AMENDMENT PROPOSAL

Please provide all of the following items in your amendment proposal.

**Code Sections/Tables/ Figures Proposed for Revision:**
IRC Section R702.7 Vapor Retarders

**Note:** If the proposal is for a new section, indicate (new).

**Proposal:**

R702.7 Vapor retarders. Class I or II vapor retarders are required on the interior side of frame walls in Climate Zones 5, 6, 7, 8 and Marine 4.

R702.7.1 Class I vapor retarder installation.

Installation of a Class I vapor retarder shall comply with all of the following:

1. Seal vapor retarder to framing with construction adhesive or equivalent at the top and bottom plates, around window and door openings, and other areas where needed to create a tight seal.
2. Seal vapor retarder around air-tight utility boxes and other penetrations in the assembly.
3. All seams in the vapor retarder shall be overlapped at least 6 inches (152 mm) and sealed with compatible sealing tape or equivalent.

Installation of a Class II vapor retarders shall be in accordance with manufacturer’s instructions.

**Note:** Show the proposal using **strikeout**, **underline** format. At the beginning of each section, one of the following instruction lines are also needed:

- Revise as follows
- Add new text as follows
- Delete and substitute as follows
- Delete without substitution
**Supporting Information:**

**Reason Statement:**

I have yet to see manufacture instructions for how to install a class one vapor retarder yet that is what the code relies on. The building science community has studied and reported on the fact that 90 plus percent of the moisture that enters walls or other assemblies is driven there by air leakage not diffusion. If a class one vapor retarder is installed and not sealed to prevent the majority of moisture transport via air leakage then it merely is trapping moisture not fully retarding its ability to enter the cavity. Yes, the barrier can substantially stop vapor diffusion which means that it is not forgiving and will not allow water vapor to diffuse back out of an assembly if it were to get in by other means than diffusion. The requirement to install a vapor retarder is reliant that it is installed correctly not only to stop or reduce vapor diffusion but also moisture that travels with air.

Minnesota has realized the reality and dichotomy of this situation and therefore has added some basic installation instruction into their adopted code. The language has been adapted here so as to offer guidance that is needed and missing in the industry. The building science is telling us in Denver climate zone 5b to us class III vapor barriers but the installation requirements are causing builders to choose class I. This was brought to the ICC 2021 committee action hearings and this proposal has been adapted per comments heard there and will be brought back for public comment.

**Note:** The following items are required to be included:

**Purpose:** The proponent shall clearly state the purpose of the proposed amendment to physical, environmental and customary characteristics that are specific to the City and County of Denver (e.g., clarify the Code; revise outdated material; substitute new or revised material for physical, environmental and customary characteristics; add new requirements to the Code; delete current requirements, etc.)

**Reasons:** The proponent shall justify changing the current Code provisions, stating why the proposal is necessary to reflect physical, environmental and customary characteristics that are specific to the City and County of Denver. Proposals that add or delete requirements shall be supported by a logical explanation which clearly shows why the current does not reflect physical, environmental and customary characteristics that are specific to the City and County of Denver and explains how such proposals will improve the Code.

**Substantiation:** The proponent shall substantiate the proposed amendment based on technical information and substantiation. Substantiation provided which is reviewed and determined as not germane to the technical issues addressed in the proposed amendment shall be identified as such.

**Bibliography** (as needed): The proponent shall submit a bibliography when substantiating material is associated with the amendment proposal. The proponent shall make the substantiating materials available for review.

**Referenced Standards:**

Click or tap here to enter text.

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

**Impact:**

Cost Implications

Although this proposal should not increase the cost of construction it is expected that it will slightly since the majority of the country does not enforce proper installation of class one vapor retarders.

**Note:** The proponent shall indicate one of the following regarding the impact of the amendment proposal:

- The effect of the amendment proposal on the cost of construction; Increase, Reduce, No Effect:
- The effect of the amendment proposal on the cost of design; Increase, Reduce, No Effect:
- Is the amendment proposal more- or less-restrictive than the I-Codes; More, Less, Same:

**Departmental Impact:**

Click or tap here to enter text.

November 15, 2005
Note: Indicate one of the following regarding the impact of the amendment proposal:

- The effect of the amendment proposal on the cost of review; Increase, Reduce, No Effect:
- The effect of the amendment proposal on the cost of enforcement/inspection; Increase, Reduce, No Effect: