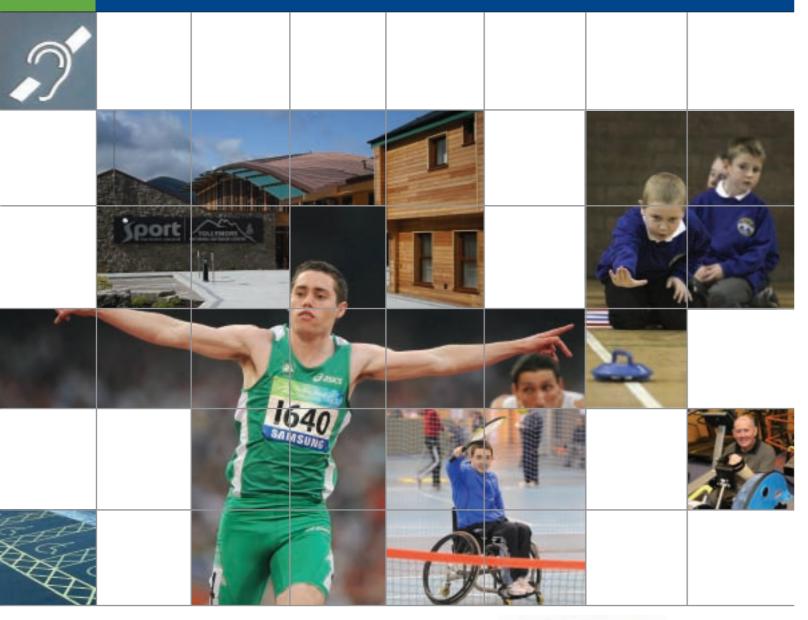
Access To Sports Facilities For People With Disabilities

# Design & Management Guidelines

(2010 Edition)







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#### **Acknowledgements:**

Disability Sports NI would like to thank the following organisations that have contributed to this guidance document: Disability Action and The Guide Dogs for the Blind Association.

#### Disclaimer:

This document is for information only. The views expressed are not intended to take away or diminish the responsibility of the user to comply with current or future legislation. The guidance and standards are intended to complement requirements for Building Regulations, Town Planning Requirements or Licensing, not to replace or override them.

Whilst every effort has been made to ensure the accuracy of the Design and Management Guidelines and all information contained herein, Disability Sports NI shall not be held responsible or liable to any party in respect of any loss, damage or costs of any nature arising directly or indirectly from reliance placed on this information.

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This document is available in alternative formats on request.

The guidelines have been prepared by Disability Sports NI jointly with Sport Northern Ireland.

#### **DISABILITY SPORTS NI**

Disability Sports NI (DSNI) is Northern Ireland's main disability sports organisation and is recognised by Sport Northern Ireland as the lead body responsible for the development of sports and physical recreation opportunities for people with physical, sensory and learning disabilities.

Established in 1998, to tackle the under representation of people with disabilities in sport, the organisation works to achieve equality of opportunity for people with disabilities to take part in sport and physical recreation at a level of their choice.

Disability Sports NI runs a range of events, participation programmes, training courses and services, all designed to give people with disabilities the opportunity to lead a full and active lifestyle through sport. The organisation also works closely with Sport Northern Ireland and Governing Bodies of Sport to ensure that more talented disabled sports people have the opportunity to train, compete and excel in their chosen sport on the world stage.

Disability Sports NI currently has over 100 member groups made up of disability sports groups, schools and adult centres, and directly runs programmes and events which annually benefit over 12,000 children and adults across Northern Ireland.

Further information on the work of Disability Sports NI is available from the DSNI website: www.dsni.co.uk

#### SPORT NORTHERN IRELAND

Sport Northern Ireland is the lead agency for developing sport in Northern Ireland.

Their corporate vision is to promote "a culture of lifelong enjoyment and success in sport which contributes to a peaceful, fair and prosperous society". In practice, this means Sport Northern Ireland creates and develops programmes and partnerships that will address its three strategic objectives:

- Increased participation in sport and physical recreation;
- Improved sporting performances; and
- Improved efficiency and effectiveness in the administration of sport.

Sport Northern Ireland works in partnership with the Department of Culture, Arts and Leisure (DCAL) to deliver on Sport Matters: The Northern Ireland Strategy for Sport and Physical Recreation, 2009-2019. This Strategy sets out a new shared sporting vision of "a culture of lifelong enjoyment and success in sport", as well as the key strategic priorities for sport and physical recreation and informs the direction of future investment – underpinning three areas: participation, performance and places.

As the lead agency for the development of sport in Northern Ireland, Sport Northern Ireland is dedicated to developing people in sport, especially young people, and providing facilities for people of every age group and ability to be able to participate, enjoy and perform sport and physical activity.

Sport Northern Ireland operates a National Outdoor Training Centre at the base of the Mourne Mountains – Tollymore National Outdoor Centre. Sport Northern Ireland also funds and manages the Sports Institute Northern Ireland (SINI) based at the Jordanstown campus of the University of Ulster. SINI prepares Northern Ireland's best athletes to perform on the world stage by providing an environment that nurtures elite athletes and coaches.

Sport Northern Ireland website: www.sportni.net

These guidelines are also endorsed by Disability Action.



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# Introduction

#### Introduction

People with disabilities in Northern Ireland want to participate in sport for the same reasons as everyone else in society – to lead a fit and healthy lifestyle; to gain a sense of achievement or challenge; to develop their natural sporting talent or simply for the fun and enjoyment of taking part. They also have the right to participate in sport. Accordingly, Disability Sports NI and Sport Northern Ireland are determined to champion design, management and sport development good practice that creates sports facilities that everyone in society can use.

# People with Disabilities and Sport in Northern Ireland

Northern Ireland experiences the highest prevalence of disability in the UK with 20% of the population experiencing some form of disability or health related condition, that's 1 in 5 of the population.

However because of a complex range of economic, attitudinal and physical barriers people with disabilities are the least likely 'group' in society to participate in sport. Indeed, research conducted by NISRA² found that people with disabilities in Northern Ireland are half as likely to participate in sport and physical activity as non-disabled people, with only 10% participating regularly. A further 5% take part occasionally, with 85% of people with disabilities never taking part in any form of sport or physical recreation.

Ironically, this situation exists at a time when there is an increasing demand from people with disabilities to participate in sport, particularly at a recreational level. There are also a growing number of people with disabilities participating in sport at a competition and performance level and following the medal success of Northern Ireland Paralympic athletes in Beijing it is anticipated that further success will be achieved at the London 2012 Paralympic Games and beyond.

#### **Existing Sports Facilities**

Although basic physical access to sports facilities in Northern Ireland has improved significantly in recent years, particularly as a direct response to the introduction of Part III of the Disability Discrimination Act (DDA) in 2004, the majority of existing sports facilities still do not fully meet the sports and leisure requirements of people with disabilities. Where improvements have been made they tend to meet the minimum requirements of the DDA and Building Regulations rather than acceptable levels of good practice.

Indeed, there remains a misconception among designers that sports facilities built to the standards required by Building Regulations will accommodate all of the needs of people with disabilities participating in sport. In fact, the reality is that such sports facilities are often unable to accommodate the needs of a range of sports people with disabilities, particularly in relation to the requirements of team sports, wheelchair sports and access to fitness equipment.

Although the good design of buildings is crucially important in improving the sports opportunities available to people with disabilities, good design alone will not remove all the barriers encountered by people with disabilities. Decisions on how the sports facility is managed and how its programmes and services are developed are equally important, and as such are addressed in Sections 3 and 4 of these guidelines.

# **Overview**

<sup>&</sup>lt;sup>1</sup> Northern Ireland Census 2001

<sup>&</sup>lt;sup>2</sup> Northern Ireland Statistics & Research Agency (2007) The Prevalence of Disability and Activity Limitations Amongst Adults and Children Living in Private Households in Northern Ireland



Tollymore National Outdoor Centre, Bryansford - Sport Northern Ireland Capital Funded Project

#### **Design and Management Guidelines**

These guidelines are based on available and emerging best practice and have been produced by Disability Sports NI and Sport Northern Ireland to help ensure that all new sports facilities and extended/altered facilities in Northern Ireland are built and managed to optimum levels of good practice in terms of access for people with disabilities.

The guidelines are divided into four sections:

#### Section 1 - Design & Technical Guidelines

provides guidance on design and technical issues in a sports and leisure environment with a set of recommended guidelines and standards being provided for each key area of design.

#### Section 2 – Sports Specific Technical

Guidelines supplements the design and technical guidelines provided in Section 1 by providing sports specific disability access information in relation to the specific requirements of fourteen Paralympic sports. This section only applies to sports facilities designed as centres of excellence for a particular sport.

Section 3 – Facility Management Policies & Procedures provides advice on the development and implementation of the

management policies and procedures required to ensure that facilities take full account of the particular needs of people with disabilities.

Section 4 – Inclusive Sports Development Plans provides advice on developing and implementing a sports development plan which will help sports facility management to successfully include people with disabilities within the sports programmes provided by their facility.

#### Inclusive Sports Facility (ISF) Accreditation

The ISF Accreditation is a mechanism for Disability Sports NI to encourage and validate the achievement of sports facilities which are fully inclusive of people with disabilities. The accreditation scheme is based on the key criterion (Section 1-4) set out in these 'Access to Sports Facilities for People with Disabilities' guidelines, whilst also taking into account the anticipated users specific needs for each facility.

All sports facilities in Northern Ireland should aim for full accessibility thereby bringing the benefits of sport to more people with disabilities; improving business potential by attracting all customers; and meeting the requirements of the Disability Discrimination Act (DDA).



NI Knights Wheelchair Basketball Players

There are two categories:

**ISF Accreditation Excellence** should be the goal for all new facilities and new extensions.

**ISF Accreditation** may be achieved for refurbished / altered facilities.

Notwithstanding the above, where substantial alteration is planned / carried out to an existing facility, the alterations can also aim to achieve ISF Accreditation Excellence. Facilities wishing to be accredited under the ISF Accreditation scheme or to find out more about the process should contact Disability Sports NI - www.dsni.co.uk

What facilities do the guidelines apply to? Facilities include, but are not limited to:

Sport club houses / Pavilions — designed primarily for football, hockey, rugby and Gaelic games. The recommendations can also apply to pavilions for sports such as bowls, tennis and athletics, outdoor activities, canoeing, sailing and to outdoor changing facilities that form part of a sports centre;

Fitness suites – including exercise studios;

Small to medium sports halls – four court sports hall or less;

Large sports halls – larger than four courts and / or swimming pool;

Other facilities – i.e. velodrome.

Sport Northern Ireland Capital Funded Projects
It is a requirement of all award funding by
Sport Northern Ireland that facility design
accords with these guidelines and specifically
the requirements of the relevant sport
(See Section 2). All funding applications
must include an access statement in their
submission to Sport Northern Ireland
[1].
Sport Northern Ireland believes the
development of an access statement will
provide applicants to its capital
programmes with an opportunity to
demonstrate how they have sought to
comply with the guidelines and that their

project will embrace accessibility and the

principles of inclusive design.

of Sport Scotland.

<sup>&</sup>lt;sup>1</sup> To assist applicants with the preparation of access statement information from Sport Scotland's Access Statements Guidance document has been reproduced in Appendix A with the kind permission of Sport Scotland.

# Section 1: Design & Technical Guidelines

## SITE WIDE ACCESSIBILITY AND PRINCIPAL ENTRANCE

Like the population as a whole, people with disabilities will travel to and from sports facilities in a variety of ways. The majority will travel by private car, taxi or by coach. Others, particularly blind or partially sighted people, will often travel by public transport while others who live nearby will walk or push to the facility.

# 1.1 Parking and 'Setting Down' Points

#### Overview

As the majority of people with disabilities in Northern Ireland tend to travel to sports facilities using private cars, taxi or coach, the provision of designated accessible car parking spaces for people with disabilities using the facility and for people with disabilities who work at the facility is essential.

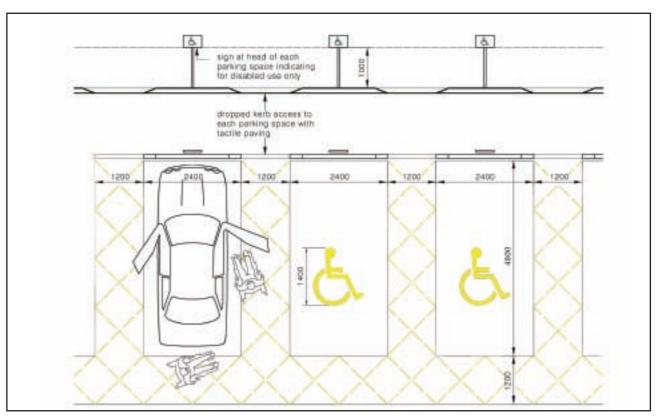


Figure 1 - Accessible Parking Spaces

It is essential then that sports facilities are designed to ensure that access for people with disabilities considers accessibility from the site boundary and not just criteria within the building itself. Accordingly, facility designers are required to meet standards of good practice in relation to the design of parking facilities, 'setting down' points, external pathways and the principal entrance.

#### RECOMMENDED STANDARDS

#### 1.1.1 Designated off-street parking

The recommended number of accessible parking bays should be as follows:

- A minimum of two accessible car parking bays or 8%<sup>3</sup> of total parking spaces, whichever is the greatest.
- One additional space should also be provided for each employee working in the facility who is a 'blue badge' holder.

<sup>&</sup>lt;sup>3</sup> Where carparks have more than 500+ spaces a minimum of 6% of accessible car parking spaces may be accepted, depending on the anticipated use.

### 1.1.2 Design of Accessible Parking Spaces

The accessible parking spaces must be designed to meet the following specification, as detailed in British Standard BS8300:2009 (4.2.3):

- Bay dimensions of 4800mm x 2400mm.
   1200mm marked access zone between each bay.
- 1200mm wide safety zone for boot access and cars with rear hoists.
- Bays to be located on firm and level ground.
- Bays to be identified as 'accessible' by painting a 1.4m 'Wheelchair' symbol (i.e. the 'international symbol for access') onto the surface of each bay as well as a vertical sign at the end of each bay.
- Dropped kerbs with tactile surfaces should also be provided from accessible parking bays to the footpath.

#### 1.1.3 Location of Accessible Parking Spaces

- Accessible bays must be located as close as possible to the facility's principal entrance and no more than 100m from the entrance.
- If the accessible parking bays are located more than 50m from the entrance then the

- pathway from the parking bays to the entrance must be covered.
- The design of the paths between the accessible parking bays and the main entrance must comply with standards specified in Section 1.2 'External Paths'.

#### 1.1.4 Setting Down and Picking Up Points

In addition to the provision of accessible car parking spaces, a setting down point (or drop-off bay) suitable for use by cars, taxis and accessible coaches should be provided as close as possible to the principal entrance. The bay should be:

- Clearly identified by appropriate signage.
- Long enough to accommodate at least one coach with a tail lift.
- Level with the footpath to allow for the convenient transfer of wheelchair users to and from vehicles.

# 1.1.5 Car Park Entry and Payment Equipment

 Ticket dispensers, barrier control units and payment machines which can be operated by wheelchair users must be provided and should be at least 750mm and not more than 1200mm from the ground.

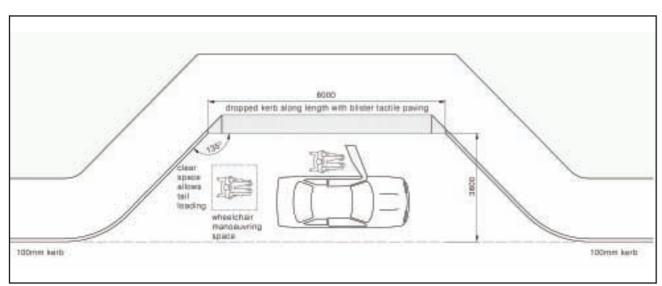


Figure 2 - Setting Down & Picking Up Point



Accessible path leading to the entrance at Tollymore NOC, Bryansford - Sport Northern Ireland Capital Funded Project

#### 1.2 External Paths

#### Overview

To allow for easy, unrestricted movement throughout the broader site by the public including a range of people with disabilities, some of whom will be using sports wheelchairs, accessible paths of a high standard should be provided between the following areas:

- From the public highway to the principal entrance.
- From bus stops or rail connections on / or near the site to the principal entrance.
- From the accessible car parking bays to the principal entrance.
- From the 'Setting Down' point to the principal entrance.

