



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

Washington State Energy Code Development Standard Energy Code Proposal Form

Jan 2022

Log No. 24-GP1-179

Revised by Proponent 3/20/25

L. Rosenow Revision Rec'd 3/26/25

Code being amended: Commercial Provisions Residential Provisions

Code Section # **C402.1.1.2 Semi-heated buildings and space**

Brief Description:

Envelop requirements for a fully conditioned space within a semi-heated building. Develop an energy code proposal that acknowledges the different environmental conditions for a fully conditioned space with a semi-heated building.

Proposed code change text: (Copy the existing text from the Integrated Draft, linked above, and then use underline for new text and ~~strikeout~~ for text to be deleted.)

C402.1.1.2 Semi-heated buildings and space. The building thermal envelope of semi-heated buildings, or portions thereof, shall comply with the same requirements as that for conditioned spaces in Section C402, except as modified by this section. The total installed output capacity of mechanical space conditioning systems serving a semi-heated building or space shall comply with Section C202. ~~Building thermal envelope assemblies separating conditioned space from semi-heated space shall comply with the exterior envelope insulation requirements as in Table C402.1.3.~~ Semi-heated spaces are not required to comply with the opaque wall insulation provisions of Section C402.2.3 for walls that separate semi-heated spaces from the exterior or low energy spaces. For opaque thermal envelope assemblies separating conditioned space from semi-heated space, wall and floor cavities shall be insulated to full depth with insulation having a minimum nominal value or R-3 per inch, mass walls shall comply with Table C402.1.2 or Table C402.1.3, and the minimum R-value for ceilings (lids) that are detached from the building exterior roof shall be R-25. Fenestration that forms part of the building thermal envelope enclosing semi-heated spaces shall comply with Section C402.4. Semi-heated spaces shall be calculated separately from other conditioned spaces for compliance purposes.

Black WSEC 2021 - existing
code Red IECC 2024
Blue: code change proposal

TABLE C402.1.3
OPAQUE ~~BUILDING~~ THERMAL ENVELOPE INSULATION COMPONENT MINIMUM
REQUIREMENTS, R-VALUE METHOD ~~(a, b, c)~~

CLIMATE ZONE	5 AND MARINE 4	
	All Other	Group R
Roofs		
Insulation entirely above deck	R-38ci	R-38ci
Metal buildings ^b	R-25 + R-22 LS	R-25 + R-22 LS
Attic and other	R-49	R-49

At roofs(lids) separating semi-heated spaces from fully conditioned spaces which are detached from the roof	R-25	NA
Wall, Above Grade		
Mass ^f	R-11.4 ^c ci	R-13.3ci
Mass transfer deck slab edge ^g	See Table C402.1.2	See Table C402.1.2
Metal building	R-13 + R-14ci	R-13 + R-14ci
Steel framed ^{h,i}	R-0 + R-15.2ci or R-13 + R-10ci or R-20 + R-9ci	R-0 + R-15.2ci or R-13 + R-10ci or R-20 + R-9ci
At walls separating semi-heated spaces from conditioned spaces - Steel framed^{h,i}	R-13 + R-10R-0ci or R-21 + R-0 ci or R-25 + R0 ci	NA
Wood framed and other ^{h,i}	R-0 + R-16ci std or R-13 + R-7.5ci std or R-20+R-3.8ci std or R-27 std	R-0 + R-16ci std or R-13 + R-7.5ci std or R-20 + R-3.8ci std or R-25R-27 std
At walls separating semi-heated spaces from fully conditioned spaces - Wood framed and other^{h,i}	R-13 + R-0 ci or R-21 + R-0 ci or R-25 + R0 ci	NA
Walls, Below Grade		
Below-grade wall ^{d, h}	Same as above grade	Same as above grade
Floors		
Mass ^f	R-30ci	R-30ci
Joist/framing	R-30 ^e	R-30 ^e
Slab-on-Grade Floors		

Purpose of code change:

[To recognize and adjust the design requirements for interior wall and lids separating conditioned space from semi- heated space](#)

Your amendment must meet one of the following criteria. Select at least one:

- | | |
|---|---|
| <input type="checkbox"/> Addresses a critical life/safety need. | <input type="checkbox"/> Consistency with state or federal regulations. |
| <input type="checkbox"/> The amendment clarifies the intent or application of the code. | <input type="checkbox"/> Addresses a unique character of the state. |
| <input type="checkbox"/> Addresses a specific state policy or statute.
(Note that energy conservation is a state policy) | <input checked="" type="checkbox"/> Corrects errors and omissions. |

Check the building types that would be impacted by your code change:

- | | | |
|--|---|--|
| <input type="checkbox"/> Single family/duplex/townhome | <input type="checkbox"/> Multi-family 4 + stories | <input type="checkbox"/> Institutional |
| <input type="checkbox"/> Multi-family 1 – 3 stories | <input type="checkbox"/> Commercial / Retail | <input checked="" type="checkbox"/> Industrial |

Your name [Brett Conway](#)

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Your organization [Mackenzie](#)

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Other contact name [Click here to enter text.](#)

Economic Impact Data Sheet

Is there an economic impact: Yes No

Briefly summarize your proposal's primary economic impacts and benefits to building owners, tenants, and businesses. If you answered "No" above, explain your reasoning.

To recognize and adjust the design requirements for interior wall and lids separating conditioned space from semiheated space. This will reduce the construction cost on the common walls between conditioned and semi-heated space..

Provide your best estimate of the **construction cost** (or cost savings) of your code change proposal? (See OFM Life Cycle

Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). [Webinars on the tool can be found Here and Here](#))

\$NA/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

[Estimating this value will be different on each project due to the extent of walls within the layout.](#)

Provide your best estimate of the **annual energy savings** (or additional energy use) for your code change proposal?

[Not applicable](#) KWH/ square foot (or) [Click here to enter text.](#)KBTU/ square foot

(For residential projects, also provide [Click here to enter text.](#)KWH/KBTU / dwelling unit)

Show calculations here, and list sources for energy savings estimates, or attach backup data pages

[Not applicable](#)

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

[No additional time requirements will be required.](#)

Small Business Impact. Describe economic impacts to small businesses:

[None](#)

Housing Affordability. Describe economic impacts on housing affordability:

[Not applicable](#)

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:

Instructions: Send this form as an email attachment, along with any other documentation available, to: sbcc@des.wa.gov. For further information, call the State Building Code Council at 360-407-9255.

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