# Decks, Fences, and Arbors for Single-Family Homes in Seattle 

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This Tip addresses the questions most commonly asked by homeowners wishing to construct decks, fences and arbors. This information applies to single-family homes on neighborhood residential and lowrise multifamily zoned properties.

Decks vary widely in the scope of their construction; you will need to get a permit for some. You generally do not need a permit to build a fence, but you need to follow our regulations. You generally need a permit to build arbors.

## Decks

## What type of permit do I need to build deck?

Most decks on neighborhood residential zoned properties only require a subject-to-field-inspection (STFI) permit. We issue STFI permits over the counter, usually on the day you apply. You can apply online at https://cosaccela. seattle.gov/. For more information about STFI permits, visit our website at www.seattle.gov/sdci/permits/ permits-we-issue-(a-z)/construction-permit---sub-ject-to-field-inspection.
You need a construction permit to build a deck that is more than 18 inches above the ground or that is a roof deck (built on top of part of the building). (Seattle Residential Code R105.2 Item 7). You may need a permit if your building site contains environmentally critical areas (ECAs). For more information about construction permit requirements, visit our website at www.seattle.gov/ sdci/permits/permits-we-issue-(a-z)/construction-permit---addition-or-alteration.

## What information will I need to apply for a deck permit?

For most decks, you will need:

## - A site plan

A scaled site plan that shows all structures on your site, including the proposed deck. Your site plan dimensions must show that your deck meets our land use requirements for location and lot area coverage. (See Tip 103, Site Plan Requirements)

## ■ An elevation drawing

A scaled elevation drawing that shows the height of the proposed deck (height above existing or final grade, whichever is lower), including any guardrails and stairs. Your elevation drawings must offer side views of structures, from the ground to the top of the structure. (See Tip 303, Applicant Responsibilities and Plan Requirements for Single Family and TwoUnit Dwellings)

## ■ Construction notes

Your notes on your drawings should call out the size and type of posts proposed (e.g., pressure treated wood), the method of support for the posts (e.g., poured concrete footings), joist size, span and spacing, and the method of attaching the deck to the house (e.g., with a ledger board and joist hangers). (See Tip 303A, Common Seattle Residential Code Requirements)

- STFI Permit Checklist - Single Family and
Duplex Buildings Duplex Buildings
Please submit a completed STFI Permit Checklist Single Family and Duplex Buildings found at www. seattle.gov/sdci/permits/forms as an attachment to your online permit application.
- Please note that homeowners may do their own drawings. A professional stamp is rarely required on these plans.


## What are the land use requirements for decks?

## - Lot coverage

If your deck is more than 36 inches above the ground, your deck counts toward the percentage of
your property on which you can build (called lot coverage). For most neighborhood residential zoned lots, the total coverage is limited to 35 percent of the lot (on lots 5,000 square feet or larger) or 1,000 square feet plus 15 percent of the lot area (on lots smaller than 5,000 square feet). We do not limit the size of decks that are less than 36 inches above the ground, unless you plan to build a deck in or near an ECA. For more information on these exceptions, see the Seattle Land Use Code 23.44.010D for Neighborhood Residential zones.


Figure 1. Typical Interior Single Family Lot in Seattle

## - Location

Neighborhood Residential Zones. As shown in the illustration of a typical single-family interior lot in Seattle (see Figure 1), there are portions of your lot in the front, sides, and back, known as "yards," in which decks more than 18 inches above grade are not allowed. Note that this 18 " limit is measured to existing or final grade, whichever is lower. Generally, you cannot build a deck taller than 18 inches in the front 20 feet of your lot, the side 5 feet, and the rear 25 feet (or the rear 20 percent of the lot depth, whichever is less (The minimum required depth of a rear yard is 10 feet.)). Tip 220 explains yard limitations in neighborhood residential zones in greater detail. Please discuss specific conditions, including corner and through lots, with our staff in the ASC.

## - Important exception to rear yard provisions:

Covered, attached decks may project into the required rear yard as long as the deck is no closer than 12 feet to the rear property line, and the deck cover is no taller than 12 feet above the existing or finished grade, whichever is lower.

- We generally prohibit roof decks on garages and carports located in required yards. In locations where a roof deck is not allowed, there are exceptions that allow a safety guardrail only (without a roof deck). Decks are permitted on garages that meet our standards for terraced garages; see the Land Use Code section 23.44.016D.9.b. Roof decks on houses must meet the general location standards for houses; see Tip 220, Lot Coverage, Height and Yard Standards for Homes in neighborhood residential Zones. You are allowed to have an open railing four feet above the maximum allowed height for houses.
- Residential Small Lot Zones. If you are building a deck on a residential small lot, please come in to the ASC to discuss your project with our staff.
- Lowrise 1, 2 and 3 Zones. If you want to build a deck addition to a neighborhood residential residences in these multifamily zones, please discuss your project with ASC staff.


