

R302.1 Exterior walls. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1(1); or dwellings equipped throughout with an automatic sprinkler system installed in accordance with Section P2904 shall comply with Table R302.1(2).

Exceptions:

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Walls of individual dwelling units and their accessory structures, without living space, located on the same.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.

R310.1 Emergency escape and rescue opening required. Basements, habitable attics, accessory structures with living space, and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an *emergency escape and rescue opening* shall be required in each *sleeping room*. *Emergency escape and rescue openings* shall open directly into a public way, or to a *yard* or *court* having a minimum width of 36 inches (914 mm) that opens to a *public way*.

R328.4 Locations. ESS shall be installed only in the following locations:

1. Detached garages and detached accessory structures without living space.
2. Attached garages separated from the *dwelling unit living space* in accordance with Section R302.6.
3. Outdoors or on the exterior side of exterior walls located not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit.
4. Enclosed utility closets, basements, storage or utility spaces within *dwelling units* with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8-inch (15.9 mm) Type X gypsum wallboard.

R328.5 Energy ratings. Individual ESS units shall have a maximum rating of 20 kWh. The aggregate rating of the ESS shall not exceed:

1. 40 kWh within utility closets, basements and storage or utility spaces.
2. 80 kWh in attached or detached garages and detached accessory structures without living space.
3. 80 kWh on exterior walls.
4. 80 kWh outdoors on the ground.

R403.1.4.1 Frost protection. Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extended below the frost line specified in Table R301.2.
2. Constructed in accordance with Section R403.3.
3. Constructed in accordance with ASCE 32.
4. Erected on solid rock.

Footings shall not bear on frozen soil unless the frozen condition is permanent.

Exceptions:

1. Protection of free-standing, accessory structures without living space with an area of 600 square feet (56 m²) or less, of light-frame construction, with an eave height of 10 feet (3048 mm) or less shall not be required.
2. Protection of free-standing, accessory structures without living space with an area of 400 square feet (37 m²) or less, of other than light-frame construction, with an eave height of 10 feet (3048 mm) or less shall not be required.

Supporting Information (Required):

All proposals must include a written explanation and justification as to how they address physical, environmental, and/or customary characteristics that are specific to the City and County of Denver. The following questions must be answered for a proposal to be considered.

- Purpose: What does your proposal achieve?

This proposal will ensure that accessory structures built or modified to include living space, which by definition includes habitable space, will have the appropriate features and safety as required for similar spaces within a dwelling unit.

- Reason: Why is your proposal necessary?

Denver has experienced significantly increased interest amongst residents to expand the living space of their homes into their accessory structure. This was greatly increased by the temporary closing of many businesses during 2020 which motivated homeowners to create offices and gyms in accessory structures, for example. This change in use and increase in frequency of use, necessitates these areas be constructed as living spaces. Heating, energy conservation, egress, smoke and CO alarms, garage fire separation, and electrical outlet distribution are subjects that only apply to dwellings or dwelling units throughout the IRC.

- Substantiation: Why is your proposal valid? (i.e. technical justification)

The definition for living space only applies to living space within a dwelling, as the IRC has always considered the occupants activities occurring in accessory structures to be relatively short in their duration of use and utilitarian in nature. However, modifications are desired by Denver citizens enhance the comfort of accessory structures such that the activities occurring within are more similar to that occurring in the dwelling. For this reason, “dwelling unit” is proposed for replacement with “buildings”, which by definition includes both dwellings and accessory structures. A list of spaces not to be interpreted as living space is also included and matches the method used in the habitable space definition to clarify which spaces are not to be considered, even though the listed activities “could” occur. Garages, and the other listed spaces should not be considered living space for the sake of code applications. To further distinguish garages, including heated garages, from other accessory structures, a definition for garage has been proposed. This definition is derived from the provisions for garages and carports in section 309. Table R302.6 for dwelling-garage separation refers to “residence”. This term is not used elsewhere in the IRC and is not defined. To avoid confusion and to maintain consistency with the intent of this amendment for living space within accessory structures, a new definition for “residence” was added that simply refers the reader to “dwelling unit”.

The newly proposed section 101.3 Accessory structures, will apply all provisions in the IRC for dwellings, dwelling units, and residences to living space within accessory structures. Where the code refers to these housing types, there are generally further and more specific requirements for the functions of the spaces within. This section will allow the specific actions of sleeping, cooking, eating, etc in the definition of living space to be appropriately addressed regardless of the building they are within. In the exceptions, the requirement for a bathroom and kitchen in every dwelling unit is removed for living space within accessory structures. The second exception references the soil gas exhaust (radon) appendix and aligns with the threshold of 200 square feet it provides. The third exception allow the building official discretion for specific situations where unforeseen and unintended applications or interpretations of this amendment would not be appropriate for the purpose of this code.

Section R310.1 only references basement, habitable attics and sleeping rooms for the requirement of an emergency escape and rescue opening. However, many conditioned accessory structures with living space are used by the occupants similarly to basements and habitable attics. Often guests or child sleepovers will occur in these buildings. The probability of sleeping in a conditioned accessory structure with living space even without a designated or delineated sleeping room within, is a probable expectation and should be protected with a secondary means of escape or rescue.

Sections 328.4 and 328.5 provide code provisions regarding the location of energy storage systems and limits to their capacity. In these sections “accessory structures” is listed alongside “garages” under the expectation that these accessory structures do not contain living space. In making these amendments to better address the unique needs of a living space within an accessory structure, it is critical a distinction be made that the section 328 provision for accessory structures do not apply to accessory structures with living space.

The exceptions for frost protection of limited size accessory structures are proposed for modification to exclude accessory structures containing living space. Frost protection of building foundation is not a direct life safety provision and is not affected by the action of an occupant within, such as those listed in the definition of living space. However, the nature of increasing the comfort of a space and the duration and frequency of its use does have a direct relationship to the features, finishes, and financial investment in the space. With this increased magnitude of finished construction, like a dwelling, it is appropriate to require a more reliable and durable foundation to protect the investments expectations of Denver citizens. An accessory structure is typically not finished with rigid surface coverings such as gypsum board and thus the building can tolerate more differential movement from a less stable foundation. Living space is conventionally finished space and will likely have materials that cannot tolerate the same instability.

Bibliography and Access to Materials (as needed when substantiating material is associated with the amendment proposal):

Other Regulations Proposed to be Affected

***For proposals to delete content from the 2019 Denver Green Code in conjunction with adding it to other mandatory Denver codes and/or regulations, only.**

Please identify which other mandatory codes or regulations are suggested to be updated (if any) to accept relocated content.

Referenced Standards:

List any new referenced standards that are proposed to be referenced in the code.

Impact:

How will this proposal impact cost and restrictiveness of code? ("X" answer for each item below)

Cost of construction: Increase ___ Decrease ___ No Impact

Cost of design: Increase ___ Decrease ___ No Impact

Restrictiveness: Increase ___ Decrease ___ No Impact

Departmental Impact (City use only):

This amendment proposal increases/decreases/is neutral to the cost of plans review.

This amendment increases/decreases/is neutral to the cost of inspections.