

Building Regulations 2000

Technical Guidance Document M

Access for People with Disabilities

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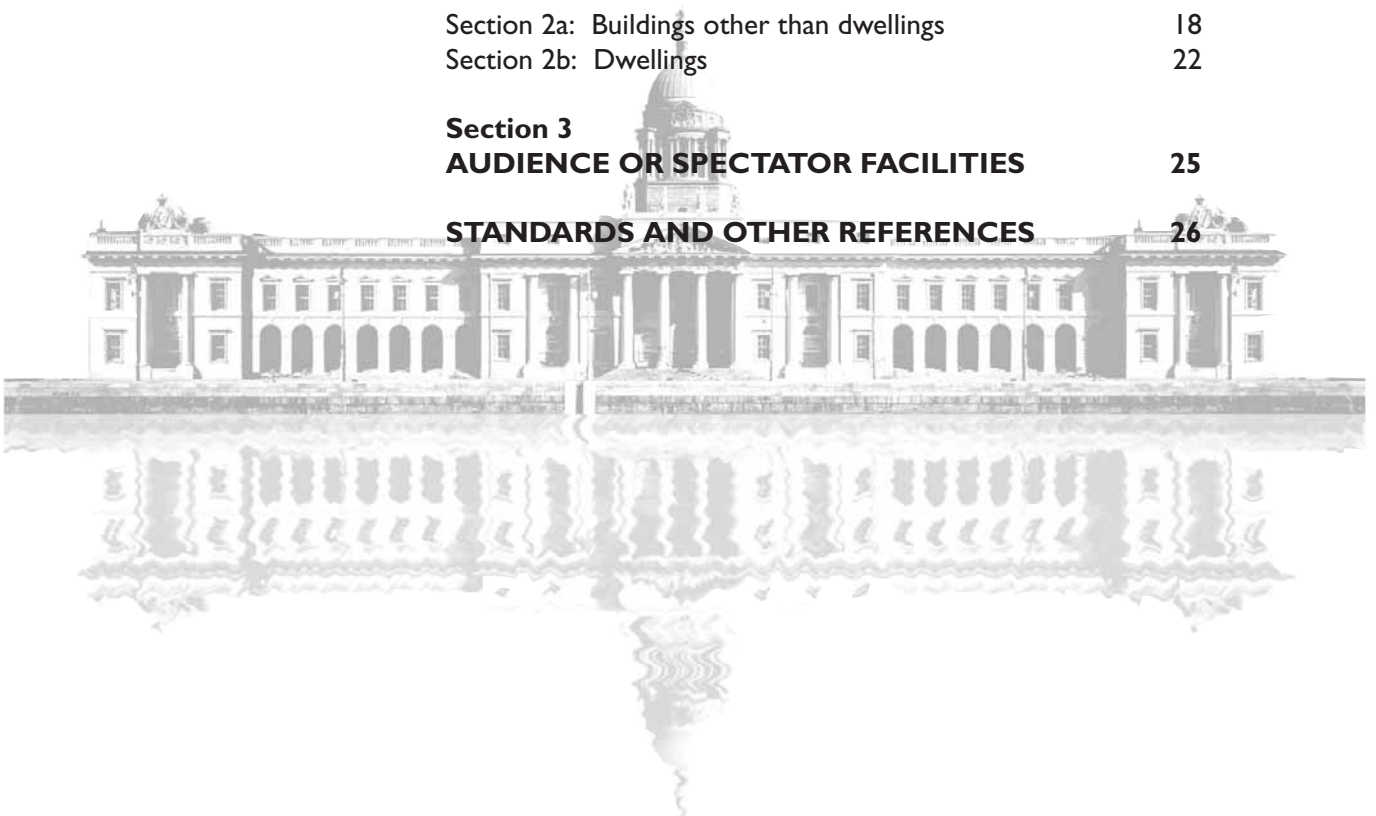
Amendments issued since publication

Technical Guidance Document M - Access for People with Disabilities

<i>Amd. No.</i>	<i>Text Affected</i>
M(i)	Paragraph 1.4 (f) should read: “where the gradient is steeper than 1 in 20, there should be a suitable continuous handrail on each side of slopes and landings (see par. 1.6)”.
M(ii)	Paragraph 1.30 (e): “280 mm” should read “250 mm”.
M(iii)	Paragraph 2.9: Replace final sentence with following: “The choice of door type and location should be such as not to pose undue hazard on a circulation route or be otherwise dangerous in use”.

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Building Regulations, 2000

Technical Guidance Document M

Access for People with Disabilities

Introduction

This document has been published by the Minister for the Environment under article 7 of the Building Regulations. It provides guidance in relation to the revised Part M of the Second Schedule to the Regulations. The document should be read in conjunction with the Building Regulations, 1997, and 2000 and other documents published under these Regulations.

In general, Building Regulations apply to the construction of new buildings and to extensions and material alterations to buildings. In addition, certain parts of the Regulations apply to existing buildings where a material change of use takes place. Otherwise, Building Regulations do not apply to buildings constructed prior to 1 June, 1992.

Transitional Arrangements

In general, this document applies to works, where the works commence, on or after 1 January, 2001 except in the case of new dwellings where planning permission has been applied for on or before 31 December, 2000 and where substantial works have been completed by 31 December, 2003, or a notice pursuant to Part X of the Local Government (Planning and Development) Regulations, 1994 has been published on or before 31 December, 2000 and where substantial works have been completed by 31 December, 2003. Technical Guidance Document M - **Access for Disabled People**, dated 1997, also ceases to have effect from that date. However, the latter document may continue to be used in the case of works, or buildings

- where the works commence, as the case may be, before 1 January, 2001,
- in respect of which a Fire Safety Certificate under the Building Control Regulations, has been granted before 1 January, 2001 and where the works commence, not later than 31 December, 2003.

The Guidance

The materials, methods of construction, standards and other specifications (including technical specifications) which are referred to in this document are those which are likely to be suitable for the purposes of the Regulations. Where works are carried out in accordance with the guidance in this document, this will, prima facie, indicate compliance with Part M of the Second Schedule to the Building Regulations (as amended). However, the adoption of an approach other than that outlined in the guidance is not precluded provided that the relevant requirements of the Regulations are complied with. Those involved in the design and construction of a building may be required by the relevant building control authority to provide such evidence as is necessary to establish that the requirements of the Building Regulations are being complied with.

Existing Buildings

In the case of material alterations of existing buildings, the adoption without modification of the guidance in this document may not, in all circumstances, be appropriate. In particular, the adherence to guidance, including codes, standards or technical specifications, intended for application to new work may be unduly restrictive or impracticable. Buildings of architectural or historical interest are especially likely to give rise to such circumstances. In these situations, alternative approaches based on the principles contained in the document may be more relevant and should be considered.

Technical Specifications

Building Regulations are made for specific purposes, e.g. to provide, in relation to buildings, for the health, safety and welfare of persons, the conservation of energy and access for disabled persons. Technical specifications (including harmonised European Standards, European Technical Approvals, National Standards and Agrément Certificates) are relevant to the extent that they relate to these considerations. Any reference to a technical specification is a reference to so much of the specification as is relevant in the context in which it arises. Technical specifications may also address other aspects not covered by the Regulations.

A reference to a technical specification is to the latest edition (including any amendments, supplements or addenda) current at the date of publication of this Technical Guidance Document. However, if this version of the technical specification is subsequently revised or updated by the issuing body, the new version may be used as a source of guidance provided that it continues to address the relevant requirements of the Regulations.

Materials and Workmanship

Under Part D of the Second Schedule to the Building Regulations, building work to which the Regulations apply must be carried out with proper materials and in a workmanlike manner. Guidance in relation to compliance with Part D is contained in Technical Guidance Document D.

Interpretation

In this document, a reference to a section, sub-section, part, paragraph or diagram is, unless otherwise stated, a reference to a section, sub-section, part, paragraph or diagram, as the case may be, of this document. A reference to another Technical Guidance Document is a reference to the latest edition of a document published by the Department of the Environment under article 7 of the Building Regulations (as amended). Diagrams are used in this document to illustrate particular aspects of construction - they may not show all the details of construction.

Access for People with Disabilities

Building Regulations - The Requirement

Part M of the Second Schedule to the Building Regulations, (as amended), provides as follows :

Access and Use	M1	Adequate provision shall be made to enable people with disabilities to safely and independently access and use a building.
Sanitary conveniences	M2	If sanitary conveniences are provided in a building, adequate provision shall be made for people with disabilities.
Audience or Spectator facilities	M3	If a building contains fixed seating for audience or spectators, adequate provision shall be made for people with disabilities.
Definition for this Part	M4	In this Part, "people with disabilities" means people who have an impairment of hearing or sight or an impairment which limits their ability to walk or which restricts them to using a wheelchair.
Application of this Part	M5	Part M does not apply to works in connection with extensions to and the material alterations of existing dwellings, provided that such works do not create a new dwelling.

General

0.1 The requirements of Part M aim to ensure that :

- (a) buildings other than dwellings are accessible and usable by people with disabilities, and
- (b) dwellings are visitable by people with disabilities.

This document sets out guidance on the *minimum* level of provision to meet these requirements. However, the underlying philosophy on which these requirements are based is that buildings should be accessible and usable by everyone, including people with disabilities. Those involved in the design and construction of buildings should have regard to this philosophy of universal access, and should consider making additional provision where practicable and appropriate.

0.2 In order to satisfy the requirements of Part M, buildings should be designed and constructed so that:

- (a) people with disabilities can safely and independently approach and gain access to the building, and

- (b) elements of the building do not constitute an undue hazard for people with disabilities, including those with an impairment of sight.

0.3 In the case of buildings other than dwellings, the building should be designed and constructed so that:

- (a) people with disabilities can move around within the building and use the buildings facilities;
- (b) where sanitary accommodation is provided, adequate sanitary accommodation is available and accessible to people with disabilities;
- (c) where fixed seating for audience or spectators is provided, adequate accommodation is available for people with disabilities; and
- (d) suitable aids to communication are available for people with an impairment of hearing or sight.

0.4 Dwellings should be designed and constructed so that:

-
- (i) people with disabilities can safely and conveniently approach and gain access;

On some steeply sloping sites, or where all entrances are on other than ground level and a suitable passenger lift is not provided, it is considered adequate to provide access by means of steps or a stairway suitable for use by ambulant disabled people;

- (ii) people with disabilities can have access to the main habitable rooms at entry level. Where there is no habitable room at this level, it is considered adequate to provide for access to habitable rooms on the storey containing the main living room. Access to this storey from the entry storey may be by means of a stairway suitable for use by ambulant disabled people;

- (iii) a WC is provided at entry level or, where there are no habitable rooms at this level, on the storey containing the main living room with adequate provision for access and use of the WC by people with disabilities.

