

## Notes on Building Regulations

Please note that British building regulations are complex and that they may vary from area to area. It is your responsibility to ensure that your chosen stair is compliant. As a broad rule of thumb the following is a guide only and must be verified by your local building inspector.

### Extracts from BUILDING REGULATIONS

domestic | safety | stairs and ramps | 2007

<b>Standard</b>  <b>4.3</b>  <b>Mandatory</b>	<b>Every <i>building</i> must be designed and <i>constructed</i> in such a way that every level can be reached safely by stairs or ramps.</b>
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#### 4.3.0 Introduction

Half of all accidents involving falls within and around *buildings* occur on stairways, with young children and elderly people being particularly at risk. This risk can be greatly reduced by ensuring that any change in level incorporates basic precautions to guard against accident and falls.

**Private stair** means a stair wholly within a *dwelling*. It may also apply to any stair within the *curtilage* of a single *dwelling*, which is not accessible to the public. This might include, for example, a stair from a *dwelling* to a private garden, or a stair providing access to or within a domestic garage. It should not, however, include any external stair that forms a part of an accessible route to the *dwelling*.

In the case of *conversions*, as specified in regulation 4, the *building* as *converted* shall meet the requirements of this standard in so far as is *reasonably practicable*, and in no case be worse than before the *conversion*

#### 4.3.3 Width of stair flights and landings

The effective width should be measured between handrails or, where there is no handrail present, between any walls or protective barriers. It should be clear of obstructions, as described in the diagram to clause 4.3.1. The effective width of a stair should be in accordance with the recommendations of the following table:

### Private Stair

900 mm [1], such as from one *storey* to another or connecting levels within a *storey*; or

600 mm where serving only *sanitary accommodation* and/or one *room* ,

1. the effective width of a *private stair* may be 800 mm where a continuous handrail is fitted to both sides of a *flight*

#### 4.3.4 Number of rises in a flight

Generally, a *flight* should have not more than 16 rises.

##### 4.3.10 Stair flights consisting wholly of tapered treads

A *flight* consisting wholly of tapered treads, forming a helix or spiral, should be *constructed* to give safe passage. To achieve this, it should be *constructed* in accordance with the guidance in BS 5395: Part 2: 1984

##### 4.3.14 Handrails to stairs and ramps

- a handrail need only be provided to one side on a *flight* of a *private stair* .

Where a handrail is provided to only one side of a *private stair flight* , the side on which a handrail is not fixed should permit installation of a second handrail at a future date. A second handrail will provide additional support to a person using the stair and may be installed provided a clear width of 800 mm is maintained.

#### Height of pedestrian protective barriers

on a stair or ramp <i>flight</i> wholly within a <i>dwelling</i>	840
on a stair or ramp <i>flight</i> out with a <i>dwelling</i> to a <i>gallery</i> , landing or raised area within a <i>dwelling</i>	900
all other locations	900
	1100

#### 4.4.2 Design of pedestrian protective barriers

In and around *domestic buildings* , gaps in any protective barrier should not be large enough to permit a child to pass through.

To ensure this, openings in a protective barrier should prevent the passage of a 100 mm diameter sphere. However, the space between a rise in a stair and the lowest edge of the protective barrier may be larger than 100 mm, provided the lowest edge of the barrier is not more than 50 mm above, and parallel to, the pitch line of the stair.

**BUILDING REGULATIONS BS5395**  
**British Standard – Stairs, Ladders, & Walkway**

**Some of the Main Points from above**

**“ Where stair serves only sanitary accommodation and / or one room”**

**Flights**

Clear tread should be 600mm

**Spirals**

140cm diameter complies with one exception, the minimum clear tread width should be 600, for example the Klan is 565.5mm and the Civik is 585mm. Check with your building inspector, as when space is at a premium most will allow.

150cm diameter complies.

**Spacesavers**

Are non compliant unless there is no room for a normal stair. Check with building inspector

**“For more than one room:-. The width of a private stair may be reduced to at least 800mm”**

**Flights**

Clear tread should be 800mm

**Spirals**

180mm diameter complies

**n.b. – For all of the above to comply: -**

100mm rule must be met:- No gap greater than 100mm is permitted therefore riserbars should be fitted. The AF26 will not meet this rule.

Max rise is 220mm

Max gap from wall is 50mm, if greater an additional handrail (kit external railing) will be required

Maximum of 16 rises allowed in any one flight. If a greater number of rises are required a landing should be introduced at some point.

Stairs with cable balustrades may comply with regulations but inspector may not allow particularly on the landing balustrade.

ALWAYS CHECK WITH YOUR BUILDING INSPECTOR BEFORE ORDERING

# Section 3: Guards and barriers

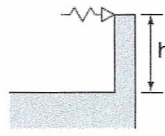
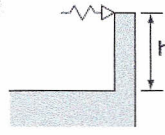
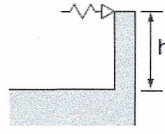
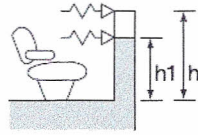
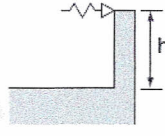
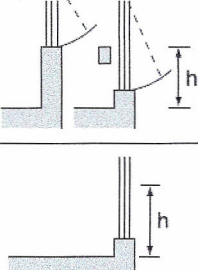
## Pedestrian guarding

**3.1 Siting** Guarding should be provided where it is reasonably necessary for safety to guard the edges of any part of a floor (including the edge below an opening window), gallery, balcony, roof (including rooflights and other openings), any other place to which people have access and any light well, basement area or similar sunken area next to a building. Guarding should also be provided in vehicle parks, but not on any ramps used only for vehicle access. Guarding need not be provided to such places as loading bays where it would obstruct normal use.

**3.2 Design** Any wall, parapet, balustrade or similar obstruction may serve as guarding. Guarding should be at least the height shown in Diagram 11. Guarding should be capable of resisting at least the horizontal force given in BS 6399-1:1996. Where glazing is used in the guarding, reference should be made to Approved Document N: Glazing – safety in relation to impact, opening and cleaning.

For further guidance on design of barriers and infill panels, reference should be made to BS 6180:1995 *Code of practice for protective barriers in and about buildings*.

Diagram 11 Guarding design

Building category and location		Height (h)	
Single family dwellings	Stairs, landings, ramps, edges of internal floors	900mm for all elements	
	External balconies and edges of roof	1100mm	
Factories and warehouses (light traffic)	Stairs, ramps	900mm	
	Landings and edges of floor	1100mm	
Residential, institutional, educational, office, and public buildings	All locations	900mm for flights otherwise 1100mm	
	Assembly	530mm in front of fixed seating	
Retail	All other locations	800mm (h1)	
	All other locations	900mm for flights elsewhere 1100mm (h2)	
Retail	All locations	900mm for flights otherwise 1100mm	
	Glazing in all buildings	At opening windows except roof windows in loft extensions, see Approved Document B1	
Retail	At glazing to changes of level to provide containment (see Diagram 12)	Below 800mm	
		800mm	

# **Links**

Scottish Executive Building Regulations: Technical Standards

<http://www.scotland.gov.uk/library2/br/brs-04.asp>