



# Fences, Decks and Outdoor Projects



## One and Two Family Residential Dwellings

• Information related to permit and inspection requirements

### When permits are required

If your property is in an overlay zone or a plan district, there may be alternative standards and a zoning permit may be required.

Project	Requirement
Fences seven feet or less in height	No permit, except barriers around swimming pools
Fences taller than seven feet in height	Building permit and inspection
Decks and porches with walking surface more than 30 inches above adjacent grade	Building permit and inspection
Decks or patios with walking surface 30 inches or less above adjacent grade	No permit
Covered decks, not discussed in this publication	Additional requirements, consult staff in the DSC
Sheds or detached nonhabitable one-story accessory structures with a floor area less than or equal to 200 square feet and a wall height of 10 feet measured from the finished floor level to the top of the top plate	No permit, although a zoning permit may be required if your property is in an overlay zone or plan district
Detached garage with a floor area not more than 200 square feet and not more than 10 feet in height measured from finished floor to average height of the roof	Zoning permit
Patio/porch covers not over 200 square feet in area and supported by an exterior building wall, and not closer than three feet to a property line	No permit
Patio/porch covers over 200 square feet in area	Building permit and inspection
Detached patio/porch covers over 200 square feet in area	Building permit and inspection
Retaining walls over four feet high (measured bottom of footing to top of wall) or affected by adjacent slope or structure	Building permit and inspection. Check with zoning if your property is in an overlay zone or plan district
Ponds/water features, self contained	Electrical permit and inspection for pump
Ponds/water features connected to drainage or water supply	Plumbing permit and inspection, and electrical permit and inspection for pump
Swimming pool, in-ground	Building, electrical and mechanical permits and inspections
Barriers around swimming pools	See page 7 for requirements
Hot tub with direct connection to plumbing system	Plumbing permit and inspection
Hot tub, gas heated	Mechanical permit and inspection
Hot tub, electrically heated	Electrical permit and inspection
Barriers around hot tubs/spas	No permit required if hot tub/spa has approved cover

# General zoning information

If there is an overlay zone or plan district on your property, there may be alternative standards that apply to your project and a zoning permit may be required. Call Planning and Zoning at 503-823-7526 to find out what zoning requirements apply to your specific property.

## Setback requirements

- A setback is the distance measured from your property line to a point inside the property creating a buffer inside your property lines. Setbacks are intended to maintain light, air and separation for fire protection.
- The front building setback is the side that borders a street and is usually deeper than the side and rear setbacks. On a corner lot, the front lot line is the shortest side of the lot bordering a street. If street frontages are equal in length, you can choose which to call the front. On a through lot, both parts of the lot that border a street are the front.
- Setbacks are different in each residential zone. The zoning staff can tell you what zone your property is in and help you figure out the setback requirements for your project or use the setback chart to determine the required setbacks if you know your zone.

## Setback guide

Land Use Zone	RF	R20	R10	R7	R5	R2.5
Front setback	20 feet	20 feet	20 feet	15 feet	10 feet	10 feet
Side/rear setback*	10 feet	10 feet	10 feet	5 feet	5 feet	5 feet

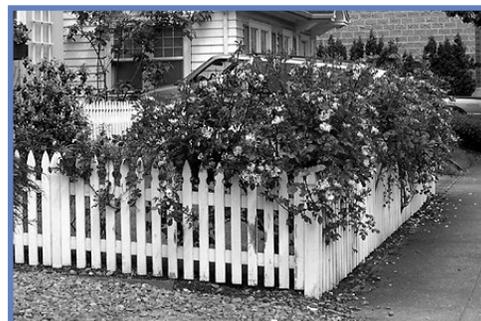
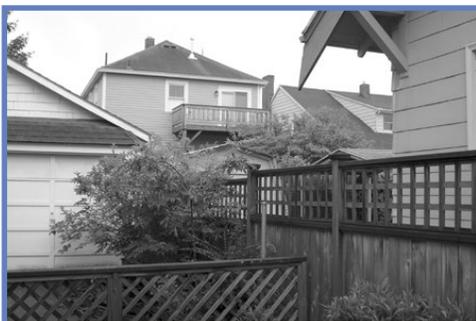
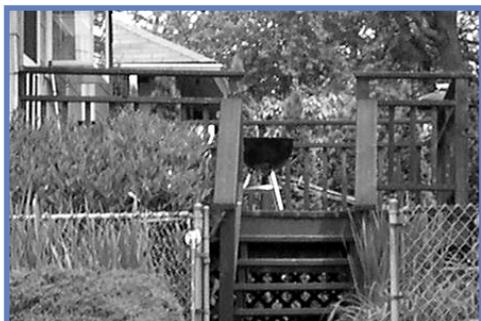
\* There is no setback from an alley.

