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
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Signature: [Signature]

AMENDMENT PROPOSAL
Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: DBC-IFC
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>
</tr>
<tr>
<td>IBC</td>
<td>International Building Code</td>
</tr>
<tr>
<td>IEBCC</td>
<td>International Existing Building Code</td>
</tr>
<tr>
<td>IECC</td>
<td>International Energy Conservation Code</td>
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</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-IFC 909.15.1.3 Stairwell Pressurization Fan Design Criteria

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

Proposal: 909.15.1.3 Design. The air volume introduced into the stairway shall be as follows: 15 floors or less, at least 1,000 cfm per floor; 16 floors or more, at least 15,000 cfm, plus 200 cfm per floor in excess of 15 floors with 1.0 inch water column static pressure minimum at the duct penetration into the stairway. In order
to comply with the requirements of Section 909.13, dynamic static pressure control shall be provided for stairway pressurization fans. Based on demonstrated performance of the building, the dynamic static pressure controls are permitted to be tuned and set to a fixed value air for the stairways serving buildings where the uppermost occupied floor is more than 120 feet above the lowest level of fire department vehicle access shall be introduced into the stairway at a minimum of two injection points. One injection point shall be located not more than 50 feet above the grade plane. In buildings where the uppermost landing of an exit enclosure serves an occupiable floor located more than 250 feet above the lowest level of fire department vehicle access, an engineered design shall be required.

**Exception:** For existing buildings adding stairwell pressurization fans, the empirical method will be allowed. This method will require a blower door test kit to determine the required fan CFM and total static pressure to create 0.10” of differential pressure (not the required pressure but allows for a design safety factor). Once established, this fan CFM will be increased by 50% for design purposes.

**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:**
As an example, I investigated a high-rise (14 stories) condominium building constructed in 1969 would require 14,000 CFM fans per the prescriptive method and probably would not allow for rational analysis due to the lack of documentation from the original build. Using the empirical method by using blower door testing equipment showed that the 2 stairwells would require 3200 CFM & 3600 CFM (for the stairwell servicing the roof) would produce a differential pressure of 0.15” WC (three times the requirement).

**Referenced Standards:**
NA

**Impact:** This would have the impact of more realistically sizing fans for both stairwells & hoistways whenever an existing building is required to add these smoke control components. The current prescriptive method or rational analysis are fine for buildings not built yet, but when you already have a stairwell or hoistway built in an existing building, this third method would be very effective.

**Departmental Impact:** (To be filled out by CPD staff)

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

**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

**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