



Building inclusion

Physical access guidance for the arts

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based on *Disability access – a good practice guide for the arts*

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Introduction

Physical access to buildings is often the first aspect that people think of when considering the needs of disabled people. When planning a new build or refurbishment of an existing building, you will need to consider *all* areas of the building. This means areas used by performers and staff as well as those that are publicly accessible.

The Disability Discrimination Act (1995) places duties on service providers and employers to remove barriers to services and employment to enable equal access. The 2005 additions to the Act relate to the promotion of equal access by public authorities such as the Arts Council. The following guidelines represent Arts Council best practice and are broadly based on BS8300:2001 and Part M of the Building Regulations (for further reading, see page 23 below). These guidelines are a tool that will enable you to plan for equal access by considering what is needed to create an inclusive environment.

An inclusive environment is one in which everyone including disabled people and others who find the built environment disabling (e.g. older people and those with young children) can enter or leave a building by a common route and use all facilities within the building safely, confidently and with ease.

Arrival and circulation

Arrival

The ultimate aim of inclusive physical access is that the design and layout of premises should enable everybody to be able to enter a building, use the facilities and leave safely, independently and with ease. The approaches to a building are of equal importance. Given that an estimated 20%¹ of the adult disabled population use a private car as the most frequent mode of transport, parking facilities close to the venue are crucial.

You need:

- 6% of all parking bays, plus any needed for disabled employees, to be provided to an accessible standard for Blue Badge holders

These need to be:

- reserved for disabled people
- close to the most accessible entrance
- at least 3600mm wide x 4800mm (ideally 6000mm) long and clearly marked out with access symbols and zone markings with sufficient space for wheelchair access at the rear of the vehicle
- monitored and controlled to prevent misuse

If you have automatic barriers or ticket dispensers with controls, these need to be:

- accessible via a solid, smooth and level surface
- at accessible heights (no higher than 1200mm from ground level)
- near dropped kerbs or with level access from the car park

Drop off points close to entrances are also critical. You need:

- a drop-off point close to the most accessible entrance
- an accessible route from the drop-off point to the entrance, free of obstacles
- clear sign posting to the entrance
- seating and overhead cover along routes where the travel distance between the drop-off point and entrance exceeds 40m

Consider an assistance call point if the car park is not close to or visible from the building.

Pathways should provide a safe and obvious route to the building. Significant level changes should be addressed by ramps and stairs (see under Circulation below).

¹ DVLA

Variations in paving type or texture at changes of direction and tactile paving at dropped kerbs are particularly helpful to visually impaired people.

You need:

- a direct route from the nearest parking bays to the entrance
- paths at least 1800mm wide for intense use in both directions, i.e. main route to entrance. Otherwise 1500mm where passing points are provided
- this route to be level with dropped kerbs and tactile (blister) paving at road crossings
- appropriate external lighting for all routes
- level and slip-resistant surfacing, with bollards, bins and other street furniture off set from the path
- guarding to overhead projections of more than 100mm where they are below 2100mm from ground level

Entrances

The main entrance of any public building should be designed to be accessible to everyone. Automatic doors will assist most disabled people, including wheelchair users and those with assistance dogs or guides. If automatic doors are used they should remain open for sufficient time to enable a person with slow mobility or impaired vision to pass safely through. Revolving doors are not considered accessible and if used should have an adjacent swing or sliding door, ideally with automatic or semi-automatic opening. Main entrance doors need to:

- be at least 1000mm wide (775mm for existing buildings with a straight approach)
- have a level landing at least 1500 x 1500mm clear of door swings, with guarding if doors swing outwards
- have a level threshold
- have door controls and handles that are easy to see and at a height which can be comfortably reached by wheelchair users (between 750 and 1000mm from floor level)
- have at least 300mm space alongside the leading edge of all manual doors to enable wheelchair users to open the door clear of its swing
- have warning strips or logos if fully glazed. These need to be at least 150mm high (50mm high if continuous banding), repeated every 50mm at two heights - between 850 and 1000mm, and 1400 to 1600mm. Two-tone manifestations can be very effective

Where entrances are locked or unattended you need to ensure that bells or intercoms:

- are at a wheelchair accessible height (between 750 and 1000mm from ground level)
- are clearly labelled using high visibility signage
- have provision for deaf people - links to a CCTV, Minicom or video for instance. A low cost solution may simply be a buzzer with a sign indicating 'press three times for attention', although this offers no assurance that the call will be answered

Reception points should be:

