Inclusive Design for Non Residential Buildings

Supplementary Planning Document

Adopted 11 May 2011
Inclusive Design for Non Residential Buildings

Supplementary Planning Document
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In Waltham Forest we are completely committed to promoting equality for disabled people and central to this is creating accessible and inclusive environments. Whilst there are many factors which cause inequality for disabled people an inaccessible environment can be a major barrier to independence and equality.

This guide is based very much on inclusive environments, creating buildings and places where unnecessary barriers are removed and which are easy for everybody to use. In essence these are people friendly environments which benefit all of us.

The emphasis throughout this draft Supplementary Planning Document (SPD) is to encourage designers to look creatively at schemes from the beginning to ensure proposals are inclusive and do not create barriers to equality and inclusion. It also sets out the reasons and benefits for designing inclusively and technical standards that need to be taken on board to achieve this.

I very much hope that this document will be used by developers, architects, building professionals, disabled people, community groups and of course by us within the local authority. It is designed to make a difference, it is just one of the ways that we are working to improve the accessibility of our environment and tackle the inequality experienced by disabled people.

We will not make Waltham Forest accessible overnight, this is a long journey which we have been on for a while but I am sure that this document will speed up that journey and help us all to make a real difference.

Thank you,

Councillor Marie Pye, Cabinet Member for Housing and Development
Chapter 1
Introduction

Introduction

1.1. This supplementary planning document (SPD) is intended to raise awareness about inclusive design and raise the standard and quality of all non residential development in the borough. The objective being to ensure that buildings and their settings provide an inclusive environment that is usable by everyone.

1.2. This guidance sets out key inclusive design principles to be applied to the design and construction of buildings and their environments. The principles are drawn from current best practice in a range of documents including BS 8300 2009 + A1:2010, Approved Document M and others listed in Appendix 3. The SPD is intended for use by a wide range of people from small businesses to large organisations such as hospitals and retail/commercial developers.

1.3. The borough has a modestly increasing population - it was 224,300 in 2009, with approximately 24,000 disabled people. Of these some 9900 people have some form of mobility difficulty including 1355 people who use a wheelchair. The retired population is forecast to increase. Projections in 2007 indicated an increase of 4,150 in the 65+ age group, and 1200 in the 75+ group by 2026.

1.4. Both disabled and older people need a designed inclusive environment without which they are denied the opportunity to access and participate in the local and wider community.

Purpose of the document

1.5. The purpose of this SPD is to provide clear guidance on inclusive accessible design to developers, applicants, planning officers, the public and other interested parties in bringing forward proposals for development in Waltham Forest. The document sets out the reasons for designing inclusively and the key design principles that need to be implemented in all developments with the key objective of significantly increasing the accessibility and quality of development within the borough.

1.6. Inclusive design principles need to be considered when developing master plans and development briefs as well as in individual planning applications – the earlier these principles are embedded into the development process the more accessible and inclusive the development is likely to be. Further guidance on this is given in the London Development Agency Inclusive design tool Kit. (See Appendix 3)

1.7. Ensuring proposals for building work are inclusively designed is only part of creating a sustainable inclusive community. A well designed environment needs to have well integrated management and customer service practices which recognise the needs of disabled people. It is not the purpose of this document to provide advice on this aspect.
Who should use this document?

These guidelines are intended to be used as a design manual by:

1.8. Professionals - architects, planners, occupational therapists, registered social landlords, landscape architects and other designers.

1.9. The community, especially disabled people as a reference tool about the standards they can expect from development requiring planning permission.

1.10. The Council when carrying out development and improvements to its commercial/ community premises.

How to use this document

1.11. The technical advice in these guidelines is set out systematically with background information followed by the key design principles. Where sections are supplemented with illustrations these are not drawn to scale and are for information only. All dimensions quoted are millimetres (mm).
Chapter 2
Core Principles

Introduction
2.1. There are two core principles underlying the advice in this supplementary planning document (SPD):

- Inclusive design,
- The social model of disability

What is inclusive design?

2.2. The principle of inclusive design derives from the social model of disability, and focuses on the design of the environment as opposed to an individual’s impairment. Buildings and environments designed to be inclusive will be safe, predictable, convenient, flexible, adaptable, sustainable, legible and usable by everyone.

2.3. Inclusive design is a process to ensure that the diverse needs of the population are integrated into development proposals from the outset. An inclusive environment cannot always meet every need; however designs that consider peoples’ diversity will remove unnecessary barriers and exclusion, often achieving superior solutions which enhance the urban environment. Inclusive design benefits individuals with physical, sensory or cognitive impairments, people with mental ill health, older people, children, carers of young children and adults, people with temporary impairments, or anyone with heavy luggage or shopping. Inclusive design aims to benefit all of us. This principle is fundamental to the concept of sustainable communities.

Social model of disability

2.4. The social model is the core principle underlying inclusive design. It was developed by disabled people and rejected previous medical and administrative models of disability. It is the basis for creating inclusive and accessible environments.

2.5. Central to the model is the recognition that whilst an individual may be limited by their impairment (physical, sensory, cognitive) it is society that creates institutional barriers which ‘disable’ people.

2.6. Barriers such as social, attitudinal, economic, environmental and legal can all exclude disabled people from fully participating in society.

2.7. The emphasis throughout this Supplementary Planning Document (SPD) is to encourage designers to look creatively at schemes from the outset to ensure proposals are inclusive and do not create physical barriers to equality and inclusion.

2.8. The Council is committed to the social model of disability and this permeates its Disability Equalities Statement. See www.walthamforest.gov.uk/index/social/equality-strand-disability/des.htm

Creating sustainable communities

2.9. Inclusive design permeates the concept of sustainable communities and can make it a practical and realistic vision. The aim of this guidance is to create sustainable communities and enable more people to participate in and use the built environment through ensuring it is inclusively designed from the outset.
2.10. Central government defines sustainable communities as

“Places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all.”

www.communities.gov.uk/archived/general-content/communities/what’s/

2.11. Waltham Forest Council’s Sustainable Communities Strategy (SCS) 2008 sets out a vision for the borough where Waltham Forest becomes a place that people aspire to live in. This will be achieved by creating an attractive residential location with the right housing built in the right place, distinctive town centres, friendly neighbourhoods, excellent schools and access to quality open spaces. This vision for the borough will be positively affected by the quality and accessibility of the built environment and its infrastructure.

Purpose of the document

2.12. The purpose of this SPD is to provide clear guidance on inclusive accessible design to developers, applicants, planning officers, the public and other interested parties in bringing forward proposals for development in Waltham Forest. The document sets out the reasons for designing inclusively and technical standards that need to be implemented in all developments with the key objective of significantly increasing the accessibility and quality of development within the borough.

2.13. Ensuring proposals for building work are inclusively designed is only part of creating a sustainable inclusive community. A well designed environment needs to have well integrated management and customer service practices which recognise the needs of disabled people. It is not the purpose of this document to provide advice on this aspect.

Status of the document

2.14. This document is produced as a Supplementary Planning Document (SPD) to the Waltham Forest Unitary Development Plan (UDP) First Review 2006, under the Planning and Compulsory Purchase Act 2004.

2.15. The Council is currently preparing its Local Development Framework (LDF). Once the Core Strategy has been adopted this document will be supplementary to it and will form part of the LDF.

2.16. The SPD is a material consideration in the determination of planning applications and in relation to appeals and public inquiries. It is to be used in detailed negotiations regarding the layout and design of all planning applications to ensure inclusive design has been considered and incorporated.

2.17. Development proposals will therefore need to take into account the guidance set out within this document, in addition to other relevant guidance produced by the Council such as the Urban Design SPD.

2.18. This document replaces our Access for All SPG and has been subject to public consultation in accordance with the principles set out in Planning Policy Statement 12 - Local Spatial Planning.
How the document was prepared

The process

2.19. The initial evidence gathering included meetings with the Access Alliance (now disbanded) and research into current policy and best practice guidance. A draft SPD was then prepared with an Equality Impact Assessment taking on board the findings of the evidence gathering, and was followed by a 5 week consultation period. Representations were made in this consultation period which were considered and taken into account in the final draft.

Sustainability Appraisal

2.20. Following recent amendments to the Planning and Compulsory Purchase Act 2004, it is no longer a statutory requirement for Councils to produce a sustainability appraisal for supplementary planning documents. However in preparing this SPD, the Council has taken into account best practice guidance and requirements in addressing sustainability and the climate change agenda. A Climate Change Impact Assessment was completed to ensure the SPD places sustainable development at the heart of inclusive design and to ensure development fully considers the future impact of climate change.

Who should use this document

2.21. These standards are intended to be used as a design manual by:

- Professionals - architects, planners, engineers, landscape architects and other designers.
- The community, especially disabled people as a reference tool about the standards they can expect from development requiring planning permission.
- Businesses wishing to improve the access of their premises
- The Council when carrying out development and improvements to its premises for example schools, service centres; offices, leisure and library facilities.
Chapter 3
Policy Context

Background
3.1. This document is written within the context of current national and regional planning policy guidance on inclusive design and other relevant standards and codes of practice. The evidence base sets these out in more detail.

National policy
3.2. At national level Planning Policy Statements (PPS) 1, 3 and 12 set out clear objectives for seeking high quality inclusive and accessible development to increase the opportunities for everyone. In particular PPS 1 focuses on sustainable development which recognises the needs of everyone. PPS 3 translates this into opportunities for everyone to live in a decent home. PPS 12 recognises the need to provide policies on design and access in accordance with PPS 1 and recommends relevant good practice as set out in documents such as ‘Planning and Access for Disabled People: A Good Practice Guide’, (Department of Communities and Local Government, 2003).

3.3. PPS5 “Planning for the Historic Environment” recognizes the importance of historic buildings and the need to ensure these are conserved. English Heritage is the Government’s lead advisory body for the historic environment and has a statutory role in the planning system. It supports the widest possible access to the historic environment for everyone. Consistent with this it has produced a series of documents to offer guidance on inclusive access issues in relation to the historic environment and includes best practice examples demonstrating how the need to conserve historic environments and improve access are managed.

London Plan/regional planning policy

3.5. The current London Plan is due to be replaced in 2011 following an examination in public which took place in 2010. Part of the Mayor’s vision is that London should be “A city of diverse, strong, secure and accessible neighbourhoods” to foster a sense of belonging. Inclusive design is one of several ingredients needed to help build the strong neighbourhoods and places envisaged by the Mayor.

3.6. Section Seven “London’s Living Places and Spaces” of the draft replacement Plan emphasises the importance of place making for Londoners, and the role of inclusive design in this. Policy 7.2 in the draft plan was formerly policy 4B.5 “creating an inclusive environment”, the aim of which is achieving the highest standards of accessible and inclusive design. Policy 7.1 “Building neighbourhoods and Communities” talks about place shaping so that people have the best possible access to services, infrastructure and public transport. This policy
develops the theme of "lifetime neighbourhoods" and extends the inclusive design principles embedded in Lifetime Homes standards to the neighbourhood level so they are consciously planned at the outset. Detailed advice about aspects of this vision for example the detailing of green spaces, street furniture and other aspects of the public realm fall outside the scope of this document. Separate guidance may need to be developed by Waltham Forest’s Public Realm team to take into account these matters.

3.7. The GLA has also published a variety of research and good practice documents which add weight to the policies and provide detailed inclusive design requirements.

Local/Waltham Forest policy

Waltham Forest Council Key Priorities

3.8. This document has been prepared in accordance with our legal duties including the Equality Act 2010 and contributes to the Council’s key priorities.

3.9. The Council’s key priorities and commitments are:

• Protect the most vulnerable
• Improve the safety of our community
• Get cleaner and greener
• Regenerate our borough
• Make the most of the Olympic Year

3.10. There is a strong emphasis on supporting and empowering our most vulnerable residents to live independent, active and enjoyable lives. Inclusive design can be instrumental in this.

3.11. In this context the Council also has a duty under the Equality Act 2010 to have ‘due regard’ to:

• the need to eliminate discrimination
• advance equality of opportunity
• foster good relations across all of the protected groups

3.12. These are key elements in the creation of a sustainable community and reinforce the role of inclusive design in terms of creating the community Waltham Forest wants.

Local Policy – UDP and Emerging Local Development Framework

3.13. Waltham Forest’s Unitary Development Plan (UDP) (First Review, 2006) is the Council’s adopted planning policy document. It sets out the planning objectives for the borough and aims to ensure that new development makes a positive contribution to improving the quality and accessibility of the urban environment in the borough. The key policies in relation to inclusive design are as follows:

3.14. Policy HSG10 – Housing for disabled people, states in accordance with the London Plan that The Council will seek to achieve inclusive design and accessibility in all new housing developments and to ensure that:

3.14.1 A) All new housing is built to ‘lifetime homes’ standards, and
B) 10% of new housing is designed to be wheelchair accessible, or easily adaptable for residents who are wheelchair users.

3.15. Policy **BHE5 - Access for all states**, that applications for new development (including the alteration, extension or change of use of buildings and land) to which the public have access should where practical and reasonable, be designed so that everyone, including disabled people, can conveniently reach and enter any buildings or use any open air facilities.

3.16. The Council is currently drafting their Local Development Framework (LDF) which will guide regeneration and development in the borough over the next 20 years. Once adopted this will form the Council’s planning policy framework. The central document in the LDF is the Core Strategy. The Council has developed their Core Strategy to submission draft. The Core Strategy sets out the overarching and strategic planning policies in the borough. In terms of inclusive design, Policy **CS2 – Improving Housing Quality and Choice** aims to ensure that new homes should be accessible to all members of the community and be able to adapt to the changing needs of residents throughout their lives. Policy **CS15 - Well Designed Buildings, Places and Spaces** states that new development proposals will be expected to incorporate high quality and inclusive design measures to create an attractive, safe, healthy, accessible and sustainable environment throughout Waltham Forest.
Chapter 4
The Planning Process

Understanding the planning process

4.1. Most new buildings, or major changes to existing buildings or to the local environment, will need planning permission.

