



Maintaining windows in conservation areas Repair, Replicate, Replace

The **Wood Window** Alliance



**WOOD. AT THE HEART
OF A GOOD WINDOW**



Maintaining windows in conservation areas

The visual character of our conservation areas is under threat from unsympathetic replacement windows and doors.

Although local authorities have the powers available to prevent this degradation, they appear to lack the resources or political will to use them. This is despite good evidence that maintaining the character of an area has a direct relationship with increasing its prosperity.

There is also an apparent conflict between the aims of government policies, with conservation officers and building inspectors at odds over authenticity versus energy-efficiency.

This conflict can be simply resolved by fitting a replacement window that combines modern levels of energy-efficiency with authentic materials, period detailing and value for money.

Windows and the character of a building

Windows are one of the most important design features of a building. Even small changes have a significant effect on its appearance. The position of the window in the opening, the proportions of the sashes, the arrangement of the opening lights, the thickness and profile of glazing bars and rails, the joints, the frame material, even the glass itself, all have an effect on the appearance of the window and its appropriateness.

We've all seen the damage unsympathetic replacement windows can make to buildings. English Heritage recently carried out a survey among 360 local authorities of the state of conservation areas. One in seven were deemed to be 'at risk', meaning it has deteriorated over the last three years or is expected to do so over the next three years. The biggest single threat was seen as 'unsympathetic replacement doors and windows' (in 83% of conservation areas).

But it's not only conservation areas that have suffered. Walk down almost any street in the country and you will see the damage done.

Windows and the value of a building

A well-presented home is worth more than one that shows signs of neglect or an inappropriate 'make-over'. A national survey of Estate Agents carried out by English Heritage found that 'Unsympathetic replacement windows and doors, particularly plastic/PVC-U, are the single biggest threat to property values in conservation areas'.

Claims of energy-efficient double glazing and maintenance-free frames might look tempting. And the initial price might look right. But maintaining the authenticity of a building's windows is a much better long-term investment.



Conservation areas and what they mean

Since being introduced by the 1967 Civic Amenities Act, some 9,300 conservation areas have been designated across England to preserve the special character of places, not just in historic cities and market towns, but in the suburbs, former industrial quarters and villages.

Within a conservation area, the local authority has extra controls over:

- demolition
- minor developments
- the protection of trees

Minor developments

If you live in a conservation area, you have to obtain permission before making changes which would normally be permitted elsewhere, to ensure that any alterations do not detract from the area's appearance. These changes include certain types of cladding, inserting dormer windows and putting up satellite dishes which are visible from the street.

Article 4 Directions

Under legislation introduced in 1995, local authorities can make further restrictions on the kind of alterations allowed, depending on how these might affect the key elements of buildings in the conservation area. Examples include putting up porches, painting a house a different colour, or changing distinctive doors, windows or other architectural details. The local authority has to have good reason for making these restrictions, and must take account of public views before doing so. These restrictions are called Article 4 Directions.

The English Heritage survey found that:

- Only 13% of conservation areas have an Article 4 Direction which can prevent plastic windows and doors and other small-scale but damaging changes
- Only 54% of conservation areas have an Appraisal, or one in the making. These identify what is special and needs protecting and help in the area's management
- Only 36% of conservation areas had seen enforcement action within the last three years requiring unauthorised works to be rectified.

Yet the survey also shows that conservation areas with Appraisals or Article 4 Directions are almost twice as likely to improve in the next three years as those without.

What's wrong with the existing windows?

Most timber windows have been replaced because the homeowner has wanted to reduce energy bills by installing double glazing and thought that the only solution was to use PVC-U replacements. They also believe that the so called maintenance-free benefits of the material will negate the need for any future work to keep the windows in good condition.

In doing so, they will have altered the overall character of the building and are likely to have reduced its value. It is rarely the case that timber windows have deteriorated beyond economic repair, although some frames manufactured from poor quality sapwood in the decades after the war may well need replacing. Many Victorian and Edwardian windows are still in good condition today.

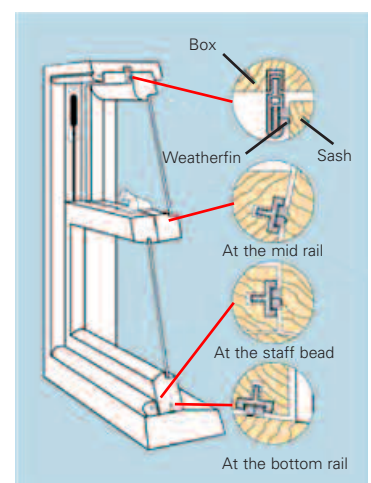
Whether it's because of energy-efficiency, draughts, poor decorative condition, inoperative sashes, or general disrepair, it's important to follow the three 'Rs'.

In the first instance, consider repair. If repair is not feasible, it will be necessary to replicate the existing windows in historic or listed buildings. In conservation areas, it is possible to replace existing windows with modern energy-efficient timber equivalents which mimic the original and maintain the character and value of the building. And with modern paint systems, any maintenance of the window need not be required for 7 to 10 years after installation.

Repair

Repair is the first option to consider when seeking to maintain the character of a building, particularly as the original glass can be retained.

Sections of the frame which are no longer sound can be cut out and replaced. Sashes can be freed, cords replaced and draught-proofing materials added discreetly.



Maintaining windows in conservation areas

Simple energy-efficiency measures, such as draught-proofing, shutters or curtains can make a significant improvement to the energy performance of old windows. Secondary glazing is also possible, but cleaning is often difficult and care must be taken to ensure glazing bars match the windows' bars. Secondary glazing also affects the appearance of the inside of the window.

