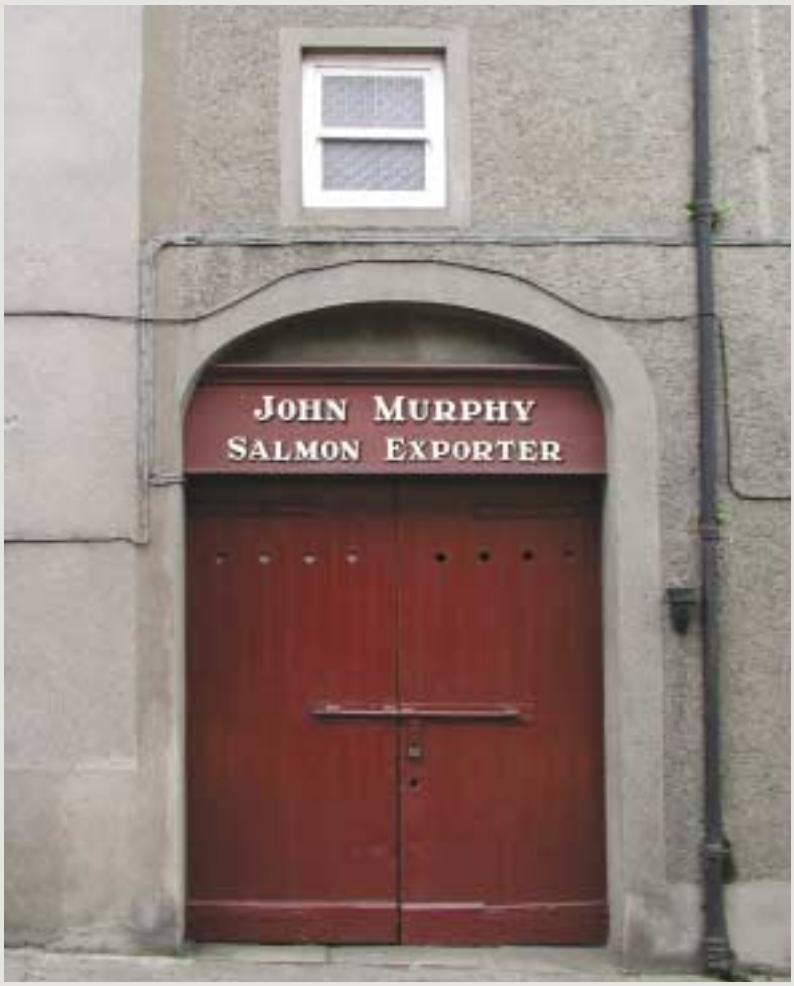
Openings

Doors and Windows

CHAPTER 10



Whether grand or simple, doors and windows are usually the main elements that, on first glance, establish the character of a structure. Their design, materials and arrangement can tell much of the use, history or status of the building

10.1 Introduction

10.1.1 Doors, windows and the openings that contain them are important architectural features of an elevation. The design of doors and windows and the materials used can be of significance in establishing the special character of a structure. The way in which the openings are formed and their architectural treatment is also important, as are the proportions of the openings themselves and the proportion of opening size to wall area.

10.1.2 In order to assess the qualities of openings that contribute to the character of a structure, the following should be considered:

a) Are the openings original to the particular part of the building?
b) If not, are they of interest as being part of a later remodelling of the structure?
c) Have the proportions of the openings been altered? Have they been widened or the sills dropped?
d) If the openings have been altered, are the alterations of interest or do they distort the proportions of the wall or façade?
e) Have any openings been blocked up or made redundant by previous alterations? Were any of these blocked openings designed as dummy, or blind, windows?
f) Have any openings been added and, if so, are they of interest or do they distort a previously symmetrical or well-balanced elevation?
g) Are the windows and doors original to the building?
h) If not, do they contribute to the character of the building or do they detract from it because of unsympathetic design or use of materials?
i) Are there other features associated with the openings? These might include porches, canopies, entrance steps and landings, railings, bootscrapers, fanlights, overlights, shutters, blind boxes, balconettes, window boxes and many others.

j) Are these features original? If not, do they nonetheless contribute to the character of the building or ACA?

k) Do the windows or doors contain any original, early or interesting glass?

10.2 Openings in Structures

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.2.1 The manner in which structural openings are formed and decorated is important to the architectural character of a structure. Head details of special interest may include arches of rubbed bricks, stone voussoirs, and iron or timber lintels. There may be important associated features such as carved or decorated keystones. Sills may be of cut stone, brick, rendered brick, timber or metal. The treatments of the reveals should also be noted, whether these are rendered or not, or of cut stone or moulded brickwork. Surrounds to openings of decorative render should be identified and protected. The depth to which window and door frames are recessed within a wall is also an important feature and alterations to this relationship, when inserting replacement windows or doors, will affect the appearance of a building.

