



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

1. State Building Code Amended:

X International Residential Code

Section(s): BL101, BL102, BL103, BL104, BL105, BL106, BL107, BL108

Title: Appendix BL - Hemp-Lime (Hempcrete) Construction (new appendix)

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

Proponent: Minority Hemp Builders Association

Title: 501(c)3 non-profit organization

Date: 8/17/2024

3. Designated Contact Person:

Name: Ashley Stallworth

Title: Code Development Director

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4. Proposed Code Amendment. New amendment needed

Code(s) IRC **Section(s)** Appendices BL

Enforceable code language must be used.

Amend section to read as follows: Adopt statewide the following 2024 IRC appendices:
BL (new appendix),

Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.

We are encouraging SBCC to adopt the following IRC appendices for the 2024 code adoption cycle:

Appendix BL - Hemp-Lime (Hempcrete) Construction [new appendix in the 2024 IRC]

Each one describes and regulates an alternative wall system, all of which use natural materials in various ways. In the state of Washington there are many contractors, small businesses, and individual home owners who would benefit from more accessibility to be able to build with these alternative means of construction.

All of these systems can help address the increasing need to reduce our buildings' negative impacts on the environment, including the global climate, and address the impacts of a changing climate on buildings, including increased firestorms.

All of these earthen wall systems are very fire-resistant building materials, while also having a low environmental impact.

The ability to build with site- or locally-sourced materials further reduces processing and transportation impacts as well as costs.

These appendices give the building official greater flexibility to consider empirical evidence and lifecycle impacts in meeting the intent of the code while not abridging health and life-safety requirements.

The appendices are well-developed, comprehensive, tied directly to other requirements of the well-established IRC, and well vetted through the code development process. In addition to our core team, they received input from experienced design and building professionals, industry representatives, and building officials, in California and other states.

Other compelling reasons for SBCC adoption of these appendices and their building systems include:

-High resistance to fire, now a concern through much of the US due to seasonal wildfires. Cob walls earned a 2-hour fire-resistance rating with ASTM E119 tests. Light straw-clay and hemp-lime walls are inherently fire resistant by virtue of their required plaster finishes.

-Climate beneficial, with low embodied carbon and/or high carbon sequestration of the constituent materials of straw, clay, earth, hemp and lime.

-Ensure safe and proper use of these (and other) building systems through plan check and inspections, especially for citizens who have been known to otherwise build without permits when faced with permitting obstacles.

-Use of low-cost, locally sourced, rapidly renewable, biodegradable materials.

-Hemp-lime (hempcrete) is a burgeoning industry, gaining popularity and use since the cultivation of hemp was legalized in the U.S. in 2018.

-Removes impediments to greater use of these building systems.

1. **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 unique character of the state.

1. **Is there an economic impact:** Yes

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

Our state has an aggressive goal of building 1.1 million homes over the next 18 years, being able to provide and integrate into construction local regional building materials that are green, fire resistant, moisture resistant and energy efficient will help bring more sustainable quality buildings for a state that spends 300 billion annually on construction. It will reduce costs, speed up construction and provide a regional material that workforce can readily and happily use atop of creating economic opportunities for our small and midsized businesses

a. **Construction Cost.** Provide your best estimate of the construction cost (or cost savings) of your code change proposal.

Cost per /square foot \$9.00 per square ft

Cost savings are reduction of usage of drywall (\$2.00), traditional insulation(\$4.50), acoustic barrier (\$10.00)

So all of those added up = \$16.50 compared to \$9.00 per square foot

- a. **Code Enforcement.** We would like this to be highlighted as it will bring a lot of value to Washingtonians; awareness that this is available is critical to adoption
- b. **Small Business Impact.** This will help bring economic gain for small business's especially in restoration, retrofit, remodels and new construction. A New green option that is regionally produced from our agricultural fields!
- a. **Housing Affordability.** This will help lower cost, and improve energy efficiency which will reduce consumer costs.
- a. **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:

*** This appendix utilization will bring a fire resistant, moisture resistant, pest resistant and more energy efficient product to market that fits our new energy code CI (continuous insulation protocol) to assure a proper R value is created

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.