



WINDOW, DOOR AND SKYLIGHT INSTALLATION OR REPLACEMENT 2015 IRC and IECC

Permits are required for the replacement or installation of skylights, windows, and doors. Colorado State law and currently adopted codes require carbon monoxide alarms to be installed per the manufacturer's written installation instructions within 15 feet of the entry to each sleeping room when alterations or repairs requiring a building permit occur in homes having fuel fired appliances or an attached garage. **Smoke alarms shall be installed:** in each sleeping room; outside each separate sleeping area in the immediate vicinity of the bedrooms; on each addition story of the dwelling including basements; in accordance with the currently adopted building code; and in compliance with the manufacturer's installation instructions. **Smoke and Carbon monoxide alarms shall be one of the following:** fully battery powered; plug-connected into a dwelling's unswitched electrical outlet and include a battery backup; wired into a dwelling's electrical system and include a battery back-up; or connected to an electrical system via an electrical panel. Approved combination smoke/ carbon monoxide alarms may be used. **Final inspections of window, door and skylight installation or replacement will include verification of carbon monoxide alarms and smoke detectors.**

Complete window submittal form indicating the location of all new or replacement windows, including identification of each room. A sketch or drawing may be requested during review. For new installations or any change in opening size, plans shall include a sketch indicating the framing for the floor and roof above, the size of the opening, and any framing changes and headers to be installed. New or enlarged window openings in basement walls require an engineered plan for the proper support of the foundation during and after cutting.

Non-complying windows in basements or sleeping rooms shall be modified to meet the current egress window and window well requirements. Individual hardship situations will be evaluated on a case by case basis. Replacement windows in sleeping rooms or basements without sleeping rooms shall comply with the required openable egress area, width, and height. The finished sill height shall not be increased unless it complies with the current code for egress openings. Egress window and window well requirements are:

- Every sleeping room (or basement without sleeping room) shall have one exterior door or **escape and rescue window** with a minimum of 5.7 sq. ft. of net clear opening. The minimum height of this clear opening shall be at least 24". The minimum width of the clear opening shall be at least 20". Note that a window with both the minimum width and the minimum height cannot be used to achieve the 5.7 square foot net clear opening required. Windows at grade floor are permitted to have not less than 5.0 square feet of openable area. All escape and rescue windows shall have a **sill height** not more than 44 inches **measured from the finished floor to the bottom of the clear opening.**
- **Egress window wells** are required for all emergency escape and rescue windows below grade. Egress window wells shall have a minimum accessible net clear opening of 9 sq. ft. (minimum dimension of 36" in both directions) with the window in the fully open position. Window wells with a vertical depth of more than 44" shall be equipped with an approved, permanently affixed ladder or stairs that are accessible with the window in the fully open position. New or replaced window wells shall be provided with proper drainage by connecting to the building's foundation drainage system or other approved means.

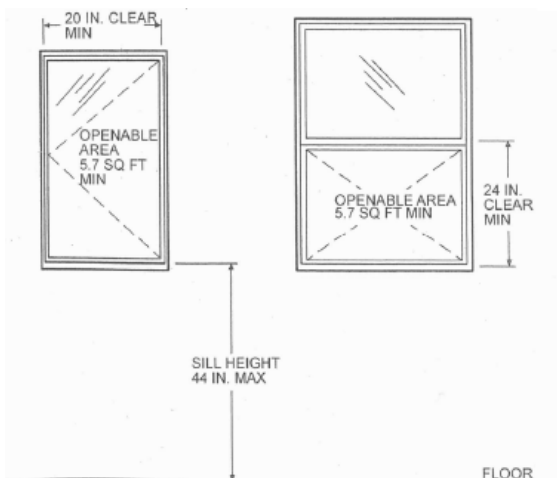
New doors, windows, and skylights are required to meet the current standards for energy conservation (IECC Chapter 4 [RE] for Residential and Chapter 4 [CE] for Commercial applications) and shall be labeled to indicate compliance with AAMA/WDMA/CSA 101/I.S.2/A440.