CONSIDERATION OF PROPOSALS AFFECTING STRUCTURAL OPENINGS

10.2.2 Careful consideration should be given to proposals to alter openings in a protected structure or in any structure within an ACA. The architectural quality of a historic building may be compromised if the size of openings is altered; if existing openings are blocked up; if new openings are formed; or if door openings are converted to window openings and vice versa. Where the openings are a conspicuous part of the architectural design and this design would be marred by the proposed alterations, permission should rarely be given. Similarly, on prominent elevations, planning permission should not generally be given for the conversion of window openings to doorways or vice versa where this would be detrimental to the overall design of the structure. Consideration also needs to be given to the effect of alterations on the interior of the building.

10.2.3 The removal, partial removal or replacement of important features associated with the formation of the opening, such as arches, sills, keystones or architraves may adversely affect the character of the structure.

The treatment of structural openings may add considerably to the character of a building; here the elaborate brick and terracotta detailing and the arched window-heads add architectural distinction to the opening

Openings that were later created or remodelled can contribute to understanding phases of the history of the structure. The late eighteenth-century fashion of lowering windowsills altered many earlier openings, but they can now be seen to represent a valid phase in the structure's history. Restoring these windows to the original proportions would require the loss of later fabric of historical interest and should only be undertaken in exceptional circumstances, based on sound evidence and after all alternatives and potential consequences have been fully explored

The inaccurately-detailed alteration of doorcases or other features will, in most cases, be to the detriment of the structure and often affect the character of an ACA also

10.2.4 Proposals to block up, in whole or in part, the existing openings in symmetrical or well-balanced elevations should only be permitted in exceptional circumstances. Proposals to insert new openings in such walls should generally be refused although it may be considered permissible on minor or random elevations. Any new openings should be sympathetic with the architectural character of the building in terms of materials, design, scale and proportion.

10.3 Doors

10.3.1 The details associated with the doors of a building are of importance to the special character of a historic building. Types of doorways may range from major entrances with elaborate architectural treatment to simple secondary doorways or entrances to minor structures. It is important to identify and protect the features of doors and doorways that contribute to the special character of the protected structure.

10.3.2 Inappropriate works to its doorways will damage the special interest of a structure and this should be a consideration when assessing a planning application for works to a protected structure. Proposals to remove, replace or otherwise inappropriately alter features of interest should be treated with great caution. The complete replacement of historic doors, and their associated elements, in protected structures should rarely be permitted where they are capable of repair.

Doorcases

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.3.3 In buildings of high architectural quality, there may be doorcases and door surrounds of timber, stone, render or cast iron. They may incorporate columns, pilasters, pediments, cornices, consoles or other carved or moulded detail. All these details should be identified and retained and, where necessary, repaired appropriately.

CONSIDERATION OF PROPOSALS

10.3.4 In cases where an entrance has, or will, become redundant because of alteration, the doorcase, door and other details of special interest should be retained in situ. This is particularly important in buildings where the doorway is a prominent feature of an elevation and where its removal would therefore alter the character of the building. Retaining the doorcase in place allows the possibility of its future reinstatement as an entrance.

Doors and door frames

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.3.5 Original door leaves and frames should be protected, as should any later replacement work of obvious quality and good design. Most doors associated with historic buildings are constructed of timber and these may be panelled, match-boarded, ledged-and-braced or flush-sheeted doors. Other structures may have metal-framed doors with glazed panels or plain metal sheeting.

While early, well-executed conversions of doors to windows, and vice versa, may now merit a place in the history of a structure, the entire removal of the principal entrance and its replacement with a window can rarely be considered acceptable, particularly where the works are carried out using inappropriate materials and to a poor-quality design

Doorcases often contain details of surprising beauty and craftsmanship, such as these tiny carved caryatids which date from the early nineteenth century

Front doors are traditionally strongly constructed from high quality materials. Panelling styles or applied decoration, seen in this ornate and well-maintained example, can be characteristic of an area or region

10.3.6 The quality of the original materials and craftsmanship of much historic joinery means that it is usually capable of repair. Throughout the country, many doors survive which are over two hundred years old and still capable of giving good service. Joinery that is original to a building or a replacement of definite quality should be retained. Original or early doors may be disguised by the later application of sheeting or boarding to the faces of the doors and may conceal panelling beneath.

CONSIDERATION OF PROPOSALS

10.3.7 The installation of modern replacement doors, which have inappropriate design features such as integral fanlights, should not be permitted in a protected structure. The installation of doors of inappropriate materials will also damage the appearance of the building. For example, the use of uPVC or aluminium doors in an old building will affect its character and damage its special interest, as will the replacement of solid door panels with glass and vice versa.

10.3.8 An inappropriate finish applied to a replacement door or to an existing historic door will affect the appearance of a building. Most doors associated with protected structures are made of timber. Until the mid-twentieth century external joinery was generally given an applied finish such as paint. Sometimes the paint finish was grained or scumbled to resemble unpainted timber. Unpainted hardwood or stained or varnished softwood doors are therefore not appropriate for use in a historic building unless it can be proven that this was the original finish.

10.3.9 Where repair works are to be carried out to historic joinery, only the minimum amount of timber should be replaced using timber of a matching species and grain type. New pieces, where required, should be carefully jointed in. The profiles of decayed sections of moulded work should be copied exactly and spliced precisely into the existing work. Large-scale renewal of frames or sections of door joinery should always be avoided.

