with dimensions from tree trunk or other site features so workers and inspectors can accurately locate tree protection areas in the field. All tree protection areas must be protected with tree protection fencing and include the SDCI approved construction detail: Tree and Vegetation Protection Detail unless modifications are approved.
- Documentation of compliance with the allowed reductions and encroachments per <u>SMC 25.11.060.4</u>, including areas of existing and proposed encroachment and details of any proposed temporary reduction or relocation of tree protection fencing.

- When tree protection is required, a note indicating that "No disturbance is permitted within the fenced area."
- Architectural elevation drawing: If a proposed building would require pruning of a tree branch in the tree protection area, show the tree and the proposed building to demonstrate the percentage of the tree's canopy removed.
- Drainage and Wastewater Control Plan (DWC): Show trees to be retained and tree protection areas.
- Construction Stormwater Control Plan (CSC): Show trees to be retained and tree protection areas. If perimeter protection is required, note that filter fence that requires trenching is not allowed in the tree protection area. It should either be placed outside the tree protection fence or replaced with compost sock, which is a less-invasive erosion control technique.
- Notes and/or instruction from the arborist report for specific construction techniques to minimize or avoid disturbance within the tree protection area.
- Documentation of compliance with tree replacement requirements.

Still Need Help?

The best way to contact our staff is via email at <u>sdci-</u> <u>trees@seattle.gov</u> or through SDCI's Submit a Request form. To help route your request, indicate that you need help with "Permits, codes, zones, plans," then select "Land Use" as the type of help you need, and then select "Trees" in the description field. If necessary, we can set up a virtual meeting to discuss potential or actual projects.

Customers may also contact us at (206) 233-5185 if you have questions and/or need interpretation services (please be prepared to share your preferred language to help us locate the appropriate support).

Clarification of Terms

- Arborist Report: For the purposes of this tip, "arborist report" refers to any document prepared by an arborist including, but not limited to, a tree protection report, tree inventory, tree assessment, or report/plan required by SDCI.
- Dripline: An area encircling the base of a tree, the minimum extent of which is delineated by a vertical line extending from the outer limit of a tree's branch tips down to the ground. The drip line may be irregular in shape to reflect variation in branch outer limits.

- Hazardous tree: Any tree or tree part that poses a high risk of damage to persons or property, and that is designated as such by the Director according to the tree hazard evaluation standards established by the International Society of Arboriculture (ISA).
- Tier 1 tree: A heritage tree. A heritage tree is a tree or group of trees as defined in Title 15. You can learn more about heritage trees by visiting the City's heritage tree program.
- Tier 2 tree: Any tree that is 24 inches in diameter at standard height or greater, tree groves, each tree comprising a tree grove, and specific tree species below 24 inches in diameter at standard height as provided by Director's Rule 7-2023, <u>Designation of</u> <u>Tier 2 Trees</u>.
- Tier 3 tree: Any tree that is 12 inches in diameter at standard height or greater but less than 24 inches in diameter at standard height and is not defined as a Tier 1 or Tier 2 tree.
- **Tier 4 tree:** Any tree that is 6 inches or greater in diameter at standard height but less than 12 inches in diameter at standard height and is not defined as a Tier 1 or Tier 2 tree.
- Tree Service Provider: Any person or entity engaged in commercial tree work.

Resources

For more information on existing regulations, read:

- Tree Protection, Seattle Municipal Code (SMC 25.11) <u>https://library.municode.com/wa/seattle/codes/</u> <u>municipal_code?nodeId=TIT25ENPRHIPR_CH25.11TRPR</u>
- Director's Rule 7-2023, Designation of Tier 2 Trees <u>https://web.seattle.gov/DPD/DirRulesViewer/</u> <u>Rule.aspx?id=7-2023</u>
- Director's Rule 8-2023, Payment in lieu of tree replacement pursuant to the Tree Protection Code <u>https://web.seattle.gov/DPD/DirRulesViewer/</u> <u>Rule.aspx?id=8-2023</u>
- Tip 103, Site Plan Requirements www.seattle.gov/DPD/Publications/CAM/ cam103.pdf
- Tip 103A, Site Plan Guidelines, <u>www.seattle.gov/</u> <u>DPD/Publications/CAM/cam103A.pdf</u>