- located in sight of the entrance, with no windows or glazed and patterned screens behind that could distract lip readers
- have clear circulation space in front of the counter at least 1200mm deep and 1800mm wide
- have a lowered section at least 1500mm wide and no higher than 760mm from floor level and with a 700mm high knee recess for wheelchair users
- fitted with induction loop for the benefit of hearing aid wearers

For some disabled people it is useful to provide seating for resting just before entering or just inside a building. Reception areas should have a comfortable ambient temperature and be free from draughts. Lobbies need to be accessible too. You need to ensure that:

- the entrance lobby is large enough to enable wheelchair users to clear the outer door before opening the inner door, with 1570mm depth clear of door swings
- lighting in the lobby is sufficient to help people adjust to changes in light between the outdoors and indoors

Circulation

In circulation spaces and along routes it is important to ensure that minimum access standards are maintained. These include:

- a minimum width of 1200mm along all corridors, with 1800mm at junctions and passing places
- no obstructions such as furniture, door leaves or fire extinguishers
- seating in a variety of styles (most with arm and back rests) with a seat pad height of between 400 and 500mm from floor level, at frequent intervals throughout the building and at meeting points
- even, diffused lighting without glare, reflections or shadows
- a comfortable acoustic environment – hard surfaces can create echo and reverberation that is distracting to partially deaf people. Ways of reducing this, such as soft furnishings, sound absorbing light fittings and screens should be considered

For some disabled people, for example those with visual impairment or learning disabilities, an intuitive and logical layout can greatly ease navigation.

Doors

Where feasible, fire doors along corridors should be fitted with electronically controlled self-closing devices, allowing the doors to be held open except in the event of a fire, thereby offering obstacle free circulation.

If a door is on a closer or spring, this should be at a minimum pressure to allow for easy opening, with a slow return to enable a disabled person to pass through safely. If door-closing devices cannot be eased, an electronic or hydraulic closer should be considered. All new or refurbished doors should be fitted with frictionless (ball race) hinges and reduced force door closers, as appropriate.

Doors need:

- a minimum width of 900mm (between door stops) when fully open. Double doors should have at least one door of this width. Very wide doors can be heavy to open - a door-and-a third arrangement should be considered for very wide door openings
- to be marked with logos or safety strips at eye level, if fully glazed
- to be fitted with vision panels giving a field of vision between 500 and 1500mm from floor level to enable people to see and be seen, along corridors
- to be fitted with lever type handles or 'D' pull handles at a height appropriate for a wheelchair user (1000mm from floor level)
- to be light enough to be used by disabled people with limited mobility or strength and operated using a closed fist

Ramps

Many people, including wheelchair users and parents with buggies, will need to use a ramp rather than steps, and so the design needs to take account of its use as a principal and convenient means of access. However many people, particularly ambulant disabled people, prefer steps and so these too should be provided. Wherever possible ramps and steps should be closely located. Ramps need to:

- be at a gradient of 1 in 12 or shallower, for existing ramps. (Whilst ramps of a gradient of 1 in 12 are considered acceptable under the Building Regulations for a maximum 2m length, it is recognised that this gradient presents difficulties to most disabled people)
- be at a maximum gradient of 1 in 15 for new ramps (ideally 1 in 20) with level resting places 1500mm deep every 5m
- have firm, slip-resistant surfaces

- have a kerb at least 100mm high on any open side
- have an unobstructed minimum surface width of 1500mm between handrails and kerbs
- incorporate a level landing at the top and bottom of the ramp that is 1200mm long clear of door swings
- incorporate 1500mm long intermediate landings every 5m (or 1800mm long and 1800mm wide where it is not possible for a wheelchair user to see from one end of the ramp to the other, to enable passing)

Handrails for ramps need to:

- be at a height of 900mm (1000mm at landings) running their entire length on *both* sides as some people have a weakness on one side of their body
- extend by 300mm at the top and bottom of ramps to guide people safely to level ground
- have a maximum diameter of between 40 and 45mm for a round profile or 50mm for a non-circular profile, for easy grip

A change of floor finish or a triangular symbol along routes can signal the presence of the ramp, while the latter will also indicate the direction of the slope (point upwards). In areas where the installation of a ramp is impossible, a platform lift could be considered as a last resort in existing buildings.

