advice series

access

IMPROVING THE ACCESSIBILITY OF HISTORIC BUILDINGS AND PLACES

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National Disability Authority
Údarás Náisúnta Míchumais

An Roinn
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Introduction

One of the key requirements for an inclusive and sustainable society is that everyone should be able to participate in and enjoy the social, economic and cultural assets of that society. Historic buildings and places are a significant asset, a unique and irreplaceable resource which reflects a rich and diverse expression of past societies and forms an integral part of local, regional and national cultural identity. Historic buildings and places, important in themselves for their intrinsic cultural heritage value, are also significant because of their uses as places where people work, live and enjoy everyday activities.

For some people, barriers exist which make visiting and using historic buildings and places difficult or sometimes impossible. Making the built heritage more accessible in an appropriate and sensitive manner can increase awareness and appreciation of its cultural, social and economic value. It assists in meeting society's requirement to protect its architectural heritage, whilst also meeting the need to provide equal access for all, as far as is practicable.

The purpose of this guidance is to advise those who own, manage or care for buildings and places of architectural heritage significance on the options available to them to improve accessibility. It also provides guidance and information for anyone with an interest or involvement in issues surrounding the accessibility of historic buildings and places. It aims to:

- Increase understanding of the principles of architectural conservation and universal design
- Improve awareness and understanding of the relevant legislation and policy
- Provide guidance on preparing an access strategy
- Provide illustrated examples of successful solutions where access to historic buildings and places has been improved
- Assist in determining the practicability of works to improve access to the historic built environment

In making the built heritage more accessible, it is essential to be aware of people's different needs and how these needs can be met in a variety of ways. It is important to remember that often the best and most appropriate way to make historic places more accessible is through management solutions which may sometimes require little physical intervention or alteration of historic fabric. Well-planned access strategies, developed at an early stage, can avoid excessive intervention and cost. Where intervention is required, careful, sensitive and elegantly designed solutions should be prepared and carried out by those with the necessary expertise and experience. Consultation with the relevant stakeholders, including local authority access, planning, building control, fire and architectural conservation officers, may assist in developing appropriate solutions. In some cases, it may also be appropriate to consult with users with disabilities.

It is important to remember that to successfully improve access to historic buildings and places, it is necessary to address both conservation and accessibility needs in an integrated and balanced manner.

This diagram shows the three fundamental components of an inclusive environment. The provision of accessible customer services and information are of equal importance to an accessible and inclusive built environment.

The types of places and uses to which this guidance applies is wide and may cover sites in public or private ownership, in active use or redundant, including the following:

- Archaeological sites, often containing ruins
- Bank buildings
- Designed landscapes
- Farm complexes
- Harbours
- Hospitals and medical clinics
- Hotels and guesthouses
- Houses, gardens and grounds
- Industrial buildings
- Institutional complexes including universities
- Libraries
- Offices
- Places of worship
- Schools
- Shops and restaurants
- Town and village centres
- Train and bus stations

The guidance in this booklet applies to a wide range of buildings and places from private homes, places of work, places of worship, places people visit for pleasure and places which provide essential services for everyday living. There are different requirements for accessibility depending on whether the place is a public building or a private home. For private homes, solutions can be tailored to the specific needs of the occupant and the legal requirements are less demanding. For owners or managers of public buildings that come under the requirements of the Disability Act 2005, access solutions to serve all types of needs and abilities will need to be found. Buildings and places which are not in public ownership, but which cater for public use, should also be accessible if the services provided are to meet with equality legislation. However, if works are required which affect the architectural or archaeological significance of the building or place, other statutory requirements apply such as the need for planning permission and/or notification or consent under National Monuments legislation.

Many historic gardens and demesnes are open to, and visited by, the public and the access requirements of all visitors need to be considered

Churches and graveyards in active use have very different access requirements to those which are no longer in use

Georgian terraced houses, for which many Irish cities and towns are renowned, are particularly challenging to adapt for wheelchair access

The approach taken to adapting a home is specific to a resident's needs as well as to each property

Waterways such as the Grand Canal and River Barrow are protected for their historical and ecological significance but also provide an easily accessed recreational amenity for all

While the principal focus of this booklet is on places of built heritage significance, some of these historic places may also be of natural heritage significance and their custodians should take account of possible impacts on wildlife habitats and natural landscapes when planning and managing for improved access.

The guidance is laid out in five sections:

Chapter 1 looks at the principles of architectural conservation and of universal design and the importance of getting the balance right between the two. It also explains the necessity of getting the right advice to ensure that the owners or custodians of the building or place meet their responsibilities.

Chapter 2 outlines some relevant legislation, describing the different responsibilities with regard to the provision of access, the protection of the built heritage and other associated legislation including the requirements of building regulations.

Chapter 3 provides information on the process of planning for inclusion by developing, implementing and managing access strategies specific to the particular building or place, to ensure that the objective of improving access is met while maintaining the significant characteristics of the historic place.

Chapter 4 provides relevant information and practical advice on delivering site-specific and practicable access solutions for the historic external environment including the provision of accessible routes through a site or an urban area together with the provision of adequate seating, resting places and signage.

Chapter 5 follows a typical journey sequence when visiting a historic building from arrival and entry into the building, circulation in and around the building and measures for ensuring safe evacuation of the building in case of emergency.

Chapter 6 deals with the provision of accessible information for the visitor, both in assisting in planning a visit to a historic building or place and in interpreting the site once there. It also discusses issues of accessibility in relation to events held in historic buildings and places.

1. Principles

Getting the balance right

Few historic buildings and places were originally designed to be accessible to all and many present challenges in providing easy and independent access. Indeed some historic sites, such as castles and military forts, were actually designed and built to make access difficult and this may be an important aspect of their special interest. Nonetheless, there are many situations where it is possible to improve access either through innovative management practices, high quality and sensitive design interventions, or a combination of both.

Good management solutions include training staff to understand the needs of people and to assist when necessary. Appropriate staff training and awareness are particularly necessary in places where conventional standards are not practicable due to the impacts these might have, and where personal assistance may be required for some users or visitors. Good management also includes the implementation of flexible, non-physical arrangements and initiatives within a building to accommodate people with a diverse range of needs. It may sometimes not be possible to provide physical access to all parts of a historic building without causing significant damage to its architecture. In such cases, the services or experiences provided should, wherever possible, be made available in an accessible part of the building. Management solutions may also involve the installation of portable or demountable aids, for example for one-off or infrequent events. Sometimes a management solution is necessary where a more permanent solution is not possible or appropriate at that time, perhaps due to a lack of available funding or technology. Consultation with stakeholders and user groups may help identify key issues and evaluate possible solutions.

In determining the extent and approaches to achieving improved accessibility, an acceptable balance needs to be struck between the need to protect the particular qualities of the building, townscape or landscape that are valued and the need to provide for greater social inclusion and access. In making decisions about intervention and change, owners or

custodians should respond to the needs of today while being mindful of their role as temporary custodians of a heritage passed down from previous generations, which should be passed on to future generations with its special qualities intact.

Many buildings of architectural heritage significance also play a role in people's daily lives. In getting the balance right, a different approach may

It is a challenge for anyone to visit the ruins of the fifteenth century medieval Moyne Abbey because of its isolated location, the difficulty of the terrain and the condition of the ruinous site. This is part of every visitor's experience and it contributes to the special qualities of the place. Any decision to improve access needs to be carefully balanced with maintaining the integrity and authenticity of the abbey and its setting

Trinity College Dublin is home to more than 16,000 students and staff and is visited by over half a million people every year. Many of the buildings, which date from the eighteenth and nineteenth centuries, are accessed across cobbled squares and have raised entrances. The College is committed to the principle of universal access and has developed an access strategy which is being implemented on a phased basis

be appropriate for a building which accommodates an everyday function such as a library, church, shop or bank, than for a heritage site which is open to the public as a historic visitor attraction.

Management solutions which do not require alteration of the building or place may be appropriate in some instances to ensure sufficient access to a particular service. Such management solutions can be assisted by off-site and advance information in the form of websites, leaflets and audio-visual information, indicating where physical access is limited and what facilities and interpretive information are available. One-off or occasional events in historic buildings and places, such as concerts, ceremonies, fairs, markets and the like, may only require temporary measures which can be installed in a sensitive and easily reversible way.

Principles of universal design

The principles of universal design developed by the North Carolina State University in 1997 are:

1. Equitable use – the design is useful and marketable to people with diverse abilities
2. Flexibility in use – accommodating a wide range of individual preferences and abilities
3. Simple and intuitive use – use of the design is easy to understand
4. Perceptible information – the design communicates necessary information effectively to the user
5. Tolerance for error – the design minimises hazards and the adverse consequences of accidental or unintended actions
6. Low physical effort – the design can be used efficiently and comfortably with a minimum of fatigue
7. Size and space – appropriate size and space is provided for approach, reach, manipulation and use

The Disability Act 2005 (Section 19A) defines Universal Design as the design and composition of an environment so that it may be accessed, understood and used to the greatest possible extent, in the most independent and natural manner possible, in the widest possible range of situations, and without the need for adaptation, modification, assistive devices or specialised solutions, by any persons of any age or size or having any particular physical, sensory, mental health or intellectual ability or disability. It is about making places that everyone can use through applying a strategic approach to planning, design and management. It promotes inclusion and access for all and applies both to new buildings and to the adaptation of existing and historic environments. It relates not only to the management and maintenance of a building or place but also to the provision of information and services.

Applying universal design principles to ensure that historic environments are accessible and inclusive involves understanding the vast range of human abilities and frailties at all stages of life from childhood to old age. There is no such person as 'an average person' and there are as many differences in the characteristics of 'disabled' users as there are among 'non-disabled', for example height, strength, dexterity, stamina, and intellectual, vision or hearing abilities.

In seeking solutions the general aim is to find one that is usable by everyone. However there are times when it is necessary to provide alternatives. If a solution designed specifically for use only by people with disabilities cannot be avoided, then it should be sensitively integrated within the existing architectural or landscape context.

To arrive at an acceptable solution, user consultation can be a key factor. By involving people with disabilities, older people and user groups in the process, it may be possible to ensure that solutions are practical and priorities are accurately identified.

Universal design may include assistive devices; for example, an assistive hearing device may be required in a concert hall no matter how good the acoustics. Personal service and assistance may also be needed; in particular where services are automated.

By consulting with a range of user groups, including older people and people with disabilities, decisions on what access improvements to prioritise are more effective

Universal design is an innovative and dynamic strategy which focuses on constantly seeking better solutions in a context where technology, knowledge and awareness are rapidly changing. Thus it is necessary continually to consider new solutions as a means of minimising technical and environmental limitations. The practice of universal design is evolutionary in character. Each historic building or place is unique and the level of access that can be achieved is dependent on the characteristics of the site itself.

A universal design strategy applied to places of built heritage should aim to include the following goals wherever practicable:

- Pre-visit information available in accessible formats and providing information about the accessibility of the site and services
- Staff trained in disability and equality awareness
- An accessible external landscape
- Simple and intuitive wayfinding and orientation
- Well-designed and legible signage
- An accessible principal entry point
- Access for everyone to facilities or, where this is not possible, alternative access provided
- Interpretive information available in a variety of formats
- Programmes and events that are accessible to all
- Emergency evacuation for everyone

An inclusive environment is easy to use, safe, and comfortable and offers choice where needed

However, because of the sensitivity of the built heritage, not all of these goals will be achievable at every site and, where such cases arise, a careful balance will have to be reached.

Principles of architectural conservation

According to the principles of architectural conservation, alterations to the built heritage should:

- Use expert advice at all stages of the process
- Protect the special interest of the place
- Promote minimal intervention
- Properly record all alterations
- Respect all previous alterations of interest
- Repair rather than replace historic fabric
- Promote the legibility of new work
- Use appropriate materials and methods of work
- Ensure easy reversibility of alterations

We look after our historic buildings and places for those who come after us. Many of these historic places have existed for generations and it is our responsibility to hand them on in good condition to allow future generations to enjoy them too. Conservation involves caring for historic buildings and places and managing changes to them in a way which retains their special characteristics. It is important, therefore, to understand the following basic principles of architectural conservation practice so that any changes undertaken do not damage the special qualities of a historic building or place.

For most historic buildings and places, it is well established that the best way to protect them is to keep them in active use. This may involve adaptations and alterations to keep the place in use and some compromise may be necessary; however, the special interest should not be unnecessarily affected and every effort should be made to minimise loss of, or damage to, the qualities of the building or place.

Before commencing any works it is important to learn as much as possible about the particular building or place; for example what its history has been and how it has changed over time. It should be recognised that later alterations may be important additions to the history of the place. If the building or place has been cared for and adapted over the years, each generation of change has made its own contribution to its character. It is important to understand what is special about the place and how these special qualities can be protected when carrying out works. It is also essential to get independent advice from acknowledged experts in the relevant field of conservation when planning works. These could include a conservation architect, engineer, landscape architect, archaeologist or ecologist, depending on the nature of the works required.

This ramp has been designed as a contemporary intervention in steel and timber which will weather to a grey colour to match the stonework. The ramp is readily removable ensuring that the intervention is reversible. As part of the works a doorway which had been blocked up was reopened with the new door recessed. The original steps have been brought forward and raised to eliminate the single step at the doorway. Any historic fabric that was removed has been retained on the site and the alterations recorded

Planning should take place in a holistic way, formulating an overall plan which addresses all necessary works to conserve the distinctive qualities of the place but which also allows for change. Works can then be implemented in a phased manner to reflect priorities and available resources. Ideally, interventions and alterations should be readily reversible without causing damage to the special character of the building or place.

Generally, alterations should adopt an approach of minimal intervention. Good conservation works should do 'as much as necessary and as little as possible' (Article 3, Burra Charter). Where major interventions or additions are required, these should add to the distinctive qualities of the site rather than compete with the historic building or place so that, in time, they become valued elements in their own right. In some instances, the appropriate design solution may be to adopt the historic style; however care should be taken to ensure high quality detailing and specification, as poor quality pastiche versions would detract from the original. Often a contemporary design of high quality is more appropriate and the approach should generally strive for minimal visual impact and the use of high quality materials. These new elements should not visually dominate the historic building.

Junctions between the historic fabric and any new element should be carefully designed to avoid damage and there should be a clear and elegant distinction between the new and the old. Respect should be given to local distinctiveness in material, design and construction detail.

Intervention and new works should not damage important historic fabric and features or promote future decay. When carrying out interventions the materials, design and detailing of the intervention should be compatible with the historic fabric and should not damage its structural integrity and performance. It is good practice to prepare drawn and photographic archival records of the building or place before and after carrying out works, in addition to recording any features which come to light during the project.

Roles and responsibilities

Improving accessibility requires commitment at all levels within an organisation responsible for the management of a historic building or place. The same is true for protecting the architectural heritage. Management should empower and delegate staff to provide effective on-site management, operational procedures and monitoring.

For public buildings, the Disability Act places responsibility for providing access with the heads of certain public bodies and requires that those bodies appoint at least one member of staff as an access officer.

Within organisations whose property includes historic buildings and places, it is important that those authorised to act as access officers are made aware of the value of the built heritage of the site, the principles of architectural conservation, relevant legislation and national and local policies. It is also important that they are given the necessary authority to work with other people and departments, both within and outside the organisation, who may also have a role in the planning, managing and carrying out of works to historic properties within the organisation's ownership or management.

In organisations which own or manage a large portfolio of historic buildings and places, perhaps spread across a wide geographical area, it may be useful to establish a historic property committee and it is recommended that the access officer and representatives of any relevant access group are part of this committee, in addition to including committee members with building conservation expertise. The planning of any works to historic properties should be coordinated by this committee so that accessibility issues are properly integrated in a sensitive manner.

Those who own or are in charge of buildings and places of architectural heritage significance should be aware of their duties and responsibilities under the Planning Acts and the National Monument Acts. They should consult with the relevant statutory authorities before planning any works.

STAFF TRAINING IN EQUALITY AND INCLUSION

The type and level of training required depends on the nature of the organisation and the specific role of the staff member; however all staff should be made aware of the principles of equality, inclusion and universal design.

For buildings and places where physical access is difficult to provide due to the potential impacts it would have on the architectural heritage, the attitude, awareness and training of building owners, managers and staff become of much greater importance. The advantage of good staff training is the creation of increased awareness of the needs of people with disabilities so that, where a building or place is not fully accessible, staff know how to explain any access limitations, and to offer and provide suitable assistance when necessary. Sometimes a little assistance from a staff member can make an otherwise inaccessible building accessible for someone with a disability. Trained staff may also often be able to identify creative and non-damaging solutions for making heritage sites more accessible.