0.5 The requirements of Part M apply to works in connection with new buildings, extensions to existing buildings and material alterations of existing buildings. However, in the case of existing dwellings, the requirements only apply to works in connection with extensions and material alterations where such works create a new additional dwelling.

Where access to an extension or accommodation which is subject to a material alteration, to which this Part applies, is through an existing building, the access requirements in relation to the approach route to the extension or material alteration, including relevant existing entrances, will only apply to that part of the route which is being materially altered or to the extent required to prevent a new or greater contravention of the Regulations.

However, in the case of hotels, cinemas, educational establishments and similar places of assembly, if the existing entrance is not accessible to wheelchair users, an alternative entrance should be provided which is accessible to wheelchair users and which will enable them to gain independent access to an

extension to which it is intended that members of the public would normally have access.

0.6 Access provision must be linked to egress provision. The scope of Part M is limited to matters of access to and use of a building. For guidance on means of escape or evacuation, reference should be made to Technical Guidance Document B (Fire Safety).

0.7 Diagrams included in this Document are intended to clarify certain aspects of the guidance. They are not necessarily to scale and do not represent fully detailed solutions. Where dimensions are stated, they refer to *minimum* finished dimensions. Allowance should be made for all necessary tolerances and finishes. Reference should be made to Technical Guidance Document D (Materials and Workmanship) for guidance in relation to manufacturing and other tolerances applicable to building components generally.

Section 1

Access and Use

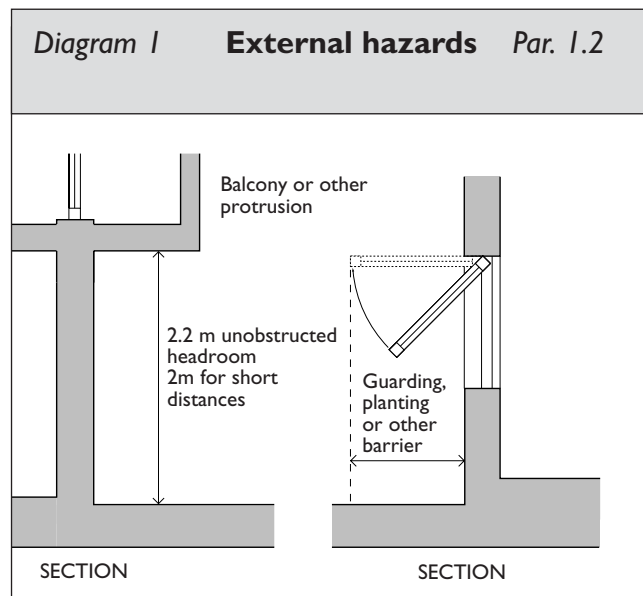
Access and use	M1	Adequate provision shall be made to enable people with disabilities, to safely and independently access and use a building.
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Section 1a Buildings other than dwellings

Approach to a Building

1.1 The guidance in Section 1a applies to buildings other than dwellings including, where applicable, to common areas of apartment blocks and the like.

1.2 To reduce the risks to people with disabilities, particularly those with impaired sight, building features which may present hazards on circulation routes immediately adjacent to them, should be avoided. For example, a window or a door in general use should not open out onto a circulation route. In general all approach routes should have clear headroom of 2.2 m over their full width. A lesser height may be accepted over a short distance, e.g. the underside of an adjacent stairs or landing, but should not be less than 2 m (see *Diagram 1*). Where such hazards are unavoidable the area should be protected by guarding, planting or other suitable barriers.



1.3 The main entrance or entrances should be accessible to people with disabilities, including wheelchair users. Where this is not practicable, an alternative entrance, intended for general access, should be accessible. There should be a clear area of at least 1.5 m wide and at least 1.5 m deep in front of every such entrance. The approach to the

entrance from the adjacent road, carpark or other area accessible to motor vehicles should be level. If a gradient is needed, e.g. to remove surface water, it should be as gentle as circumstances allow (a level approach is considered to include gradients of less than 1 : 50). The approach should have a clear unobstructed width of at least 1.0 m and should have a surface which is suitable for wheelchair traffic and which reduces the risk of slipping. Where it is not possible to provide a level approach, a sloped approach with as gentle a gradient as possible (see par. 1.4) should be provided. Where the slope is steeper than 1 : 20, a stepped approach should also be provided. The steps should be as easy-going as possible (see par. 1.5).

1.4 Where a sloped approach is provided :

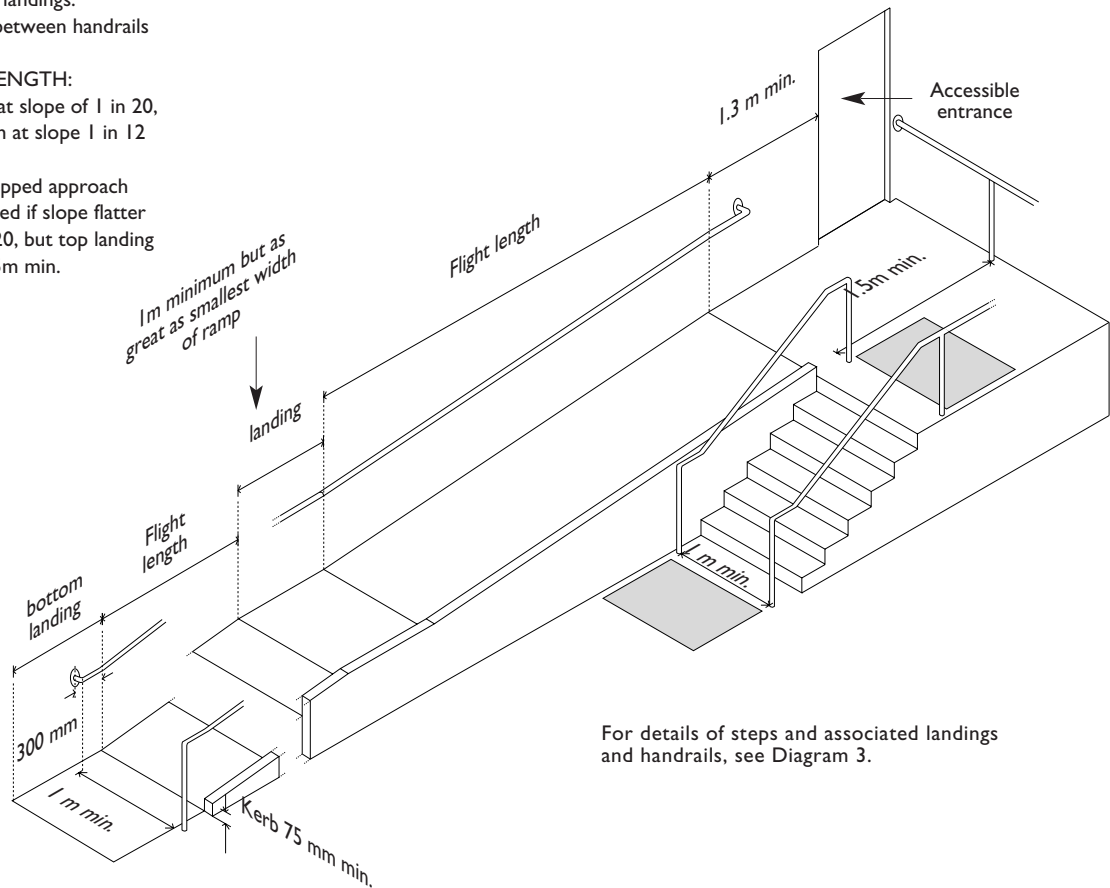
- the surface should be suitable for wheelchair traffic and reduce the risk of slipping;
- slopes and landings should have a clear unobstructed width of at least 1.0 m;
- the gradient should not be steeper than 1 in 20 and individual sloped sections not longer than 9 m. In exceptional circumstances, where site constraints require it, slopes not steeper than 1 : 12 may be provided if individual sections are not longer than 4.5 m;
- the length of a landing viewed in the direction of approach to the landing should be at least 1.0 m. Where a door opens onto a landing, the length of the landing should be at least 1.3 m clear of the door swing. The top landing should be at least 1.5 m wide and 1.5 m long, to facilitate wheelchair turning;
- a raised kerb at least 75 mm high should be provided on any open side;
- where the gradient is steeper than 1 in 20, there should be a suitable continuous handrail on each side of slopes and landings (see par. 1.6).

Diagram 2 illustrates the guidance on sloped approaches.

Handrails on each side of flights and landings.
1 m min. between handrails

FLIGHT LENGTH:
• max 9m at slope of 1 in 20,
• max 4.5m at slope 1 in 12

Note: Stepped approach not required if slope flatter than 1 in 20, but top landing 1.5m x 1.5m min.



1.5 Where external steps are provided:

- (a) top and bottom landings with a tactile danger warning surface should be provided, to give advance tactile warning of the change in level. The tactile warning surface should extend the full width of the steps and commence 400 mm back from the first step. It should be 800 mm deep. The depth may be reduced to 400 mm where a head-on approach to the steps is not possible (see Diagram 3);
- (b) the first and last steps in each flight should provide a permanent visual contrast with the rest of the steps. The step edge markings on treads should be 50-75 mm deep and extend the full width of the tread;
- (c) flights and landings should have a clear unobstructed width of at least 1.0 m;
- (d) the rise of a flight between landings should not exceed 1.5 m;
- (e) the length of a landing clear of any obstruction or door swing should be at least 1 m when viewed in the direction of approach to the landing;
- (f) the rise of each step should be uniform and not more than 150 mm;
- (g) the going of each step should be uniform and not less than 280 mm;
- (h) the sum of twice the rise plus the going (2R + G) should be not greater than 630 mm;
- (i) tapered treads and open risers should not be used;
- (j) projecting nosings should be avoided - see tread/riser profiles shown in Diagram 3;

- (k) there should be a suitable continuous handrail on each side of flights and landings (see par. 1.6).

