



Building Permits & Inspection Division

General Information: (916) 875-5296
www.building.saccounty.net

Full Service Center 827 7th Street, Room 102 Sacramento, CA 95814 M-F 8:30am - 4:30pm	East Area Service Center 5229 Hazel Avenue, Suite B Fair Oaks, CA 95628 M-Tu. 9:00am - 4:00pm
Bradshaw Center 9700 Goethe Road, Suite A Sacramento, CA 95827 M-F 8:30am - 4:30pm	North Area Service Center 3331 Peacekeeper Wy, Suite 100 McClellan, CA 95652 W-Th. 9:00am - 4:00pm

Stairways

2016 CRC Section R311.7 and 2016 CBC Section 1011

The information in this flyer is intended for use with single family dwellings, garages, barns and sheds only, (R-3 and U occupancies) with no accessibility accommodations necessary. See the referenced Code sections for full details.

CRC R202 Stair. A stair is defined as a change in elevation, consisting of one or more risers. The vertical part of a step is called the riser; the horizontal part is the tread.

CRC R311.7.2 Headroom. The headroom in stairways shall not be less than **6’ feet 8” inches** measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway.

CRC R311.7.5.1 Risers. The riser height shall not be more than **7-3/4” inches**. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than **3/8”inch**. Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than **30 degrees** from the vertical. Open risers are permitted provided that the openings located more than **30”inches**, as measured vertically, to the floor or grade below do not permit the passage of a **4”inch-diameter-sphere**.

CRC R311.7.5.2 Treads. The tread depth shall not be less than **10”inches**. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread’s leading edge. The greatest tread depth with any flight of stairs shall not exceed the smallest by more than 3/8”inch.

CRC R311.7.6 Landings for stairways. There shall be a floor or landing at the top and bottom of each stairway. The width perpendicular to the direction of travel shall not be less than the width of the flight served. Landings of shapes other than square or rectangular shall be permitted provided that the depth at the walk line and the total area is not less than that of a quarter circle with a radius equal to the required landing width. Where the stairway has a straight run, the depth in the direction of travel shall not be less than **36 inches**.

Exception: A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided that a door does not swing over the stairs.

CRC R311.7.8 Handrails. Handrails shall be provided on not less than one side of each continuous run of treads or flight with four or more risers.

CRC R311.7.8.1 Handrail height. Handrail height measured vertically from the sloped plane adjoining the tread nosing, or finished surface of ramp slope, shall not be less than **34” inches** and not more than **38” inches**.

CRC R311.7.8.2 Continuity. Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals.

CRC R312 Guards. Guards shall be provided in accordance with **Sections R312.1.1 through R312.1.4**.

CRC R312.1.1 Where required. Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than **30" inches** measured vertically to the floor or grade below at any point within **36" inches** horizontally to the edge of the open side. Guards shall not be less than **42" inches** in height measured vertically above the adjacent walking surface or the line connecting the leading edges of the treads. Guards at the open side of stairs shall a height not less than **34" inches** measured vertically from a line connecting the leading edges of the treads.

CRC R312.1.2 Height. Required guards at the open-sided walking surfaces, including stairs, porches, balconies or landings, shall not be less than **42" inches** in height as measured vertically above the adjacent walking surface or the line connecting the leading edges of the tread.

CRC R312.1.3 Opening Limitations. Required guards shall not have openings from the walking surface to the required guard height which will allow passage of a sphere **4" inches** in diameter.

1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of the guard, shall not allow passage of a sphere **6" inches** in diameter.
2. Guards on the open side of stairs shall not have openings which allow passage of a sphere **4-3/8" inches** in diameter.

CBC Section 1011.8. A Flight of stairs shall not have a vertical rise greater than **12' feet** between floor levels or landings.