## Locating property lines

- If you are planning to build in your front yard, or in other areas of your property adjacent to the public right-of-way, call the Portland Office of Transportation Engineering at 503-823-7002 for help in locating property lines along a street. They can tell you the width of the public right-of-way from the edge of the curb to your street lot line. There is often a reserve strip of right-of-way between the sidewalk and your actual property line. For streets without curbs and sidewalks, they may be able to tell you only the total width of the public right-of-way.
- Property lines that divide your lot from your neighbors can be difficult to locate. You may need to hire a professional surveyor to determine the exact property lines. The Bureau of Development Services does not maintain information about property lines.

## Who can do the work

For work that requires a permit, the owner of a single family home or duplex may hire a licensed contractor to do the work, or in some cases, do the work themselves. This means that you, the owner, will be responsible for doing the work; not a friend, neighbor, tenant or relative, unless they hold an appropriate contractor's license. Electrical and plumbing work in homes for rent, sale, lease or exchange must be done by a licensed contractor. The permit requirements for an owner doing their own work are the same as those for a contractor doing the work.



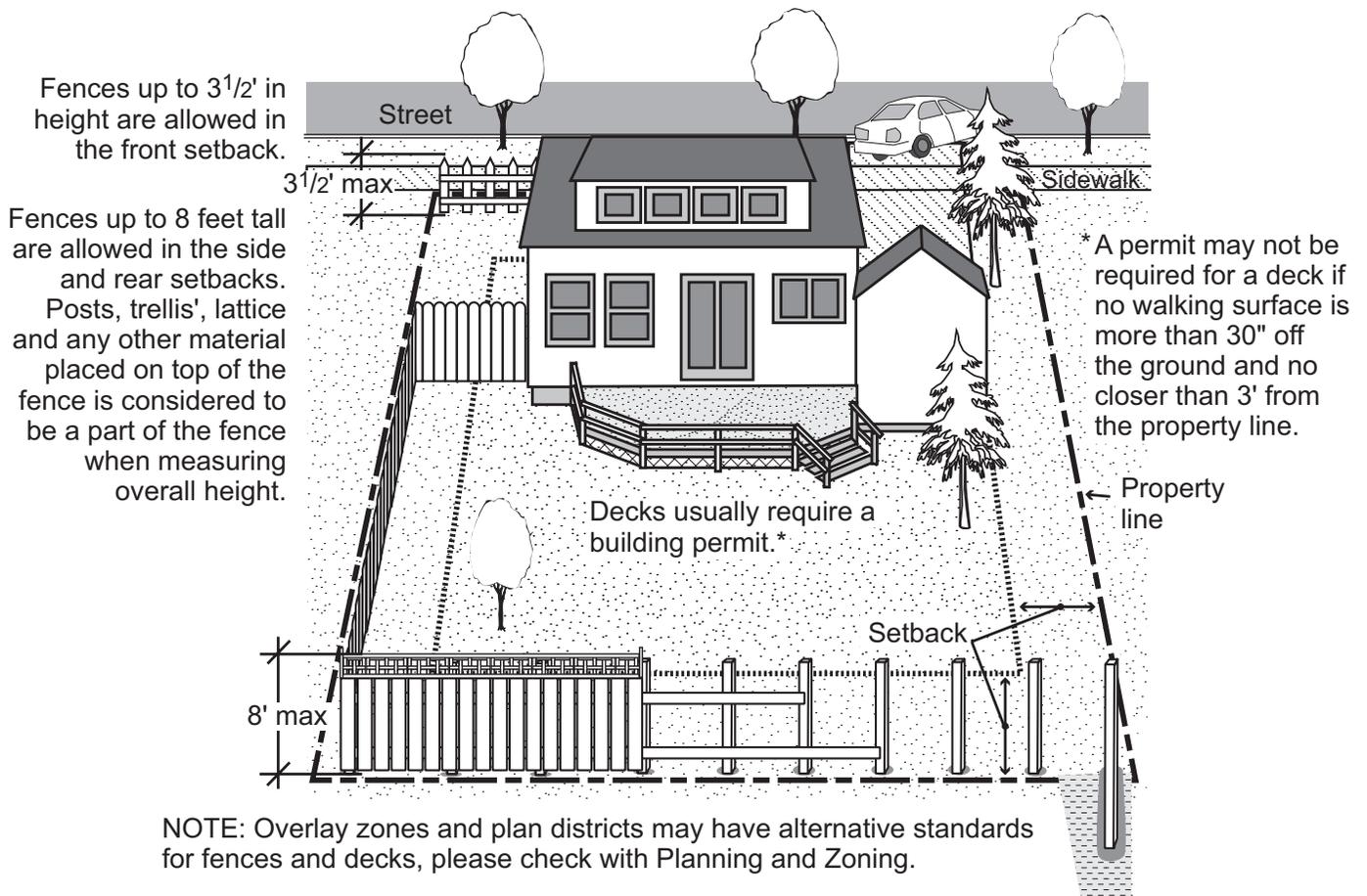
# Fences

Fences may be built on private property, as long as they meet certain height and setback requirements. A building permit is not required when constructing a fence seven feet or less in height. A permit is required when building a fence taller than seven feet in height. Fence height is measured from the grade level immediately under the fence. Posts, trellis, lattice and any other material placed on top of the fence is considered to be part of the fence when measuring the overall height. Retaining walls and fences on top of retaining walls are measured from the ground level on the higher side of the retaining wall.

- Fence standards apply to fences and screens of all types whether open, solid, wood, metal, wire, masonry or other material.
- Fence height is limited to three and one-half feet (3 1/2') where constructed in the front building setbacks. Fences up to eight feet tall may be constructed in side and rear building setbacks. Outside of front, side and rear building setbacks, fences taller than eight feet are allowed. (See maximum height of zone.) Corner lots with front entrances facing the side street have other options for fence height.