#### **RECOMMENDED STANDARDS**

Paths should be designed to meet the specification outlined below:

#### 1.2.1 Path Design

- Paths to the principal entrance and escape routes should be a minimum of 2000mm wide.
- Paths should wherever possible be level or have the shallowest possible gradient. The steepest allowable gradient for new sports facilities is 1:21 as explained in the gradients section on Page 16.

- Path surfaces should be firm, slip resistant and smooth. Under no circumstances should cobbles or gravel be used.
- Splay corners should be used on all paths to ease manoeuvring of wheelchair users.
- Pedestrian routes should be clearly distinguishable from traffic routes through use of texture and colour.
- Street furniture such as lamp posts, signposts, litter bins and seating should be located beyond the edge of the path ensuring that there is a minimum 2000mm clear width throughout the length of the path.
- Drainage gullies and grates should be located beyond the edge of the path ensuring that there is a minimum 2000mm clear width throughout the length of the path.
- Tactile paving must be used to provide warning and guidance to blind and partially sighted people when approaching a dropped kerb or at a junction with a road or car park.
- Cross fall should not exceed 1:50.
- Avoid windows, doors and other objects projecting into pathways. All outward opening doors should be recessed or safeguarded by railings.

#### 1.2.2 Gradients

- All paths must be either level or have the shallowest possible gradient.
- Sites must be landscaped to ensure that all external paths are as level as possible.
   Paths with a gradient steeper than 1:21 are not regarded by Disability Sports NI or Sport Northern Ireland as providing a good level of access and are not acceptable in new sports facilities.

Important Note: External Ramps and Steps As external steps and ramps are normally only necessary to improve access on paths with a gradient steeper than 1:21 and gradients steeper than 1:21 are not regarded by Disability Sports NI and Sport Northern Ireland as providing a good level of access, the design of such features should not occur in Sport Northern Ireland funded projects.

#### 1.3 The Entrance

#### Overview

- The approach to the principal entrance should be clearly identifiable through the use of clear signage.
- The entrance must be easily distinguishable and must provide a visual contrast with its immediate surroundings.

- In order to provide shelter for those having to pause before entering the building, the principal entrance should have some form of weather protection like a canopy or recessed entrance (unless automatic doors are installed).
- The area immediately in front of the entrance door(s) must be level.
- Ideally, the entrance threshold should also be level. However, if a raised threshold is unavoidable it should not exceed a height of more than 15mm and should be clearly visible and be chamfered or pencil rounded.
- Amenity lighting should be provided adjacent to the principal entrance.

#### **RECOMMENDED STANDARDS**

#### 1.3.1 External Doors - Design

As it is generally envisaged that all sports facilities, with the exception of club houses/pavilions serving only natural turf pitches, will be used at least occasionally by people using sports wheelchairs with cantered wheels, facility providers will be required to install doors of the width and type specified in the table below.

Sport Facility Type	Clear Opening Width (Minimum Dimensions)	Automatic Doors Required
Sport Club Houses/Pavilions generally, except those serving tennis, athletics or outdoor basketball (as these facilities must accommodate a design width of 1200mm for sports chairs)	1000mm	No
Fitness Suites	1000mm	No
Small to Medium Sports Halls (i.e.4 courts or less)	1200mm	Yes
Large Sports Halls (i.e. 6 courts or more and/or Swimming Pool)	1200mm	Yes
Other facilities i.e. velodromes	1200mm	Yes

- In smaller facilities where automatic doors are not required, a doorbell or intercom should be provided to attract the attention of the staff for assistance.
- Automatic entrance doors with a sliding, bifold, curved bi-parting or telescopic arrangement are recommended. (Please note that automatic swinging or folding doors can present a hazard to some people with disabilities. Similarly many people with disabilities find automatic revolving doors difficult to use).
- Ideally, automatic doors should be controlled by a passive infrared system located in an appropriate position, which is sensitive to children and to people who are seated and can sense someone who is standing.
- Automatic entrance doors should be capable of manual operation in the event of a power failure.
- Automatic entrance doors should either be fully glazed with permanent markings or incorporate a vision panel which is large enough to enable a person seated or at standing position to see and be seen from either side of the door. Automatic entrance doors should also slide sideways to assist blind and partially sighted people.
- Vision panels should provide a minimum zone of visibility between 500mm and 1500mm above floor level.
- Glazed doors and associated side panels should not incorporate fully glazed frameless entrance doors. They should:
- Be distinguishable from their surroundings, with features such as signs and logos located at eye level, which is 1400mm-1600mm above ground level.
- Repeat safety markings at low level that is 850mm-1000mm if the glazing goes to the floor.
- Ensure these distinguishing features, are visible from both sides of the door.
- Consideration should also be given to the control of air ingress. Wherever possible a draft lobby should be considered.

#### HORIZONTAL CIRCULATION

#### 1.4 Lobby/Reception Area

#### Overview

The reception area should be designed to ensure good access for all. The reception desk / counter should be in sight of the entrance and easily identifiable by visually impaired people. The layout of the reception area should be clear and logical and should include the features listed below:

#### **RECOMMENDED STANDARDS**

- The approach from the entrance doors to the reception area should be direct, free from obstacles and be a minimum of 2000mm wide to ensure easy manoeuvring by wheelchair users.
- A reception desk / counter with an upper and lower counter area should be provided to facilitate customers and staff who wish to stand or sit, including wheelchair users.
- The lower counter area should not be more than 760mm high for a recommended length of 1800mm; a length not less than 1500mm may be considered in exceptional circumstances. It should have a knee recess space of 500mm deep on the visitor / customer side and not less than 650mm deep on the receptionist side by 700mm high. The upper counter area should be between 950mm and 1100mm high.
- There should be a clear space of at least 1400mm deep by 2200mm wide in front of the lower section of the reception counter.
- The lower section of the reception counter should be located in an obvious position.
- If control barriers or turnstiles systems are used they must be designed and managed in a way that ensures they can be easily used by wheelchair users and blind or visually impaired people.
- An induction loop should be provided to assist people with hearing impairments.
   The availability of the induction loop should be clearly indicated using the standard symbol.

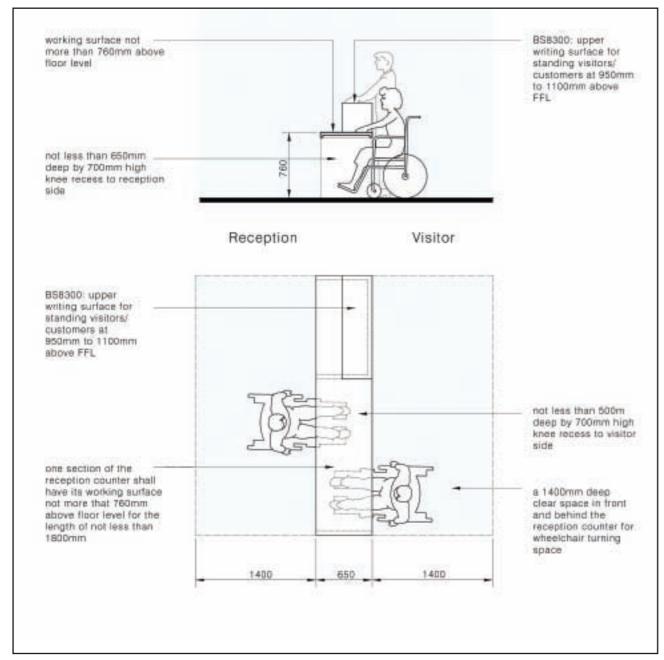


Figure 3 - Reception Counter

- To assist deaf or hard of hearing people the reception area should be fitted with an appropriate level of sound insulation to minimise background noise.
- Signs and universally accepted symbols indicating lifts, stairs and the main circulation routes should be clearly displayed at the reception area.
- Where public telephones are provided in the reception area at least one should have an induction coupler.
- Waiting and circulation routes should be clearly demarcated by using different floor finishes.

• Suitable seating is required; there should be space to enable wheelchair users to rest beside seats.

#### 1.5 Internal Doors

#### Overview

To facilitate free and easy movement by large groups of people with disabilities including people using sports wheelchairs with large cambered wheels, the minimum width of internal doors has been set at a high level as specified in the table on Page 19.



Reception Desk at the Amphitheatre Wellness Centre, Carrickfergus

#### **RECOMMENDED STANDARDS**

• Doors must have at least one leaf that provides the minimum clear door opening width specified in the table below.

Sport Facility Type	Minimum Unobstructed Clear Opening Width
Sport Club Houses/Pavilions generally, except those serving tennis, athletics or outdoor basketball	875mm
Fitness Suites	875mm
Small to Medium Sports Halls (i.e. 4 courts or less)	1000mm*
Large Sports Halls (i.e. 6 courts or more and / or swimming pool)	1000mm*
Other facilities i.e. velodromes	1000mm*

- \* Where the facility will potentially be used for wheelchair tennis activities, the clear opening width of doorways should be increased to 1200mm to accommodate larger wheelchair tennis chairs.

  A minimum unobstructed door opening of 1000mm can be achieved in one of two ways as described opposite:
- 1 An asymmetric arrangement incorporating a door set of 2000mm with one door leaf of 1000mm and a second door of a smaller width.
- 2 Increase the corridor width to a width greater than the recommended 2000mm, to accommodate  $2 \times 1000$ mm doors plus the door frame.



Increased door width at the RDA, Causeway Coast Arena, Coleraine - Sport Northern Ireland Capital Funded Project

In addition, the doors must be designed to the following specification:

- To aid unrestricted circulation the number of internal doors used should, wherever possible, be kept to a minimum.
- In order to make them easier to negotiate, double doors should incorporate a double swing action rather than an interlocking arrangement.
- Except where privacy is required, all doors must be designed to include visibility glazing. Vision panels should provide a

- minimum zone of visibility between 500mm and 1500mm above floor level as detailed in Section 6.4.3 of BS8300:2009.
- Doors should swing into rooms rather than onto the corridors. Where unavoidable, doors swinging into a corridor should be fully recessed or protected by guardrails that lead people away from the door swing.
- The door design and installation must ensure that the maximum force required to open doors should be as follows:

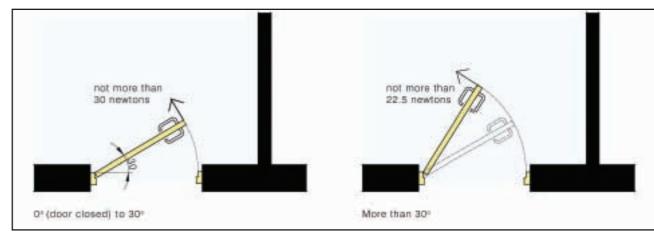


Figure 4 – Door Swing Requirements

- Not more than 30 Newtons between 0° (door closed) and 30° of the opening arc of the door and not more than 22.5 Newtons from any point greater than 30° of the opening arc (as illustrated in Diagram 3.2 on Page 29 of the Technical Booklet for Part R of the Building Regulations (Northern Ireland) 2000).
- All door frames should contrast in colour with the surrounding wall. See Section 1.21 of this document on 'Visual Contrast' for further information and guidance.
- Wherever possible, electro-magnetic hold back controls to fire doors, which only close when the fire alarm is activated, should be provided.

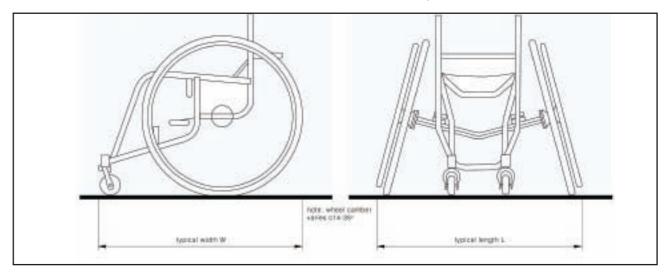


Figure 5 - Sports Wheelchair

- Door opening furniture with a lever action and closed end, at a comfortable height for wheelchair and ambulant users, should be used to enable doors to be opened one handed.
- A space of at least 300mm should be provided between the leading edge of the door and a return wall (unless the door is opened by automatic controls).
- To aid partially sighted people all door furniture should contrast in colour and luminance with the surface of the door.

# 1.6 Corridors and Passageways Overview

With the exception of club houses and pavilions generally, corridors and passageways within sports facilities must be wide enough to accommodate a range of people with disabilities including sports wheelchair users and medium to large groups of people using the facilities at the same time. Accordingly, the recommended

minimum width of corridors has been set at a

high level as outlined in the table on Page 22.

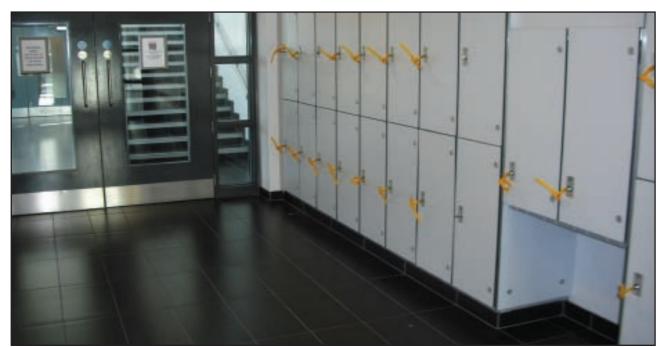
#### Recommended Minimum Corridor Width

Sport Facility Type	Clear Width (Minimum Dimensions)		
Sport Club Houses/Pavilions generally, except those serving tennis, athletics or outdoor basketball	1500mm		
Fitness Suites	1500mm		
Small to Medium Sports Halls (i.e. 4 courts or less)	2000mm*		
Large Sports Halls (i.e. 6 courts or more and / or swimming pool)	2000mm*		
Other facilities i.e. velodromes	2000mm*		

#### In addition:

- Fire extinguishers and hoses, radiators and other projections should not project into the clear corridor width specified above as they present a potential hazard to visually impaired people. However, where this is unavoidable hazard protection may be necessary.
- Similarly for safety reasons doors must not open out into corridors.
- Glazing at the end of corridors should be avoided.

- To aid partially sighted people, corridor ends should be finished with a contrasting colour to denote changes in direction.
- Appropriate levels of lighting should be provided (see Section 1.20 'Lighting').
- Where long corridors are sub-divided by a series of fire doors (to meet the requirements of Building Regulations) the provision of electro-magnetic controlled fire doors which only close when the fire alarm is activated should be considered.



Wide accessible corridor and locker provision at LORAG, Belfast - Sport Northern Ireland Capital Funded Project

#### **VERTICAL CIRCULATION**

#### 1.7 Passenger Lifts

#### Overview

To ensure free and unrestricted access to all areas on all floors of sports facilities, one or more passenger lifts must be provided in all facilities with more than one storey.

#### **RECOMMENDED STANDARDS**

#### 1.7.1 Recommended Number, Size and Dimensions of Lifts

Sport Facility Type	Door Width into Lift (Minimum Dimensions)	Lift Car (Minimum Dimensions)	No. of Lifts
Sport Club Houses/ Pavilions, generally	800mm	1100mm wide x 1400mm deep	1
Fitness Suites	s Suites 800mm		1
Small to Medium Sports Halls (i.e. 4 courts or less)	1100mm	2000mm wide x 1400mm deep	1
Large Sports Halls (i.e. 6 courts or more and/or swimming pools)		2000mm wide x 1400mm deep	1 to 2 *
Other facilities i.e. velodromes	1100mm	2000mm wide x 1400mm deep	1

<sup>\*</sup> In funding applications to Sport Northern Ireland this requirement will be determined on a project specific basis by the Sport Northern Ireland Architect.

#### Users Accommodated by Recommended Lift Sizes

Lift Dimensions	Users Accommodated			
1100mm wide X 1400mm deep	One wheelchair user (in manual or electrically powered wheelchair) plus two other people. Not large enough for sports wheelchair.			
2000mm wide X 1400mm deep	One wheelchair user in sports wheelchair plus several other people OR three people in sports wheelchairs.			

#### 1.7.2 Access to Lifts

- Lifts should be located close to the principal entrance, reception area and main circulation routes.
- At each floor there should be:
  - \* A clear space of at least 1500mm x 1500mm and preferably 2000mm x 2000mm to ensure adequate manoeuvring space for wheelchair users.
  - \* Audible announcements to indicate arrival of lift and direction of travel should be provided to aid blind and partially sighted people.

- \* A clear visual display indicating level reached by the lift should be provided to aid people who are deaf and hard of hearing.
- Landing 'Call' Buttons should be:
  - \* Not less than 900mm or more than 1100mm above the floor level of the landing and not less than 500mm from any return wall.
  - \* Have suitable raised tactile symbols to indicate their function.
  - \* Be clearly distinguishable through suitable visual contrast.