2. Legislative context

It is important to establish at an early stage whether a historic building or site is protected by legislation and what types of notifications, permissions and/or consents are necessary to obtain before undertaking any works. The complexity of legislative requirements dealing with the conservation of the built heritage and the improvement of accessibility often requires expert advice, together with consultation and negotiation with the relevant statutory authorities.

The following provides a brief description of the relevant legislation which underpins the principles of accessibility and the protection of historic buildings and places. This section is intended as guidance only and is not a legal interpretation of the legislation discussed.

The Office of Public Works has been assisting government departments meet objectives to ensure that public buildings are, as far as is practicable, accessible to everyone. Here smooth, paved access routes from the pedestrian gates to the main entrance steps were provided through the re-laid setts. A ramped access leads up to the entrance podium

Disability Act 2005

The Disability Act applies principally to public bodies. Under the Act, public bodies are required to ensure that the services they provide to the general public are accessible to people with disabilities. A public body should also ensure that information is available in accessible formats on request as far as practicable.

Within this Act there are specific requirements for heritage sites. Section 29 (1) (a) requires that 'the head of a public body shall, as far as practicable, ensure that the whole or a part of a heritage site in its ownership, management or control to which the public has access is accessible to persons with disabilities and can be visited by them with ease and dignity.' However, this does not apply if the works required to make the heritage site accessible would:

(i) Have a significant adverse effect on the conservation status of a species or habitat or the integrity of a heritage site, or

(ii) Compromise the characteristics of the site.

For the purposes of the Disability Act 2005, Section 29 (3) defines a 'heritage site' as including:

a) A monument within the meaning of the National Monuments Acts 1930-2004

b) A heritage building or a heritage garden or park within the meaning of the Heritage Act 1995

c) A protected structure or a proposed protected structure, with any attendant grounds, or an architectural conservation area, within the meaning in each case of the Planning and Development Act 2000

d) A nature reserve which is the subject of an establishment order within the meaning of the Wildlife Acts 1976 and 2000, and

e) A national park owned by the State and under the management and control of the Minister for the Environment, Heritage and Local Government (Note: these functions were transferred to the Minister for Arts, Heritage and the Gaeltacht in 2011)

Access for everyone to the Custom House, Dublin is via the north entrance where a ramped access route has been provided to reach the entrance podium

The ramp is located parallel to the pavement, behind railings with minimal impact on the Neoclassical façade

A section of the railings and of the stone plinth were carefully removed to give access to the base of the ramp. The south, riverside entrance, which is accessed via an impressive set of steps, is now only used for special events when both entrances are available for use

Under Section 25 of the Disability Act 2005, for public buildings other than heritage sites, public bodies are required to ensure that buildings that are accessed by the public are brought into compliance with Part M 2000 of the Building Regulations by 31 December 2015. Public buildings must be brought into compliance with any amendment of Part M not later than 10 years after the commencement of the amendment.

Section 26 of the Disability Act requires public bodies to provide integrated services to people with and without disabilities, where practicable and appropriate. It also requires all public bodies to appoint at least one access officer. Section 27 of the Disability Act requires public bodies to ensure that goods and services supplied to it are accessible to people with disabilities, where this does not incur undue cost or delay.

The National Disability Authority has produced a Code of Practice for Accessible Heritage Sites under Section 30 of the Act. This Code of Practice provides guidance to public bodies on improving the accessibility of heritage sites in their ownership.

Planning and Development Acts 2000 - 2010

Under Part IV of the Planning and Development Act 2000, a building which forms part of the architectural heritage can be protected either by being designated as a protected structure or by being located within an architectural conservation area.

Where a building is a protected structure, or has been proposed for protection, or is located within an architectural conservation area, the usual exemptions from requirements for planning permission may not apply. In the case of a protected structure any works, whether internal or external, which would materially affect its character, require planning permission. Protection also extends to the land within the curtilage of the building and to other structures and features associated with a protected structure such as outbuildings, boundary walls, paving, and railings. In an architectural conservation area, any works to the exterior of a building which would affect the character of the area also require planning permission. This may include works to the exteriors of buildings and to features such as paving, railings and street furniture.

Under Section 57 (2) of the Act, the owner or occupier of a protected structure is entitled to ask the planning authority to issue a declaration which provides guidance in identifying works that would, or would not require planning permission.

For general advice on planning issues relating to architectural heritage, refer to the statutory guidelines entitled *Architectural Heritage Protection Guidelines for Planning Authorities* (2011) published by the Department of Arts, Heritage and the Gaeltacht. Chapter 18 of these guidelines deals with issues relating to improving access.

Level access to this building has been achieved in a side street by extending an original window opening to street level. Where such entrances are not the principal entrance it is important that they are clearly sign-posted, supervised closely and well-maintained. They should be located as close as possible to the main entrance

National Monuments Acts 1930 - 2004

Alternatively, or in addition, a building or place may be protected under the National Monuments Acts in one or more ways as follows:

a) By reason of being a national monument in the ownership or guardianship of the Minister for Arts, Heritage and the Gaeltacht or a local authority or subject to a preservation order

b) As a monument entered in the Register of Historic Monuments

c) As a monument entered in the Record of Monuments and Places

In respect of monuments to which (a) applies, the written consent of the Minister for Arts, Heritage and the Gaeltacht is required for any structural interference or ground disturbance. In respect of monuments to which (b) and (c) apply, two months' notice in writing must be given to the Minister of any proposed works at or in relation to the monument. Breach of these requirements is an offence.

The Record of Monuments and Places (RMP) is the most widely applying provision of the National Monuments Acts. It comprises a list of recorded monuments and accompanying maps on which such monuments are shown for each county. It can be consulted in county libraries and main local authority offices. The National Monuments Service of the Department of Arts, Heritage and the Gaeltacht advises on the protection applying to any particular monument under the National Monuments Acts.

Building Control Acts 1990 - 2007

The building control system is centred on the parent Act, the Building Control Act 1990, which comprises three principal categories:

- Provides for making of Building Control Regulations
- Provides for the making of Building Regulations, and
- Gives powers of enforcement and inspection

The Act was amended in 2007; the main provisions made were:

- Strengthening of enforcement powers of local Building Control Authorities
- Registration of titles of certain building professions, and
- Legal transposition of relevant parts of EU Mutual Recognition of Professional Qualifications Directive (2005/36/EC of September 2005)

BUILDING CONTROL REGULATIONS 1997 - 2009

Building Control Regulations 1997 first came into force on 1 July 1998. They apply to new buildings, extensions, material alterations and changes of use of buildings. Their purpose is to promote observance of the Building Regulations by supplementing the basic powers of inspection and enforcement given to Building Control Authorities by different sections of the Building Control Act 1990. The Building Control Regulations do so in three ways:

- Requiring a commencement notice of works to be lodged with a fee
- Requiring a Fire Safety Certificate for most buildings, with the exception of houses and individual apartments. They also detail exemptions to the regulations (not to the technical requirements of the Building Regulations), and
- Requiring a Disability Access Certificate for most new buildings, with the exception of houses and individual apartments, and certain works to existing buildings. This was introduced through an amendment to the Building Control Regulations in 2009

BUILDING REGULATIONS 1997 - 2010

The primary purpose of the Building Regulations is to provide for the health, safety and welfare of people in and around buildings. In general, the Building Regulations apply to the construction of new buildings, to extensions and material alterations to existing buildings and to certain changes of use of existing buildings. These Regulations apply to all types of construction.

The Building Regulations comprise broad functional requirements, or general statements of intent. Technical Guidance Documents A to M give guidance on how to comply with the Regulations.

The second schedule lists the various parts (A to M) and the Regulations within each part. The third schedule lists the types of buildings that are exempted from the Building Regulations. For example, under Class 8 of the third schedule, a building subject to the National Monument Acts is exempted from the Building Regulations.

PART M OF THE BUILDING REGULATIONS

Part M of the Building Regulations provides for access and use of buildings. Part M was amended in 2010 and re-titled 'Access and Use,' reflecting an overall aim to foster a more inclusive approach to the design and construction of the built environment to facilitate the needs of all people regardless of age, size or disability. Part M applies to works in connection with new buildings, extensions to existing buildings, material alterations of existing buildings and certain material changes of use. It generally comes into force with effect from 1 January 2012. Certain transitional arrangements apply and these are set out on page 6 of Technical Guidance Document (TGD) M 2010.

TGD-M 2010 contains guidance on how to comply with Part M and sets down the minimum requirements necessary to ensure that, regardless of age, size or disability:

a. New buildings other than dwellings are accessible and usable

b. Extensions to existing buildings other than dwellings are, where practicable, accessible and usable

c. Material alterations to existing buildings other than dwellings increase the accessibility and usability of existing buildings where practicable

d. Certain changes of use to existing buildings other than dwellings increase the accessibility and usability of existing buildings where practicable, and

e. New dwellings are visitable

Article 11 of the Building Regulations 1997 has been amended to extend the definition of 'material alteration' to include Part M. This means that works which involve alterations to features relevant to access and use of buildings, for example entrances, sanitary facilities and the like, must comply with the requirements of Part M.

Article 13 of the Building Regulations 1997 has been amended to require Part M to apply to an existing building or part of an existing building, which undergoes a material change of use to a day centre, hotel, hostel or

guest building, institutional building, place of assembly, shop (which is not ancillary to the primary use of the building), or shopping centre.

In the case of new dwellings (which, since 2001, must be visitable by people with disabilities) some amendments have been included in TGD-M 2010 in respect to approaches to a dwelling, widths of internal doors, etc. Part M does not apply to works in connection with extensions to, and the material alterations of, existing dwellings, provided that such works do not create a new dwelling.

TGD M 2010, introduced the concept of 'practicability' when dealing with works to existing buildings, for example extensions, material alterations and certain material changes of use. It encourages a balanced and integrated approach when dealing with works to existing buildings. In determining the practicability of works to an historic building, circumstances to consider include where the works would have a significant adverse effect on the historical significance of the existing building, facility or environs or where existing structural conditions or other physical or site constraints would prohibit modification of an existing feature. For further information refer to section 0.7 of TGD M 2010.

DISABILITY ACCESS CERTIFICATES (DAC)

The Building Control (Amendment) Regulations 2009 introduced the requirement for a Disability Access Certificate (DAC), in order to improve compliance of buildings with Part M of the Building Regulations. A DAC confirms that, if the building (or works) is constructed in accordance with the plans, calculations, specifications and particulars submitted, it would comply with the current requirements of Part M. A DAC is granted by a Building Control Authority and is required for new buildings other than dwellings (but including apartment buildings) and certain works in connection with material alteration (as set out in Article 20 D (1) of S.I. No. 351 of 2009) to which the requirements of Part M apply, which commence on or after 1 January 2010.

Where it is not considered practicable for a historic building or place to comply with aspects of Part M, it is necessary to communicate this to the Building Control Authority when applying for a DAC, giving the reasons and describing any proposals to mitigate the restriction on access or use.

IMPROVING ACCESS TO A PRIVATE HOME

There is currently no legal requirement to make an existing private dwelling accessible. For the private house owner who wishes to carry out works to improve access, it may not always be necessary to implement all of the procedures set out in this booklet as alterations can be tailored to meet particular individual needs. Where the private house is a protected structure, a recorded monument, or located in an architectural conservation area, there are statutory requirements under the Planning and Development and National Monument Acts. A conservation assessment is recommended where consents or permissions are necessary; for example, works require planning permission if they would materially affect the character of the building. While, in general, works should comply with Building Regulations, Part M does not apply to extensions and material alterations to existing dwellings provided that such works do not create a new dwelling. However, such works must not create a new or greater contravention of the Building Regulations. Works to dwellings are exempt from the requirement to obtain a Disability Access Certificate but works to the common areas of apartment blocks may require one. It is important to distinguish between homes which are houses and homes which are apartments as there are differences regarding the application of fire safety and Building Control legislation.

As with all historic buildings and places, the architectural conservation principles set out in this booklet apply and, where a building is altered to meet the particular needs of an individual, the works should ideally be readily reversible. It is also recommended that suitably experienced and skilled professional advice is used to determine the most appropriate solutions.

Most people wish to remain in their homes as they grow older and the challenges posed by stepped entrances need careful and early consideration. If the building is a protected structure planning permission will be required where the works would materially affect the character of the building. A declaration may be requested from the planning authority to establish what may be considered exempted development in a particular case

Employment Equality Acts 1998 & 2004

Under the Employment Equality Acts, an employer is required to take reasonable measures, which may include the adaptation of premises and equipment, to enable a person with a disability to have access to employment. A place of employment may be in a historic building or place.

When considering what would be a 'disproportionate burden' on the employer, account is taken of the financial and other costs entailed, the scale and financial resources of the employer, and the possibility of obtaining public funding or assistance.

Equal Status Acts 2000 - 2004

The Equal Status Acts give protection against discrimination on the grounds of disability in non-employment areas including education and in the provision of goods, services and accommodation. Services are defined broadly to include access to public places, banking and insurance services, entertainment, facilities for refreshment and transport.

Under these Acts, a person selling goods or providing services, providers of accommodation and education institutions should do all that is reasonable to accommodate the needs of a person with a disability by providing special treatment or facilities in circumstances where, without these, it would be impossible or difficult to avail of the goods, services or accommodation. However, service providers are not obliged to provide special facilities or treatment when the cost involved is greater than a nominal cost.

The definition of nominal cost depends on the circumstances of each case and the size of organisation. For example, a small business may not have to provide wheelchair access if the cost of doing so is deemed excessive. If, on the other hand, the service provider is a major organisation the cost may be viewed as a valid nominal cost and the question to be answered is whether access can be provided sensitively and without adversely affecting the special character of the historic building or place.

Wildlife Acts 1976 - 2010

These Acts contain the principal statutory provisions for the protection of natural heritage (both flora and fauna) and the control of activities which may impact adversely on the conservation of wildlife. Under these Acts areas, species and habitats deemed to be of significance or at risk are designated for statutory protection. Any works which may take place in such designated areas or which may impact on protected species must be carried out under licence from the National Parks and Wildlife Service (NPWS) of the Department of Arts, Heritage and the Gaeltacht and certain procedures and mitigation measures may be required. Further information is available from the NPWS.

Wicklow Mountains National Park has an extensive network of accessible boardwalks through the protected areas of Glendalough Valley which is a designated Special Area of Conservation. The boardwalk serves two functions: to protect the ecology of the place and to provide an easy-to-use walking route along the valley floor

Forestry Act 1946

If considering the felling of trees in order to improve accessibility, it is necessary to have regard to the relevant legislation. Under the Forestry Act, a felling licence must be obtained for trees in areas not in public authority ownership, which are over 10 years old, other than in a number of prescribed situations. The Act is administered by the Forest Service of the Department of Agriculture, Fisheries and Food. Felling licences must also be obtained for any work to trees which are located within statutory protection areas under the Wildlife Acts. Permission from the local authority is required to fell trees which are protected by Tree Preservation Orders.

When a tree which makes an important contribution to a setting or to the biodiversity of an area, obstructs access, alternative routes should be considered which avoid damage to the tree

3. Preparing to Improve Access

Advice and expertise

It is important that the right advice is taken from the outset when improving the accessibility of a historic building or place. Good and timely advice often results in simpler, more cost-effective solutions involving creative approaches which deliver high quality design where physical interventions may be necessary. In some cases, a well-considered management solution may lessen, or completely avoid, the need to physically alter a building. Getting the right advice also assists in ensuring compliance with legal requirements and obtaining the necessary consents and permissions.

Good advice is provided by professional consultants with recognised experience and qualifications in architectural conservation and accessible design. In some instances, a professional advisor may be able to provide the necessary expertise in both disciplines. However, in more complex situations it may be advisable to engage professional specialists in each of these fields.

Other specialist input may be required, including in the fields of architecture, landscape architecture, archaeology, specialist conservation, historic landscapes, ecology, structural engineering, building services engineering, fire engineering, emergency evacuation or graphic design. A professional advisor should be able to advise on the need for such specialist input and coordinate and integrate the different areas of advice.

Consultation is an important part of ensuring that the right approaches and solutions are developed. Preliminary advice should be sought from the local authority architectural conservation and access officers and also from the planning, fire and building control officers. Users both with and without disabilities, local access groups and disability representative organisations may also need to be consulted. For public buildings and sites, it may be important to consult with people who do not visit a place to find out why this is the case. This helps to identify the principal barriers and those which should be tackled first. It also demonstrates a commitment to improving access.

Improving Accessibility: Eight actions for delivering well planned and coordinated access. Consultation, which is a critical component in improving accessibility, should generally be an integral part of all these actions

* The conservation assessment and access audit are ideally undertaken simultaneously, even if carried out by separate consultants. There should be joint initial visits and both processes should feed into one another. It is only by having a properly integrated approach that appropriate, effective solutions for improving access can be developed.