## What are the main Building Code requirements for my deck?

## - Structural

Your deck design must provide sufficient structural support and attachments to meet safety standards. The minimum live load design that we require is 60 pounds per square foot. You should talk to a permit specialist in the ASC if you have questions about our structural requirements.

## - Ledger connection

If your deck is supported at the house by a ledger, the ledger must be connected to your house so that it will not pull away during an earthquake. See pages 6 and 7 for pre-approved standards for connecting ledger to your house (called a prescriptive connection). You can also hire an engineer to design the ledger connection and the guardrail.

## - Guardrail (guards)

We require guardrails if your deck is more than 30 inches above adjacent surfaces, such as the ground or a lower roof. Your guardrail must be at least 36 inches tall with rail openings that are no more than 4 inches. See page 8 for pre-approved connection details.

We have special requirements for glass guardrails. See Seattle Building Code sections 1015.2.1 and 2407. You may need to have a structural engineer design your glass guardrail.

## ■ Stairs

If your deck will have stairs, they must have a riser of no more than 7-3/4 inches, a tread that is at least 10 inches, and a width of at least 36 inches. We require a handrail for stairs with four or more risers. The handrail must be 34 to 38 inches above the nosing of treads and landings and the hand grip must be $1-1 / 4$ to 2 inches in dimension.

## ■ Treated Lumber/Wood

You must use treated wood or wood that naturally resists decay for all wood that will be in contact with concrete that is close to earth.

## What are the requirements if my deck is within a wildland or wildland-urban interface or intermix area?

The Seattle Wildland-Urban Interface Code (SWUIC) regulates construction near wildland areas. To find out if your project needs to comply with the SWUIC, enter your address into our Wildland-Urban Interface map.

If your deck is within a mapped wildland area, you will need to determine the wildland-urban interface designation. (See Tip 344, Construction in Wildland-Urban Interface Areas, for instructions.) If your deck is within a mapped wildland-urban interface or intermix area, or within a mapped wildland area that is determined to be wildland-urban interface or intermix, you will need to build your deck with materials that are less likely to burn in a wildfire event.

Read the Seattle Wildland-Urban Interface Code (Section 501.6):

## ■ Structure

Decks, porches, balconies, and exterior stairs must be constructed with any of the following materials:

- One hour fire-resistance rated assembly
- Ignition-resistant material
- Exterior fire-retardant treated wood
- Noncombustible material
- Heavy timber construction
- Posts must be $6 \times 6$ minimum
- Beams must be 6x8 minimum
- Joists must be $4 \times 8$ minimum and spaced no greater than 24 inches on center


## - Walking Surfaces

Walking surfaces must be constructed with any of the following materials:

- Ignition-resistant material

■ Exterior fire-retardant treated wood

- Noncombustible material
- Where the structure is heavy timber construction, the decking must be:

■ Two-inch nominal lumber, or
■ Five-fourths-inch hardwood (such as teak, mahogany or other approved hardwood)

- Material that complies with specific performance requirements when the exterior wall covering is ignition-resistant or noncombustible


## - Clearance

Decks with less than 48 inches of clearance from finished grade to deck joists must be enclosed using materials allowed for decks or with metal screen material with openings no greater than $1 / 4$ inch maximum.

For additional information on Seattle Wildland-Urban Interface Code requirements, see Tip 344, Construction in Wildland-Urban Interface Areas

## Fences

## When do I need a building permit for a fence?

We do not require permits for fences that do not exceed 8 feet in height, and with no masonry or concrete elements over 6 feet high. (Seattle Residential Code R106.2 Item 4)

## What are the land use requirements for fences?

## ■ Lot coverage

Fences do not count in lot coverage.

## - Height

Single-Family Lots. For single-family residences, you can have a fence in the required yards if it is no more than 6 feet above existing or finished grade, whichever is lower. If your lot slopes, you may calculate your fence height based on the average of each six foot segment, with no portion being any higher than 8 feet. (See Figure 2).

- You may add architectural features, such as trellises, to the top of a 6 foot fence, up to 8 feet above grade, but without averaging. The space above the six-foot fence must be predominantly open. (See Figure 3). Talk to ASC staff about specific standards for these features.


Figure 2. Averaging Fence Height for Sloping Lot Conditions


Figure 3. Height Requirements for Fences with Trellises

- If you wish to place a fence above a retaining wall used to raise the grade of your property, the combined height of the retaining wall and fence is limited to 9.5 feet. If the retaining wall is built in order to lower the grade of your property, the normal height limitations apply to the fence. Regardless of the height of this retaining wall, you can place an open guardrail on top of the wall. This guard rail is limited to $42^{\prime \prime}$ in height.
- Mulitfamily Zones. You may have a fence no taller than 6 feet in most required setbacks or separations from the property line or other buildings. However, there are some locations on a site where fences in multifamily zones cannot be taller than 4 feet. See Land Use Code section 23.45.518.I. 7 for more detail. If your fence is located on top of a bulkhead or retaining wall, it cannot be taller than 4 feet. If your fence is on top of a new bulkhead or retaining wall used to raise grade, the maximum combined height is limited to 9.5 feet.
- We allow up to 2 feet of additional height for architectural features, such as arbors or trellises, on the top of a fence. The architectural features must be mostly open.
- You may average the fence height along sloping grades for each 6-foot-long segment of the fence. Your fence must never exceed 8 feet (when the allowed height is 6 feet) or 6 feet (when the allowed height is 4 feet) as per Seattle Municipal Code subsection 23.45.518.I.7.a.