- Tip 242B, Tree Removal on Private Property www.seattle.gov/DPD/Publications/CAM/ Tip242B.pdf
- Tip 242C, SDCI Tree Service Provider Registry www.seattle.gov/DPD/Publications/CAM/ Tip242C.pdf
- Tip 242D, Tree Public Notice www.seattle.gov/DPD/Publications/CAM/ Tip242D.pdf
- Standard Detail (SDCI): Tree and Vegetation Protection Detail
 www.seattle.gov/Documents/Departments/ SDCI/Codes/TreeDetail.pdf
- Tree service providers: SDCI Tree Service Provider Directory.
 www.seattle.gov/sdci/codes/codes-weenforce-(a-z)/trees-and-codes/tree-serviceprovider-directory
- Tree cutting: Reporting illegal tree cutting. www.seattle.gov/sdci/codes/make%C2%A0aproperty-or-building-complaint

Access to Information

Links to SDCI Tips, Director's Rules, and Seattle Municipal Code are available on our website at www.seattle.gov/sdci.

Site Design and Trees in Neighborhood Residential Zones

1. Determine the maximum lot coverage permitted on the site per Title 23 and subtract any area of environmentally critical areas (ECAs).



3. Combine the principal building area and all exceptions and allowances within required yards that contribute to your proposal's lot coverage. See Tip 220 for additional information for yard requirements and exceptions in Neighborhood Residential zones. This is your buildable area.



- 5. Subtract the basic tree protection area from your proposal's buildable area. If the resulting buildable area is more than the maximum lot coverage, the tree may not be approved for removal. If the resulting buildable area is less than the maximum lot coverage, you must extend into the required front and/or rear yards up to an area up to an area equal to the amount of the basic tree protection area in the buildable area. If that extension results in an area less than the maximum lot coverage, tree removal is allowed. Please note, the maximum yard projection is 50% of the required yard.
- 6. Even if the tree is eligible for removal, consider working with an arborist to determine the actual tree protection needed to protect the Tier 2 tree as well as any other trees retained on the lot. Remember that the actual tree protection needed to protect the tree during development is always smaller than the basic tree protection area, leaving more room to fit your design on the site.

Congratulations! You saved an urban tree and increased our housing stock!

- 2. Draw the required yards to establish the principal building area.

 5' side

 Yard

 20' Front

 Yard

 Principal

 building area
 - **4.** Draw the basic tree protection area (BTPA) for each on-site Tier 2 tree using a 1 foot radius for each 1 inch trunk diameter. Calculate the amount of the buildable area that falls within the basic tree protection area.







page 9

LEGAL DISCLAIMER: This Tip should not be used as a substitute for codes and regulations. The applicant is responsible for compliance with all code and rule requirements, whether or not described in this Tip.

Site Design and Trees in **Lowrise Zones**

1. Prior to site design: Look critically at your site and proposed design in conjunction with an arborist to determine whether the actual tree protection needed to protect the trees during development would allow for tree retention and your proposed development. 20" DSH truhk diameter \bigcirc (off-site Tier 3) 31" DSH tree L 0 2. If tree removal is desired to achieve your proposed design, or you believe your design could work better with the 31' radius circle basic available development standard modifications for retained tree protection area trees, begin your basic tree protection calculation. For all on-site Tier 2 trees, and any off-site Tier 1, Tier 2, or Tier 3 20" DSH trunk trees, delineate the basic tree protection area (e.g. 1 foot diameter \mathfrak{O} (off-site Tier B) 31" DSH tree radius for every 1 inch of trunk diameter). 20' radius circle basic tree protection area 3. Calculate the area of the lot not covered by the basic tree protection. If the area is less than 85% of the total lot area, on-site tree removal is allowed. In this example, the 31' radius circle basic available development area is less than 85% of the lot so tree protection area Exclude narrow the tree is eligible for removal. areas (15' or less) 0 Total lot area: 4,500 sq ft 31' DSH tree 85% allowable development area: 3,825 sq ft 20" DSH trunk

diameter (off-site Tier 3)

- Available development area = 2,800 sq ft
- Areas 15' wide or less Development area
- 4. Even though tree removal is authorized, you may be able to achieve your proposed design by utilizing development standard modifications, such as setback reductions and reduced amenity areas. Remember that the actual tree protection needed to protect the tree during development is always smaller than the basic tree protection area, leaving more room to fit your design on the site.

Congratulations! You saved an urban tree and increased our housing stock!



20' radius circle basic

tree protection area