Ironmongery

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.3.10 Where there is original or interesting ironmongery associated with a door, it should be retained in place, even where it has become redundant. Such ironmongery includes hinges, knockers, letter plates, lockcases, escutcheons, bell-pulls, handles, door-pulls, nameplates and numerals.

Modern replacement doors of inappropriate design, materials or finishes should not be used. Where such doors now exist, as here, their replacement by an accurately profiled door, informed by research, should be encouraged. Alternatively a high-quality well-designed contemporary solution, which would not adversely affect the character of the historical design, may be acceptable

Previous repairs to this door and doorframe included the piecing-in of new material to the ends of the stiles. This fine and barely visible repair work has retained the original sturdy, clouted door hinge

Redundant items of door furniture such as locks, knockers, hinges and bell-pulls are sometimes removed in the course of refurbishment works and often sold as antiques. However, where items of original and early door furniture are fixtures included in the protection of a building, their removal may require planning permission.

CONSIDERATION OF PROPOSALS

10.3.11 Original or interesting items of ironmongery associated with a door should be identified and retained in situ. If security issues arise, they may be augmented with sensitively placed modern locks or hinges rather than replaced.

Fanlights, overlights and sidelights

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.3.12 Fanlights and overlights may be integral parts of the doorcase or may be housed in separate openings above the doorway. The doorway may also incorporate lights to the sides of the opening. These sidelights can not only be important decorative features of a protected structure but also play an important role in providing natural light to entrance halls. Some were designed to be openable to provide ventilation. Others contain integral lanterns. Fanlights, overlights and sidelights may be plain single openings, have simple timber glazing bars or contain elaborate metal-framed decorative glazed panels usually with lead cames on a zinc armature within a timber subframe. Some may have original iron security grilles internally, often decoratively worked.

CONSIDERATION OF PROPOSALS

10.3.13 Fanlights, overlights and sidelights of interest should be retained and repaired as appropriate to the materials. In situ repair is the least disruptive method and should generally be preferred. However, in some cases, it may be necessary for a specialist restorer to remove the light to a workshop for repair. Where works are proposed to fanlights, overlights and sidelights, the opportunity should be taken to re-route any later cables away from their subframes wherever possible. Internal iron grilles, where they exist, should be kept in position.

Porches and canopies

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.3.14 Original or early porches and canopies are important architectural features on many buildings and should be identified and retained. They may be constructed of timber, wrought or cast iron, brick, stone, glass or concrete. A similar feature is a porte-cochère which is a large porch designed to permit the through-passage of carriages or cars.

10.3.15 A porch or portico is an important feature of an elevation, particularly where it is associated with a significant entrance. Canopies over entrance doors are often important features in smaller, humbler buildings. Porches and canopies can be important features contributing to the character of an ACA.

Fanlights, overlights and sidelights may be integral parts of the design of a doorcase, contributing a decorative appearance as well as providing light to the interior; many are unique and, as they were handmade in small batches, fanlight details may be particular to a single street, square or town

Cabling should not be routed into a building through a fanlight frame, as the drilling causes damage and can exacerbate problems that arise at the bottom rail – already vulnerable to rain-driven moisture – eventually making repair inevitable. There are also obvious adverse impacts on the appearance of the fanlight from such cabling

Porches, although functional items, are often decoratively designed. Whether original or later additions, porches, such as the one illustrated here, often contribute to the special interest of a structure

10.3.16 Because features such as porches and canopies are usually exposed, they tend to suffer maintenance problems and, consequently, many have been demolished. Others may have undergone insensitive alteration in the past which has disguised their importance such as the installation of replacement roofs or windows. Surviving features are increasingly rare and are usually worthy of protection.

CONSIDERATION OF PROPOSALS

10.3.17 Where there is an open porch of a high architectural quality, as in many Neo-Classical or Gothic-Revival buildings, it should in principle not be glazed in but left open as originally intended. Where such glazing is proposed, it should be of considerable quality and reversible if possible. Where inappropriate glazing-in has occurred, its removal should be considered.

10.3.18 The removal of original canopies above entrances, whether constructed of timber, metal, glass or concrete, should not normally be permitted. Where porches or canopies are later additions to a structure and where they cut across or conceal work of a higher architectural quality, a judgement will have to be made on whether or not to remove the later work. However, if the later work has cut through a stone or brick façade, the visual appearance of the building following removal of the porch may not be desirable. In cases where a new porch or canopy is considered acceptable, it should be appropriate in design and materials to the existing building and should not detract from its quality and appearance.

Entrance steps and landings

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.3.19 Many historic structures have steps or ramps up to the entrance. These may range from highly detailed flights of stone steps with railings or balustrades to simple stone, concrete, brick or tiled single steps or thresholds.

10.3.20 Where bootscrapers survive, these should be protected. Different types may be free-standing, mounted adjacent to the doorway or incorporated in the wall of the building or into the railings.

