

Conservation and Design Guidance Note 3

WINDOW REPAIR AND REPLACEMENT

WINDOWS IN LISTED BUILDINGS

This guidance note sets out the key considerations when considering the repair or replacement of windows in a listed building:

Is it possible to repair traditional windows?

Yes – and it is good building conservation practice to retain the historic fabric of a building wherever possible. Repair is always recommended rather than replacement, even in later windows. Repair also allows for the retention of historic glass where it is still present (care should be taken to retain historic glass when carrying out repairs).

For sash windows, joiners and specialised sash window renovation companies offer repair and upgrading services (see below regarding draught proofing).



Often, windows that have not been decorated for some time can appear in poor condition whereas in fact re-decoration and re-puttying may be all that is needed. If further intervention is required, timber repairs can be carried out, such as splicing in new sections of wood to replace decayed parts. Or, it may be that either the frame or casement / sashes (the parts that are glazed) need to be replaced, rather than the whole window.

Left: A timber repair to a sash window (image from Historic England)

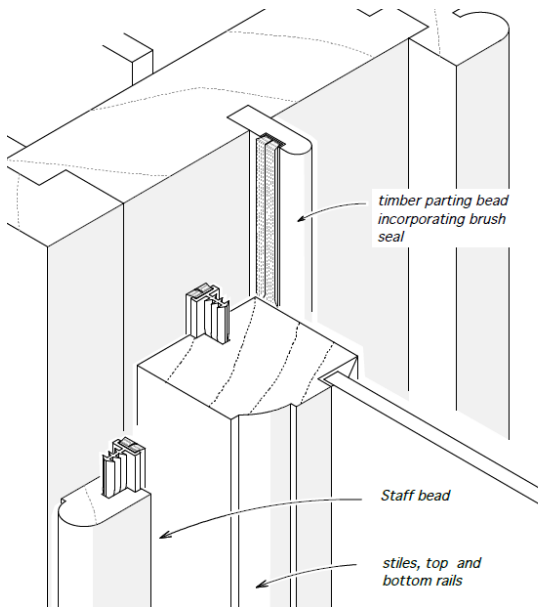
In order to determine the reparability of a window, it is strongly recommended that window renovation companies and joiners who specialise in window repairs be approached so that they can advise on the condition and reparability of the windows.

Regular maintenance is key to conserving windows and prolonging their life, for example:

- Regular re-painting.
- Replacement of decayed putty (with linseed oil putty).
- Making sure the joint between the frame and masonry is sealed. The use of haired lime mortar and/or burnt sand mastic (baked sand and boiled linseed oil) is the traditional method for closing the window-to-wall gap. Modern mastic sealants and foam fillers should be avoided as they can trap moisture.
- Checking that masonry surrounding the window opening is not damp – if so, eliminate the source of the damp.

Can I upgrade the energy efficiency of existing windows?

Yes – For example, the re-hanging of a sash window can make a significant difference to both the operability of the windows and also acts as a means to eliminate draughts. In addition, the fitting of draught proofing strips in the frames of any windows can make a significant difference.



Left: Image of the interior frame of a sash window showing how draught proofing strips can be inserted in order to eliminate draughts (Historic England)

Such repairs and draught proofing measures can usually be carried out without the need for listed building consent. Please note that when installing draught proofing strips, parting and staff beads should be in wood and not plastic.

The introduction of secondary glazing that is of a slim frame and matches the proportions of the opening parts of the window does not normally

need consent. This allows the existing windows to be retained whilst improving energy efficiency. The addition of secondary glazing can also reduce heat loss by nearly 60% (and is also effective in reducing sound transmission). In multi-paned windows, secondary glazing will generally be more thermally efficient than replacing the existing glass with double glazing due to thermal bridging through the frame and glazing bars.

The use of original timber internal shutters or heavyweight curtains and blinds will also assist in reducing heat loss through the windows at night time.

The introduction of double glazing is another means of enhancing energy efficiency - this is discussed below.

When can I replace windows in a listed building?

It is good building conservation practice to retain the historic fabric of a building wherever possible and therefore the removal of historic windows will be resisted by the council unless they can be shown to be completely beyond repair.

