Code Amendment Proposal Form
For public amendments proposed to the 2018 editions of the International Codes

Instructions: Upload this form and all accompanying documentation at www.denvergov.org/BuildingCode. If you are submitting your proposal on a separate sheet, make sure it includes all information requested below.

All proposals must be received by April 26, 2019.

CONTACT INFORMATION

Name: David P. Tyree, P.E., C.B.O. Date: 4/30/19
Phone: (719) 492-3990 E-mail: dtyree@awc.org
Organization: American Wood Council

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Signature: David P. Tyree, P.E., C.B.O.

AMENDMENT PROPOSAL

Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: DBC-IBC

If you submitted a separate coordination change to another code, please indicate which code:

2) Please check here if a separate graphic file is provided: ☐

Graphics may also be embedded within your proposal below.

3) Use this template to submit your proposal or attach a separate file, but please include all items requested below in your proposal. The only formatting needed is BOLDING, STRIKEOUT AND UNDERLINING. Please do not provide additional formatting such as tabs, columns, etc., as this will be done by CPD.
The Structural Engineers Association of Colorado – Denver Building Department Liaison Committee (SEAC-DBDLC) has submitted a new Appendix Chapter U for consideration into the 2018 Denver Building Code. This provision is intended to be inserted into the new Appendix U.

**DBC - International Building Code:**

(new) Appendix U – Tall Wood Buildings (From separate proposal from SEAC-DBDLC)

**Chapter 23**

(new) Section 2304.10.6  (remaining sections to be renumbered)

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

**Proposal:**

Add new text as follows:

**2304.10.6 Connection fire resistance rating.** Fire resistance ratings for connections in Type IV-A, IV-B, or IV-C construction shall be determined by one of the following:

1. Testing in accordance with Section 703.2 where the connection is part of the fire resistance test.
2. Engineering analysis that demonstrates that the temperature rise at any portion of the connection is limited to an average temperature rise of 250 F (139 C), and a maximum temperature rise of 325 F (181 C), for a time corresponding to the required fire resistance rating of the structural element being connected. For the purposes of this analysis, the connection includes connectors, fasteners, and portions of wood members included in the structural design of the connection.

**Note:** Show the proposal using strikethrough, underline format. At the start of each section, give one of the following instructions:

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

**Supporting Information:**

**Purpose:**

The Structural Engineers Association of Colorado – Denver Building Department Liaison Committee (SEAC-DBDLC) has submitted a new Denver Building Code Appendix U and Denver Fire Code Appendix P for consideration for adoption into Denver’s Building and Fire codes. The proposals submitted by SEAC-DBDLC include only those provisions which have been approved for the 2021 International codes.

This submittal, along with two other proposals: Public-Code-Amendment-Proposal-Form AWC Group B Ch1.docx and Public-Code-Amendment-Proposal-Form AWC Group B Ch17.docx, is a follow up to the already approved mass timber proposals and provides specifications for special inspections and connections in mass timber construction. This submittal addresses the requirement for fire resistance ratings in mass timber construction connections.

**Reasons:**

The primary reasons why Denver should adopt a new Appendix U into the 2019 Denver Building Code have been adequately addressed and included in the submittal from the Colorado Structural Engineers Association of Colorado.

The reason for this additional requirement is to stipulate that the connections in mass timber structures meet the same fire resistance rating requirements as the remainder of the structure. This requirement ensures that these critical elements of the structure be verified to confirm their fire resistance rating.

**Substantiation:**
The proposed mass timber Denver Building Code Appendix U and Denver Fire Code Appendix P from the Structural Engineers Association of Colorado – Denver Building Department Liaison Committee (SEAC-DBDLC), which includes both the new code language and the revision of existing language, have been fully vetted and approved by the International Code Council during Group A Committee Action Hearings [1]. The content of this proposal will be heard by the International Code Council Committee Group B Committee Action Hearings from April 28, 2019 to May 8, 2019, in Albuquerque, New Mexico.

The International Code Council (ICC) Ad Hoc Committee on Tall Wood Buildings created seventeen (17) separate proposals regarding mass timber construction. During the last code change cycle, fourteen (14) of these proposals were reviewed and approved. During this year’s code change cycle, the remaining three (3) code change proposals will be considered and include:

- ADM35-19 – Fire protection of tall wood construction connectors.
- S100-19 – Specials inspection requirements for tall mass timber elements.
- S170-19 – Tall wood buildings connection fire resistance ratings [2].

This proposal uses the language from ADM35-19, as written by the International Code Council Tall Wood Building Ad-hoc committee. The original proposal is attached for reference [2]. This proposal is in addition to the fourteen (14) proposals addressed by the SEAC-DBDLC’s proposal and is an important element in the connections and special inspections of tall wood buildings.

**Bibliography:**


**Note:** This section MUST include these items:

- **Purpose:** 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. to reflect physical, environmental and customary characteristics that are specific to the City and County of Denver)
- **Reasons:** Clearly justify the change to 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 that clearly shows why the current code does not reflect physical, environmental and customary characteristics that are specific to the City and County of Denver and explains how such proposal will improve the code.
- **Substantiation:** 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:** Include a bibliography when substantiating material is associated with the amendment proposal. The proponent shall make the substantiating materials available for review.

**Referenced Standards:**

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

**Impact:**

This proposal provides provisions which address the necessity for connections in tall wood buildings to meet the same fire rating as the remainder of the structure. This proposal does not impact the cost of design or construction of structures, and provides requirements which are consistent with requirements in the existing codes.

**Note:** Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

- The effect of the proposal on the cost of construction: ☐ Increase ☐ Reduce ☒ No Effect
- The effect of the proposal on the cost of design: ☐ Increase ☐ Reduce ☒ No Effect
- Is the proposal more or less restrictive than the I-codes: ☐ More ☐ Less ☒ Same

**Departmental Impact:** (To be filled out by CPD staff)
**Note:** CITY STAFF ONLY. Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

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