4.2. An application for planning permission should be made to the Development Management team within the Council, and must include sufficient detailed information including a design and access statement (see below) to assess the proposed development and its potential impact on the local area.

4.3. The Council also provides a pre-application service for which there is usually a charge. This service can be useful in enabling an applicant to discuss principles and details of a proposal with the Local Planning Authority prior to the submission of a formal application. The Council encourages use of this service, and further information can be obtained from the Development Management team (contact details are in Appendix 2)

4.4. For those developments that are likely to be referred to the Mayor it is recommended that applicants use both the GLA and TfL pre-planning application advice service. For more information about this go to: http://www.london.gov.uk/priorities/planning/strategic-planning-applications/pre-planning-application-meeting-service.

4.5. Some areas, buildings or monuments have protection against certain developments because they are of special cultural, architectural, historic, or wildlife interest. These include conservation areas and listed buildings. Trees within or adjacent to the development site may also be protected.

4.6. If development proposals affect one of these designations or protection orders, additional relevant controls are likely to be imposed. In some instances, such as work to a listed building or development within a conservation area, additional consent to the standard planning permission may be required.

4.7. It is therefore advisable to check with the Council’s Development Management Team or consult the Council’s Unitary Development Plan to see if there are any designations that affect the site. Appendix 2: Useful Contacts gives details of the relevant people to contact.

4.8. A validation list of inclusive design requirements is available on the Council’s website.

Design and Access statements

4.9. In 2006 planning legislation was introduced that requires anyone submitting planning applications (with some exceptions) or those applying for listed building consent to include a design and access statement with their application.

4.10. A Design and Access statement sets out the design principles and concepts that have been applied to a particular development, The access component of a Design and Access Statement covers Vehicular and transport links and Inclusive access and concerns how everyone can get
to and move through the buildings and surroundings regardless of age, disability, ethnicity, or gender.

4.11. Solutions to providing inclusive access may vary depending on the size, scale, nature and intended use of a building. There may also be constraints imposed by existing structures, historic buildings or conservation requirements.

4.12. The Design and Access Statement enables applicants to explain the opportunities and constraints offered by a proposal and the various solutions used to enable a satisfactory inclusive outcome.

4.13. By documenting the various processes leading to a final design an applicant can demonstrate, at planning application stage, that all possible options to improve accessibility had been considered.

What to Include?

**Relevant Policies and design standards**

4.14. The statement needs to include details about the planning policies that are relevant to the scheme with particular reference to inclusive design and disabled people. It is also important to identify the design standards being used - this could include these guidelines, BS 8300 2009 A1:2010 and other best practice relevant to the type of development. This ensures that inclusive access principles are considered at the outset of the development process, and integrated into the design.

**Application of design standards**

4.15. The statement needs to address how these standards are applied to ensure access is achieved.

4.16. This will need to cover external access and movement around the site as well as entrances into the building and the internal layout. This should cover the visibility of entrances and access to the buildings, and access to facilities such as toilets, meeting rooms, and changing facilities, circulation within the space also needs to be considered. It should also explain how level changes across the site are being addressed for example sloped routes, dropped kerbs as well as access to and from parking spaces. Diagrams showing how people can move to and through the place will be very useful. It is important that the statement and the submitted plans demonstrate that the scheme is inclusive and that disabled people are not be segregated and are able to move up and down in a building, use the same entrances, corridors and rooms as everyone else without having to use an alternative route. Mixed use developments with a residential element will need to refer to the advice on design and access statements in the companion to this SPD document Inclusive Housing design.

**Consultation**

4.17. Information about any consultation completed or to be carried out on access issues needs to be mentioned. Depending on the scale of the development proposal, this may include consultation with
local communities and access groups. This includes technical advice sought on inclusive access, highway, crime prevention and urban design specialists. For significant developments it is useful to consult the local disability forum Disability Action Waltham Forest or consider setting up a strategic access forum. An example of best practice is the Stratford City Consultative Access Group.

Further advice on Design and Access Statements can be found at:

The Council's website

The GLA advice on design and access statements
http://www.london.gov.uk/mayor/planning_decisions/docs/access-guidance.pdf

CABE
(now merged with the Design Council)
www.cabe.org.uk
www.designcouncil.org.uk/

Appeals

4.18. If the local authority refuses planning permission, the applicant can appeal against this decision to the Planning Inspectorate. The address of the Planning Inspectorate is:

The Planning Inspectorate
Room 3-4 Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN
Tel: 0117 372 8000
www.planning-inspectorate.gov.uk
Chapter 5
Legal framework

5.1. The legal framework supporting this SPD is set out in more detail in the published Evidence base supporting the preparation of this document. Briefly legislation regarding access to buildings for disabled people began in 1970 and the range of legislative applications has widened over time and detailed requirements have been extended and refined.

The relevant Acts are listed in chronological order

Planning and Compulsory Purchase Act 2004

5.2. This amended the Town and Country Planning Act 1990 and omitted the long standing duty requiring local planning authorities to draw the attention to certain provisions benefiting disabled people when granting planning permission. Section 42 compels applicants of planning applications to submit a design and access statement to accompany their application in the majority of cases.

Workplace (Health, Safety and Welfare) Regulations 1992

5.3. The Workplace (Health, Safety and Welfare) Regulations 1992 aim to ensure that workplaces meet the health, safety and welfare needs of each member of the workplace, including disabled people.


5.4. The Equalities Act 2010 consolidates the array of anti discrimination law and regulations into a single act and includes the duty to end discrimination against disabled people by providing rights in the areas of employment, obtaining goods and services, access to education, transport and buying or renting land or property. Local authorities are obliged to have “due regard” to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations between different groups, including disabled people, and to publish equalities objectives.

The Building Regulations 2000

5.5. Approved Document M, 2004 Edition, ‘Access to and use of buildings’ covers domestic and non-domestic buildings. It aims to make it reasonably safe and convenient for people to gain access to, and use, non-domestic buildings, whether visitors or employees. It applies the concept of inclusive access for all. This takes account of major changes to the British Standard 8300:2001 subsequently amended and updated in 2009. It includes all new developments (residential and non-residential) alterations to existing buildings and certain changes of use, and to apply the concept of inclusive access for all.
Section A
Parking

Background

Where does this apply?
A.1. The need for accessible parking spaces applies to all new non-residential buildings. Accessible parking is not usually required as part of an application for change of use or extension. When parking is provided then a minimum of one wheelchair accessible parking space must be provided.

General

A.2. Most parts of Waltham Forest are well served by public transport however the majority of tube and train stations are still inaccessible, and do not provide comprehensive cover of the borough, and transport by bus is not always accessible despite recently improved design.

A.3. Instead many disabled people rely on their own transport for essential journeys to and from their home whether shopping, going to work or socialising. An increasing number of people are using mobility scooters to get out and about. The alternative is using services like Dial-A-Ride or Community Transport

A.4. Ensuring there is an adequate supply of on and off street accessible parking spaces is essential to independence for disabled people going about their daily activities.

Spaces for blue badge holders
A.5. Schemes including new or improved parking need to ensure that accessible parking spaces are identified for disabled drivers or passengers with a blue badge. Details about the Blue badge Scheme are given in Appendix 1

Accessible on site parking

A.6. In any new public development sufficient accessible car parking spaces need to be provided close to the main entrance. This is essential to independence. Signage and entry systems need to be easy to read and use and make clear any parking restrictions

A.7. The routes to and from designated parking areas need to be designed to standards set out in Section 2. Bays should be large enough to allow easy side and rear transfer on and off a wheelchair.

A.8. The spaces need to be well lit, and clearly marked, for easy identification. The ground surface needs to be as level as possible to enable safe and easy manoeuvring to and from the bay. The adjacent pedestrian routes need to be easily identified using colour-contrasting materials. This benefits a wide range of people including children, blind and partially sighted people and people with learning disabilities.

Covered parking areas

A.9. Some disabled people use vehicles with a high top conversion for easy access on and off the vehicle. The design of covered areas need to ensure there is adequate headroom throughout to enable people with high top conversion vehicles to park. Identified spaces need to be close to lifts in multi-storey complexes. Signage and entry systems need to
be easy to read and use and make clear any parking restrictions. More advice about the design of covered parking is available in BS8300.

**Dial A Ride/community transport parking**

A.10. In large developments, for example retail, education, community and leisure schemes, adequate parking provision needs to be made for door to door transport. For example, Dial A Ride, Community Transport vehicles and taxis.

A.11. Spaces should be designated to accommodate larger vehicles which are converted for side or rear access using hoists or ramps.

**Mobility Scooter parking**

A.12. There is an absence of designated mobility scooter parking in the borough. Where new schemes are proposed with parking for the general public then consideration needs to be given to providing a suitable parking area. Research by DETR shows the space required to turn through 90 degrees. See Appendix 3: Inclusive Mobility Section 2.3

Figure 1. On Site Parking

- Hatched safety zone for boot access
- Hatched transfer zone
- Dropped kerb with tactile surface
- Vertical sign
- Figure 1. On Site Parking
Other spaces

A.13. Some drivers do not have a blue badge, but would benefit from spaces near building entrances; for example parents with small children or elderly people. Building owners could consider identifying spaces for such users.

Figure 2. On street parking bay
Vehicle setting down/picking up points

A.14. Not everyone uses their own transport so provision of designated drop-off areas is needed for other vehicles for example, Community transport, Dial A ride and taxi vehicles. The areas set aside need to be level and close to the main accessible entrance of any large new developments. The space needs to be large enough to accommodate the larger community vehicles.

A.15. The associated footway needs to be level or have a section with a dropped kerb to enable transfer straight onto the footway.

On street parking

A.16. Where there is no car park associated with a new public building, designers should seek to negotiate reserved spaces in nearby streets by agreement with the local authority.

Management issues

A.17. A serious problem facing anyone using their own vehicle is the misuse of designated accessible designated parking spaces for blue badge holders. This is frustrating for legitimate blue badge holders users. The problems caused by the abuse of designated spaces are something the Council takes seriously and expects to be managed proactively by site owners.

A.18. Building managers should arrange for regular checks to ensure that other drivers do not occupy reserved spaces.
Section A
Key Design Principles

General

1. Accessible parking spaces are required for all new development.

2. Locate accessible bays on pedestrian access routes. See Section B.

3. Position on level ground with a maximum gradient of:
   • 1:60 along line of travel; and
   • a cross fall of 1:50.

Accessible parking for Blue Badge Holders

4. Details of the amount of accessible parking spaces to be provided is set out in Appendix 1 UDP 2006 (page 184). See www.walthamforest.gov.uk/udp-app1-car-parking-controls-feb07.pdf

Accessible off-street / on site parking spaces

5. Locate close to the accessible entrance and no more than 50 metres away.

6. The surface of the parking space is to be even and stable with surface variations not exceeding 5 mm.

7. Vehicle and pedestrian routes to and from the reserved accessible spaces should be clearly signed; and well-lit.

8. Bay dimensions should be 4800 mm x 2400 mm with a minimum 1200 mm ‘safety transfer zone’ around the bay to maintain access to both the sides and the rear of the vehicle. See Figure 1.

9. Accessible parking bays located side by side can incorporate a shared space of 1200 mm between the two bays, as shown in Figure 1. (Figure 1)

10. Designated parking bays must be accessible from a pedestrian route segregated from vehicle routes.

11. Footways leading from the parking are to be at least 1.8 metre wide, free of obstructions, paved and clearly identified using colour-contrasting materials.

12. Dropped kerbs are essential for convenient access from the parking bay onto the pedestrian route.

13. Spaces flush with the footway need to incorporate suitable colour contrasting surface materials.

14. Spaces need to be well lit. See BS 8300:2009+A1:2010 Section 4.2.3.

Covered parking

Multi-storey car parks

15. Accessible spaces are to be designed to the same standards as Off-Street Parking.

16. Minimum 2600 mm headroom throughout.

17. Accessible lifts are to be provided with a clearly marked accessible route.

18. Designated wheelchair accessible parking spaces are to be provided on every level and clearly signed and lit.

19. Locate designated spaces close to accessible lifts.

20. All ramps, stairs and lifts are to be designed in accordance with sections 8 and 9.
21. Entry systems and pay equipment need to be accessible within easy reach of the driver within their vehicle, and easy to operate. See BS 8300 2009: A1 2010 Section 4.4.4

Garages, secure and enclosed parking
22. The access routes need to be level and preferably under cover.
23. Enclosed parking space dimensions 4200 mm x 5700 mm. Headroom minimum 2600 mm.
24. Power-operated opening systems need to be capable of remote operation.

Dial A Ride parking
25. Spaces for Dial-a-Ride and other large vehicles to be 8 metres long x 4800 mm

Mobility Scooter Parking
26. If mobility scooter parking is being included see Appendix 3: Inclusive Mobility: Section 2.3 for details of space likely to be required.

Setting down/ picking up area
27. These need to be:
   - Clearly marked
   - Level
   - Close to the main accessible entrance
   - Enable easy transfer from the vehicle to footway via a dropped kerb

Car park entry systems
28. Where automatic barriers and payment machines are in use, accessible systems must be provided. See BS 8300 2009: A1 2010 Section 4.4.4

Way finding and signage
29. It is very useful if information located at the entrance to a car park indicates if free blue badge parking is available.
30. Location of reserved parking bays to be clearly indicated at the car park entrance.
31. Accessible bays are to be clearly marked with the Wheelchair Symbol and blue badge on the surface and on a pole.
32. Any family parking spaces need to display the “buggy” symbol.