## ■ Location

As long as your fence does not exceed the height limits, you can have a fence anywhere on your property.

## - Fence sides

Our codes do not regulate which side of the fence faces your property.

## Arbors

Seattle's Land Use Code defines arbors as landscape structures that consist of an open frame with horizontal and/or vertical latticework. Arbors can be freestanding or attached to another structure.

## When do I need a permit for an arbor?

You do not need a permit if your arbor is 120 square feet or less. (Seattle Residential Code 106.2 Item 5)

## How do I obtain an arbor permit?

For most arbors, a Subject-to-Field-Inspection permit is issued at the ASC.

## What information do I need to apply for an arbor permit?

For most arbors, you will need:

## - A site plan

A scaled site plan that shows all structures on your site, including the proposed arbor. Your site plan dimensions must show that your arbor meets our land use requirements for location and lot area coverage. (See Tip 103, Site Plan Requirements)

## - An elevation drawing

A scaled elevation drawing that shows the height of the proposed arbor (height above existing or final grade, whichever is lower). Your elevation drawings must offer side views of structures, from the ground to the top of the structure. (See Tip 303, Applicant Responsibilities and Plan Requirements for Single Family and Two-Unit Dwellings)

## - Construction notes

Your notes on your drawings should call out the size and type of posts proposed (e.g., pressure treated wood) and the method of support for the posts (e.g., poured concrete footings). (See Tip 303A, Common Seattle Residential Code Requirements)

- Please note that homeowners may do their own drawings. A professional stamp is rarely required on these plans.


## What are the land use requirements for arbors?

## ■ Lot coverage

In neighborhood residential zones, arbors are not exempt from lot coverage requirements. For most neighborhood residential zoned lots, the total coverage is limited to 35 percent of the lot (on lots 5,000 square feet or larger) or 1,000 square feet plus 15 percent of the lot area (on lots smaller than 5,000 square feet). Lot coverage limits do not apply in Lowrise zones.

## - Location and Slze

Single Family and Multifamily Lots. We allow arbors in required yards and setbacks or separations from buildings and property lines if they meet the following provisions:

- In any required yard or setback, you may build an arbor up to 8 feet tall with a footprint of no more than a forty square feet, including eaves.
- In any required yard or setback abutting a street, you can have an arbor with a footprint no greater than 30 square feet is allowed over your private pedestrian walkway.
- Your arbor's sides and the roof must be at least 50 percent open, or, if latticework is used, there must be a minimum opening of 2 inches between crosspieces.


## Questions?

For further information please contact our SDCI building permit coaches in our virtual Applicant Services Center www.seattle.gov/sdci/about-us/who-we-are/appli-cant-services-center.

## Access to Information

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

## Excerpt from 2018 International Residential Code



For SI: 1 inch $=25.4 \mathrm{~mm}$.
FIGURE R507.9.1.3(1)
PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS


For SI: 1 inch $=25.4 \mathrm{~mm}$.
FIGURE R507.9.1.3(2)
PLACEMENT OF LAG SCREWS AND BOLTS IN BAND JOISTS


For SI: 1 inch $=25.4 \mathrm{~mm}$.
FIGURE R507.9.2(1)
DECK ATTACHMENT FOR LATERAL LOADS


For SI: 1 inch $=25.4 \mathrm{~mm}, 1$ foot $=304.8 \mathrm{~mm}$.
FIGURE R507.9.2(2)
DECK ATTACHMENT FOR LATERAL LOADS

## Excerpt from Prescriptive Residential Wood Deck Construction Guide

 the stringer span (see provisions below). If the total vertical height of a stairway exceeds $12^{\prime}-0^{\prime \prime}$, then an intermediate landing shall be required. All intermediate stair landings must be designed and constructed as a non-ledger deck using the details in this document. Stairs shall be a minimum of $36^{\prime \prime}$ in width as shown in Figure 33 [R311.7]. If only cut stringers are used, a minimum of three are required. For stairs greater than $36^{\prime \prime}$ in width, a combination of cut and solid stringers can be used, but shall be placed at a maximum spacing of $18^{\prime \prime}$ on center (see Figure 29). The width of each landing shall not be less than the width of the stairway served. Every rectangular landing shall have a minimum dimension of $36^{\prime \prime}$ measured in the direction of travel and no less than the width of the stairway served [R311.7].

Figure 26. Guard Post to Rim Joist Example.
Alternate attachment of hold-down anchors to framing members possible per manufacturer's instructions.


