



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

May 2018
Log No. _____

1. State Building Code to be Amended:

- | | |
|--|---|
| <input type="checkbox"/> International Building Code | <input type="checkbox"/> International Mechanical Code |
| <input type="checkbox"/> ICC ANSI A117.1 Accessibility Code | <input type="checkbox"/> International Fuel Gas Code |
| <input type="checkbox"/> International Existing Building Code | <input type="checkbox"/> NFPA 54 National Fuel Gas Code |
| <input checked="" type="checkbox"/> International Residential Code | <input type="checkbox"/> NFPA 58 Liquefied Petroleum Gas Code |
| <input type="checkbox"/> International Fire Code | <input type="checkbox"/> Wildland Urban Interface Code |
| <input type="checkbox"/> Uniform Plumbing Code | |

For the Washington State Energy Code, please see specialized [energy code forms](#)

Section(s): R326 (new)
(e.g.: Section: R403.2)

Title: Lofts
(e.g: Footings for wood foundations)

2. Proponent Name (Specific local government, organization or individual):

Proponent: Washington Association of Building Officials Technical Code Development Committee (WABO TCD)

Title:

Date: February 28, 2022

3. Designated Contact Person:

Name: Jon Siu
Title: Technical Consultant
Address:

Office Phone: (206)888-7331

Cell: ()

E-Mail address: jonsiuconsulting@gmail.com

4. Proposed Code Amendment. Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code, additional pages may be attached.

Clearly state if the proposal modifies an existing amendment or if a new amendment is needed. If the proposal modifies an **existing amendment**, show the modifications to the existing amendment by underlining all added language and striking through all deleted language. If a new amendment is needed, show the modifications to the **model code** by underlining all added language and striking through all deleted language.

Code(s) IRC _____ Section(s) R326 (new)

Enforceable code language must be used.

Amend section to read as follows:

1) ADD DEFINITION FOR "LOFT," DELETE DEFINITION OF "SLEEPING LOFT" AS FOLLOWS:

**SECTION R202
DEFINITIONS**

LOFT. A space on an intermediate level or levels between the floor and ceiling of a *dwelling or sleeping unit*, open on one or more sides to the room or space in which the loft is located, and in accordance with Section R326.

~~**SLEEPING LOFT.** A sleeping space on a floor level located more than 30 inches (726 mm) above the main floor and open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032 mm).~~

2) DELETE SECTION R327 (SLEEPING LOFTS) IN ITS ENTIRETY:

~~**SECTION R327
SLEEPING LOFTS**~~

[Delete all text in section]

3) ADD NEW SECTION R326 (LOFTS) AS FOLLOWS AND RENUMBER SUBSEQUENT SECTIONS:

**SECTION R326
LOFTS**

R326.1 Lofts. Where provided in *dwelling units* or *sleeping units*, *lofts* shall comply with this code as modified by Sections R326.1 through R326.5. *Lofts* constructed in compliance with this section shall be considered a portion of the story below. Such *lofts* shall not contribute to the number of stories as regulated by this code.

Exception: *Lofts* need not comply with Section R326 where they meet any of the following conditions:

1. The *loft* has a maximum depth of less than 3 feet (914 mm).

2. The *loft* has a floor area of less than 35 square feet (3.3 m²).
3. The *loft* is not provided with a permanent means of egress.

R326.2 Loft limitations. Lofts shall comply with the following conditions:

1. The *loft* floor area shall be less than 70 square feet (6.5 m²).
2. The *loft* ceiling height shall not exceed 7 feet (2134 mm) for more than one half of the *loft* floor area.

The provisions of Sections R326.3 through R326.5 shall not apply to *lofts* that do not comply with Items 1 and 2 of this section.

R326.3 Loft ceiling height. The ceiling height below a *loft* shall not be less than 7 feet (2134 mm). The ceiling height above the finished floor of the *loft* shall not be less than 3 feet (914 mm). Portions of the *loft* with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not contribute to the *loft* floor area.

R326.4 Loft area. The aggregate area of all *lofts* and *mezzanines* within a room shall comply with Section R325.3.

Exception: The area of a single *loft* located within a dwelling unit or sleeping unit equipped with an automatic sprinkler system in accordance with Section P2094-P2904 shall not be greater than two-thirds of the area of the room in which it is located, provided that no other *lofts* or *mezzanines* are open to the room in which the *loft* is located.

R326.5 Permanent egress for lofts. Where a permanent means of egress is provided for *lofts*, the means of egress shall comply with Section R311 as modified by Section R326.5.1.

R326.5.1 Ceiling height at loft means of egress. A minimum ceiling height of 3 feet shall be provided for the entire width of the means of egress from the *loft*.