Diagrams 2 and 3 illustrate guidance on stepped approaches

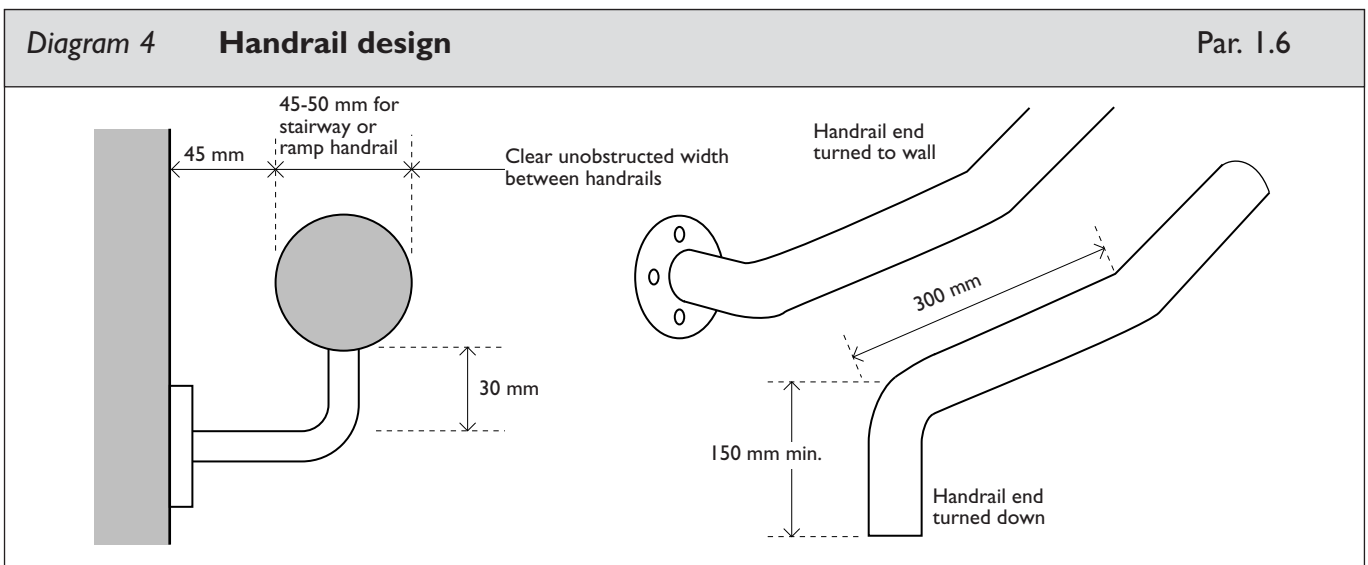
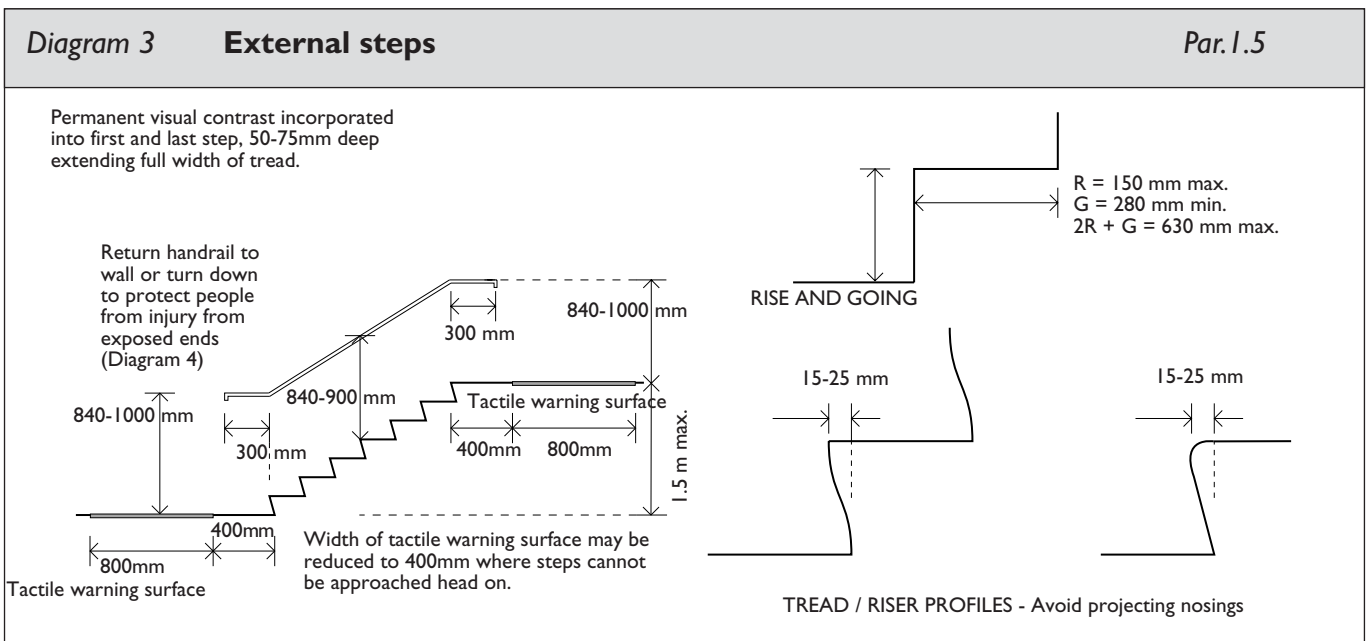
1.6 Handrails suitable for sloped or stepped approaches should comply with the following:

- (a) the top of the handrail should be at a height of between 840 mm and 900 mm above the pitch line of the slope or the flight of steps and between 840 mm and 1000 mm above the surface of the landing;
- (b) the handrails should be continuous at intermediate landings;

- (c) where the handrail is not continuous the handrail should extend at least 300 mm beyond the top and bottom of a sloped approach or the top and bottom risers of a stepped approach, and terminate in a closed end which does not project into a route of travel;

- (d) the profile of the handrail and its projection from a wall should be suitable.

Diagram 4 contains guidance on handrail design. See Technical Guidance Document K (Stairways, Ladders, Ramps and Guards) for guidance on the provision of guarding.



Access into a Building

1.7 An accessible entrance should be so designed and constructed that :

- (a) the doorway provides a *minimum* clear opening width of not less than 800 mm. Double doors should include at least one leaf which provides a *minimum* clear opening width of not less than 800 mm;
- (b) there is an unobstructed space of at least 300 mm on the side next to the leading edge of a single leaf door;
- (c) each leaf of a door incorporates, where feasible and practicable, a glazed vision panel extending from 900 mm to 1.5 m above the finished floor level;
- (d) any single pane fully glazed door leaf or fixed panel is permanently marked within the pane 1200 mm to 1500 mm above floor level so as to visually indicate the presence of the leaf or panel;
- (e) any door has ironmongery which is suitable for operation by people with disabilities; and

- (f) any door fitted with a self-closing device is suitable for operation by people with disabilities.

In general, revolving doors are not suitable for use by people with disabilities. *Diagrams 5 and 6* illustrate the guidance on doors.

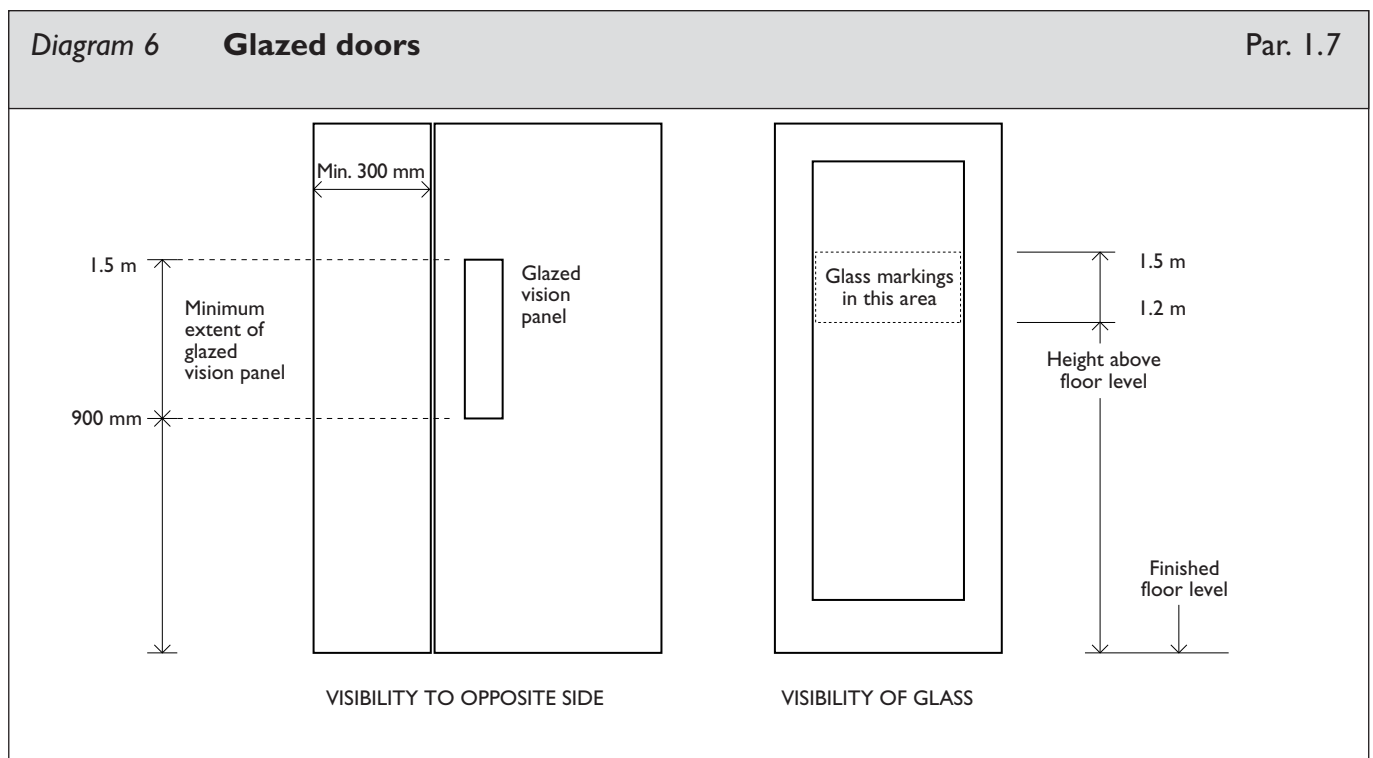
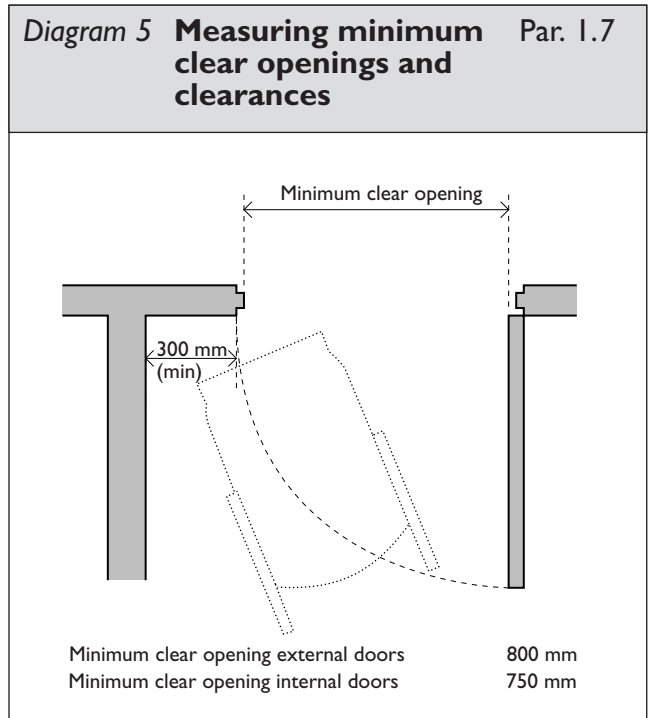
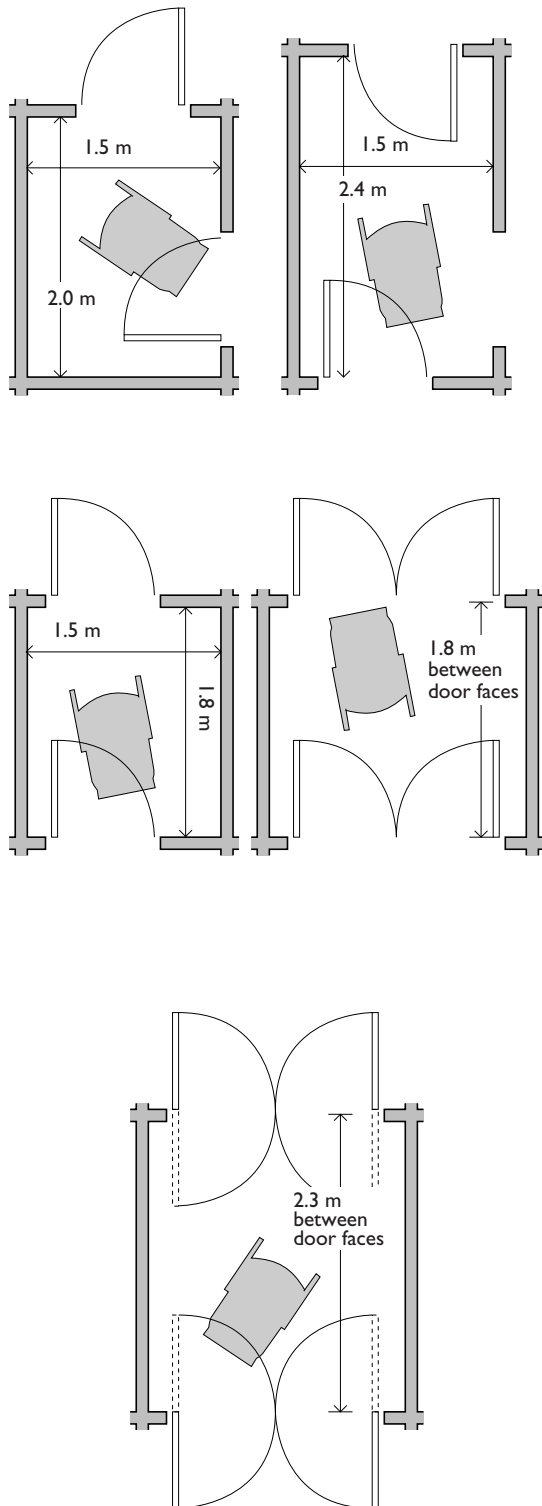


