



# RESIDENTIAL WINDOW REPLACEMENT

## BUILDING DIVISION REQUIREMENTS

A building permit is not required if the window is replaced in the same configuration and the existing manufactured window frame remains unchanged. This is commonly referred to as retrofit window replacement.

For all other cases, when there are any changes to the window frame, location, size, header, or changes to the height or width of the window opening, a building permit is required. Following is a listing of the general requirements for permit applications based on the 2019 California Building Code, 2019 California Residential Code, and 2019 California Energy Efficiency Standards. This brochure is intended to provide general information, contact the Building Safety Division for any questions or additional information.

### **Installation Standards** (CBC 104.9 and CRC R104.9)

All windows shall be installed in accordance with the manufacturer's requirements (including new flashing).

### **Efficiency Standards** (CEES 150.2(b))

When replacing no more than 75 square feet of windows, the newly installed windows shall have a maximum U-factor of 0.40 and a maximum Solar Heat Gain Coefficient (SHGC) of 0.35. If more than 75 square feet of window area is replaced, the newly installed windows shall be a maximum U-factor of 0.30 and a maximum Solar Heat Gain Coefficient (SHGC) of 0.23.

### **Emergency Escape (Egress) Windows** (CBC 1030 and CRC R310)

Windows replaced in bedrooms shall meet all the following egress requirements (at least one window in each bedroom is required to meet these requirements):

- Minimum net 5.7 square feet of openable area (minimum of 5.0 net square feet required for grade level bedrooms; i.e. first floor)
- Minimum net 20" clear width when open
- Minimum net 24" clear height when open
- Maximum height of 44" from the finished floor to the bottom of the clear opening

### **Fall Protection** (CBC 1015.1 and CRC R312.2)

Where the window opening (measured at the window sill) is located more than 72 inches above the exterior finished grade, any window located less than 24 inches above the finished floor on the interior shall be either fixed glazing or have a protective guardrail with openings less than 4 inches.

### **Natural Light and Ventilation** (CBC 1205.2, 1203.5, and CRC R303.1)

Each habitable room (excludes hallways, bathrooms, and laundry rooms) is required to have natural light (windows or skylights) sized to a minimum of 8% of the floor area of the room and ventilation (openable portion of window or skylight) sized to a minimum of 4% of the floor area. (For example, a 100 square foot habitable room is required to have a minimum of 8 square feet of natural light and 4 square feet of ventilation.

## **Tempered Glazing** (CBC 2406 and CRC 308.1, CRC 308.4)

Tempered glazing shall be installed in the following locations:

- In the same plane of a door in the closed position and within two feet of either side of the door.
  
- On a wall perpendicular to the plane of a door in a closed position and within 24 inches of the hinge side of the door and one the in-swinging side.
- Adjacent to a bottom stair landing where glazing is less than 36 inches above the landing and within 60 inches horizontally of the landing.
- Adjacent to stairs where glazing is located less than 36 inches above the plane of the adjacent walking surface.
- Within a portion of wall enclosing a tub/shower where the bottom exposed edge of the glazing is less than 60 inches above the standing surface and drain inlet.
- Within 60 inches of a tub/shower where the glazing is less than 60 inches above the walking surface.
- Any glazing meeting all the following conditions:
  - Exposed area of an individual pane greater than 9 square feet
  - Exposed bottom edge is less than 18 inches above the finished floor
  - Exposed top edge is greater than 36 inches above the finished floor
  - Where a walking surface is within 36 inches horizontally of the glazing

Where required, tempered glazing (except tempered spandrel glass) shall be permanently identified by a manufacturer marking that is permanently applied and cannot be removed without being destroyed (e.g. sand blasted, acid etched, ceramic fired, laser etched, or embossed). Stickers attached to the window are not sufficient.

## **Smoke and Carbon Monoxide Alarms** (CBC 907.2, CRC 314 and 315)

Smoke alarms shall be installed on the ceiling or wall (between 4” and 12” of the ceiling) in all sleeping rooms, each area/hallway adjacent to sleeping rooms, each story of the building, and in any basement. Smoke alarms shall be replaced 10 years after the date of manufacture listed on the alarm (if no date is listed the alarm shall be replaced). Newly installed smoke alarms shall have a 10-year battery.

Carbon monoxide (CO) alarms shall be installed on the ceiling or wall (above the door header) in each area/hallway adjacent to sleeping rooms, each occupiable story, and within a bedroom if the bedroom or attached bathroom contains a fuel-burning appliance. CO alarms are not required if there is no fuel-burning appliance or fireplace in the house and where the garage is detached from the house.

Smoke alarms and carbon monoxide alarms are required to be listed by the California State Fire Marshal. To confirm if a certain device is listed, refer to the following web page:

[osfm.fire.ca.gov/divisions/fire-engineering-and-investigations/building-materials-listing/](https://osfm.fire.ca.gov/divisions/fire-engineering-and-investigations/building-materials-listing/)

## PERMIT PROCESS

1. Prior to submittal for a building permit, contact the Planning Division to determine if a separate permit is required.

### Building Permit Review

1. Building permits are reviewed at the One-Stop Permit Center between the hours of 8 a.m. to 12:30 p.m. and 1 to 5 p.m., Monday - Friday.

### Inspections

2. Two inspections are required: a rough frame and a final. The rough frame shall be scheduled when the new window is installed and before the exterior covering (stucco or siding) is added. The final inspection shall be scheduled when all the work is complete.

### Building Permit Application Requirements

- A completed Building Permit Worksheet application (available at the One-Stop Permit Center or on-line at [Sunnyvale.ca.gov](http://Sunnyvale.ca.gov)) - *only one copy of this item needed*
- An approval letter from the Homeowner's Association (if applicable).
- Detailed floor plan including the use and size of each room and the size and location of each existing window and proposed new window. If applicable, show any pool or spa location on the site plan.
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