On-street parking
33. Parallel accessible parking bays measuring 6600 mm long x 3600 mm (minimum 2700 mm) wide.
34. Angled designated parking bays to be 4800 mm long and 3600 mm wide.
35. Bay to be clearly marked plus a pole sign.
36. Provide a dropped kerb for convenient and safe access from the bay onto the pavement.
Section B
External Circulation

Background

Where does this apply?

B.1. Large planning applications for mixed use redevelopment, shopping or commercial development and Council’s own developments need to take account of these standards.

General

B.2. Circulation routes need to be designed so that they are safe and easy to be used by everyone. The thoughtful use of paving materials and effectively positioned lighting will benefit everyone especially people who are blind or partially sighted. There are wider social benefits of appropriate lighting in terms helping to reduce crime and particularly helping keep women safe.

B.3. All access routes to and around buildings need to be wide enough to enable wheelchair users, scooter users, Shopmobility vehicles, carers with small children, people with assistance dogs and others to pass each other in both directions.

B.4. Routes need to be as level as possible with minimal cross-fall. This is because surfaces with a significant cross fall can unbalance anyone with reduced mobility, for example people using prams, buggies, wheelchairs, tapping canes; callipers or luggage.

B.5. Irregularities in the surface level created by poorly laid paving can cause similar difficulties.

B.6. Using open drainage gullies can create a hazard and should never be used. Instead covered gullies are required, preferably set off the main footway and with the grating detailed so sticks and wheels do not become trapped.

Shopmobility Schemes

B.7. A Shopmobility scheme operates in Walthamstow town centre. This provides wheelchairs and scooters for hire and gives everyone the freedom to get and about the shopping centre. The provision of Shopmobility schemes is encouraged in other town centres in association with proposals for large town centre developments proposals.

Assistance Dog Facilities

B.8. Some disabled people visiting shopping centres or large public buildings will need to bring an assistance dog with them. Assistance dogs primarily accompany people with sensory impairments however people with mobility impairments may also have an assistance dog. It is important to provide areas for assistance dogs to be watered and so forth. These areas are called dog sending areas.

B.9. These facilities are appropriate in large shopping developments and can be reconsidered in any large scale green space improvement schemes.

Hazard protection

B.10. Routes should be kept clear of any obstructions such as street furniture as these can create hazards for anyone with mobility or sensory impairments. These need to be located away from the main vehicle free access route or clearway.
B.11. Street furniture such as bollards and columns need to be clearly identified with high visibility markers.

B.12. Windows and doors should not open into an access route if unavoidable hazard protection may be required.

**Clearways**

B.13. Clearways are designed routes free of street furniture and have a separate zone for street furniture. These are not to be confused with the clearway designation for vehicle highways.

**Lighting**

B.14. Lighting needs to be carefully designed and located so it does not create areas of glare or shadow which can be problematic for anyone with limited vision.
Section B
Key Design Principles

Footways
1. Minimum unobstructed width of 2000 mm, and 1800 mm over a short distance to pass an obstruction, for example, a tree.
2. Firm, smooth and non-slip surface.
3. Level or have the shallowest possible gradient. Gradient of 1 in 20 (5%) or steeper to be designed as a ramp. (See Section C)
4. Cross fall gradient from building to pavement should not exceed 1 in 50 (2%) except where there is a dropped kerb.
5. Paving slabs to be flush jointed.
6. Paving undulations not to exceed 5 mm under a 3000 mm straight edge.
7. Avoid open drainage channels. Covers to drainage channels and inspection chambers to be flush with surrounding surfaces and set beyond the boundaries of the access route.
8. Drainage grating bars to run at right angles to the line of travel.
9. Drainage slots are not to be more than 13 mm wide, if circular not more than 18 mm diameter.
10. Kerb edges and up stands of 100 mm and above should be colour and luminance contrast.

Hazards protection
11. Street furniture such as bollards, lighting columns need to be designed to visually contrast with background and incorporate a band 150 mm wide, bottom edge 1500 mm above ground level. The band should visually contrast

12. A minimum headroom of 2300 mm above finished floor level to underside of any projection for example from walls, buildings, canopies, signs, and tree branches.

13. Windows and doors projecting opening more than 100 mm onto footways and access routes need to be guarded.

Clearways
14. Creation of a clearway along access routes free of street furniture and other obstructions.

15. Minimum 2 m clearway width.

16. Clearway to be constructed in materials contrasting in texture and colour to the street furniture zone.

Lighting
17. Lighting needs to be carefully designed. See BS 8300 4.2.3

Shopmobility Schemes
18. In large shopping developments outside Walthamstow town centre consider the provision of a shop mobility scheme.

Assistance dog facilities
19. Consider provision in large shopping developments and green space improvement schemes.
Section C
Approach to Buildings

Background

Where does this apply?

C.1. Planning applications for changes of use, non-residential redevelopment, and new shopfronts all need to take account of the design of the approach to the building and ensure there is a level approach to the main entrance.

Paths

C.2. Everyone should be able to use the same entrance so the approach to the building should be level. Where slopes are unavoidable see section below on gradients on access routes

C.3. Footways and paths need to be wide enough to enable people to easily pass each other in both directions. They also need to be level, free of obstacles, clearly defined and suitably illuminated to the building entrance, with dropped kerbs located where necessary, especially across service roads or car park entrances.

Gradients on access routes

C.4. Where a change in level along the route is unavoidable, this should be kept as shallow as possible. Incorporating level areas at regular intervals along with seating off route are beneficial for anyone with restricted mobility especially where it is a long distance to the main entrance.

Ramped access routes

C.5. Routes with gradients of 1 in 20 or steeper need to be designed as ramps. These can take up a lot of space and are not always the best solution. Some ambulant disabled people find ramps difficult to use so steps should be provided as an alternative route. Significant changes in level may require an alternative means of access for example a lift

General

C.6. The key features in ramp design are the length of the flight between landings. Ramps steeper than 1:20 can be difficult to use by people in a wheelchair for a number of reasons.

C.7. People using a manual wheelchair may not have sufficient upper body strength to propel themselves up the slope.

C.8. Companions pushing the wheelchair are likely to have the same difficulties.

C.9. There is a risk, if the slope is too steep, of the wheelchair toppling over or tipping backwards.

C.10. Control, braking and manoeuvring are all difficult on a steep slope.

C.11. Excessive cross fall gradients also increase the risks of the wheelchair unbalancing when manoeuvring.

Width

C.12. Ramps in busy areas need to be wide enough to enable people in wheelchairs and parents with buggies to pass each other in opposite directions.
Landings

C.13. Level landings are needed at the top and bottom of the ramped area and at intermediate points to provide resting places and to enable people to manoeuvre. Where there is a change in direction for example an intermediate level landing needs to be wide enough to serve as a passing place. This enables anyone using a wheelchair to safely manoeuvre through 180 degrees without risk of straying on to the flight, which could cause the chair to topple over.

Entrance landings

C.14. Where ramps terminate at right angles to the entrance anyone in a wheelchair will need to turn through 90 degrees on the level landing in order to enter the building. The level landing needs to be clear of the fully extended door swing and large enough to manoeuvre and safely open without risk of moving back onto the ramp slope.

Figure 4 Ramp and steps
Ramps and steps – shared landings

C.15. Where ramps and steps lead to a shared level landing outside the main entrance the hazard warning strip associated with the steps needs to be clear of the ramp landing. This will ensure there is adequate space for anyone manoeuvring in a wheelchair without risk of toppling down the steps or ramp.

Other features

C.16. Suitable lighting, edge protection, surface treatment and handrails are required.

External steps

C.17. Some people find steps easier to use than ramps. In new schemes and wherever possible in existing situations both ramps and steps should be provided. Where there is a very small change in level then a sloped approach is preferred.

C.18. Steps, which ‘feather’ into ramps should not be used, as changes of level are not easily detected.

Visual tactile warning

Contrasting colour nosing

Non slip surface

Figure 5 Step details
Hazard warning - tactile marker

C.19. Blind or partially sighted people need advanced warning of a change of level along the route. It is essential that tactile paving is placed at both ends of the steps. This needs to be sufficiently in advance of the steps to signal there is a stepped change in level and be wide enough so it is not missed on approach.

Treads and risers

C.20. Steps need to be carefully designed. Steps combining a modest riser and a deep tread will mean users are less likely to overstep. This also reduces risk of strain on the knee and hip joints when descending.

C.21. Overhanging treads and open risers are trip hazards as they increase the risk of users trapping the toes of their shoes when ascending. Sloping treads should not be used.

Rise of flight

C.22. Single steps should be avoided as they create a trip hazard. Instead a sloped or ramped route is required. The height of individual flights of steps needs to be shallow enough so the travel distance to intermediate landings is minimised this is particularly important for anyone needing to pause and rest at frequent intervals.

Nosings

C.24. Steps need nosings to identify the individual steps and full extent of the stair flight. This is particularly important for anyone with a visual impairment.

Landings

C.25. Level landings with tactile markers are needed at the top and bottom of each flight of external steps. Where the steps lead up to the entrance the level landing clear needs to be clear of the door swing and deep enough to enable the door to be opened easily without risk of stepping back onto the stair flight.

Handrails

General

C.26. Wheelchair users do not usually need to use a handrail on a ramp but may need to steady themselves in poor weather conditions or on a long/steep ramp. Ambulant disabled people may be weaker on one side of their body and can prefer to use steps rather than a ramp. Handrails are therefore essential to both sides of ramps and steps.

C.27. Handrails can also be provided in other situations where support or orientation may be important such as along corridors, in reception areas and at counters or other places where people may have to queue.

C.28. Structural guarding may need to be considered where there are unprotected drops to prevent falls especially in settings where children might climb on the handrail.
Height

C.29. Different heights of handrail suit different people. Dual rails can be an useful in some situations for example in school settings. A lower tapping rail is also helpful for anyone using a cane.

Handrail design

C.30. Handrails need to be easy to grip and provide arm support. Adequate spacing from the adjacent wall and positioning of the rail fixing are essential to enable users to have continuous use of the rail and avoid impact with the support bracket.

C.31. The circular and non-circular rails with a broad horizontal face are easy to grip. The latter provide very good arm support. Square profiles are not recommended.

C.32. Handrails should end horizontally, beyond the first and last steps at the top and bottom of a ramp flight, providing this is not into access route. This allows people to steady themselves before ascending or descending.

C.33. The change in slope of the rail and its return to a wall also signals to visually impaired people that they have reached the beginning or end of a flight. Cantilevering out the rail can be useful as many people need to rest en-route and can use the rail for support.

C.34. Materials need to be carefully chosen so they are warm to touch in the majority of weather conditions and easily seen against the prevailing background.

Clear width

C.35. Where a “clear width” is specified for a ramp, steps or access route, this means the width between handrails.
Figure 7 Handrail Profile

 Circular handrail

 Non-circular handrail

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Minimum Radius</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-75 mm</td>
<td>15 mm</td>
<td>38 mm</td>
</tr>
<tr>
<td>32-50 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section C
Key Design Principles

Approach paths

1. Paths need to be level with well defined edges. (Gradient 1:60 and shallower)

2. Routes need to be a minimum of 2 metres wide. This must be clear of edges of buildings.

3. Along busy routes creating a defined clearway free of obstructions for example bollards; seating, lighting columns service outlets and meters

4. Obstructions such as path edges, trees, seats, bollards and columns should be clearly defined to assist partially sighted people.

5. Dropped kerbs are essential for easy transfer from vehicles

6. Surface materials are to be firm, and non-slip

7. Surface materials need to colour contrast to define routes and identify hazards

8. Routes need to be well lit

9. Doors and windows opening over the access route need to be guarded.

10. Blister paving is to used where dropped kerbs cross carriageways

Gradients on approach routes

Gently Sloping Routes

11. Gradients of 1:59 – 1:21 require level landings for every 500 mm rise, and at changes in direction along the route.

12. Providing seating off the level landings

Ramped routes

Width

13. 1500 mm minimum width clear of edging,

14. 1800 mm preferred clear width in busy areas.

Gradient

15. 1 in 20 maximum gradient for new developments

16. Alterations, extensions and changes of use - A ramp gradient steeper than 1:20 may be acceptable for existing premises because of existing site conditions.

17. Flight not to exceed 10 metres, or a rise of more than 500 mm. See BS 8300: 2009 + A1:2010 Table 1 for more details

18. Level changes exceeding 2 metres must provide an alternative means of access for wheelchair users.

19. Cross-fall gradient 1 in 50 (2%) maximum on flights

Landings

20. Landings at the foot and head of a ramp and at intervals of no more than 10 metres. Landings at least the width of the ramp; a minimum of 1500 mm x 1500 mm, clear of any door swing or other obstruction.

21. Intermediate landings with a change in direction need a surface width of 1800 mm

22. Landing areas need a slight cross fall for drainage - minimum 1:50 is required, 1:80 is preferred.
Entrance Landings
23. Landings by the main entrance door must be clear of door swing and hazard markers.
24. Ramps at right angles to the entrance require a level landing with a minimum clear surface width of 1800 mm.

Ramps and steps – shared landings
25. The 400/800 mm hazard warning strip at top of stairs is to be clear of shared level landing of the ramp.

Edge protection
26. Kerbed upstands are required to both sides at least 100 mm high.

Handrails
27. Handrails are required to both sides of a ramp.

Surface materials
28. Surface materials to be smooth, easy to maintain and slip resistant.
29. The ramp surface needs to contrast in colour and luminance with all landings.

Lighting
30. Good lighting is required to avoid glare and cross-shadows.

Steps and stairs

Hazard Warning Markers
31. Use a corduroy tactile warning surface on landings at the top and bottom of the flight this should be:
32. 800 mm deep;
33. Colour and luminance contrasted,

Treads and Risers
34. Uniform step rises of between 150 mm - 170 mm maximum
35. In school settings a riser of 150 mm is preferred
36. Uniform tread depth for steps minimum 300 mm – 425 mm.

