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 Renn, PE, SE  Date: 4/22/2019
Phone: 720-865-2813  E-mail: david.renn@denvergov.org
Organization: Structural Engineers Association of Colorado – Denver Building Department Liaison Committee

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Signature: David P. Renn

AMENDMENT PROPOSAL

Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: DBC-AP
If you submitted a separate coordination change to another code, please indicate which code: ________________

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBC-xxxx</td>
<td>Denver Building Code–xxxx (code) amendments (e.g., DBC-IBC, DBC-IEBC)</td>
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<tr>
<td>IBC</td>
<td>International Building Code</td>
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<tr>
<td>IEBC</td>
<td>International Existing Building Code</td>
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<td>IECC</td>
<td>International Energy Conservation Code</td>
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<td>IFC</td>
<td>International Fire Code</td>
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<td>IFGC</td>
<td>International Fuel Gas Code</td>
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<td>IGCC</td>
<td>International Green Construction Code</td>
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<td>IMC</td>
<td>International Mechanical Code</td>
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<td>IPC</td>
<td>International Plumbing Code</td>
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<tr>
<td>IRC</td>
<td>International Residential Code</td>
</tr>
</tbody>
</table>

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.

Code Sections/Tables/Figures Proposed for Revision:

DBC-AP 141.1 and 141.2

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

Proposal:

Revise as follows:
**SECTION 141**

**SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS**

141.1 **See Section 1704, IBC—Special Inspections.** For projects governed by the *International Building Code* or the *International Residential Code*, see *International Building Code* Chapter 17 for special inspection requirements.

141.2 **Structural Observations.** When required by the Building Official, the owner shall employ an engineer to make visits to the site to observe general compliance with the approved structural plans, specifications and change orders. At the conclusion of the work, the engineer shall submit a written statement to the Building Official stating that site visits have been made and identify any reported deficiencies that, to the best of the engineer’s knowledge, have not been resolved. Reference IBC Section 1704.6—Structural Observations. For projects governed by the *International Building Code* or the *International Residential Code*, see *International Building Code* Chapter 17 for structural observation requirements.

**Note:** Show the proposal using *strikeout, 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 purpose of this proposal is to revise the current administrative provisions for special inspections and structural observations to be in line with the 2018 IBC and to clarify that special inspections and structural observations apply to both IBC and IRC projects.

**Reasons and Substantiation:** The current structural observations section of the administrative provisions allows the building official to require structural observation at their discretion, which wasn’t allowed by the 2015 IBC. However, Section 1704.6.1 of the 2018 IBC now requires structural observations when specifically required by the building official. The current structural observations section also requires a written statement to the building official, but this same requirement is included in Section 1704.6 of the 2018 IBC. For these reasons, the administrative provisions can now just reference Chapter 17 of the IBC for structural observation requirements, which is what this proposal does.

Also, Denver deletes most of Chapter 1 from the IBC and most of Chapter 1 of the IRC and replaces these with administrative provisions that apply to both the IBC and the IRC. Therefore, the current references to IBC Chapter 17 for special inspections and structural observations apply to projects governed by the IBC or IRC, even though these items aren’t specifically mentioned in the IRC. The ability for the building official to require special inspections and/or structural observation on IRC projects is a customary practice in Denver that is necessary due to the complexity of many IRC projects in Denver and due to the nature of some systems used in Denver. For example, many IRC projects in Denver are supported by cast-in-place deep foundation elements (drilled piers), which are not covered by typical building department inspections. This system requires continuous special inspection due to the unique nature of the system (e.g. bedrock penetration depth is determined by the inspector during drilling) and due to the construction sequence of these elements, which typically requires concrete to be placed immediately after drilling the hole. It is not feasible for the building department to provide this type of continuous inspection. As another example, townhouse construction in Denver often requires lateral systems at the front and back walls that are beyond the scope of the prescriptive provisions of the IRC – heavily loaded short shear walls with large hold down elements are often used, as well as steel moment frames. Again, these types of systems are not covered by typical building department inspections and the building official may require special inspection and/or structural observation to ensure that these critical items are constructed to code. To avoid interpretation and enforcement issues, this proposal makes it clear that Denver’s administrative provisions for special inspections and structural observations apply to IBC and IRC projects.

It should be noted that the intent of this proposal is not to require special inspection and structural observation on all IRC projects. Chapter 17 only requires special inspection for certain items and many IRC projects will not have these items or will fall under exceptions for these items. For example, there are exceptions to concrete inspections and tests for footings of buildings of 3-stories or less. Steel inspections for minor steel work, such as steel beams and posts that are part of the floor framing, may also not be required since IBC 1704.2 includes an exception that exempts minor work from special inspections and tests as approved by the building official.
**Bibliography:** None.

**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:**

None.

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

**Impact:**

This proposal clarifies what is currently in the Denver administrative provisions, so there should be no impact to cost relative to the current Denver code. For certain IRC projects, the cost of construction is increased relative to the IRC due to the addition of special inspections and structural observations, so an increase is noted below. This proposal is more restrictive than the I-codes for certain IRC projects due to the addition of special inspection and structural observations.

**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