CONSIDERATION OF PROPOSALS

10.3.21 Where the structure includes important entrance steps and landings, these features should be retained, even if the doorway they serve is no longer in use. They should generally be considered for removal only if they are modern alterations or additions subsequent to a subdivision of the building. Where there are worn or damaged stone

This porch has undergone at least one phase of alteration, although several elements of interest survive, such as point-arched cast-iron windows, strapwork gates and stone steps. Any proposed restoration of a porch such as this should be well detailed, based on good evidence and incorporate surviving features of interest

This aluminium canopy is an inappropriate addition to the early nineteenth-century doorcase. Any proposal to remove it should ascertain if the fixings have damaged any cut stonework that might survive beneath the modern render

Most flights of steps are designed to complement a doorcase, whether immediately fronting it or including a landing or terrace leading to the entrance. Balustrades, railings, flagstones or tiling, where found, are usually integral parts of the design

steps and landings which it is necessary to repair, the existing stone can be redressed by a skilled mason or indented with compatible stone. The maximum amount of the original stonework should be conserved. However, damaged steps and landings should not be built up in cement screed or similar inappropriate artificial compounds as this would alter their appearance.

10.3.22 Where there is a weathering problem connected with entrance steps and landings, specialist advice should be sought to overcome this. It should not be solved by covering the stone steps and landings with any waterproof coating material which would adversely affect their fabric or appearance.

10.4 Windows

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.4.1 The design of windows and the materials used in their construction make a significant contribution to the appearance and special character of a structure. Windows have historically been subject to changing fashions and advancing technology of glass manufacture so that an old building may exhibit a variety of window sizes and glazing patterns. Where different window types are important evidence of the building's history and contribute to its character and interest, no attempt should be made to standardise the fenestration. Surviving original proportions of glazing patterns should always be respected, even if these now differ from the adjoining buildings of similar style and date.

10.4.2 While most windows in older buildings are made of timber, windows are also found dating from the late-eighteenth century onwards made wholly of iron or which incorporate iron or brass frameworks. The traditional use of lead-based paints and the quality of the close-grained timbers used in the eighteenth and nineteenth centuries have ensured the survival of many historic windows. Many are well suited to being carefully repaired. Generally, paint is the correct finish for external joinery on buildings over fifty years old and for all historic metal windows, including fanlights. Staining and varnishing are rarely traditional finishes for external surfaces although scumbling (or wood-graining) is occasionally found. There may be rare cases where external joinery was originally unpainted, generally oak or mahogany, and where this is so it should be identified and protected.

Bootscrapers and other entrance features add character to the structure and are of social interest in themselves. Many have interesting design details and, like other handcrafted items, may be particular to a single street or area

The indenting or redressing of decayed or damaged step nosings may occasionally be necessary. Such work should be carried out by an experienced mason. In cases of minor damage, and providing there is no threat to the safe use of the steps, it may be sufficient simply to smooth broken edges and avoid major intervention

Coating stone steps in a waterproof material in an attempt to solve damp problems in the room below is rarely a successful solution. Apart from the unsightly nature of such work, it may cause the stone to decay from condensation from within the building or from moisture ingress through cracking of the coating

10.4.3 A variety of window types will be found in protected structures and buildings in ACAs. Some of the common types are listed below. In all types of windows, where regional characteristics exist, these should be identified and retained. The internal joinery associated with window openings is discussed in Chapter 11 below.

Sash windows

10.4.4 Vertically sliding timber sash windows are probably the most common type of window found in older buildings in Ireland. Many original sashes and frames survive which are over two hundred years old and still give good service. The quality of the original materials and craftsmanship of these windows means that they are usually capable of repair and, if so, this should be encouraged.

10.4.5 Examples of horizontally sliding sash windows are now rare and any survivals should be retained in situ.

Sash windows were used in Ireland for most building types from the end of the seventeenth century until the middle of the twentieth. In general the glazing pattern, the profile of the sash bars and the materials used reflect architectural fashions, the social status of the building (or its builder) and the available materials. The high quality and density of the timber available in the eighteenth and nineteenth centuries means that most of these historic windows are still capable of repair

The majority of sliding sash windows found in this country slide vertically and sashes that slide horizontally are rare; they are usually, but not exclusively, found in smaller structures such as cottages

Clues to the different phases of a building's development can often be found on subsidiary elevations; this house retains a very early eighteenth-century sash window on the top right of this photograph; the differences in opening sizes and sash details of the other windows are the result of several later phases of work

10.4.6 The number, arrangement and proportion of panes, the details of the glazing bars and frames and the presence or absence of horns, are important features of sash windows that should be respected, as should the opening methods. In many early windows, only the lower sash was weighted and the upper fixed. Where early examples of sash windows with exposed sash boxes survive they should be retained and not replaced with rebated windows. Late eighteenth and early nineteenth century Georgian-Gothic sash windows in pointed arched openings often had curvilinear glazing bars to the upper sash. Where these survive they should be retained. Later styles included the use of smaller glazed panes to the edges of the sashes called 'margin lights'. The margins are often, but not always, glazed with coloured or patterned glass. Where these survive, they are of interest whether or not they are original to the building or to the opening.

Casement windows

10.4.7 Early lead-glazed casement windows, predating the arrival of the sash window in the late seventeenth century, are extremely rare in Ireland and every effort should be made to retain surviving examples in situ. The use of casement windows was revived in the nineteenth century and examples are to be seen in late-Georgian, Victorian and later buildings with timber or metal frames. These are often glazed with small diamond or square quarry panes. French windows are a version of a casement window where the casements are carried down to the floor level and open like doors. Where casement windows are original or early replacements of quality, they should be retained, and repaired where necessary.