English Heritage has released the findings of a study into the thermal performance of traditional sash windows using a 2 x 2 timber sliding sash window dating from the 1880s which had been rescued from a skip. The results showed that even the simplest repair and basic improvements will bring significant reduction of draughts and heat loss, and that using a combination of these methods will upgrade a window to meet Building Regulations targets.

The key findings are:

- Simple repairs to mend cracks and eliminate gaps can significantly reduce the amount of air infiltration or draughts
- Air infiltration through a sash window in good condition can be reduced by as much as 86% by adding draught proofing
- Heat loss through contact with the glass and frames can be significantly reduced by adopting simple measures like closing thick curtains and plain roller blinds. In the study, heat loss was reduced by 41% and 38% respectively
- In a test with good quality secondary glazing, this value was 1.7. Well-fitted, closed shutters, also produce similarly good results.

Replicate

If repair is impractical, the best option for historic or listed buildings is to replicate the exact design of the existing windows. This isn't cheap, as it involves real craftsmanship, and will probably (but not necessarily) involve losing the character of the original glass.

Members of the Wood Window Alliance have the expertise necessary for this speciality and are able to supply exact replicas, even down to the customary putty glazing or the specification of hand drawn or crown glass.

Particular care is given to the detailing of traditional sightlines and elegance of glazing bars and beads which can only be achieved in wood. Sliding or box sash windows are produced using conventional cords and weights with brass pulleys and ironmongery.

Replace

For houses in conservation areas, where repair is impractical, replacement with a Wood Window Alliance factory-made timber window is the best alternative.

PVC-U windows should never be considered.

It is important to replace like with like, whether a steel window in an Art Deco semi, or a timber window in most period dwellings. Other materials don't have an authentic appearance, or feel; the finish won't be the same, the profiles, the joints, the hinges – the small details which end up making all the difference.

The right replacement window will combine all the performance benefits of a modern window with the authentic look and feel of a traditional window. And, because they are factory-made, with factory-applied paints and glazing systems, they offer a long service life of over 60 years, with simple maintenance, providing excellent value for money.

Modern replacement wood windows will combine authenticity with modern demands such as high energy-efficiency, security, low maintenance and a reassurance that they will last 60 years or more.



The Wood Window Alliance

Not all replacement timber windows will have the right appearance or performance. But members of the Wood Window Alliance can supply sash or casement windows which retain the proportions and details of most historic windows.

Glazing bars are available in traditional profiles for both single and double glazed units. Even standard double glazing can be easily achieved without compromising the slim glazing bars and sightlines of Georgian sash windows by using surface applied bars. These, together with internal spacing bars, give the appearance of individual panes without a 'heavy' timber appearance. Sash windows can be supplied with traditional sash cords and lead weights, or with springs. They can also be hinged, or tilt-operated for easy cleaning and maintenance. Casement, fully-reversible and pivot types can also be supplied.

Windows are available factory-finished, in most RAL colours, fully glazed and ready fitted with ironmongery and high security locks.

Members of the Wood Window Alliance have to meet tough performance, quality and sustainability criteria which must be accredited by an independent third party. They also offer class-leading warranties: typically 30 years on the frame, 8 years on the paint finish, and 10 years on the glass and ironmongery.

Not all windows manufactured by a member will meet these criteria – single-glazed conservation windows, or putty-glazed windows are two of the exceptions, for example - but all will be made to high quality, design and manufacturing standards.

Energy-efficiency

Wood Window Alliance windows meet or exceed current building regulations. Depending on the glazing. In the case of double glazing units, they can achieve the highest Window Energy Ratings (A) and U-values as low as 1.0W/m²K.

Low carbon footprint

Independent research by Davis Langdon shows that Wood Window Alliance windows have a negative carbon footprint.

Sustainability

BRE gives domestic wood windows made to the standards of the Wood Window Alliance the highest possible LCA rating of A+ in the Green Guide. All wood used in Wood Window Alliance windows is certified to be sourced from sustainably managed forests, and all members have Chain of Custody certification.



Long service life

BRE expects the minimum service life of a good quality wood window to be 35 years. The evidence of the many surviving Victorian and Edwardian examples suggests that well made softwood windows will last very much longer. Research by Imperial College concludes that windows made to the WWA standard will last for 60 years or more when appropriately maintained.

Value for money

Evidence from Whole Life Costing analyses by Davis Langdon demonstrates that the longer service life of a typical Wood Window Alliance window makes it excellent long-term value in comparison to an equivalent PVC-U window. Conservation, or more specialist wood windows may be more expensive on initial outlay, but will last a lifetime, with appropriate maintenance and add extra value to a home.

The reassurance of the quality mark

Windows which bear the Wood Window Alliance quality mark must:

- Meet BS 644, the main British Standard for wood windows, or equivalent standards from other countries
- Meet the performance standards for wind and weather resistance of BS 6375 Part 1
- Meet the minimum performance standards for operational aspects of BS 6375 Part 2, or equivalent standards from other countries
- Be accredited by an independent UK or European body to prove compliance with those standards
- Be manufactured from timber sourced legally from sustainably managed forests and with chain of custody certification
- Offer service life warranties for durability (typically 30 years), paint life (typically 8 years), ironmongery and insulated glass units (typically 10 years)
- Meet or exceed the UK Building Regulations' recommendations for energy efficiency.

For more information

For more information on new wood windows, refurbishing existing windows, and to find a supplier to discuss your needs with, visit www.woodwindowalliance.com

For more information on conservation areas, historic and listed buildings, visit www.english-heritage.org.uk