The access strategy

Any organisation seeking to meet its social and legal obligations to provide access should first develop an access strategy. The access strategy sets out the organisation's policy and commitment to delivering access and inclusion. It should be developed with input from people at all levels across the organisation. The strategy should:

- Ensure that the needs of all are addressed, including employees, visitors and service users
- Identify those persons responsible for progressing and managing the implementation of the strategy
- Establish preliminary timescales and budgets
- Inform procurement briefs and specifications to be used when engaging external contractors, professionals and specialists in order to ensure the availability of the necessary skills in building and landscape conservation and in universal design
- Provide for the preparation of access audits, conservation assessments and access plans, ensuring there is appropriate coordination between these and other relevant plans, strategies and policies
- Allow for the improvement of access as a continuous and ongoing process
- Ensure measures are in place for monitoring and review

The access strategy should address the issues of conservation and access in an integrated manner. Two key tools in transforming the access strategy for the physical environment into a set of specific proposals contained in the access plan are the conservation assessment and the access audit. It is important that both of these processes are run in tandem with each other, with collaboration between the conservation and access specialists. This might include, as a minimum, an initial joint site visit to ensure good communication and a mutual understanding of the critical issues.

The conservation assessment

The conservation assessment provides essential information on the historic building or place which can assist in planning for improved accessibility. It should include a comprehensive description of the historic building or place as it exists, identifying architectural styles, materials used, its general construction as well as its relationship to the context and setting. Using historic and contemporary photographs and drawings it may also provide an account of the overall development of the place, outlining phases and dates of development and associated changes. The conservation assessment should identify any legal constraints; for example if the building is a protected structure, a recorded monument, or is located in an architectural conservation area. It should establish the significance of the building or place in terms of its overall importance and identify the particular aspects of the building or place which may be of special interest (these could include buildings, interiors, architectural elements, elements of designed landscape and streetscape elements) as well as those areas which are vulnerable to change and those which maybe capable of sustaining some alteration. Where known, the names of architects, engineers, landscape designers and any known craftsmen, builders or gardeners involved should be documented as well as those responsible for commissioning it and any significant events or personalities associated with the place.

An access audit and conservation assessment of an architectural conservation area, such as the centre of a historic town, are used to identify the special features which are important to conserve as well as the access barriers which are to be overcome

In architectural conservation areas, the conservation assessment should describe the special character which defines the area and the particular features which contribute to it, such as the prevailing architectural styles and building materials used, the arrangement and relationship of individual buildings to each other, the hierarchy of spaces, special views, street furniture, lighting, planting and paving materials. It should identify areas and elements that can or cannot accept change without damage to the character of the overall architectural conservation area.

The conservation assessment should describe the special character which defines the area or building and the particular features which contribute to it

Professionals with expertise and experience in built heritage and/or landscape conservation should carry out the conservation assessment. For some sites additional specialist advice may be required. Where a conservation assessment is being undertaken to inform an access plan, it is recommended that the professional carrying out the assessment has some knowledge and experience of the principles of accessibility and universal design.

For complex, significant or large historic buildings and places, it may be appropriate to develop a conservation plan. The conservation plan is a tool for managing change in places of heritage importance. The plan is generally developed by a multi-disciplinary team which may contain conservation architects, architectural historians, archaeologists, landscape architects, ecologists, planners, engineers, specialist conservators, or any other skills necessary to address the particular issues and importance of the building or place. It describes the particular aspects of the place that

makes it significant, identifies the issues which threaten this significance and then develops policies and actions aimed at protecting what is significant. It should involve consultation with relevant stakeholders and identify responsibilities, resources and programmes for implementation. While the conservation plan does not provide an access strategy, a good conservation plan should address accessibility issues and inform the preparation of the access strategy.

In addition to identifying those aspects of greatest significance, the conservation assessment should also identify those elements which can undergo change or which may be of less architectural heritage value. Historic research may identify old routes or openings which may be suitable to reuse when improving accessibility. The conservation assessment should also establish the requirements with regard to statutory consents and permissions.

The access audit

The access audit is an important tool in identifying and documenting the barriers in a service, building or place, which can cause difficulties for people with physical, sensory or intellectual disabilities. It identifies where such barriers may compromise access and measures the usability of facilities and services being delivered. It should also identify where accessibility needs are currently being satisfactorily met. The audit should be carried out by an access specialist in advance of any proposals to improve access and it is good practice for consultation to be carried out with users as part of the access audit. It is recommended that, in the case of historic buildings and places, this specialist should also have a knowledge and experience of conservation principles for historic buildings and landscapes.

An access audit generally follows the normal journey sequence of the user; however this depends on the type of place being audited. It may typically include an assessment of all or some of the following:

- Pre-visit information
- The journey to the site by car, public transport or other means

- Moving around in external areas – accessible paths, surfaces, methods of movement and wayfinding
- Approach routes, set-down points and car parking
- Entry to any buildings
- Horizontal and vertical circulation within buildings
- The facilities, services and information within the building or place
- Communications systems and signs
- Procedures for emergency situations and evacuation
- Management
- Maintenance

The access audit should provide recommendations with regard to the removal of the barriers identified and address the access needs of all users. It should also, where possible, prioritise the issues to be addressed. The audit should identify maintenance issues that affect accessibility so that any ensuing recommendations can be incorporated into planned maintenance programmes. The recommendations of an access audit should inform the access plan.

Ideally, the access audit and conservation assessment should be prepared simultaneously and the auditor and assessor (where these are different people) should liaise closely to develop a common understanding of the relevant issues

Access options

On foot of the access audit and the conservation assessment, it may be necessary to synthesise the recommendations and findings of both and develop a range of options which can themselves be assessed for feasibility of implementation. The recommended collaborative approach taken in carrying out the conservation assessment and access audit assists in this process of synthesis which should ideally be carried out by a qualified building professional or landscape architect, as appropriate, with knowledge and experience in both conservation and universal design. Where the design professional does not have such experience and knowledge, these skills can be provided by specialists. It is important, however, to ensure that there is effective collaboration between each of these disciplines during this process.

At the outset, appropriate management solutions should be identified as these may eliminate the need for some, and possibly all, physical interventions. Successful management solutions such as training of staff, relocation of services and facilities to accessible locations, portable solutions and the like, are dependent on consistent and committed implementation if accessibility is to be maintained. When management solutions are chosen as the most appropriate approach, it is vital that they become an integral part of the day-to-day running of an organisation or service and that the necessary training of staff takes place.

It is likely that for most buildings and places a combination of management and physical solutions is required. Technical and design studies should explore the options for addressing the physical barriers identified in the access audit with regard to the likely contribution of these to the architectural heritage significance. This process should explore the technical, statutory and conservation feasibility of varying options. It should also involve consultation with local authority officials particularly planning, architectural conservation, fire and building control officers. Where there are likely to be planning or consent issues arising from proposed improvements, it is recommended that early pre-planning meetings are held with the local authority at which all key officers attend and participate. Depending on the nature of the project, other official input, for example from the access officer, biodiversity officer or parks

department may be useful. The advantage of consultation is that any potentially conflicting issues should arise early on and the relevant officers are aware of these issues when it comes to assessing an application for planning permission, a Disability Access Certificate and/or a Fire Safety Certificate. Where recorded monuments or designated habitats might be affected, advance consultation with other statutory bodies, in particular the heritage services of the Department of Arts, Heritage and the Gaeltacht, is strongly recommended. The consultation process is particularly useful for more complex situations, or where the proposed physical interventions are likely to lead to a material impact on the special interest qualities of the building or place. Advance consultation is more likely to lead to robustly worked-out and manageable solutions.

This stage, therefore, is one of the most crucial steps in achieving successful solutions. It is the stage where the skill of the professional team is evident in developing creative, well-designed solutions which are appropriate to the particular context and requirements of the building, place or service.

In assessing the feasibility of options developed, the available resources, identified priorities and timeframes for planning and obtaining necessary consents need to be incorporated. For example, the access audit should prioritise its recommendations to enable implementation to be carried out on a phased basis where funding may be limited. Alternatively, the conservation assessment may have identified particular repair works which are urgent to protect the architectural heritage. All these factors need to be integrated when selecting preferred options for implementation.

The access action plan

The access action plan is in effect an action plan for implementing improvements to the accessibility of a building or place. It sets out the various actions and projects against timescales, resources and those responsible for implementation.

The access action plan continues the process of reconciling conservation and access needs and it is fundamental in determining the changes that are necessary to achieve improved accessibility to the historic building or

place. The access action plan should not only include proposed physical changes, but also the initiatives for staff training, management and operational procedures which are to be implemented. Typically, the access action plan is discussed and shared with all relevant stakeholders and should:

- Contain a comprehensive list of site-specific, practicable actions to deliver access which cover management solutions and physical alterations
- Identify what actions would, and would not, require statutory permissions, consents or licences and set in place procedures for obtaining such consents
- Incorporate access statements (see below) for those physical works which would require statutory consent
- Programme implementation of projects to reflect prioritised access needs, other building development and repair strategies, and available resources. Thus the access plan should incorporate short-term and long-term aims and projects. It should also identify where temporary solutions may be provided and the reasons for them
- Allocate budgets for projects
- Establish monitoring and review procedures
- Assign responsibilities for all the above

The access statement

Where physical works require statutory consent, it is advisable that an access statement should form part of any application documentation. The access statement should be incorporated within any conservation report that forms part of an application for statutory permissions/consents with regard to proposed works to protected structures and recorded monuments.

The access statement should set out:

- The access strategy
- A description of the proposed works
- A statement on how they meet access needs
- A description of the impact on the heritage significance
- The mitigation measures proposed to minimise this impact, and
- The mitigation measures proposed to minimise the impact of any barriers to access which cannot be overcome through management or physical intervention

The access statement should also describe any alternative options explored in reaching the particular proposed solution and the reasoning behind the selection of the preferred options.

Maintenance, monitoring and review

Improving access is not a once-off activity; it should be seen as an ongoing process. Matters to consider include the maintenance of improvement projects, testing and monitoring in use after completion, and reviewing the ongoing and changing accessibility needs of the organisation with provision for subsequent modification.

As part of the completion of a project, it is good practice to provide the owner or manager with an access handbook which addresses the management and maintenance of access to the building or site. This handbook might most effectively be incorporated as part of the safety file for the building.

A maintenance regime is important to ensure that accessibility needs are met and continue to be met. A well integrated and regular programme of maintenance brings benefits for all users and the building owners and managers alike. Regular maintenance of external environments which are exposed to weather is necessary. In the Irish climate, paths and signage can very quickly become overgrown or surfaces slippery with the growth of mosses. The maintenance of signs and lighting ensure places are not just

easily accessible but safe as well. Maintenance of mechanical or electrical installations needs to be carried out regularly by certified contractors. It is important that lifts and assistive devices are well maintained and regularly tested, particularly platform lifts, hearing loops and similar. Where such installations are used for a multiplicity of access needs, and are therefore in constant use, it is more likely that any maintenance issues that arise are promptly identified and addressed. Maintenance of car parking areas, access routes and facilities, in particular accessible sanitary facilities, is also critical. It is important that these areas are never used for the storage of materials or equipment and then found to be inaccessible when needed.

Poor maintenance of a downpipe has resulted not only in damage to the physical fabric of the building but has rendered this ramp inaccessible on wet days

It is good practice to allocate an annual budget for implementation and maintenance programmes. Monitoring and review may not in themselves incur significant cost but they are necessary to ensure that ongoing accessibility needs are being met. For example, in urban areas or large multi-use concourse areas, there can be a tendency for temporary signs to be installed ad hoc which can pose a hazard for people with vision impairment. The identification and authorisation of a person or persons to monitor and take the necessary action should be the responsibility of the head of the organisation or the appointed access officer. These issues can be addressed as part of the access planning process. More complex again can be the monitoring of installations by different utility companies in an urban area (such as telephone cables, water mains, or underground power lines), to avoid hazards and ensure that these installations are appropriately located and designed in themselves. Again, a well-managed installation is likely to serve both accessibility and conservation needs well.

Monitoring and review procedures should allow for the modification of existing measures where they are not working satisfactorily, where there may be better solutions available which can be implemented without impacting negatively on the conservation priorities, or where a temporary provision needs to be replaced by a permanent solution. Management solutions may also need to be reviewed to assess if, and how, these are working; for example, where existing staff need updating of skills and where new staff need training. Feedback from both staff and visitors alike can be an important part of the review process. It is recommended that organisations find ways to get both positive and negative feedback from users to guide the ongoing review.

Platform lifts are particularly susceptible to poor maintenance regimes and are frequently found to be out of order when needed

Approaches to improving access

Each historic building and place presents unique access problems and challenges and the use of standard design guidance is rarely appropriate. Examples of good solutions can be provided to illustrate how requirements may be met, but these may not be suitable in all circumstances. In general, successful solutions show an attention to design detail, material specification and design quality. Other examples show how improved access can be delivered through good management and the provision of appropriate information. Examples of physical solutions include those that are temporary, easily reversible or permanent. To ensure high quality solutions are achieved, the following paragraphs highlight some important points that should be observed.

MANAGEMENT SOLUTIONS

It is important first to consider management solutions which may avoid the need for any physical alteration. Staff training in equality and disability awareness can overcome many barriers to access by means of appropriate management and good practice.

BESPOKE SOLUTIONS

Solutions should be designed to meet the specific conditions of the historic building or place. While standard solutions may sometimes be applicable, more often a bespoke solution, one specifically tailored to a particular situation, is required for historic places. This may not necessarily cost more but it does require careful, informed design of a high standard that may lead to an innovative solution. Durability and performance over time as well as functionality and appropriateness for the specific context should be considered.

High quality contemporary design solutions, such as this elegant ramp in the Petit Palais in Paris, may not always follow standard guidance. Nonetheless they may provide safe and convenient access and be appropriate in historic settings

INTEGRATED DESIGN SOLUTIONS

An integrated and holistic approach is recommended when planning to improve access. When carrying out any works of a physical nature, consideration should be given to how access could be improved. Tackling the physical elements of improved access within a larger scope of works may provide opportunities for better solutions. For example, there may be an opportunity to re-grade ground levels without damage to underlying archaeology or landscape features when laying underground services in external areas which may eliminate or reduce the impact of ramps. Opportunities may also arise to undo previous interventions which detract from the historic buildings and places.

The replacement of cobbles over the years in front of this building resulted in the raising of the general paving level and the lowest step to this door was almost concealed below ground level. When providing ramps to the doors the bottom step was raised thus eliminating the step at the door threshold and reducing the height and length of the ramp. The existing granite stones were preserved and damaged stones were replaced with stones of matching granite. By painting the ramps in stone-grey the negative impact on the façade has been minimised. However, a better visual contrast between the ramp and the handrails would have been achieved by painting the handrails in a tonally contrasting shade such as a dark grey

COMBINING MANAGEMENT AND PHYSICAL SOLUTIONS

An integrated approach means giving consideration to both management and physical adjustments, rather than to each in isolation. For example, consideration of the optimum internal layout of a historic building which is to be adapted for a new use may suggest that the principal entry point be relocated and this might also eliminate the need to provide a ramp or platform lift where there are steps up to a historic entrance. In making such an alteration, the disruption to the historic layout and understanding of the building needs to be considered and in some cases, such alterations may not be acceptable. It may not always be possible to achieve universal access to every floor level of a building without significant disruption to historic layouts. For example, converting a medieval tower house to a non-domestic use may require lift shafts and fire lobbies or excessive alteration to achieve accessible opening or circulation widths. It may be possible, however, to provide services and facilities at ground floor level, to which level access can be achieved through an existing level entry or by providing a ramp or platform lift.

CONSULTATION

Consultation with end users is useful when developing bespoke solutions to check appropriateness, test effectiveness and allow for their refinement.

When improvements are planned, particularly in the case of a public building, it may be appropriate to consult with accessibility groups and users to establish their priorities. It is important to ensure that consultation is effective, takes into account all potential users and has regard to the diversity of needs.

USER NEEDS

The needs of all users should be considered when developing design solutions. The best designed physical solutions seek to meet many requirements. For example, providing a ramp at a stepped entrance can assist with deliveries of heavy loads as well as accommodating visitors with children's buggies or wheelchairs. If used by many, these interventions are more readily accepted and likely to be better maintained.

Access solutions that facilitate many users, such as a ramped access in addition to existing steps, are generally the preferred option

USING TECHNOLOGY

When designing access solutions, ongoing developments in technology should be considered which may require less physical intervention into the historic fabric. This may result in opting for a temporary solution as an interim measure. Recent advances in, for example, Global Positioning Systems (GPS), Bluetooth technology and other applications to aid navigation may reduce the need for physical aids but these technologies are not yet available to everyone and may only suit some people.