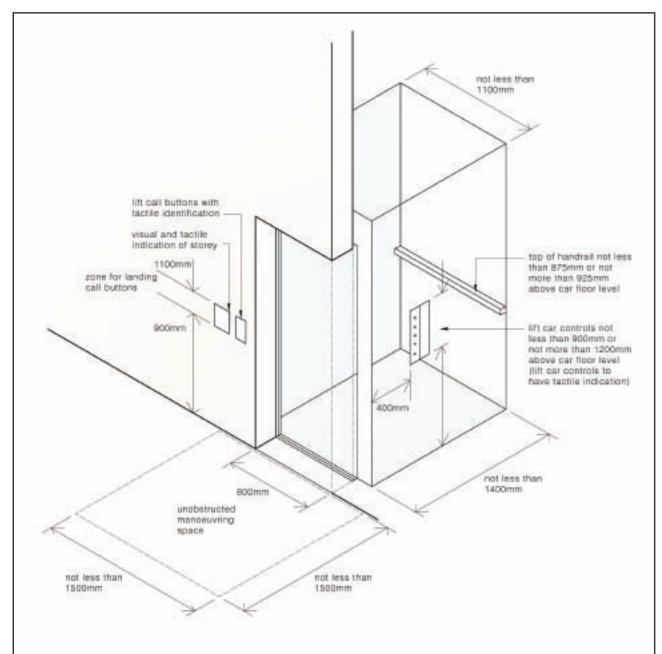


Figure 6 - Passenger Lift Car

#### 1.7.3 Lift Car Specification

- The provision of 'fire protected' lifts should be considered based on an assessment of the perceived risk as part of the overall fire evacuation strategy. Key to this assessment will be consideration of likely occupancy levels and the nature of occupancy (e.g. likely use of the facility by groups of wheelchair users or other people with mobility difficulties).
- Where a lift is used for access between two levels only, a lift with opposite doors should be used so that wheelchair users do not have to reverse out of or turn around in the lift car.
- Lift doors should be easily distinguishable from the adjoining wall by using colour contrast.
- Control buttons should be between
   900mm and 1100mm above floor level and
   400mm from any wall.
- Have suitable raised tactile symbols to indicate their function.
- Clearly distinguishable through suitable visual contrast.
- The lift car should have clear visual and audio indicator of its level / arrival at each floor.
- There should be a minimum five second time delay to the lift door closing mechanism.
- The lift should have an emergency communication system which gives audible and visual indication that the alarm has been raised and received.
- Ensuring accurate 'levelling' between the floor of the lift and landing level at each storey is crucially important as some wheelchair users will find even a small difference in levels difficult to negotiate.
- The provision of fold-down seats should also be provided in larger lifts i.e. lifts of 2000mm x 1400mm or larger.

- The provision of a duplicate set of controls should be provided in larger lifts (i.e. lifts of 2000mm x 1400mm or larger) on the opposite side of the lift car in accordance with BS EN 81-70:2003.
- The floor of the lift should be slip resistant and should not be of a dark colour.
- A handrail is to be provided along at least one side of the lift car. The top surface of the handrail should be not less than 875mm or not more than 925mm above the floor of the lift.
- Where a lift has only one door, the provision of a mirror on the wall of the car opposite the door is required to aid navigation by wheelchair users. However the mirror should not extend below 900mm from the lift floor to avoid confusing visually impaired people.
- Areas of glass in lifts, including mirrors, should be easily identifiable to blind and partially sighted people.

Important Note: Platform Lifts and Stairlifts

Please note that although the provision of vertical access through other lifting devices such as short rise platform lifts and stair lifts may meet the requirements of Part R of the Building Regulations, these devices are not regarded by Disability Sports NI / Sport Northern Ireland as providing a reasonable or acceptable means of vertical access to new sports facilities for people with disabilities. However, given the space constraints in some existing buildings it may not always be possible in the refurbishment of existing sports facilities to provide an alternative means of vertical access. In exceptional circumstances in an existing building, with a small area of unique function, a platform lift may be considered as an acceptable alternative option.



Staircase at LORAG, Belfast - Sport Northern Ireland Capital Funded Project

#### 1.8 Internal Steps and Stairs

#### Overview

Steps and stairs must be designed to make them easier and safer to use for ambulant disabled people and blind or partially sighted people.

#### **RECOMMENDED STANDARDS**

- The maximum number of steps in a flight is 12.
- The provision of flights of less than three steps should be avoided.
- A landing should be provided at the

bottom and top of each flight of stairs. Its length should be at least that of the stair width.

- There must be clear unobstructed step width of at least 1200mm.
- The maximum rise of each flight is 1800mm.
- The rise of the step should be in the range of 150mm-170mm.
- The going of the step should be in the range of 250mm-300mm.
- The rise of the steps within a flight or series of flights must be uniform.

- To aid visually impaired people step nosing should contrast in colour and luminance with the remainder of the step.
- The nosings should be made of slip resistant material and wrap around the riser so that it extends 55mm on the tread and 55mm down the riser.
- Steps and stairs should be as slip-resistant as possible in line with the guidance on slip resistant surfaces outlined in BS5395-1:2010.
- Steps and stairs should be well illuminated by means of artificial lighting. Illuminance at tread level should be at least 100 lux.
- Handrails should be provided on steps and stairs as specified in the handrail section, Section 1.9.
- Tactile hazard warning should be incorporated into handrails as specified in the handrail section, Section 1.9.

Important Note 1: Helical & Spiral Stairs: Flights of stairs of a helical or spiral design are not regarded by Disability Sports NI or Sport Northern Ireland as providing a reasonable means of access. This is because many people with disabilities, particularly partially sighted people, find stairs of this design difficult to use.

Important Note 2: Internal Ramps: As 'split level' rooms/areas are not conducive to the free and easy movement of people with disabilities, the design of such features are not recommended by Disability Sports NI or Sport Northern Ireland. Accordingly, it is not envisaged that new build sports facilities will include internal ramps.

#### 1.9 Handrails

#### Overview

The provision of well designed handrails greatly assists ambulant disabled people and blind or partially sighted people to ascend and descend stairs.

#### **RECOMMENDED STANDARDS**

- Handrails should be provided wherever a change of level occurs on each side of a ramp or stair flight.
- Contrast in colour and luminance with its surroundings.
- A handrail should be at a height of between 900mm and 1000mm from the pitch line of a flight of steps and between 900mm and 1100mm from the surface of the landing.
- The handrail should extend 300mm
  horizontally beyond the top and bottom of
  the first and last step. The handrail should
  be terminated in a way that will reduce the
  risk of clothing being caught. For example,
  by terminating the handrail at floor or
  ground level.
- A flight of steps or stairs that consist of two or more risers should be provided with a continuous handrail on both sides.
- If the stairway consists of more than two flights connected by a landing the handrail should run continuously through the landing area.
- The handrail design should incorporate the following features: Be oval or circular in shape and be easy and comfortable to grip.
- A circular handrail should have a diameter of 40-50mm.
- An oval handrail should have dimensions of 50mm wide and 38mm deep with a radius of at least 15mm.
- There should be a clearance of between 50mm and 60mm between a handrail and any adjacent wall or obstacle.
- To aid visually impaired people a tactile hazard warning should be incorporated into handrails at the top and bottom of stairs\*.
- This can be achieved by placing tactile markers on the underside of each handrail, as described below.
  - \* 3 steps from top / bottom of stairs: 3 tactile markers placed on underside of handrail

- \* 2 steps from top / bottom: 2 tactile markers placed on underside of handrail.
- \* 1 step from top / bottom: 1 tactile marker placed on underside of handrail.

Note: A tactile marker simply consists of a small strip of 'sticky backed' embossed plastic or similar material.

# SANITARY PROVISION, CHANGING & SHOWER FACILITIES

The lack of good quality toilet, changing and shower facilities in many existing sports facilities presents a significant barrier to the participation of people with disabilities in sport. The establishment of sports centres and facilities which provide good quality accessible facilities of a more inclusive design and which also offer a greater degree of choice will undoubtedly be more attractive to people with disabilities.

Any larger building where the public have access in numbers or where visitors might be expected to spend longer periods of time is a suitable venue for a 'Changing Places' facility. A Changing Places (CP) facility is a combined toilet, changing and shower room for use by people with complex and multiple disabilities which includes an adult sized changing bench and hoist.

#### 1.10 Sanitary Provision

#### Overview

As many people with disabilities do not require all of the facilities provided by a wheelchair accessible WC, the recommendations below focus on the development of toilet blocks of a more inclusive design which can accommodate most people with disabilities combined with the provision of additional stand alone unisex wheelchair accessible units for use by those with higher levels of impairment.

#### **RECOMMENDED STANDARDS**

#### 1.10.1 Inclusive Toilet Blocks

Wherever a general block of male and female toilets is provided they should be designed to be inclusive of both people with disabilities and non-disabled people. This can be achieved by incorporating the following features into each male and female toilet block:

A Wheelchair Accessible Corner WC Cubicle:
 The required specification is provided in section 12.6.3.1 BS8300:2009. The specification for the cubicle door should be increased to a minimum clear opening width of 1000mm.

Note: A wheelchair accessible corner WC cubicle is not required in sports club houses/pavilions.

- An Ambulant WC Cubicle designed to be inclusive of ambulant disabled people.
   Detail is provided in Section 12.6.3.3 of BS8300:2009.
- At least One 'Ambulant' Urinal (Male Toilet Blocks only): Detail is provided in Section 12.6.4 of BS8300:2009.
- At Least One 'Ambulant' Wash Hand Basin:
   Detail is provided in Section 12.6.5.2 of
   BS8300:2009. Note: It is recommended that dimensions 'B' (for both wheelchair users and ambulant disabled people) should be used.
- 1.10.2 Unisex Wheelchair Accessible WC Unit In addition to the provision of inclusive toilet blocks, one separate unisex accessible WC should be provided for people with disabilities who may require assistance from someone of the opposite sex. This WC unit should be located in the outside of but as close to each general male/female block of toilets. The required specification for

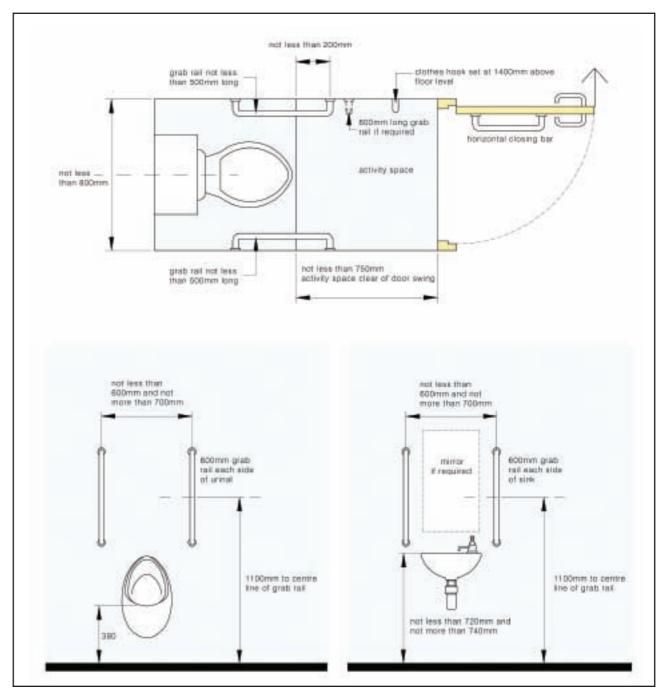


Figure 7 - Ambulant WC Cubicle, Urinal & Wash Hand Basin

wheelchair accessible unisex sanitary accommodation is provided in Diagram 6.1 of Technical Booklet R (The Building Regulations (Northern Ireland) 2000). However, with the exception of club houses and pavilions, the specification for the door should be increased to a minimum clear opening width of 1000mm.

#### 1.10.3 Additional Sanitary Provision -Unisex Accessible Peninsular WC for Assisted Use

This WC unit should be located outside of

but as close to each general male/female block of toilets. The required specification for a unisex accessible peninsular WC is provided in Section 12.6.3.2 of BS83600:2009. However, with the exception of club houses and pavilions, the specification for the door should be increased to a minimum clear opening width of 1000mm. A single unisex accessible WC with a peninsular layout should not be provided as a substitute for two separate unisex accessible WCs with handed corner layouts but as an additional facility.

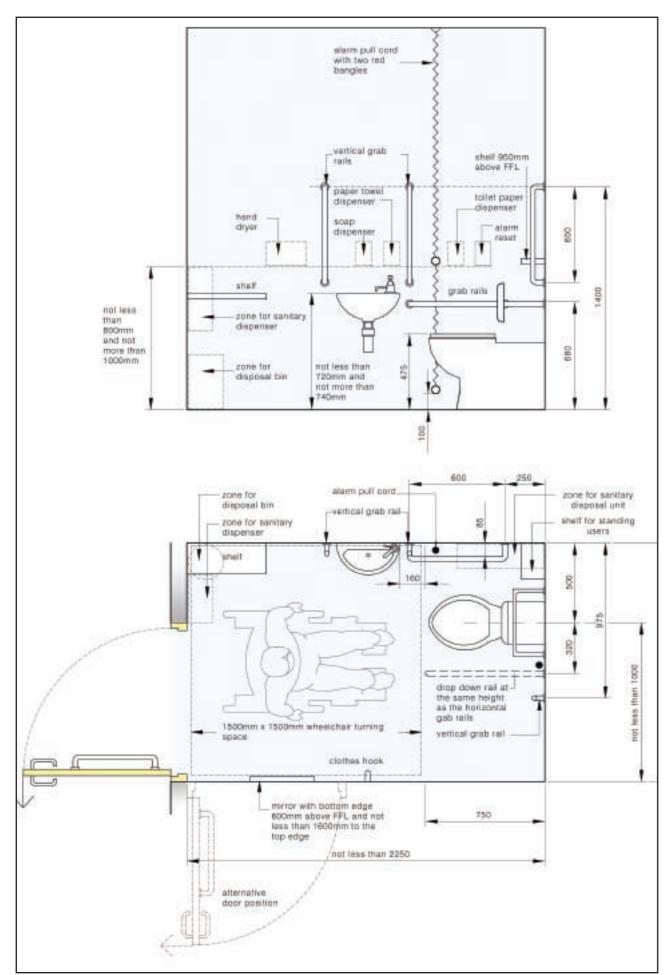


Figure 8 - Unisex Wheelchair Accessible WC Unit

#### Changing Places (CP) facility:

In larger sports facilities and stadia consideration should be given to the addition of a CP facility. CP facilities require extended space to accommodate disabled people, often with large complex wheelchairs with elevated leg rests, a reclining facility or integral oxygen cylinders and space to fit slings for use with a hoist. It also needs to be possible for a wheelchair to be parked within the facility when not in use without compromising the safe access and use of the equipment. As CP facilities are not designed

for the use of independent wheelchair users or to be used as baby changing facilities, it is desirable for facility providers to indicate the location of the nearest unisex accessible WC and the nearest baby changing facility. Design specification is detailed in Section 12.7 of BS8300:2009. Further advice on the design and installation of CP facilities, including a suitable logo to identify such facilities, can be obtained by contacting the Changing Places Consortium -

www.changing-places.org

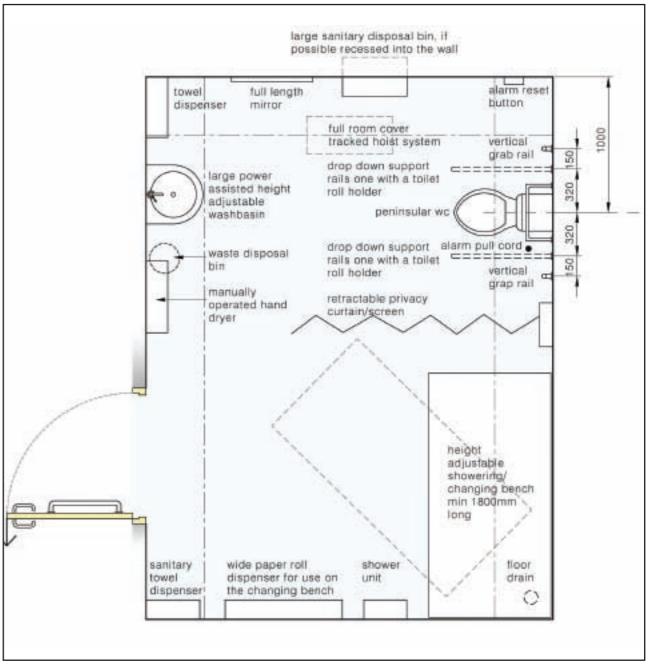


Figure 9 - Changing Places Facility

#### **Baby Changing Facilities**

Where appropriate, wheelchair accessible baby changing facilities should be provided.

