



Steps & Stairs

Building codes keep stairways safe with rules that apply to the height and depth of each step, support and handrails. Building code enforcement personnel take stairway building codes seriously, because a small error may result in serious injury. The International Building Code provides for step and stairway rules in chapter 10 of the IBC code book.

Significance

Encountering a step that is a significantly different height, width or depth than other steps on a stairway may upset the climber's balance, causing a fall. Step building codes are based on the fact that people using stairways expect each step to be the same height. Stairway building codes keep stairways safer by making sure people using stairs don't encounter the unexpected.

Treads

Treads are the part of a step that is stepped upon. They support the weight of the user. The depth of all the treads on a staircase must be the same from front to back, with a maximum variation of 0.375 inches between the deepest and shallowest treads. Treads shall be a minimum depth of 11 inches. Tread depth is measured from the front and rear edges of the adjacent treads.

Risers

A step riser is the distance from the top of one step to the top of the next step, measured vertically. Risers must have a maximum variance of 0.375 inches between the highest and lowest risers on the staircase. Risers must have a maximum height of seven inches and a minimum height of four inches. Single-family homes and townhouses are permitted to have a maximum riser height of 7.75 inches.

Handrails

A single step within a residential home such as a detached house, townhouse or residential condominium does not require a handrail. Stairways of more than a single step within or attached to these structures must have a handrail along either or both sides of the stairway. One handrail is required, but two are permitted.

Space Considerations

Stairways must be a minimum of 36 inches wide and have a headroom minimum of 80 inches along the full course of the stairs and one tread length beyond the bottom step. Headroom is a vertical measurement from the front edge of the tread to the ceiling above. Every stairway is required to have a landing with a length equal to the width of the stair, but landing lengths over 48 inches are not required. Stairs with a total vertical rise of more than 12 feet must have a landing between the top and bottom landings.

Special Staircases

Spiral and circular steps and staircases have special codes that apply only to them, as specified by IBC sections 1009.7, 1009.8 and 1009.9. There are also alternating tread devices are also allowed in special circumstances, as provided for in section 1009.10.

Source: Building Code for Steps by *Michael Logan, Demand Media*

For additional information, or to schedule an inspection, please call Jeff @ (608) 434-0790

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