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:

Co-proposed by: Amber Wood, Denver Department of Public Health and Environment
Jim Meyers, Southwest Energy Efficiency Project

AMENDMENT PROPOSAL

Please use a separate form for each proposal.

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

IECC

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.

AMENDMENT PROPOSAL

Proposal:

Modify Section as follows:

Code Sections/Tables/ Figures Proposed for Revision:
IECC C405.2.6 & C405.2.7

Proposal:
### C405.2.6 Exterior lighting controls

Exterior lighting systems shall be provided with controls that comply with Sections C405.2.6.1 through C405.2.6.4. Decorative lighting systems shall comply with Sections C405.2.6.1, C405.2.6.2 and C405.2.6.4.

#### Exceptions:

1. Lighting for covered vehicle entrances and exits from buildings and parking structures where required for eye adaptation.
2. Lighting controlled from within dwelling units.

Add new Section as follows:

### C405.2.7 Parking Garage Lighting Control

Lighting for parking garage shall comply with the following:

1. Parking garage lighting shall have automatic time-switch shutoff in accordance with Section C405.2.2.1.
2. Lighting power of each luminaire shall be automatically reduced by not less than 60% when there is no activity detected within a lighting zone for 20 minutes. Lighting zones for this requirement shall be no larger than 3600 ft.
3. Where lighting for eye adaptation is provided at covered vehicle entrances and exits from buildings and parking structures, such lighting shall be separately controlled by a device that automatically reduces lighting power by at least 50% from sunset to sunrise.
4. The power to luminaires within 30 ft of perimeter wall openings or fenestration shall automatically reduce in response to daylight by at least 50%.

#### Exceptions:

1. Where the opening or fenestration-to-wall-ratio is less than 40% as viewed from the interior and encompassing the vertical distance from the driving surface to the lowest structural element.
2. Where the distance from the opening or fenestration to any exterior daylight blocking obstruction is less than one-half the height from the bottom of the opening or fenestration to the top of the obstruction.
3. Where openings are obstructed by permanent screens or architectural elements restricting daylight entering the interior space.

### Supporting Information:

#### Purpose:

The purpose of this proposal is to improve the efficiency of parking garage lighting by introducing occupancy controls and add clarity to the code by explicitly laying out control requirements for parking garages.

#### Reason:

This proposal adds occupancy control requirements for parking garages. Occupancy controls would reduce lighting power by at least 60%, but would not turn lighting completely off. The proposal has been crafted to allow for this requirement to exist in applications with daylighting controls.

Adding this language will:

1. Reduce inconsistency and confusion with the application of lighting controls in parking garages.
2. Align code language and implementation with other energy efficiency codes.
3. Reduce energy use.
4. Resolve compliance in application and inspection.

Currently there is confusion about how to apply the requirements of the 2018 IECC to parking garage applications. Is it to be treated as an interior space, and if so, how are the control requirements applied that has different use needs that building interior spaces? The Daylight Responsive Controls of section C405.2.3 do not provide proper guidance for how to control lighting in a parking garage setting. This proposal provides proper daylight responsive control and exceptions that meet the design needs and operation of parking garages.

This proposal is currently being considered for IECC-2021. The only difference is that this proposal requires a minimum reduction of 60% rather than the 30% being considered for the IECC, based on Denver Stakeholder input.

### Referenced Standards:

NA

#### Note:

List any new referenced standards that are proposed to be referenced in the code.
### Impact:

- **The effect of the proposal on the cost of construction:**
  - ☒ Increase
  - ☐ Reduce
  - ☒ No Effect
  - This proposal will require a modest increase in cost due to the addition of the occupancy controls.

- **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