Important Note: Baby Changing Facilities should not be located within accessible toilets.



Changing Places

#### 1.11 Changing Areas

#### Overview

All changing and shower areas should be of an inclusive design so that they can be fully used by everyone including people with disabilities. In addition to one incorporated changing space in any communal changing area, all sports facilities must also provide at least one individual unisex accessible changing room complete with a shower and a toilet. Alternative provision, as specified at the end of Section 1.11 A, is acceptable when the facility serves a single natural turf pitch.

#### **RECOMMENDED STANDARDS**

Inclusive changing areas should contain a combination of three types of changing provision as specified below.

A. Main Inclusive Changing Area: designed to be as inclusive as possible. A communal changing facility shall have not less than one wheelchair accessible incorporated changing facility.

#### General

- Toilet provision must be provided in close proximity to the changing area and must meet the specification outlined in Section 1.10 'Sanitary Provision'.
- All doors must meet the minimum specification as outlined in Section 1.5 'Internal Doors'.
- Floor finishes must be slip resistant as specified in Section 1.22 'Internal Floor Finishes & Court Markings'.
- A minimum 1500mm x 1500mm manoeuvring space is required throughout the changing area. Where appropriate this should be increased to a 2000mm x 2000mm clear manoeuvring space to facilitate users of sports wheelchairs.
- There must be a level threshold between the changing and shower areas.

#### **Benches**

 Benches to be set at height of 450mm and have a minimum depth of 500mm. For incorporated changing spaces, a bench 2000mm in length and 650mm in depth must be provided.

#### Coat Hooks

 Alternate coat hooks should be located 1050mm and 1400mm above floor level to facilitate wheelchair users and children.

#### Lockers

- Some lockers to be set at a range of heights to accommodate a range of users.
- 10% of lockers should be at least 1200mm high to facilitate the storage of mobility aids and artificial limbs etc.
- Locks for lockers should be located no higher than 1150mm and be easy to use one handed by a person of limited strength or dexterity.
- Lockers should be fitted with tactile numbers.

#### Equipment

 Plastic shower chairs should be provided for use in showers and wet areas.

#### **Grooming Areas**

 Grooming area with mirror and hairdryer accessible to wheelchair users. For universal use, the hairdryer controls should be set at a maximum of 1100mm above floor level.

#### Sports Facility with a Single Natural Turf Pitch

Where a sports facility serves one natural turf pitch only, a unisex accessible changing/shower/WC room, as referred to at Section 1.11 C, may be provided within the facility and close to the main changing area as an alternative to the incorporated changing/shower space in the main communal changing area.

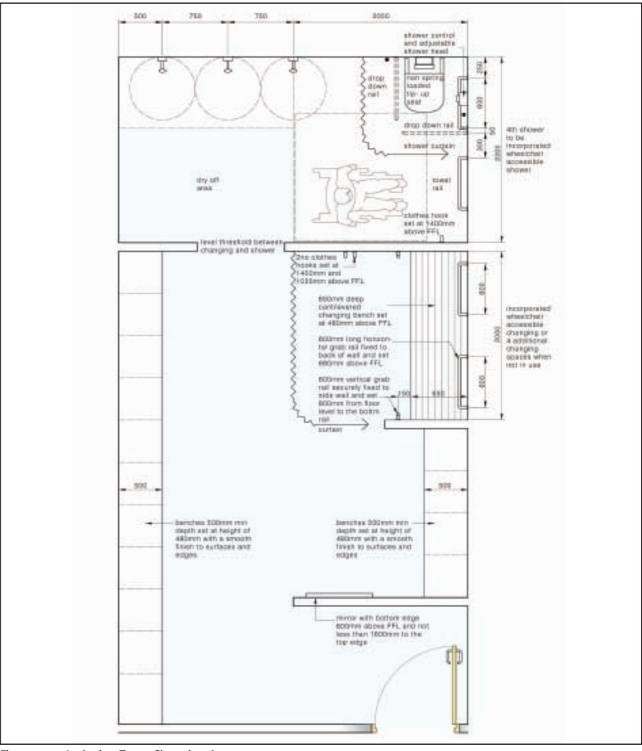


Figure 10 - Inclusive Team Changing Area

# B. Accessible Changing Cubicles/Family Changing Cubicles: Where changing cubicles are provided, accessible units which can also be used as family changing cubicles should be provided. At least one wheelchair accessible cubicle should be provided. In larger facilities, at least one wheelchair accessible cubicle or 8% of the total number of cubicles (whichever is greater) should be provided. Each cubicle should have minimum dimensions of 2000mm x 2000mm and meet the minimum door dimensions specified in Section 1.5 'Internal Doors' of these guidelines.

C. Unisex Accessible Changing/Shower/WC Rooms: A building for sports facilities should have at least one individual unisex accessible changing room in addition to 1 no.

incorporated changing area within a communal block (See Section 11 A for facilities with a single natural turf pitch). Such units are necessary to accommodate people who prefer more privacy or who may need the assistance of someone of the opposite sex. Where changing/shower areas are provided on a single sex basis, these unisex rooms must be located outside but close to the main changing area. A wheelchair accessible changing facility shall, where it is associated with a shower facility, have a fixed storage system for limb storage for the benefit of amputees.

With the exception of sports club houses and pavilions, door specification should be increased to a minimum clear opening width of 1000mm.

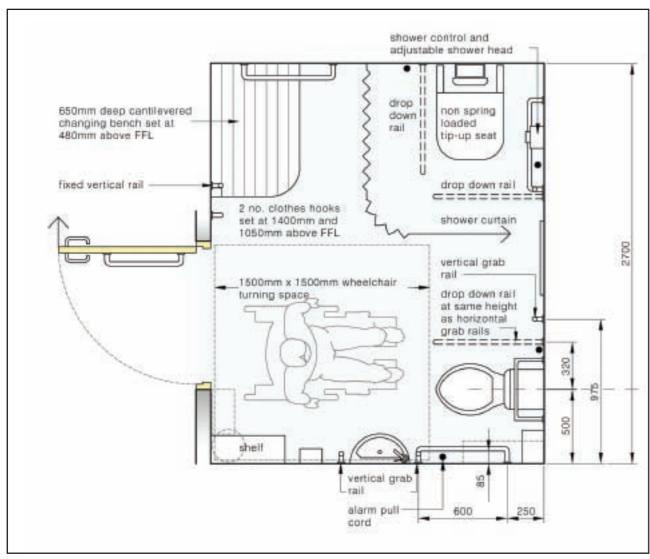


Figure 11 - Unisex Accessible Changing/Shower/WC Room

#### 1.12 Showers

#### Overview

To accommodate a range of people with disabilities and to provide a degree of choice, shower provision should include the provision of accessible showers within the main shower areas as well as the provision of separate unisex accessible changing/shower rooms as described in Section 1.11 'Changing Areas'.

#### **RECOMMENDED STANDARDS**

- All shower rooms must be fully accessible and usable by anyone.
- Floor finishes must be slip resistant.
- Enough room must be allowed to allow a wheelchair user to transfer from a wheelchair to a drop-down shower seat.
- At least one wheelchair accessible incorporated shower facility, fitted with a drop-down seat and appropriate grab rails, should be provided. In larger facilities a minimum of 4 or 8% of total showers, whichever is greatest, is recommended.
- Shower controls must be lever operated and located at an accessible height.
- Shower heads should be located to ensure adequate water distribution for wheelchair users.
- Where there is a shower facility for staff, not less than one individual wheelchair accessible shower room should be provided. However, where it is impracticable to provide an individual wheelchair accessible shower room an incorporated wheelchair accessible shower facility shall be provided.

Unisex Accessible Changing/Shower/WC Rooms: Such units are necessary to accommodate people who prefer more privacy or who may need the assistance of someone of the opposite sex. The required specification for these units is provided in Figure 16, 'Accessible Sports Facilities' Sport

England (2010). However, with the exception

of club houses and pavilions, door specification should be increased to a minimum clear opening width of 1000mm. (See also Section 1.11 C 'Changing Areas' on Page 34).

# OTHER DESIGN ISSUES 1.13 Fitness Suites and Equipment

#### Overview

Although physical access to and from rooms where fitness suites are located will be achieved through the implementation of the recommended standards outlined in other sections of this document, full access to fitness suites can only be achieved if the actual fitness and conditioning equipment provided is also designed to be accessible to a range of people with disabilities.

#### **RECOMMENDED STANDARDS**

All fitness suites should have the range of equipment listed below selected from the IFI (Inclusive Fitness Initiative) accredited equipment list.

- Treadmill
- Upright and/or recumbent cycle
- Upper body ergometer
- Leg curl
- Leg extension/leg press
- Upper body resistance equipment including chest press, row, shoulder press and lat pull-down or equivalent upper body multistation.
- A range of small equipment:
  - \* Rubber dumbbells 0.5kg, 1kg, 2kg, 3kg, 4kg pairs
  - \* Soft grip dumbbells (with handstrap) 0.5kg, 1kg pairs
  - \* Pilates bands Light, Medium & Heavy
  - \* Resistance tubes Light, Medium & Heavy
  - \* Wrist weights 0.5kg, 1kg pairs
  - \* Ankle weights 1kg, 2kg pairs
  - \* Gym ball stabiliser
  - \* Stability disc



IFI Accredited Fitness Equipment at Lakeland Forum, Enniskillen

- \* Grip strengtheners / balls
- \* Adapted / Core stabiliser resistance tube - Light, Medium & Heavy
- \* Pilates ring

# 1.14 Spectator / Viewing Facilities Overview

Where provision is made for spectating at a sports facility, people with disabilities should be provided with a choice of accessible viewing areas within the spectator seating

area. These areas must be of an appropriate viewing quality to give all spectators a suitable range of viewing options.

#### **RECOMMENDED STANDARDS**

## 1.14.1 Provision for Wheelchair Users

Where there is fixed spectator seating in a sports facility, provision should be made for a number of wheelchair accessible spaces as follows:

Seating Capacity	No. of Permanent Wheelchair Spaces To Be Provided	
Under 10,000	6 spaces or 1% of seating capacity whichever is greatest	
10,001 <sup>4</sup> -20,000 100, plus 5 per 1000 (or part thereof) above 10,00		
20,001-40,000	150, plus 3 per 1000 (or part thereof) above 20,000	
More than 40,000	210, plus 2 per 1000 (or part thereof) above 40,000	

<sup>&</sup>lt;sup>4</sup> The NI Guide to Safety at Sports Grounds recommends that the term 'a large stadium' applies to any newly constructed sports ground with a seated capacity of 10,000 or more.

- Wheelchair spaces must be level and be a minimum of 900mm x 1400mm.
- Wheelchair spaces should be provided in a range of single and double wheelchair spaces with a standard spectator seat to at least one side of each space or group of spaces. In this way wheelchair users can sit next to seated companions.
- Suitable space for assistance dogs to rest adjacent to their owners.
- Where the spectator seating has arm rests, the seats at the end of each row and the seats adjacent to wheelchair spaces must have fold-up or detachable arm rests.
- Wheelchair spaces must be distributed throughout the seating area in such a way as to give a range of views.
- The positioning and level of wheelchair spaces should be designed in such a way that the views of both the wheelchair user and seated spectators behind the wheelchair user are not restricted.
- Viewing areas are to have an accessible toilet within 40m.
- At outdoor facilities wheelchair spaces should be positioned in areas that provide shelter.
- Consideration should be given to the provision of wheelchair storage space within reasonable distance of spectator viewing for those who prefer to transfer from their wheelchairs to a seat.

# 1.14.2 Provision for Wheelchair Users in Standing Terraces

A minimum of one wheelchair space for every 250 of the capacity of the newly constructed standing terraces should be provided for wheelchair spectators and their companions. These areas should be accessible with the minimum of assistance.

Where appropriate, wheelchair spaces should be available in both home and away areas of spectator accommodation.

#### 1.14.3 Provision for Ambulant Disabled People and People with Sensory Disabilities.

- To facilitate people with disabilities, who experience difficulties in negotiating changes in level, the seats for ambulant disabled people should be dispersed throughout the most easily accessible parts of the spectating area.
- Any stepped gangway, to stepped terrace audience seating, should have a suitable means of providing support to people who have physical difficulty in negotiating changes of level.
- Some seats are to be located so that an assistance/guide dog can accompany its owner and rest in front of or under the seat.
- To improve the ability of deaf or hard of hearing people to hear the public address system a hearing enhancement system (induction loop or infrared system) should be provided as described in Section 1.17 'Hearing Enhancement Systems'.
- Similarly, to improve the safety and enjoyment of deaf or hard of hearing people, announcements on the public address system should be supplemented by the presentation of clear visual information on electronic scoreboards and/or video screens.
- Consideration should be given to the provision of a portable headphone system to relay event commentaries to blind and partially sighted people in larger stadia.

More detailed advice on seating dimensions seating layouts, the provision of 'super risers', sightlines and acceptable viewing standards are provided in, 'Accessible Stadia' (refer to bibliography), Section 11.3 'Audience Seating' in BS8300:2009 and Section 13.7.2 in BS8300:2009.

#### 1.15 Outlets, Switches and Controls

#### Overview

In order to facilitate wheelchair users and other people with disabilities the location, type and height of outlets, switches and controls must meet existing Building Regulations as described in paragraphs 5.31 to 5.38 of the Technical Booklet for Part R of the Building Regulations (Northern Ireland) 2000 (August 2006 edition).

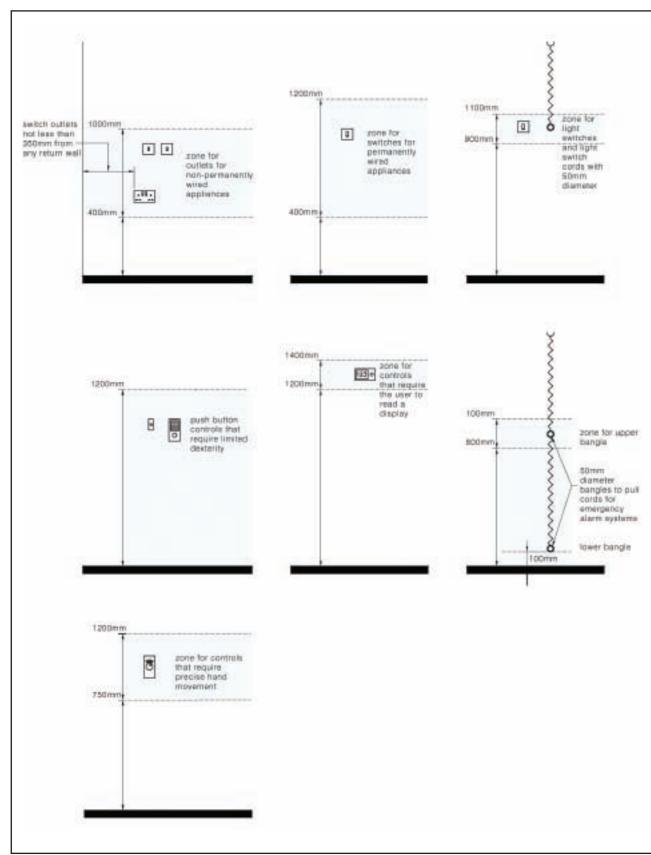


Figure 12 - Outlets, Switches & Controls

#### RECOMMENDED STANDARDS

A summary of the regulations is provided below:

# 1.15.1 Outlets For Non Permanently Wired Appliances (e.g. socket outlets, telephone outlets etc)

- Outlets should be located within horizontal reach between 400mm and 1000mm above floor level. However, this does not apply to outlets set in flush mounted floor boxes in open plan areas.
- Socket outlets should be located not less than 350mm from any return wall.

#### 1.15.2 Switches and Controls

- All switch and control face plates should contrast visually against their background to aid visually impaired people.
- A switched outlet must clearly indicate when it is in the 'on' position.
- Switches and controls must be located within horizontal reach and depending on the type of switch/control must be located within the height range specified below.

Switches and controls for permanently wired appliances: must be located between 400mm and 1200mm above floor level. However, where the appliance design requires a higher switch this range can increase to a maximum of 1400mm above floor level.

Switches for artificial lighting: must be located between 900mm and 1100mm above floor level. If the switch or control is to be used by customers or visitors it must be of a large push pad type.

Controls that require precise hand movement: (e.g. ventilation controller) must be located between 750mm and 1200mm above floor level.

Controls that are operated using push buttons that require limited dexterity: (e.g. a doorbell, entry phone etc) must be located not more than 1200mm above floor level.