Stairs

Ambulant disabled people tend to find steps easier to use than ramps and it is therefore necessary to provide both options. Stairs need to:

- be, where possible, at 90 degrees to the circulation route for the safety of visually impaired people
- be slip-resistant
- have a consistent rise and tread throughout a flight
- have a rise of between 150 and 170mm
- have a tread of between 280 and 425mm for external steps, or 250 and 425mm for internal steps (except schools where the preferred going is 280mm)
- be well lit, preferably from the side
- have intermediate landings, with no more than 12 risers between landings where the tread is less than 350mm, no more than 18 risers for deeper treads
- have overhangs of less than 25mm
- have a 55mm deep nosing strip on each step in a contrasting tone or colour to the tread (ideally the risers should also be of a different colour to the treads)

- external steps only should also have a tactile warning surface (corduroy) to indicate the beginning and end of a flight. The profile of this tactile surface is set out in Diagram 4, Part M of the Building Regulations

Handrails for stairs need to:

- be provided, however short the flight of steps may be
- be at a height of 900mm (1000mm at landings) on both sides and running their entire length for the benefit of those with a weakness on one side of their body
- extend or turn down by at least 300mm to indicate the beginning or end of the stair's run
- have a maximum diameter of between 40 and 45mm for a round profile or 50mm for a non-circular profile, for easy grip
- include a central handrail where stairs are wider than 2000mm, in addition to side handrails

Single steps should be avoided, as they are trip hazards. Some modern designs favour an open staircase by creating spaces between the treads. These can be hazardous. The practice of using a transparent material such as glass to form treads also presents a hazard to visually impaired people.

Lifts

When installing a lift, it should be designed for independent use by a wheelchair user, enabling the user to enter and exit the lift in a forward position and to turn around inside the lift. It is not only wheelchair users who need to use lifts. Older people, less ambulant people, those with visual impairments or hidden impairments and parents with children and buggies will all also use the lift in preference to stairs. The number and size of lifts should reflect the people capacity of the venue. Lifts need to be:

- a minimum of 1400mm deep x 1600mm wide (for new lifts). The preferred size is 1400mm deep x 2000mm wide, which can accommodate any type of wheelchair together with other passengers
- a minimum of 1400mm deep x 1100mm wide (for existing lifts)

Access features for lifts are many. You should have:

- considered the accessibility of each method you use by consulting disabled people
- an unobstructed landing area of 1500 x 1500mm
- landing call buttons and lift car controls at between 900 and 1100mm from the floor, horizontally arranged if possible, and incorporating raised tactile and Braille labelling

- an emergency telephone or alarm button, also set at a between 900 and 1100mm from the lift floor, an audio or voice announcement of doors closing and floors reached
- a floor finish that is not dark, reflective or heavily patterned as these can be disorientating to visually impaired people
- considered a tip-up seat in the lift car to support a wide range of disabled people and older users

Many lifts stop in the event of a fire. Ideally you should have:

- an emergency independent power supply that has been approved by a fire officer to enable the lift to be used in an emergency

If your lift has not been installed as an evacuation lift for disabled people you will need:

- refuge spaces (900 x 1400mm) on each floor for the appropriate number of wheelchair users, normally in fire protected stair lobbies
- an assistance call point in refuges to enable disabled people to make contact with the rescue services

A platform lift is a useful and economical means of making different levels accessible in existing buildings. All users should be able to reach and use the controls. Since platform lifts are operated by continuous pressure controls they may not be suitable for single users with particular impairments such as those that cause fatigue or limited hand strength. Stairlifts (lifts that climb the stair) should only be used as a last resort. These should be of a design that can accommodate an electric wheelchair.

Audience spaces

Public spaces for audiences will vary from venue to venue. They may include performance areas, galleries and retail areas. Each area will have its own specific requirements dictated by usage. Across all public areas, however, you will need to ensure:

- that assistance dogs are admitted to all staff and public areas of the building (except for kitchen or food preparation areas) and that provision is made for them (e.g. drinking bowl, external exercise area)

Galleries

When designing gallery spaces it is important to allow enough room for everyone to circulate and approach the displays with ease. You need:

- enough room between displays to enable wheelchair users and visually impaired people with escorts or guide dogs to move freely and get close to displays (a minimum 1200mm, with regular turning spaces of at least 1500 x 1500mm)
- colour or tonal contrast between the edges of plinths and display cases and the floor and walls
- to avoid, unless guarded, wall hung cases or objects that project by more than 100mm where they are located at over 300mm from floor level where they are not detectable by the sweep of a cane
- exhibits displayed at a height suitable for wheelchair users to view comfortably (between 750 and 1500mm from gallery floor level)
- display furniture for interactive devices with sufficient knee room to enable wheelchair users to pull in and reach controls
- the controls of interactive devices to be between 760 and 1100mm from floor level
- seating to be provided at frequent intervals where it will not impede circulation or the approach to displays
- good lighting for exhibits and navigation
- labels that are clearly visible and legible (a minimum 14 point size, larger depending on viewing distance), at a suitable height to be read by wheelchair users for whom the average sight line is 1200mm from floor level

