



**City of
Portland, Oregon**
Bureau of Development Services
FROM CONCEPT TO CONSTRUCTION

Chloe Eudaly, Commissioner
Rebecca Esau, Director
Phone: (503) 823-7300
Fax: (503) 823-6983
TTY: (503) 823-6868
www.portlandoregon.gov/bds

AMENDMENTS TO TITLE 24 – BUILDING REGULATIONS

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Introduction

In 2017, The State of Oregon Building Codes Division (BCD) adopted changes to the 2014 Oregon Residential Specialty Code (ORSC), the Oregon Plumbing Specialty Code (OPSC), and the Oregon Electrical Specialty Code (OMSC). Over 400 changes were made that represent minor adjustments to construction specifications. However, the state made two changes to the ORSC that the City should address at the local level. The first change exempts permit requirements for retaining walls that do not support a regulated building, and the second change removes the maintenance agreement and easement sections from the ORSC.

The proposed amendments will add maintenance agreement and retaining wall regulations to Title 24. These additions will not change permit or review procedures. Rather, they are intended to maintain permitting practices that were in place prior to the state building code changes.

Proposed Amendments

1. Chapter 24.10 will include Maintenance Agreement requirements as part of permit applications. Under this amendment, easements and associated maintenance agreements shall be submitted to the Building Official as part of a permit application when a building element, structure or utility crosses a property line.
2. Chapter 24.70 will change from “Clearing and Grading” to “Clearing, Grading and Retaining Walls.” A new section is proposed that contains regulations for retaining walls that are not addressed in the ORSC. The amendment requires applicants to obtain a permit for retaining walls over four-feet in height when exempt under the ORSC. The exemption in the ORSC is as follows, “Retaining walls that do not support a regulated building, do not retain material which, if not restrained, could impact a regulated building.” This exemption allows retaining walls to be built without a permit for any other development project.

Rationale

1. Development projects often include shared elements such as walls and utilities, Maintenance agreements and easements are necessary for property owners to understand their obligations for maintaining shared elements.
2. The city of Portland contains numerous steep and sloping lots and parcels of land. Retaining walls are necessary to stabilize slopes for many types of construction including but not limited to parking lots, sidewalks, water retention facilities and recreational trails. To maintain public safety, permits should continue to be submitted for retaining walls over four-feet in height.

TITLE 24 - BUILDING REGULATIONS

CHAPTER 24.10 - ADMINISTRATION AND ENFORCEMENT

Sections:

24.10.010	Title.
24.10.020	Purpose.
24.10.030	Scope.
24.10.040	Codes.
24.10.050	Organization.
24.10.060	Enforcement.
24.10.070	Application for Permits.
24.10.075	Bureau of Development Services Administrative Appeal Board.
24.10.080	Building Code Board of Appeal.
24.10.085	Structural Engineering Advisory Committee.
24.10.087	Alternative Technology Advisory Committee
24.10.090	Pre-application and Pre-construction Meetings.
24.10.095	Commercial and Industrial Minor Structural Labels.
24.10.100	Fees.

24.10.010 [No Change]

24.10.020 [No Change]

24.10.030 [No Change]

24.10.040 [No Change]

24.10.050 [No Change]

24.10.060 [No Change]

24.10.070 **Application for Permits.**

(Amended by Ordinance. Nos. 162100, 163908, 165678, 169905, 171773, 174880, 176783, 176955, 180330, 187432 and 188647, effective November 17, 2017.)

- A.** Permits required. No person, firm, or corporation shall erect, construct, enlarge, alter, repair, move, improve, remove, convert, change occupancy group of, or demolish any building or structure, or to do any clearing or grading, or cause any of the same to be done without first obtaining a building permit, or where appropriate a minor structural label as outlined in Section 24.10.095. The limitations of Oregon Revised Statutes 455.020 notwithstanding, permits are required to construct, alter, repair or move any structure as identified in this Title not specifically exempted by or in the Oregon Structural Specialty Code or the Oregon Residential Specialty Code, as adopted in Chapter 24.10 of this Title. Building permits and fees for work on private property are waived whenever the work appears on plans and specifications, approved by the City Engineer or BES Chief Engineer. This work shall be limited to the construction of streets, public

sewers, public stormwater management facilities, driveways, retaining walls, fences, walkways, parking pads, steps, and tree, shrub, and brush removal.

~~B.~~ For exempted work see Chapter 1 of the Structural Specialty Code.

C.B. Plans and specifications. Plans, engineering diagrams, and other data shall be submitted in three sets with each application, and shall comply with the requirements of Chapter 1 of the Structural Specialty Code. If a structural design is required, computations, stress diagrams, computer data, and such additional data as required by the Director, sufficient to show the correctness of the plans and compliance with the structural provisions of this Title shall be submitted. The above data shall include a brief summary of all basic assumptions, design methods, structural systems, loading, lateral bracing systems, and a table of contents of the computations. Computer calculations submitted as substantiation of the design shall include a copy of the program users manual for each program, definition, sketches, index of data runs, and properly identified input and output listings. For other than nationally recognized programs, the correctness of the program shall be substantiated in a manner acceptable to the Director. When required by the Director, or when required under ORS 672 (State Engineering Law) or ORS 671 (State Architectural Law), plans shall be prepared and certified by an architect or registered professional engineer licensed to practice in the State of Oregon.