Rise of flight
37. Single steps should not be used.
38. Rises of less than 300 mm should be sloped not stepped
39. Provide steps where there is a change in level of 300 mm or more
40. Each flight of the stairs to have up to 20 steps (risers) maximum in accordance with BS 8300:2009 + A1:2010.

Handrails
41. Continuous handrails are required on both sides, of flight(s) and intermediate landings.
42. Steps wider 1800 mm clear width require an additional intermediate handrail (s).

Stair width
43. Minimum unobstructed width of 1200 mm is required between upstands, 1000 mm between handrails.

Nosings
44. Nosings are to contrast in colour and luminance.
45. Depth 50-65 mm on tread; 30-55 mm on riser. See Figure 5.
Landings

46. Level landings a minimum 1200 mm x 1200 mm are required, clear of the fully opened door / gate swing, at the top and bottom of each flight.

47. Tactile hazard warning markers are to be incorporated.

48. The landing needs a slight fall to drain surface water.

Lighting

49. Strong, even lighting throughout.

50. Avoid glare and cross-shadows.

Other

51. Open areas under stairs are to be guarded or closed off.

Handrails

General

52. These are to be continuous to both sides of ramps, steps and intermediate landings.

53. Unprotected drops may need guarding.

Height

54. Fix at a height 900-1000 mm above pitch line to top surface of handrail.

55. On level landings the height can be between 900-1100 mm high.

56. Fix a second lower height rail at 600 mm – this is suitable for children, and anyone of reduced stature.

57. An additional low tapping rail at 100 mm is useful for cane users.

Handrails on Wall and Guarding

58. Handrails need to be fixed at the correct height and clearance on the inner face.

Design

59. Extend handrail 300 mm horizontally beyond the start and finish of the ramp or stairs.

60. Support brackets are to be fixed to the underside of the rail.

61. Handrails are to be fixed 60 mm - 75 mm proud of adjacent wall or surface.

62. Cantilevering handrails out from brick walls or concrete up stands to enable users to lean on them.

63. Circular or oval profiles preferred.

64. Handrails to terminate to ground level, or wall with a positive notched or rounded end.

65. Smooth surface, free of sharp edges, comfortable to grip.

Materials

66. Use materials not subject to extremes of temperature.

67. Finished to contrast in colour and luminance with the surroundings.
Section D Entering the Building

Where does this apply

D.1. Planning applications for all redevelopment schemes, changes of use, non-residential redevelopment, and new shop and commercial frontages and alterations need to take account the guidelines in this section to ensure the main entrance is accessible and the approach is level.

Approach

D.2. Full details about the approach to buildings are set out in Section C.

The entrance

D.3. A well-designed principal entrance will enable everyone to enter the building through the same entrance. The design needs to ensure anyone approaching the building is able to:

- easily identify the building entrance within its surroundings
- have weather protection
- easily manoeuvre a wheelchair over the entrance threshold
- operate the entrance door easily
- easily move through the doorway
- easily access and operate the door entry system

Weather protection

D.5. The entrance needs to include weather protection in the form of a canopy for the benefit of people who need to pause before entering. This needs to be high enough above ground level with fixtures outside the main access route to ensure a hazard is not created for visually impaired people. If necessary, hazard protection will need to be incorporated into the design. The approach to any door controls needs to be clear of obstructions for example canopy supports.

Thresholds

D.6. All doors require a level threshold - sometimes a raised threshold or weather bar is unavoidable but needs to be kept to a minimum.

D.7. Proposals for new entrance frontage to existing shops and offices sometimes retain steps or include thresholds with sharp upstands and gradients over the door entrance. This is unacceptable as this makes it impossible or very difficult to enter the premises especially for anyone using a wheelchair or people with pushchairs or a shopping trolley. Exposed edges also create trip hazards.

Easy identification

D.4. A well designed main entrance needs to be easy to identify so should visually contrast with the surrounding building elevation and have clear signage. Good lighting will enable clear views into the entrance lobby or main retail or office area through the doors and windows.
Entrance door operation

D.8. Entrance doors to buildings need to be easily operated by anyone with reduced mobility for example a disabled person or someone with a small child or heavy bags. Doors that need to be kept closed when not in use need to incorporate features, which maximize their ease of use. See Section F – Door Fittings and Furniture.

D.9. Automated or semi automated door closing systems are preferred to self closing devices on manual doors.
D.10. Schemes for large developments for example supermarkets and leisure facilities need to be designed with automated or semi automated door closing systems.

D.11. For smaller developments for example individual shop and office units a manual door opening may be acceptable providing the door is resistance free and easy to push open.

**Power operated doors**

D.12. Power operated or automatic entrance doors are preferred, as they do not present a barrier to access. However they are not suitable for some situations, for example where children may wander away unsupervised, or where staff may be in a constant draught. Automatic doors can swing, slide, or fold. Doors can have manually activated door controls or use automatically activated door openers.

**Low energy doors**

D.13. These entry systems are useful on swing doors in buildings with relatively low usage. They can be set to work in either manual mode or a powered opening assistance. These open as people apply pressure to the door.

**Powered revolving doors**

D.14. These are not suitable because they cause difficulties for blind and partially sighted people, ambulant disabled people; anyone with young children, and people with an assistance dog. Where they are unavoidable an accessible side door must be provided and left unlocked when the building is in use.

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Figure 9 Level threshold
Doorway width

D.15. The primary entrance door needs to be wide enough to enable anyone using mobility aids to easily and safely move through the entrance.

D.16. Applications for all changes of use and new frontages to shops offices, banks and other buildings open to the public must ensure that the door meets this standard.

Entrance lobbies

D.17. Lobbies can create a barrier to entry and should only be installed where essential. Where lobbies are unavoidable they need to be large enough to enable anyone in a mobility scooter, a wheelchair user with a companion, or a person pushing a pram to move clear of one door swing, before pushing open the next door or reversing to pull the door open. Double swing doors with vision panels are easier to operate in both directions. Where single leaf doors are used the lobby needs to be designed as set out in Figure 11.
Section D
Entering the Building

Key Design Principles

Building entrance
1. A level or gently approach with a level area clear of the door opening
2. Canopy for weather protection
3. Flush thresholds or detailed as set out in Approved Document M 2004 and BS 8300 2009
4. Approach to door controls clear of obstruction.
5. Suitable guarding is required where doors open outward onto an access route.

Easy identification
6. The main entrance door to contrast with main elevation
7. Clear signage
8. Good lighting and clear views through doors and windows into the reception area

Weather protection
9. Canopy design to be at least 1200 mm deep.
10. Canopy supports need to be located off the access route or suitably guarded.
11. Please note canopies are not essential for individual shop frontages

Thresholds
12. All doors require a level threshold.
13. Threshold maximum overall height 15 mm with suitably chamfered or pencil rounded edges.
14. Threshold junction with internal floor finishes graded to a flush finish.

Entrance door operation

Power operated doors
15. These can be opened using either manually controlled or automatically activated devices.
16. All doors need to be clearly sign posted on the approach route to the entrance
17. Doors opening outward into the approach route need to be clearly identified

Manual Controlled
18. Manually activated doors are controlled by a push pad, card swipe, coded entry system, or remote control device.
19. The control panel needs to be within easy reach:
   - Clear of obstruction underneath
   - Positioned 750 –1000 mm above finished floor level.
   - Visually distinct and contrast with the background
   - Positioned close within 200 m of the door frame on the latch side providing this is outside the extended door swing for outward opening doors.
   - The clearance between the latch side of the door frame and any return walls needs to be adequate for anyone to wait safely clear of the door swing.
• The control panel for any inward opening doors needs to be located on the latch side of the door within 200 mm of the door face.

20. Controls need clear instruction on use.

Automatic activation

21. Doors which open automatically are usually controlled by a motion sensor or a hands free proximity reader.

22. Doors opening outward into the approach route need to be clearly signed.

23. Signage is needed to advise of automatic opening operation.

24. Activation sensors need to be located and adjusted so the door opens when visitors are no closer than 1400 mm from fully extended leading edge of door, and remain open long enough for safe use.

25. Doors need to be set so they fail safe as manually operated in emergency/power failure.

Low energy doors

26. These are useful for swing doors in buildings with relatively low usage.

27. They can work either in manual or powered assisted mode.

Power operated revolving doors

28. These are not recommended.

29. If unavoidable, an additional accessible side hung or sliding door, of 1000 mm effective clear width is required on the main entrance elevation.

30. The alternative entrance needs to be clearly sign posted.

31. Door closers details in Section F Door Fittings and Furniture

Door Entry system

32. See Section F

Door width

33. Primary door leaf to achieve 1000 mm effective clear open width.

Guarding

34. Doors opening over access routes will need to be guarded. (See Figure 9)

35. Guarding can take a number of different forms for example a permanent barrier such as deterrent paving, or planters. See Approved Document M, paragraph 1.39 for more details.

36. As an alternative outward opening doors can be recessed.

Entrance lobbies

37. These create a barrier and should only be used where unavoidable. Double swing doors with vision panels are preferred.

38. Where double doors are used, the lobby depth is easily calculated = projection of the door(s) into the lobby plus 1570 mm.

39. 1570 mm is the length of a manual occupied wheelchair plus a companion.

40. Where lobbies with single leaf doors are used the lobby needs to be designed as shown in Figure 11.
Guarding with cane detection at ground level where doors open onto an access route.

Figure 10 Guarding

Guarding with cane detection at ground level where projection onto access route is greater than 100mm.

Figure 11 Lobby dimensions

**KEY:**
- **A** at least 300mm
- **DL** Door leaf dimensions
- **L** Minimum length of lobby
- **DP** Door projection
- **1570** Length of occupied wheelchair and companion

London Borough of Waltham Forest
Section E
External and Internal Doors

Background

Where does this apply?

E.1. External door standards apply to all non-residential developments including redevelopment, changes of use and new frontages and the Council’s own development.

E.2. Internal door requirements apply to the Council’s own development whether or not planning permission is required.

General

E.3. All doors are to be consistently fitted - hung to the same side; and opening in the same direction in communal and circulation areas. This aids wayfinding and ease of circulation. Internal doors across circulation routes are to have a two way swing where practical with suitable push and pull signs.

External doors

E.4. All external doors are to be designed to give a 1000 mm effective opening width. Where there are double doors, the primary leaf is to provide a minimum of 1000 mm effective clear width. This clear width is essential as it accommodates the majority of building users for example anyone using a wheelchair or scooter as well as people with assistance dogs. Doors opening outward may need to be guarded where they open onto an access route.

E.5. External Doors to storage areas may be less wide.

Internal doors

E.6. Doors can create barriers to ease of movement around a building. It is preferable to keep these to a minimum on circulation routes unless essential.

Width through doorway

E.7. There is sometimes confusion about what is defined as the effective open or clear width. This is not the width of the door leaf or the overall door set.

E.8. The effective clear width of a single door leaf door or the primary leaf of a set of double doors is defined as:

“The width, clear of any projections from the open door face to the opposite door stop or edge of secondary door.”

For example to achieve a 1000 mm effective clear width the door leaf will need to be at least 1125 mm wide possibly more depending on the type of door furniture used and any closing devices.

Location and side clearance of doors

E.9. Anyone using a wheelchair or other mobility aids needs adequate space when approaching any door to manoeuvre and open the door and then easily pass through. Adequate unobstructed side clearance between the leading edge of any door (pull side - opening towards someone) and the return
wall or other obstruction greatly improves manoeuvring. This is essential for entrance doors to mixed developments which include wheelchair accessible housing.

E.10. Providing adequate clear space on the hinge side will enable the door to open to its full width.

**Vision panels**

E.11. Vision panels are essential so that everyone can see and be seen. This is particularly important for deaf people. There should be a clear view for young children, wheelchair users and people of all heights when approaching a door. Where fire regulations impose restrictions, installing several smaller vision panels will enable clear views through. Vision panels may not be appropriate in some settings for example toilet blocks and store rooms.

**Glass doors**

E.12. Fully glazed doors need clear markings with permanent manifestations within two zones so the doors can be readily identified when approaching from either direction. Glazing should be of matt finish glass to reduce glare and reflections which enables users to see through more readily.
Section E
External and Internal Doors

Key Design Principles

General
1. Doors need to be fitted consistently throughout the building.
2. Where practical, two way swing doors across circulation routes are preferred.

Signage on doors
3. Push and pull signs provided on doors as appropriate.

External doors
4. Doors should provide a 1000 mm effective clear width. Where there are double doors, the primary leaf should provide a 1000 mm effective clear width.

Internal doors
5. 900 mm minimum effective clear width in non-residential buildings.
6. Doors to accessible toilets, changing facilities and baby changing facilities a minimum 900 mm effective clear opening.
7. In sports and leisure facilities wider doors may be required to accommodate people using sports wheelchairs. See Sport England Advice, details in Appendix 3.

Width through doorway
8. The effective clear width of a single door leaf door or the primary leaf of a set of double doors, is measured clear of any projections from the door face to the opposite door stop or edge of secondary door.

Location and side clearance of doors
9. A minimum 300 mm side clearance space (500 mm preferred) needed between leading edge of the door and adjacent wall on the pull side.
10. Having the same clearance on the push side is encouraged wherever possible.
11. 500 mm clearance is recommended for mixed developments including wheelchair housing.
12. On the hinge side 100 mm minimum clearance is recommended. Where large door furniture is used this clearance needs to be increased.