- Overlay zones and plan districts may have alternative requirements, so check your property's zoning.
- Please see the swimming pool section for information on fence requirements for swimming pools.

## Construction requirements for fences

- Any part of a wood fence that touches concrete or that is within six inches of the ground must be pressure treated wood or wood that is naturally resistant to decay, such as cedar or redwood. Pressure treated wood installed below grade must be stamped as approved for ground contact.
- All parts of the fence, including the footings, must remain inside your property lines.
- For wood, metal, or wire fences taller than seven feet but less than or equal to eight feet tall, the posts must be spaced no farther apart than six feet, and the post's concrete footing must be at least eighteen inches in diameter and be embedded into the ground at least three feet, or the fence must be designed by an engineer licensed to practice in Oregon.
- Fences taller than seven feet that are constructed of a material other than wood, metal, or wire must be designed and detailed to resist environmental forces by an engineer licensed to practice in Oregon.
- All fences taller than eight feet above grade must be designed by an engineer licensed to practice in Oregon.



## Decks

Building permits are required for most decks. However, building permits are not required for decks where no part of the walking surface is more than 30 inches above adjacent grade and no portion of the deck is closer than three feet to an adjacent property line. A zoning permit may be required in some cases, such as in an overlay zone or a plan district.

Please note that the following information applies only to uncovered decks. If your deck will have a roof, we recommend meeting with staff in the Development Services Center (DSC) to discuss zoning and building issues early in the planning of your project.

- Deck height is determined by measuring from the adjacent grade to the top of the walking surface for building permit requirements. Where the guardrail walls are less than 50 percent open, height is measured to the top of the guardrail for zoning code requirements.
- Decks not more than 30 inches above the ground may be built anywhere on your property right up against property lines.
- Decks taller than 30 inches that are attached to a house may project 20 percent into a required building setback. Detached decks must meet the requirements listed in the setback guide.
- Guardrails, built in benches or planters attached to the deck and taller than three and one-half feet above the ground may not be located within a front building setback.