USING MOCK-UPS AND MODELS

When considering the introduction of new elements, such as handrails or ramps, in architecturally sensitive buildings and places, it may be helpful to produce full scale mock-ups to assess impact prior to finalising decisions. Alternatively, and for larger elements, the use of advanced computer-generated images can provide helpful illustrations of design proposals.

ONGOING MAINTENANCE

Accessibility issues need to be taken into account when carrying out routine maintenance. Almost all routine maintenance provides an opportunity to improve access.

CASE STUDY

Dundalk Gaol was built in the mid-nineteenth century and is a protected structure. The Gaol was converted to a Regional Resource Centre for Comhaltas Ceoltóirí Èireann in 2008. The main entrance door in the gable was reached by a steep flight of steps and all the cell doors of the main central space were very narrow and had steps at their thresholds. It was clear that the internal galleries and cell doors were essential characteristics of the protected structure and should not be altered.

A new entrance was formed to the side accessed by a bridge. A single doorway was widened to allow access into the atrium and into the cells on the other side. An accessible toilet was provided at the entry level. The cells were interlinked by opening up the party walls between them thus allowing public access to new facilities without altering the wall of the atrium.

The first floor contains a number of rooms used as offices, archive, research, dressing rooms and sanitary facilities. The main public facility on this level was the archive/research area. To create wheelchair access to this level would have involved very significant alterations to the building fabric which would have been detrimental to its special character. To avoid this, it was decided to provide a dedicated research room on the ground floor adjacent to the administration office which could be used by anybody who was unable to access the upper level. This room is electronically linked to the archive and thus a researcher with mobility impairment can access all the necessary facilities from ground floor level

(Images courtesy of Deaton Lysaght Architects)

4. Improving Access in the External Environment

The historic place embraces a wide variety of external environments which range from centres of cities, towns and villages to significant historic gardens. It also includes archaeological sites and early ecclesiastical sites as well as large institutional complexes such as universities, harbours, and industrial heritage sites which can comprise large open areas between buildings. Some places are primarily of architectural heritage significance, for others the heritage significance may include natural as well as built heritage. People engage with the historic outdoor environment for a variety of reasons: for social, recreational and health reasons, to conduct business, as a means of getting from one place to another, to enjoy nature, or to learn more about their history and cultural identity. Users have different expectations and requirements depending on the purpose of their visit. Equally, responsibility for management of these external areas lies with a wide range of bodies including local authorities, state departments, semi-state organisations, private companies and private individuals. Within this wide range of external situations, there are many issues of accessibility to address.

It should be borne in mind when undertaking material alterations to the external environment that Part M of the Building Regulations applies to the approach routes to buildings as well as to the building environs and to the routes between buildings and facilities. The same level of consideration is

The use of scooters has greatly increased the mobility of many people when travelling to and around a site. The implications of their use should be considered when planning to improve access

Dun Laoghaire Harbour in County Dublin is a popular and historic recreational resource which is used by people of all ages. Facilities which enable more people to avail of it include appropriate seating, signage, interpretive information and sanitary conveniences. These can be provided in locations and to designs which do not disturb the special character

required for works to the external environment as to the building itself to achieve an appropriate solution.

In planning and designing access improvements in the external environment it is important to provide a range of options so that people can choose the best option for themselves while also ensuring the special character of the historic place is maintained. Consideration of different user needs assists in determining what facilities are required, for example the provision and location of accessible toilets. In providing for some users, for example bicycle racks for cyclists, other problems can be overcome; the proper siting of the racks ensures that bicycles do not block pathways or get locked to gates.

Bicycles also increase mobility but care is needed to ensure they do not block access to ramps when parked

Wayfinding and signage

WAYFINDING

Wayfinding is the instinctive way people use their senses and cognitive powers to navigate from place to place. Familiarity with the historic order of the manmade environment is often deeply embedded in people and this knowledge is used intuitively when finding one's way around a new place for the first time. Finding one's way easily around the historic environment requires clear, direct routes and the provision of well-designed and located signs. In recent years, technological solutions to wayfinding have greatly improved. Global Positioning Systems (GPS), Bluetooth technology and mobile phone applications have been developed specifically to assist all users to orient themselves and to navigate from place to place and these may help reduce dependence on physical signs, audible information and guidance paths. These technologies have the advantage in historic sites of having little or no physical impact on the place.

SIGNAGE

In developing a strategy for signage whether inside a building or in the external environment, it is necessary to identify the number of signs required, their purpose and where they should be located. Signage should be carefully integrated into the building or place ensuring that the result does not obstruct or damage an important aspect of the heritage whilst at the same time providing sufficient legible information to ensure that the environment is accessible. The design of the signs, the choice of location, fixing methodologies and lighting design all need careful consideration. Wall-mounted signs, should, where appropriate, be placed at eye level. In sensitive locations, the use of freestanding signs may avoid damage to historic fabric. Where the introduction of signage would result in an unacceptable impact on the character of the building or place, trained staff assistance may be an acceptable alternative.

In the external built environment, the signage requirements for an urban centre differ from those for a historic garden, or a medieval ruin in a rural setting. There are often existing signs which are themselves of historic interest

and should be retained, for example the Victorian ward boundary signs in Dublin City and the surviving clear and simple traditional name signs at the entrances to towns and villages.

Tactile maps can assist blind and vision-impaired people to navigate the built environment. In this Italian example, a simple and straightforward street plan has been provided. Careful consideration should be given to the design and siting of this type of sign

Where new signs are introduced, they should be carefully integrated with any surviving historic signage. They should follow the principles of well-ordered, logical circulation. Often the external urban environment is cluttered with signs, introduced in an ad-hoc manner, making it difficult for many people to understand and see and obstructing circulation. A well-planned and managed approach to signage and wayfinding in the public realm generally involves the coordination of several organisations. Generally, fewer signs are better, both in terms of accessibility and minimising visual impact on the historic built environment. Ongoing monitoring and maintenance of signs in the public realm are also necessary.

Dual language signs should be made larger to accommodate the additional text rather than use unacceptably small font. Within a site, signs ideally indicate distances to key features or places and the presence of possible barriers along the route such as steps, the gradient of any slopes, and whether assistance is available.

The types of signs that might be required depend on the use of the place and the extent of public access and may include name signs, directional signs, maps and emergency signs. In determining an approach to signage, consideration should be given to:

- The retention and reuse of any existing historic signs of note
- The consistency of sign design and its appropriateness to its location
- The avoidance of fixing to important features or finishes
- The avoidance of visual impact or obstruction of important features and
- The reversibility of the works

For accessibility the following principles are important:

- Signs should be located where they are clearly visible
- A person with low vision may be able to read a sign if they can approach it for close-up viewing
- Efforts should be made to locate signs where the reader does not obstruct circulation paths
- The readability of a sign is influenced by its position, size, viewing distance and colour contrast between the lettering and background. As the distance between the sign and reader increases, ideally so should the size of the lettering. Upper and lower case lettering are considered more legible than capitals alone
- Colour and contrast of the lettering and the background should be considered and should be appropriate to the location. Reflection can be avoided by using matt surfaces
- Where illumination of a sign is needed, the light source should be shielded from the viewer to prevent glare
- Text should be kept short and simple and use recognised symbols for standard features
- Sans serif lettering should be used in preference to serif

Fingerpost signs at the National Museum in Collins Barracks, Dublin combine a number of directional signs and are unobtrusive yet easy to read

Clear signage and directional information with lettering of sufficient height for the distance from which it is read. Generally the use of upper and lower case letters is preferable. People with impaired vision can often recognise a word from its shape; for example letters such as 'g' or 'y' having a lower hook and 'd' and 'l' having a taller profile than the other letters. This means that there is a shape to a particular word and it may be possible for people to guess what it might be from the context or by a process of elimination. If block capitals are used, they may blur together into an unrecognisable rectangular block

Accessible routes

Routes within a site should be identified which suit the widest possible variety of users. These may be wheelchair users, people with buggies, people who cannot walk very far or people who are blind or have vision impairment. For some it may be the shortest route; for others it may be the route with the shallowest gradient or the best sensorial information.

The accessible route to the walled garden is finished in well-compacted crushed stone

Identification of a wheelchair accessible route may be necessary if other routes are not suitable. Such a route may also be helpful for those with children in buggies

In many instances the best routes are the historic routes. In some situations, where such routes are unsuitable for easy access, alternative routes can be provided in a manner which relates to the architectural and landscape characteristics of the place. New routes should only be considered where they would not damage significant fabric or character. Management solutions may eliminate or reduce the need for physical interventions.

Ongoing monitoring and maintenance of routes to remove any temporary obstacles are necessary. This applies to all accessible routes, in areas as diverse as urban streets where signs and other street furniture may need to be rationalised, or wildlife trails where natural vegetation may need to be regularly cut back. Care should be taken in cutting back vegetation not to damage any important planting or protected flora or fauna. Coordinated planning and management of these issues should be addressed in an access plan and always require allocation of responsibility, staff training and regular vigilance.

Maintenance of accessible routes is critical. Even small potholes can become hazardous for elderly people, people with vision impairment and wheelchair users

WORKS TO ACCESSIBLE ROUTES WITHIN THE PUBLIC REALM

Coordination of installation and maintenance works affecting public utilities, whether in urban areas or within large institutional complexes, should be addressed to eliminate hazards and obstacles as a result of poor planning or maintenance/installation procedures. In planning such works, historic street furniture should be retained in its original location as such fixtures form part of the overall character of the setting. Often these elements are made of more fragile materials, for example cast iron, which can be easily damaged by attempts to move them. Where it is deemed to be necessary to move historic street furniture, only suitably skilled operatives should carry out this work. The new location selected should provide an appropriate setting for the particular piece of street furniture. Many elements of historic street furniture, even paving slabs, may be protected structures and planning permission may be required before they

can be moved or altered. Similarly, if the location is within an architectural conservation area, the planning authority should be consulted before any such works are planned or carried out.

In this example, an access path leading to the former main entrance of the building has been constructed using modern materials which are sympathetic to the historic environment

TYPES OF ACCESSIBLE ROUTES

There are several types of accessible paths and routes which may be suitable for use within a historic external environment.

Boardwalks may be used in areas of natural heritage or archaeological significance over sensitive sites, wet or uneven ground. These are not suitable for all environments and the route of a boardwalk needs to balance the objective to provide access to a feature of interest against the visual and physical impact it would have, not just on the feature itself, but its setting. For example, where handrails are required they may create unacceptable visual clutter. Where boardwalks are created, they not only provide an accessible route, but they have the advantage of providing a designated route for all visitors which protects the vulnerable heritage, on or under the ground surface, from damage caused by foot traffic over a wider area of the site.

Routes formed with boardwalks across archaeological sites, as in this example from Spain, both protect the archaeology and facilitate access

Grass paths may be appropriate in a parkland setting but need regular and careful maintenance and alternative routes should be provided where possible. Grass may be the historic surface, for example within the designed landscape of a historic house. There are a number of grass-based systems which combine natural grass with synthetic materials to provide a more robust surface. These can withstand intensive pedestrian use and vehicular use. Some of these systems are more suitable for people with disabilities than others and it is important to consider suitability of use when making a selection. It is also important to ascertain the level of maintenance required; some systems may become hazardous if not maintained. If considering the use of hybrid grass surfaces in historic settings, their impact on the historic character of the site should be assessed.

Compacted self-binding gravel, preferably locally sourced, well-laid and maintained, may be acceptable in some areas.

Resin-bonded gravel, whilst more contemporary in appearance, may be appropriate in heavily trafficked areas. However in comparison with most historic grounds surfaces it can appear quite uniform and bland and may not always be appropriate for this reason.

Paving including granite, limestone or sandstone flags, and some setts may be acceptable where they are slip resistant, level and even with minimal undulation. The choice of stone should have regard to traditional materials used in the area. Limestone is a commonly used local paving material in Ireland which lends great character to the streetscape. It does however become slippery when wet, wears easily and requires reworking to achieve slip-resistance.

In this example, the main surface has been laid using a carefully selected coloured bituminous macadam. Drainage channels have been formed reusing historic cobbles. Areas of new paving across the yard and around the perimeter, all carefully detailed and selected, make the entire precinct accessible to all

Accessible surfaces

Accessible surfaces should be even and slip resistant. Many historic paving surfaces are perfectly suitable in this regard, for example the granite or limestone paving flags still found in many historic cities and towns. Historic street surfaces contribute greatly to the particular identity of a place. Often the material – limestone, granite, sandstone - speaks of the local geology and complements other historic building materials. Therefore where historic surfaces survive, every effort should be made to retain and reuse them. However, in some instances historic surfaces such as loose gravel, setts or cobbles, while they may be an intrinsic element of the character of the place, can be uneven underfoot and impossible for some to use. In these circumstances it may be possible to re-lay or re-bed the historic material to an even finish or to introduce a carefully detailed even path around or across the historic precinct. Decisions on replacing such historic surfaces need to be weighed against their aesthetic and sensory qualities such as textures underfoot, the intensity of use and the opportunity for alternative routes. The visual impact on the overall setting needs to be considered as the introduction of a path is likely to alter the historic patterns and textures. The replacement of historic surfaces in architectural conservation areas or within the curtilage of a protected structure is likely to require planning permission. The architectural conservation officer in the local authority should be consulted when considering such works.

In selecting new materials to insert into a historic paving surface, consideration should be given to the aesthetic impact, local distinctiveness and craft techniques, as well as to durability over time. The new material should behave in a similar way to the historic one and it is generally preferable to use a local material, where it is available. An acceptable solution for areas of gravel, cobbles or setts might be to integrate areas of smooth paving of a complementary material, to form a logical accessible route. It may also be possible to re-lay historic setts with tighter joints, provided the finished surface is reasonably smooth, level and slip resistant. Historic paving flags, including limestone, which have become uneven or slippery through years of use can often be reworked by suitably skilled masons to provide an acceptable level and slip-resistant finish. This may include turning flags over so that the unworn underside is used.

These historic granite flags have been maintained and repaired by craftsmen who have skilfully integrated a ramp with the historic footpath

When historic paving flags have become uneven it may be possible for skilled masons to lift and rework the flags before re-laying them. In doing so it is important that appropriate joint sizes, bedding and pointing materials are used

The use of modern finishes, such as resin-bound surfaces, coloured bituminous macadam or concrete, needs to be carefully considered for the impact on the historic character of a place and is not always acceptable. In some cases, when appropriately chosen and specified, it can improve accessibility while minimising visual impact. Any new paving materials introduced should be capable of following the often irregular bases of historic structures in a sympathetic manner.

In many historic places such as ruin complexes, archaeological sites and graveyards or sites of natural heritage significance, the use of more informal path surfaces may be the most sensitive solution and in keeping with the historic character. Compacted limestone gravel and quartzite used

instead of loose gravel can provide even surfaces which are possible to negotiate for wheelchairs and buggies alike. For such surfaces, the most suitable aggregates are those which are of local materials or which are visually consistent with the setting. These surfaces are also permeable which may be necessary to deal with surface water drainage in a sustainable way. Regular maintenance is essential and should be planned to ensure ongoing accessibility.

Well-compacted gravel may be suitable for most users in certain settings and can deal with surface water drainage but regular maintenance is required. The most satisfactory surface is a well-compacted limestone or sandstone aggregate that contains adequate fine material for binding

NATURAL ENVIRONMENTS

In areas of natural heritage significance or where the ground is uneven or wet, timber boardwalks can be used, sometimes with the boards wrapped in galvanised wire mesh or with tactile inserts to provide slip resistance. Where these boardwalks are elevated or inclined, the need for handrails should be balanced against the potential visual impact on the landscape. Regular resting points, sheltered and with seating, may be provided. These need to be assessed and locations chosen with regard to important views and, where handrails are deemed necessary, simple, secure, metal or timber uprights and handrails are usually the most appropriate, with handrails which are easy to grip. Handrails may be needed where the level drop between boardwalk and ground constitutes a hazard. A raised kerb or tapping rail in the boardwalk should be considered. This is particularly important where a boardwalk is raised and there are no handrails. The visual impact of new elements into an important landscape should be minimised while ensuring they are fit for purpose.

The use of stapled chicken wire to improve the slip resistance of a boardwalk is an economical solution but requires regular maintenance. It also has to be used with caution to avoid being the cause of trips and falls

A boardwalk, made from recycled plastic lumber, has been laid across part of a raised bog. A walk across the boardwalk provides a wonderful sensory experience. In this location, the impact of handrails could be detrimental to the sensitive environment but the addition of kerbs or rails at low level could assist as tapping rails for blind people as well as providing some security for wheelchair users. Passing spaces may be required at reasonable intervals (Image courtesy of Mitchell + Associates)

KERBS

In historic urban streetscapes, existing road kerbs are usually high enough to allow people with vision impairment to distinguish between the carriageway and pavement. In some locations such as the main commercial streets of some historic town centres, shared surfaces have been introduced in which vehicles and pedestrians share the same surface. Such projects should not require the removal of historic kerbs and paving flags nor radically alter the spatial character of the street. The design should avoid introducing new barriers for people with disabilities. Where considering such alterations to the public realm, the impact on the historic setting and fabric should be addressed and the needs of people with vision impairment and mobility difficulties should be anticipated.