Diagram 7 **Entrance lobbies** **Par. 1.8**



1.8 Entrance lobbies should be so designed and constructed that there is sufficient space to enable a wheelchair user, and a person assisting the wheelchair user, to move clear of one door before using the next one while allowing space for a person to pass in the opposite direction. Examples of lobbies of suitable dimensions are shown in *Diagram 7*.

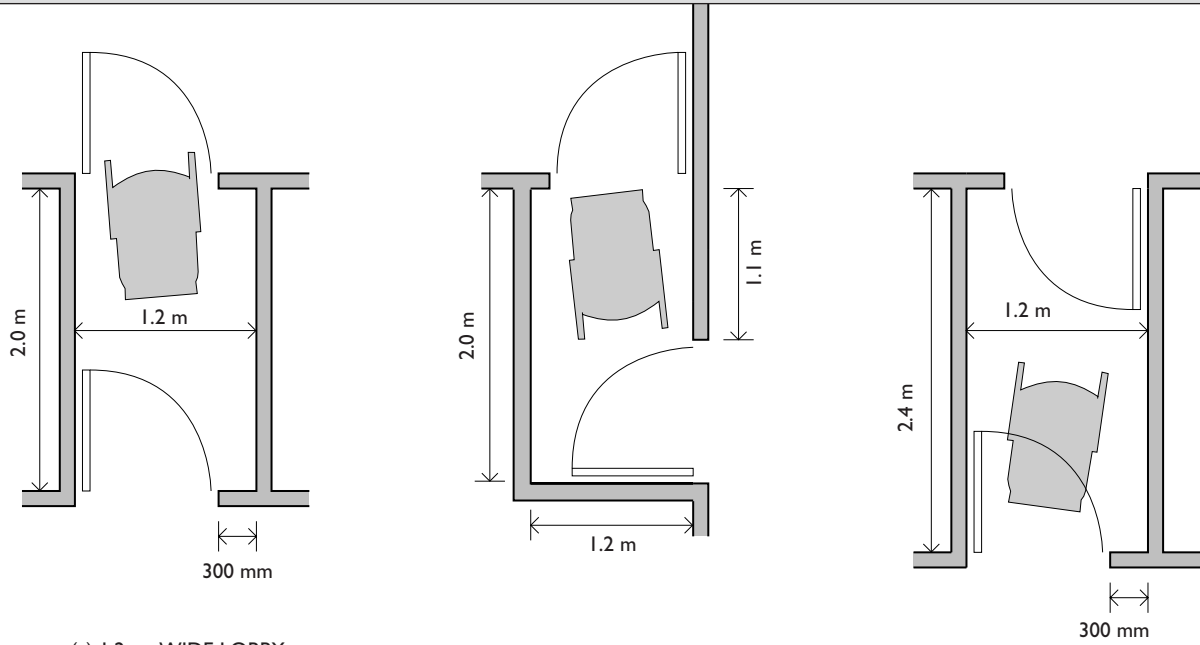
Circulation within a Building

1.9 Internal doors should be so designed and constructed that:

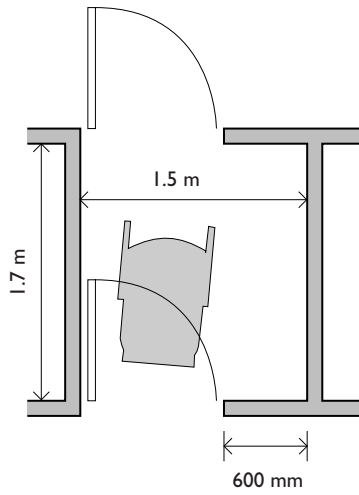
- (a) they provide a *minimum* clear opening width of not less than 750 mm. Double doors should include at least one leaf which provides a *minimum* clear opening width of not less than 750 mm;
- (b) there is an unobstructed space of at least 300 mm on the side next to the leading edge (see par. 1.18 for specific guidance in relation to hotel and other guest bedrooms);
- (c) each leaf of a door in a corridor or passageway incorporates, where feasible and practicable, a glazed vision panel extending from 900 mm to 1.5 m above the finished floor level;
- (d) any single pane fully glazed door leaf or fixed panel is permanently marked within the area 1200 mm to 1500 mm above floor level, so as to visually indicate the presence of the door or panel;
- (e) the ironmongery is suitable for operation by people with disabilities; and
- (f) any door fitted with a self-closing device is suitable for operation by people with disabilities.

Diagrams 5 and 6 illustrate the guidance on doorways and glazed panels.

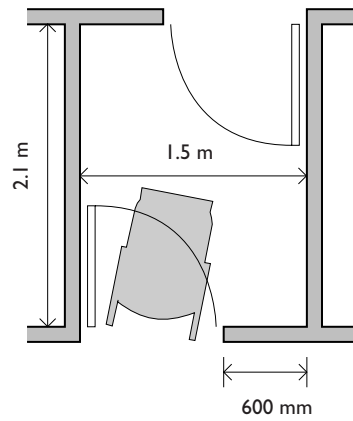
1.10 A corridor or passageway accessible to wheelchair users should have a clear unobstructed width of at least 1.2 m. Where a stairway crosses over a circulation route, suitable precautions should be taken to ensure that any part of the area under



(a) 1.2 m WIDE LOBBY



(b) 1.5 m WIDE LOBBY



the stairway with a height lower than 2.0 m cannot be used for circulation purposes.

1.11 Internal lobbies should be so designed and constructed that there is sufficient space to enable a wheelchair user and the person assisting the wheelchair user, to move clear of one door before using the next one. Examples of internal lobbies of suitable dimensions are shown in *Diagram 8*.

1.12 A suitable passenger lift should be provided to any storey above or below the entrance storey which:

- (a) in a two storey building has a nett floor area per floor of more than 280 m²; or
- (b) in a building of more than two storeys has a nett floor area per floor of more than 200 m².

In calculating nett floor area, the areas of all parts of a storey which can be reached from the same entrance to the storey (including any flats) should be added together, whether they are in more than one part of the same storey or used for different purposes. The area of any vertical circulation, common sanitary accommodation and maintenance areas in the storey should not be included.

A suitable passenger lift should also be provided to each storey above or below the entrance storey which provides access to flats when,

- (i) the total number of flats accessed from all such storeys exceeds eight, or
- (ii) the number of flats with entrance levels more than 10 m above the level of the main entrance to the building exceeds two.

1.13 Where a passenger lift is provided :

- (a) there should be a clear landing at least 1.5 m wide and at least 1.5 m long in front of every entrance to the lift;
- (b) the lift door or doors should have a clear opening width of at least 800 mm;
- (c) the width of the lift car should be at least 1.1 m and the length at least 1.4 m;
- (d) the controls in the lift car and the controls at each landing should be at a height of not less than 900 mm and not more than 1.2 m above

the car floor and the landing respectively. Controls should not be located in corners and should be at least 500 mm from any wall or projecting surface;

- (e) suitable tactile indicators to indicate floor numbers should be provided on or adjacent to lift buttons within the lift car and on the landing;
- (f) the lift car should provide both visual and voice indication of the floor reached if it serves more than three floors;
- (g) lift doors should stay open for at least eight seconds;
- (h) a half-length mirror should be installed to provide a wheelchair user with a rearview to safely reverse out from the liftcar.