### Guardrail requirements for decks

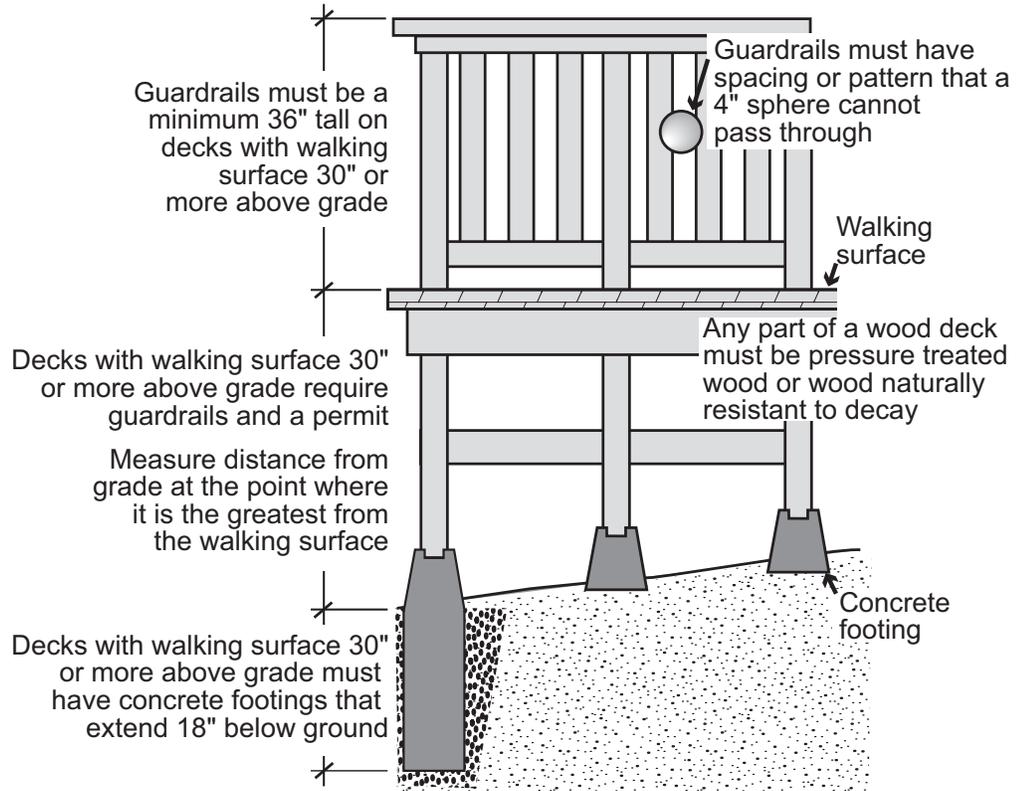
- Decks that are taller than 30 inches must have guardrails at least 36 inches tall, measured from the walking surface of the deck.
- Openings in guardrails must have some kind of a pattern so that a four inch sphere cannot pass through any opening.
- Guardrails must be designed to withstand a 200 pound horizontal load applied to the top of the rail at any location.
- If you will be building stairs as part of your deck, please refer to our Stairs publication.

### Construction requirements for decks

- Decks that are taller than 30 inches and are attached to a house are required to have concrete footings, which extend 18 inches below ground level. Footings for free-standing decks may be set at any depth on firm, native undisturbed soil.
- All parts of a wood deck must be pressure treated wood or wood that is naturally resistant to decay, such as cedar or redwood.
- All posts and supports that come in contact with the ground or concrete must be stamped and approved for ground contact.