The layout of display furniture should make it obvious which, if any, is the preferred route. Clear signage, lighting and décor should further assist navigation. You need to ensure:

- clearly defined routes
- each area or room within the gallery is named or themed (this could be linked to the colour scheme) to help visitors orientate

Performance spaces (including auditoria and lecture theatres)

All performance spaces need to provide spaces for wheelchair users, but that is not the only access consideration. To provide adequate access you need to:

- provide a number of wheelchair spaces (minimum six places or 1% of capacity, whichever is greater)
- ensure that spaces for wheelchair users are fully integrated into all public seating areas, with a choice of viewing positions, and with adjacent companion seating
- ensure all sloping floors within an auditorium or lecture room contain level areas where wheelchair users can park
- have identified 'easy access seats' which can be reached on the level or by one or two steps, for those with mobility impairments or with assistance dogs, with space for dogs to lie down next to their owner
- provide end of aisle seats that can be reached on the level, with removable arm rests, for those able to transfer out of their wheelchairs
- provide a nearby room set aside for the safe storage of wheelchairs and other equipment during a performance
- provide an induction loop or infrared sound enhancement system (these systems transmit sound through an infrared light signal and can only be heard through receiver headsets but have the added capability of simultaneous broadcast of audio description and second language, for instance)
- provide flare paths or tread lights to give adequate visual orientation when the lights are down
- provide adequate lighting levels when audiences are arriving and leaving
- provide large, clear seat and row numbers

Shops, bars and cafes

Retail areas should enable disabled people to move freely or to work in these locations. You need to ensure:

- counters (box office, bar, food serveries and shop counters) have a section which is approximately 760mm² from the floor with a 700mm high x 500mm deep knee recess to enable wheelchair users to park up close
- behind-counter space at least 1500mm deep
- a cross-counter induction loop is fitted in noisy areas
- aisles are wide enough to enable wheelchair users and parents with double buggies to pass through with ease (1200mm minimum)

² It is acceptable for food and drink serveries to have a shared counter at 850mm from floor level

- areas are provided where wheelchair users can turn around to avoid travelling in one direction down lengthy aisles (1500mm minimum, with 1800mm passing points)
- shelves are at between 650 and 1100mm from floor level as far as possible, with staff assistance advertised for retrieving items on high or very low shelves
- all areas, including terraces and changes of level, are accessible to wheelchair users

For bars and cafes you need:

- large print menus, and other alternative formats
- some adapted equipment – beakers, bowls, easy-grip cutlery and straws readily available
- visual intermission calls (for performance venues)

Artist and staff facilities

Arts Council England expects that all areas used by artists and staff will be accessible to disabled people (including wheelchair users).

Stage and backstage

Provision should be made for easy access to the stage from backstage or dressing room areas, and from the auditorium. This is on the assumption that some performers and speakers will be disabled. Providing the following can enable access:

- accessible routes to enter the stage from stage left and stage right
- a level backstage crossover route from stage left to stage right
- a direct route that could be used by a wheelchair user from the stage to the auditorium
- a direct route suitable for a wheelchair user from backstage to front of house
- dressing room areas incorporating accessible toilets, shower and changing facilities - ideally facilities that combine all three functions for the convenience of users, with cubicle dimensions of at least 2400 x 2500mm
- an accessible changing room close to the stage
- assistance alarms in all accessible shower rooms and toilets
- some form of sensory or visual indicator available to alert deaf performers to curtain calls (this could be via video links or vibrating pagers)

Artists' workspaces

Artists' studios are very individual spaces. They are often in very inaccessible spaces. Wheelchair access to some studio provision and to all common areas (kitchen, toilets, meeting room) is essential, and a system needs to be in place to ensure that artists who require it can use such provision. You need:

- some studio provision with level, ramped or lift access
- management systems and contracts to allow easy access to such spaces when required
- accessible common areas with tea making facilities and wheelchair accessible toilets
- portable features such as individually controllable lights and heaters

Workshops too need to be accessible – whether they are areas for specific internal activity (such as set or prop making) or areas where groups can become involved in practical activities. They need to have:

- level or ramped access, or access via lift
- accessible features such as height adjustable sinks with lever taps
- height adjustable desks, tables and chairs

- portable features such as individually controllable lights and heaters
- a range of equipment and supplies to enable choice and participation (e.g. a range of scissors and cutters, brushes and ways to apply paint). There is a wide range of access equipment on the market, including accessible potters wheels and photographic equipment – you need to consult potential users to determine specific requirements