Diagram 9 illustrates a suitable passenger lift.

1.14 Where a building is not required to be provided with a lift in accordance with par. 1.12, at least one internal stairs, satisfying the needs of ambulant disabled people, should be provided. It should be designed and constructed in accordance with the guidance set out for a stepped approach in par. 1.5, except for the following:

- (a) the rise of a flight between landings should not exceed 1.8 m; and
- (b) the rise and going of each step should be uniform, with the rise not greater than 175 mm and the going not less than 250 mm.

A suitable continuous handrail should be provided on each side of flights and landings. This should be in accordance with the guidance given in par. 1.6.

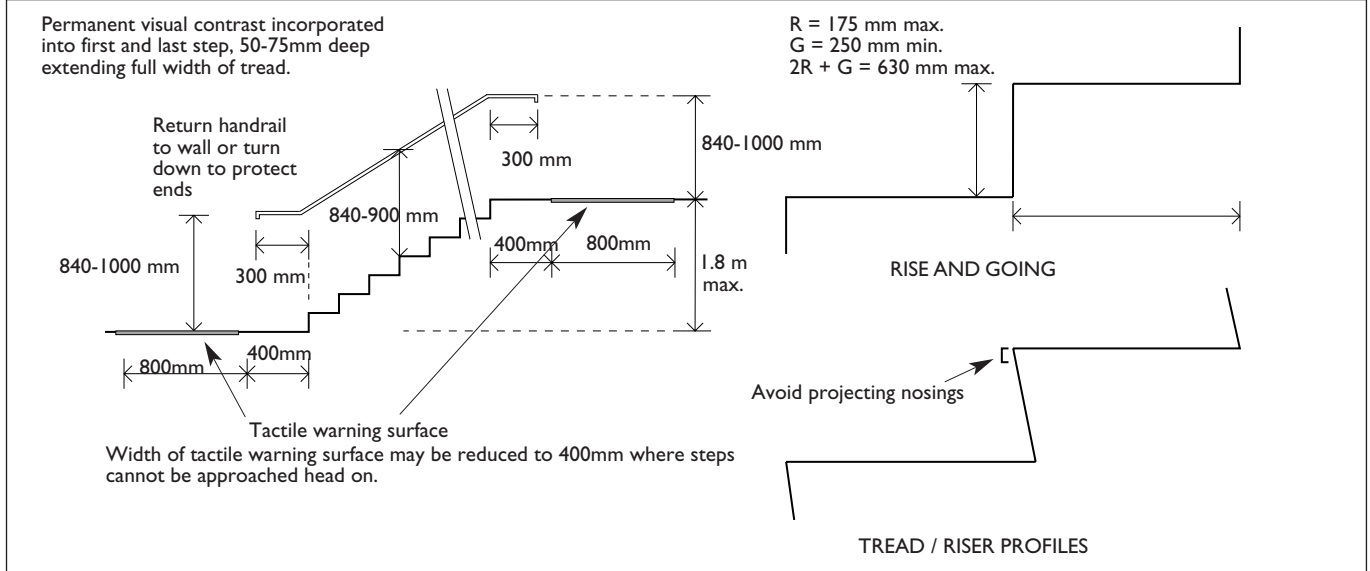
Diagram 10 illustrates the guidance on internal stairs.

1.15 Where internal graded or sloped circulation routes are provided, the design considerations are similar to those for sloped approaches.

1.16 See Technical Guidance Document K for guidance on the provision of guarding.

Use of Facilities in a Building

1.17 Each storey of a building should be so designed and constructed as to allow for



independent circulation by people with disabilities and independent access to the range of services and facilities provided on that storey. Where a change of level within a storey of a building is necessary because of site constraints or design considerations, either -

- (a) suitable means of access should be provided between the levels by graded or sloped access or by means of a passenger lift or platform lift, or
- (b) the same range of services and facilities which is available to able-bodied users of the storey should be available and accessible on the level to which independent access for people with disabilities is available.

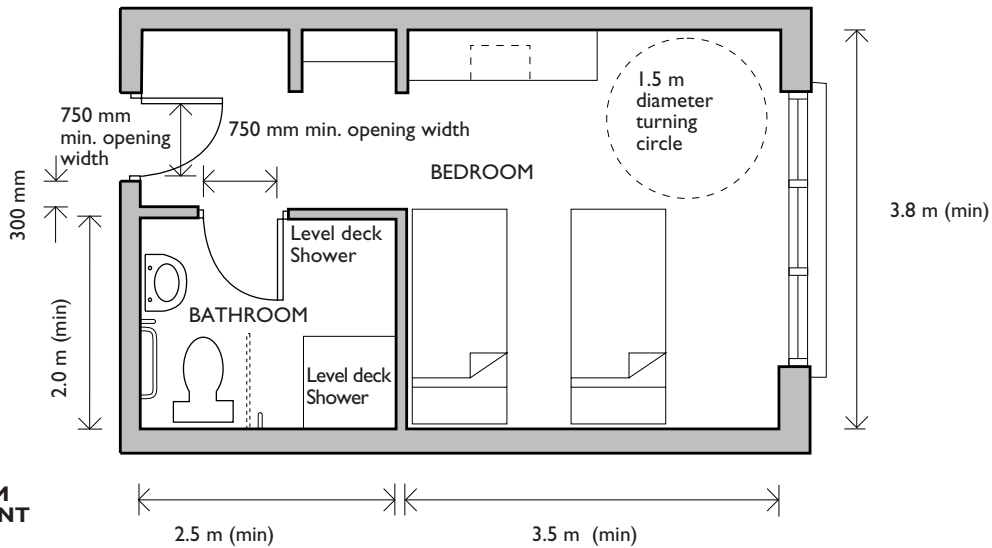
Careful attention should be given to the selection and location of ironmongery, taps, light switches, power points, communication facilities etc. so that they can be operated by light pressure and without undue stretching, or stooping, by wheelchair users and the ambulant disabled.

Hotel and Other Guest Bedrooms

1.18 The requirement of access for people with disabilities to bedrooms in hotel and other guest accommodation may be regarded as being met if:

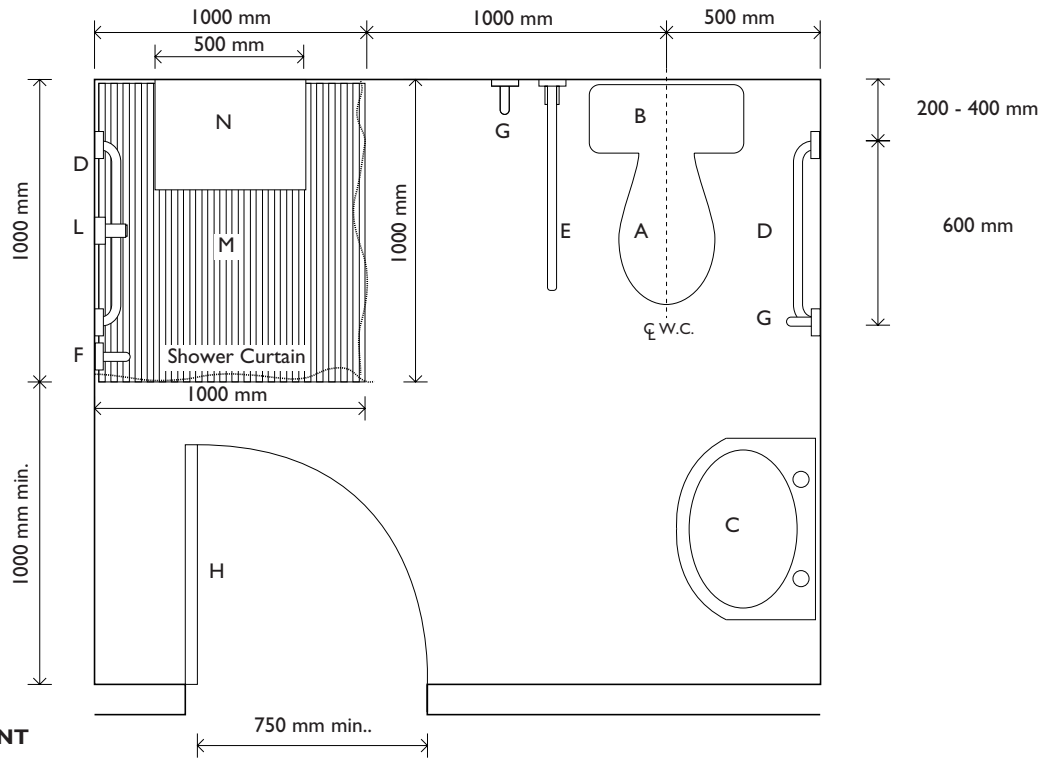
- (a) one guest bedroom out of every twenty, or part thereof, of guest bedrooms is suitable in terms of size, layout and facilities for independent use by a wheelchair user,
- (b) the same proportion of such bedrooms should have en suite sanitary accommodation as is provided in other bedrooms, and
- (c) the entrance door to a guest bedroom, which is designed for independent use by a wheelchair user, complies with the guidance in par. 1.9 (while other bedroom doors should have a clear opening width of 750 mm, the requirement to provide a 300 mm space at the side of the door would not apply).

Diagram 11 illustrates an example of an accessible bedroom. For guidance on sanitary conveniences see Section 2.



BATHROOM ARRANGEMENT

In larger bathrooms, a bath may be provided in addition to a level deck shower. Where more than one accessible bathroom en suite is provided, a bath with appropriate grabrails and a 400mm wide ledge at the end may be used instead of a level deck shower in up to half such bathrooms.



SHOWER ARRANGEMENT

- | | | | |
|---|------------------------------|---|----------------------------|
| A | W.C. PAN (450 - 460 mm high) | H | DOOR |
| B | BACK REST / CISTERN | J | PAPER HOLDER |
| C | FULL SIZE HAND BASIN | K | TOWEL DISPENSER |
| D | HORIZONTAL GRABRAIL | L | SHOWER CONTROLS |
| E | FOLDING GRABRAIL (optional) | M | LEVEL DECK SHOWER FACILITY |
| F | VERTICAL GRABRAIL | N | FLIP-DOWN SEAT |
| G | VERTICAL GRABRAILS | | |

Section 1b: Dwellings

1.19 The guidance in Section 1b applies to new dwellings.

Approach to a dwelling

1.20 The *minimum* clear opening width of at least one point of access at the boundary of the dwelling plot should be 800 mm.

