

### **The Conservation Office**

## **Replacement Windows in Historic Buildings**

The adopted policy of the Methodist Council is that approval will not generally be given for the use of non-traditional materials for replacement windows in listed buildings or buildings of historic interest in conservation areas.

With increasing concern for energy conservation and reducing maintenance costs, many congregations are attracted to the apparent advantages of totally replacing old windows with new units in a variety of different materials. However, when dealing with historic buildings, whether officially protected by "listing" or not, other considerations need to be borne in mind as well.

Many of the problems associated with old windows relate to poor maintenance in the past rather than to any inherent defect in the design or materials of the original windows. Replacement units can be an unnecessary expense as repairs to existing windows are often a more cost-effective way of achieving a similar result. Draught-proofing can be incorporated when windows are being repaired and internal secondary glazing as an alternative to double-glazing can also be considered if it will not adversely affect the character of the interior. Secondary glazing is particularly appropriate as a method of upgrading the performance of windows with stained, painted or other leaded glass. Care should be taken, however, not to inhibit ventilation or prevent the windows being cleaned and maintained.

Most historic buildings have windows of good quality painted softwood, carefully designed to contribute to the overall character of the building. The removal of such windows robs the building of its historic character. Replacement units are often poorly designed in historic terms and bear little resemblance to the original windows, even when they are of the same material.

Replacement of windows also results in the loss of historic glass. This does not just apply to stained or coloured glass. Clear glass from the eighteenth or nineteenth century may be of interest and the irregularity of such glass contributes to the character of the building. Once this has been lost the historic value of the building is irreparably reduced. Leaded lights should be retained whenever possible as the slight variations in the reflections from each individual pane contributes to the character of the building. A single sheet of glass with applied lead strips does not produce the same effect.

Most replacement window units are made of hardwood, aluminium or PVCu, and their use in historic buildings raises a variety of issues, as indicated below.

### Hardwood

Although in theory it is possible to recreate exactly the design and details of softwood windows in hardwood, this is seldom achieved and is not possible where sealed-unit double-glazing is being provided as the glazing rebates and therefore the profiles of the different elements have to be larger. Stained hardwood windows as replacements for painted softwood give a very different appearance to a building and are therefore not normally acceptable for a historic building. Painting hardwood is possible but it can be difficult to achieve good paint adherence, although some more modern coatings are being developed specifically to give a painted appearance to hardwood. In addition, the use of hardwood is being questioned by some responsible congregations unless it is second-hand or from assured sustainable sources.

# **Aluminium**

Aluminium windows are produced in a wide range of designs and finishes. Whilst they can be similar in their general pattern to traditional windows they differ completely in their detailing and appearance. Aluminium, like all metals, corrodes and requires a protective surface finish which can in time need renewal.

#### **PVCu**

PVCu units will always look very different from historic timber windows because of the nature of the material and the way in which they are manufactured. No supplier has yet been able to recreate the slender sections and detailing of traditional windows, despite their many claims to the contrary. Thus PVCu units can never exactly match historic windows. The way in which a window opens has an important effect on the appearance of a building and PVCu windows can very seldom be manufactured in such a way as to repeat traditional methods of opening. It should also be remembered that PVCu is a relatively new material, and its long-term performance is not known. A specially formulated paint is now available for refinishing PVCu units. Problems have occurred where handles, locks and hinges have failed and cannot be replaced. Failure of the seals separating the panes is a common problem which cannot be repaired.

In view of all the above the Connexional Conservation Officer advises the managing trustees of historic chapels to consider repair of existing windows as preferable to replacement. In the event of replacement being the only practical option, initial thought should be given to providing replacement windows using similar materials to the existing, matching the design and sections, and including the reuse of existing glass if possible. However, the quality of most softwood available today is very poor and, when softwood windows are being replaced, care should be taken to ensure the use of the very best pressure-treated timber that is available. This will mean taking care to only invite joinery firms with experience of such work to quote for it. The local authority Conservation Officer may be able to assist in finding appropriate local companies.

A range of advisory leaflets about replacement windows is available from Historic England, such as: Traditional Windows, their care, repair and upgrading - <a href="https://historicengland.org.uk/images-books/publications/traditional-windows-care-repair-upgrading/heag039-traditional-windows-revfeb17/">https://historicengland.org.uk/images-books/publications/traditional-windows-care-repair-upgrading/heag039-traditional-windows-revfeb17/</a>

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