Blocked, blind and dummy windows

10.4.8 Blind or dummy windows are a feature of many important buildings and structures. These are imitation window openings, usually the size and shape of adjacent openings and with similar head, sill and reveal details. They were used as a decorative device to give symmetry to the façade of an asymmetrically planned building. The blind or dummy window may contain a plain rendered, brick or stone panel. More elaborate versions can contain fully glazed fixed timber sashes set in the masonry panel. Where blind or dummy windows exist, they are usually an integral part of the elevational design and should be retained.

10.4.9 Blocked-up window openings are of historical interest particularly in informing an understanding of previous uses or forms of the building. Where they exist their presence should be recorded and analysed.

The use of arched openings and the arrangement of glazing bars in decorative patterns helps to enliven facades and adds character to a structure

Casement windows, although widely used in many countries, were seldom used in Ireland after the arrival of the sash window in the late-seventeenth century. Eighteenth- and nineteenth-century casement windows, whether of timber or metal, generally open inwards, excepting French windows, which open out onto terraces or balconies

Fully-glazed blind windows such as this example are rare; they may be deliberately designed to ensure symmetrical fenestration (for example, where the plan form did not permit a window), or could represent later blocking of openings. It is commonly thought that openings were blocked to avoid paying window tax, which was in force between 1799 and 1851, however in Ireland there is little evidence to support this theory

Mullioned windows

10.4.10 Mullions can be found in conjunction with transoms in cross-windows or as the vertical dividers in tripartite or bipartite windows or in bay windows. These mullions can be of stone, rendered brickwork or of timber, sometimes decoratively treated. The lights can be fixed, casement or sash. The proportioning of the subdivisions of mullioned windows is an important element in the overall design of a building and should be conserved.

Metal windows

10.4.11 Seventeenth-century leaded lights were glazed into wrought iron frames and are now extremely rare. Cast-iron windows first appeared in Ireland in the early nineteenth century. These are commonly glazed with diamond quarries in casement or pivot lights, although wholly cast-iron sash windows are also occasionally found.

10.4.12 Most examples of steel-framed windows in Ireland date from the first half of the twentieth century. Steel-framed windows with horizontally proportioned panes were characteristic features of buildings of, or influenced by, the Modern Movement in architecture. When these window frames are removed and replaced with frames of different materials, proportions or sectional profile, much of the architectural character of the building is lost. Where metal-framed windows are important to the character and quality of a structure that is protected, they should be repaired or, if beyond repair, their replacement on a like-for-like basis should be encouraged.

Window ironmongery

10.4.13 Original sash fittings include meeting rail catches, weights and pulleys, or quadrant catches where weights were not used. Casement latches, hinges and fasteners, where they survive, are features of interest. They should be identified and retained in situ. If security issues arise, existing window ironmongery could be augmented with sensitively placed modern locks rather than replaced.

Balconettes, window boxes, external blinds

10.4.14 Wrought or cast-iron balconettes, window boxes and sill guards are important architectural elements contributing to the interest of a building and should be retained. Other features such as early or original external shutters, blind boxes and window canopies should be identified and retained.

Mullions, sometimes together with transoms, were used to divide larger openings into manageably-sized sashes or casements. As with these Arts and Crafts style leaded casements, mullioned windows were usually designed consciously to contribute to the appearance of the structure

Cast-iron sash, casement, pivot and fixed windows were often designed more for function than beauty, but occasionally cast-iron windows of subtle elegance are found and where this is so, they may be the most important element of the façade

The design of Modern Movement windows represented a clean break with the past; often favouring horizontal lines and thin steel frames. Such windows are an integral part of the original design of an early or mid twentieth-century structure and replacing them in other materials and to different profiles almost always detracts from the character of the structure

Original and early window furniture and mechanisms can provide information about the history of the window. As fixtures of interest, they may be included in the protection of the building so that, even if they have been – or are about to be – supplanted they should be retained in situ

Balconettes and other external fixtures associated with windows were often more ornamental than practical, designed as part of the aesthetic of the structure or added later. Even where not in use they should be retained as part of the original design or as evidence of a subsequent fashionable alteration

CONSIDERATION OF PROPOSALS AFFECTING WINDOWS

10.4.15 The visual impact of alterations to the windows of a historic structure can be significant. Proposals to remove, replace or otherwise alter historic windows should be given close attention. Where repairs are proposed, these should preferably be specified on a window-by-window basis as the extent of repair can vary widely depending on weathering and other factors.

10.4.16 Repair and repainting of historic windows should be carried out with due care for the joinery or metalwork and any original or early glass and for the appearance and character of the structure. Where proposals are made to paint windows, care should be taken to establish the original finish before applying paint to unpainted joinery. Methods and specification of repainting should be approved by the planning authority before works commence. It is rarely appropriate to remove paint from historic timber windows by immersion (see 11.3.9 below) or to remove paint from glazed lights using a heat gun.