Vision panels
13. A large single vision panel is preferred. The minimum zone of visibility needs to be between 500 – 1500 mm above finished floor level, and not less than 100 mm wide.
14. Where a single panel is not possible then the cumulative amount of solid zones between multiple vision panels should not exceed 350 mm, measured vertically.
15. See BS 8300 2009 + A1:2010, Section 6.4.3 for more information and Figure 13 of this document.
Glass doors

16. These need clearly marked manifestations in two zones.

17. 850 – 1000 mm from the floor

18. 1400 – 1600 mm from the floor

19. Manifestations are to contrast with background through the glass

20. Edge of door is to be visible when door open

21. Matt finish glass is essential as this reduces glare and reflections

22. Fit guarding where appropriate.
Section F
Door Fittings and Furniture

Background

Where does this apply?

F.1. These standards apply to:
   • New buildings
   • schemes involving a change of use and
   • the installation of new frontages

Door handles, bolts and locks

F.2. The correct type of ironmongery is critical to a door’s ease of use. In specifying products a balance is needed between easy release catches and latches and security from intrusion.

F.3. Everyone should be able to operate door-opening furniture, with a single hand or fist without needing to turn or grasp it. Fire door and security fittings also need to be easy to use by everyone.

F.4. Lever action designed furniture is easier to use. Knobs and turn buttons can be difficult to use for a wide range of people especially anyone with arthritis or reduced grip or dexterity.

F.5. There needs to be adequate space between handles and the key hole of any locks to enable easy use especially for anyone with reduced dexterity or swollen knuckles.

F.6. Using espagnolette fittings will enable anyone with a reduced reach range to access top and bottom door bolts.

F.7. Door furniture is often used for additional support so bolt through fixing is recommended.

Opening and closing force

F.8. The force required to open and close a door needs to be between 20 -30 Newton’s (See BS 8300:2009+A1:2010 section 6.5.2 for more advice).

Controlled door closers

F.9. Unless essential, door closers should not be used as they make it very difficult to open doors. The amount of effort required to open doors with these devices can make it extremely difficult for anyone with a physical impairment. If essential for fire requirements or energy conservation then they need to be selected so that the door is fully closed when not in use.

F.10. When specifying the type of controlled door closing devices, the efficiency of the closer, the resistances from edge seals, hinge friction, latch resistance and differential air pressure need to be taken into account. Manufacturers can supply this information. BS 8300:2009+A1:2010 also has more advice.

F.11. It may be worth considering high efficiency closers as these reduce the force required to open the door and make them much easier to use. These types of closers also ensure doors stay closed and/or latched.
**Hold open devices**

F.12. Electro-magnetic hold open devices are recommended for doors forming part of a building’s security, fire protection or energy management systems and enable ease of circulation. For fire doors these are linked into the alarm system and close in the event of an emergency or power failure.

**Hinges**

F.13. Choice of hinges can be crucial in achieving accessible operation of doors. Some hinges make doors very difficult to operate. For example rising butt hinges assist in closing doors but make it difficult to open. Ball-race hinges provide the easiest action for non-automatic doors. Positioning two of the three hinges close together towards the upper part of the door will give greater support for wider, heavier doors. Hinges with low friction bearings will minimize resistance to door opening and closing.
F.14. Finger guards prevent people inadvertently trapping their fingers in hinges. These should always be installed in schools and venues used regularly by children or vulnerable adults.

**Entry devices**

F.15. All entry devices need to be clearly identified with instruction on use. These need to be located so that anyone in a wheelchair can easily use them. Installing two linked fittings at different heights may be necessary in some settings. Devices which incorporate an LED display make it easier for people who are deaf and hard of hearing to use them. Video entry phone systems are very helpful for the person answering the call, as well as for the person wishing to enter. See Figure 14.
Section F Door Fittings and Furniture

Key Design Principles

Door handles, bolts and locks
1. Fix door furniture at consistent height
2. Door opening furniture needs to be capable of use with a single hand or fist without needing to turn or grasp it.
3. Using bolt through fixings enables furniture to be used for added support
4. Door handles and locking devices need to have a level action, generous rounded proportions and returned at the end.
5. Horizontal door handles to be positioned 800 mm – 1050 above finished floor level. 900 mm is preferred.
6. A vertical and/or horizontal pull handle is helpful if there is no door-closing device.
7. Vertical pull handle to be positioned so the bottom edge is 700 – 1000 mm maximum above finished floor level. The top edge should be no lower than 1300 mm
8. Lock-key hole needs to be a minimum 72 mm from handles
9. Espagnolette fittings allow access to top and bottom door bolts.
10. Locks to be externally accessible, and incorporate visual indicator in words and colour change. Avoid red and green.

Visual contrast
11. All door furniture to visually contrast with the door surface;
12. Door to contrast with surround.

Location of door furniture
13. See Figure 13.

Opening and closing force
14. Maximum force of 20 Newton’s, to enable opening and closing with minimum effort.

Controlled door closers
15. Door closers to be avoided unless essential.
16. Consider free swing door closers.
17. Consider high efficiency closers
18. Future proof the door design by incorporating details to allow for powered control at a later date.

Hold open devices
19. These are used on internal doors especially on corridors
20. Use electro - magnetic 90 degree hold open devices linked into alarm system.
21. These should ‘fail safe’ for manual operation in case of power failure.

Hinges
22. Hinges are preferred with low friction bearings to minimize resistance to door action for example ball-race hinges.
23. Positioning two of the three hinges close together towards the upper part of the door will give greater support for wider, heavier doors.
24. Use finger guards in buildings used by children or vulnerable adults

25. See also BS 8300 2009+A1:2010 section 7.3.4 for advice on self closing doors.

**Entry devices**

26. Provide clear instructions on use, minimum 14-point font.

27. Fit device in the accessible zone of 800 mm (900 mm preferred) to 1050 mm.

28. Activation pad located on latch edge within 200 mm of door frame / aperture.

29. Use embossed keys

30. Consider installing two linked fittings at different heights.

31. Use LED displays.

32. Use audio – visual indicator showing call received and lock released.

33. System to contrast visually with background.

34. Video entry phone helpful.

**Kick plates**

35. Fit a kick plate 400 mm high to both sides of the door.
**Section G**

**Reception Areas**

**Background**

**Where does this apply?**

G.1. New developments and changes of use for example schools, leisure facilities, libraries and hotels, banks, neighbourhood police units and the Council’s own developments.

**General**

G.2. The reception area is the first point of contact for visitors to a building. Consequently the building needs to be carefully designed to ensure the reception area is in sight of the main entrance and easy to recognise by anyone with a visual impairment or who is unfamiliar with the building. The reception point/desk needs to be designed so it is accessible on both staff and visitor sides. Distracting backgrounds are to be avoided for example mirrors, glazed screens and active wall patterns as these make it difficult for anyone needing to lip read or with impaired vision.

Figure 15 Accessible reception desk
Counter design

G.3. Counters and desks need to be suitable for both seated and standing customers with high and low sections. Clear space in front of the desk allows easy manoeuvring for everyone especially people using a mobility aid or parents with very young children. The counter surface needs to have rounded edges and large enough for people to write or sign documents.

Hearing enhancement systems

G.4. A hearing enhancement system, using induction loop, infrared or radio transmission, should be installed in rooms and spaces used for meetings, and at service or reception counters where the background noise level is high or where glazed screens are used.

G.5. People who are deaf and hard of hearing benefit from having an induction loop system in the reception area. This enhances the sound quality through the user’s hearing aid or separate headsets. The system can be incorporated into a screen if required.
G.6. Buildings need to be laid out to ensure that sound spill-over from one loop does not affect another loop, or compromise confidentiality. Where confidentiality is an issue, another system may need to be considered.

**Screens**

G.7. Screens at the reception desk should only be used where essential for security. Glazed screens need to have a matt finish to assist people needing to lip read. Lighting needs to be positioned to prevent glare and reflections. Induction loops will need to be incorporated into the screen to assist people with hearing aids.

**Queuing systems**

G.8. Queuing systems are sometimes used for example in banks and post offices. Spacing between barriers needs to be large enough to allow wheelchair users and people with pushchairs or buggies to manoeuvre to the reception desk, turn to face the receptionist and turn to leave. The space also needs to be large enough to enable other customers or visitors to pass behind. Permanent barriers need to be robust enough to be used for support.
## Seating

G.9. Many people cannot walk far without resting on the way. All reception areas need seating at a range of heights and styles. Seating with armrests enables people to rise out of the seat more easily. When specifying seating, ensuring a firm seat pad is essential.

G.10. Avoid using all fixed seating as this causes problems for larger people, pregnant women, and people using mobility aids, wheelchair users and people with buggies.

G.11. Seating areas need to be clearly identifiable by blind and partially sighted people. Layouts need to ensure there is adequate space between rows of seats to enable people using crutches or with an assistance dog to move unimpeded.

G.12. Clear spaces in the seating area need to be identified and reserved for people using wheelchairs. Spaces are also required for parents and carers to park a pram or buggy alongside their seat.
Section G
Reception Areas

Key Design Principles

General

1. Reception areas need to be clearly sign posted from entrance.

2. Dual height counters are needed for seated and standing users.

3. Counter should have rounded edges and be deep enough to write on:
   - 500 mm on customer side; and
   - 650 mm on staff side.

4. Clear manoeuvring space in front of a counter or reception desk, clear of circulation routes and queuing barriers, to be:
   - 1200 mm deep and 1800 mm wide with knee recess of minimum 500 mm deep;
   - 1400 mm deep and 2200 mm wide without knee recess.

5. Lower, sitting height counter to have:
   - Clear height from floor to underside of counter or support rail minimum 700 mm,
   - Maximum height of counter surface 760 mm above floor.
   - Minimum width 1500 mm

6. Standing height counter
   - Surface to be between 950 mm and 1100 mm above ground.

Hearing enhancement systems

7. Install induction loop at reception point and meeting rooms.

8. Clear signage for loop system.

9. Locate to prevent sound spill over.

10. Consider alternative systems where confidentiality is an issue

Screens

11. Screens used only if essential.

12. Matt glazing allows lip-reading.

13. Induction loops are to be integral to the screen with clear signage.

14. Sliding screens are to open full width for both seated and standing height level. Use easy grip catches. Incorporating recessed runners which are finished flush with the overall surface.

15. Lighting positioned to avoid glare

Queuing systems

16. The space between barrier and reception counter needs to be a minimum 1800 mm where there is a knee recess under the counter. This increases to 2200 mm where there is no knee recess. This is because of increased space needed for manoeuvring in a wheelchair.

17. The barrier should colour contrast against the main background and be of a robust construction with rigid rails top and bottom including tapping rail.
Seating

18. Seating height (top of pad or seat) needs between 450-475 mm above floor level

19. A variety of seating is recommended for example fixed and removable and some including arm rests.

20. Provide a minimum 1200 mm space between rows of seats.

21. Identify and reserve clear spaces for wheelchair users

22. A space of 2300 mm × 1050 mm enables manoeuvring and allows other people to pass

23. A space 900 mm wide × 1400 mm deep space allowance for parked wheelchair.

Figure 18 Moveable seating
Section H
Horizontal Circulation

Background

Where does this apply?

H.1. All new developments, changes of use, extensions to schools, places of employment, and the Council’s own premises.

Corridors and passages

H.2. The internal circulation routes within any building need to be designed so that they are easy to move around, and provide a sense of direction and location. The careful use of materials and colour to provide visual contrast is essential for blind and visually impaired people and also aids wayfinding for all building users.

H.3. Corridors and passages need to be wide enough to enable anyone using a wheelchair to access rooms and if necessary turn through 180 degrees.

Obstructions

H.4. Isolated obstructions projecting into the corridor are to be avoided wherever possible, as they can be a hazard for anyone with sight impairment. They also reduce manoeuvring space. Some items are essential, for example fire extinguishers or radiators and these should either be recessed or guarded. It is essential that these items be positioned so that they do not restrict the width of the passageway at points where people in wheelchairs need to turn and change direction for example entering a room.

Corridor width

H.5. This needs to be wide enough and have splayed corridor junctions to enable people to pass one another in opposite directions. This also makes it much easier for anyone using a wheelchair to negotiate the change in direction. Where there are permanent projections into the corridor, over a short distance, the width can be reduced at that point.

Changes in floor level

H.6. Floors are to be level. Where a change in level is unavoidable within a floor it should be as shallow as possible. If necessary sloped routes should be designed as a ramp and may require an alternative stepped route. (See section C regarding internal ramps).

H.7. In existing buildings where steps are already installed it may not be feasible to install a ramp. In these circumstances a vertical platform lift will be considered to overcome the change in level within the floor. All sloping sections within a floor will need to be identified using flooring that visually contrasts with the level floor surface.
Section H Horizontal Circulation

Key Design Principles

Corridors and passages

1. Use materials and colour to aid way finding.

2. Ensure contrast, in colour and luminance, between walls and ceilings, and between walls and floors. See BS 8300:2009+A1:2010 Annex E.

Obstructions

3. Permanent obstructions over short distances are to be recessed or guarded.

4. Corridor no less than 1200 mm when permanently obstructed.

Corridor widths

5. 1800 mm minimum clear width (2000 mm is preferred);

6. Provide a 1800 mm turning circle at corridor junctions.

7. Splay corridor junctions.

8. Unobstructed turning space a minimum 1500 mm (preferably 1800 mm) is required for manoeuvring when approaching and opening doors.

Changes of level within a floor

9. Floors to be level throughout unless unavoidable.

10. Ramped and stepped access is required where slopes are 1:20 or steeper with a 300 mm change in level.

11. All sloped routes are to be identified in colour contrasting flooring materials.

Internal ramps

12. Sloped routes of 1:20 or steeper are to be designed as a ramp. See standards in Section C.

Flooring materials

13. Flooring material to contrast visually and be slip resistant. See BS 8300:2009+A1:2010 Annex E.
Outward-opening door recessed to at least width of door

Clear width where permanent obstruction over short distance

A recess within corridor provides a place for wheelchair users to pass each other

Fixtures such as radiators, hose reels, pipes and ducts to be recessed, where possible

A clear width of 1800mm will enable two wheelchair users to pass each other

Level landing 1200mm

Handrails to both sides

Ramp

1800 mm diameter turning area

1200 min

1800

1800

1800

1000

900

1800
Section I Vertical Circulation

Background

Where does this apply?

