

Requirements of Good Staircase

The stair is a structure having a series of steps and affords the means of ascent and descent between the floors or landings.

The enclosed room in which the stair is located is known as the staircase. The opening space occupied by the stair is known as a stairway.

A stair consists of treads, risers, stringers and balusters and so many other connected elements.

Stairs may be made from **timber**, stone, bricks, steel, plain cement **concrete** or reinforced cement concrete. following are the requirements of a good staircase:



Location

It should be located centrally so easily accessible from every corner of the building. Light and proper ventilation should be there.

Width of the stair

The usually adopted average value of the stair width for public and residential buildings is 1.8 m and 90 cm respectively.

Length of flight

Numbers of steps in a flight should be restricted to a maximum of 12 and a minimum of 3.

Pitch of the stair

The slope of the stair should never exceed **40°** and not be flatter than **25°**.

HeadRoom

The headroom of the flight immediately above it should not be less than 2.14 m.

Material

It should be strong durable and stiff. The materials by which the stair is constructed should possess fire-resisting qualities.

Landing

The width of the landing should not be less than the width of the stair.

Step Proportions

The rise and trade of each step in the stair should be of uniform dimensions throughout.

Riser Height

The height of the riser should not be more than 20 cm.

Hand Rail

It should be provided with handrails.

Winder

Winder step as far as possible should be avoided.