



**Boulder County  
Land Use Department  
Publications**

# Safety Glazing

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Building Permits can be applied for  
and issued until 4 p.m.

## Safety Glazing

Per 2015 IRC R308.1 and R308.4.

### Window Replacement

Window replacements shall comply with the safety glazing requirements.

**R308.4 Hazardous locations.** The locations specified in Sections R308.4.1 through R308.4.7 shall be considered to be specific hazardous locations for the purposes of glazing.

**R308.4.1 Glazing in doors.** Glazing in fixed and operable panels of swinging, sliding and bifold doors shall be considered to be a hazardous location.

**Exceptions:**

1. Glazed openings of a size through which a 3-inch-diameter (76 mm) sphere is unable to pass.
2. Decorative glazing.

**R308.4.2 Glazing adjacent to doors.** Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524mm) above the floor or walking surface and it meets either of the following conditions:

1. Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.
2. Where the glazing is on a wall perpendicular to the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

**Exceptions:**

1. Decorative glazing.
2. Where there is an intervening wall or other permanent barrier between the door and the glazing.
3. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.
4. Glazing that is adjacent to the fixed panel of patio doors.

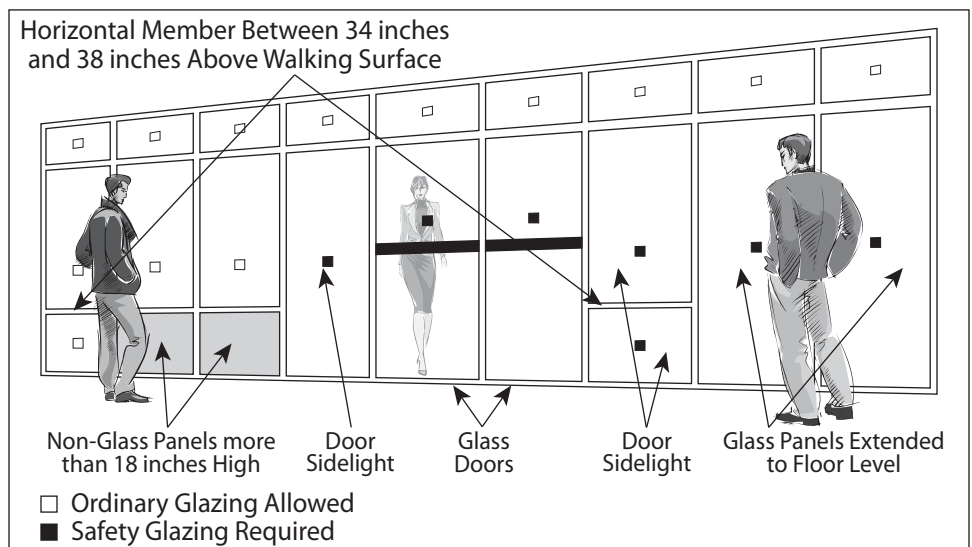


Figure 1: Glazing Types in Hazardous Locations.

**R308.4.3 Glazing in windows.** Glazing in an individual fixed or operable panel that meets all of the following conditions shall be considered to be a hazardous location:

1. The exposed area of an individual pane is larger than 9 square feet (0.836 m<sup>2</sup>),
2. The bottom edge of the glazing is less than 18 inches (457 mm) above the floor,
3. The top edge of the glazing is more than 36 inches (914 mm) above the floor; and
4. One or more walking surfaces are within 36 inches (914 mm), measured horizontally and in a straight line, of the glazing.

**Exceptions:**

1. Decorative glazing.
2. Where a horizontal rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and have a cross-sectional height of not less than 1 1/2 inches (38 mm).
3. Outboard panes in insulating glass units and other multiple glazed panels where the bottom edge of the glass is 25 feet (7620 mm) or more above grade, a roof, walking surfaces or other horizontal [within 45 degrees (0.79 rad) of horizontal] surface adjacent to the glass exterior.

**R308.4.4 Glazing in guards and railings.** Glazing in guards and railings, including structural baluster panels and nonstructural in-fill panels, regardless of area or height above a walking surface shall be considered to be a hazardous location.