D.C. Parking lots. Parking lots shall not require a separate building permit when they are clearly shown on plans submitted and their valuation is included on the application for the principal building permit.

~~E.D.~~ Compliance with Chapter 17.88 (Street Access) of this Code is required prior to issuance of this permit.

~~F.E.~~ Plans for other than one and two family dwelling repairs, remodels, or additions shall be approved by the Fire Marshal prior to approval by the Director.

G.F. Issuance of permits. Issuance of permits shall be in accordance with Chapter 1 of the Structural Specialty Code provided that plans for all commercial buildings and any off-street parking area where the parking of three or more cars is to be established shall be approved by the City Engineer and the City Traffic Engineer before a building permit may be issued.

H.G. Charge for partial permits. When complete plans and specifications are not available, the Director may issue partial permits to assist in the commencement of the work, provided that a partial permit charge is paid to the bureau. The number of partial permits issued shall not exceed six on any individual project, except that in special circumstances the Director may allow this number to be exceeded.

~~I.H.~~ Retention of plans.

1. Plans and specifications for all buildings, or their photographic image, shall be retained permanently in the files of the Bureau of Development Services as follows:

- a. Plans and specifications for work which does not concern or affect the structural stability of a building and which does not affect a change of occupancy may be destroyed after 5 years from date of building permit for same;
 - 2. Plans and specifications for one or two family dwellings, and/or buildings accessory thereto may be destroyed after 5 years from date of building permit for same.
- J.I.** A separate permit, known as a development permit, shall be required for a site development, changes in use, or other work performed in compliance with Title 33, Chapter 33.700, Administration, which is not otherwise included with the permit described in Subsection A. of this Section. Reviews and approval of site plans or other documents shall be obtained from the Bureau of Development Services prior to issuance of the permit.
- K.J.** Life of Permit Limited. If no inspection approval has taken place within six months after permit issuance, the permit shall become void, and no further work shall be done at the premises until a new permit has been secured and a new fee paid. Each time an inspection approval is granted, the permit shall be deemed to be automatically extended for six months, until final approval is granted. The Building Official may extend a permit for one period of six months upon finding that the permittee was unable to commence or continue work for reasons beyond the permittee's control. Extension requests shall be in writing and shall be received by the Director before the permit expiration date. If an inspection approval has not been granted within this extended time period, the permit shall be void. A permit that has been expired for six months or less may be renewed provided no changes have been made in the original plans and specifications for such work. No permit may be renewed if it has been expired for more than six months. A permit may be renewed only once. If an inspection approval has not been granted within the time period of permit renewal the permit shall be void. The renewal fee shall be one half the amount required for a new building permit.
- K.** Maintenance Agreements. If any building element, structure, or utility crosses a real property line, a maintenance agreement and access easement must be signed by all affected property owners and recorded in the County Recorder's Office on all affected properties. The agreement and easement must address the repair, upkeep, and replacement of and access to all elements, structures, and utilities that cross a real property line. Prior to recording, the maintenance agreement and access easement must be reviewed and approved by the building official. The maintenance agreement and access easement may not be modified or suspended without the building official's prior written approval. The applicant must provide a copy of the recorded maintenance agreement and access easement to the building official prior to issuance of the building permit.

**CHAPTER 24.70 – CLEARING, GRADING,
AND RETAINING WALLS AND GRADING**

(Chapter amended by Ordinance Nos. 184522,
185448 and 186053, effective January 1, 2015.)

Sections:

- 24.70.010 General.
- 24.70.020 Permits.
- 24.70.030 Hazards.
- 24.70.040 Special Definitions.
- 24.70.050 Information on Plans and in Specifications.
- 24.70.060 Bonds.
- 24.70.070 Cuts.
- 24.70.080 Fills.
- 24.70.085 Retaining Walls.
- 24.70.090 Setbacks.
- 24.70.100 Drainage and Terracing.
- 24.70.120 Grading Inspection.
- 24.70.130 Completion of Work.

24.70.010 General.

No Change

24.70.020 Permits.

(Amended by Ordinance Nos. 165678, 168340 172209, 173532, 173979, 184522, 185448 and 186053, effective January 1, 2015.) Permits for clearing, ~~and~~ grading, and retaining walls are required as specified in this Section. Where a specific activity does not require a clearing or grading permit, a separate tree permit may still be required, as specified in Title 11 Trees. Where a clearing or grading development permit shows trees to be removed and has been reviewed and approved by the City, a separate tree permit is not required in conjunction with the clearing or grading permit. An erosion, sediment and pollutant control plan if required by Title 10 shall be submitted with clearing or grading permit applications. Applicants for permits made in conjunction with land divisions shall be responsible for all clearing, grading, tree removal and erosion control within the land division, even where a specific activity is exempt from an individual permit.