Air Infiltration Rate

- Windows, skylights, and sliding doors: 0.3 cfm/ft²
- Swinging doors: 05 cfm/ft²

Thermal Transmittance

Doors and windows Maximum U-value: 0.32
Skylight maximum U-Value: 0.55



Instruction for permit submittal

1. Please complete and submit a "General Permit Application".
2. Please complete and submit the Window/Door Submittal Form" noting each window/or door that will be changed or modified.(PDF Fillable)
3. Please complete and submit the "Window Modification Form" if you have any egress window(s) that will not comply with the 2015 IRC egress requirements after window changes.(PDF Fillable)

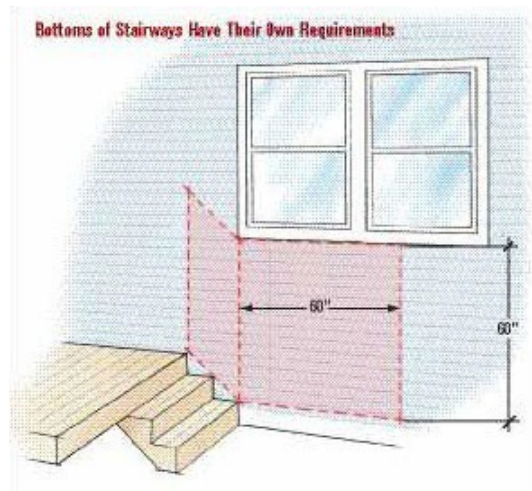
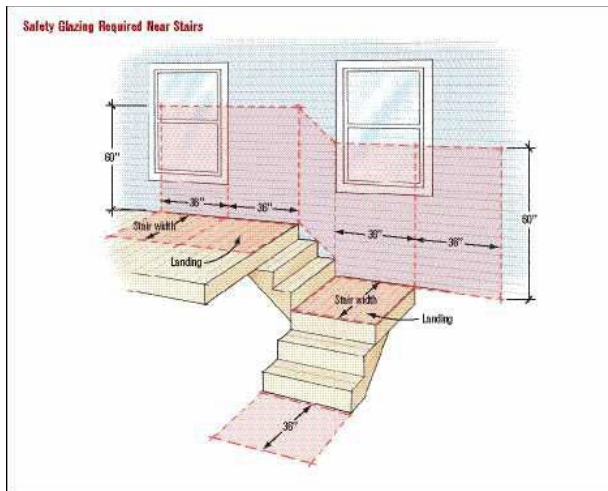
Note If any openings are created or enlarged to install a new window or door, a stamped set of structural plans are required at the time of submittal.



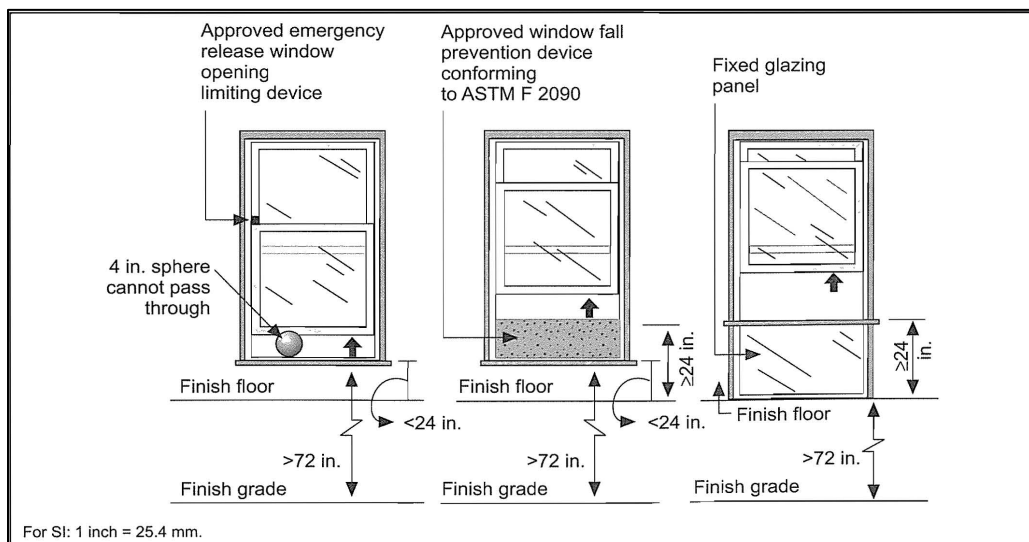
All openings shall be flashed to create a weather resistive barrier per IRC R703.1 and IBC 1403.2. Skylights may require a 4 inch high curb and/or screening below the skylight; see IRC R308.6.8 and IBC 2405.4.

