



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

DENVER
THE MILE HIGH CITY

2021 CODE DEVELOPMENT CYCLE

1) **Name:** Kristen Salinas **Date:** 9/14/2021
Email: ksalinas@noresco.com **Representing (organization or self):** Denver
City Staff Proposal (check box):

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 X No

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

<u>Acronym</u>	<u>Code Name</u>	<u>Acronym</u>	<u>Code Name</u>
DBC-AP	Denver Building Code–Administrative Provisions	IPC	International Plumbing Code
IBC	International Building Code	IRC	International Residential Code
IECC	International Energy Conservation Code	IFGC	International Fuel Gas Code
IEBC	International Existing Building Code	IMC	International Mechanical Code
IFC	International Fire Code	DGC	Denver Green Code

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.

Section **801.3.8**
 Replacement Proposal for Out of DGC into Mandatory Code

Proposal:

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

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

801.3.7 (8.3.7) Glare Control (~~Project Elective~~ Mandatory). View fenestration for the spaces listed in Table 801.4.1.2A (8.4.1.2A) shall comply with this section. View fenestration shall have one or more operable glare control devices capable of reducing the specular visible transmittance of the fenestration assembly to 3% or less.–Such glare control devices shall allow an occupant or control system to change the device’s position or light transmission level in order to address glare in the space. Operable glare control devices include movable interior window blinds, curtains, and shades; movable exterior louvers, screens, awnings, shades, and blinds; and dynamic glazing. Where fabric shades are used, the openness factor, also known as “direct-direct transmittance,” shall be tested according to Standard EN14500.

Exceptions:

1. For buildings located greater than 20 degrees latitude north or south of the equator, view fenestration oriented within 10 degrees of true north in northern hemisphere locations or within 10 degrees of true south in southern hemisphere location.
2. Where permanent interior or exterior obstructions, such as buildings, structures, overhangs, and fins, have a specular visible transmittance of not greater than 3% and block a direct beam of sunlight from passing through the view fenestration at a point in the middle of the view fenestration both horizontally and vertically, at the peak solar altitude and four hours before and after the peak solar altitude on the summer solstice and the spring equinox as determined by sun-angle studies.
3. Spaces that have an annual sunlight exposure of not more than 93 fc (1000 lux) of direct sunlight illumination for more than 250 hours per year for less than 3% of the floor area.

801.3.8 (8.3.8) Automatic Glare Control (Project Elective). Glare control provided to comply with Section 801.3.7 shall be automatic for spaces in Table 801.4.1.2A. Occupants shall have the capability to temporarily override automatic methods of glare control for periods not exceeding two hours.

TABLE 801.4.1.2A (TABLE 8.4.1.2A) DAYLIT SPACES

<u>Classroom/training room</u>
<u>Conference /meeting/multipurpose room/ social meeting spaces/ event centers except in convention centers</u>
<u>Lounge/breakroom</u>
<u>Enclosed office and open plan office</u>
<u>Library reading area</u>
<u>Patient rooms and physical therapy rooms within a healthcare facility</u>
<u>Gym, fitness center, enclosed swimming pool</u>
<u>Worship facility</u>
<u>Laboratory</u>
<u>Personal services (Salon, barber)</u>
<u>Exhibit spaces</u>

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?

Reduces indoor glare in daylit rooms and increases stringency in the DGC to make glare controls required for specified space types.

- Reason: Why is your proposal necessary?

Reducing glare can reduce retinal damage, create a comfortable space for occupants and even increase productivity among occupants.

- Substantiation: Why is your proposal valid? (i.e. technical justification)

Glare can cause eyestrain, headaches, fatigue and tension, which ultimately affects productivity. Direct sunlight penetration in classrooms and office spaces often produces an unpleasant glare on worksurfaces, making it difficult to work or view a computer screen.

The proper orientation of windows and skylights with the use of glare control can admit direct and diffused daylight, producing the best combination of light for a building while also reducing glare. When coordinated, this can provide an added benefit of reduced artificial lighting requirements resulting in decreased energy use, as well.

Proposal 83b- Automatic Glare Controls

Bibliography and Access to Materials (as needed when substantiating material is associated with the amendment proposal):

<https://www.facilitiesnet.com/lighting/topic/Daylighting-Advantages-And-Disadvantages--19593>

<http://digital.bnppmedia.com/article/Understanding+The+Benefits+Of+Interior+And+Exterior+Shading+Systems/3224853/538481/article.html>

https://www.architectmagazine.com/technology/lighting/controlling-glare_o

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.

Standard EN14500

Impact:

How will this proposal impact cost and restrictiveness of code? ("X" answer for each item below)

Cost of construction: Increase ___ Decrease ___ No Impact

Cost of design: ___ Increase ___ Decrease No Impact

Restrictiveness: Increase ___ Decrease ___ No Impact

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.