A. [No Change]

B. [No Change]

C. Retaining Walls. A permit is required and shall be issued in accordance with Section 24.10.070 for all retaining walls over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, and for retaining walls supporting a surcharge.

C.D. Tree Removal. Removal of trees six-inches and larger in diameter shall be reviewed with the clearing or grading permits as part of the Tree Plan review pursuant to Title 11. When removing 5 or more trees on a site with an average slope of at least 20 percent, applicants shall provide a geotechnical engineering

report that assesses the stability of the site after tree felling and root grubbing operations.

- D.E.** Permits required under this Chapter shall be obtained before the commencement of any tree removal, root grubbing or soil disturbance takes place.

24.70.030 Hazards.

(Amended by Ordinance No. 165678, effective July 15, 1992.) The Director may determine that any clearing, grading, retaining wall, or geologic condition on private property has or may become a hazard to life and limb, or endanger property, or cause erosion, or adversely affect drainage or the safety, use or stability of a public way or drainage channel. Upon receipt of notice in writing from the Director, the owner shall mitigate the hazard and be in conformity with the requirements of this Title. The Director may require that plans and specifications and engineering reports be prepared in compliance with this Chapter.

24.70.040 Special Definitions.

The definitions contained in this Section relate to excavation and grading work only as outlined in this Chapter.

A – V. [No Change]

W. “Retaining Wall” is a structure that provides lateral support for a mass of soil or fluid and other imposed loads.

~~W.X.~~ “Site” is any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

~~X.Y.~~ “Slope” is an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

~~Y.Z~~ “Soil” is naturally occurring surficial deposits overlying bedrock.

~~Z.AA.~~ “Soil (Geotechnical) engineer” shall mean a civil engineer competent by education, training, and experience in the practice of soil engineering.

~~AA.BB.~~ “Soil (Geotechnical) engineering” shall mean the application of the principles of soil mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection and testing of the construction thereof.

~~BB.CC.~~ “Terrace” is a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

24.70.050 Information on Plans and in Specifications.

(Amended by Ordinance Nos. 173532, 184522, 185448 and 186053, effective January 1, 2015.) Plans and specifications shall be submitted in accordance with Section 24.10.070 and in addition shall comply with the following:

- A.** Plans shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this Title and all relevant laws,

ordinances, rules, and regulations. The first sheet of each set of plans shall give the location of the work and the name and address of the owner and the person by whom they were prepared.

The plans shall include the following information.

1 – 4. [No Change]

5. Detailed plans of all surface and subsurface drainage devices, walls, retaining walls, cribbing, dams, and other protective devices to be constructed with, or as a part of, the proposed work together with a map showing the drainage area and the estimated runoff of the area served by any drains.

6 – 10. [No Change]

B. [No Change]

24.70.060 [No Change]

24.70.070 [No Change]

24.70.080 [No Change]

24.70.085 Retaining Walls.

A. Retaining walls not regulated by the Oregon Residential Specialty Code or the Oregon Structural Specialty Code shall be designed in accordance with ASCE 7-16 and this section.

B. Soil loads shall be determined in accordance with ASCE 7-16. Retaining walls in which horizontal movement is restricted at the top shall be designed for at-rest pressure. Retaining walls free to move and rotate at the top shall be permitted to be designed for active pressure. Lateral pressure from surcharge loads shall be added to the lateral earth pressure load. Lateral pressure shall be increased if soils at the site are expansive or the retaining wall will support an ascending slope. Retaining walls shall be designed to support the weight of the full hydrostatic pressure of undrained backfill unless a drainage system is installed.

C. Retaining walls supporting more than 6 feet of backfill height, measured from the base of the footing to the top of the wall, shall incorporate an additional dynamic seismic lateral earth pressure. When the Monobe-okabe method is used to calculate the active dynamic seismic lateral earth pressure, a horizontal acceleration coefficient equal to or greater than one-half (0.5) the design peak horizontal ground acceleration shall be used.

D. Retaining walls shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed to resist the lateral action of soil to produce sliding and overturning with a minimum safety factor of 1.5 in each case. The load combinations of ASCE 7-16 shall not apply to this requirement. Instead, the design shall be based on 0.7 times nominal

earth-quake loads, 1.0 times other nominal loads, and the base of the retaining wall foundation divided by the net lateral force applied to the retaining wall.

Exception: Where earthquake loads are included, the minimum safety factor for retaining wall sliding and overturning shall be 1.1.

24.70.090 Setbacks.

- A. [No Change]
- B. [No Change]
- C. [No Change]