Controls that require a user to read a display or setting: (e.g. thermostat) must be located between 1200mm and 1400mm above floor level.

Controls for power operated doors: must be located between 750mm and 1000mm above the floor level.

A light cord pull switch: should have a 50mm diameter bangle attached at a height between 900mm and not more than 1100mm above floor level. The bangle should be distinguishable through suitable visual contrast, from the background against which it is seen. The pull cord and the bangle should be distinguishable visually from any emergency assistance alarm pull cord.

Emergency assistance alarms: should have a red coloured pull cord with two red coloured 50mm diameter bangles. The lower bangle should be set at a height of 100mm above floor level and the upper bangle should be located not less than 800mm and not more than 1000mm above floor level.

#### 1.16 Signage

#### Overview

Good signage is essential to assist people with disabilities to successfully navigate around sports facilities. 'There are four basic principles in sign design: signs should be used only when necessary; sign location should be part of the process of planning the building and the environment; messages should be short, simple and easily understood; and signs should be consistent, using prescribed typefaces, colours and contrast<sup>5</sup>'.

<sup>&</sup>lt;sup>5</sup> June Fraser, Sign Design Society



Signage at The Grove Wellbeing Centre, Belfast

Language

- Use simple wording in 'plain English' and / or pictograms.
- Wherever possible universally recognised symbols should be used to replace text where space permits, symbols should be at least 100mm in overall height.

#### Text

 Sentences or single word messages should begin with an upper case letter and continue with lower case.

- Words consisting totally of upper case letters should be avoided. Exceptions to this guideline are traditional, customary or specific words required by legislation and written in capital letters, e.g. EXIT.
- A simple font such as Arial or Helvetica should be used.
- To aid partially sighted people lettering and numbers should reflect the guidance specified in the table below:

#### **Recommended Lettering and Numbering Heights**

Viewing Distance	Type of Sign	x-height (lower case letter)
Long distance	Signs seen when approaching a building (e.g. building entrances)	150mm min.
Medium distance	Directional signs (e.g. identification signs in reception areas or directional signs in corridors)	50mm - 100mm
Short distance	Room signs	15mm - 25mm

#### Materials

 To aid reading, signs should be made out of non reflective matt-finished materials.

#### Colour and Contrast

- Signboards should be in a colour that is well contrasted with the background on which it is mounted.
- The text or pictogram should contrast with the signboard.



Signage at The Torrent Complex, Donaghmore -Sport Northern Ireland Capital Funded Project

#### **Embossed Signs**

- When signs are within reach of the user embossed signs that can be read by touch will be useful to many partially sighted people.
- The depth of embossing should be a minimum of 1mm and the edges should be rounded.
- The height of text on embossed signs should be between 15mm and 25mm.
- Standard pictograms such as those used on toilets should also be embossed.

#### Braille

• Grade 1 Braille should be used for single word or short multiple word signs.

 Grade 2 contracted Braille should be used to reduce the length of signs incorporating a paragraph of text.

#### **Positioning**

- Signs should be in prominent positions and should be located in logical, consistent positions where you would expect to find them, for example at junctions of circulation routes.
- They should be mounted at or just below eye level (1400mm 1700mm).

#### Lighting

 Signs should be well illuminated and care must be taken that there are no bright lights behind, which may dazzle the viewer.

#### **Audible Signs**

• In very large sports buildings consideration should also be given to the provision of audible signs to assist blind or partially sighted people. More information on these is available at www.rnib.org.uk

More detailed advice and guidance on the design and provision of signs is available in the Sign Design Guide<sup>6</sup> published by the RNIB (JMU) and the Sign Design Society and also from Section 9.2 of BS 8300: 2009.

## 1.17 Hearing Enhancement Systems Overview

People who are deaf or hard of hearing often find it more difficult to hear in sports facilities. This is usually because of a combination of poor room acoustics and the presence of background noise.

These problems can be alleviated through the provision of hearing enhancement systems like induction loops and infrared systems which reduce the effect of background noise so that people who are deaf or hard of hearing can hear sound more clearly.

<sup>&</sup>lt;sup>6</sup> Parker, P & Fraser, J (2000); Sign Design Guide. A guide to inclusive signage. JMU and the Sign Design Society.



Induction loop availability at the University of Ulster Sports Centre, Jordanstown

An induction loop or infrared system should be provided in the following areas:

- Reception counters and information points

   where the visitor or customer is
   separated from the vendor by a glazed
   screen; or that is subject to the risk of excessive extraneous noise.
- Key meeting rooms.
- Rooms or venues used for spectating with a permanent or temporary public address system.

The most suitable system(s) will depend on the size and type of the facility, the degree of privacy required and an assessment of potential interference to the system from electrical equipment and wiring.

In smaller facilities a portable induction loop system which can be used in a number of different rooms may be suitable.

The provision of an induction loop or infrared system should be indicated to the public by the display of an appropriate sign. A RNID fact sheet on the provision of loops and infrared systems in public venues can be downloaded from -

www.rnid.org.uk/information\_resources /factsheets

#### 1.18 Alarm Systems

#### Overview

A fire / evacuation alarm system which can also alert people who are deaf or hard of hearing of possible danger should be installed in all sports facilities. The current Building Regulations guidance is set out in Technical Booklet E, 'Fire Safety'. The current code of practice for fire safety in the design, management and use of buildings is BSI British Standards BS9999:2008.

#### **RECOMMENDED STANDARDS**

A fire alarm system incorporating flashing beacons should be installed in all sports facilities. Beacons should be provided in all areas where deaf or hard of hearing people might find themselves alone and unaware that an emergency alarm has sounded. As a minimum beacons should be provided in the following areas:

- \* Main circulation routes.
- \* Changing rooms.
- \* Enclosed single person spaces.
- \* Areas with high noise levels (ambient noise levels exceeding 90dB (A) - BS 5839 Pt 1).
- \* The flashing beacons used must be designed not to stimulate photosensitive epilepsy.

#### 1.19 Public Telephones

#### Overview

Access to public telephones is equally, if not more, important to people with disabilities than to non-disabled people and should be provided to the standards specified below:

#### **RECOMMENDED STANDARDS**

- Where public telephones are provided at least one public telephone must be provided in or close to the reception area to facilitate the organisation of lifts and taxis etc.
- The telephone must be fitted with an induction coupler to enable people with hearing aids to use it. This feature should be identified by use of the appropriate symbol.
- The telephone must be mounted at a height of between 700mm and 1000mm above ground level to facilitate wheelchair users.
- Where more than one telephone is provided they should be positioned at different heights to facilitate ambulant disabled people and wheelchair users.

#### 1.20 Lighting

#### Overview

Good lighting is crucially important in ensuring partially sighted people can use buildings effectively and safely. Poor lighting design can cause excessive reflection, glare and shadows on floors and other surfaces which may present a hazard to partially sighted people. Good lighting design can be achieved by controlling the location, quality

and quantity of natural and artificial light within a building.

#### **RECOMMENDED STANDARDS**

- Both natural and artificial lighting should be controlled to avoid the creation of glare, pools of bright light and strong shadows.
- Artificial lighting should be designed to provide good colour rendering on all surfaces.
- Artificial lighting should be designed to ensure adequate lighting in all areas are in accordance with the lux levels recommended in 'The Code of Lighting, Society of Light and Lighting' (SLL) (2006).
- Steps and stairs should be well illuminated by means of artificial lighting. Illuminance at tread level should be at least 100 lux.
- Uplighters located at a floor or low level should be avoided as they may cause glare which can obscure vision.
- Where used, downlighters should be carefully located so that they do not create strong shadows.
- The illumination of floor surfaces should be as uniform as possible minimising the potential for shadows, reflection or glare.
- In areas where one to one communication is important, for example in reception areas, lighting should illuminate the face of the person speaking (e.g. the receptionist) in order to aid lip-reading.
- Fluorescent lights may cause a 'humming' noise that can be heard in hearing aids.
   This should be minimised by using high frequency fittings.

#### 1.21 Visual Contrast

#### Overview

Achieving visual contrast between floor, wall, door and ceiling surfaces will greatly enhance many partially sighted people's ability to navigate around buildings independently. Visual contrast can be achieved through the appropriate use of colour, luminance (brightness) and texture as specified below:

- The use of finishes that contrast with each other in colour, luminance and texture should be used to differentiate between floors, walls, doors and ceilings.
- The colour and luminance of walls should be different from that of the ceiling and the floor.
- All doors and their frames should contrast in colour with the surrounding wall.
- Skirting boards should contrast visually with the floor finish but may match or be similar in colour and tone to the wall surface.
- Corridor ends should be finished with a contrasting colour to denote changes in direction.
- Outlets, switches and controls should be easily distinguishable from the surrounding wall using colour, luminance and textural contrast.
- Shiny or high gloss finishes should be avoided as reflections and glare caused by these finishes can confuse partially sighted people.
- Wherever possible, the colour, texture and colour contrast of floor surfaces should be used to aid the definition of spaces or to assist way finding within the building. (See Section 1.22 of this document for guidance on the design of Internal Floor Finishes).

Important Note: In the past, a lack of detailed information and guidance on how to achieve 'appropriate' levels of visual contrast have meant that designers have attempted to resolve the issue by either crudely maximizing the colour and luminance contrast between different objects or alternatively by covering walls with coarse high contrast patterns. Both of these approaches often resulted in an environment which was unacceptable to both designers and fully sighted users.

However, following research into the issue by the Rainbow Project at the University of Reading, detailed guidance on how to achieve 'appropriate' levels of visual contrast in buildings is now available in the form of a design guide. A copy of the design guide can be purchased from the University of Reading website at:

#### www.rdg.ac.uk/ie/research

# 1.22 Internal Floor Finishes & Court Markings

#### Overview

Well designed floor finishes which facilitate the safe and easy use of buildings by people with disabilities, particularly by wheelchair users, 'ambulant disabled' people and blind and partially sighted people is crucially important.

#### **RECOMMENDED STANDARDS**

- Flooring must be firmly fixed to ensure safe use by wheelchair users and 'ambulant disabled' people.
- Flooring must be slip resistant providing a firm foothold and good wheel grip. It is recommended that level dry floors should have a minimum Slip Resistance Value (SRV) of 40.
- In areas that may become wet such as entrances, changing and shower areas and pool side areas anti-slip flooring should be used. This flooring should have a minimum SRV of 65.
- High gloss floor finishes should be avoided as they cause glare and may be perceived as being wet and slippery even when they have a slip resistant surface.
- Where used, carpets must have a shallow dense non-directional pile that will not restrict the movement of wheelchair users or present a tripping hazard to people using crutches, walking sticks or frames.

- Where mat wells are used the surface of the mat should be flush and level with the surrounding surface.
- Wherever possible, changes in floor colour should be used to help identify a potential hazard, such as changes in level or glass screens.
- Wherever possible, the colour, texture and colour contrast of floor surfaces should be used to aid the definition of spaces or to assist way finding within the building.
- Floor patterning that could be mistaken for steps, e.g. stripes, should not be used for floors in corridors.

- Floor finishes that facilitate competitive wheelchair sports (See Section 2).
- Where courts are being marked out for a range of sports floor markings should include at least one Boccia court (See Section 2.2 Boccia).

More detailed information and guidance on the use of internal floor finishes is available from the following publication: Centre for Accessible Environments (2006); Internal Floor Finishes. Specifiers' Handbooks for Inclusive Design. Riba Publishing.



Boccia court markings in the Sports Hall - Lakeland Forum, Enniskillen

<sup>&</sup>lt;sup>7</sup> Bright, K, Cook, G, Harris, J; (2004) Colour, Contrast and Perception. Design Guidance for Internal Built Environments

#### 1.23 Acoustics

#### Overview

Buildings with poor acoustics will have a negative impact on communications and way finding for some people with disabilities. Rooms and spaces which are particularly reverberant for example or which have high levels of background noise will make spoken communication difficult particularly for deaf or hard of hearing people. Similarly, poor acoustics will be detrimental to some partially sighted people who use hearing to help them navigate around buildings. To ensure good acoustics in buildings which will assist communication and wayfinding, the following standards should be implemented.

#### **RECOMMENDED STANDARDS**

- When hard materials such as stone, ceramic tiles, metal, glass and timber are used they will reflect sound back into the room increasing noise levels and causing echo and reverberation. Accordingly, when hard materials are used for a particular surface in a room soft materials should be used for other surfaces to minimise reverberation.
- Rooms and spaces should be designed with some sound-absorbent finishes which will minimise reverberation and background noise.
- It is particularly important to minimise reverberation and background noise in reception areas.
- The recommendations on achieving good acoustic design provided in BS 8233:1999 'Sound Insulation and Noise Reduction for Buildings', should be followed wherever possible. It should be noted that this standard covers room acoustics for simple situations but not the design of buildings where the acoustics are critical, such as auditoria.

#### 1.24 Assistance Dog Facilities

#### Overview

While assistance dogs are commonly associated with a 'guide dog' for blind and partially sighted people, they can also be used as 'hearing dogs' by deaf people and as 'service dogs' by people with physical disabilities. Assistance dogs not only provide a specific service to their owners but also greatly enhance their ability to lead a more independent lifestyle.

#### **RECOMMENDED STANDARDS**

Consideration should be given to the designation of one 'dog spending facility' in reasonable proximity of the venue and entrance. A spending facility is a sectioned area where a guide dog and other assistance dogs can relieve themselves.

- They should be a secure area of minimum 3m x 4m with a boundary fence / wall at a minimum height of 1200mm.
- 50% grass surface and 50% hard standing.
   A sign saying 'For Guide Dogs and
   Assistance Dogs Only' should be clearly displayed.
- Slight gradient to assist drainage.
- Entrance gate to be accessible to wheelchair users and have a minimum area of 1500mm x 1500mm to allow wheelchair to turn round.
- A water supply and hose should be provided.

Appropriate internal provision, agreed with the guide dog owner, should also be considered to accommodate a safe and secure rest space for the dogs when it is not possible for the participants to take their assistance dogs with them (e.g. swimming). More detailed information and guidance is available in The Guide Dogs for the Blind Association (Guide Dogs) publication 'Guidance on the Provision of Spending Facilities for Guide Dogs and other Assistance Dogs'.

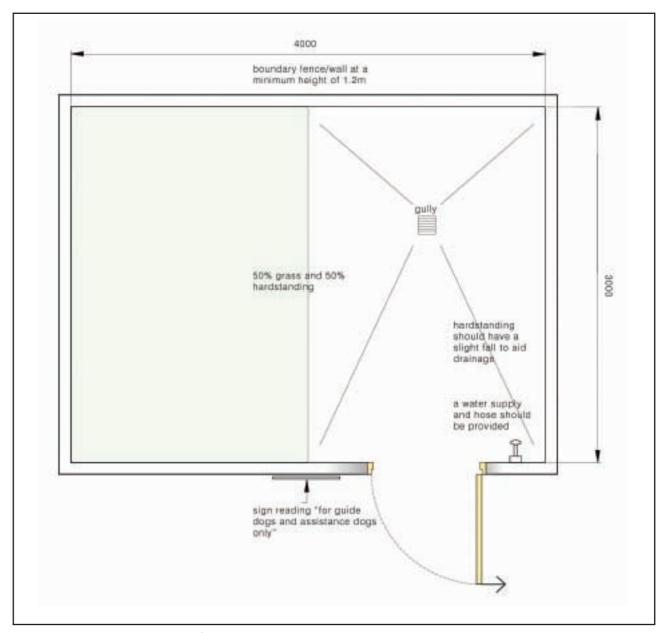


Figure 13 - Assistance Dog Spending Area

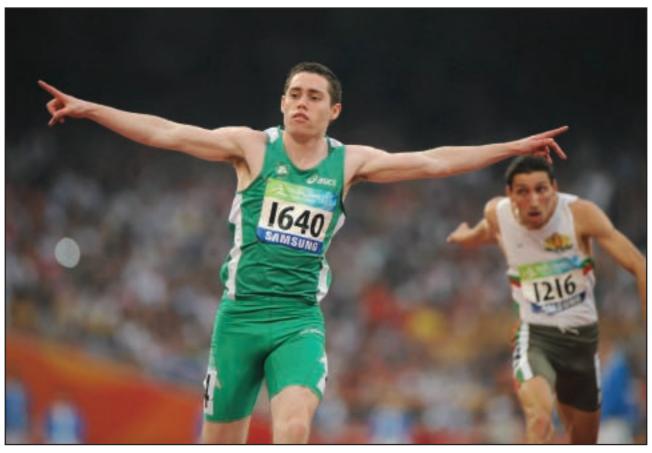
# Section 2: Sports Specific Technical Guidelines

#### 2.1 Athletics

#### Overview

Athletics is open to a range of people with disabilities including partially sighted people, people with cerebral palsy, amputees and les

autres and wheelchair users. Track events include all Olympic distances while field comprises of shot put, discus, javelin, club throwing (for severely disabled athletes) pentathlon, long, high and triple jump.



