

TOPIC: Accessory Dwelling Units (ADU) – ORSC/3/#5

CODE: Oregon Residential Specialty Code, 2023 Edition

REVISED: December 14, 2023, [Rebecca Esau], Director

REFERENCE: Chapter 3 and Appendix K

SUBJECT: Construction allowance for detached ADUs and
ADUs within a detached or attached structure

QUESTION: What building code modifications are allowed for accessory dwelling units?

RESPONSE: ADUs must comply with the requirements of the Oregon Residential Specialty Code (ORSC) for two-family dwellings as modified by the alternative standards listed in this Code Guide. The ORSC and the alternative standards listed in this guide also apply when an ADU is created within an existing detached or attached structure. However, if the building containing the ADU is subject to the Oregon Structural Specialty Code (OSSC), the ADU must comply with the requirements of the OSSC; this guide does not apply.

CONSTRUCTION STANDARDS

A. Electrical System

- 1. Electrical panels.** ADUs must have electrical circuits completely independent of, and share no loads with, the main dwelling unit. It is recommended that the ADU be served by a separate service or panel. If this is not feasible, the electrical panel serving the main dwelling unit may be approved for this use. This panel must be in a common area with direct access from both units.
- 2. Electrical license.** All new electrical work shall be conducted by a licensed electrical contractor. Exemptions allowing homeowners to perform electrical work on their own homes do not apply to work for the creation or alteration of an ADU. If a new electrical service is installed for the ADU, or for both the ADU and the primary dwelling, a licensed electrical contractor must perform such installation work. When a new occupancy (ADU) is built within existing building space, the circuits are not considered "existing" and must have Arc-Fault Circuit Interrupter (AFCI) protection.

B. Heating System. The ADU and the primary dwelling unit shall have separate, independent heating and air conditioning systems (where air conditioning is provided), including direct access to their own system for service and repair, except as allowed as follows.

- 1. Mechanical Closets.** For conversions or additions, the furnace that supplies heat to the primary dwelling unit may remain in its original location, provided the primary dwelling unit's access to the furnace is either direct (without entering the ADU) or through a common space. The closet shall be considered part of the primary dwelling, and therefore, it shall be separated per section D.2.a below.
- 2. Ductwork.** For conversions and additions, existing ductwork serving the primary dwelling - but located within the ADU - may be left in place provided it is:
 - a.** Permanently sealed and terminated at the point where the ductwork enters the ADU; and
 - b.** All exposed ductwork for the primary dwelling unit located below the ceiling line of the ADU is wrapped with one layer of 5/8" Type X gypsum board.
- 3. Radiant Systems.** Radiant systems may be used or extended to the ADU provided both the ADU and the primary dwelling have separate climate controls. In such cases, a single boiler may serve both the primary dwelling and the ADU. The shared boiler must be in a common area with direct access from both units.

Note Regarding Combustion Air: When an existing area(s) is converted to an ADU, all existing fuel-fired equipment, including but not limited to a furnace or water heater, within that area(s) must be supplied with adequate combustion air per code.

C. Plumbing System. The ADU and the primary dwelling unit shall have separate, independent water supply and sanitary sewer systems, except as allowed as follows:

- 1. Water Heater.** Dwelling units may share a water heater provided the water heater is located in a common area with direct access from both units.
- 2. Water Supply.** If a single water supply line has been approved through the Water Bureau, the primary dwelling unit and the ADU may use an approved

common water supply provided one of the following criteria is met for each dwelling:

- a. Conversions or additions. Each individual fixture has a shut-off valve, or a whole dwelling shut-off valve is installed, accessible from both units.
 - b. New construction. Each unit is supplied with a control valve accessible from that unit.
 - c. The water supply line downstream from the meter may also need to be up-sized depending on the number of fixtures being added.
- 2. Sewer.** The ADU and the primary dwelling may use a common building sewer line provided:
- a. No more than five water closets (toilets) are on a single 3-inch line, and
 - b. New Fixtures. When the floor level of the ADU is lower than the next uphill manhole cover in the street, a backwater valve(s) for the drain piping serving each new plumbing fixture in the ADU is required. For basement conversions, the drain piping serving the plumbing fixture(s) located above the basement level cannot drain through the backwater valve(s) serving the new basement plumbing fixture(s), and it must connect to the building sewer downstream from the new basement fixture(s). When a backwater valve(s) is installed, it must remain accessible for maintenance and replacement within the ADU.

D. Fire and Life Safety

- 1. Occupant Designation.** Submittal drawings used to permit ADUs shall have clearly labeled rooms that indicate the occupants of the space. For example:
 - ADU Occupant
 - Where there are two ADUs, designate 'ADU1' and 'ADU2'
 - Primary Dwelling
 - Common (shared)
 - a. These labels are used in part to determine compliance with fire, sound transmission (STC), impact isolation (IIC) separation requirements, and permissible locations for appliances.
- 2. Separation Between Dwellings and between a Dwelling and Common Space.** Except as modified within this code guide, dwellings shall be separated from each other and common space by wall and floor assemblies

having not less than a one-hour fire-resistance rating, 45-STC, and a 45-IIC rating for floor/ceiling assemblies.

- a. New Construction.** Where a new wall or floor/ceiling is constructed, such new wall or floor/ceiling shall be constructed to comply with the Oregon Residential Specialty Code (ORSC) requirements for two-family dwellings.
- b. Existing conditions.** For the purpose of this subsection, a condition shall be considered existing if it was permitted, installed, and received a final inspection approval more than two years prior to the ADU permit application date. Finishes that do not meet these criteria must be removed and brought up to the current code, per Section D.2.a, above. This code guide allows the following reductions in the Fire, STC, and IIC separations, when existing elements and/or assemblies are used to achieve dwelling separation:

- 1) Separation walls.** Existing stud-framed walls which serve as separation walls shall be covered on both sides with:

- a)** Existing lath and plaster in sound condition; or
- b)** Existing half-inch (minimum) gypsum wallboard in sound condition

If the existing finishes remain in place, no additional improvements for Fire or STC separation are required for the existing separation walls. Minor patching shall be permitted at the discretion of the building inspector.