Where old glass is present in historic windows, this will add weight to the resistance of replacing windows as such glass is considered to be of special interest and value to the significance of the building.

In determining whether the windows need replacing, an assessment should first be carried out of the potential for the windows to be repaired (ideally by window renovation companies and joiners who specialise in window repairs). This will then inform a scheme of either repair or replacement of the existing windows.

A window is likely to be considered to be beyond repair if a significant extent of the woodwork is rotten and requires replacing, for example, both in the frame and sash/casements (the opening parts), to the extent that the integrity of the window would be wholly undermined by the required repairs.

If the existing windows are modern and not of significance to the building, there will be less resistance to replacement; however, in the interests of sustainability, it is recommended that repair is still investigated.

Listed building consent must be obtained before replacing windows in a listed building, please see below for more information.

Can I change the style of the windows in a listed building?

This may be possible in some cases. However, replacement should usually be on a like for like basis. Therefore, if the existing windows are single glazed windows of traditional joinery details (for example, flush fitting, side opening casements made of a timber frame) then this is what the existing should be replaced with. Frame dimensions and glazing bar types should be replicated.

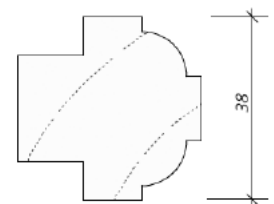
It should be noted that like for like is often misunderstood and the correct detailing of windows is critical to achieving a like for like window.

For example, glazing bar types are indicative of the age of an historic window (see diagram to the right, ©Historic England) and therefore it is important to replicate the glazing bar accurately.

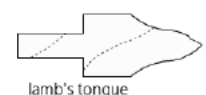
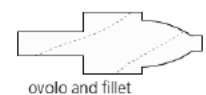
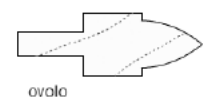
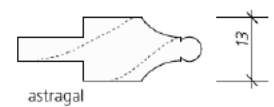
If the existing windows are inappropriate modern insertions and an improvement could be made by the insertion of a more traditional type, then this is another instance when a change in window style would be possible.

If the windows of a building are not original to the building but are still historic, it is unlikely to be considered acceptable to revert back to the original style. This is due to the desirability of retaining the historic fabric of the windows and also because the historic changes are considered to be of significance to the building.

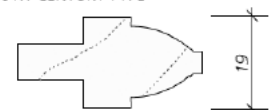
TYPICAL GLAZING BAR PROFILES
LATE 17TH- TO EARLY 18TH-CENTURY TYPES



EARLY 18TH- TO EARLY 19TH-CENTURY TYPES



LATE 19TH-CENTURY TYPE



Can I install double glazing in a listed building?

For listed buildings, double glazing is not usually considered to be an appropriate replacement (either when considering replacing the whole windows, or just the glass. uPVC is never considered to be an acceptable material for a listed building. This is because of the difficulty in replicating traditional joinery details (such as glazing bars) and the change in character of the glazing itself, which can never result in a window of true, traditional character. However, there may be scope for double glazing if:

- The requirements of the council's policy relating to double glazing are met. This policy sets out that double glazing will only be allowed where: the existing windows are of no heritage value and are beyond reasonable repair; and, the installation of secondary glazing is not feasible; and, habitable rooms in the listed building are close to sources of constant noise from outside which create unacceptable conditions for the occupier. These requirements can be found within our Heritage Management Guidance Supplementary Planning Document (SPD) - chapter 8, page 85. The chapter can be found here: [Heritage Management Guidance - Chapter 8](#)
- Otherwise, an enhancement will be gained from being able to insert traditionally detailed, double glazed windows in instances where existing windows are inappropriate in material and design, are of no historic value and on the whole are harmful to the appearance of the building.

In line with our SPD, where double glazing is considered to be acceptable, such double glazed windows would need to have:

- Double glazing units that are 12mm or less in thickness.
- Frames and glazing bars of thicknesses and profiles that are appropriate to the listed building. This is a particularly important consideration where existing glazing bars are very narrow and the specification of double glazing requires a minimum width of glazing bar that is significantly greater than the existing.
- An appropriate opening method.
- Glazing that is held in place by putty / putty compound rather than timber beading.
- Glazing bars that are integral rather than applied to the face of the glass or between the panes of glass (applied glazing bars are not acceptable).
- Inner spacer bar that is black or colour matched to the paint colour of the window.
- Have either standard float glass, or if agreed, historic forms of glass, such as cylinder and hand drawn.