1.21 The main dwelling entrance, should be accessible to wheelchair users. There should be a clear area at least 1.2 m wide and at least 1.2 m deep in front of every such entrance. Where this is not practicable, an alternative entrance should be accessible. The approach to this entrance from the point of access referred to in par. 1.20 should be suitable for use by wheelchair users. Alternatively, the approach suitable for use by wheelchair users may be provided from a point within the curtilage of the dwelling plot where a visitor can conveniently alight from a vehicle, where

- (a) the distance between the point of access to the site and the nearest entrance is greater than 30 m, or
- (b) the plot gradient is such that the relative finished levels at the dwelling entrance and the point of access to the dwelling site do not allow for the provision of the appropriate level, sloped or ramped approach.

The approach should have a clear unobstructed width of at least 900 mm and have a firm surface which is suitable for wheelchair use and reduces the risk of slipping. It should be level (slope not more than 1:50) or, where plot gradients do not allow this, gently sloping.

A sloped approach should have the flattest gradient achievable. Where the gradient is steeper than 1:20, the maximum length between level landings should be 10 m. Where the gradient is between 1:20 and not exceeding 1:15 the maximum length between level landings should be 10 m. Where the gradient is between 1:15 and 1:12, the maximum length between level landings should be 6 m.

The approach may, in whole or in part, form part of an onsite driveway. Where this occurs, the driveway

should be at least 3 m wide so as to allow adequate unobstructed width at parked cars.

A raised kerb, at least 75 mm high, should be provided on any open side where the adjacent ground is not graded to the approach.

See Technical Guidance Document K for guidance on the provision of guarding.

1.22 Where it is not practicable to provide the required level or sloped approach to the dwelling entrance from either the point of entry to the dwelling plot or from a point within the curtilage of the plot where a visitor can alight from a vehicle, a stepped approach may be used. This may arise

- (a) where the gradient between the point of entry to the dwelling plot, or a point within the curtilage where a person can alight from a vehicle, and the dwelling entrance is steeper than 1:15;
- (b) where there is insufficient space between the point of entry to the dwelling plot and the dwelling entrance to provide for slopes and landings because of the need to conform to the existing building line or for other planning requirements; or
- (c) where the dwelling entrance is at other than the ground floor level of the building, e.g. duplex buildings or the like.

Guidance on the approach to apartment blocks and the like is given in Section 1a.

Where a stepped approach is used, it should be suitable for use by ambulant disabled people and should comply with the following:

- (a) it should have a clear unobstructed width of 800 mm,
- (b) the rise of a flight between landings should be not more than 1.8 m,
- (c) it should have top and bottom and, if necessary, intermediate landings, each of which should be at least 900 mm long,
- (d) steps should have suitable tread/nosing profiles (see *Diagram 3*) and the rise of each step should be uniform and not more than 150 mm, the going of each step should be uniform and not less than 280 mm, which, for tapered
- (e)

treads, should be measured at a point 270 mm from the "inside" of the flight, and

- (f) there should be a suitable continuous handrail, as detailed in par. 1.6 and *Diagram 4*, on both sides of the flights and intermediate landings, if the flight comprises three or more risers. Where a shallow stepped approach with goings at least 750 mm long is used, handrails need not be provided.

See Technical Guidance Document K for guidance on the provision of guarding.

Access into a Dwelling

1.23 Where the approach to a dwelling entrance is level, or sloped, i.e. free of steps, or, in the case of apartment blocks or the like, is provided with a suitable passenger lift in accordance with par. 1.12, and there is at least one habitable room at entry level, the entrance should be suitable for wheelchair access. In this case,

- (a) the entrance should be provided with a level entry, i.e. with maximum threshold height of 15 mm, and
- (b) the *minimum* clear opening width of the entrance door should be 775 mm.

1.24 Where a level entry is provided, regard should be had to the requirements of the Regulations generally, particularly in relation to resistance to weather and ground moisture. Guidance on the issues involved in the provision of level entry can be found in the publication "Accessible Thresholds in New Housing".

1.25 Where a stepped approach is used (see par. 1.22) or where the entrance storey does not contain at least one habitable room, one or more steps may be used at the dwelling entrance. Steps externally should comply with the guidance given in par. 1.22. If the steps are inside a building, they should comply with the guidance given in par. 1.30 below.

1.26 Equipment adjacent to the entry intended to assist in gaining entry, e.g. doorbells, entry phones, should be located at a height between 900 mm and 1200 mm above floor level.

Circulation within a Dwelling

1.27 Corridors, passageways and doors to habitable rooms in the entrance storey or, where there is no habitable room at this level, in the storey containing the main living room, should be sufficiently wide and free of stepped changes of level so as to allow convenient circulation by people with disabilities. Corridors and passageways should have a *minimum* unobstructed width of 900 mm. Local permanent obstructions, such as radiators, may be allowed, provided that the unobstructed width in those areas is at least 750 mm. Where a stepped change of level is provided, e.g. because of the slope of the site, it should be located so that at least one habitable room can be accessed from the accessible entrance without the need to negotiate the step(s).

1.28 Doors to accessible habitable rooms should be so designed and constructed that the *minimum* clear opening width, in relation to the adjacent unobstructed corridor width, complies with the following:

Minimum clear opening width (mm)	Minimum unobstructed corridor width (mm)
750	1200 (900 if approached head-on)
775	1050 (900 if approached head-on)
800	900

The length of unobstructed corridor complying with the *minimum* width requirement specified should be at least 1200 mm.

Saddleboards, where provided, should be bevelled with maximum upstand of 10 mm.

Doors to rooms which can only be accessed by the use of steps or stairs, may have a *minimum* clear opening width of 750 mm, irrespective of the adjacent unobstructed corridor width.

Diagram 12 illustrates the guidance on internal doors, corridors and passageways for convenient wheelchair use.

1.29 Door handles should be located at a height of 900 mm to 1200 mm above floor level. Electric light switches should be located at a similar height.

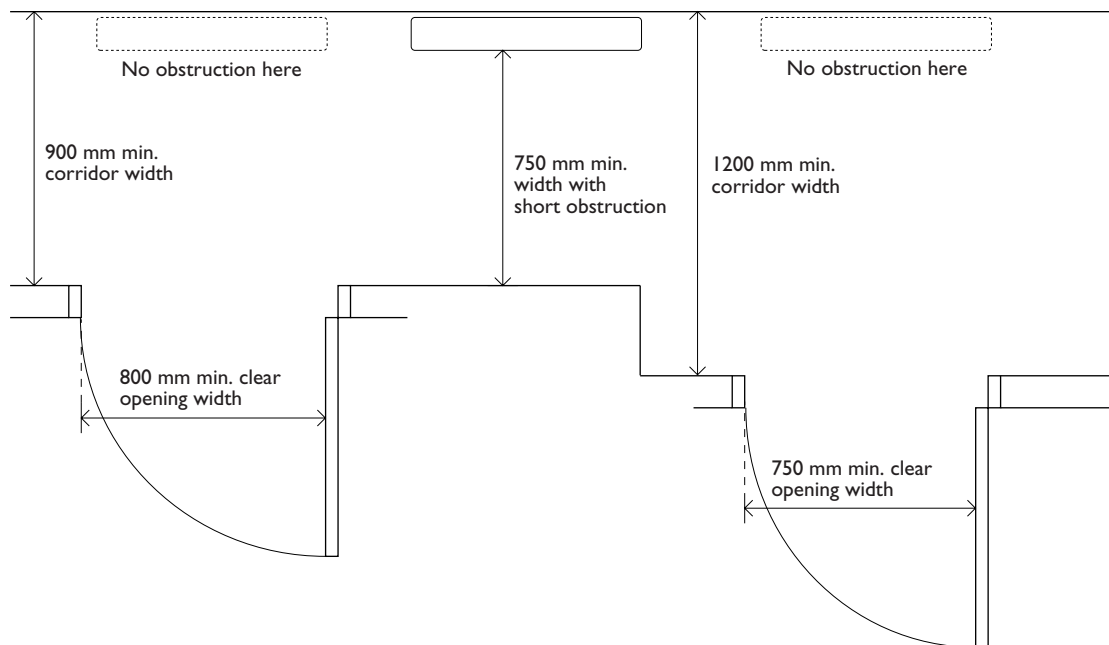
1.30 Where there is no habitable room at entry level, the stairway providing access to the storey containing the main living room should comply with the following:

- (a) it should have a clear unobstructed width of 800 mm,
- (b) the rise of a flight between landings should be not more than 1.8 m,

- (c) it should have top and bottom and, if necessary, intermediate landings, each of which should be at least 900 mm long,
- (d) the rise of each step should be uniform and not more than 175 mm,
- (e) the going of each step should be uniform and not less than 250 mm, which, for tapered treads, should be measured at a point 270 mm from the "inside" of the flight, and
- (f) there should be a suitable continuous handrail, as detailed in par. 1.6 and *Diagram 4*, on each side of the flights and intermediate landings, if the flight comprises three or more risers.

Diagram 12 Corridors, passages and internal doors in dwellings

Par. 1.28



Section 2

Sanitary Conveniences

Sanitary conveniences	M2	If sanitary conveniences are provided in a building, adequate provision shall be made for people with disabilities
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Section 2a: Buildings other than dwellings

2.1 The guidance in Section 2a applies to buildings other than dwellings.

2.2 Provision for sanitary accommodation for people with disabilities should be made on the same basis as provision is made for other users of the building, i.e. if sanitary accommodation is only provided for staff, then provision should be made for staff with disabilities (whether or not any member of the present staff is disabled), whereas, if sanitary accommodation is provided for customers or visitors to the building, provision should also be made for customers or visitors with disabilities.

In case of places of work, designers should have regard to the Safety, Health and Welfare at Work (General Application) Regulations, 1993 (S.I. No. 44 of 1993).

2.3 The number and location of WC cubicles required in a building to meet the needs of wheelchair users and other people with disabilities will be dictated by the nature of the building, the size of the building, the number of people who will use the building and the ease of access. Where one or two WCs are sufficient, they should be unisex and at least one should be wheelchair accessible. In buildings or parts of buildings, which are open to the public, one unisex WC suitable for use by wheelchair users of either sex and approached separately from other sanitary accommodation should be provided as a *minimum*. In buildings intended for use by staff only, provision for people with disabilities may be made in the context of the traditional separate provision for men and women, or as unisex provision approached separately from other sanitary accommodation. Sanitary accommodation for people with disabilities should be provided in a convenient and accessible part of a building to which wheelchair users have independent access.