10.4.17 Replacement of sashes or entire windows should only be permitted where the existing windows are missing; are verifiably decayed beyond repair; or are themselves inappropriate recent replacements. Replacement windows should be of appropriate material, design and detail and approved by the planning authority prior to any work commencing. The complete replacement of such elements in historic buildings should rarely be permitted where they are capable of repair.

10.4.18 Plastic and aluminium are inappropriate materials for replacement windows in historic buildings (unless these materials can be proved to have been used originally).

10.4.19 It is of importance to the character and appearance of a structure that fenestration patterns are protected. Where replacement windows are permitted, the materials, glazing divisions and sectional profile of the new windows should be appropriate to the date of the protected structure or to the date when the opening was made. If the latter, the design should be judged on its contribution to the protected structure.

While windows are vulnerable to the impact of the weather, it is rare that a whole window is affected to the extent that complete replacement is necessary. Repair by splicing and piecing is a traditional method of prolonging the life of timber windows, and many joiners still specialise in this work (this window is shown after repair). The high quality of the timbers used historically means that it makes economic sense to leave unaffected elements in place, as they have proven their longevity, having withstood centuries of use

While the recent sash windows on the upper floor of this house seem reasonably accurate at first glance, the joiner or designer did not base the detailing on the surviving original sashes on the ground floor. The replacement windows are made to a thicker profile and have horns which the original sashes do not. The inclusion of horns is a common error made in fabricating new sashes. In this case the original windows predate the use of horns, which did not become standard until the second quarter of the nineteenth century

Where clues survive as to the correct detailing of a replacement window they should be followed in order to fabricate a historically-accurate new window. In the case illustrated here, evidence of the detailing of the original central sashes existed in the blind side lights but was ignored

From the middle of the nineteenth century a hierarchy of glazing within a single building became common: newly-available, but expensive, plate glass was used on the principal floor with smaller paned windows at the basement and upper floors. This arrangement was often original to the building and should be respected and plate glass sashes not mistakenly 'restored' as small-pane windows

10.4.20 Replacement windows should replicate the opening method of the original windows. Top- and bottom-hung or pivot windows are not suitable replacements for sliding sashes or side-hung casements. Their use will disrupt the visual integrity of a historic building and its setting and can be detrimental to the character of an ACA.

10.4.21 Where replacement of existing windows has become necessary, the opportunity may arise to consider the replacement of later, inappropriate or damaging alterations and allow for the installation of new windows whose design is more appropriate to the structure, or to the ACA. This is particularly relevant in unified terraces of buildings where inappropriate replacement windows have damaged the character of the entire group of buildings. However, such restoration should always be based upon firm evidence of the original design of the window using old photographs, drawings, or other reliable information, such as surviving original windows in the neighbouring buildings. Caution should be exercised as some past alterations may contribute to the cumulative historical interest of a building and should not be erased without due consideration of all the consequences. For example, improvements in glass-making technology led to a fashion in the latter part of the nineteenth century for replacing small-paned sashes with single panes of plate glass. These single-paned sash windows can now be seen as part of the historical record of the building and should only be permitted to be replaced after careful consideration by the planning authority.

10.4.22 The reopening of blocked windows may be appropriate in cases where this re-establishes the elevational design of the building. But an assessment needs to be made as to whether or not the blocked opening was part of the original design, such as a blind window, or part of alterations to the structure where the earlier opening may no longer relate to the present form of the building. Previously blocked openings should not be opened up where it would lead to the disturbance or destruction of later interior work of quality.

10.4.23 The erection of new external blinds and canopies should generally not be permitted where there is no evidence that they previously existed and when their effect on the appearance of the building and its setting may be considered damaging. The removal of redundant blind boxes should generally not be permitted where they contribute to the character of the structure or area.

10.5 Glass and Glazing

IDENTIFYING SPECIAL FEATURES FOR PROTECTION

10.5.1 All old surviving glass is important to the character and quality of a historic building. Historic plain glass types include blown cylinder glass, blown crown glass and blown or cast plate glass. Decorative uses of glass include stained glass, painted glass, coloured glass or old glass. Old glass may have early, etched inscriptions on it, adding to the importance of the glazing.

By its delicate nature, thinly blown historic glass is vulnerable to damage, making it remarkable that so much survives. The irregular surfaces of plain glass, naturally highly polished, contort reflections and add considerable character to the buildings and streets where historic glass is found

Crown and other plain glass

10.5.2 The irregularities and imperfections of handmade glass cannot be replicated with modern float glass and are essential to the quality of the historic window. Where crown, cylinder or early polished plate glass survives, its existence should be recorded. All original or early glass should be protected and retained.

Stained and painted glass, decorative zinc-framed or leaded glass

10.5.3 Individual pieces of stained, painted or coloured glass set in lead or zinc cames (used in H- or T-section strips respectively which hold the pieces of glass in place) are usually associated with church architecture. There are, however, many fine examples of stained, painted or coloured glass decorative panels in public buildings and in doors, fanlights and windows of houses, often within margin lights. The windows of many late Georgian churches and other buildings were glazed with leaded panels or cast-iron glazing bars containing clear glass quarries.