Technical areas

Technical areas are often the most inaccessible spaces within buildings, but there is no reason why this should be so, particularly in new and refurbished buildings. You need to ensure that all areas are accessible, including:

- rehearsal rooms
- green rooms
- broadcasting, film, lighting, sound control rooms and audio description booths
- orchestra pit and understage areas
- fly and lighting galleries (a perimeter walkway of at least 1000mm wide should be provided with access by a service lift of at least 1000 x 1000mm)
- equipment and scenery storage areas
- paint shops and wardrobe areas
- technicians rooms
- kitchens, behind bar areas and counters

It is important to provide access to controls and equipment within these spaces. Controls, such as alarm systems, heating controls and thermostats need to be:

- no higher than 1000mm and no lower than 400mm

Staff areas

Staff access is just as important as visitor access. You need to consider access to staff toilets, showers, locker rooms, staff rooms and kitchens as well as to offices, meeting rooms and storage areas.

Open plan offices can offer more flexibility for an accessible layout of furniture but the acoustic environment may be distracting to deaf staff. You need to consider:

- space for wheelchair users to circulate, with wheelchair turning room of at least 1500 x 1500mm in all areas including kitchenettes
- a services infrastructure that supports the use of induction loop in meeting and interview rooms and task lighting at desks
- location of power sockets at between 400 and 1000mm from floor level
- location of light switches at no higher than 1200mm from floor level and visually contrasted against the wall
- accessible toilets within 40m travel distance

Toilet and rest facilities

Toilets

A fully accessible toilet needs to be designed to address the requirements of people with a variety of impairments. It should be noted that people with continence problems are covered under the DDA and it is important that toilet facilities are provided in any public venue in a convenient location. Where space is restricted, rather than trying to squeeze in both disabled and non-disabled facilities, an accessible cubicle could be provided for use by everyone. The size of the cubicle should in this instance be increased to 2000 x 2200mm to accommodate a standing height sink as well as a lower sink.

Where feasible, you should try to provide a personal care 'Changing Places'³ cubicle a minimum 3000 x 3400mm to accommodate an adult change bench, accessible toilet, hoist and space for up to three carers.

Separate baby change facilities should be provided within the male and female toilets. Where there is sufficient space, a wheelchair accessible family change and feeding room should be provided, which incorporates a toilet for parents.

As a minimum you need accessible toilets which:

- are fully equipped for use by disabled people in both public and staff areas and within 40m travel distance of every facility in the building
- meet the minimum Part M3 of the Building Regulations standard dimensions of 1500mm wide x 2200mm long, or are 2000 x 2200mm where the accessible toilet is the only toilet in the building
- are easy to locate and clearly signposted
- are designed to enable family members or personal assistants of either sex to enter, i.e. unisex rather than located within the male or female toilet block
- have outward opening doors (if inward opening doors are fitted they must have lift off or two-way hinges, for emergency access with extra cubicle depth to ensure a turning circle in front of the pan clear of the door swing)
- have an 1800mm wide corridor outside where the door opens into a main circulation or escape route
- opens onto a private lobby to protect the dignity of users when a carer enters the cubicle, and for the safety of visually impaired people
- have an emergency assistance alarm fitted
- have left and right hand transfer positions in buildings with more than one accessible toilet

³ a Mencap initiative promoted by planning authorities

Within male and female toilet blocks there should be at least one cubicle designed to ambulant disabled standard with:

- suitable grabrails
- an outward opening door
- sufficient dimensions (800mm wide x 1500mm long)

In larger buildings, accessible urinals should be considered for ambulant disabled people and wheelchair users who are able to stand with the aid of grab rails.

Further details are contained in point 12.4.4 of BS8300:2001.

Access to showers and first aid rooms, and to the equipment and furniture within them such as beds, should also be considered.

Rest areas

In large venues rest areas should be considered. These have a variety of usages – a private space to inject insulin, a quiet space to calm down if having a panic attack, a space to rest if you are affected by fatigue. Where provided, these spaces should afford privacy but not be overtly ‘medical’ in appearance.

Signage and navigation

The ability to navigate independently around a building is dependent upon the basic building layout, signage and other navigational features supplied.