2.4 Where independent access to storeys, above or below the entrance storey, is not available for wheelchair users, i.e. if access is by stairway only, a

unisex WC suitable for use by wheelchair users of either sex should be located on the entrance storey except where the entrance storey contains only the entrance and vertical circulation areas. In such cases, the provision of a WC accessible to wheelchair users is not mandatory. However, in every such building, provision for ambulant disabled people should still be made (see par. 2.6).

2.5 To be suitable for use by a wheelchair user, a WC cubicle should have adequate space:

- (a) to allow for necessary wheelchair manoeuvre, and
- (b) to allow for transfer onto the WC, to allow a helper to assist in the transfer, and to have facilities for handwashing within reach of the WC.

Where more than one unisex WC cubicle, suitable for use by a wheelchair user, is provided, then handing of the internal layout will provide for both left and right hand transfer onto a WC.

Diagram 13 illustrates the type of WC facilities required by a wheelchair user. A distance of 750 mm from the back wall to the front of the WC pan allows the wheelchair seat to be parallel with the toilet seat, so that the wheelchair can be reversed against the wall and the person using the toilet does not have to manoeuvre both sideways and also backwards to get into the seat.

A distance of 200 mm from the front of the WC pan to the vertical grab rail is also desirable so that a person on the toilet does not have to reach backwards for support at the same time as transferring back into the wheelchair. At the same time, the person sitting on the toilet should be able to lean forward and wash their hands in the basin, and insert or take out the wash-hand-basin waste plug. The 50 mm maximum dimension from grab rail to wash-hand-basin edge is so as to keep the wash-hand-basin as close as is reasonably practicable to the WC pan.

A distance of 450-500 mm from WC pan to the wall ensures enough space for the wheelchair on the opposite side of the WC, in the given 1.5 m overall dimension.

The desirable length of a grab rail is 600 mm so as to allow ease of grasping.

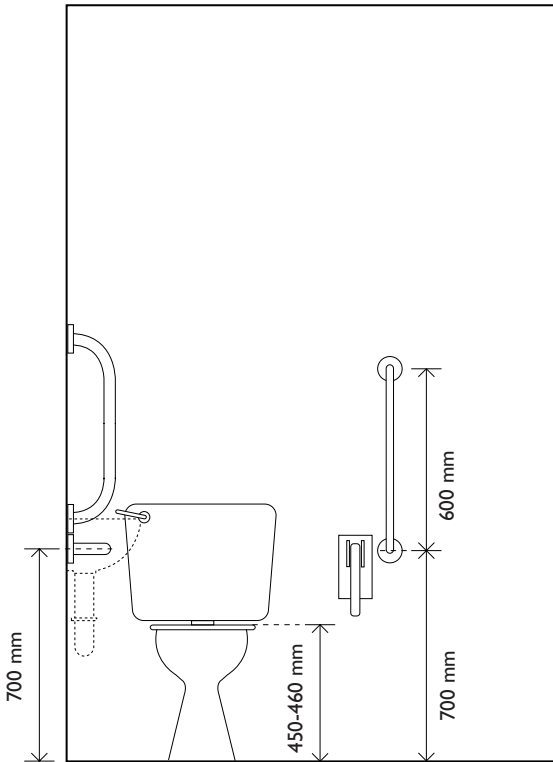
A distance of 800 mm from floor to washbasin is to optimise the ease of getting one's knees below the basin while not having the basin too high so as to make it difficult to reach the waste.

2.6 Where provision for the ambulant disabled is required (see par. 2.4), this can be achieved by the provision of suitable grabrails in conventional WC cubicles. At least one such cubicle should be provided in each room containing sanitary conveniences.

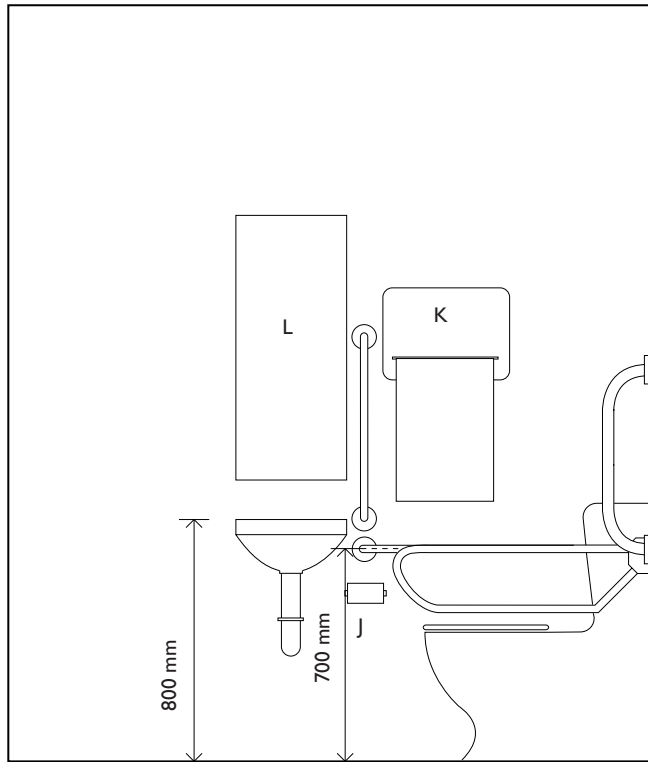
Diagram 14 illustrates a WC for ambulant disabled people.

2.7 In hotels and other guest accommodation, where en suite sanitary accommodation is provided in bedrooms suitable for independent use by a wheelchair user (see par. 1.18), such en-suite accommodation should also be suitable for independent use by a wheelchair user. Where en-suite sanitary accommodation is not provided 'unisex' sanitary accommodation suitable for use by a wheelchair user should be provided.

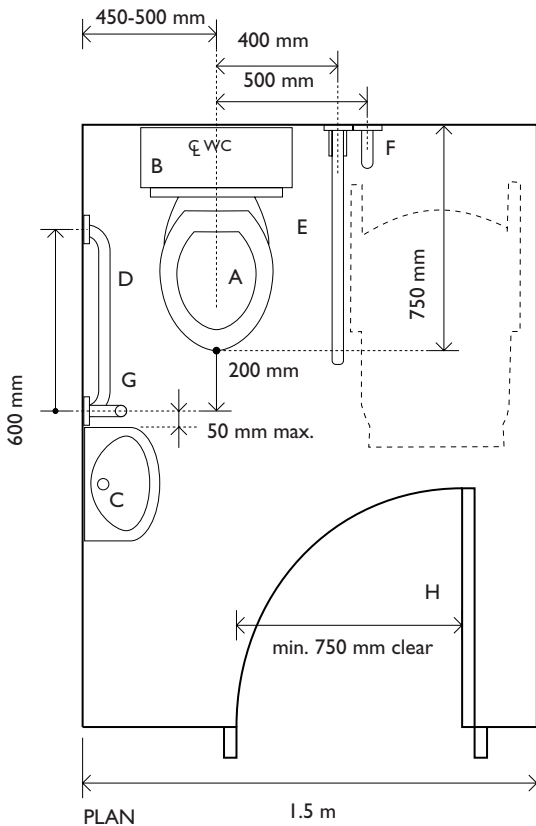
En suite provision should include level deck shower unit. In larger bathrooms, provision may also be made for a bath. Where accessible en-suite sanitary accommodation is provided in more than one bedroom, a bath may be provided instead of a level deck shower in up to half such bedrooms (see *Diagram 11*). In all other areas of hotels etc., sanitary accommodation in accordance with pars. 2.2 to 2.6 should be provided.



CROSS SECTION



LONGITUDINAL SECTION



PLAN

- A SPECIAL W.C. PAN
- B BACK REST / CISTERN
- C RINSE BASIN
- D HORIZONTAL GRABRAIL
- E FOLDING GRABRAIL (optional)
- F VERTICAL GRABRAIL
- G VERTICAL GRABRAIL
- H DOOR
- J PAPER HOLDER
- K TOWEL DISPENSER
- L MIRROR

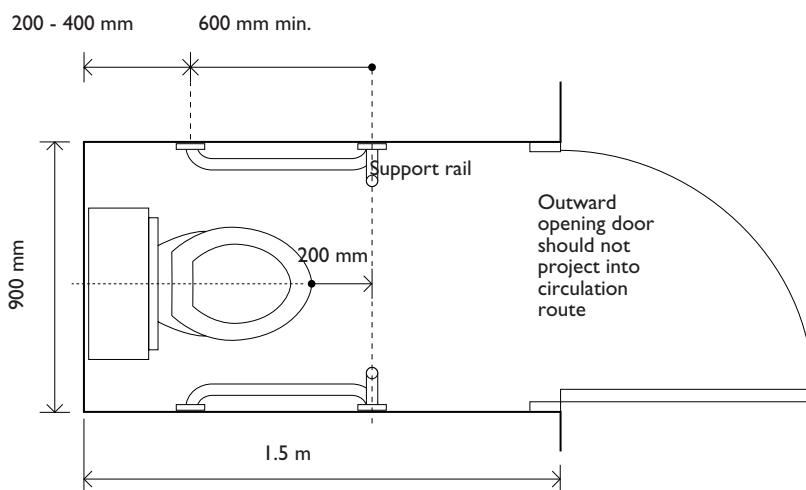
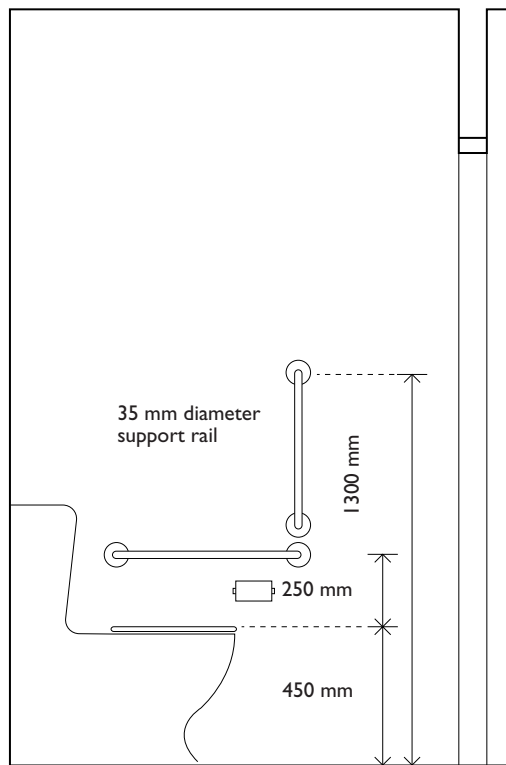
NOTES

(a) Cubicle door should be on 1.5m side, opposite position for wheelchair.