Jason Smyth (Classification T13 – Partially Sighted Athlete) winning Gold at the Beijing Paralympic Games 2008

#### **General Requirements**

Indoor and outdoor facilities should meet International Association of Athletics Federation (IAAF) specifications.

# Specific Disability Requirements Equipment

Throws provision must provide wheelchair anchoring facilities for disabled throwers.

Athlete classification will affect the weight of

shot put, javelin and discuss used in training and competition. The following weights in each discipline are included in Paralympic events and should be available at the facility. See table below.

#### Storage

Lockable storage room to be provided to secure athletes track and racing chairs and any other additional equipment.

Shot Put	2kg, 3kg, 4kg, 5kg, 6kg and 7.26kg
Discus	0.75kg, 1kg, 1.5kg and 2kg
Javelin	600g and 800g
Club (for athletes with severe physical disability)	397g

#### Classification Area and Rooms

IPC (International Paralympic Committee) Athletics Classification Handbook requests a waiting area for athletes and athlete representatives, reception desk for administrative staff and four classification rooms in order to meet the requirements of Paralympic events. Each room should contain an examination table which can be adjusted in height, desk and at least 4 chairs. Three of the rooms should be of equal size with larger room for approximately 10m x 20m required to allow for functional testing. The floor surface of the larger room should be suitable for wheeling, running, jumping, stretching and running on the spot and other gross motor activities. Facilities for classifiers to wash their hands in between examinations should also be provided. Indoor throwing equipment is required,

including indoor shot, discus, medicine balls, boccia balls and football. For a training facility and/or regional events one fully equipped 10m x 20m classification room would be adequate.

For further information contact www.ipc-athletics.org

#### 2.2 Boccia

#### Overview

Boccia is played indoors in a sports hall environment and is a game of precision where the aim is to throw, kick or use an assistive device to propel leather balls from a seated position as close as possible to a white ball that acts as a jack. Men and women compete together in team, pairs or individuals events. Boccia is played at a Paralympic level by athletes with Cerebral Palsy (CP) and severe physical disabilities.



Boccia players competing at the Athens Paralympic Games 2004

#### **General Requirements**

Standard sports hall recommendations should be met.

# Specific Disability Requirements Equipment

Standard competition boccia balls and ramps should be available at the venue for training purposes.

#### **Playing Surface**

A wooden gymnasium floor is recommended by CP-ISRA (International Governing Body for Boccia) however a taraflex surface is also acceptable. It is essential that the surface is flat and smooth.

#### **Court Dimensions**

Each court measures  $12.5 \, \text{m} \times 6 \, \text{m}$ . A minimum of 12 courts is required in order for the facility to be suitable for International competition.

#### Storage

A secure lockable room must be available to store balls and ramps.

#### Classification Area and Rooms

A separate private room with adjustable examination table and at least 4 chairs

should be provided for classification including hand washing facilities nearby for classifiers in between examinations.

Office space should be available for administrative staff to allow for a computerised results system.

Rest areas, separate from the changing area, should be provided for both athletes and officials during training and competition.

#### Lighting

White light is most suitable to avoid reflections and shadows although standard sports hall lighting is also suitable.

#### Ventilation

Controllable heating and air-conditioning is essential.

#### **Background Noise**

Limited, but not silent, background noise.

For further information contact www.cpisra.org contact@cpisra.org

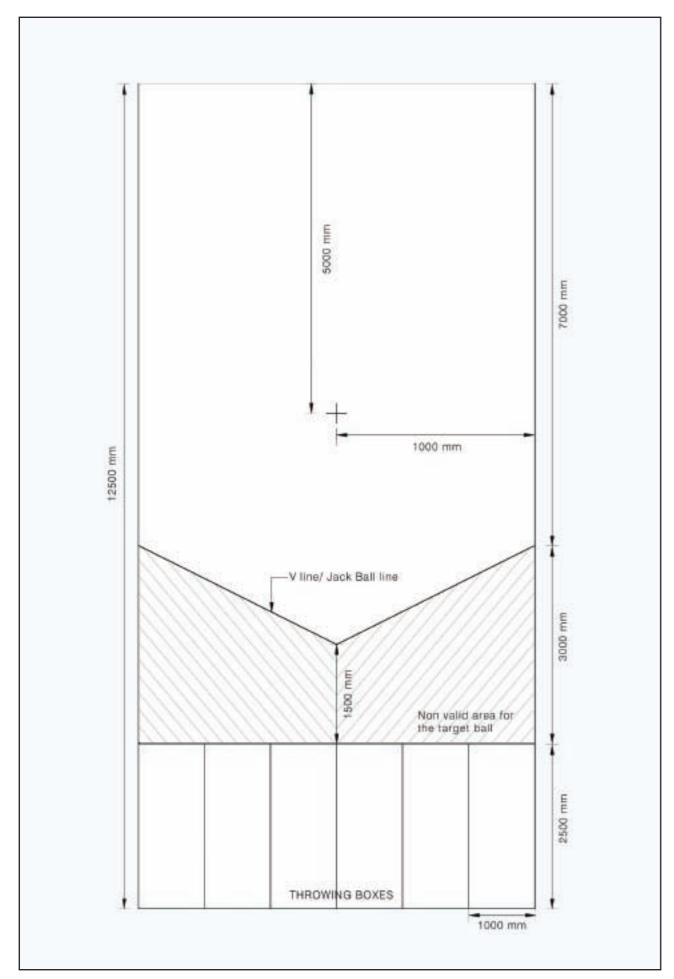


Figure 14 - Boccia Court Layout & Markings

#### 2.3 Cycling

#### Overview

Track and road racing is currently open to cyclists who are blind or partially sighted, amputees, wheelchair users and athletes with cerebral palsy. Depending on their classification, athletes use a bicycle; tricycle; tandem or hand cycle.

#### **General Requirements**

Facilities to meet International Cycling Union (UCI) cycling regulations and specifications.

# Specific Disability Requirements Storage

Adequate storage to be provided for

athletes' equipment with consideration given to additional room needed for tandem cycles.

#### **Classification Room**

A separate private room with adjustable examination table and at least 4 chairs should be provided for classification including hand washing facilities nearby for classifiers in between examinations.

For further information contact www.paralympic.org www.cyclingireland.ie



Member of Cycling Ireland High Performance Squad

#### 2.4 Equestrian

#### Overview

Athletes with physical disabilities and partially sighted athletes compete in freestyle, individual and team dressage events.

#### **General Requirements**

Arena should meet Fédération Equestre Internationale (FEI) specification.

#### **Specific Disability Requirements**

#### Equipment

Scoreboards and notices should be of a size and in a location easily seen by wheelchair users. Conventional scoreboards should be used in addition to any electronic. Mounting blocks and / or ramps should be available during all competition and training and within the stable area.

#### **Arena Requirements**

An athlete's classification will affect the size of the arena which they compete in.

Grade	Arena size
Grade I-III	20m x 40m
Grade IV	20m x 60m

A 20m x 60m enclosed arena is used by partially sighted riders for training. It should be fenced with post and rails about 125cm high and furnished with arena letters.

Arenas should be sited 15 - 20m apart to avoid confusion from commanders.

#### Signage

Any markers used should be at least 1m high with black letters at least 0.8m high on a white background to accommodate partially sighted riders.

#### **Classification Room**

Private examination room to be provided including adjustable examination bed, table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least 4 people. For further information contact

www.paralympic.org www.horsesport.org

Causeway Coast Arena  Funded by the Department for Social Development RDAH Neckmisation Fund Capital Programme	SPORT Ireland
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Equestrian facilities at the RDA Causeway Coast Arena, Coleraine - Sport Northern Ireland Capital Funded Project

#### 2.5 Goalball

#### Overview

Goalball is a 3-a-side game played on a volleyball sized court by blind and partially sighted athletes. The object of the game is to throw the ball into the opponents net using a ball with bells inside to orient the players and indicate the direction of the ball. All competitors wear eye shades/blacked out goggles while they are playing on court allowing varying degrees of vision to participate together.

#### **General Requirements**

Standard sports hall recommendations should be met.

# Specific Disability Requirements Equipment

- Goalposts height 1.3m and length 9m.
   Posts should be made of sectional steel and crossbar should not exceed 0.15m.
- The ball used is a 1250g ball with 8 holes and noise bells with a circumference of approximately 76cm. Specifications as determined by International Blind Sports Association Goalball (IBSA) sub-committee.
- Score board visual scoring system must be maintained.

- 2 clocks (basketball type clocks).
- Substitute boards.
- Benches for team areas.

#### **Space Requirements**

Minimum space requirements for goalball are 21m x 30m and a minimum clear head height of 5m. Goalball court measures 18m x 9m (volleyball court). All court markings must be tactile and formed by covering builders line or cord of 0.003m thickness with sports-line or similar high quality tape. All court markings should be 0.05m in width and are usually of a temporary nature.

#### **Team Area**

The team area is 9m (+/- 0.05m) in depth with its back edge being the goal base line.

#### **Player Orientation Lines**

Two outward position lines are located in the team area 1.50m (+/- .05m) from the team area front limitation line. These lines shall be 1.50m (+/- .05m) in length and run inward from the outside limitation line towards the middle of the team area. The lines shall be on each side of the team area.



Goalball Players in action

Furthermore, two centre position lines shall be included in the team area. These shall be in the middle of the team area running inward from the team area front limitation line and the goal base line, perpendicular to these lines. They shall be 0.50m (+/- .05m) in length. Additionally, there shall be two 0.15 metre lines (+/- .05m) extending perpendicularly towards the goal line 1.50m (+/- .05m) in from the side line on the front limitation line of the team area.

#### **Landing Area**

Immediately adjacent but lying in front of the team area is the landing area. This is an area 9m (+/- .05m) wide by 3m (+/- .05m) in depth.

#### **Neutral Area**

The remaining area between the two landing areas, 6.00m (+/- .05m) in depth, is the neutral area. The neutral area should be

divided into two halves of 3m (+/- .05m) by a CENTRE line in the middle of the neutral area.

#### Line-Out Line

Around the court there should be a non-tactile line 1.5m (+/- 0.05m) from the sidelines and goal lines.

#### **Spectators**

Spectator area should be no closer than 4m from any part of the court.

#### **Background Noise**

Hall should have a reverberation time not exceeding 2 seconds at mid frequency and should be designed to have no background noise to allow players to react.

For further information contact

www.ibsa.es

www.paralympic.org



Figure 15 - Goalball Court Layout



Gymnast in action

#### 2.6 Gymnastics

#### Overview

Gymnastics was previously open to people with learning disabilities at the Paralympics up until 2000 when athletics with learning disabilities were excluded from the Games. Since the exclusion of people with learning disabilities from the Games gymnastics has not been a Paralympic sport.

#### **General Requirements:**

Specifications set by Fédération Internationale de Gymnastique (FIG) should be adhered to.

#### **Specific Disability Requirements:**

As gymnastics is not currently a Paralympic sport there are no specific disability requirements, however full consideration should be given to access requirements to ensure the facility is suitable for any future changes to the sport.

For further information contact www.fig-gymnastics.com

#### 2.7 Rowing

#### Overview

Adaptive rowers compete in 4 Paralympic boat classes: men's arms only single scull (ASM1x); women's arms only single scull (ASW1x); trunk and arms mixed doubles (TA2x) and; legs, trunk and arms mixed coxed 4 (LTA4x). Each class races over a distance of 1000m.

#### **General Requirements**

Fédération Internationale de Societes d'Aviron (FISA) specification areas to be met.

# Specific Disability Requirements Water access

To ensure access to the water a non-slip pontoon of suitable width for wheelchair transfer and of good transfer height (180mm off water level) should be used. Alternatively, a hard shingled accessible slipway to the water is suitable. Although in most cases wheelchair users will already have an established transfer technique hoists should also be available to assist with transfer from land to boat.

# Paralympic Boats Standard Adaptive 4+

The FISA Standard Adaptive 4+ used at the Paralympic Games regatta is a stern-coxed boat. The design and specifications are stipulated by FISA.

#### Standard Adaptive 2x

The FISA Standard Adaptive 2x has a fixed seat and may have stabilising pontoons. The hull, the pontoons where fitted and the seat fixing are part of the Standard specifications. The design and specifications shall be stipulated by FISA.

The seat itself and the rigger design of the standard 2x are not restricted.

The TA2x boat shall have a seat to which the athlete is strapped at the hips to fix the pelvis so that the rower is not able to use the foot stretcher for leverage. The method of strapping shall be of a design which allows immediate release with single hand movement in case of emergency.



Adaptive Rowers in action

#### Standard Adaptive 1x

The FISA Standard Adaptive 1x has a fixed seat and must have stabilising pontoons. The pontoons must be fixed in position so that when the rower is seated in the balanced boat both pontoons shall be horizontal and shall, at a minimum, touch the water. The hull, the pontoons and the seat fixing are part of the Standard specifications. The design and specifications shall be stipulated by FISA. The seat itself and the rigger designs are not restricted.

The seat design and its manner of use must meet the following requirements:

The design of the seat of the A1x is unrestricted except that it must be compatible with the Standard seat fixing. In order to ensure that the arms only aspect of the A1x boat class are fully met, the A1x boat shall have a high seat back to which the athlete is strapped so that only the arms and shoulders can move during rowing. The strap should be at the level of the diaphragm, directly below the nipples or breasts and be tight enough to restrict any trunk movement without causing breathing problems. The method of strapping shall be of a design which allows immediate release with single hand movement in case of emergency.

The minimum weights for Adaptive Boats are:

4 + 51kg

2 x 36kg

1 x 22kg

Boats shall include pontoons where used.

#### Safety Equipment

All adaptive rowers encouraged to wear selfinflating or other flotation device for additional safety. These should be stored in a suitable area which is accessible and within reach of wheelchair users.

#### Safety Boats

Additional safety boats may be required on the course for all adaptive events but particularly A1x events.

#### Classification Room

A separate private room with adjustable examination table and at least 4 chairs should be provided for classification including hand washing facilities nearby for classifiers in between examinations.

# For further information contact www.worldrowing.com www.ara-rowing.org

#### 2.8 Sailing

#### Overview

Athletes compete in three sailing events: The 'Single-Person' and 'Three-Person' Keelboats are open to most disability groups, while the 'Two-Person' Keelboat event is specifically designed for athletes with a severe disability. The sailing classification system is based on four factors: stability, hand function, mobility and vision. The Single-Person and Three-Person disciplines are open to any gender, however the 'Two-Person' discipline requires at least one female within the crew.

The sport is governed by the International Association for Disabled Sailing (IFDS), which closely co-operates with the International Sailing Federation (World Governing Body for Sailing).

# Specific Disability Requirements Space Requirements

 Jetties should be stable and wide enough for two wheelchairs to pass safely.
 Depressions in the surface should be sufficiently narrow to avoid tripping people and jamming wheelchair castors. A raised edge guides partially sighted sailors and reduces the chances of wheelchairs (occupied or otherwise) being 'lost overboard'.

- Avoid wide, unstable bumpers such as rubber tyres as they increase the space between the boat and the jetty and make transfers more difficult.
- Ramps to the jetty should have handrails.
   The surface of the ramp should have transverse strips wide enough to give a good footing for a walker but short enough to allow the wheels of a chair to pass over easily.
- Shore If a boat must be launched from the shore it is essential that a firm, smooth beach is selected for the purpose. Old carpets can be laid over soft or muddy surfaces. Heavy duty rubber matting provides a longer lasting solution.

#### Equipment

The boats utilised for the three events are:

- Single-Person Keelboat 2.4mR
- Two-Person Keelboat SKUD-18 (formerly known as the UD-18)
- Three-Person Keelboat 23ft Sonar

- Adaptations At present, boats widely used are the Paralympic three-person keelboat, the Sonar; the Paralympic single-person keelboat, the 2.4mR, Martin 16, Ideal 18, Access Dinghy, Rhodes 19, Hobie Trapseat and the Freedom. Included are seats, transfer benches, hiking and steering assists; also used on some boats such as the Martin 16 is joystick steering plus electronics for sip and puff.
- Seats allow the sailors to position themselves so they can control the tiller and sheet without fear of falling. These can be as simple as a lawn chair modified to fit a cockpit or as complex as a translating seat which allows a sailor to switch sides. Seats include the lawn chair, wheelchair bases, go-kart seats and other easily adapted seats.
- The transfer bench allows sailors to switch sides when tacking or jibing and can be anything from a sturdy cooler in the middle of the cockpit, a custom cockpit filler to platforms that fill in the cockpit area.



