2022 Denver Green Code
Explanatory Video Series

CE09: Orientation of Vertical Fenestration

Community Planning & Development
Office of Climate Action, Sustainability and Resiliency
CE09: Orientation of Vertical Fenestration

Why is this a priority in Denver?

- Window orientation and area are important elements to consider in energy efficient designs.
- Optimally orienting windows is a passive design strategy that contributes to reduced cooling and heating energy use and costs by reducing solar heat gain or providing opportunities for solar energy capture.
CE09: Orientation of Vertical Fenestration

Project Requirements

• Vertical fenestration must meet one of the following:
  a) The total area of W and E windows \( \leq \frac{1}{4} \)th the total area of N and S windows
  b) The product of the area and SHGC for W and E windows (where SHGC is from CE08) \( \leq \frac{1}{6} \)th the sum of the products for the N and S windows (where SHGC is from DEC Table C402.4)

• Exceptions for buildings significantly shaded on the summer solstice (as defined in provision) and buildings with W and E window area \( \leq 20\% \) of gross wall area and SHGC \( \leq 90\% \) of the criteria in CE08
## CE09: Orientation of Vertical Fenestration

### Submittal Requirements

<table>
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<tr>
<th>Phase</th>
<th>What’s required?</th>
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| Permit | • Submit completed DGC LMU and DEC Checklists  
• Label and dimension all vertical fenestration on construction documents. Provide supplemental calculations showing the total area of fenestration at each orientation meets the requirements of this provision.  
• If option (b) is chosen, provide drawings, schedules, and/or specifications indicating SHGC for all vertical glazing products (whole-assembly values). If provided in a schedule, include orientation. |
Where can I learn more?

Visit Denvergov.org/GreenCode to:

- Link to the 2022 Denver Green Code
- Download the DGC Checklists
- Watch other videos in this series
- Register for DGC Virtual Office Hours
- Find additional resources for your project

Denver Energy Code links: Code & Policies | Checklists | Resources & Trainings

For Green Buildings Ordinance, visit Denvergov.org/GreenRoofs