Layout

A logical and intuitive building layout is often hard to create in refurbished buildings, but entirely possible for any new build. You need to ensure:

- clear architectural distinctions between public and staff areas
- opportunities to 'see into' some key public areas before you enter them (information points, box offices, cafés and retail areas)
- clear routes between key destinations within the building
- seating in a number of locations
- plenty of circulation space in all areas

Signage

Signage is key to enabling independent access. If people can tell where they are going, they do not need to ask! You need to ensure that:

- the content of signs and information is written concisely and in Plain English
- rules for clear print are followed (contrast between text and background colours, large text and easy-to-read fonts)
- symbols, simple illustrations or pictograms are incorporated whenever possible, for instance to signpost refreshment and toilet areas⁴
- all directional signs to and within the premises incorporate directional arrows
- signs are well lit with their own source of light
- any colour coding in relation to orientation, for instance one colour associated with all toilet areas, is echoed in the signage

Remember, it is just as important to guide people away from a facility such as toilets, back to the main circulation area, as it is to signpost the way to it.

Orientation

There are a number of aids that can be used to support independent navigation. You should consider:

- a large and clear floor plan sited near all entrances that shows the site layout and orientates the individual within it

⁴ BS 8300: 2001 indicates that universally recognised symbols should be used to replace text, as an essential aid for people with learning difficulties. Where other types of pictograms and symbols are used these should be supplemented by text, and not used in isolation. The BS provides some examples. Further information on public information symbols can be found in BS 6034 and the RNIB publication *Building Sight*.

- a variety of floor plans, in plain line, raised tactile and Braille versions, indicating the layout and features (linked to the floor plan and colour coding, if provided)
- an access guide for the venue giving clear detailed access information on all areas
- an audio guide

Lighting and décor

Lighting and décor is very important for navigation. Visually impaired people rely on being able to distinguish between the walls, floors, ceilings and doors, and between backgrounds and furniture and fittings in the foreground. People with learning disabilities often find colour coding of areas a useful aid to orientation too.

In relation to lighting, you need to:

- ensure that lighting is suitable for all building users, for instance that there are blinds and filters to control glare; matt finishes to combat reflection; and individual task lighting in areas for close study to enable the user to control the intensity and direction of a light source
- avoid sudden changes in lighting levels

In relation to décor you need to:

- consider using colour as a means of assisting orientation, for instance, using one colour for the floor surface to denote areas of public circulation
- consider using changes of floor finish in a similar way as colour
- consider textured floor surfaces and handrails to denote key routes through a building to guide visually impaired people
- provide adequate contrast between doors, walls, floors and ceilings, and between furniture and the background against which it will be viewed
- distinguish between trims such as coving, skirting boards, architrave, dado and handrails, door handles, finger and kick plates by use of colour, tonal and textural contrast
- ensure that vertical door edges in particular are strongly contrasted against the walls and remainder of the door
- ensure that free-standing objects and furniture are sufficiently differentiated from the floor and wall surfaces and other backgrounds
- ensure that sanitary ware contrasts against the wall colour and tiling

It should be noted that a significant proportion of the male population (over 10% compared to women at 0.1%) has difficulty in distinguishing between red and green or blue and yellow. People with the visual impairment retinitis pigmentosa also have difficulty reading red displays. Furthermore, red is associated with

warning notices. If used for other information people may fail to notice important signs. It may be wise to avoid using such colours and combinations liberally.

Full height glass doors and glazed screens can be hazardous to visually impaired people and young children. You need to:

- provide logos or safety markings at least 150mm high, repeated every 50mm (or 50mm high if continuous banding) at two heights, between 850 and 1000mm, and 1400 to 1600mm

Maintenance and safety

Health and safety

Health and safety impacts on disability access in two distinct ways. Firstly, health and safety legislation overrides legislation about disabled access. If it would genuinely compromise health and safety to allow a disabled person access to a space (for instance a boiler room) to which that access cannot be permitted. The second way in which it might impact is in relation to standard procedures. You need to ensure:

- appropriate storage of goods and materials (for example, accessible toilets should never be used for storing cleaning materials)
- appropriate selection of materials (for example, avoiding carcinogenic dyes and products known to contain allergens if alternatives are available)
- care is taken to avoid the creation of health and safety and access risks (for example, materials used for cleaning floors in toilets and other areas should not cause surfaces to become slippery)
- circulation routes are kept clear of furniture and other potential obstacles such as fire extinguishers
- there is regular monitoring of practices to maintain standards

Emergency evacuation

For those who manage buildings, emergency evacuation for disabled people is a vital consideration. Disabled people might need help to escape, as in most cases lifts will be switched off when there is a fire alarm. If a lift has been designed for evacuation purposes, it will normally have an independent power supply so that it can be operated by the emergency services in the event of a fire. But lifts are only part of the story. You need to create an emergency exit strategy that covers:

- risk assessment that emphasises the needs of all disabled people and the risks to be overcome to ensure that they can exit as well as non-disabled people (make sure that you consider visitors to your premises as well as staff)
- physical access assessment: appropriate numbers of fire doors, access features on stairs, etc.
- staff: guidance on the number of people required to be on duty at any one time, and the number required to be trained in duties to assist with the evacuation of disabled people
- provision of refuge area/s: if a building is over one storey or if exit may be difficult, it is important to have a safe refuge space for disabled people at the same level as any evacuation lift or escape route. Refuges need two-way communication points with a visual and audible reassurance that an alarm call has been answered

- training: frequency and duration of evacuation training for disabled people, regular briefings at induction or during housekeeping meetings, as a training session may not be scheduled in time to deal with an emergency or drill
- signage: to both refuge areas and to final exits
- it is useful in large buildings for refuges to be numbered or named to assist staff accompanying disabled people in describing which refuge they are in to other staff and the rescue services
- audible alarms supplemented by visual alarms where possible, especially where a deaf person may find themselves alone (toilets, lift lobbies), or vibrating pagers for deaf staff
- alarm points (ideally 950mm above floor level with a hammer to break glass)
- lifts: ideally with Braille or tactile buttons, a voice announcer, two-way communication and a visual and audible reassurance that an alarm call has been answered
- provision of evacuation equipment (evacuation chairs for example)
- accessible provision of fire extinguishers and blankets
- Personal Emergency Evacuation Plans for disabled employees (covering their prime location and any sub-locations, awareness of procedures, emergency alarms (hearing, seeing and triggering), assistance, getting out of all appropriate exits)

Maintenance

Most organisations, even those without buildings, have equipment and facilities which must be maintained if they are to remain functional, accessible and safe.

You need to:

- have a maintenance programme
- identify staff with responsibility for maintenance and to report breakdown of equipment
- have a separate maintenance budget to allow for repair of items subject to wear and tear which might impede access
- have a contingency budget for replacing worn out access equipment
- have a contingency budget for the purchase of additional items as required to promote access
- ensure regular checks and services for access equipment such as communication aids, lifts, loops and assistance alarms

Further reference

Further reading

S = Standard print, L = Large print, A = Audiotape, B = Braille,
V = Voice, M = Minicom, T = Textphone, F = Fax, O = On-line

Access by design journal

Centre for Accessible Environments

Available from Centre for Accessible Environments

Subscribe online to [Access by design](#), Telephone 020 7840 0125

or email info@cae.org.uk

Access for Deaf People to Museums and Galleries: a Review of Good Practice in London, Deafworks, 2001

Incorporates the views of both deaf users and service providers, and offers practical policy advice for providers to make the necessary changes

Website: <http://www.deafworks.co.uk>

For induction loop, infrared, radio or other hearing enhancement systems see RNID fact sheets; contact them for advice on systems and suppliers.

Tel.: 0733 361 199/238 020

The accessible office - designing the inclusive workplace

Joint Mobility Unit Access Partnership

PR11398 Format Clear Print, 120 pages, paperback, ISBN 1858786584

JMU Partnership, 2005

Available from RNIB online shop

The Access manual - auditing and managing inclusive built environments

(Second edition) by K. Bright and A. Sawyer

Available from RIBA Bookshops

Telephone 0207 256 7222 email sales@ribabookshops.com

Blackwell Publishing, 2006, 263 pages, paperback,

ISBN 9781405146265. Format S

Access to ATMs, UK design guidelines

Centre for Accessible Environments, 2002

The 2002 guidelines are based on ergonomic research. Useful for any interactive with screen and touch control.

Centre for HCI Design, School of Informatics, City University, Northampton Square, London, EC1V 0HB
Tel.: 020 7040 8481
email h.l.petrie@city.ac.uk
Website: <http://hcid.soi.city.ac.uk/services/Accessibility.html>

Access to the Historic Environment, meeting the needs of disabled people
Lisa Foster, Donhead Publishing, 1997
ISBN 1 873394 18 7. 144 pages. Format S

Approved Document M Access to and use of buildings
HMSO, 2004 Edition
ISBN 011 701 993 3. 83 pages. Formats S, O

BS8300:2001 Design of buildings and their approaches to meet the needs of disabled people, incorporating amendment No 1 issued 2005
The British Standards Institution, revised with 2005 amendment
ISBN 0 580 38438 1. 67 pages. Formats S, CD-ROM
Researched reach ranges, space allowance and management solutions.
Regarded as a comprehensive best practice document.