**R308.4.5 Glazing and wet surfaces.** Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be considered to be a hazardous location. This shall apply to single glazing and each pane in multiple glazing.

**Exception:** Glazing that is more than 60 inches (1524 mm), measured horizontally and in a straight line, from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool or from the edge of a shower, sauna or steam room.

**R308.4.6 Glazing adjacent to stairs and ramps.** Glazing where the bottom exposed edge of the glazing is less than 36 inches (914 mm) above the plane of the adjacent walking surface of stairways, landings between flights of stairs and ramps shall be considered to be a hazardous location.

**Exceptions:**

1. Where a rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and have a cross-sectional height of not less than 1 1/2 inches (38 mm).
2. Glazing 36 inches (914 mm) or more measured horizontally from the walking surface.

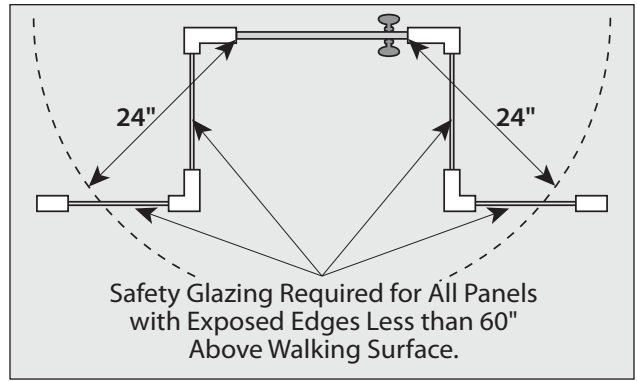


Figure 2: Glazing Adjacent to Doors.

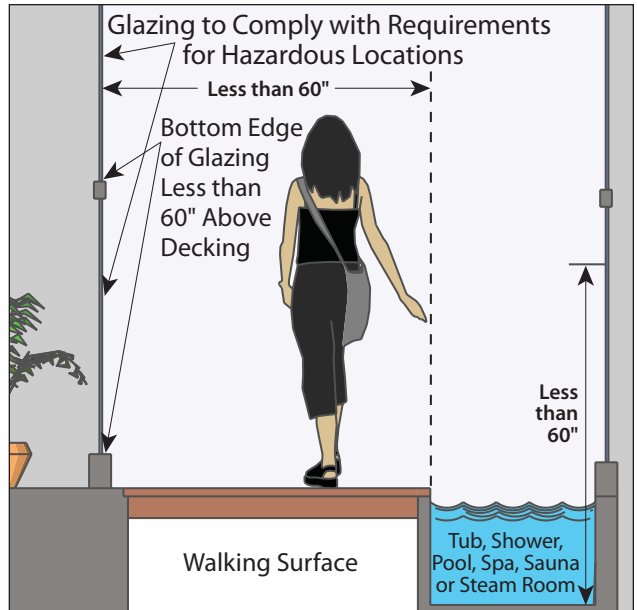


Figure 3: Glazing Adjacent to Tubs, Showers, Pools, or Spas.

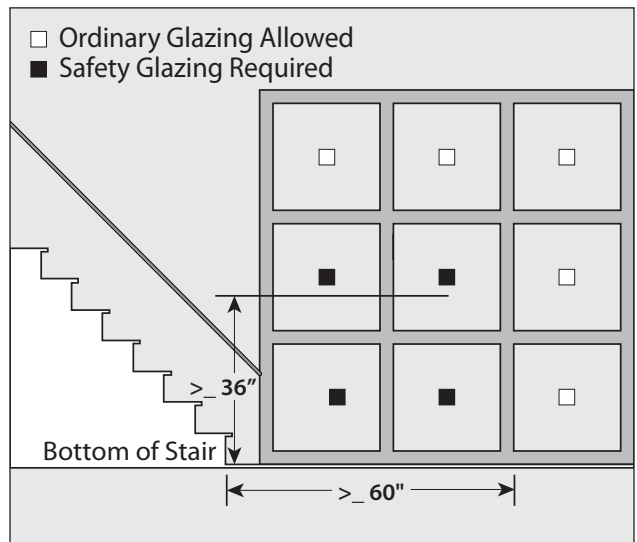


Figure 4: Glazing Adjacent to Landings, Stairways, and Ramps.