Where dishing of kerbs is required at road crossings, any surviving historic kerbstones should be retained and should be re-laid flush at the crossings or reused to replace damaged kerbs within the area. Uneven or rough kerbstones can usually be reworked by suitably skilled masons to provide an acceptable finish. Alternatively it may be possible to reverse the kerbstone where the unworn side remains even. When re-setting historic kerbstones, care should be taken to ensure they are not set too high thus creating a barrier for some ambulant disabled people. Care is also required in lifting historic paving to avoid damage and any reworking of paving slabs should avoid damage to historic surfaces and markings such as mason's marks. There may be some instances where the historic surface is of great significance due to its rarity and alternative accessible routes should be found to avoid the requirement for disturbing the historic surface.

Where kerb dishings are formed using the historic flagstones, care is needed when cutting them to ensure the dishing is correctly located, the stones and channels are well-laid and pointed, and tactile paving is included, where necessary

TACTILE PAVING

New tactile paving within a historic setting should be well-designed to coordinate with the surrounding streetscape. The colour of the tactile paving should harmonise with adjoining historic materials whilst providing sufficient tonal contrast for people with vision impairment. New tactile guidance and hazard paving can be formed in stone or other appropriate material either cut or cast to the correct profiles with slip-resistant metal studs or bars; applied or inserted. Selecting the appropriate type of tactile paving can be complex bearing in mind that different profiles are used to signal different conditions, for example at road crossings, at traffic lights (signalled crossings), at un-signalled crossings, to provide hazard warning at external changes in level, and to provide directional guidance when negotiating wide open spaces. Incorrect use of tactile surfaces is a danger to people with low vision or hearing impairments as well as to blind people. It gives people the wrong clues which defeats the objective of using tactile surfaces. Currently the standards used in Ireland are similar to the UK but different to other parts of Europe. It is important therefore, that those responsible for managing external environments follow approved standards and take professional advice.

The method chosen for installing tactile paving is dependent on the nature of the location where it is to be installed. Mechanical fixing of studs and bars is usually the most reliable but there are situations where this is not appropriate, particularly where irreversible damage would be caused to historic paving, and alternative methods and materials should be explored. The cutting of the surface of historic paving or steps to create a tactile surface is not recommended as this causes irreparable damage to the stonework. Resin-bonded tactile profiles are available which can be applied to the historic surface. They should only be used in cases where they would not damage the historic finish, would be readily reversible and would not wear in such as way as to create a hazard. Where the existing paving surface is rare or a unique surviving example of its type, it should not be altered.

Tactile surfaces can be uncomfortable for some people to use and present slip or trip hazards, particularly if smooth metal profiles are used in wet conditions. Studs used to form the standard 'blister' profile for crossing points should be tested for their slip-resistance and their design and layout should carefully follow current guidelines with respect to their profile, height, spacing and location

Blistered paving is used at crossings. The colour and quality of this cast-iron paving blends well with the historic stone surface yet is clear to see. Minimum widths should be observed to ensure the paving can be detected

Metal studs and tactile strips harmonise well with natural stone but they should not become slippery when wet. In this example in Copenhagen, a single bronze tactile guidance strip combined with bronze studs at the road crossing are used to facilitate orientation. The strips are laid with gaps between them to prevent a build-up of dirt and to allow for drainage. Whilst the material is appropriate, research has shown that a single line is difficult to detect

Changes in level – steps and gradients

RAMPS, HANDRAILS AND STEPS

Changes in level regularly have to be negotiated in historic towns and parklands. These level changes exist either as a result of the natural topography or as part of the original design and layout. When carrying out alterations to overcome level changes, it is important to have regard to the original design intention in order to develop solutions specific to the character of the particular place. In some instances, alternative routes can be provided which avoid these level changes; however this is not always possible. For minor gradients, it may be possible to re-grade the ground to eliminate or reduce gradients so that the installation of a ramp is avoided or the scale of the ramp is reduced. In doing so, one needs to be aware of potential disturbance, for example to underground archaeology, and to ensure that the necessary licences or consents are in place.

Significant changes in external levels can sometimes warrant the construction of a full external lift, as at the Lifetime Lab on the site of the old Cork City Waterworks (Image courtesy of Jack Coughlan Architects)

In this formal walled garden, a short rise is overcome by extending the path. The fine granite gravel surface is easily distinguishable from the adjoining lawn but can be difficult to negotiate for some people

The visual impact of handrails along sloping paths in many historic external environments can be significant. In some instances the gradient may be very shallow making it possible to omit handrails. Where handrails are to be omitted, it is recommended that these areas are monitored to ensure safe access is being provided. Depending on the place, it may be necessary to provide trained personnel for assistance. Where handrails are provided, they should be comfortable to hold, even in cold weather. Where adding to, or altering, historic handrails it may be appropriate to use materials and profiles which match the existing. Alternatively, or when the handrail is an entirely new addition, the use of high quality metal allows for slim and elegant profiles. High-sheen metal finishes are generally inappropriate due to visual impact and glare. It may sometimes be possible and appropriate to provide a single, centrally located handrail where the path or steps are sufficiently wide.

Highlighting the nosings of steps can greatly improve safety for everyone and in particular for vision-impaired people. However, such works should be carefully designed to be in keeping with the historic environment. Where possible the nosings should provide a definite contrast with the rest of the tread or step. This can be done tonally, and does not have to be in different colours, provided the light reflectance values of the two tones are sufficiently different. The change in level can also be indicated by a change in texture where this is appropriate. Where a textural change in surface finish is used to mark changes in level it is important that the same change is experienced throughout the site.

A handrail would be inappropriate in this particular setting but a resting point would be of great value. The deep rut formed in the compacted gravel following heavy rain highlights the need for regular maintenance so that the accessibility of surfaces is maintained

The addition of handrails to any flight of steps not only improves safety but it permits many people to use steps who might otherwise be excluded. Handrails are required on both sides to facilitate a person going both up and down and who may have use of only one hand. However, the visual impact has to be carefully weighed up and other solutions to overcoming the change in level may need to be explored

Providing information on gradients so that people can plan their routes is always helpful

Handrail profiles should be comfortable to use. In the outdoor environment the material should weather well and require little maintenance

This simple modern painted steel handrail integrates well within its setting

Street furniture and lighting

Historic elements of street furniture such as cast-iron post boxes, water pumps and telephone boxes make a significant contribution to local identity and place making. They are often fondly cared for by local communities and their retention is important in order to maintain the distinctive character of a place. Where historic light fittings, pavement coal-hole covers and other ironwork retain the manufacturer's stamp, these provide a connection to place and history, for example the remarkable collection of nineteenth and early-twentieth century ironwork in Dun Laoghaire, County Dublin mostly originated from two Glaswegian companies, and not only forms a significant collection in itself but also provides important information on the history of the town.

Historic photographs of Irish towns and cities generally depict uncluttered urban spaces with few fixtures. Today the urban environment is often filled with signs, litter bins, parking meters and other street furniture which can make it difficult for people with disabilities to negotiate and which affect the quality of public spaces. A strategic approach should be taken to signage and street furniture in historic environments. It should be informed by an understanding of the historic character and considerations of safety, design quality and accessibility. It should allow for a rationalisation of street furniture and an elimination of unnecessary elements, while identifying and retaining the historic street furniture of significance and providing a more accessible environment. For those with vision impairment, in a wheelchair or with a child's buggy, cluttered pavements can be difficult to negotiate. In a historic streetscape, good practice would ensure that the necessary street furniture, bollards and lighting, litter bins, telephone kiosks, ticket dispensers, and seating are arranged in an ordered and rational manner, within easy reach of the accessible routes.

It is desirable that historic furniture and lighting be retained in use and in its original location, as it forms part of the particular character of a place. The relocation of any historic elements should be avoided unless absolutely necessary. Where unavoidable, works should be carried out with due care and skill to avoid damage. Sometimes historic furniture and lighting are sufficient to meet user needs, or it may be necessary to augment them with new fittings. An overall design coherence between the

historic and the new should be the aim. In some limited situations, the appropriate design solution for new street furniture is to replicate the historic elements; however care is needed to ensure authenticity of detail design and material, as poor-quality pastiche versions only detract from the original. Often a contemporary design is preferable, fabricated using high quality, long-lasting materials. The potential for visual impact should be a determining factor as the new elements should generally not visually dominate the historic ones.

The traditional telephone kiosk may be an important, and increasingly rare, element of historic street furniture but can present an obstacle in a pavement unless carefully sited. Provided there is sufficient room to pass and to access the kiosk, if still in use, there is no need to relocate it. For pedestrians with vision impairment, traditional kiosks are easily detected by cane and so there is no need to provide a change of surface on the surrounding footpath

Some manhole covers and other pavement elements such as weighbridges may be important to retain and if necessary the accessible route directed around them

The lighting of public pathways and accessible routes should comply with current standards and ideally be even, avoiding dark spots and glare. It may be possible to upgrade historic lamp standards to take modern fittings to provide an improved quality and intensity of light. Some historic places may be closed to the public after dark and, in these instances, the lighting requirements may be less. Sometimes it may not be possible or desirable to provide increased levels of lighting, for example where the installation of cabling may damage sub-surface archaeological remains. Many historic environments are also habitats for protected species, such as bats, and the impact of lighting on these should to be taken into account and specialist advice sought.

Seating and rest places

Along accessible routes, rest areas are important for most people, particularly those who tire easily and need to rest more often. Where possible these should be provided at intervals of between 50m and 150m depending on the setting. Ideally, seating should have back and arm rests. Generally, timber sitting surfaces are warmer and more comfortable for all users. Rest places should aim to provide protection from prevailing winds, be located in sunny spots and create comfortable microclimates. This may often be best achieved by integrating rest places within existing sheltered areas, such as under tree branches. New shelters should be designed and located to avoid any adverse impact upon the setting.

This resting place, with a view over an ornamental garden, is located in a sunny and sheltered spot

Garden and landscape features

Many designed landscapes, including historic demesnes, gardens and parks, incorporate features such as follies, bridges, glasshouses, gates and stiles, which are part of the historic place. Access to and around these structures is desirable. Similar principles in terms of circulation, paths, overcoming steps and gradients need to be addressed in a way which does not damage the historic fabric and character. In some instances it may not be possible to provide access to all parts of these structures and suitable vantage points with accessible information could be provided as an alternative.

Getting around large sites

In large historic complexes where long distances must be travelled to reach facilities, services and historic features, on-site transport may be required. Wheelchairs and other personal mobility aids may be sufficient but, in some cases, the provision of motorised buggies or wheelchair accessible mini-buses may be appropriate where routes can be carefully planned to avoid damage to the heritage of the site. Drivers of such

At Belvedere House in County Westmeath, a motorised buggy is available to transport visitors with limited mobility

vehicles may require specific training for the purpose. Provision should be made to allow for booking in advance or on site, where necessary. Where independent transport is an option, designated parking should, where possible, be distributed throughout the site.

Where it is not possible to provide on-site transport facilities within a large site, or where easy access to part of the historic place is not achievable, an alternative may be to provide suitable viewing points from within the accessible parts of the site whilst avoiding any adverse impact on, important landscape features such as specimen trees, historic walls or designed planting.

This suspension bridge within a historic garden is located on a marked accessible route and provides a perfect vantage point from which to view the river

At this historic site, a designated and well-used corner is provided for dogs with water bowls, a mat and a rail to which to secure them. Guide dogs are permitted to remain with their owners in the adjacent café. For the benefit of all users, facilities for dogs should also include the provision of 'pooper scoopers' throughout a site and designated 'soiling' areas

5. Improving Access In and Around Buildings

Arrival and car parking

The arrival point to a historic building or place is where the visitor's first impression is formed. Arrival should be an easy and dignified experience. Ideally, everyone should be able to access the principal entrance. Where this may not be possible, alternative entrances which allow comfortable and independent access should be provided and clearly signed.

Generally, the location of designated accessible car parking and set-down areas should be as close to the building or site entrance as possible. Where this is not possible, the provision of set-down areas which minimise travel distance to the entrance, or some form of shuttle service between the parking area and the entrance, may be necessary. It is also important to ensure that any access controls to parking areas are easy to operate and in an accessible location. Careful consideration is needed where car parking is to be provided within a historic setting. In addition to the potential impact of large paved areas on the historic environment, the need for lighting can have a significant effect on a sensitive historic garden or landscape and on the setting and appreciation of buildings. In areas where the predominant ground surface is loose, such as gravel surfaces in rural areas or the

Designated accessible parking is located adjacent to the main entrance to the National Museum at Collins Barracks in Dublin

grounds of historic houses, a firm surface should be provided for accessible routes where this is possible to achieve. Designated bicycle parking may be necessary to avoid the informal use of railings and gates for securing bicycles as they form an obstacle as well as damaging historic fabric.

Where designated parking bays and set down areas are provided, there should be sufficient space to the side and rear to allow for transfer to and from wheelchairs in accordance with good practice standards. Routes from the designated spaces and set-down areas should, where practicable, be well lit, accessible and direct. In historic places where it is desirable to minimise the visual impacts of surface markings and linings, these can be effectively achieved using narrower widths of markings and more muted colour tones than are standard.

Approach and entry

The entry to a historic building often poses the greatest design challenge for accessibility, in particular where the entrance is higher than the external ground. This is often the case in many historic buildings and may be due to a variety of reasons: to allow natural light and ventilation of a lower ground level, to create an imposing setting, or for protection against damp and water ingress. Steps up to the principal entrance of a historic building are often an essential architectural feature.

One of the key principles of universal design is to provide ease of use, dignity and independence for all people using the building or place. This is most pertinent at the entrance to a building; the optimum solution being to provide 'one door for all'. However, for many architecturally significant buildings the retention in use of the principal historic entrance may be a key conservation objective. There are increasing numbers of innovative and high quality design solutions which sit comfortably and elegantly within sensitive historic contexts. The key is to observe and survey the architectural characteristics and features and develop the design carefully to address the specific context. However, where the interventions required to facilitate access through the historic entrance would permanently alter a particularly significant architectural element, an acceptable solution may be to provide an alternative accessible entrance which allows for ease and independence of use.

At the Bode Museum in Berlin two platform lifts have been installed giving full step-free access to the main entrance, with almost no visual intrusion. The system works by removing a section of the steps and installing a concealed mounting frame with platform lift and retractable steps which are operated from a control panel. The steps and lift are clad in the historic or matching material and are almost indistinguishable from the surrounding surface. The provision of information on the controls and clear instructions for use is essential with an installation of this type where the means of access is not immediately obvious

A second short flight of steps at the Bode Museum also has a concealed platform lift and retractable steps which allow use of the full width of the flight when the lift is not required. For those not familiar with the system an information panel may be necessary and the control panel clearly identified so as not to present a hazard (Images courtesy of Morna Gannon)

CHOOSING THE ACCESSIBLE ENTRANCE

In choosing the accessible entrance to the building, various scenarios may need to be considered before a final decision can be made. These include:

- Maintaining the use of the historic main entrance which is suitable for all users without physical intervention

Collins Barracks in Dublin, now part of the National Museum, has equal and level access to the central courtyard from each of three sides

The Hugh Lane Gallery has maintained its principal entrance and a ramp has been installed to the side of the entrance podium

- Maintaining the historic main entrance following acceptable alterations to make it accessible
- Where a historic building has several entrances with no hierarchy, selecting one of the entrances to be accessible (with or without physical alteration)
- Where the historic main entrance cannot be made accessible without requiring unacceptable alterations. In such a case, the main entrance could be relocated, either to an existing entrance or to an entirely new entrance that serves all users; the historic main entrance would then become a secondary or occasional entrance/exit.

Two level access routes to the parliament building in Copenhagen have been created from street level, one on either side of an imposing flight of steps. Lift access internally within the building leads to the chamber level.

At Nos. 79-80 St Stephen's Green, Dublin the Department of Foreign Affairs is located in two adjoining buildings. The entrance portico to Iveagh House, the white stone building in the background, would have been very difficult to adapt. Instead, a fully accessible entrance has been achieved to No. 79, the red brick building in the foreground; the two buildings have been linked internally since the original construction of No. 79 in 1881

- The historic main entrance is maintained in use and a new or already existing secondary entrance is made accessible. While this is generally the least desirable solution, there may be some circumstances where it is the only appropriate solution due to the unacceptable impact an altered entrance would have on the architectural integrity of the building.
- It may sometimes be possible and preferable to deal with a level change internally rather than construct a ramp or lift on the outside of the building.