### Brochure 3a - Deck Design Guide

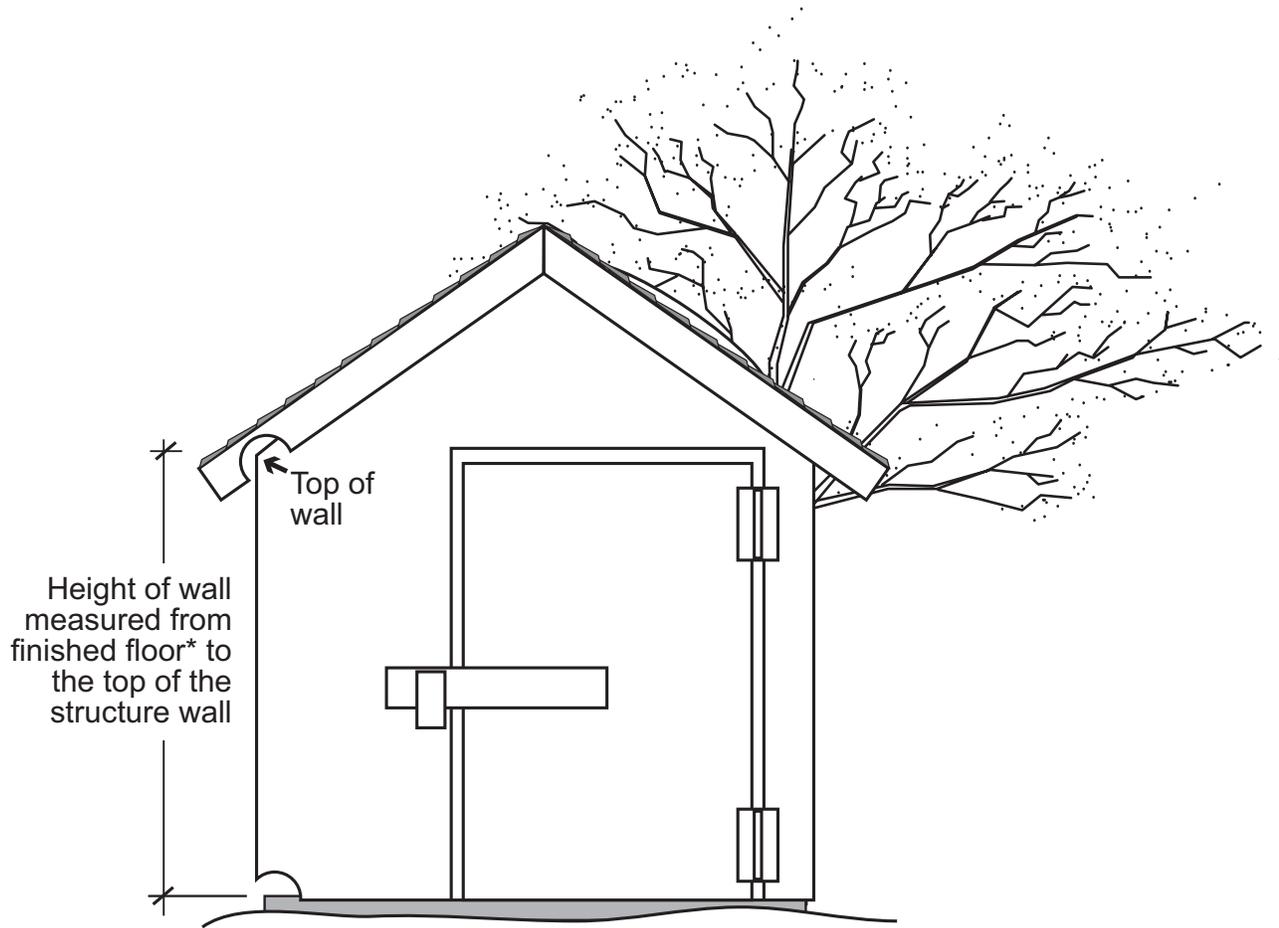
- See this online brochure for design standards and details to help you design your deck, obtain a building permit and pass inspections.



NOTE: Overlay zones and plan districts may have alternative standards that apply

## Sheds and detached nonhabitable accessory buildings

- A building permit is not required to build a shed or other detached nonhabitable one-story accessory building, such as a greenhouse or potting shed, less than or equal to 200 square feet in area and a wall height of 10 feet measured from the finished floor level to the top of the top plate. A zoning permit may be required if your property is in an overlay zone or a plan district. Building permits are required for habitable structures.
- A detached garage less than or equal to 200 square feet in area and a wall height of 10 feet measured from the finished floor level to the top of the top plate does not require a building permit, however a **zoning permit** is required to confirm that the location and lot coverage on the site complies with zoning code requirements.
- Detached means the building is structurally independent and not physically attached in any manner to any adjacent structure.