BT Countryside for All
Provides guidelines on access to outdoor spaces.
The Fieldfare Trust
67a The Wicker, Sheffield, S Yorkshire S3 8HT
0114 (V) 270 1668 (M) 275 5380 (F) 275 5380
email Fieldfare@BTInternet.com

Colour and Contrast, ICI/University of Reading
A design guide for the use of colour and contrast to improve the built environment for visually impaired people
RNID
Information, equipment, issues relating to deafness and hearing loss.
Tel.: 0808 808 0123 Textphone: 0808 808 9000
email information@rnid.org.uk

Design Guide for the Use of Colour and Contrast to Improve the Built Environment for Visually Impaired People
K Bright, ICI, 1997. Project Rainbow. Available from ICI Paints: 0870 242 1100 Free. Formats S, CD-ROM

Designing for accessibility

A. Lacey

Available from the Centre for Accessible Environments

Telephone 020 7840 0125, email info@cae.org.uk

CAE/RIBA Publishing, 2004, 72 pages, paperback,

ISBN 1859461433

Designing to Enable: improving access through consultation

Gateshead Access Panel, 2001

Unit J30, The Avenues, Eleventh Avenue North, Team Valley,

Gateshead NE11 0NJ

0191 (V) 443 0058 (F) 443 1947

email gatesaccess@dial.pipex.com

Free. Formats S, L, A, CD-ROM

Disability Discrimination Act 1995 and 2005. Code of Practice

TSO (The Stationery Office), 2005

ISBN 0 11 703 605 6 Format S, O

www.tso.shop.co.uk. Telephone orders 0870 600 5522. Textphone 0870 240 3701. Fax 0870 600 5533.

The Disability Portfolio

Museums Libraries and Archives Council

www.mla.gov.uk

A collection of 12 guides with advice, information and guidance

Easy Access to Historic Properties

English Heritage, 23 Saville Row, London W1X 1AB. 1995

Free

eQuality: disability action planning for arts organisations: the handbook

Yorkshire Arts/ADA inc, Arts Council of England, 2000. Formats S, PDF

eQuality: resources for arts, disability and access: the directory

Yorkshire Arts/ADA Inc, Arts Council of England, 2000. Formats S, PDF

Inclusive Mobility, Department of Transport 2005

Best practice on access to pedestrian and transport infrastructure. Contains detailed guides on human factors, footpaths and pedestrian areas, tactile paving surfaces, car parking, signage and information, lighting, training and management.

www.dft.gov.uk

The Informability Manual

Making information more accessible in the light of the Disability Discrimination Act

Wendy Gregory, HMSO, 1996

ISBN 0 11 702038 9. 140 pages. Formats S, B, A

Literacy Through Symbols

Detheridge, T and Detheridge, M, 2002. David Fulton Publishers

A practical book from the Widgit Software Ltd range, to take into account developments that have been made in using symbols to support literacy.

Overcoming the barriers – Providing Physical Access to Historic Buildings

CADW: Welsh Historic Monuments. (Heritage Policy Section) Crown Building, Cathays Park, Cardiff CF10 3NQ. Published 2002.

2-4 Cockspur Street, London SW1Y 5DH

ISBN 1 85760 104 1. 40 pages, English and Welsh, Format S

See it Right

RNIB, 2001, guidance leaflets on clear print and alternative formats

Personal Emergency Egress Plans

The Northern Officer Group. For additional reference only as emergency egress is to be addressed by the fire officer. Includes reference to building management. British Standards, BS 5588, Part 8 and Part 22

Design, planning and management for means of escape for disabled people.

Sign Design Guide, a guide to inclusive signage

JMU and the Sign Design Society. From RNIB Customer Services: 0845 702 3153

Peter Barker and June Fraser

ISBN 185878 412 3. 93 pages. Format S

Talking Images Guidance: Museums, galleries and heritage sites: improving access for blind and partially sighted people, RNIB

Guidance and research for audio description and tactile resources

Towards Better Access

Published by the Access Committee for England.

12 City Forum, 250 City Road, London EC1V 8AF

020 (V) 7250 0008 (F) 7250 0212 (M) 7250 4119. Format S

For further information on Arts Council publications visit:

<http://www.artscouncil.org.uk/> or

email enquiries@artscouncil.org.uk

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These guidelines are intended to help you to achieve good practice. They are not intended to replace any legislative requirements that organisations must meet or to constitute legal advice on those requirements. Any amendment of your policies carried out in consultation with Arts Council England does not guarantee that you are compliant with current legislation.

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