4) **MODIFY WSRC SECTIONS R325.1, R311.4, 311.7.11, 311.7.12, R312.1.1, R312.1.2, and R314.3 AS FOLLOWS:**

R325.1 General. Mezzanines shall comply with Sections R325 through R325.5. *Habitable attics* shall comply with Section R326.

Exception: Lofts in Group R occupancy dwelling units and sleeping units shall be permitted to comply with Section R326, subject to the limitations in Section R326.1.

R311.4 Vertical egress. Egress from habitable levels including *lofts*, habitable attics and *basements* not provided with an egress door in accordance with Section R311.2 shall be by a ramp in accordance with Section R311.8 or a stairway in accordance with Section R311.7.

Exception: ~~Stairs~~ Stairways, alternating tread devices, ship's ladders, or ladders within an individual dwelling unit or sleeping unit used for access to areas of 200 square feet (18.6 m²) or less, and not containing the primary bathroom or kitchen are exempt from the requirements of Sections R311.4 and R311.7, where such devices do not provide exclusive access to a kitchen or bathroom. Such areas shall not be located more than 10 feet (mm) above the finished floor of the space below.

R311.7.11 Alternating tread devices. Alternating tread devices shall not be used as an element of a means of egress. Alternating tread devices shall be permitted provided that a required means of egress stairway or ramp serves the same space at each adjoining level or where a means of egress is not required. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

~~**Exception:** Alternating tread devices are allowed to be used as an element of a means of egress for lofts, mezzanines and similar areas of 200 gross square feet (18.6 m²) or less where such devices do not provide exclusive access to a kitchen or bathroom.~~

R311.7.12 Ship's ladders. Ship's ladders shall not be used as an element of a means of egress. Ship's ladders shall be permitted provided that a required means of egress stairway or ramp serves the same space at each adjoining level or where a means of egress is not required. The clear width at and below the handrails shall be not less than 20 inches.

~~**Exception:** Ship's ladders are allowed to be used as an element of a means of egress for lofts, mezzanines and similar areas of 200 gross square feet (18.6 m²) or less that do not provide exclusive access to a kitchen or bathroom.~~

R312.1.1 Where required. *Guards* shall be provided for those portions of open-sided walking surfaces, including mezzanines, lofts in accordance with Section R326, stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or *grade* below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a *guard*.

R312.1.2 Height. Required *guards* at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) in height as measured vertically above the adjacent walking surface or the line connecting the *nosings*.

Exceptions:

1. *Guards* on the open sides of stairs shall have a height of not less than 34 inches (864 mm) measured vertically from a line connecting the *nosings*.
2. Where the top of the *guard* serves as a handrail on the open sides of stairs, the top of the *guard* shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) as measured vertically from a line connecting the *nosings*.
3. In areas with ceiling heights of 7 feet (2134 mm) or less in lofts constructed in accordance with Section R326, guards shall not be less than 36 inches (914 mm) in height or one-half of the clear height from the loft floor to the loft ceiling, whichever is less.

R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room ~~or sleeping loft~~.
2. Outside each separate sleeping area in the immediate vicinity of **the bedrooms**.
3. On each additional *story* of the *dwelling*, including *basements* and *habitable attics* and not including crawl spaces and uninhabitable *attics*. In *dwellings* or *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full *story* below the upper level.
4. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by this section.
5. In napping areas in a *family home child care*.
6. Within the room to which a loft is open, in the immediate vicinity of the loft.

5. Briefly explain your proposed amendment, including the purpose, benefits and problems addressed. Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

This proposal introduces “lofts” into the Residential Code, aligning the 2021 WSRC with the loft amendments that have been approved by the SBCC for inclusion in the 2021 WA State Building Code (WSBC).

Sleeping lofts were introduced into the 2018 WA State Residential Code (WSRC), and this proposal expands on that concept. It is also similar to a proposal submitted by WABO’s Technical Code Development Committee (TCD) to the 2022 Group B code development cycle for inclusion in the 2024 IRC. Similar provisions will be in an appendix in the 2024 IBC.

Some key concepts embedded in the proposal:

- This proposal moves the loft provisions to Section R326, similar to TCD’s Group B proposal. This is because lofts are more closely related to mezzanines, as opposed to habitable attics (Section R326 in the 2018 code), and should therefore be located in the same vicinity as mezzanines.
- Unlike the 2018 WSRC provisions, lofts are not restricted to sleeping areas—the use of the space is unrestricted (see definition).
- Lofts must have a permanent means of egress. An area that looks like a loft but is not provided with a permanently affixed stair, ladder, alternating tread device, or ships ladder does not need to comply with this section (see R326.1, Exception 3).
- Lofts are intended to be small, and are allowed to have lower ceiling heights than normal habitable spaces (see R326.2). Lofts meeting dimensional requirements of habitable space must meet all the habitable space requirements.
- Generally, lofts must meet the provisions of the base code, except as modified by this proposal (see R326.1).