\* Measure from the grade for zoning code

NOTE: Overlay zones and plan districts may have alternative standards that apply

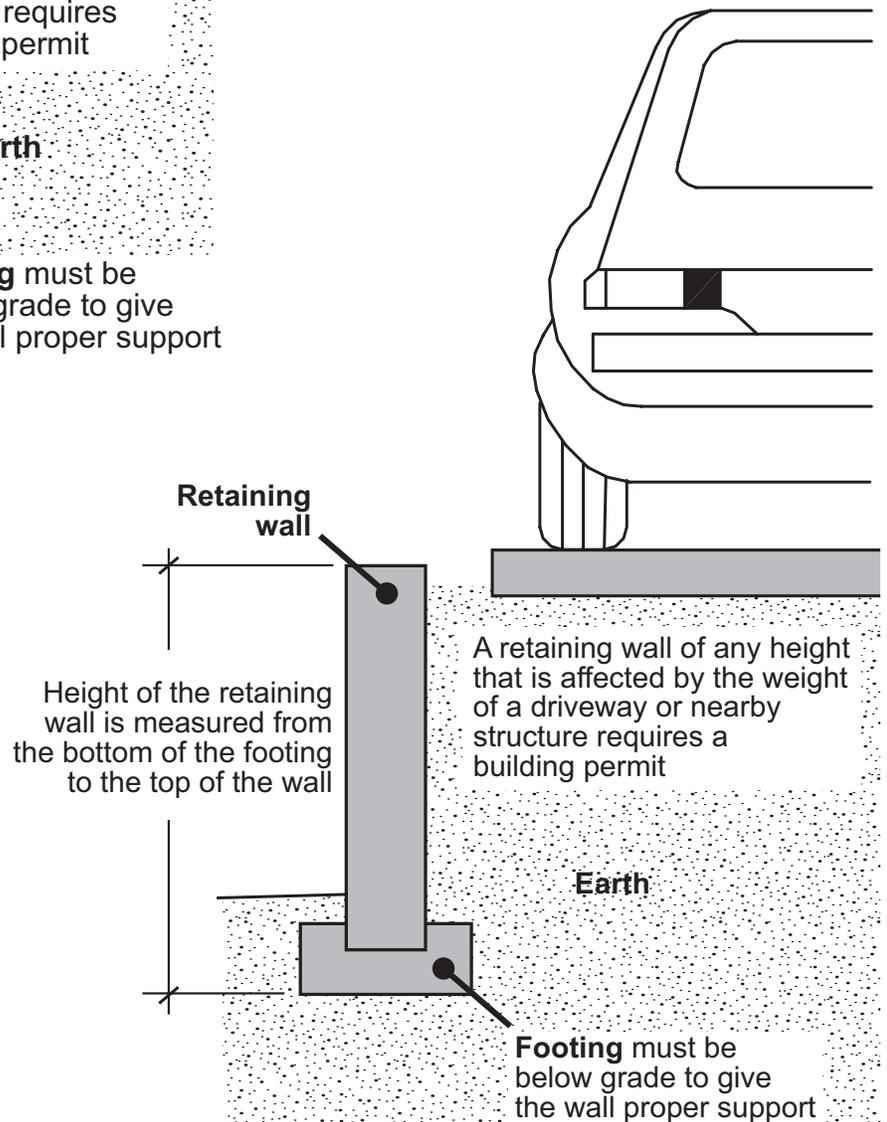
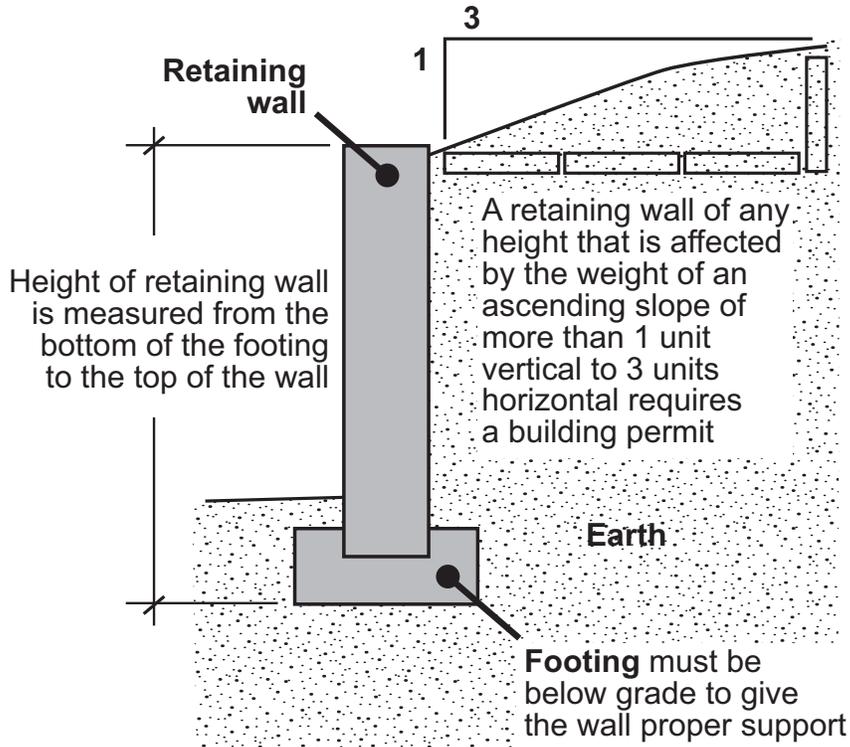
## Patio and porch covers