CONSIDERATION OF PROPOSALS AFFECTING GLAZING

Crown and other plain glass

10.5.4 Where old or interesting glass has been identified in a protected structure or in another building, such glass should be retained and protected during the building works. Where repairs are necessary to the window frames, the panes can be carefully removed and reset by a specialist. If a window is decayed beyond repair, the original glass can be removed with great care and set aside for re-use in repair work elsewhere within the same building. Small corner cracks should not be used as a reason to remove early panes of plain glass. Badly-damaged panes of significance, such as bullseye panes or those with inscriptions, can be plated with a thin glass layer and retained in place. The use of ultra-violet protective film on historic glass should be avoided particularly where the glass is thin.

10.5.5 Where the loss of historic glass in a prominent location would significantly affect the character of a protected structure or an ACA, the planning authority could make it a condition that damaged panes are replaced with new handmade panes.

Stained and painted glass, decorative zinc-framed or leaded glass

10.5.6 The repair and cleaning of artistically or historically important glazing, such as stained glass or painted glass panels, is the work of specialist conservators. Where it is proposed to carry out works to stained

Historically, the aim of glassmakers was to create perfect, uniform glass panes which, until recently, was not achievable with the methods available to them. Modern float glass is perfectly uniform but, as a result, without character. It is the very imperfections of handblown glass such as bubbles, undulations or tints, once seen as faults, that are now prized. In fact, historic glass is irreplaceable. Crown glass is no longer made as the skills to blow and spin thin crowns have been lost, while few makers still produce cylinder sheet glass

Stained glass comes in many forms, from finely-detailed floral patterns in a domestic building – as in this example – to illustrative panels by internationally important artists in public buildings

Most of the panes of this window, which will need maintenance as part of a larger project to repair the whole structure, are of cylinder sheet glass. Some are cracked while a few are missing. If timber repairs are necessary the glass should be carefully removed from the frames by one of several methods, securely stored and reglazed on completion, sealed with putty. Historic glass should always be adequately protected during general building works, even where no window repairs are proposed

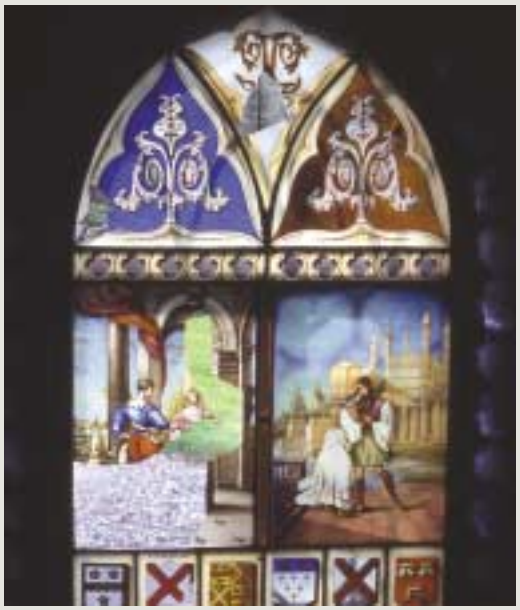
or painted glass windows, the applicant should show that the proposed work is necessary and will involve the minimum intervention and replacement of historic material. Re-leading of panels should not be seen as routine and the buckling of leaded windows is not, in itself, a conclusive indication of a need to undertake re-leading. The repair of leaded-glass panels should preferably be carried out in situ. It is often acceptable to allow cracks in the glass to remain unrepaired and for small holes to be filled in situ. However, there may be cases where serious problems warrant the removal of the panel to an off-site workshop for repair. Before any works are carried out, the window should be recorded in situ with photographs, drawings or both. Alterations that involve the insertion of inappropriate modern panes into a window should not be permitted.

Modern forms of glazing

10.5.7 The use of modern wired glass, obscured glass, tinted glass or louvred glass panels or the insertion of extract fans, air-conditioning units and similar devices on prominent elevations should generally not be permitted.

10.6 External Protection

10.6.1 New external protection may be proposed to protect historic or interesting glass from breakage or from damage by the elements. Where this is the case, this protection should be provided in a way which is reversible and as unobtrusive as possible. The protection should not be made or fixed in a way that will damage the fabric or appearance of the structure or window. For example, the rusting of metal grilles or run-off from copper or iron fixings could cause damage to the fabric. The creation of unventilated cavities behind external secondary glazing panels can encourage excessive and damaging heat build-up or allow condensation to occur on the face of the historic glass. Where secondary glazing is proposed, the applicant should indicate how the original glasswork is to be ventilated.



Decorative panels of stained, painted or etched glass should be retained in situ until repairs are specified and carried out by experienced stained glass conservators, as unnecessary removal or poorly-detailed restoration could cause damage and possibly devalue the artistic work. If necessary, the panels should be protected (outside and inside, but with adequate ventilation), and all broken pieces stored carefully until professional help can be obtained

The insertion of new extract fans, louvres and the like should generally be confined to basements or minor elevations; however if the basement was designed as part of a principal elevation, as is the case in this structure, or is visible from the street or on the approach to the structure, then such additions should be avoided. The addition of items that would necessitate altering the frame or structural opening of a historic window should also be avoided, even on secondary elevations

10.6.2 The installation of secondary glazing to the exterior of windows can be visually obtrusive and proposals should be given careful consideration. The appearance and character of the building will be harmed by the use of plastic sheeting that can surface-craze or become opaque through exposure to the elements. This sheeting is also highly flammable and its use should not be permitted near valuable glass where the exterior is accessible to vandals. The appearance of the external protection will be enhanced by requiring it to be formed to fit the shape of the opening and any tracery while allowing for sufficient ventilation.