Other details and explanations:

- Similar to mezzanines, lofts do not count as a story (R326.1), and the aggregate area of mezzanines and lofts must meet the requirements of mezzanines (R326.4). However, if there is only one loft in the room, it is allowed to be larger than would ordinarily be allowed, if the dwelling/sleeping unit is sprinklered (R326.4 exception). The exception is similar to an exception in the IBC, where mezzanines and equipment platforms are allowed to be larger.
- Several changes are proposed for the exception to R311.4 (a Washington State amendment):
 - “Stairs” is changed to “stairways” to align the language with the parallel amendment in the WSBC, and because “stairways” is the more correct term, based on a comparison of the definitions of the two terms.
 - Alternating tread devices and ship’s ladders are added to the stairs allowed to serve the 200 square-foot area.
 - “...and not containing the primary bathroom or kitchen...” is changed to “where devices do not provide exclusive access to a kitchen or bathroom” to correspond with new exceptions to alternating tread devices and ship’s ladders in the 2021 IRC (see R311.7.11 and R311.7.12). Note this proposal deletes those new exceptions because the Washington State amendment is broader than the new exceptions and the changes to the exception to R311.4 cover alternating tread devices and ship’s ladders.
- Guards are required at the open sides of lofts (R312.1.1), but where lofts have low ceilings, the guard height is allowed to be half the height of the opening (R312.1.2, Exception 3).
- In order to provide early warning to multiple uses including sleeping, a smoke alarm is required in the vicinity of lofts in the same way smoke alarms are required outside bedrooms (see R314.3).

There should be minimal impact on enforcement—no extra inspections or reporting requirements over what is currently needed for sleeping lofts, unless the option in R326.3 is chosen to increased mezzanine + loft area (requires sprinklers which then triggers other inspections).

Additional information for 5/17/2022 Revision:

R314.3: We are clarifying the location of the required smoke alarm for lofts in response to comments we received at the ICC hearings in March. Commenters felt that the originally-proposed language would allow the smoke alarm to be placed in the hallway outside of a bedroom door, if the loft were to be located in a bedroom. This was not our intent—we wanted the smoke alarm to be in close proximity to the loft, to provide adequate early warning given the non-traditional egress and lower ceiling heights. We also received a comment that if the loft opened to a very large room, the smoke alarm should not be located at the far end of the room from the loft. The revised language clarifies:

1. The smoke alarm must be located within the room to which the sleeping loft opens. This should address the concern regarding locating the alarm in the hallway.
2. Within the room, the smoke alarm must be located in close proximity to the sleeping loft ("in the immediate vicinity"). This allows some flexibility in locating the smoke alarm, but should address the concern that it could be located a long distance away if the sleeping loft is open to a very large room.

Note that we are no longer modifying Item 2. We are retaining the original text in the 2021 IRC.

This revision is being submitted to the ICC code development process. There will be a Public Comment Hearing later this year (currently scheduled for September 14-21) where it will be heard by the ICC membership.

6. Specify what criteria this proposal meets. You may select more than one.

- The amendment is needed to address a critical life/safety need.
- The amendment clarifies the intent or application of the code.
- The amendment is needed to address a specific state policy or statute.
- The amendment is needed for consistency with state or federal regulations.
- The amendment is needed to address a unique character of the state.
- The amendment corrects errors and omissions.

7. Is there an economic impact: Yes No

If no, state reason:

Providing lofts is a design option, not a requirement. This proposal expands on the sleeping loft concept already in the WSRC (= more design flexibility, which in some cases can increase housing options).

If yes, provide economic impact, costs and benefits as noted below in items a – f.

- Life Cycle Cost.** Use the OFM Life Cycle Cost [Analysis tool](#) to estimate the life cycle cost of the proposal using one or more typical examples. Reference these [Instructions](#); use these [Inputs](#). Webinars on the tool can be found [Here](#) and [Here](#)). If the tool is used, submit a copy of the excel file with your proposal submission. If preferred, you may submit an alternate life cycle cost analysis.
- Construction Cost.** Provide your best estimate of the construction cost (or cost savings) of your code change proposal.

\$Click here to enter text./square foot

(For residential projects, also provide \$Click here to enter text./ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

- c. **Code Enforcement.** List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

- d. **Small Business Impact.** Describe economic impacts to small businesses:

- e. **Housing Affordability.** Describe economic impacts on housing affordability:

- f. **Other.** Describe other qualitative cost and benefits to owners, to occupants, to the public, to the environment, and to other stakeholders that have not yet been discussed:

Please send your completed proposal to: sbcc@des.wa.gov

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.