- A building permit is not required to build a patio or porch cover less than or equal to 200 square feet in area, regardless of height, and supported by (attached to) an exterior building wall.
- The location of the patio cover or porch cover cannot extend into the established building setbacks for your lot or exceed building coverage limits. If you have questions about the proposed location for your patio cover or porch cover, please contact Planning and Zoning at 503-823-7526. Also if your property is in an overlay zone or plan district, alternative standards may apply.
- A building permit is required for a detached patio cover that is over 200 square feet in area. A building permit is not required for the patio floor if it is less than 30 inches above the ground.

# Retaining walls

A building permit is required to build a retaining wall that:

- Exceeds four feet high measured from the bottom of the footing to the top of the wall.
- Is affected by the weight of an adjacent slope or near a driveway or structure. A retaining wall is considered affected by the weight of a slope if there is an ascending slope away from the retaining wall more than three units horizontal to one unit vertical.
- Retaining walls within front building set backs are regulated by the Zoning Code. Overlay zones and plan districts may have alternative standards, please check with Planning and Zoning.



NOTE: Overlay zones and plan districts may have alternative standards that apply

## Ponds and water features

- Residential ponds, water features and fountains do not typically require a building or plumbing permit if they are self-contained. If there is a drainage connection or water connection to the plumbing system, then a plumbing permit is required. An electrical permit is also required if a pump is connected directly to the electrical system.
- Property located in an overlay zone or plan district may have alternative standards that apply, so check with Planning and Zoning.
- While the building code does not regulate self contained residential ponds, water features and fountains, it is important to know that as a homeowner, you may be liable for accidents or injuries occurring on your property as a result of the installation of these accessories. We recommend that you check with your homeowner's insurance company prior to installation for more information.



## Swimming pools

A swimming pool is defined as any structure intended for swimming or recreational bathing that contains water over 24 inches deep. This includes both in ground and above ground swimming pools, hot tubs, and spas (Oregon Residential Speciality Code; ORSC Sec. AG102).