- 2) Floor / Ceiling Separations.** Existing floor framing with existing subfloor and covering material (e.g., carpet, tile, hardwood) that serve as part of the floor/ceiling separation shall be permitted to remain in place without any improvements.

Existing ceiling finish material attached to existing floor framing shall be permitted to remain as part of the proposed floor/ceiling separation if it meets the following criteria:

- a)** Existing lath and plaster in sound condition; or
- b)** Existing half-inch (minimum) gypsum wallboard in sound condition

If the existing finishes remain in place, no additional improvements for Fire, STC, or IIC separation are required for the existing floor/ceiling separation. Minor patching shall be permitted at the discretion of the

building inspector. Where a new can light is installed, or the ceiling around a can light is opened during construction, the opening is required to be boxed out within the joist space.

Where the existing ceiling finish does not meet the minimum requirements above, the following floor/ceiling assembly is a prescriptive option for the conversion of an existing space into an ADU:

- Existing floor structure with existing finish (any joist size and spacing)
- Resilient Channels
- 3-inch-thick glass fiber insulation
- Minimum half-inch Type X gypsum wallboard

This floor/ceiling assembly will be accepted to meet the fire rating and sound separation requirements.

3) Openings.

- c) A door between a dwelling unit and common space must be a minimum of 1-3/8- inch-thick solid wood, honeycomb core steel, or 20-minute fire-resistance rated.
- d) A door between dwelling units in newly constructed buildings shall be allowed if door is:
 - Minimum 60-minute fire-resistance rated; and
 - Self-closing; and
 - Smoke gasketed.
- e) Openings between dwelling units in existing construction will be considered on a case-by-case basis through the BDS administrative appeals process.

4) Supporting Construction. The beams, columns, and bearing walls supporting a fire-rated floor/ceiling assembly that separates dwelling units or separates a dwelling unit from common space must be fire-rated as well. The following structure elements will be accepted as sufficient:

- a) Exposed wood columns not less than 6-inch nominal thickness.
- b) Existing exposed wood beams not less than 4 inches nominal thickness

- c) Existing bearing walls with at least half-inch gypsum wallboard protection

New columns, beams, and bearing walls must demonstrate the one-hour fire-resistance rating. This must be documented through char calculations, layers of gypsum wallboard, or other tested fire protection assemblies. See BOD 19-02 for additional options.

3. Ceiling height, stairs, light, ventilation, emergency egress, and energy conservation. New buildings or additions which create an ADU and new elements in existing buildings shall comply with the ORSC. Existing conditions and elements in existing buildings may use the Habitable Space Standards Code Guide (ORSC/3/#1) with the following revisions:

- a. **Hallways.** Existing hallways shall be at least 2 feet 6 inches wide. The ceiling height shall be at least 6 feet 8 inches, except that hallways with a sloping ceiling may have a ceiling height of 6 feet 2 inches at the lowest side when the ceiling height at the center of the required hallway is at least 6 feet 8 inches.

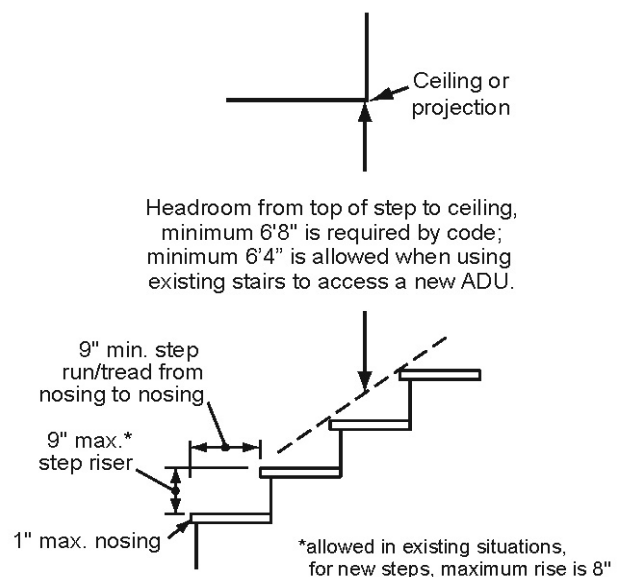
b. Doors

1) Dwelling Entrance

Doors. All interior and exterior doors serving as or leading to the primary entrance to an ADU shall be at least 6 feet 8 inches high and have at least a 30-inch clear opening.

- c. **Stairs.** Stairways shall have at least 6 feet 4 inches of headroom measured vertically from the sloped line of the tread nosings or from the landing or platform on that portion of the stairway, measured to the lowest overhead projection or ceiling. See Figure 1.

Figure 1



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For general inquiries and information on BDS service hours, call 503-823-7300 or visit <https://www.portlandoregon.gov/bds>.

Updates December 14, 2023, references and code parity
Updates March 15, 2019 edition, formerly within the rescinded ADU Program Guide.
Updates January 10, 2019 edition
Updates December 21, 2018 edition
Updates June 22, 2016 edition
Updates January 4, 2016 edition
Updates February 20, 2013 edition
Updates April 15, 2010 edition
Updates September 1, 2007 edition
Updates February 1, 2006 edition
Updates March 1, 2004 edition
Updates July 1, 2000 edition, which superseded and replaced BDS (formerly Office of Planning and Development Review and Bureau of Buildings) Policy and Procedure D-81.