If an owner wishes to pursue a listed building consent application for double glazed windows (or replacement of the existing glass with double glazed units), it is strongly recommended that a pre-application enquiry is first submitted to the council, in order that a thorough assessment of the proposal can be made and appropriate advice provided. Details of this service can be found online at:

[Pre-Application Enquiry Service](#)

Proposals for double glazing where the existing windows are leaded lights or stained glass are often problematic, because either it will result in the existing glass being lost, or some form of encapsulation is required in order to accommodate the double glazing effectively. Such encapsulation is not usually considered acceptable on listed buildings.

Double glazing, to appropriate detailing and design, would also be acceptable on extensions that comprise a large proportion of glazing, such as a conservatory extension or an extension of contemporary design.

****Important Note**** When considering double glazing in order to improve thermal efficiency, it is good conservation practice to not just look at this intervention in isolation – a whole house approach should be taken to improving energy efficiency. This involving looking at the building's own environment, construction, condition and historic significance and all the factors that affect energy use. More information can be found on [Historic England's website](#)

How do I apply for listed building consent?

Listed Building Consent is nearly always required and should be obtained before replacing the windows in a listed building. This is a similar process to planning permission (an application taking 8 weeks to be determined) but there is no fee. It is recommended to first submit a pre-application enquiry to the council in order that we can give advice on what type of windows would be acceptable, but this is not mandatory. This pre-application service carries a fee. Further information can be found here: [Pre-Application Enquiry Service](#)

Please note that Listed Building Consent is required for works of alteration or demolition to a listed building - carrying out unauthorised works (i.e. not first gaining listed building consent before starting the works) to a listed building is a criminal offence and individuals can be subject to enforcement action and potentially prosecution.

It is important that the correct level of information is submitted with the application. This should include:

- Listed Building Consent application form.
- Heritage Statement – this should describe the building (the list description is a good starting point), set out what it is you want to do, why you consider it appropriate to the character / significance of the listed building / how it has been designed to conserve that character / significance.
- A means of identifying the location of the windows to be replaced (an elevation drawing or photo of the elevation, for example).
- Scale drawings of the replacement windows – to include an elevation drawing, horizontal and vertical sections (at a scale of 1:10 or 1:5, as appropriate) and a glazing bar cross section (at a scale of 1:1). The drawings shall make clear the

relationship of the window to the window opening (to show the proposed reveal).
Confirmation of materials and finishes.

- If a change in window style is proposed, existing and proposed scale elevation drawings of the building will also be required.
- A report on the condition of the existing windows by an adequately qualified professional experienced with the repair of traditional windows, pertaining to why it is not possible to repair them in the form of a condition report (this is particularly important if the existing windows are historic) and which sets out the cost differences between repair and replacement.
- Other items such as scale location and site block plans. Details of these can be found online at: [Validation Manual](#)

The application can be made online at: [The Planning Portal](#) or using our application form, which can be found on this webpage: [Planning Application Forms](#)

FUTHER READING

For further guidance, this is a link to a Historic England document that contains useful guidance on repair, upgrade and replacement of windows:

[Traditional Windows - Their Care Repair and Upgrading](#)

For detailed guidance on repairs, see SPAB Technical Advice Note: Repair of Wood Windows:

[Technical Advice Note: Repair of Wood Windows](#)

Additional advice on windows and in general on alterations to listed buildings can be found within the council's Heritage Management Guidance. This can be found online through the following link (please see chapter 8 within section 5 on the webpage):

[Heritage Management Guidance SPD - Chapter 8](#)

Other conservation and design guidance notes

Additional conservation and design guidance notes are available:

Note 1 – Rooflights

Note 4 – Non-Designated Heritage Assets

Note 5 – Conservation Areas

Note 6 – Curtilage Listing

Note 7 – Stone Slates