I.1. All new buildings (including mixed use developments) and changes of use involving more than one floor. In existing buildings where substantial alterations and extensions are proposed then inclusive access to all levels of a building may be required.

General

I.2. Vertical circulation in new buildings needs to be accessible for all users. This means that stairs and lifts are required, suitably designed to enable ease of use by everyone.

I.3. In existing buildings that are being extended and / or improved it may not always be possible to incorporate a passenger lift in which case other vertical lifting devices should be considered.

Internal stairs

I.4. The standards used for the design of steps and stairs, nosing detail; handrails; flight rise, stair width and the identification of nosings, need to be the same as external stairs. See Section C – Access Routes (external steps).

Signage by Stairs

I.5. Signage is required showing the floor level. This aids wayfinding and needs to be positioned at the main landing to that floor.

Lifts

I.6. This includes passenger lifts and vertical lifting platforms (vertical platform lifts).

General

I.7. Passenger lifts provide access between levels and storeys. Disabled people need sufficient space and time to enter and leave a passenger lift, particularly when sharing it with other people. Lift sizes should be selected based on the size of the building and the planned level of use and the requirements of disabled people.

I.8. Some individuals require additional space because of needing to keep their leg fully extended. Increasing numbers of people with restricted movement are using mobility scooters. Lifts need to be large enough to accommodate people with these additional space requirements especially in leisure, retail and Council premises.

I.9. Platform lifts (vertical lifting platforms) are rarely acceptable because they are not an inclusive solution and are slow to operate and require constant pressure on the control buttons. There are a limited number of circumstances where they are permissible for example only in existing buildings where space is restricted and access is only between two levels for example a mezzanine floor.

I.10. Platform lifts can be enclosed or open. Where the vertical travel distance exceeds 2 metres then an enclosure is required.
I.11. Platform Stair lifts follow the line of a stair and are never recommended.

Passenger Lifts

General

I.12. These are required in all new buildings with more than one storey including basements. A minimum of one lift in each building area is to be an evacuation lift, with an independent power supply.

I.13. Lifts to be installed must comply with the requirements of the relevant British Standards. Matters not covered in the British Standards are set out in this document.

I.14. The design needs to ensure that the lift is easy to find and use by everyone. This means attention needs to be given to the use of visual contrasting materials, tactile control buttons, and audio visual systems.

Figure 20 Minimum lift size
Vertical lifting platforms (Open and Enclosed)

I.15. These need to be large enough to enable anyone in a wheelchair to turn and also be accompanied by a companion. Lifting platforms need clear instructions on use and fitted with an emergency alarm control device.

Internal ramps

I.16. Internal ramps are usually only acceptable as a means to overcome changes in level within a floor. Where these are unavoidable they need to be designed to the same standards as external ramps. Ramps used to overcome a change in level in excess of 300 mm must be accompanied by steps. Any change in level in excess of two metres needs to be overcome using a lift.
Landings barriers interlocked with lift operation

2000mm max rise for non-enclosed platform lifts

Landing doors to be linked to lift locking mechanism

Where vertical travel is above 2000mm, platform recommended to be fully enclosed

Doors to provide 850mm clear opening width (public buildings and vision panel)

Ramped safety guard/flap providing easy access to platform

Figure 22 Enclosed platform lift

Figure 23 Platform lift
Section I
Vertical Circulation

Key Design Principles

General
1. Stairs and lifts are both required

Internal stairs
2. Standards are the same as external stairs. See Section C
3. Signage on the main landing to each floor aids wayfinding.

Landings
4. Hazard markers are not required

Surface Finish
5. Slip resistant finishes

Passenger lifts
6. Designs to comply with relevant British Standards.
7. Approach clearly sign posted
8. Clearly visible from the main entrance or reception area.
9. A manoeuvring circle outside the lift of minimum 1500 mm² - 1800 mm² preferred
10. Seating by the lift is beneficial
11. Minimum one evacuation standard lift per building with alternative power supply. This should be clearly identified.
12. Size to match anticipated use minimum 1100 x 1400 mm. A larger car 2000 mm wide x 1400 mm deep will accommodate outdoor mobility scooters

Call buttons
13. Locate 900-1100 mm above finished floor level and within 400 mm of return wall
14. Buttons to be embossed, use Braille markers, and colour contrasted with face plate
15. Face plate to contrast with wall

Signage by lift
16. Signage needs to be easily seen and supported by an audible announcement system.
17. Signage for floor level opposite landing doors

Lift doors
18. Doors need to be 850 mm effective clear width
19. Finish should visually contrast with adjoining wall(s)
20. Door to include presence sensor
21. Doors need a minimum 20 second dwell time to enable adequate time to enter and leave the car.

Lift car
22. The car needs to include an audio-visual system to identify floor level in lift car
23. Handrails if provided are to be located 900 mm above finished floor level with a reinforced fixing so they can be used as a perching seat.
24. Where the minimum sized car (1100 x 1400 mm) is used a mirror is to be installed on opposite wall to door. This enables wheelchair users to, see if anyone is behind them and also see the floor indicator when reversing out.
25. Two sets of Control buttons are needed

26. Horizontal control panel at Wheelchair accessible height centred at 900 mm above floor level

27. Standard vertical panel for standing height users.

28. All controls need to be embossed and incorporate Braille

**Emergency systems**

29. Audible and visual emergency communication systems need to be located 900 mm maximum above finished floor level.

**Flooring, ceiling and wall finishes**

30. All should be opaque, non-reflective and flooring slip resistant.

31. Avoid glare, reflection shadows or pools of light.

**Vertical lifting platforms (open and enclosed)**

32. Use only in existing buildings if no other option

33. Manoeuvring circle the same as for passenger lifts.

34. Minimum size 1100 x 1400 mm to enable both a wheelchair user and companion to use the lift.

35. Door width as above

36. Clear signage on operation is required

37. Control buttons located as above

38. Controls should not require constant pressure as many disabled people have reduced dexterity or lack the physical strength to maintain pressure.

39. Doors opening should not require simultaneous operation of 2 sets of controls for the reasons stated above.

**Internal ramps**

40. Not usually acceptable as an alternative to a lift for linking two floor levels.

41. If unavoidable then an alternative stepped access is also required.

42. Design to external ramp detail

43. Changes in level in excess of 2 metres require a lift.
Section J Sanitary Accommodation

Background

Where does this apply?

J.1. These are applied to all new buildings and changes of use - for example large retail developments, places of employment; care homes, education, community and leisure facilities, restaurants and cafés. Facilities are also required in new parks and public open spaces.

General

J.2. Accessible toilets, shower rooms and changing rooms and bathrooms all have identical features, as do some aspects of “Changing Places” accommodation. All need to be well designed as easy to find and use as sanitary and changing facilities for non-disabled people.

Common design features

Level of provision

J.3. Where there is limited space, for example an existing building it may not be possible to provide more than one accessible toilet, bathroom or other sanitary accommodation. In these cases it must be a unisex type, and designed for right hand side transfer.

J.4. In more spacious layouts where more than one unisex accessible facility is provided, then a choice of transfer layouts is to be provided and facilities handed.

Service ducts / soil stacks

J.5. All accessible sanitary accommodation needs to be carefully designed to ensure that soil stacks, “pop ups” and other service ducts are not located with the facility. If unavoidable these need to be located so that they do not reduce the minimum room size and do not obstruct the easy use of the facility or the manoeuvring and transfer spaces.

Wash-hand basins

J.6. Wash hand basins are to be wall mounted not on a pedestal as this obstructs easy access to the basin. Waste pipes and mixer valves need to be located so that they do not impinge on access to the basin. Any panelling used to conceal pipe work should be kept to a minimum so the room size is not reduced below minimum requirements.

Taps and shower controls

J.7. These need to be lever operated to enable easy operation using the flat of the hand or wrist. For accessible corner wc’s layouts, a mixer tap is preferred. This should be located on the basin side closest to the w.c. bowl to allow easy reach.

Pipe work

J.8. Exposed hot water piping can be a hazard. If it is to be concealed behind panelling or boxed in, this should not reduce minimum room dimensions.

WC pan and cistern

J.9. The top surface of the W.C. seat needs to be set at a height for easy transfer from a wheelchair or hoist onto the seat.
J.10. Where plinths are used to lift the height of the toilet pan these should not obstruct the use of the W.C.

J.11. The flush mechanism needs to be easy to access and use whilst still seated on the toilet.

Grab and support rails

J.12. Walls are to be constructed so they are robust enough to resist the load exerted by a user bearing down on a rail.

J.13. All rails need to be fixed at a height within easy reach of anyone seated on the toilet or in a wheelchair. Rails need to be wide enough to easily hold and provide a good grip when moist. They should be fitted so there is an adequate clearance between the rail and the wall - this is important for anyone with swollen knuckles.

J.14. Drop down bars need to be securely fixed and easy to release. Support strut fittings can restrict wheelchair access so should be avoided.

Doors

J.15. Doors opening outward are easier to use and preferred as they are much easier to open in the event of someone needing assistance.

Inward opening doors

J.16. Inward opening doors are only to be used in existing buildings where there is no alternative. If unavoidable it is essential that there is adequate space between the door swing and sanitary fittings. There is the risk that someone could fall against the door and prevent it being opened. Consequently fitting an emergency release mechanism is essential to enable the door to be opened from outside.

Finishes

J.17. Incorporating visual contrast will assist visually impaired and blind people. For example grab and support rails need to visually contrast with the wall. All sanitary fittings are to contrast with the background wall. Toilet seats and covers should contrast with the cistern and pan.

Lighting

J.18. Sensor operated lighting is preferred. Lighting that is individually controlled needs a pull cord within easy reach. The pull cord and the pull cord end should contrast visually with the wall. It should not be red as this colour is reserved for emergency assistance alarms systems. Emergency lighting should be provided.

Emergency assistance

J.19. An emergency assistance system is essential. This should be designed so that it cannot be confused with a fire alarm system. It should include a visual and audible indicator that signals that the emergency assistance call has been acknowledged and is being acted on.

J.20. The minimum requirements system consists of an emergency assistance pull cord within easy reach of the toilet, bath or shower seat. A second cord is recommended which can be reached by anyone falling onto the floor or in a large room for example a peninsular layout. The reset control should be easily reached from a wheelchair, the W.C., a tip-up shower seat, or bath. Using cords can be difficult for some users and where practical alarm strips are preferred as these are easy to activate and
have the added advantage that they cannot be tied up out of reach.

J.21. The emergency assistance alarm indicator outside the W.C. compartment should be positioned so it is easy to see and be heard by people able to give assistance.

Fire alarms

J.22. They should be visible (a flashing light) as well as audible. This is essential for deaf and hearing impaired people. Note that this requirement applies to standard toilet accommodation as well.

Clothes hooks and towel rails

J.23. Clothes hooks need to be located at two heights suitable for ambulant disabled people and wheelchair users. If an unheated towel rail is required, an additional grab rail can be used as it can also provide support.

Heating equipment

J.24. Any heating equipment needs to be located so it does not reduce the wheelchair manoeuvring space or the space needed to transfer to the shower seat, changing seat or W.C. pan. Low surface temperature radiators are recommended. Ensuring equipment is maintained with a low surface temperature is essential to prevent users inadvertently burning themselves.

Toilet accessories

J.25. In general all accessories – toilet paper dispensers, paper towels need to be easy to use with a single hand; and accessible to someone in a wheelchair or seated on the W.C. See Figures 24 and 25.

Accessible toilet accommodation

General

J.26. Space requirements in accessible toilets are tailored to meet the needs of wheelchair users though in practice the toilet can be used by people with other impairments for example a blind person with an assistance dog.

J.27. Accessible toilet accommodation usually takes one of two forms – a separate unisex toilet or a large cubicle in a single sex toilet washroom. Unisex wheelchair accessible toilets have certain advantages. They are easier to identify, and less likely to be used by non-disabled people. This is desirable as many disabled people need to use the toilet more frequently. Unisex accommodation enables one or two assistants of either sex to assist a disabled person.

J.28. There are settings where unisex accommodation may not be appropriate for example in some places of worship.

Level of provision in different settings

Minimum requirements

J.29. A minimum of one unisex accessible W.C. is to be provided at each location where toilet accommodation is provided for building users or visitors.

Hotels, hostels and care homes

J.30. In residential buildings for example hotels, care homes and hostels where toilet accommodation is provided en-suite; then at least
one unisex accessible W.C. is to be provided at entrance level. Where there is no en-suite toilet accommodation then accessible facilities need to be provided near to wheelchair accessible bedrooms.

**Small business premises**

J.31. Sometimes space is very limited, for example in existing small business premises and there is only space for one toilet. In these circumstances an enlarged unisex accessible corner layout toilet can be provided for all users. This is commonly called a universal toilet and is large enough to cater for the needs of disabled and non-disabled users and is equipped with a second wash hand basin fitted at a standing height.

J.32. In premises where there is only space for one accessible toilet it needs to be a unisex accessible corner design.

**Existing buildings**

J.33. In existing buildings where there is existing single sex toilet accommodation and no space to create an additional unisex accessible W.C. compartment then the existing single sex toilet accommodation needs to be adapted to provide a cubicle fitted out suitable for wheelchair users and ambulant disabled people. Alternatively a single sex universal toilet could be provided for each gender.