10.7 Improving the Thermal Efficiency of Historic Openings

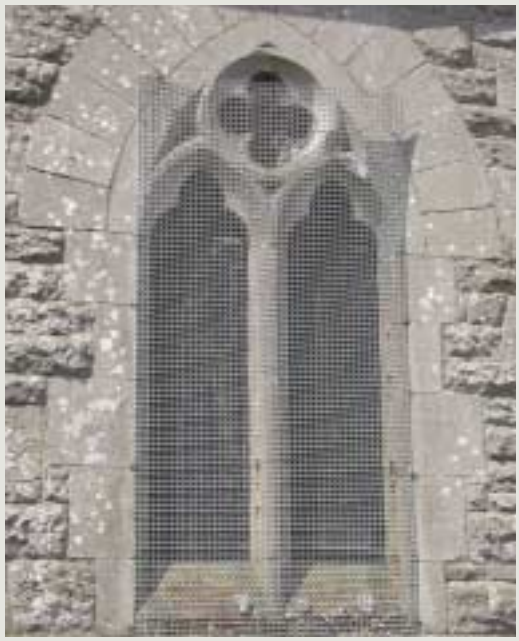
Draught-proofing

10.7.1 Simple draught-proofing is usually the most acceptable method of improving the thermal efficiency of historic windows and doors. However, some caution should be exercised. Most draught-proofing systems have a shorter life-expectancy than the historic window or door frames themselves and so the installation of draught-proofing, which often requires routing out of sashes and frames, should not take place to the detriment of the existing joinery.

10.7.2 The installation of draught-stripping measures to openings should take account of the age, importance and suitability of the element for such work. The measures used should not compromise the condition of the fabric nor unacceptably alter the appearance of the element.

Double-glazing and secondary glazing

10.7.3 The installation of double-glazing to protected structures is problematic and should generally not be permitted where original or early windows exist. The installation of double-glazed units into existing openings, even where the existing window frames are not of any special interest, may not be visually acceptable and can rarely be achieved without making unacceptable changes to the profiles of the frames arising from the depth of the double-glazed units. It also makes the sashes much heavier and could strain the joints. The use of false spacer bars or bars applied to the interior or exterior is usually visually unacceptable. Additional problems may arise as many old buildings suffer from condensation problems following the installation of airtight windows.



This grille, possibly only intended as a temporary measure, is nevertheless damaging to the appearance of the window and the building as a whole and its fixings are starting to fail. If protection is indeed necessary – a question all custodians of stained glass should first ask themselves – the use of black coated stainless steel grilles would be preferable, shaped to fit each lancet and tracery light

In this case, the external secondary glazing is shaped to fit each light; however its design has two serious drawbacks: the adverse visual impact on the structure and, the potential to cause physical damage to the glasswork arising from the lack of ventilation of the cavity between the historic glass and the new protective layer. The micro-climate created between glass and outer glazing by the lack of ventilation can lead to the distortion of the lead matrix and damage to glass and paint from organic growth

10.7.4 Internal secondary glazing may be considered acceptable where the installation can be reversed without damage to elements of the historic fabric of the building, such as panelled shutters and the like. Secondary glazing can provide some thermal insulation and is usually a more effective means of providing sound insulation than double-glazing. A method should be designed to allow for the use of internal shutters where these exist. It should be borne in mind that there may be the possibility of unacceptable reflections from the secondary glazing when viewed externally. This may affect not only the character of a protected structure but also have an adverse effect on the character of an ACA.

Sealing measures generally

10.7.5 The fabric of older buildings was generally designed to allow for the absorption of moisture from the ground or from rainwater and its subsequent evaporation from the surface or through the natural ventilation of the interior of the building from open fireplaces or unsealed windows and doors. Measures to seal an older building can result in moisture being trapped within the building or within its fabric. This can lead to damage of the fabric and finishes of the building by condensation or by promoting fungal attack. For this reason, the proposed insertion of sealed units such as uPVC windows and doors into a historic building, even where the original elements have previously been lost, should be treated with great caution.

A draught-proofed window should not be visibly altered by the work, except on close inspection, as the patented strips inevitably make a small difference. It should be borne in mind that in most cases the brush or pile-edged parting bead is of white plastic, which limits the colours the sash window can be painted without making it unduly visible. The work should also be finished off well, retouching any disturbed paintwork, but the pile or brushes must not be over-painted as this could render them ineffective

Well-designed and fitted secondary glazing will provide a measure of both heat and sound insulation while allowing the historic window to remain intact. Two main aspects of the design should be carefully considered so as to limit both the aesthetic and physical impacts: the visual effect of the proposed glazing (this example is visually obtrusive from both the street and the interior of the building) and the means of fixing. Internal window shutters should not be disabled by the works and the glazing should be removable without damage to the historic fabric