Sailing on the Craigavon Lakes

- Steering devices take many forms, including a collapsing metal tiller, which allows free movement from one side of the boat to another or wheel steering. One steering system uses levers on both sides of the boat. Handholds and bars provide stability for the sailor in the sailing position or in a move from one side to the other. Sheet fine tune and other systems provide assistance to sailors with weakness or poor muscle function; these comply with relevant class and IFDS rules.
- Boat Hook To aid disembarking in adverse wind conditions.

Cushions - Cushions are vital pieces of equipment for sailors with disabilities. They are essential for skin protection for those with no sensation due to paralysis, important for the comfort of someone with limited movement sitting for long periods and useful for someone with lack of trunk stability or in need of support to maintain a particular position e.g. to reach winches or sheets.

- The Jay Protector (JP) is a small pad filled with a patented gel. The pad fits inside a sling which is strapped to the body to protect the sailor's buttocks. The JP provides protection in the wheelchair during transfer on the jetty and in the boat. It is designed to be worn outside protective clothing and will protect waterproofs. Some sailors wear a JP underneath their waterproofs to make sure it is not displaced during manoeuvres.
- A Roho is an inflatable rubber cushion (therefore unaffected by water) with the appearance of an egg box. It provides excellent protection and comfort in the boat. Care must be taken to avoid punctures. It is available in regular and 'active' profiles.
- It is useful to have spare cushions available during transfers to use as 'stepping stones' for sailors who need constant protection. Ordinary foam

wheelchair cushions can be used but they tend to soak up water. Alternatives include: Layers of closed cell foam glued together. Holes drilled through this 'sandwich' prevent water settling on the surface and provide a means of tying the cushion securely to the seat of the boat.

Aids to Transfer - If people with disabilities sail regularly from a fixed venue it may be worth considering permanent aids to transfer. Such aids vary from simple to complex. Lifting puts helpers at risk of injury but if mechanical lifting devices are not simple, at hand and practical, they will not be used.

- A sliding board is useful where the transfer gap is wide and the deck is at a similar height to the seat of the chair.
- A transfer box provides trunk support.
- A webbing loop (2m of 500mm webbing joined end to end) can be passed under the armpits and behind the knees.
- A bosun's chair or medical sling can be used for transfer. It is sometimes simpler to keep the sling around the body while sailing so that it is ready for disembarkation.
- A block & tackle can be rigged on the boom or main halyard and used in conjunction with the above 'suspending' devices.
- A hoist can be installed on a stable dock or floating pontoon. However, this may be unsuitable for a floating pontoon. A hoist is particularly useful if mounted on the outside corner of a dock where it can be used for both the front and side.
- Cranes for launching boats can be used for transferring people.
- A gantry is useful ashore in preparation for a beach launch.

For further information www.sailing.org/disabled ifds@isaf.co.uk



Swimmers at the Athens Paralympic Games 2004

#### 2.9 Swimming

#### Overview

Swimming is an important activity for many disabled people at competition level or purely for recreation. It is open to athletes with physical disabilities and blind or partially sighted athletes. Athletes compete in all four strokes.

#### **General Requirements**

Fédération Internationale de Natation (FINA) facility regulations should be adhered to.

# Specific Disability Requirements Equipment

Hoist at each end of the pool.

Wetside chairs and storage provision.

Mats are to be provided. The mats are to be a minimum of 1 m in width and 2m in length and shall be placed on the deck beside the outside lanes of the pool within 1 m of each end.

A strobe / starting light for swimmers with a hearing impairment. The light is required to be able to be transferred next to the starting platform of the swimmer and positioned to the swimmer's requirement.

#### Ventilation

It is essential the air-conditioning system does not re-circulate air as this contaminates the pool hall air.

#### Classification Area

Private examination room to be provided including adjustable examination bed, table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least 4 people.

For further information contact www.britishswimming.org www.ipc-swimming.org

#### 2.10 Table Tennis

#### Overview

Table Tennis competitions take two forms at the Paralympic Games: Standing and Wheelchair events (sitting). Individual and team, men's and women's events are included.

International Table Tennis Federation and International Paralympic Table Tennis Committee govern the sport.

#### **General Requirements**

International Table Tennis Federation (ITTF) facility regulations should be adhered to.

# Specific Disability Requirements Equipment

 The height of one or maximum two cushions is limited to 14cm in playing conditions with no other addition to the wheelchair.

- Racket/Bat can be taped to the hand of player, if required.
- Tables shall allow access to wheelchairs without obstructing the player's legs and shall allow access to two wheelchairs for doubles.
- Table legs shall be at least 40cm from the end line of the table for wheelchair players.

#### Surface

A concrete floor is, in principle, acceptable for wheelchair events.

#### **Space Requirements**

For wheelchair play, the playing space may be reduced, but shall be not less than 8m long and 7m wide.

For further information contact www.ittf.com



Wheelchair Table Tennis Players



Sit-Volleyball Players

#### 2.11 Volleyball

#### Overview

Volleyball was introduced into the Paralympic Games in Arnhem in 1980. Originally, both standing and sitting competitions were included in the Games, however standing volleyball was removed from the programme following the Sydney 2000 Paralympic Games.

Volleyball is governed by the World Organisation Volleyball for Disabled (WOVD). The WOVD has adapted the FIVB (Fédération Internationale de Volleyball) rules for use in sitting and standing volleyball.

#### **General Requirements**

Fédération Internationale de Volleyball (FIVB) facility regulations to be adhered to.

#### Specific Disability Requirements **Space Requirements**

• In sitting volleyball the court is smaller than standard (6m x 10m) and has a lower net so the game is considerably faster than the standing equivalent.

- The free zone shall measure a minimum of 4m from the sidelines and 6m from the end lines.
- The free playing space shall measure a minimum of 10m in height from the playing surface.
- The playing area includes the playing court and the free zone. It shall be rectangular and symmetrical.

- Placed vertically over the centre line there is a 'lower' net whose top is set at the height of 1.15m for men and 1.05m for women.
- The net is 6.50m to 7m long and 0.80m wide.
- Its height is measured from the centre of the playing court.
- The net height (over the two sidelines) must be exactly the same and must not exceed the official height by more than 2cm.

- The posts supporting the net are placed at | a distance of 0.50m - 1m outside the sidelines. They are 1.25m high and preferably adjustable.
- The attack lines are drawn 2m from the axis of the centre line.
- On indoor courts the surface of the playing court must be of a light colour. White colours are required for the lines. Other colours, different from each other, are required for the playing court and the free

The maximum temperature shall not be higher than 25° C (77° F) and the minimum not lower than 16° C (61° F).

The lighting on the playing area should be 1000 to 1500 lux measured at 1m above the playing area.

#### For further information contact www.wovd.info

#### 2.12 Wheelchair Basketball

#### Overview

Wheelchair Basketball is played by athletes with lower limb disabilities and also by those with 'permanent' sports injuries which prevent them from playing the running game of Basketball. It is one of the highest profile sports at the Paralympics: 12 Men's teams and 8 Women's teams qualify through regional qualification events. Players are classified according to their physical disability through a scale from 1.0 - 4.5 pts (1.0 pointers having the highest level of disability and 4.5 pointers, the least). A team on court comprises five players and the total 'team' points value cannot exceed 14 pts.

#### **General Requirements:**

Fédération Internationale de Basketball (FIBA) facility regulations to be adhered to.



NI Knights Wheelchair Basketball Players

# Specific Disability Requirements: Equipment

A lockable storage room should be provided for secure storage of wheelchairs and other associated equipment. This room needs to be large enough to hold 30 'stored' wheelchairs and should be accessible to wheelchair users.

The scoring table shall be provided with a device (directional arrow) to display the direction of play for the next possession under the alternating possession procedure.

Wheelchair Basketball is played on a regulation sized hardwood basketball court.

It is essential that there is at least a 4m run-off area behind each basket.

If the court is 'raised' as per many show courts, it is essential that there is suitable access for Basketball/Rugby Wheelchairs.

#### Classification Area

Private examination room to be provided including adjustable examination bed, table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least 4 people.

#### **Changing Rooms**

In large venues designed for major competitions a four team changing room should be provided each with two fully equipped accessible toilets.

# For further information contact www.iwbf.org

#### 2.13 Wheelchair Rugby

#### Overview

Wheelchair Rugby is a team sport for male and female quadriplegics. It is a unique sport created by athletes with a disability that combines some elements of Basketball, Rugby and Ice Hockey. The sport is played with a volleyball on a standard basketball court with goals and key areas marked out at both ends.



Wheelchair Rugby Players

Teams of 4 players compete with the aim being to score goals by crossing the opposing team's goal line while in possession of the ball. The ball may be passed, thrown, batted, rolled, dribbled, or carried in any direction subject to the restrictions laid down in the rules. Two wheels must cross the goal line for a goal to count, and the player must have firm control of the ball when he or she crosses the line.

#### **General Requirements**

Fédération Internationale de Basketball (FIBA) facility regulations to be adhered to.

# Specific Disability Requirements Equipment

The game is played with a white ball identical in size and shape to regulation volleyball. In addition to the ball, four cones, pylons or other similar markers are required to mark the ends of the goal lines.

The scoring table shall be provided with a device (directional arrow) to display the direction of play for the next possession under the alternating possession procedure.

#### Surface

Wheelchair Rugby is played indoors on a regulation sized basketball court. Hardwood is the preferred playing surface although other surfaces are acceptable. The playing surface must be accessible to people in wheelchairs. Any facility which can be used for wheelchair basketball will be sufficient for wheelchair rugby.

#### **Space Requirements**

Wheelchair Rugby is played on a regulation hardwood basketball court measuring 28m by 15m with at least a 5m run-off area behind each goal. The court is marked with boundary lines, a centre line, a centre circle and two key areas.

The centre line divides the court into a front court and back court area. A team's back court includes their goal line and key; teams score in their front court which includes the opponent's goal line and key area. The centre line is considered to be part of the back court.

The key areas are located on the two end lines. They are 8m wide and 1.75m deep. The part of the end line that is in the key area is called the 'goal line'. The ends of the goal line are marked by two cones.

#### Classification Area

Private examination room to be provided including adjustable examination bed, table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least 4 people.

For further information contact

IPC Representative - ermain@sympatico.ca

#### 2.14 Wheelchair Tennis

#### Overview

Wheelchair Tennis is played in Singles and Doubles format at the Paralympics in Male, Female & Quad sections.

#### **General Requirements**

International Tennis Federation (ITF) facility regulations should be adhered to.

# Specific Disability Requirements Surface

Athletes should have non-marking tyres on their tennis wheelchair.

#### Equipment

Consideration should be given to the appropriate positioning, in terms of height and location, of any equipment or apparatus within or associated with the facility in terms of wheelchair users.

#### **Space Requirements**

Wheelchair Tennis is played on a regulation sized tennis court. Access to the court area should be via a level surface with no steps at main entrance to the court area.

Please note that the guidelines provided in Section 1.4 'Lobby / Reception Area', Section 1.5 'Internal Doors', Section 1.6 'Corridors & Passageways' and Section 1.7 'Passenger Lifts' are based on maximum sports chairs widths of 1000mm. However, tennis wheelchairs are amongst the widest chairs used and can be in the region of 1200mm

wide. The specification for buildings accommodating wheelchair tennis players should be increased accordingly.

The width of chairs should also be considered when determining appropriate clearance distance between the player area, umpire area and court changeover point.

Floodlighting columns should not restrict the minimum width required.

For further information contact www.itftennis.com



Wheelchair Tennis Player

# Section 3: Facility Management Policies & Procedures

Access To Sports Facilities For People With Disabilities | Design & Management Guidelines 2010

# 3.1 Emergency Evacuation Strategy Overview

As all sports facilities will be used by people with disabilities to at least some degree facility managers should, as part of their broader emergency evacuation strategy, give detailed consideration as to how people with disabilities will be successfully evacuated from their facility in the event of an emergency. Accordingly, all emergency evacuation strategies should take full account of the recommendations provided below.

#### **RECOMMENDATIONS**

The emergency evacuation strategy should include clear procedures for the safe evacuation of all staff and users including people with disabilities. As the use of sports facilities by people with disabilities may vary significantly, ranging from occasional use by one disabled person to regular use by large groups of disabled people, detailed evacuation procedures should be developed based on a risk assessment of the following key factors:

- The potential number of people with disabilities using the facility at any one time.
- The areas of the building most likely to be used by people with disabilities.
- The nature of the 'impairment' experienced by people with disabilities using the facility.
- Whether 'fire protected' lift systems are provided within the building or not.
- Whether the facility's fire alarm system incorporates flashing beacons which can alert deaf and hard of hearing people of potential danger.
- Monitoring of refuge areas and existing communication systems. In particular, all emergency evacuation strategies should have clear procedures for the evacuation of wheelchair users.

- People who will require assistance using stairways (e.g. blind or partially sighted people or people with mobility difficulties).
- Deaf or hard of hearing people who are unable to hear audible alarm systems.

# 3.2 Management of Accessible Car Parking Bays / Spaces

#### Overview

At present, there are 98,3248 blue badge holders in Northern Ireland, equating to approximately 14% of the total number of households in Northern Ireland which have access to a car or a van. The abuse of accessible parking bays by non-disabled people in Northern Ireland is extremely common. Indeed, a recent survey conducted by IMTAC in Northern Ireland found that one in four accessible bays were being abused at any particular time. It is crucially important that sports facility providers develop and implement a car parking policy concerned with minimising the abuse of accessible parking bays as recommended below.



Accessible Parking Space Signage - Lakeland Forum, Enniskillen

#### **RECOMMENDATIONS**

All sports facilities should write and implement a policy for the 'Management of Accessible Parking Bays'. The policy should:

 Be written and implemented to ensure that the use of accessible parking bays is limited to 'Blue Badge' holders.

- Be circulated to and understood by all staff.
- Be clearly advertised to the public using signs located at the entrance / reception area.
- The policy should also ensure that accessible parking bays are:
  - \* Clearly signed for use by 'Blue Badge' holders.
  - \* Monitored by a dedicated member of staff.
  - \* Checked regularly for misuse by the dedicated member of staff.
  - \* Not used by delivery vehicles or tradesmen carrying work out at the facility.
  - \* Not used by employees (who are not entitled to park in the bays).
- The policy should also include a clear course of action for dealing with drivers abusing the accessible parking bays. This should include some of the following measures:
  - \* Using the public address system to request that drivers not displaying their 'blue badge' should return and move their vehicle.
  - \* Placing leaflets on the windscreen of cars abusing bays highlighting the difficulties this behaviour causes.
  - \* Clamping vehicles parked in an accessible bay without a blue badge.

A good practice guide on the layout and management of parking bays has been produced by the Inclusive Mobility and Training Advisory Committee (IMTAC) in Northern Ireland. It can be downloaded from:

www.imtac.org.uk/downloads/BAYWATCH.PDF

#### 3.3 Assistance Dog Policy

#### Overview

While assistance dogs are commonly associated with a 'guide dog' for blind and

partially sighted people, they can also be used as 'hearing dogs' by deaf people and as 'service dogs' by people with physical disabilities. Assistance dogs not only provide a specific service to their owners but also greatly enhance their owners' ability to lead a more independent lifestyle.



Partially Sighted Person with Guide Dog

#### **RECOMMENDATIONS**

An 'Assistance Dog Policy' should be written and implemented for each sports facility. The policy should include the following measures:

- The designation of a 'dog spending facility' and internal provision of a safe and secure rest space where appropriate.
- Staff should be made aware that, under the Disability Discrimination Act, assistance dogs are likely to be exempt from 'no dogs' policies which normally apply in food shops or restaurants. Staff should also be made aware that the Chartered Institute of

<sup>&</sup>lt;sup>8</sup> Figures correct at March 2010 Roads Service NI and Census 2001

Environmental Health has confirmed that assistance dogs should be allowed access to food shops and restaurants and that there is no conflict with hygiene laws. It may also be reassuring to make staff aware that assistance dogs are highly trained working dogs and are trained to go to the toilet on command and so are unlikely to foul in a public place.

More detailed information and guidance is available in The Guide Dogs for the Blind Association (Guide Dogs) publication, 'Guidance on the provision of spending facilities for guide dogs and other assistance dogs'. For detailed guidance please refer to: www.guidedogs.org.uk

#### 3.4 Pricing Policy

#### Overview

As the majority of people with disabilities in Northern Ireland are dependent on benefits and live on low incomes, they may be unable to afford the standard fees charged by sports and leisure providers. This fact can prevent many people with disabilities from becoming regular participants in a particular sport or activity.