Here the historic main entrance is retained in use and an alternative secondary entrance is provided to the side. The provision of clear signage indicating the alternative, accessible entrance is very important where this type of solution is used

A single step at the side entrance of this church has been overcome using a well integrated and easily reversible metal ramp. However, as there is no top landing externally, this ramp can only be used when the door is open and therefore only works as part of a management solution

It is important to consider the internal layout of the building in relation to what level of intervention, if any, might be necessary to ensure accessibility. It should be achieved without damaging the architectural character and integrity. Consideration should also be given as to whether the appropriate solution is to be temporary or permanent. It is important that these decisions are made in the context of the access strategy for the whole building.

In all of these scenarios, it is helpful to consult with existing users with disabilities and/or disability organisations and the local authority access, architectural conservation, building control and planning officers before reaching a final decision on how to proceed.

Overcoming differences in level

A number of entrance features occur in historic buildings of which some, or several, need to be addressed when overcoming differences in level. The following is a list of some of the more common ones.

- Railed enclosures surrounding sunken basement areas with a flight of steps crossing the basement area and linking street level to entrance door. This is a feature of many Georgian and Victorian terraced town houses and rural country houses. Many of these buildings remain in their original residential use and the need to make significant alterations to overcome these level differences may not be necessary or practicable
- Formal flights of steps leading to the main entrance. These may involve a relatively minor level difference or may extend to a full storey height. Many historic public buildings such as courthouses or town halls may incorporate this feature
- Architectural features such as porticos and architraves which might be executed in stone or render and which it may be inappropriate to alter
- Wrought and cast iron railings
- Plinths and string courses of stone or render which run along the edge of property and up to the main entrance doorway

The range of solutions for overcoming level differences at the main entrance (where an alternative accessible entrance is not available) includes variations and combinations of the following.

The railed enclosures to basement areas of Georgian terraced houses are sometimes used in a variety of ways to create access either to basement or to entrance level by means of either a ramp or platform lift. Both solutions can have significant impact on the façade, the basement rooms and features and on the fabric of the building although a number of carefully detailed and successful interventions have been completed

When considering alterations to a historic building in order to improve access the necessity to retain and conserve significant elements such as the stone plinths, railings and bootscrapers should be addressed

STEPS

Entrance steps are a common feature in many historic buildings and there is much variation in design. They can be highly significant architectural features. For some people, steps may be easier to negotiate than long ramps. For ease of access, it may be necessary to provide assistance in the form of handrails, visual contrast at changes in level, and resting points for long flights.

The entrance to this symmetrical building has a flight of steps on both sides, each with an existing single handrail. Hence there is no need to provide a rail on the outer side as the choice is available to the user which side to use

RAMPS

Ramps are generally preferable to mechanical solutions, such as lifts, particularly where level changes are small or where there is sufficient space to integrate a ramp. They do not require the same level of maintenance and may be easily used by both ambulant people and wheelchair users. However, ramps are not suitable for everyone and steps may be required also as an alternative for some users with mobility difficulties. In many situations, the existing steps meet the requirements.

Ramps can be permanent, semi-permanent (or demountable) or temporary (or portable). A permanent ramp will become an integral and irreversible feature of the building and accordingly should be designed and constructed to a high quality. A semi-permanent, or demountable, ramp is one that is capable of being readily removed, or reversed, at a later stage in the building's history should an alternative solution become available. A semi-permanent ramp may be in place for a considerable length of time and so should be designed and constructed to a high quality using durable materials. A temporary, or portable, ramp is usually lightweight and often capable of folding for ease of transport and storage.

Ramps of any kind often have a high visual and physical impact on a historic building and this is one of the key factors in determining where and how to locate the accessible entrance. A new, permanent ramp should be sensitively designed. It is important to understand and appreciate the existing architecture and consider the junction where the edge of the ramp meets the existing building. Where there are level sections within the length of the ramp, these should be arranged where possible to align with existing architectural rhythms and features. The most successful solutions are those where the ramp appears as part of the existing building.

This permanent ramp has been constructed in matching stone to the original steps and is freestanding thus ensuring no damage was done to the base of the building. The raised kerb is graded down to the level of the entrance step at the junction with the top of the ramp and from a distance appears as one continuous plane

A carefully designed permanent ramp and steps were successfully integrated with an existing building a number of years ago. Studded granite tactile paving was incorporated to alert one to the presence of steps and ramps. If installed today, it would be more correct to use corduroy paving of the hazard warning type at the top of the steps together with handrails, in accordance with current guidance on the use of tactile paving surfaces

Where a semi-permanent, demountable ramp meets a historic step there can be slight differences in level as a result of uneven wear of the step. It is important to highlight these on the ramp

The choice of materials may be influenced by the design approach; for example whether the ramp is to be read as an extension of the ground surface or as part of the base of the building. The materials chosen for the base of the ramp and any side walls should generally match or complement those of the building or pavement.

In some instances a temporary ramp may be an appropriate solution, for example where funding is not immediately available to execute a permanent or semi-permanent ramp of sufficient quality. Portable ramps are rarely an acceptable long-term accessible solution except perhaps in a little used building where assistance is always available. They can be appropriate in a situation where a one-off event is held in a dwelling house.

Temporary portable ramps, such as this small threshold ramp, are easily removed and can provide a short-term management solution while more permanent or semi-permanent installations are being developed

Whether permanent, semi-permanent or temporary, a ramp should generally be designed for easy reversibility as it allows for reinstatement of the original features should a better solution arise at a later stage. Where possible the ramp should be fixed independently of the historic fabric with separating membranes used between historic and new layers. Where this may not be possible, fixings should avoid damaging historic fabric which cannot easily be repaired. To install the ramp may require the removal of significant existing features such as sections of wrought or cast iron railings or stone plinths. Where this removal is considered acceptable, it is good practice to ensure that they are carefully dismantled by skilled craftsmen and stored safely for possible future reinstatement or reuse. As in other situations where original or historic features are being altered, survey records prior to dismantling should be prepared.

While reversibility is the preferred solution, in some instances where a high quality design and execution can be guaranteed and where there are unlikely to be any future alternatives, it may be possible to achieve an acceptable, permanent solution through greater and irreversible intervention. As with most ramp interventions, such solutions require planning permission and advance consultation with the architectural conservation officer is recommended.

Demountable, semi-permanent ramps avoid damage or alteration to the architectural fabric. They have the advantage of being readily reversible should a better solution become available at a future date. Often demountable ramps remain in place for many years so careful consideration should be given to their design equal to that given to a permanent ramp

HANDRAILS

One of the main impacts on the historic building is likely to be the handrail fixed to the ramp and steps. For short ramps, at small level changes, it may be possible to avoid the addition of handrails where there is trained staff available for assistance. For new steps and ramps, depending on the design, it is generally preferable that handrails are fixed to the new structure rather than to the historic building fabric. Where fixing to historic fabric efforts should be made to ensure the works are reversible and if possible to fix into existing joints. Fixings should not be made that damage decorative features. Generally it is preferable that a new handrail is slender and does not obscure the architectural detail of the historic building. Handrails should be provided for use on both sides of the steps or ramp where circumstances allow; however, for steps where there is sufficient width it may sometimes be preferable, in order to lessen the impact, to locate a single handrail in the centre of the flight of steps.

A contemporary ramp and steps constructed in stone and stainless steel has been installed to access this museum. The stone step spans the gutter and has not interfered with the drainage of the courtyard. While this is an elegant solution, some users would benefit if the handrails extended further beyond the last step. The high-sheen finish to the metalwork may cause problems with glare

In the external environment, simple handrails are often the best solution whilst observing the basic principles of handrail design. The white rail here is clearly visible against the stone background yet it does not impinge on the stone door case

Where the steps are wide enough a central handrail, either single or double-sided, may reduce the need for handrails to both sides. It would be of further benefit if the handrail extended beyond the bottom and top steps

RE-GRADING GROUND

This may be a solution in itself or part of a solution which reduces the extent of level difference to be overcome. It may be considered as part of larger works programme and may require the cooperation of the local authority where it would involve works to a public footpath or roadway. However, careful consideration should be given to the medium and long-term effects of such works. Where there are ventilation grilles in the external wall of the building, designed to provide essential ventilation to a timber floor, these must not become blocked in any way, nor should any re-grading of the ground level increase the likelihood of surface water entering the building through these grilles. Re-grading works should not direct surface water towards the building where it might saturate the external walls nor should the ground level be raised to the extent where it might cause damp problems inside the building.

Re-grading ground levels to provide level access may sometimes be possible. Care needs to be taken to physically separate any raised ground levels or structure from the fabric of the building and should not be undertaken where it would block or impede vents in the wall or cause internal damp problems

MECHANICALLY OPERATED LIFT SYSTEMS

There are several types of lift systems available and this is an area of ongoing technical development. Generally, it is best if a new lift can serve a multiplicity of uses, making it more likely to be used and acceptable to all. In addition, the more a lift is used, the easier it generally is to ensure that it is well-maintained as problems quickly come to light allowing them to be addressed promptly. Consideration should be given as to how users can

evacuate a building in the event of an emergency and the installation of evacuation lifts may be appropriate. Various types of lift include vertical and inclined platform lifts and stair lifts. Generally, stair lifts are not recommended for use at the entrance to public buildings due to their physical and visual impacts and their limited benefit. Inclined platform lifts have several drawbacks; they can be visually obtrusive and are not useable by all wheelchair users. However, they can be relatively easily reversed if a more appropriate access solution is found. However, due to their unacceptability to some users, inclined lifts should only be used as a last resort. Where a lift is considered necessary, consultation with potential users and the architectural conservation officer in the local authority is recommended to inform decisions on the location and type of lift.

Lifts should be designed for independent use. Where a platform lift is provided, a facility to seek assistance should be available. The lift should be located in a place where there is space for the user to wait for a response. The training of staff to assist with entry to a building may be required, particularly where full accessibility is limited.

Mechanically operated short-rise lift systems using high quality materials can be sensitively integrated if well designed

Improving access provisions with well designed solutions can sometimes provide the opportunity to remove earlier inappropriate interventions. The original stone steps seen behind this platform lift had previously been concealed by a galvanised steel stair

Where assistance is necessary a sign should be provided

External platform lifts, such as this inclined lift, can quickly become obsolete unless they are kept in use and maintained on a regular basis. They are generally visually intrusive, not suitable for wheelchair users and should be considered only as a last resort

The front door

Visitors should be able easily to identify the front door or main entrance when approaching the building. Use of strong colour contrast, where appropriate, can help in making a door clearly stand out from its background. A strong colour, such as a deep red or blue colour, can make the door stand out from a brick or stone façade.

Many doors to historic buildings are large and heavy and can be difficult for a disabled person to operate. Where appropriate, such doors can be held open using a simple door stop while the building is in use. The automation of heavy doors can sometimes be successfully achieved with relatively little interruption and generally little visual disturbance to the front of the building as the motorised opening gear is fixed to the inner face of the door. However, in certain instances – for example where the door or the entrance hall interior is of particular significance or fragility – this type of solution may not be appropriate.

Some entrance halls either have, or can easily accommodate, inner doors which may allow the principal door to be left open. The inner doors may then be automated. Often, however, the entrance hall was designed and decorated to create a particular impression on arrival and it may not be possible to accommodate inner doors without disrupting this character. These considerations may influence a decision on where to locate the main accessible entrance if automation or easy operation of the historic main door is not possible. Depending on the usage of the building, it may not be appropriate to leave the front door open and all visitors may be required to ring a door bell and have the door opened from inside the building.

In many historic buildings, the main door has sufficient width for accessibility. In some buildings, particularly more modest vernacular buildings, the door openings may be too narrow and it may not be possible to widen them without unacceptable disruption. In these cases, an alternative main accessible entrance may need to be provided.

Where historic ironmongery survives on the door, for example doorknobs which may be difficult to use, it is preferable to leave these on the door. However, they may no longer be suitable as the sole means of opening and closing the door and alternative automatic or remote controlled access may be necessary.

The addition of an automatic door opener on this heavy Georgian door has benefited everyone

Power-assisted doors may be essential especially when the door controls are inaccessible or the door closers too strong or where door handles are too high

Some historic door furniture may be difficult to use, such as this lock case in Fitzwilliam Square. It should nevertheless be retained in-situ and an alternative means of opening the door provided

When carrying out the alterations to raise the landing and provide wheelchair access to this building the existing outward opening double doors which had been fitted in the 1980s were removed and a single new door and fanlight based on the design of a pre-existing door nearby was installed, thereby providing sufficient space at landing level for a chair to turn. An important consideration was the relationship of the new landing level to the door frame and other elements of the façade

LIGHTING AT THE BUILDING ENTRANCE

Lighting at the entrance to a building should avoid causing glare. Sometimes recessed light fittings can be integrated within a new ramp or steps, which provide light onto the route without causing glare. The selection of high quality, energy efficient fittings which are robust and easy to maintain is advised. It should be borne in mind that existing street lights adjacent to a building entrance may provide sufficient illumination but may throw shadow between the user and the door.

Circulation within the building

For improved accessibility the importance of good overall planning and layout cannot be over-emphasised and should also assist in improved functioning of the building. This is particularly the case when adapting an existing building for a new use. When altering an existing layout, consideration should be given to the significance of historic room functions to the overall integrity of the building and how the proposed new function might affect this. Other considerations include identifying the most appropriate accessible circulation routes throughout the building, taking into account minimum width requirements and the proximity of accessible facilities to these routes. For example, accessible toilets should ideally be located close to a main entrance and to accessible lifts. However, in a historic building this may not always be possible to achieve and in such cases, the provision of clear signage to toilet facilities is very important.

Circulation within buildings also means the movement around the building, both horizontal movement and, where there is more than one floor level, vertical movement.

HORIZONTAL CIRCULATION

Accessible circulation routes should be free of obstacles and projections, wide enough to allow wheelchair users to manoeuvre and with sufficient space to pass or turn. Such widths may not exist in a historic building and,

where this is so, managing circulation of wheelchairs is an acceptable solution. This could involve restricting the number of wheelchair users or users of some mobility aids on a particular route or part of the building at any given time, providing alternative routes or ensuring that there is a continuous circulation route which may be fully accessible if used in one direction only. In cases where circulation is very restricted, it may not be possible to provide access for wheelchair users, or users of some mobility aids, to certain parts of the building or facility. This kind of blanket restriction should be a last resort, and should only be considered when all other reasonable options for providing access have been ruled out. Where the building is a visitor attraction, and where access to parts of the facility is restricted on either a permanent or temporary basis, consideration should be given to providing a comparable experience in other ways, such as virtual reality technology, the use of video, or similar.

SURFACES

Accessible floor surfaces should be firm, level, slip-resistant and free from trip hazards. While many historic floor surfaces pose no access problems, loose rugs, mats and uneven floor boards, stone flags or tiles may cause difficulties. It may be possible to restrain loose rugs from movement through the location of furniture or the use of non-destructive concealed tapes. Rectifying uneven boards, flagstones or tiles may be more challenging as they may be an important feature of the building's character and patina of age. Where appropriate, it may be possible to achieve an acceptable surface by turning the floorboards. Getting suitable expert advice is necessary and can lead to creative, informed solutions requiring minimal intervention. In some buildings thresholds can form a trip hazard. In such situations portable thresholds with bevelled leading edges or small ramps may overcome the level difference and allow for easy reversibility.

In large open areas, for example a railway terminal or the entrance foyer to a public building, many people including those with vision impairments or learning disabilities may have difficulty in finding a direct route through. To address this, it may be helpful to provide guided routes with a different surface texture, colour or symbols and use tactile walking surface indicators, where these would not cause a trip hazard and where they

would not damage an important historic surface. These routes should be laid out in a coherent manner, to avoid adverse impacts on any important historic features. In these situations the rapidly developing technologies such as Global Positioning Systems (GPS), Bluetooth and mobile phone applications may provide alternative, non-physical solutions, although the availability of these systems to all also needs to be taken into account.

Visual contrast between the horizontal floor surface and vertical walls is important for people with vision impairment. Many historic buildings with painted skirting boards, door architraves, or dado panelling readily meet such requirements. Where there is insufficient contrast, a new decorative scheme would often allow such contrast to be created, through repainting or carpeting. Visual contrast does not require the use of specific colours providing there is sufficient tonal contrast. However it is important not to alter or damage important historic decorative finishes and to bear in mind that, where a significant decorative scheme exists, planning permission may be required to alter it.

