DENVER AMENDMENT PROPOSAL FORM
FOR PROPOSALS TO THE 2019 DENVER BUILDING CODE AMENDMENTS AND THE 2021 INTERNATIONAL CODES

2021 CODE DEVELOPMENT CYCLE

1) Name: David Renn, PE, SE  Date: 10/15/21
   Email: David.renn@denvergov.org  Representing (organization or self): Denver DS

2) One proposal per this document is to be provided with clear and concise information.
   Is a separate graphic file provided ( “X” to answer): ___ Yes  or  ___ No

3) Highlight the code and acronym that applies to the proposal

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Code Name</th>
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<th>Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBC</td>
<td>International Building Code</td>
<td>IRC</td>
<td>International Residential Code</td>
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<tr>
<td>IEBC</td>
<td>International Existing Building Code</td>
<td>IMC</td>
<td>International Mechanical Code</td>
</tr>
<tr>
<td>IFC</td>
<td>International Fire Code</td>
<td>DGC</td>
<td>Denver Green Code</td>
</tr>
</tbody>
</table>

AMENDMENT PROPOSAL

Please provide all the following items in your amendment proposal.

**Code Sections/Tables/Figures Proposed for Revision:**

**Instructions:** If the proposal is for a new section, indicate (new), otherwise enter applicable code section.

<table>
<thead>
<tr>
<th>Code Sections/Tables/Figures Proposed for Revision:</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBC 713.4 (as amended)</td>
</tr>
</tbody>
</table>

**Proposal:**

**Instructions:** Show the proposal using **strikeout, underline** format.

Place an “X” next to the choice that best defines your proposal: ___ Revision ___ New Text ___ Delete/Substitute ___X Deletion

Section 713.4 Fire resistance rating is amended by adding the following Exception:

**Exception:**

Shaft enclosures for piping, ducts and vents may be of one-hour fire rated construction in buildings of five stories or less and of Construction Types IIa, IIb, IIIa, VA.

**Supporting Information (Required):**

All proposals must include a written explanation and justification as to how they address physical, environmental, and/or customary characteristics that are specific to the City and County of Denver. The following questions must be answered for a proposal to be considered.

- Purpose: What does your proposal achieve?
- Reason: Why is your proposal necessary?
- Substantiation: Why is your proposal valid? (i.e. technical justification)

This proposal is to delete Denver's amendment to IBC 713.4 for the following reasons:

- This amendment is not related to any physical, environmental, or customary characteristics that are specific to the City and County of Denver.
- This amendment is less restrictive than the IBC for a fire safety provision (see discussion below), which is inconsistent with DBCA 104.9 that doesn’t give the building official authority to grant modifications to the code where such modifications lessen any fire safety requirements.
- Wording in the amendment is inconsistent with the IBC section the exception is for, which creates interpretation issues (see discussion below).

The current amendment adds an exception that allows the fire-resistance rating of shaft enclosures for piping, ducts and vents to be reduced from 2 hours to 1 hour for buildings of five stories or less and of certain construction types. The IBC requires shafts to have a fire-resistance rating of 2-hours where connecting four stories or more, regardless of the use of the shaft and regardless of construction type. Shafts are intended to confine a fire to the floor of origin and prevent the fire from spreading to other levels through the shaft, so the use of the shaft (piping, ducts or vents in this case) is irrelevant - note that piping could include gas piping that could provide additional fuel to the fire and aid in the spread of fire. There is no justification for Denver’s amendments to be less restrictive than the IBC and reduce the requirements of a fire safety provision.

The wording in this amendment is inconsistent with the wording in IBC 713.4, that this amendment is an exception to. IBC 713.4 bases shaft enclosure fire-resistance ratings on the number of stories connected by the shaft, including basements. The exception is instead based on “buildings of five stories or less”, which is easily interpreted as a building with five stories above grade plane, resulting in shafts that connect more than five stories when basements are included. I don’t believe the intent is to connect more than five stories, including basements, but could be interpreted to allow 7 stories to be connected if there are two basement levels.

For the reasons above, it is proposed that Denver’s current amendment to IBC 713.4 be deleted.

**Bibliography and Access to Materials** (as needed when substantiating material is associated with the amendment proposal):
None.

**Other Regulations Proposed to be Affected**  
*For proposals to delete content from the 2019 Denver Green Code in conjunction with adding it to other mandatory Denver codes and/or regulations, only.*
Please identify which other mandatory codes or regulations are suggested to be updated (if any) to accept relocated content.

**Referenced Standards**:  
List any new referenced standards that are proposed to be referenced in the code.
None.

**Impact**:
How will this proposal impact cost and restrictiveness of code? (*X*” answer for each item below)

<table>
<thead>
<tr>
<th>Cost of construction:</th>
<th><em>X</em> Increase</th>
<th>___ Decrease</th>
<th><em>X</em> No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: This proposal will increase cost of construction relative to the 2019 DBC but will have no impact on cost of construction relative to the 2021 IBC.</td>
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<th>Cost of design:</th>
<th>___ Increase</th>
<th>___ Decrease</th>
<th><em>X</em> No Impact</th>
</tr>
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<tr>
<th>Restrictiveness:</th>
<th><em>X</em> Increase</th>
<th>___ Decrease</th>
<th><em>X</em> No Impact</th>
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**Departmental Impact (City use only)**:  
This amendment proposal increases/decreases/is neutral to the cost of plans review.  
This amendment increases/decreases/is neutral to the cost of inspections.