(b) Layout shown is for right hand lateral transfer. Where more than one toilet is being provided they should be handed. In this case the door should also be handed.

(c) In cases where a low level cistern is not used, a back rest should be provided.

(d) All dimensions are finished dimensions (see par. 0.7)



Section 2b: Dwellings

2.8 The guidance in Section 2b applies to new dwellings.

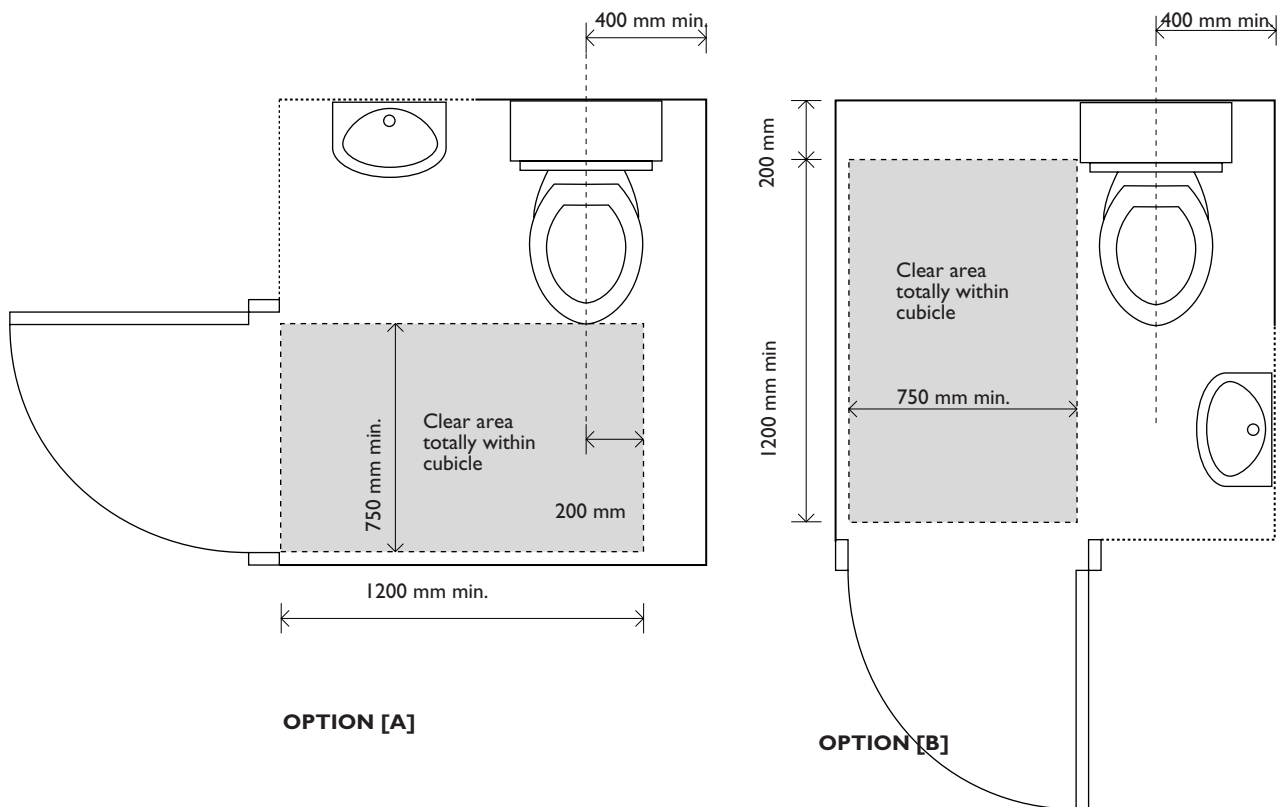
2.9 A WC should be provided at entry level or, where there is no habitable room at this level, in the storey containing the main living room. At entry level, the WC should be so located that it can be accessed from the accessible entrance and from at least one habitable room without the need to negotiate steps.

The WC should be located in a bathroom or separate WC compartment, the layout of which should be designed to facilitate access to, and use of, the WC by persons with disabilities. A clear space 750 mm by 1200 mm, accessible by wheelchair users, should be available adjacent to the WC so as to facilitate sideways transfer from the chair to the WC.

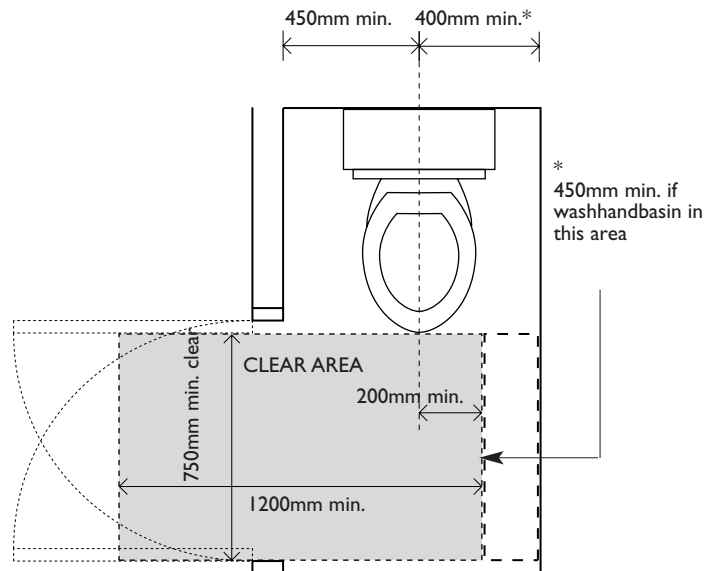
In general, the size and layout of the bathroom or WC compartment, and the positioning of the door, should be such that a wheelchair can be fully contained within the compartment and the door closed with the wheelchair inside. *Diagram 15* shows two examples of alternative layouts for WC compartments which illustrate the level of provision which is considered generally acceptable.

However, in the case of certain smaller dwellings, WC compartments which, while providing for the necessary clear space to facilitate for sideways transfer, cannot fully accommodate a wheelchair or do not facilitate the compartment door to be closed with the wheelchair inside, may be acceptable. This level of provision should only be considered where the area of the storey where the WC is located is less than 45 m². *Diagram 16* shows two examples of possible layouts for such compartments.

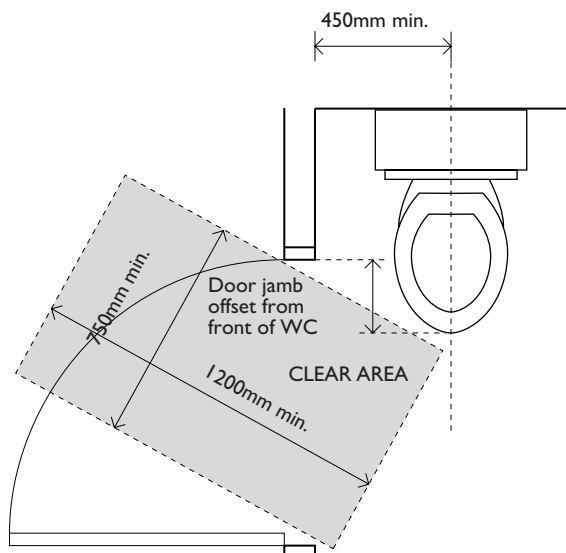
Guidance regarding the clear opening width of internal doors (see par. 1.28) applies to the door of the WC compartment. Use of a door opening wider than the *minimum*, an outward opening door, a folding door or a sliding door will generally assist in facilitating wheelchair access. The choice of door type and location should be such as not to pose undue hazard on a circulation route or be otherwise dangerous in use.



NOTE: Washbasin may be located either within the space containing the WC or in an area adjacent to that space (see reg. G2(2)). The washbasin should be located so as not to impede access.



[A] WHEELCHAIR CLEAR AREA PERPENDICULAR TO CENTRE LINE OF WC



Door jamb offset from front of WC	Minimum clear opening width of door
250mm	900mm
200mm	850mm
150mm	800mm
100mm	775mm
0mm	750mm

Note: Clear opening width of door should also comply with par. 1.28.

[B] WHEELCHAIR CLEAR AREA AT ANGLE TO CENTRE LINE OF WC

Section 3

Audience or Spectator Facilities

Audience or spectator facilities

M3

If a building contains fixed seating for audience or spectators, adequate provision shall be made for people with disabilities.

3.1 It is a functional characteristic of certain types of buildings, theatres, cinemas, concert halls, lecture theatres, sports stadia and the like, that audience or spectator accommodation is provided at several levels and frequently this necessitates the use of tiered or sloping floors. While ambulant disabled people should have access to all levels of such premises the requirement for access for wheelchair users may be regarded as being met, notwithstanding par. 1.12, if independent access is available to sufficient wheelchair spaces in selected areas which afford good viewing conditions and provided there are available and accessible to people in those areas facilities such as bars, WC's, etc. similar to those available to other users of the premises.

3.2 Areas where wheelchair spaces are located should be integrated with areas provided for the general public and wheelchair users should be able to sit with their companions. A wheelchair space may be one which is kept clear or one which can readily be provided for the occasion by removing a seat.

3.3 A wheelchair space can be provided by a clear space with a width of at least 900 mm and a depth of at least 1.4 m.

3.4 The *minimum* number of wheelchair spaces should be 6 or 1/50th (whichever is the greater) of the seating capacity where the seating capacity is not more than 1,000 and 20 or 1/100th (whichever is the greater) of the seating capacity where the seating capacity is more than 1,000. Where a building contains several auditoria, e.g. a multi-screen cinema or a block of lecture theatres and the like, the *minimum* requirement applies to each auditorium.

3.5 In certain types of buildings, such as theatres, cinemas, concert halls, meeting and conference rooms, places of religious worship and the like, the provision of aids to communication is essential to the satisfactory use by people who have a hearing impairment. Suitable aids would include loop induction or infra-red based systems.

3.6 The above guidelines relate specifically to the provision to be made for people with disabilities

attending as spectators or members of an audience. As with other buildings provision should also be made so that people with disabilities can have access to other parts of these buildings and use the facilities there e.g. stages, changing rooms, etc.

Standards and other References

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Building for Everyone - Access and Use for all Citizens (1998 edition), National Disability Authority, 25 Clyde Road and Access Service, Comhairle, 44 Nth. Great George's Street, Dublin 1

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IS EN 81 - 1 : 99 Safety rules for the construction and installation of lifts Part 1 : Electric lifts

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BS 5776 : 1996 Specifications for powered stairlifts

BS 6440 : 1983 Code of practice for powered lifting platforms for use by disabled persons