- A building permit is required to install a swimming pool unless it is prefabricated and the walls are entirely above adjacent grade. Whether a permit is required or not, the installation must meet the following code requirements that are intended to provide protection against drownings and near drownings by restricting access to swimming pools, spas and hot tubs.
- Any swimming pool not totally enclosed by a structure must be enclosed by a substantial barrier or fence at least four feet in height. The maximum vertical clearance between grade and the bottom of the barrier is two inches. Openings in the barrier shall not allow passage of a four inch diameter sphere.
- The barrier must be equipped with a self-closing and self-latching gate except where bordered by a wall of an adjacent structure at least four feet in height. Pedestrian access gates shall open outward, away from the pool, be self-closing, and have a self-latching device.
- Where the wall of a dwelling unit is used as a barrier, all doorways through the wall must be equipped with approved self-closing and self-latching devices or equipped with an approved power safety cover.
- The location of an in ground pool is not regulated by the zoning code, but property in an overlay zone or plan district may have alternative standards that apply. Setback and building coverage standards apply to above ground pools.
- Swimming pools must be set back from adjacent slopes steeper than 33 percent. The setback from descending slopes shall be at least  $H/6$ , but need not exceed 20 feet. The setback from ascending slopes shall be  $H/4$ , but need not exceed seven and a half feet. H is equal to the vertical height of the slope.
- Any pool is required to have either a sand filtration system or cartridge filter system. The backwash from a sand filtration system must discharge to either the public sewer or to an on-site system approved by BDS, separate from the drain field. If you have questions about filtration for your pool, please contact the BDS Environmental Soils Section at 503-823-6892.
- Prior to installing a swimming pool, we recommend that you check with your homeowner's insurance company to determine what liability you may assume as a result of the installation.
- An electrical permit is required for a swimming pool.



## Hot tubs

- In most cases, a hot tub installation does not require a plumbing permit because there are no direct connections to the plumbing system. If you have a hot tub that has a direct plumbing connection, a plumbing permit is required.
- Check the zoning on your property since overlay zones and plan districts may have alternative standards that apply.
- The heating of the water in a hot tub is the primary code issue. A mechanical permit is required for a hot tub installation using gas heating and an electrical permit is required for a hot tub installation using electric heating.
- If your hot tub will be on an elevated deck that is more than 30 inches above grade, there are requirements related to the structural design of the deck. Please contact Development Services Center staff for more information.
- A hot tub is required to have either a sand filtration system or cartridge filter system. The backwash from a sand filtration system will need to discharge to either the public sewer or to an on-site system approved by BDS, separate from the drain field. If you have questions about filtration for your hot tub, please contact the BDS Environmental Soils Section at 503-823-6892.



## Scheduling an inspection

- Call 503-823-7000, the BDS 24 hour inspection request line
- Enter your IVR or permit number
- Enter the three-digit inspection code for the type of inspection you are requesting
- Enter a phone number where you can be reached during weekdays and if you want the inspection in the morning or afternoon
- There must be an adult over age 18 to allow the inspector entry

All information is subject to change.

## Helpful Information

### Bureau of Development Services

City of Portland, Oregon  
1900 SW 4th Avenue, Portland, OR 97201  
[www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds)

### General Office Hours:

Monday through Friday, 8:00 am to 5:00 pm  
BDS main number: 503-823-7300

### Permit Information is available at the following location:

Development Services Center (First Floor)  
For Hours Call 503-823-7310  
or visit [www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds)

Permitting Services (Second Floor)

For Hours Call 503-823-7310

or visit [www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds)

## Important Telephone Numbers

BDS main number.....	503-823-7300
DSC automated information line .....	503-823-7310
Building code information .....	503-823-1456
Zoning code information .....	503-823-7526
Permit information for electrical, mechanical, plumbing, sewer and sign .....	503-823-7363
Permitting process and fees .....	503-823-7357
Permit resources and records.....	503-823-7660
BDS 24 hour inspection request line requires IVR number and three digit type of inspection code .....	503-823-7000
Residential information for one and two family dwellings.....	503-823-7388
Environmental Soils .....	503-823-6892
Portland Bureau of Transportation (PBOT).....	503-823-7002
City of Portland TTY .....	503-823-6868
Tree Hotline .....	503-823-8733
Call before you dig.....	503-246-6699

- ✓ To be safe, remember to call before you dig, and have your underground utility lines located.
- ✓ Check with PBOT regarding the width of the right-of-way if you are building in your front yard.
- ✓ Depending on your location and the specifications of your project, building and/or zoning permits may be required.
- ✓ Some zones have special requirements which could affect your outdoor project.
- ✓ If you have any questions or concerns about your project, check with staff in the DSC about zoning and building issues.

Visit our Web site  
[www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds)