



**DESIGNING  
FOR EVERYONE**

# DESIGNING FOR EVERYONE <sup>1</sup>



Part M of the Building Regulations (1987) applies to offices, shops, factories, school or educational establishments to which the public are admitted whether by payment or otherwise. The regulations lay down specific requirements regarding facilities for disabled people. These should be taken into account, at the time that consent is obtained under the Town and Country Planning Acts.

**New Buildings** – ramped or level access should be made to all principal entrances for both the public and employees using a building. Sanitary conveniences should also be provided for use by disabled people wherever toilet provision is made for use by employees or the general public.

New buildings are deemed to include major refurbishment projects where a substantial refitting takes place behind a facade which remains largely unaltered.

**Lifts** – should be provided in all two-storey developments exceeding 280 square metres per storey and all three-storey buildings exceeding 200 square metres per storey. In similar buildings, where the floorspace does not exceed these thresholds, the design should seek to provide suitable access to principal entrances and toilet facilities on each floor and to enable movement between floors by means of a suitable stairway.

## ENTRANCES AND EXITS

Ideally all access points into and out of a building should be on the same level as the external pavement. This includes fire escape exits. Where this is not possible, a ramp or combined ramp and step facility should be provided. (see illustration)

### Recommended Features for Ramps

Approach route to ramp should be a minimum of 1800mm wide.

Preferred gradient is 1:20 with a maximum of 10 metres between level resting places (1200 x 1200mm) on long ramps. A gradient of 1:12 is accepted in some circumstances.

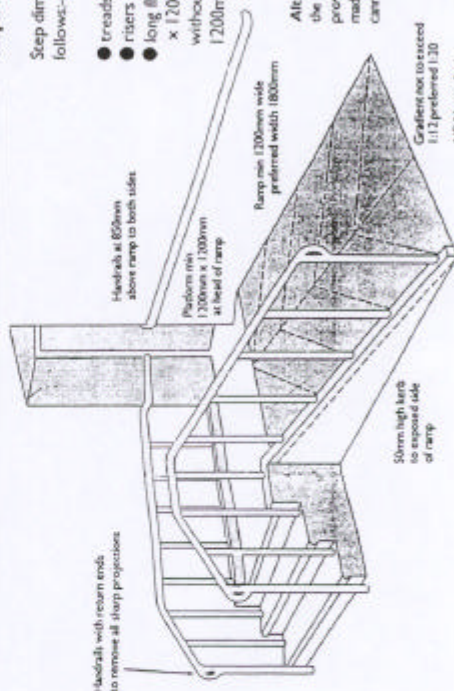
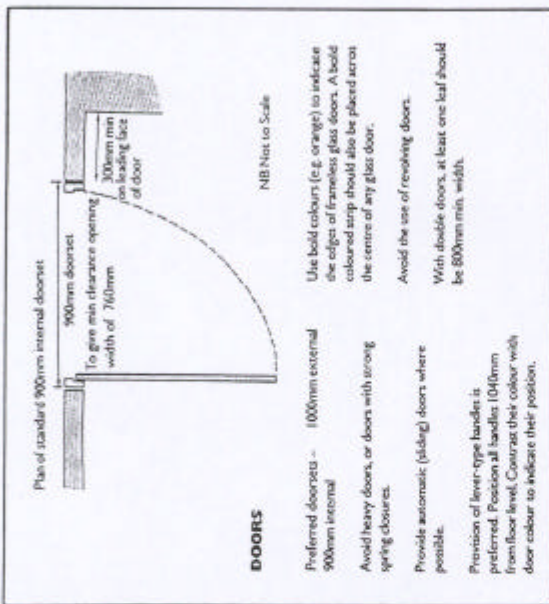
All ramps should have a durable non-slip surface.

### Recommended Features for Steps/Staircases

Step dimensions should be uniform and as follows:—

- treads not less than 280mm
- risers not higher than 150mm
- long flights should have platforms (1200 x 1200mm) at intervals: vertical rise without any landing should not exceed 1200mm.

Alterations – when a building to which the new regulations apply is altered, the provisions for disabled people must not be made any worse. For example, steps cannot be constructed to replace ramps.



## DESIGNING 2 FOR EVERYONE

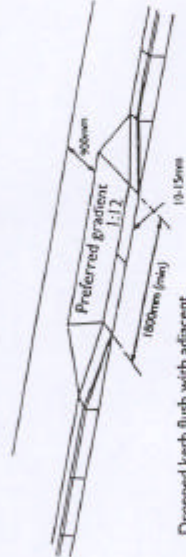
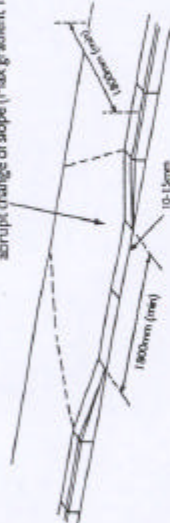


### EXTERNAL FEATURES

**Kerbs** – where any pavements are laid, dropped kerbs between 10mm and 15mm above the road surface should be provided at crossing points, road junctions and parking areas. However, the dropped kerbs should be flush with the road surface where textured paving is provided in association with pelican, zebra and traffic signals which include a push button operated 'cross now' indication to pedestrians. Ideally, ramps associated with dropped kerbs should extend over the whole width of the footway. Where a ramp is being inserted in an existing footway the maximum gradient should not exceed 1 in 12.

**Obstructions** – locate all 'street furniture' such as signposts, bollards, litterbins, flower tubs, lamp-posts and seats to one edge of pedestrian through routes keeping the kerbside edge clear. Indicate their presence to blind and partially-sighted people by a change in surface texture and colour around the feature, thus giving a visual and tactile warning on approaching it. For safety reasons attempt to confine contact with street furniture to waist level (litterbins and bollards, for example, should reach to that height).

Footway dished over this area with no abrupt change of slope (Max gradient 1:12)



Dropped kerb flush with adjacent carriageway

**Pedestrian routes** – all routes should be level, without obstructions and with a preferred minimum width of 1800mm. Provide a firm, non-slip surface which does not deaden sounds, and which can therefore offer directional guidance to partially-sighted and blind people. Seating should be arranged at regular intervals along the route. Proper signing is also important – see section on 'Signs'.

Where possible a 1200mm clear passage should be allowed for unimpeded movement. Features should be coloured to contrast strongly with the background environment.

Gratings and gully covers should have drainage holes with a max. size of 20mm square. Service covers should be non-slip and be flush with the surrounding surfaces. Avoid using open dished drainage channels.

### SIGNS

**Directional** – incorporating an arrow to a specific facility.  
**Locational** – at the place where the facility is provided.  
**Informative** – advising about the availability of a facility (e.g. an Induction Loop)

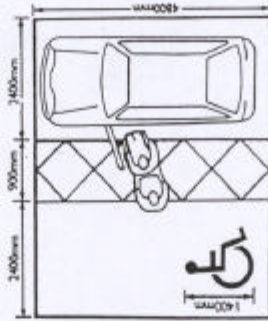
Ideally all information throughout a building should be communicated both audibly and visually.

Where audible delivery is not possible the recommended typeface for signs is 'Helvetica'. Use should also be made of:

- braille
- raised-embossed letters and numerals
- raised-embossed floor plans of buildings
- contrasting colours; for example large lettering on a dark background.

**Parking** – locate parking bays adjacent to the most accessible entrances. Off-street parking bays should be 4800mm x 3600mm wide to accommodate transfer from vehicle to wheelchair. Economy of space can be achieved by combining a pair of standard 2400mm width bays with a common 'transfer zone' 900mm wide. Indicate reserved nature of bays on tarmacadam and pole-mounted signs, and include dropped kerbs where necessary.

Marked out shared space between two standard parking bays for Orange Badge Holders



Credit: Manchester Disability Forum/Housing Department

### LIFT

Where special facilities are provided for partially-sighted or hearing-impaired people, use the appropriate symbol.



**Recommended Features for Lifts**

- Lifts must stop flush with floor level.
- Position control panel on the side wall.
- Control buttons should be placed horizontally at a recommended height of 800-1400mm.
- Use control panel with raised braille and embossed numerals with illuminated and audible systems inside lift-car and at landings.

Link lift intercom with Induction Loop system.

Provide clear space in front of lift, not less than 1500mm x 1500mm. Seating close to the lift will assist those who are not able to stand waiting for long periods.

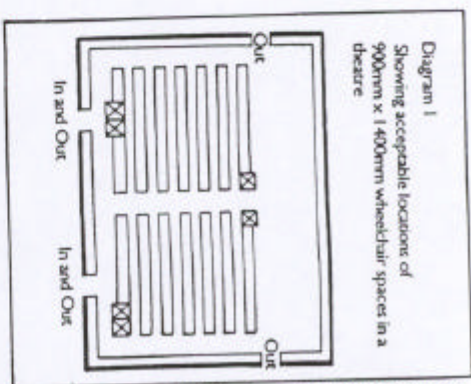
Position mirror inside lift-car at a height which enables wheelchair users to view a floor indicator located above lift door.

See also earlier comments on provision of lifts under Part M of the Building Regulations 1987.

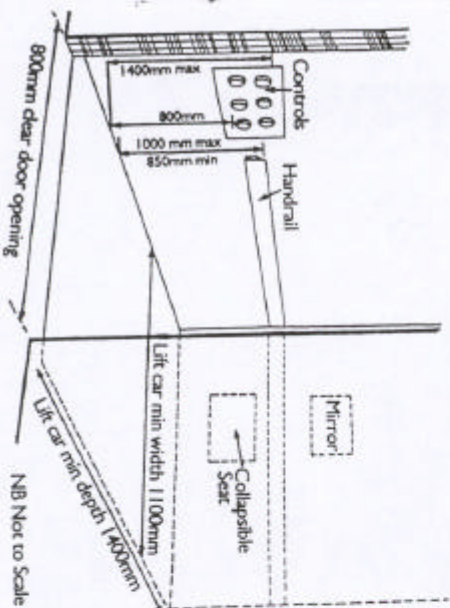
**Places of Entertainment**

The Building Regulations state that at least six spaces or 1/100th of the seated area (whichever is the greater) should be made accessible to disabled people. The spaces must be dispersed amongst the seating area in a suitable viewing position.

Wheelchair spaces in a theatre should be located in a manner shown in diagram 1. In a stadium or arena, wheelchair viewing positions should be designed as shown in diagram 2.



Credit: Manchester Disability Forum/Housing Department



**REFERENCES**

- A selection of technical references should provide more information be required:
- Part M of the Building Regulations 1987
- Chronically Sick and Disabled Persons Act 1970
- Chronically Sick and Disabled Persons (Amendment) Act 1976
- Town and Country Planning Act 1971
- Disabled Persons Act 1981
- BS 5810 : 1979 Code of Practice for

- Access for the Disabled to Buildings: BS 5419 : 1978 Code of Practice for Design of Housing for the Convenience of Disabled People
- BS 5588 : Part 3 1983 British Standard Fire Precautions in the Design and Construction of Buildings
- Designing for the Disabled, Setwyn Goddard, RIBA, third edition 1984
- Access in the High Street, CEH, 1981

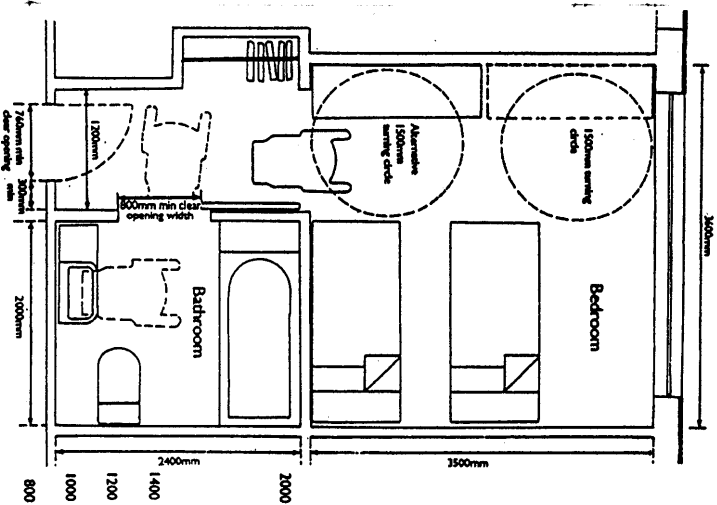
- Access for Disabled People - Design Guidance notes for Developers, Access Committee for England/CEH 1985
- HDD Occasional Papers 27/4 Mobility Housing, DOE
- HDD Occasional Papers 27/5 Wheelchair Housing, DOE
- Providing for People with a Mobility Handicap, Institution of Highway and Transportation 1986

# DESIGNING FOR EVERYONE

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## Hotel Bedrooms

The diagram below shows one example of a suitably designed hotel bedroom with en suite bathroom.



## LOBBIES/CORRIDORS

### Lobbies

Where possible use sliding doors. If lobbies have outer and inner doors both doors should open in the same direction (i.e. not towards one another).

Where double doors are provided to an entrance lobby the minimum dimensions must be 2000 x 1800mm. Elsewhere, the minimum dimensions are:

- lobbies inside building entrances 1800mm x 1500mm
- lobbies off internal corridors 2000 x 1200mm or 1700mm x 1500mm

### Corridors

The preferred width is 1800mm to allow adequate two-way flow.

Keep corridors/aisles clear of obstructions. Recess fire equipment into walls. Keep all projections from walls (signs, lights, etc) at least 2000mm above floor level.

Sign plates should be flush with the wall at a preferred height of 1400-1700mm above floor level.

Use a floor surface which is non-slip wet or dry.

Avoid deep pile carpets. Do not use floor pattern which simulates steps.

Use changes of colour and texture to warn of differences in floor level and to indicate doors, switches, handles.

Avoid glare from light sources and glossy surfaces.

Inclined lifts should be provided for access over small internal flights of steps.

Credit: Manchester Disability Forum/Housing Department