**Handed layouts**

J.34. Where schemes include more than one unisex accessible corner W.C. or single sex accessible toilet compartment then it is important to provide a range of layouts suitable for left and right hand transfer. This caters for people with reduced mobility or paralysed on one side or the other.

J.35. A common practice is for the layout to be handed on alternating floor levels in multi-storey buildings, in the same position on each level. This aids way-finding. It is very useful to have signage indicating the handing of the compartment – a tactile pictogram is recommended.

**Ambulant disabled people**

J.36. The needs of ambulant disabled people can sometimes be overlooked in designing inclusive toilet facilities. Where single sex accommodation does not include a wheelchair accessible cubicle then at least one ambulant accessible W.C. cubicle should be provided. This needs to be large enough to be fitted with support rails without compromising manoeuvring space clear of the toilet bowl. This is essential for people with impaired leg movements or with walking aids. See Figure 27
Figure 24 Accessible corner w.c. layout

- Mirror
- Clothes hook
- Vertical grab rail
- Drop-down rail
- Alternative door position
- Sanitary dispenser
- Waste bin
- Shelf
- Vertical grabrails
- Colostomy shelf for standing users
- 900 min effective open width
- 2200 mm
- 140-160 mm
- 150 mm 320 mm 500 mm
- 1000 mm 1500 mm 970 mm
- 600 mm 250 mm 60 mm

London Borough of Waltham Forest
Figure 25 Accessible corner w.c. cross section

*Height of drop-down rails to be the same as other horizontal grabrails

**KEY:**
- **HD** Hand Drier
- **PT** Paper towel
- **AR** Alarm reset button
- **SD** Soap dispenser
- **TP** Toilet paper
Figure 26 Universal toilet layout

Figure 27 Ambulant accessible toilet layout
Assisted Use

Unisex accessible peninsular W.C. for assisted use.

J.37. Accessible toilets with a peninsular layout are only suitable where assistance is provided. This should be an additional facility and should not be used as a substitute for two handed corner layouts. To avoid confusion clear signage is needed showing the location of accessible toilets suitable for independent use.

Changing Places sanitary accommodation

J.38. There are many people with profound and multiple disabilities and their carers, who cannot use standard peninsular or corner layout accessible toilets. Instead Changing Place facilities have been developed which combine a toilet; shower and changing space for use by people with complex multiple disabilities and up to two assistants. The space in the facility needs to be large enough to accommodate a large complex wheelchair, a fixed hoist and space to attach slings and changing bed.

J.39. Like peninsular toilets, these facilities are not intended for use by independent wheelchair users; or as baby changing areas. They are an additional facility. The Council is encouraging the provision of these facilities in large new public developments and will seek to secure their provision via Section 106 Agreements.
Location

J.40. Changing place facilities are best located in larger buildings where there are large volumes of visitors or where people are likely to spend long periods of time. These types of facilities are also vital in buildings, which are providing the only toilet accommodation in an area for example park settings or large supermarket development.

J.41. Suitable venues could include sports and leisure facilities; large hotels; stadia; and health or education facilities.
Shower and changing room accommodation

Accessible Unisex Combined shower and corner W.C. - independent use

J.42. These are installed in changing areas, sports and leisure facilities. Where several accessible showers / changing rooms are provided these should be handed to maximise user choice. It is recommended that an additional fold-up seat is provided in the dry area.

Accessible shower room for independent use

J.43. Layouts are shown in Diagram 23 of Approved Document M 2004 edition.

Self contained unisex accessible changing room

J.44. This needs to be large enough for a companion or assistant of either sex, and located close to accessible toilet and shower accommodation. See diagram in BS 8300:2009+A1:2010 and Approved Document M 2004
Figure 31 Combined accessible shower and w.c.

- **Wash basin**: 140-160 mm
- **Mirror**:
- **Toilet rail**:
- **Tip-up seat**: for users when drying
- **Shower curtain and rail**: 1500 x 1500 mm
- **Wheelchair turning space**: 900 mm
- **Drop down rails**:
- **Towel rail**:
- **Gentle fall to gully**: 320 mm 500 mm 2400 mm

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London Borough of Waltham Forest


**En-suite shower room or bathroom**

J.45. En-suite accommodation suitable for hotel / motel and student accommodation needs to be provided in a range of layouts suitable for independent or assisted use. More details and layouts can be found in BS 8300:2009+A1:2010

**Facilities for Babies**

**Nappy changing**

J.46. All public areas need a unisex accessible baby changing area separate from the unisex accessible toilet. This ensures the accessible unisex toilet remains available to disabled people.
Section J
Key Design Principles

Common design features

Level of provision
1. A minimum of one accessible toilet is required in existing buildings. This needs to be a unisex facility with a corner layout suitable for right hand side transfer.

Service ducts/soil stacks/piping
2. If service ducts and stacks are unavoidable in cubicles these should not reduce or obstruct the transfer and manoeuvring zones or reduce the minimum room size.

Wash hand basins and taps
Basins
3. These need to be wall mounted.
4. Waste pipes and mixer valves should not block access to basin. These can be concealed behind a panel.

Taps and shower controls
5. Lever operated
6. Mixer tap on side closest to w.c. in corner layout
7. Markings clear and logical

Hot water
8. Max 43 degrees C
9. Any hot water piping needs to be concealed behind panelling (This should not obstruct essential knee space under the basin.)

WC pan and cistern
10. The top surface of toilet seat should be set at 480 mm above finished floor level.
11. Use of a plinth should not obstruct use of W.C.
12. Flushing devices need to be easy to use when seated. On corner layouts the spatula lever needs to be located on open /transfer side of pan.
13. Chain pulls are not to be used.

Grab and support rails
14. Finished to colour contrast with the walls
15. Fixed rails 32-35 mm diameter.
16. Horizontal rails located 680 mm above finished floor level.
17. Vertical rails 600 mm minimum long, with the centre line 1100 mm above finished floor level.
18. A minimum clearance of 50-60 mm is needed between the rail and wall
19. Rails with a plastic coating and a slight ridged surface will be easy to grip when wet
20. Walls should be reinforced so robust enough to withstand a load of 171 kg applied by a user vertically and at a 45 degree angle.
21. Drop down rails should be securely fitted to withstand a load bearing weight of 171 kg.

Doors
22. Fit with light action “privacy” lock, integrated with lever handle incorporating an emergency release to open from outside.
23. Outward doors are easier to use especially when assistance required.

24. Doors should be capable of opening in event of an emergency by using pivot hinges and an emergency release doorstop and lock operable from the outside.

25. The effective clear width of the doorway needs to be at least 900 mm effective clear width, preferably 1000 mm.

26. Door furniture as specified in Section F

27. Rising butt hinges can assist in closing the door rather than using heavy door-closing devices. However they can make it more difficult to open the door.

28. A horizontal pull rail is needed on outward opening doors on the inside door face.

Finishes

29. Sanitary accommodation needs to incorporate visual contrast between:
   - Rails and wall
   - Sanitary fittings and wall
   - Toilet seats /cover and pan and cistern.

Flooring

30. Flooring needs a non-slip finish.

Signage on Doors

31. This should be raised embossed with Braille signage.

32. Pictograms and symbols are preferred.

33. Signage to be mounted 1100 mm above finished floor level maximum height.

34. Useful to indicate showing handing of cubicle

Lighting

35. Sensor operated lighting preferred, otherwise

36. Use a pull cord set between 900 - 1000 mm above the floor, within 150 mm of leading edge of door and adjacent wall surface.

37. The cord and cord end to contrast visually with wall, (not red)

38. Secondary emergency lighting is essential.

Emergency assistance

39. An audio – visual feedback system is required.

40. Alarm strips are preferred otherwise a red pull cord is required with two bangles (50 mm) set 800-1000 mm and 100 mm above finished floor level.

41. The cord within should be within easy reach of toilet, bath or shower.

42. A second cord is useful in a large room for example a combined shower/w.c. facility.

43. The reset button must be located within the facility within easy reach from a wheelchair, bath, and W.C. and within 800-1000 mm above finished floor level. The button needs to incorporate tactile and visual markings.

44. The emergency assistance alarm indicator outside the WC compartment should be easy to see.
Adopted May 2011  Inclusive Design for Non Residential Buildings SPD

Fire alarms
45. An audio-visual fire alarm must be provided in all toilet accommodation.

Clothes hooks and towel rails
46. Hooks and rails are needed at two heights 1050 and 1400 mm above finished floor level.
47. An unheated towel rail can be provided for support so needs to be securely fixed.
48. Heated towel rails should have a surface temperature not exceeding 43°C.

Heating equipment and radiators
49. These should not impinge into and reduce manoeuvring and transfer space.
50. Low surface temperature radiators preferred;
51. Any radiators with exposed surfaces should be maintained at a temperature not exceeding 43°C.

Toilet accessories
52. All equipment (toilet paper dispensers, paper towels and soap dispensers should be located within reach and easy to use using a single hand.
53. These should be located at an accessible height for anyone seated on the W.C. or in a wheelchair.

Mirrors
54. A full-length safety mirror should be provided with the lower edge set no higher than 300 mm from floor level.

Accessible toilet accommodation

General
55. Accessible toilets need to be easy to find
56. Layout and size tailored for use by people in wheelchairs.
57. A separate unisex toilet is preferred,
58. Alternatively a large cubicle in single sex wash room is acceptable.

Level of accessible W.C. provision in different settings
59. A minimum of one unisex corner accessible W.C. is required wherever there is standard toilet accommodation.
60. Where there is more than one accessible unisex or single sex corner unit then layouts should be handed.
61. The layout should ensure that toilets are handed on alternating floors, in same position on each floor.
62. In hotels and hostels, with en-suite toilet accommodation, at least one unisex accessible W.C. should be provided at entrance level.
63. In small existing businesses premises with limited space for only one toilet then this must be a universal unisex toilet suitable for all users. See Figure 26. In premises with standard single sex toilet accommodation and no space for an additional unisex accessible toilet then the only option may be to adapt existing cubicles in each block to create a corner accessible or universal standard W.C.
Independent Wheelchair accessible W.C. layouts

64. A unisex corner W.C. layout needs a minimum floor area of 1500 x 2200 mm.

65. A unisex universal corner W.C. layout requires a minimum 2000 x 2000 mm floor area.

W.C. for ambulant disabled users

66. A minimum of one cubicle for ambulant disabled people is required in each separate single sex wash rooms.

67. These need to be fitted with grab rails.

68. Minimum foot print of 800 mm x 1500 mm.

Assisted Use

Unisex peninsular W.C. layout for assisted use

69. A peninsular layout is an additional facility, not a substitute for two handed corner layout W.C.’s.

70. A minimum of 2400 mm x 2200 mm is required.

71. These are only suitable where qualified assistance is available on site.

Changing Places sanitary accommodation

72. At least one changing places facility needs to be located in larger buildings for example sports and leisure facilities, large hotels, stadia, shopping centre developments, hospitals or education facilities.

73. Minimum internal dimensions 3000 mm x 4000 mm x 2400 mm high – see diagram.

74. The door should open outward and be a 1000 mm effective clear width.

75. More details about design and layout can be found at the “Changing Places” web site which is listed in the Appendices.

Unisex Accessible shower and changing rooms

76. Provide handed layouts where more than one facility is being provided.

77. See Figure 31.

Accessible unisex shower room for independent use

78. Locate close to a unisex accessible W.C.

79. Flooring slip resistant and minimum fall 1:50 to floor drain.

80. Floor drain away from manoeuvring space.

81. Shower head height adjustable.

82. Lever operated shower controls, with mixer.

83. Water maximum temperature 43 degrees C.

84. Controls embossed.

85. Tip up plastic shower seat (480 mm above finished floor level and 400 mm deep) with arm rests or drop down grab rails to prevent someone sliding off.

86. Shower curtains accessible from shower seat, and clear of rails.

Accessible unisex combined shower and corner W.C. for independent use

87. Install in changing areas, sport and leisure facilities.
88. Floor area minimum 2400 mm x 2500 mm this needs to be large enough for an assistant

89. Consider providing an additional tip up seat in changing area

Other Facilities

En-suite Shower or bathroom

90. These are provided usually in hotel / motel or student accommodation

91. In new developments ensure a range of layouts for independent and assisted use.


Facilities for babies

93. Baby facilities should not be incorporated into accessible toilet cubicles.

94. It is essential to provide separate unisex baby changing facilities

95. The room needs to be 2000 mm x 2000 mm and include:

• A changing table against the wall, fixed at 750 mm above finished floor level or height adjustable;

• a washbasin, rim at 720 mm to 740 mm above floor level;

• a soap dispenser and an automatic hand dryer, with undersides between 800 mm and 1000 mm above finished floor level;

• a full length mirror, lower edge 600 mm above finished floor level;

• a nappy vending machine, the controls maximum 1000 mm above finished floor level;

• a sanitary disposal bin, preferably recessed;

• a chair, if a fixed changing table is installed.

96. Baby feeding area must be provided separate from nappy change area, with private breast-feeding areas.
Appendix 1
Glossary of Terms

Access
Approach, entry, exit or internal circulation.

Accessible
Capable of being accessed and used by anyone regardless of disability, age or gender.

Accessible kitchen
A kitchen which has been specifically designed for someone who is a wheelchair user which will have adjustable height, accessible worktop, oven, hob and sink. Appliances, cupboards and other items such as sockets and switches will also be within easy reach of a person seated.

Accessible route
Any route that is used to approach a building, or to move between buildings or within a building, and is accessible to disabled people.

Access statement
See design and access statements.

The access element explains the philosophy and approach to inclusive design adopted in the design and construction of a building.

Blue Badge Parking Bay
A parking bay with additional space to the side and rear to enable disabled people easier access. This is reserved for anyone in a vehicle displaying a blue badge.

Cassette Door
See Pocket Door

Chamfered
A bevelled/rounded edge.