Where access controls are installed on circulation routes provision should be made for wheelchairs, buggies and people with walking aids

DOORS AND OTHER OPENINGS

To provide for accessibility, internal doors should provide a minimum effective clear width which is as wide as possible but not less than 750mm. This is often readily provided in historic buildings without alteration. Where this width is not available, for example in a medieval building with stone-lined doorways or a Georgian building with jib doors, careful consideration

of impacts and consultation with the relevant statutory authorities is advisable before designing interventions to widen or provide a new entrance. A management solution which provides accessible services and facilities in a more easily accessed room may be acceptable.

Some historic ironmongery may be difficult to operate, for example knobs require an ability to grasp, turn and pull which is not possible for everyone. Where providing new door furniture consideration should be given to its design, location, ease of use, colour contrast with the door and type. It should be noted that while lever handles and push plates are generally recommended for accessibility, these may not be acceptable for use on a historic door.

Historic doorcases are often generous in proportion and frequently provide good colour contrast to aid in their location. When door knobs are difficult to use, it may be possible to ensure the door remains open

Often the original door furniture is finely crafted to provide ease of use. In this case the lever door handle can be used with minimal effort

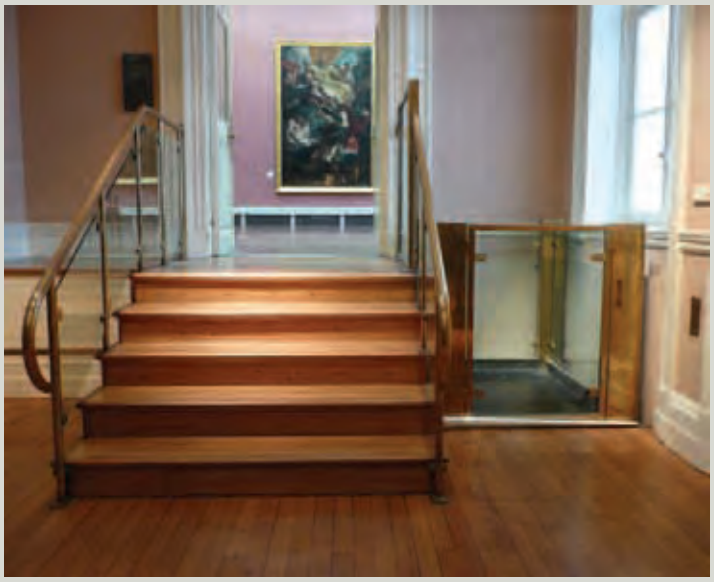
Some historic doors can be relatively heavy and so opening and closing can be difficult. As with main entrance doors, discussed above, the simplest option with the least impact would be to hold the doors open using a door stop. However, where this is not possible, the automation of existing doors may be an appropriate solution. In which case the historic ironmongery, which is so often a prime feature of the door, can be left in place. Where linked to the fire alarm and wiring system, these devices can also ensure compliance with fire safety regulations. The use of electromagnetic hold-open devices to achieve improved access should avoid the need to provide glazed panels in historic doors which would rarely be acceptable.

VERTICAL CIRCULATION

Small changes of level

In many historic buildings there may be minor changes of level within floors as well as the large differences which occur between one floor and the next. These small changes may arise from different development phases of a building, be a response to the natural topography of the site, or may be a considered part of the original design, for example in courthouses and theatres. Sometimes small level changes can be addressed with ramps or platform lifts. Ramps are generally preferable as they do not break down and involve less maintenance; however they can take up a lot of space and so their impact on the historic interior and fabric needs to be considered. In some instances, for example where space is restricted, a platform lift may be a more practical solution providing the visual impact is acceptable. Gradients of ramps should be as shallow as possible; if too steep, they may not be useable for some wheelchair users. Where the difference in level is greater than 300mm and a ramp is being provided, then ideally steps should be provided also as some ambulant disabled people may be unable to use a ramp. A proposed ramp should be designed with regard to existing proportions and decorative features such as skirtings, plinths and dado panelling. Sometimes it may not be practical to provide a ramp, for example in some Georgian town houses that include a short flight of steps down to a return.

This courthouse has been fitted with a witness box with a rising floor. This allows a wheelchair user access the witness box and also allows a disabled clerk to access his position through a door at the rear of the box. The top image shows the lift with the platform level with the main floor of the courtroom while the lower image shows the lift in the process of being raised



In this example, the change in floor level between different parts of a building has been overcome by providing a short-rise platform lift, using high quality finishes, and well-lit stairs

Semi-permanent and temporary ramps

A temporary ramp may be the acceptable solution for dealing with small changes in level where only occasional access is required or as an interim solution. In buildings with low levels of use, portable ramps which can be easily and quickly installed may be acceptable. However, even where temporary or portable, the visual and physical impacts of the ramp need to be considered as well as dignity and safety in use, ongoing management and the possible need for staff training.

The use of semi-permanent or temporary ramps may be acceptable where there are small changes in level but for some people even a small change could be challenging without support. Monitoring of such adaptations in use and consulting with the users may provide information on whether they are working in practice (Image courtesy of Helena Bergin)

Platform lifts

There have been many improvements in the design of vertical platform lifts which allow them to be elegantly designed and more easily integrated within a historic context, for example where lift-pit sizes are reduced and the safety rails and operation controls are visually less obtrusive while ensuring compliance and usability. Again, where unacceptable damage would result from intervention, a management solution may suggest alternative access arrangements or it may be possible to provide accessible services and facilities in other parts of the building which can be more easily accessed. Platform lifts may be open or enclosed vertical lifts or

inclined lifts. Inclined platform lifts tend to be a less acceptable option both visually and in use but there may be occasions where they provide the only option to improve access. In all cases the required speed of operation needs to be taken into consideration as platform lifts are generally slow to use. Hence they are not suitable where large visitor numbers have to be accommodated.

Larger changes in level

To overcome larger differences in level, for example from floor-to-floor, a combination of solutions may be possible. This might involve upgrading stairs to higher standards where appropriate, as well as the provision of a full passenger lift.

One of the most challenging situations is the typical half-storey level change within a typical Georgian or Victorian town house. Such level changes are too great to allow for ramps and the plan form may not easily accommodate a lift serving all levels, especially if the building requires fire compartmentation also. In these circumstances it may only be possible to provide partial access to the building interior without personal assistance. Therefore services and facilities should be provided in the accessible areas.

Staircases

In some historic buildings the main staircase is a prominent architectural feature and any alteration is rarely appropriate. Where it is considered acceptable, the works need to be carefully integrated within the existing design. The balustrades and handrails of historic stairs are significant design elements of the staircase and may not always conform to current standards for new buildings in terms of height or handrail shape. It may be possible to fix a new handrail to the existing which provides the required height and a suitable grip. If fixing a second handrail against a wall it may be appropriate to follow the detail of the historic handrail, or provide a simple modern profile. Alternatively on a wide staircase, it may be possible to include a central handrail. When adding handrails, the opportunity could be taken to provide additional lighting to the stairs concealed within the new handrail.

New timber handrails have been installed on both sides of this staircase as well as down the centre

Some historic buildings have secondary staircases of less significance which may be more easily upgraded to provide an accessible stair through improved handrail support, slip-resistant treads and better lighting. Tonal contrast at top and bottom of stairs may already exist through the choice of historic floor and stair finishes. Nosings can sometimes be highlighted to improve safety through careful lighting or the sensitive addition of reversible paints or tapes.

Internal lifts

Inserting a new passenger lift in a historic building can be both expensive and challenging as a lift is a major new element requiring a considerable amount of space not only for the lift shaft but also for the machinery and lift pit. The installation of a lift can also be very disruptive of the fabric of the building requiring extensive alteration of walls and floors. For some historic buildings, a suitable location for a vertical shaft through, or attached to, the building may be straightforward to identify. Areas which

have undergone previous alteration, are later extensions or which have particular room layouts and size, are the first areas which should be considered. In choosing a location for a new passenger lift within a historic building, consideration should be given to the potential impact on the roof, particularly the external profile. There are a number of successful examples where a lift has been inserted into the central well of a historic staircase and these include contemporary glass lifts which can contrast well with the historic architecture and be relatively light in impact. However, this type of solution will not be appropriate in all cases. It should be borne in mind that some full-height clear-glass lift cars may cause anxiety in some users and can be difficult to use for those with vision impairment. While glass lifts can have a low visual impact in historic spaces, careful consideration should be given to their detail design to ensure maximum usability.

In some instances, it may be necessary to construct an extension to accommodate a new lift. This may often be acceptable where it can be located to the rear, or away from, principal façades or does not impede important views of the building. If constructing a lift extension, it is important to consider evacuation needs, particularly for people with mobility impairments. There may also be an opportunity to accommodate other facilities in the extension such as accessible toilets. An evacuation lift facilitates safe, independent and dignified evacuation and should be considered at this stage. However, an evacuation lift requires a separate, secure power supply and consideration must be given to the location and impact of the generator and fuel supply.

Inclined platform lifts, fixed to an existing balustrade, wall or freestanding rail, are sometimes installed to existing stairs where it is not feasible to provide a passenger lift. While these can be visually obtrusive and are not suitable for all wheelchair users they are generally relatively easily reversed and may be an acceptable interim solution. However, as they are unacceptable to some users, they should only be considered as a last resort.

The use of modern lift technology can reduce or avoid the need for overruns and lift pits so it is important to research thoroughly new developments in lift technology for the most appropriate designs and systems. Installation of a new lift, whether internal or external, to a protected structure may require planning permission.

The insertion of a lift in a historic building is usually very difficult without significant alteration. This lift has been successfully inserted in the oval stairwell with a carefully designed and bespoke solution. The use of high quality materials, well designed, can add to the layers of a historic interior and not detract from the architectural character of the building

At the Custom House, Dublin a new lift was constructed within an internal courtyard. Access into the building at each level was provided through the alteration of existing window openings. The lift shaft was clad in stone externally matching the stone coursing of the original building

A stair lift is often visually intrusive in a historic interior and users are more likely to require assistance

Lighting

The quality of light within a historic building can be one of the defining aspects of its architectural character. Most historic buildings were not designed to be illuminated with even lighting which is the ideal condition for accessibility. To alter the lighting character, therefore, can have a profound impact on the overall architectural character.

Efforts should be made to avoid strong contrasts between dark and light which can be problematic for older and for vision-impaired people. This may be difficult without significant alteration of character, for example in historic churches where the original intention was to create dramatic contrasts of light. In such situations it may be possible to provide transitional lighting which reduces any abrupt transition between different areas and lighting levels. Historic light fittings of note should be retained, lamp fittings may be upgraded or additional light fittings provided to ensure sufficient quality and intensity of light is available. When adding light fittings consideration should be given to the historic layout of fittings and avoid fixing into historic decorative features. The quality of the design and materials used in the new fixtures are important factors in deciding whether or not they would be acceptable.

When entering a building, the often-dramatic change in the quality of light experienced by the visitor can make it difficult for some people to adjust their vision. The light quality in transition spaces such as reception areas should therefore try to eliminate strong contrast. This can be difficult to reconcile in some historic buildings, where the experience of moving from light to dark and the creation of shadow were part of the original architectural intent and particular character of the space which is part of what makes it special.

Consideration should also be given to how and where wiring should be installed and how this might also impact on the historic fabric of the building. There have been considerable advances in the area of wireless technology for buildings and these may provide a less invasive solution. Equally, freestanding light fittings may be suitable because of their easy reversibility and portability. Care should be taken to ensure that freestanding fittings and associated cabling do not form a trip hazard.

Facilities

The extent and range of accessible facilities to be provided depends on the type of building and its intended use. The following are some of the key facilities which most buildings need to provide for both staff and visitors.

RECEPTION FACILITIES

Reception facilities should ideally be located near the entrance with a clear, evenly lit and unobstructed route from the entrance to the reception area. In a historic building this may not always be possible to achieve. Tactile and tonally contrasted guide routes applied to the floor surface may help to guide all visitors towards the reception where the entrance area is a wide open space. These guide routes are particularly helpful for people with vision impairments. It would not be appropriate to insert such routes into an architecturally fine floor finish.

For accessibility, the reception desk, where provided, should ideally incorporate a lower level counter top with leg room underneath which can be used from either side by someone in a wheelchair or by people of short stature. Good management is needed to ensure that the low section is not blocked, for example, by computer screens. Historic fittings, now used as reception desks, may or may not be suitable for alteration. If not, it may be possible to extend these desks, or provide a separate accessible desk area. Wherever possible, lighting at the reception area should be even and allow for lip reading. Locating the reception desk away from noisy areas and providing induction loop systems facilitates people with a hearing impairment.

Not all buildings have manned reception desks and in such situations it is necessary to provide sufficient signs and other wayfinding tools to ensure the necessary guidance and information is available. Guidance on signs and wayfinding is provided in Chapter 4.

Where possible reception areas should provide resting areas with seating and somewhere to rest a bag or stick. The provision of resting places elsewhere should be considered, particularly in large buildings such as galleries, halls or hospitals, where resting places in the public spaces, along public routes and at staircases may benefit many users.

In this example, the reception and information desk has been designed to be accessible with a low level section at one end. It curves gently with the circular plan of the room

An induction loop has been installed at the reception counter together with signage to indicate its presence and this is immediately visible on entry

Many venues which receive visitors where there may be long travel distances, or limited seating are now providing on loan, not only portable seats but also buggies and wheelchairs

SANITARY FACILITIES

Accommodating wheelchair accessible toilets can be challenging in a historic building as these facilities are considerably larger than standard ones. However, they are generally an essential provision in relation to the use of a building. Where possible, accessible facilities should be provided in close proximity to standard ones. If necessary, existing sanitary facilities should be altered to provide accessible ones. Where space is limited and it is not possible to provide separate accessible facilities, consideration should be given to providing accessible toilets to be used by everyone by reducing the overall number of stalls.

Routes to accessible toilets should be level and of sufficient width. In some situations, therefore, it may be necessary to locate the accessible toilet away from other toilet facilities. Clear signs should be provided to indicate its location. Areas where there have been previous interventions may be appropriate locations for further alteration to accommodate sanitary facilities. In some situations, and possibly in conjunction with providing other new facilities such as lifts, accessible stairs or a new main entrance, all might be accommodated within a new extension. The design of any new extension is likely to have a major impact on the historic building and requires planning permission and possibly other statutory consents.

In addition to toilets, it may be necessary to provide accessible showers, changing areas, assisted toilets and adult changing facilities. These latter facilities may be required in some large public buildings and places of assembly, including:

- Concert halls, theatres and cinemas
- Museums and cultural centres
- Airports and large railway stations
- Shopping centres

The standards and requirements for all these facilities have advanced considerably in recent years and it is particularly important to ensure that the diverse needs of people are provided for within sanitary facilities. Where sanitary facilities are accommodated within existing rooms and where there are decorative finishes of note, the necessary colour contrasts

can possibly be provided through careful selection of the new fittings, rather than by changing the existing decorative scheme of the room. Where alarms are required in accessible toilets the use of wireless options may minimise disruption of the building fabric.

Where subdividing an existing room to provide toilet compartments, any physical impact on architectural features such as cornices and wall panelling should be avoided. Reversibility of alterations, the location of pipe runs, and potential for water damage arising from future leaks should be considered in these situations.

It may not always be necessary to subdivide an existing room for sanitary accommodation. In this case a full room was given over to an accessible toilet providing ample space for assistance

Clear symbols can eliminate the need for text

RESTAURANT, CANTEENS, STAFF FACILITIES AND SHOPS

These facilities are often best located in the less architecturally sensitive parts of buildings as they can require a high level of intervention. Indeed, sometimes new buildings or extensions may be an appropriate solution to house such facilities.

Efforts should be made to provide sufficient clear widths to negotiate around fittings, tables and seating. Good tonal contrast should be created to minimise obstacles and hazards. Background noise and reverberation can often be a problem in heavily used, hard-surfaced spaces. The location of counters, information desks and tea/coffee stations should be separated from the more noisy areas, wherever possible, with provision of clearly indicated induction loop systems to assist people with hearing impairment. Ideally there should be even lighting to assist with, for example lip reading, at counters and service desks; low level counter tops with open areas underneath for knee space for wheelchair users and sufficient space around the counters for wheelchair circulation space.

This café, in the cellar of a historic building has been laid out with good circulation space, good lighting, seating with arm supports and noise levels have been controlled through the use of soft furnishings in certain areas

However, in existing historic buildings, such space requirements may not be available and management solutions may be required, for example, providing staff trained to offer assistance to people with disabilities.

TEMPORARY FACILITIES

When planning and designing temporary facilities, the key objective should be easy reversibility. Even where the use is only short-term, for example a week of concerts in a historic house, the same principles of access for all with dignity apply and an access strategy should be developed in advance to guide the approaches to provision of facilities.

Emergency evacuation

Emergency evacuation of a building is of equal importance to providing access into the building.