Safety glazing is required for all hazardous locations subject to human impact, per IRC Section 308.4 and IBC 2406 including but not limited to the following:

- Within a 24" arc of either vertical edge of a door (except in a wall perpendicular to the door other than the wall toward which the door swings);
- Within 5 feet of stairways and landings;
- In bathtub & shower enclosures and adjacent to hot tubs, spas or pools or within 5 feet of any of these.



For **fall protection**, in locations where the opening of an operable window is more than 72 inches above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches above the finished floor of the room in which it is located for one and two family dwellings, and shall be a minimum of 36 inches above the finished floor of the room in which it is located for Occupancy Groups R-2 and R-3. Approved window guards or limited opening sizes may be used in certain situations. IRC Section R312.2, IBC Section 1015.8.



WINDOW SILL HEIGHT R310.2.2



COMMUNITY DEVELOPMENT

One DesCombes Drive • Broomfield, CO 80020 • 303.438.6389 • www.broomfield.org

Broomfield Window/Door Submittal

Date House Was Built:

Permit Number:

Address:

Minimum opening area. Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 SF. The net clear height opening shall be not less than 24" and the net clear width shall be not less than 20".
IRC 310.2.1

Doors and Windows
Maximum U-value:
0.32 Skylight
maximum U-value:
0.55 IECC R 402

Window / Door #	Floor Level	Room Name	Window Type: Single Hung, Double Hung, Slider ETC...	Sill Height From Floor to Clear Opening R 310.2.2, R308.4.3	Distance to Doors, Stairs and Tub/ Shower R 308.4.2	Is Safety Glazing Required for this Window or Door R 308.4	Open-able Window Size		Is This a Required Escape Window R 310.1	What Is The Net Clear Opening R 310.2.1	Does This Window Have A Window Well If So Depth ? R310.2.3	Does This Window Well Have a Ladder ? R310.2.3.1	What Is The Thermal Transmittance U-Factor For this Window	Will A Modification For Non-Compliance Be Requested*
							Window Width	Window Height						
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

* A signed Letter of Modification and Photos shall be submitted with the permit documents. Modification(s) shall be approved by the building department.



Broomfield Window Modification Form

Date: _____ Date House Was Built: _____

Property Address: _____

Owner / Purchaser: _____

Room Name & Floor Level	Window Type	Sill Height from Floor to Clear Opening	Window Width	Window Height	Net Clear Opening

Bedroom window egress Height and width requirements to meet the **5.7 SQ. FT.** opening requirements

Width:	20	20.5	21	21.5	22	22.5	23	23.5	24	24.5	25	25.5	26	26.5	27	27.5
Height:	41	40	39	38	37	36.5	35.5	35	34	33.5	33	32	31.5	31	30.5	30
Total Sq. Ft. Opening=	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7

Width:	28	28.5	29	29.5	30	30.5	31	31.5	32	32.5	33	33.5	34
Height:	29.5	29	28.5	28	27.5	27	26.5	26	25.5	25.2	25	24.5	24
Total Sq. Ft. Opening=	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7

Bedroom window egress Height and width requirements to meet the **5.0 SQ. FT.** opening requirements

Width:	20	20.5	21	21.5	22	22.5	23	23.5	24	24.5	25	25.5	26	26.5	27	27.5
Height:	36	35	34	33.5	33	32	31	30.5	30	29.5	29	28.5	27.5	27	26.5	26
Total Sq. Ft. Opening=	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Width:	28	28.5	29	29.5	30
Height:	25.5	25.5	25	24.5	24
Total Sq. Ft. Opening=	5.0	5.0	5.0	5.0	5.0

Owner/Purchaser's Signature: _____

Date: _____

Contractor's Signature: _____

Date: _____