Clear Width (for ramps, steps and access routes)
The width between handrails

Contrast visually
The perception of a difference visually between one surface or element of a building and another by reference to their light reflectance values (LRV). (For further information, please see ‘Colour, contrast and perception - Design guidance for internal built environments’ - Reading University).

Controlled door closing device
A device that is capable of closing a door from any angle and against any latch fitted to the door. These are not recommended.

Corduroy hazard warning surface
A form of tactile paving whose surface has raised ribs to warn blind and partially sighted people of a potential hazard ahead. These are used at the top and bottom of external flights of steps.

Crossfall /camber
The gradient of slope across the line of travel (at 90 degrees) of an access route or ramp.

Effective clear width
The unobstructed width through a door way is measured clear of any projections on the door face to the opposite door stop or leading edge of a secondary door leaf.

Espagnolette Locking Device
An ‘espagnolette’ is a locking device, used on a door or window with a handle at around hand height with bars that slide into sockets at the head and foot of the door and enable anyone with reduced mobility to access top and bottom door bolts.
Finished Floor Level
The top surface of a floor screed or flooring. The surface from which all levels are taken, usually excluding floor covering.

Fully Automated Door
A door which provides full automation operated via a remote key fob device and does not require a person to use force to open/close it.

Gentle slope
Any route which has a gradient between 1:21 and 1:59.

Going
On a step – the horizontal distance between two consecutive nosings.
On a ramp – the horizontal distance between each end of the ramp flight.

Hearing enhancement systems
These enable sound signals to be transmitted to people who are deaf or hard of hearing, without interference from background noise or excessive reverberation. Devices can include induction loops or infra red systems.

Level
This means a predominantly level surface with a maximum gradient along the direction of travel of 1:60. This definition is applied to the surface of a level approach, access routes and landings (associated with steps, stairs and ramps).

Level Access Shower
A fully accessible shower area that provides level access that has no upstands, edges or lips. This is usually graded to the floor gully to enable surface water to drain away. See wet floor shower.

Lifts
Conventional passenger lift
Lift designed to operate at speeds greater than 0.15 metres/second, for any travel distance, and able to transport passengers and goods without the need for instructions on in its safe use.

Evacuation lift
Lift used as part of the phased emergency evacuation of people requiring assistance. This can be a conventional passenger lift with appropriate structural, electrical and fire protection.

Stairlift
This is a term generally used for a piece of equipment or a device which transport a person either seated or perching between 2 or more landings by means of a metal track/rail which is fixed to the stair goings, not the wall. It has a folding seat and footrest.

Chair stairlift (sometimes know as a stairlift)
This is a term sometimes used for a ‘stairlift’ as detailed above, with a folding seat. These are not recommended in public buildings.

Through Floor Lift (see vertical lifting platform)
A domestic lift, usually over 2 storeys and provided in a domestic setting.

Legibility
The quality of places buildings and spaces which enables people to use, understand and orientate themselves without necessarily using signage. See wayfinding.
Wheelchair stairlift (platform stair lift)
This is a stairlift with a horizontal platform which accommodates a wheelchair user.

Vertical lifting platform (or vertical platform lift)
This device serves fixed landings and consists of a horizontal platform designed to accommodate a person using a wheelchair or with limited mobility. These can be enclosed or non-enclosed depending on the vertical travel distance. See through floor lift.

Light reflectance value (LRV)
This is the measure of the total quantity of visible light reflected by a surface at all wavelengths and directions when illuminated by a light source. Surfaces that differ sufficiently in LRV can be distinguished from one another by blind and partially sighted people (see BS 8300:2009+A1:2010 Annex B).

Manifestation
Permanent markings or features within areas of full-height transparent glazing, glazed walls or screens, fully glazed doors or glass doors. Manifestations can help to prevent collisions by making the glazing more visible to building users.

Newton’s - Opening and Closing Force
Newton’s are a measure of the force required to open and close a door.

Nib
See Leading Edge

Pocket Door (or cassette door)
A space saving door which slides into the construction of the wall.

Power Assisted Door
A door which is semi automated when pushed to lessen the force required to open it.

Ramps, steps and stairs – different elements
Flight
Continuous series of steps or ramp between two levels

Going
Horizontal distance between two consecutive nosings, measured along the walking line; horizontal distance between each end of a ramp.

Gradient or slope
This is calculated as a percentage or ratio.

Ratio
1:G (gradient) = length of ramp/height of rise

Percentage
P% (percentage) = height of rise x 100 / length of ramp

The preferred gradient of any ramp should be 1:20.

Handrail
Component of stairs, steps or ramps that provides guidance and support at hand level.

Landing
Level platform or part of a floor at the end of a flight, ramp or floor.

Nosing
Front edge portion of a tread or landing.

Ramp
Length of inclined surface that provides access between two levels

Rise
Vertical distance between the horizontal upper surfaces of two consecutive treads, or between a tread and a floor or a tread and a landing; vertical distance between each end of a ramp flight
Riser
Vertical component of a step between one tread and another or a landing above or below it.

Shared surface
Used by footway users and vehicles. The level area shared by ramp and step users.

Safety protection zone
The shared level landing area at the top of a ramp and adjacent stairs. This should be clear of any corduroy hazard warning surface, and large enough for a wheelchair user to safely manoeuvre without risk of approaching the top riser.

Stair riser
Vertical part of a step between tread or landing above or below it.

Stair tread
Horizontal part of a step. This is also known as the going.

Stair width
Surface width of a stair on plan perpendicular to the walking line of a stair.

Spillover
Interference within one induction loop from a signal from another induction loop nearby.

Tactile paving
Profiled paving surface providing guidance or warning to blind and partially sighted people.

Threshold
A horizontal strip across the foot of a doorway. This should always be flush with the finished surface.

Transom
A horizontal bar across a door or window.

Unisex
Sanitary accommodation designed for use by either sex with or without assistance by people of the same or opposite sex.

Upstand
A concrete kerb or wall on the edge of a ramp surface.

Visual contrast (or contrast visually)
Perception of a difference visually between one surface or element of a building and another by reference to their light reflectance values (LRV).

Wayfinding
Wayfinding encompasses all of the ways in which people orientate themselves in physical space and navigate from place to place. These ways enable a person to find their way to a given destination through the use of effective signage, or using other devises such as materials, lighting and colours. See Legibility.

Wet floor shower
A fully accessible, level access shower area with specialist waterproof, slip resistant floor and a gully for drainage. Sometimes referred to as a wet room/area. See level access shower.

Wheelchair Turning Circle
The space required for a person in a wheelchair to turn a full 360 degrees. This has historically been 1500 mm. Recent research and BSi Anthropometric testing has shown it to be much greater than this and needs to be at least 1800 mm.
Appendix 2
Useful Contacts for further advice

Waltham Forest Contacts

For general advice on development proposals please contact:
Development Management
London Borough of Waltham Forest
Sycamore House
Forest Road
Walthamstow E17 4JF
Tel: (020) 8496 3000
e-mail: dcmail@walthamforest.gov.uk

For specific design advice please contact:
Urban Design Team
London Borough of Waltham Forest
Sycamore House
Forest Road
Walthamstow E17 4JF
Tel: (020) 8496 6736/6739
e-mail: urbandesign@walthamforest.gov.uk

For conservation area/listed building advice please contact:
Guy Osborne
Urban Design Team
London Borough of Waltham Forest
Sycamore House
Forest Road
Walthamstow E17 4JF
Tel: (020) 8496 6737
e-mail: guy.osborne@walthamforest.gov.uk

For wheelchair housing design advice please contact:
Jacquel Runnalls
Senior Occupational Therapist in Housing
London Borough of Waltham Forest
Cedar Wood House, 2d Fulbourne Rd
LONDON E17 4GG
Tel: 020 8496 5544
Jacquel.Runnalls@walthamforest.gov.uk

Other Useful Contacts

College of Occupational Therapists
http://www.cot.co.uk

British Standards Institute
Contact to purchase copies of BS 8300:2009+A1:2010
www.bsi-global.com

Centre for Accessible Environment (CAE)
The CAE produce many useful documents on inclusive design, and provide training.
www.cae.org.uk

Equalities and Humans Rights Commission
Email: englandhelpline@equalityhumanrights.com
www.equalityhumanrights.com

Dulux - Project Rainbow
Dulux has produced two tools to help create a colour scheme that meets the requirements of all users of buildings. The Trade Colour Palette fan book identifies LRV easily in its notation for every colour. The Dulux Trade CD allows you to identify a colour palette reference and therefore the LRV for its key colour ranges.
www.icipaints.co.uk/support/specifications/colour/accessibility/colour_scheming.jsp

Habinteg Housing Association
www.habinteg.org.uk

Lifetime Homes
www.lifetimehomes.org.uk
National Register of Access Consultants (NRAC)

The National Register of Access Consultants (NRAC) is an independent register of accredited Access Auditors and Access Consultants who meet professional standards and criteria.

www.nrac.org.uk
Appendix 3
Useful Documents

National Legislation and Regulations

The Equality Act 2010

Approved Document M 2004
www.communities.gov.uk/publications/planningandbuilding/buildingapproveddocumentm

The Code for Sustainable Homes
www.communities.gov.uk/planningandbuilding/buildingregulations/legislation/codesustainable/

International & National Best Practice

Inclusion by design CABE 2008
CABE has been merged with the Design Council and their publications archived. www.cabe.org.uk

Inclusive Mobility
www.dft.gov.uk/transportforyou/access/peti/inclusivemobility

Manual for Streets
www.dft.gov.uk/pgr/sustainable/manforstreets/pdfmanforstreets.pdf

Planning and Access for Disabled People – a good practice guide (ODPM 2006)

Building for Life
www.buildingforlife.org/criteria

Wheelchair User Housing Study (Northern Ireland 2006)
www.nihe.gov.uk/wheelchairreport.pdf

NIHE Wheelchair Guidance
www.dsdni.gov.uk/index/hsdiv-housing/registered_housing_associations/ha_guide/hag-index/hagds-design-standards-contents/hagds-background-specific-wheelchair.htm

Habinteg Wheelchair Housing Design Guide.
This can be purchased from www.habinteg.org.uk/main.cfm?type=PUBLICATIONS

Lifetime Homes
www.lifetimehomes.org.uk/

Case Study Examples – Lifetime Homes (GLA)
www.london.gov.uk/archive/mayor/strategies/sds/docs/lifetime-homes.pdf

Lifetime Homes, Lifetime Neighbourhoods - A National Strategy for Housing in an Ageing Society
www.communities.gov.uk/documents/housing/doc/Lifetimehomespart1.doc

Homes and Communities Design and Quality Standards
www.homesandcommunities.co.uk/design_sustainability_standards

Design and Access Statements:
www.planningportal.gov.uk/wales/professionals/policy/access
www.cabe.org.uk
Planning Building and Streets and Disability Equality (DRC 2006)

Mobility Scooters – research
(Department of Transport)
www.dft.gov.uk/transportforyou/access/tipws/

BS 8300:2009+A1:2010
This can be purchased from www.bsigroup.co.uk/

CABE – now merged with the Design Council
CAB produced many useful publications for example:
Improving the design of new housing
Simpler and better - Housing design in everyone’s interest
Homes for our old age -Independent living by design
Inclusion by design - equality, diversity and the built environment
www.cabe.org.uk

English Heritage
English Heritage have produced “ Easy Access to Historic Buildings” 2004, and a number of other documents dealing with physical access to historic buildings. Many of these can be downloaded
http://www.english-heritage.org.uk/

Access to Church Buildings
The Council for the Care of churches have produced “Widening the Eye of the Needle” regarding access to churches.
The Christian organisation “Through the Roof “seeks to remove the barriers that disable people through equipping organizations and churches and empowering disabled and non-disabled individuals. www.throughtheroof.org/

Accessible Sports facilities
Sport England
This has advice on the design of accessible sports facilities.
http://www.sportengland.org/facilities__planning/design_guidance_notes.aspx

London 2012
The Olympic development agency has developed best practice design standards for sporting facilities. This is intended to set a national standard for emerging development

School Premises
Advice on access standards can be downloaded from the partnerships for Schools site. Building Bulletin 102 is commended.
http://www.partnershipsforschools.org.uk/library/buildingbulletins.jsp

Regional Policy Documents and Best Practice

Recommendations for Living at Superdensity
www.designforhomes.org/pdfs/Superdensity.pdf

The London Plan Spatial Development Strategy for Greater London Consolidated with Alterations
since 2004
http://static.london.gov.uk/mayor/planning/strategy.jsp

Draft London replacement Plan 2009
www.london.gov.uk/shaping-london/

London Housing Design Guide – Interim version 2010
www.london.gov.uk/who-runs-london/mayor/publications/housing/london-housing-design-guide

Wheelchair Accessible Housing – Best Practice Guide (GLA 2007)
http://static.london.gov.uk/mayor/strategies/sds/bpg-wheelchair-acc-housing.jsp

www.london.gov.uk/archive/mayor/strategies/sds/docs/spg_accessible_london.pdf

GLA and TfL pre-planning application advice service.
For more information about this go to http://www.london.gov.uk/priorities/planning/strategic-planning-applications/pre-planning-application-meeting-service

GLA/London Development Agency Inclusive Design Tool Kit
This can be downloaded from http://www.lda.gov.uk/publications-and-media/publications/inclusive-design-toolkit.aspx

Waltham Forest Policies and Research

Sustainable Communities Strategy

LBWF Disability Equality Scheme 2010-2013
www.walthamforest.gov.uk/index/social/equality-strand-disability/des.htm

Waltham Forest Unitary Development Plan (First review 2006) – Saved

Local Development Framework

Waltham Forest Housing Needs and Market Survey (2007)
This makes reference to the need for wheelchair accessible housing and life time homes.