

Safety Glazing Requirements

[Revised 6/23 for current 2018 VRC code]

Section R308.4 of the Virginia Residential Code requires safety-glazed window panes in certain locations deemed to be a hazardous location. Per Section R308.1, safety-glazed windows must be provided with a “manufacturer’s designation specifying who applied the designation, the type of glass and the safety glazing standard with which it complies, and that is visible in the final installation.” This designation is usually acid-etched into the glass in a corner of the glass pane.

The hazardous locations where safety glazing is required are listed in Section R308.4.

Please note that glazing in existing windows and doors that are located in areas that become a hazardous location because of the construction of an addition, porch, deck, or installing a spa or hot tub onto an existing house, will be required to be replaced with safety glazing. A final building inspection cannot be completed unless these requirements are met.

Section R308.4 of the Virginia Residential Code

R308.4 Hazardous locations: The following shall be considered a hazardous location where glazing is present:

- Glazing in fixed and operable panels of swinging, sliding, and bifold doors shall be considered a hazardous location.

Exceptions:

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

- Glazing in an individual fixed or operable panel adjacent to a door shall be considered a hazardous location where the bottom exposed edge of the glazing is less than 60 inches above the floor or walking surface and it meets either of the following conditions:
 1. Where the glazing is within 24" of either side of the door in the plane of the door in a closed position.
 2. Where the glazing is on a wall less than 180 degrees from the plane of the door in a closed position and within 2 inches of the hinge side of an inswing door.

Exceptions

1. Decorative glazing.
 2. When 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 or less in depth.
 4. Glazing that is adjacent to the fixed panel of patio doors.
- Glazing in an individual fixed or operable panel that meets all of the following conditions shall be considered a hazardous location:
 1. The exposed area of an individual pane is larger than 9 square feet; **and**
 2. The bottom edge of the glazing is less than 18 inches above the floor; **and**
 3. The top edge of the glazing is more than 36 inches above the floor; **and**
 4. One or more of walking surfaces are within 36 inches measured horizontally and in a straight line, of the glazing.

Exceptions:

1. Decorative glazing.
 2. When glazing is adjacent to a walking surface and a horizontal rail is installed 34 to 38 inches above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot without contacting the glass and be a minimum of 1 ½ inches in cross sectional height.
 3. Outboard panes in insulating glass units and other multiple glazed panels when the bottom edge of the glass is 25 feet or more above grade, a roof, walking surface or other horizontal surface [within 45 degrees of horizontal] that is adjacent to the glass exterior.
- 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 a hazardous location.

Guards with structural glass baluster panels shall be installed with an attached top rail or handrail. The top rail or handrail shall be supported by not less than three glass baluster panels, or shall be otherwise supported to remain in place should one glass baluster panel fail.

Exception:

An attached top rail or handrail is not required where the glass baluster panels are laminated glass with two or more glass piles of equal thickness and of the same glass type.

- Glazing in walls, enclosures, or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers, and indoor or outdoor swimming pools shall be considered a hazardous location if glazing is located less than 60 inches when measured horizontally and in a straight line from the water's edge and the bottom exposed edge of the glazing is less than 60 inches measured vertically above any

standing or walking surface. This shall apply to single glazing and each pane in multiple glazing assemblies.

- Glazing where the bottom exposed edge of the glazing is less than 36 inches above the plane of the adjacent walking surface of stairways, landings between flights of stairs and ramps shall be considered a hazardous location.

Exceptions:

- 1) Where glazing is adjacent to a walking surface and a horizontal rail is installed at 34 to 38 inches above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per lineal foot without contacting the glass and have a cross-sectional height of not less than 1 ½ inches.
 - 2) Glazing 36 inches or more measured horizontally from the walking surface.
- Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36 inches above the landing and within a 60-inch horizontal arc less than 180 degrees from the bottom tread nosing shall be considered a hazardous location.

Exception:

Where the glazing is protected by a guard complying with Section R312 and the plane of the glass is more than 18 inches from the guard.