Planning for means of escape in the event of an emergency may involve physical works but, most importantly, requires on-going active management and staff training. Wherever possible, the aim should be to provide independent evacuation of the building for everyone whilst at the same time recognising that some people may take longer to be evacuated from a building than others and may also need assistance.

Depending on the building and the extent and nature of the accessible circulation (especially vertical circulation) which can be made available, provision for safe emergency evacuation may limit areas or numbers who can safely access the building. These factors need to be considered at planning stage, particularly if it is intended to make the upper levels accessible, and may have a significant influence on decisions made in relation to a building's use. Evacuation lifts allow for safe, independent and dignified evacuation from upper levels. If an evacuation lift is not available, expert advice should be sought to consider options for using non-evacuation lifts in certain circumstances. This can be the lowest risk approach in some situations. Any decisions about restricting access for

evacuation reasons should only be considered after all other possible options have been exhausted.

Escape routes need to be clearly signed and, where possible, be step-free and include safe refuges where required, that is with sufficient space off the escape route where a person can wait safely until collected by a designated person trained to assist with evacuation. Robust procedures are required to ensure that details of anybody left waiting at a refuge area are communicated to the fire services on arrival. In addition, and critically, the procedures and policies for evacuation need to be well coordinated and communicated to disabled users and those staff members who are charged with responsibility in this area. Ensuring that people are fully aware, on entering the building, of the procedures for emergency evacuation greatly enhance their confidence in using the building. For staff or regular users, management should prepare a Personal Emergency Evacuation Plan, or PEEP, to agree and document the evacuation procedure for the individual.

As there have been significant advances in the area of managing evacuation, professional advice is essential. Phased and zoned evacuation planning might be appropriate in larger buildings. As people generally expect to leave by the same door they entered a building, it is essential that alternative routes are clearly identified if they are to be followed for escape purposes. For public buildings it is important to be aware that it is the responsibility of building managers to ensure the safe evacuation from the building of people with disabilities and therefore appropriate management policies, including staff training and maintenance procedures are in place and are monitored.

Fire alarm systems must be capable of alerting all building occupants. Alarms should be both visible and audible. In terms of escape signs and alarm fittings, there are regulations governing location, symbols, lighting standards, and the like. However there are many ranges available which comply, some of which are more suitable for historic settings, both in terms of their design and fixing details. Other equipment, such as sound alerts, flashing beacons, vibrating pagers, e-alert systems, powered wayfinding systems and evacuation chairs, can be used to support management when evacuating people with disabilities from a building. Their use depends on individual circumstances.

Assisted evacuation from a building is possible for wheelchair users using a variety of technical aids including stair climbers and evacuation chairs. It is essential that full training is provided to all staff designated to help in evacuation. In particular, staff need to understand the limitations of the devices available and should not assume that all evacuation chairs are suitable for all wheelchair users

6. Providing Accessible Information

Pre-visit information

This section deals with the provision of information away from, and in advance of, any visit to a historic building or place.

Good pre-visit information is helpful for all visitors and assists in delivering an improved service or visitor experience where the building or place is open to the public. When planning a visit it is important for people to get information on which parts of the building or place may have only limited, or no, access and the level of accessibility to expect. In this way people can make informed decisions as to whether it is accessible to them.

It is good practice to provide useful information in a clear, concise and positive manner, rather than describing a facility as *'not wheelchair accessible.'* Possible barriers should be described; for example *'the distance from the designated car parking to the main entrance is 100m. The gradient over most of the route is 1:10 and there are two 100mm high steps at the door.'* Some wheelchair users may be able to access this with assistance and some ambulant disabled people may not but, if given the right information, people can decide for themselves.

Pre-visit information can also be provided for town centres (some of which may form part of an architectural conservation area) to promote best practice. These are more complex areas than single-owner sites and it may be appropriate for locally based organisations, such as the local authority, tourist office or chamber of commerce, to coordinate this information.

WHAT INFORMATION TO PROVIDE

The detail depends on the type of facility and service being provided. Information could include information on some, or all, of the following:

- Accessible transport options to the building or place
- Parking facilities
- How to enter
- Accessible routes
- Hazards and barriers
- Circulation within the building or place, and
- Accessible facilities and services on-site or adjacent to it

Pre-visit information could indicate:

- What, if any, facilities are available for guide dogs
- Whether there are audio enhancement facilities
- What languages are available (whether spoken or in printed or audio formats), or
- Whether wheelchairs are provided

In providing pre-visit information to external areas such as parks and urban areas it may be necessary to coordinate information for a number of places and facilities within the site or area. The information could be provided in text and/or in video form.

Where there is only partial, limited or no easy physical access to a historic place, the pre-visit information should clearly state this and provide any relevant information. Such information may relate to a particular service which is accommodated in the building and which can be accessed in an alternative location. Alternatively, it may relate directly to the historic building or place, for example an archaeological field monument which may only be accessible through fields but where information on the place may be available on a website or in an interpretive centre or local library.

HOW TO PROVIDE THE INFORMATION

Websites are an increasingly useful aid to providing pre-visit information and can host a variety of communication modes. Websites can provide:

- Text, graphic, audio and video information
- Virtual tours of the building or place
- Information to be downloaded in accessible formats such as Braille or large print
- Links to information on other relevant buildings, sites or service locations

Website information should use plain language with simple and logical navigational tools and provide flexibility to allow greater user control over the website. There is guidance available on the design, layout and types of websites for good accessibility and websites should have at least Level AA conformance to the Web Content Accessibility Guidelines.

However, not everyone has access to a computer or the internet and so pre-visit information needs to be provided in a variety of accessible formats. These may include large print and easy-to-read leaflets. Pre-visit information may also be provided via telephone or through local information centres such as libraries, tourist offices or local authority offices.

www.cliffsofmoher.ie is an example of a website which provides information on the accessibility of the building and site, its facilities and services as well as any access restrictions. The accessibility information provided is reproduced on the following 2 pages

Accessibility

Cliffs of Moher New Visitor Experience Accessibility Information

DISABLED PARKING

Disabled parking bays for disabled parking permit holders are available beside the visitor centre building on the cliffs side of the road. Drivers should enter by the coach entrance and press the intercom button at the barrier. When this is answered please advise that you wish to use the disabled parking bays.

Additional overflow disabled parking bays are available in the car park on the opposite side of the road at the point in the car park nearest to the pedestrian crossing. However, visitors should note that the gravel surface and terrain may make it difficult for wheelchair users and where possible the nearer disabled parking bays should be used.

BUILDING & SITE ACCESSIBILITY

The new visitor centre building has been designed to meet and exceed current building regulations and guidelines embracing the general philosophy of universal access. Within the Atlantic Edge exhibition all visitors will use the ramp which provides access to the exhibits, which have been designed to appeal to all of the senses.

Included among the measures taken within the building are Induction loops at the main desk, help desk and the Admission kiosks as well as in the theatre. Staggered counter heights have been introduced at reception areas. Generously sized accessible toilets/baby changing facilities are provided on all floor levels.

While the natural terrain makes it difficult to provide full independent access to all areas outdoors, specifically elevated views at the Hags Head side and O'Brien's Tower and the new cliffs edge works have sought to provide a reasonable level of access to the outdoor

experience. Access is readily available from both the ground and first floor levels of the building as well as from the main concourse to the picnic area and cliff edge. Coin operated telescopes, including an accessible reduced height version, on the viewing areas provide a commentary in a variety of languages.

As above the access to more elevated views at the Hags Head side and O'Brien's Tower is impinged by the incline of the natural terrain. A hard surfaced wheeled access path is provided to these areas but the path has sections where gradients imposed by the natural gradient of the terrain exceed the levels required for wheelchair access. Visitors may wish to use these paths with assistance at their own risk.

ADDITIONAL INFORMATION

The centre has a golf buggy for operational use and this may be available to help bring visitors who need assistance to the cliff edge area. Please enquire at the main Reception in the visitor centre building to see if this is available. As we have only one golf buggy please accept our apologies in advance if it is already in use.

A number of manually operated wheelchairs are available for visitors to borrow from the visitor centre building and from the car park cabin.

Staff will receive disability awareness training and are available for assistance in making your visit to the Cliffs of Moher as enjoyable as possible.

WEBSITE ACCESSIBILITY INFORMATION

The site follows certain guidelines and standards to ensure that this site can be used effectively and as easily as possible by all users.

Interpretive information

Interpretive information should inform visitors about a place itself or about its contents, its architecture or its services. Often cultural buildings and places host exhibitions, both temporary and permanent. Sometimes these exhibitions are incidental to the primary use of the building or place, in other cases, exhibitions or displays may be part of the dissemination of information relating to the ongoing services of the place, for example the local authority offices, and in others exhibition is the principal function.

There is a range of approaches available to ensure that the information provided in all these cases is accessible. Information should be designed to be accessible to as many people as possible both in terms of sensory and intellectual access. These methods may include:

- Pictorial symbols
- Annotated maps and models
- Tactile guides
- Haptic models: these are 3D models of objects which communicate information about the object through touch to people with vision impairment
- Audio guides
- Induction loops
- Plain English leaflets
- Easy-to-read leaflets

These are just some of the communications tools which can help those with vision and hearing impairments or intellectual disabilities as well as those who may be unfamiliar with the language. The benefits of assistive technologies, such as audio guides, transcend many user groups in that information can be given to the viewer or visitor while they are looking at the exhibit.

In historic places, for example town centres, guided walks – led by guides or with audio guides – can be helpful and serve a wide audience. Ongoing development in mobile phone technology (such as Bluetooth technology

and downloadable accessibility applications allowing the use of existing screen reading systems which are in place in many mobile phones) is providing a wide range of accessible applications. These can assist in negotiating unfamiliar territories and this is an area of technological innovation that will continue to advance. Digital guides (audio, video, virtual reality) can also be made available on websites and on public terminals. Video and virtual reality allow for personal experience of a place which it may not be possible to make fully accessible.

The layout of exhibitions within historic buildings should, wherever possible, make efforts to provide clear widths and level circulation routes with tonal contrast between the circulation routes and exhibits. Lighting should ideally be even and without causing glare. However, in historic buildings, the standards of space and lighting available may not match those obtainable in purpose-built space. This may affect the design of an exhibition.

Exhibits mounted at a height suitable for wheelchair users can also capture the interest of young children

By using new technologies with simple written and spoken language information can be conveyed in exciting and easily understood ways. Audio induction loops, with the appropriate symbol, can also be fitted to exhibits to help people with a T switch on their hearing aid. Touch screen technology is not accessible to people with vision impairments and needs to be combined with alternative methods

Children love to touch displays and in the Information Centre at Wicklow Mountains National Park a sign at the entrance encourages children and others to touch the animals. Not all exhibits are suitable to touch however, and in some instance it may be possible to provide replicas to provide sensory access, and alternative media to provide intellectual access

Programmes and events

Historic buildings and places are often used for special events. These might include an outdoor concert in a historic garden or park or events within a historic building such as a civil marriage ceremony or a book launch. Making events more accessible to disabled people improves services for all customers. Not all historic places lend themselves to such events and it is good practice to carry out an impact assessment to inform the decisions made. Such an impact assessment examines the sensitivity of the place and the likely risk of damage arising from both providing the facilities for the event and the people at the event itself. Some places, therefore, may not be suitable for certain types of event.

If the site is suitable, an access plan should be prepared to inform the location and extent of accessible facilities to be provided. This should be preceded by an assessment of the likely impacts on the character and fabric of the building or place. The principle of easy reversibility of any alterations should inform the approach to installing temporary facilities. For large events, advance consultation with the architectural conservation, fire and building control officers in the local authority would be advisable and helpful. It may also be necessary to obtain consents, permissions, notifications or licences for such uses.

When dealing with large-scale events, it will be necessary to provide advance information on accessibility and the on-site facilities available at pre-visit stage. It may be necessary to engage suitably trained staff for the event. The access needs of attendees should ideally be clarified when bookings are being made. Where a historic building or place is to be regularly used for events, it is advisable to prepare suitable management policies. However, flexibility may be needed on these policies, for example not all wheelchair users may wish to (or may need to) stay in designated areas. Temporary event staff should be trained in disability and equality awareness and policies for emergency evacuation need to be in place. It is usually preferable to adopt a cautionary approach for initial events prior to considering any significant interventions. Monitoring of the events may lead to revised future approaches and policies.

Useful contacts

If the building is a protected structure or located within an architectural conservation area, the architectural conservation officer in the local authority should be the first person to contact with queries regarding works. Other useful contacts include:

Department of Arts, Heritage and the Gaeltacht, Custom House, Dublin 1

- Architectural Heritage Advisory Unit
- National Monuments Service
- National Parks and Wildlife Service

Telephone: (01) 888 2000
Web: www.ahg.gov.ie

Heritage Council, Áras na hOidhreachta, Church Lane, Kilkenny

Telephone: (056) 777 0777

Web: www.heritagecouncil.ie

Irish Georgian Society, 74 Merrion Square, Dublin 2

Telephone: (01) 676 7053

Web: www.igs.ie

Irish Landscape Institute, P.O. Box 11068, Dublin 2

Telephone: (01) 662 7409

Web: www.irishlandscapeinstitute.com

Royal Institute of the Architects of Ireland, 8 Merrion Square, Dublin 2

Telephone: (01) 676 1703

Web: www.riai.ie

Centre for Excellence in Universal Design, 25 Clyde Road, Dublin 4
Telephone: (01) 608 0456
Web: www.universaldesign.ie

DeafHear, 35 Frederick Street North, Dublin 1
Telephone: (01) 817 5700
Web: www.deafhear.ie

Irish Wheelchair Association,
Áras Chúchulainn, Blackheath Drive, Clontarf, Dublin 3
Telephone: (01) 818 6400
Web: www.iwa.ie

National Council of the Blind Ireland,
Whitworth Road, Drumcondra, Dublin 9
Telephone: 1850 334353
Web: www.ncbi.ie

National Disability Authority, 25 Clyde Road, Dublin 4
Telephone: (01) 608 0400
Web: www.nda.ie

People with Disabilities in Ireland,
4th Floor, Jervis House, Jervis Street, Dublin 1
Telephone: (01) 872 1744
Web: www.pwdi.ie

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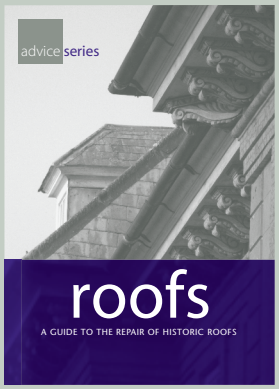
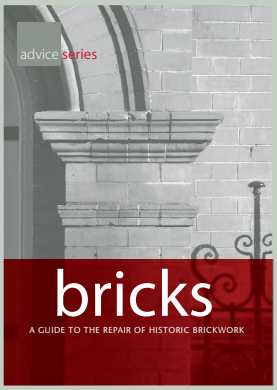
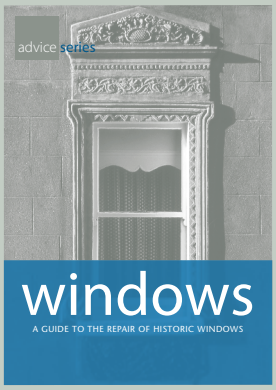
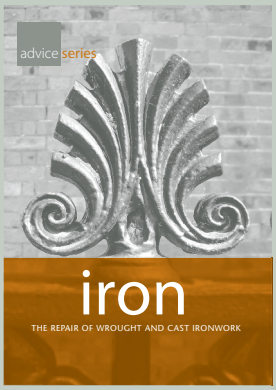
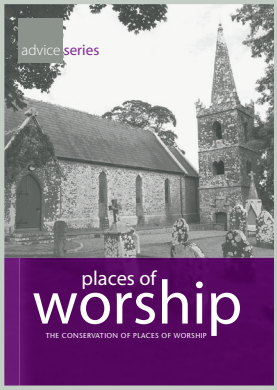
The Advice Series is a series of illustrated booklets published by the Architectural Heritage Advisory Unit of the Department of Arts, Heritage and the Gaeltacht. The booklets are designed to guide those responsible for historic buildings on how best to maintain, repair and adapt their properties.

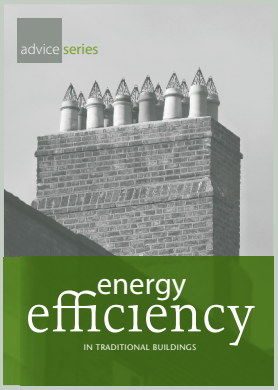


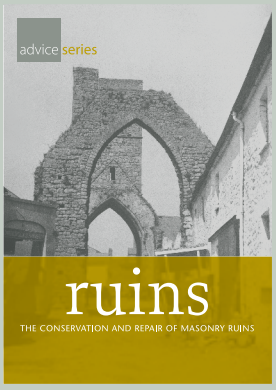












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