To overcome this problem sports and leisure facilities should consider implementing pricing policies which will encourage and enable people on lower incomes to participate in the sports programmes and activities provided, as recommended below:

#### RECOMMENDATIONS

- Facility providers should consider implementing waged / unwaged pricing policies.
- Subsidised schemes and initiatives which actively target people with disabilities should be considered.
- To ensure that people with disabilities, who need to be accompanied or assisted by a friend or family member to access a

service, do not also have to pay for the person assisting them, a 'Buddy Card Scheme' should be introduced.

Further information on the operation of Buddy Card Schemes is available from Disability Sports NI - www.dsni.co.uk

#### 3.5 Staff Training Plans

#### Overview

Commonly held misconceptions about people with disabilities in society continue to act as barrier to participation for many people with disabilities. For example, commonly held stereotypes and inaccurate assumptions about the ability (or lack of ability) of people with disabilities often results in individual disabled people feeling patronised or dependent. Similarly, as many non-disabled people rarely come into contact with people with disabilities, they may feel unsure about how to interact and communicate appropriately with people with disabilities.

To overcome these problems the provision of Disability Inclusion Training (DIT) should be included in staff training plans. DIT is designed to provide staff with the knowledge and understanding they require to provide a better level of service to people with disabilities and will also help them to feel more comfortable when interacting with disabled users. This in turn will create a relaxed and friendly environment for people with disabilities using a facility.

#### **RECOMMENDATIONS**

All staff should have completed Disability Inclusion Training within 1 year of the facility opening.

Please note that sports & leisure specific
Disability Inclusion Training has been
developed by Disability Sports NI. For
further information on other courses
available please contact Disability Sports NI –
www.dsni.co.uk

All staff should be made aware of and trained to implement the full range of operational policies outlined in this document. All relevant staff should be regularly trained in the use of communication aids like text phones and loop systems.

# 3.6 Management of Changing Places (CP) facilities

#### Overview

A Changing Places (CP) facility is different to a standard accessible toilet. It is a room equipped with an adjustable changing bench and a hoist to allow people to use the toilet with assistance, meeting the needs of people with profound and multiple learning disabilities. British Standard 8300:2009 'Design of buildings and their approaches to meet the needs of disabled people' recommends that Changing Places toilets should be installed in larger buildings and complexes including sport and leisure facilities.

#### **RECOMMENDATIONS**

Ensuring, in CP facilities, that written instructions on the use of equipment is displayed beside each item. Information should be available on the type of sling connector and the types of sling that are compatible with their installed hoist and track. For detailed guidance please refer to: www.changing-places.org

# Section 4: Inclusive Sports Development Plans

It is the experience of Disability Sports NI that in order to attract people with disabilities sports facilities need to proactively plan for the inclusion of people with disabilities in their programmes. Therefore, Disability Sports NI and Sport Northern Ireland would in particular encourage all sports facility management to actively target people with disabilities by including specific actions and targets related to people with disabilities within their sports development plan.

All applicants to Sport Northern Ireland funding programmes are required to produce sports development plans which outline how their facility / project will develop increased sports opportunities for the population as a whole.

Applicants can achieve the greater inclusion of people with disabilities by implementing the recommendations listed below, under the key headings of:

- Consultation
- Information/Communication
- Participation Initiatives & Programmes
- Sports Leadership & Coach Education

#### 4.1 Consultation

#### Overview

Effective consultation with people with disabilities is crucial to the successful development and implementation of a truly inclusive sports development programme.

#### **RECOMMENDATIONS**

Before writing a sports development plan sports facility management should consult with local disabled people and groups, mainstream sports organisations and disability sports organisations to ascertain what level of need there is in the area. A schedule should be drawn up of priority activities / programmes people with disabilities would like to see developed.

At this stage, applicants should try to include all 'impairment groups' including people with physical, sensory and learning disabilities.

To continue a sense of ownership of the project local disability groups should, where possible, be represented on the project management group responsible for the development of the facility.

In larger facilities, the facility provider should consider establishing a 'Users Forum' made up of a small number of local disabled people to oversee the implementation of the disability element of the sports development plan and to advise staff on ongoing operational issues.

#### 4.2 Information / Communication

#### Overview

The provision of a range of information which actively targets people with disabilities and is easily accessible is a crucially important factor in successfully promoting sports programmes to people with disabilities.

#### **RECOMMENDATIONS**

- Information on programmes, events and activities at the sports facility should be actively targeted at individual disabled people and groups.
- A database of individual disabled people and groups should be developed over time to assist with the above task.
- All promotional information should be freely available in accessible formats on request (i.e. on CD, large print, Braille or audio tape). This does not mean that all sources of information must be produced in a range of alternative formats in advance but rather mechanisms are put in place for providing information in alternative formats quickly when requested.

- Websites should be designed in line with good practice guidelines<sup>9</sup> to ensure they are as accessible as possible to people with disabilities.
- Where photographs are used on promotional literature or on websites positive images of disabled people should also be used.
- Key reception / information points should be fitted with communication aids such as text phones and loop systems to facilitate communication with people who are deaf or hard of hearing.

# 4.3 Participation Initiatives and Programmes

#### Overview

Although physical access to many sports facilities in Northern Ireland has improved in recent years, largely as a result of the introduction of the Disability Discrimination Act, the key problem remains that there is a lack of organised sports opportunities and programmes for people with disabilities in almost every area of Northern Ireland.

From experience, Disability Sports NI believes many people with disabilities can participate in most sports with little or no adaptations. However, it may be necessary to adapt some sports (rules, playing surface, court size etc) to ensure the full inclusion of people with disabilities particularly those with higher levels of impairment.

It is essential then that sports facility management include the organisation of participation initiatives and programmes for people with disabilities as a key objective within their sports development plan, as recommended below:

#### **RECOMMENDATIONS**

- Ongoing participation initiatives specifically targeted at people with disabilities to be organised in partnership with local disability groups.
- The type of sports programmes organised and the 'impairment group or groups' targeted should be agreed in consultation with local disabled people and groups and with mainstream and disability sports organisations.
- Wherever possible people with disabilities should also be encouraged and supported to participate in mainstream initiatives and programmes alongside non-disabled people. Advice on how to achieve this is available from Disability Sports NI.
- Facility managers and development staff should be mindful of the need to include all impairment groups including people with physical, sensory and learning disabilities in their programmes. It should be noted that to achieve this it may be necessary to organise separate activities or programmes for different impairment groups.

# 4.4 Sports Leadership and Coach Education

#### Overview

It is now commonly accepted among professionals working within the disability sport field that the majority of existing sports coaches, sports leaders and volunteers do not have the knowledge and skills required to run sports and physical activity programmes which are inclusive of people with disabilities. It is essential then that all sport facility managers plan how they will recruit and, if necessary, train sports leaders and coaches with the practical knowledge and skills required to run sports programmes which are inclusive of people with disabilities.

#### **RECOMMENDATIONS**

All sports facility managers should conduct a training needs analysis to ascertain if their existing pool of coaches and / or sports leaders have the skills required to run programmes which are inclusive of people with disabilities.

Based on the findings of the training needs analysis, a database of suitably trained and experienced coaches and sports leaders should be developed and maintained. Based on the 'skills gaps' identified in the training needs analysis, a coach education plan should be put in place which clearly outlines how the required number of coaches and / or sports leaders will be trained and / or sourced over the time period covered by the development plan.

Advice on the availability of relevant coach education and sports leadership courses is available from Disability Sports NI.

<sup>9</sup> Web Content Accessibility Guidelines (WCAG) 2.0 covers a wide range of recommendations for making web content more accessible: www.w3.org/TR/WCAG20

# **Appendix A: Access Statements**

To assist applicants with the preparation of an access statement the following information from Sport Scotland's 'Inclusive Design and Access Statements' document has been reproduced below with the kind permission of Sport Scotland.

#### What is an 'Access Statement'?

Access statements are sometimes described as "living documents" which evolve from the concept design stage of a building project through to the completion of the building and beyond into the life and operation of the facility.

At the time of print, access statements are not a statutory requirement in Northern Ireland for planning or building control approval. However, access statements are useful tools to assist development management and building control in their decision making and ensure that the best possible solution for creating an inclusive environment has been developed.

An access statement can be used to highlight, for example:

- The desire to innovate, going beyond the minimal regulatory requirements and good practice guidance and demonstrating an understanding of usability and an inclusive approach; and
- Identifying the benefits of 'future proofing' the building by designing in a degree of flexibility and adaptability such that accessible equipment/facilities can be installed/provided at a later date.

Equally, the access statement may highlight any constraints:

• Trying to apply inclusive design standards to a listed building or where there are real and present health and safety issues.

Understanding of local issues and first principles are as important as understanding legislation and good practice guidance. There needs to be a balance between following access standards checklists and understanding how to strategically plan ahead for the future. Preparing an access statement can help to achieve this goal.

Contrary to some preconceptions, an access statement is not a 'get out' or a means of lowering the level of accessible provisions. Instead, by developing an access statement early in the project, the project sponsor / client and the design team can ensure that good access solutions are implemented early on; and then costly alterations or additions are not incurred late in the design. This creates sustainable buildings that benefit not only disabled people but all users.

## What should be included in an access statement?

The level of detail included in an access statement will depend on the size, nature and scale of the project. While high levels of detail will not be necessary at the early stages of the design process, the access statement should present a clear methodology of how inclusive design principles will be implemented and maintained throughout the life of the project. The access statement should be considered an integral part of the design process.

A good access statement must:

- Be succinct.
- Written specifically for the application and not copied from somewhere else.
- Be developed from the beginning of the design scheme to help influence the design.
- Explain how the design has come about and what it is trying to achieve.

<sup>&</sup>lt;sup>10</sup> Sport Scotland (2008) Facilities Report 03 Inclusive Design and Access Statements

- Include any feedback from involved groups including: local clubs, community groups, access panels, local authority planners, sports teams, sports governing officials and end users including visitors to the facility.
- Include details of any professional advice that has been followed or will be sought.
- Use accurate and informative illustrations where necessary.
- Describe the project sponsor/client's policy and approach to access with particular reference to the inclusion of disabled people.
- In a refurbishment project explain what the main barriers to existing access are.
- Explain the maintenance and management policies adopted, or to be adopted, relating to accessible features.
- Take into account existing legislation and guidance.
- Evolve and develop as the scheme design develops.

Further information that may be included in an access statement as the scheme design develops includes:

- Annotated drawings and diagrams where it is felt necessary to illustrate concept designs.
- Emergency evacuation plans / strategies –
   any management practice or policies can be
   picked up in the access statement as it
   develops. This will include emergency
   egress strategies for disabled people,
   preferably developed in conjunction with an
   Access Consultant and a Fire Engineer or
   the local Fire Authority.
- An explanation and reasoning for deviation from good practice (if applicable)
- Maintenance schedule, for example redecoration, refurbishment considerations and maintenance of accessible equipment relevant to the project at hand such as induction loops, accessible fitness machines and hoists.

- Staff training and development linking up with user manuals, attitudinal development, health and safety and disability equality staff training.
- Plans/policies to make continuous improvement.
- Provision of adaptable/flexible designs that can be altered in the future if necessary.

What should not be included in an access statement?

Below is a list of comments that should not appear in isolation when preparing an access statement.

- "The building will comply fully with the DDA".
- "We have sent out a copy of the plans to some of the religious groups in our area.
   As we have had no response we have assumed that they are satisfied with our proposals".
- "The building will comply with BS 8300:2001 and amendments".
- "We have consulted with Mums and Toddler groups".
- "The building will exceed the current Building Regulations".
- "We will discuss ideas with access groups only".
- "Whilst we have tried to make the building accessible, compromises have been reached to take account of the site constraints and budget".
- "We have a disabled person on our club committee who is very keen on access issues".
- "As experienced designers of sports facilities, we have a proven track record of access for disabled people and this will be evident in our design proposals".

Although some of these comments are commonly used with the best of intentions they do not provide any commitment that the design will develop and that every space and feature will be as accessible as the project allows.

Whilst it is not reasonable to expect a fully detailed statement early in the project there should be a commitment from client and

developer that the statement will develop at all stages of the project.

It is also a common misconception that an access statement is solely for the purposes of identifying "disabled access" rather than providing access for all users. Access statements should reflect that the best possible solutions for creating inclusive environments have been developed.

# Appendix B: Bibliography

Bright, K (Ed) (2005): Disability: Making Buildings Accessible: Special Report. Third Edition. Workplace Law Publishing, Cambridge.

Bright K (Ed) (2005): Disability: Making Buildings Accessible. Up to date guidance and best practice for employers and service providers. Workplace Law Publishing, Cambridge.

Bright, K, Cook, G, Harris, J; Colour, (2004): Contrast & Perception. Design Guidance for Internal Built Environments. Project Rainbow.

BSI (2009): British Standards BS8300: Design of Buildings and their Approaches to meet the needs of Disabled People – Code of Practice.

BSI (2008): British Standards BS9999: Code of Practice for Fire Safety in the Design, Management and Use of Buildings.

Centre for Accessible Environments (2005): Architectural Ironmongery. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environment and Riba Publishing.

Centre for Accessible Environments (2005): Automatic Door Systems Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments and Riba Publishing.

Centre for Accessible Environments (2006): Glass in Buildings. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments and Riba Publishing.

Centre for Accessible Environments (2006): Internal Floor Finishes. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments and Riba Publishing.

Centre for Accessible Environments (2005): Platform Lifts. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments and Riba Publishing. Department of Culture, Arts and Leisure (2007): The Northern Ireland Guide To Safety at Sports Grounds. The Stationery Office.

Department of Finance & Personnel (2005): The Building Regulations (Northern Ireland) 2000. Technical Booklet E. Fire Safety. The Stationery Office.

Department of Finance & Personnel (2006): The Building Regulations (Northern Ireland) 2000. Technical Booklet H, Stairs, Ramps, Guarding and Protection from Impact. The Stationery Office.

Department of Finance & Personnel (2006): The Building Regulations (Northern Ireland) 2000. Technical Booklet R, Access to and Use of Buildings. The Stationery Office.

Northern Ireland Census (2001).

Northern Ireland Statistics & Research Agency (2007): The Prevalence of Disability and Activity Limitations Amongst Adults and Children Living in Private Households in Northern Ireland.

Olympic Delivery Authority (2008): Inclusive Design Standards.

Olympic Delivery Authority (2008): Inclusive Design Strategy.

Parker, P & Fraser, J (2004): Sign Design Guide. A Guide to Inclusive Signage. JMU, London and the Sign Design Society, Hertfordshire.

RNID (1995): Building Sight, A Handbook of Building and Interior Design Solutions to include the needs of Visually Impaired People. Royal National Institute of the Blind and HMSO.

RNID: Loop and Infrared Systems – For Deaf and Hard of Hearing People (Factsheet), Available from RNID, Equipment Factsheets, Website - www.rnid.org.uk/factsheets

RNID: Loop and Infrared Systems – For People Managing Public Venues (Factsheet), Available from RNID, Equipment Factsheets, Website - www.rnid.org.uk/factsheets

RNID (2006): See It Right: Making Information Accessible to People with Sight Problems, Royal National Institute of the Blind, London.

RNID: Smoke Alarms (Factsheet): Available from RNID, Equipment Factsheets, Website - www.rnid.org.uk/factsheets

Scottish Sports Council (1995); Building in Ability: Provision for People with Disabilities. Technical Digest 100.

Sport England (2010): Accessible Sports Facilities, Design Guidance Note. Sport England Publications, Wetherby.

Sport England (1999): Pavilions and Clubhouses, Design Guidance Note. Sport England Publications, Wetherby. Sport Scotland (2008): Facilities Report 03 Inclusive Design and Access Statements.

Sport Scotland, Edinburgh.

The Football Stadia Improvement Fund / The Football Licensing Authority: Accessible Stadia – A Good Practice Guide to the Design of Facilities to meet the needs of Disabled Spectators and other users.

The Guide Dogs for the Blind Association:
Access to Sports Stadia. Guide Dogs and
RNIB supported by VISA, Reading.
The Guide Dogs for the Blind Association:
Guidance on the Provision of Spending
Facilities for Guide Dogs and other Assistance
Dogs. Guide Dogs.

Technical Diagrams by Graphics Unit, Sport Northern Ireland

Selected Images by Disability Sports NI & Sport Northern Ireland

W3C(2008): Web Content Accessibility Guidelines (WCAG) 2.0. Website www.w3.org/TR/WCAG20

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