



MAKING THE MOST OF **WINDOWS AND DOORS**

Velux windows stacked three high flood an upstairs landing with light and are more practical than a single glazed unit

Windows and doors are the eyes and mouth of a house, giving it expression and character. Upgrading them can transform your home overnight, but where do you begin, and with considerations like heat loss, how do you decide whether to restore or replace? Joanna Marsden investigates.



Sliding sash windows by Marvin
Architectural work with the historic
credentials of this old red brick house

Windows and doors are the connection between your home and the world outside, announcing to the street the character and quality of your home. Just look along a Victorian terrace and pick out the houses that are appealing and the ones that jar with their neighbours. Chances are you will be drawn to those with well-maintained sash windows and homely painted front doors, rather than those which have been damaged by inappropriate replacements.

The dialogue between inside and out continues at the back of a house, where successful design is about maximising the interaction between the occupants and the natural world around them. A huge glass door will draw the garden into the house, whereas small windows and single doors create an unnecessary divide.

The right windows and doors can enrich your living space by providing mood-enhancing light, views and fresh air (but not draughts), while minimising heat loss. Fortunately, upgrading windows and doors requires minimal structural work – making it one of the most cost effective ways to give your home a dramatic face-lift. Further money will be saved if you refurbish rather than replace, so before you get stuck in, examine all your options.

sash and casement windows

The most common type of window found in period homes is the sash window, a design in which two moveable panels of glass, known as 'sashes', are counterbalanced by hidden

weights so they can slide in a frame. The earliest known Irish sash windows were fitted in Kilkenny Castle in 1680 and by 1700 the use of sash windows had spread throughout the country, continuing until the early 20th century, when hinged casement windows came into vogue. Timber sash windows are undeniably attractive, but they often leave homeowners tackling problems such as rattling, draughts and condensation.

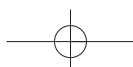
assessing the condition of your window

If you have original windows, the first task is to assess their condition. Companies offering restoration services will

TIP: DROPPING THE SILLS TO INCREASE NATURAL LIGHT

"If you want to bring more light into your home without spending a lot of money, consider dropping the sills of your windows closer to ground level, or turning a window into a patio door. This requires minimal structural work and, in northern climates, brings in a surprising amount of light. It's not always suitable for period homes but I've seen many bungalows and semis transformed in this way."

Ann Mooney, Marvin Windows



TIP: CHECKING IF GLASS IS ORIGINAL

"The presence of historic glass gives an irreplaceable visual quality to the appearance of an old window. When light shines on historic glass it can be seen that the surface is wavy, often tinted or speckled and has a softer sheen." *Dr Nessa Roche, Architectural Conservation Advisor, Department of the Environment, Heritage and Local Government*

provide a free assessment and quotation. Alternatively, you can attempt to survey the windows yourself. Check the condition of the putty, paint, timber, and ironmongery. Use a small pen knife to gently probe vulnerable areas where water gathers, such as the junction of timber and stone sills, and the lower joints and rails. Notice whether joints are loose, whether timber is spongy, whether putty is loose or missing, and whether sashes or casements open easily. Dr Nessa Roche, Architectural Conservation Advisor with the Department of the Environment, Heritage and Local Government, warns that "the loss of paint should not be the main guide as to the condition of the timber." She has written a detailed guide to assessing and restoring windows, 'Windows - A Guide to the Repair of Historic Windows', which can be downloaded from: www.environ.ie/en/Publications/Heritage/BuiltHeritagePolicy

option 1: restoring a single-glazed sash window

If your original windows are in reasonable condition, the most conservation and environmentally friendly approach is to restore them. "The power of advertising is often such that it makes us believe that new products must be better than the ones we already have," says Dr Roche. "This is not necessarily true. Repairing windows reduces the pressure to produce new timber, metal, or plastic products, eliminates unnecessary waste, and is environmentally more sustainable. In fact historic timber sash windows, in good condition and appropriately up-graded, should be as weather-tight as new windows, while the costs of repairing and upgrading should be lower than the price of off-the-shelf replacement windows."

Competent DIYers can attempt restoration themselves using Dr Roche's guide but most of us will need to call on one of the many joineries, such as Marvin or Sashwindows.ie, that offer a full repair and upgrade service. Work normally includes paint-stripping, insertion of draught-proofing brush strips, repair of loose joints or rotten sections, replacement of putty, replacement of weights and cords, and re-painting.

A full overhaul of a standard sash window, including the frame and architrave, takes about three days and can be carried out in situ or off-site. Restoration normally costs upwards of €800 per window, depending on factors such as the number of glazing bars in your window.

Recent research on historic windows published by Glasgow Caledonian University indicates that



draught-proofing improves air-tightness considerably, but has no significant effect on U-values. It is also important to remember that period sash windows will require regular maintenance, including the replacement of draught-proofing brushes or sealants every three to seven years.

option 2: fitting secondary glazing

Fitting double glazing to historic windows is not usually recommended because it is difficult to fit a unit of sufficient quality to improve thermal insulation without damaging the window and compromising its appearance. A preferable option is to fit a single secondary glazing panel directly behind the existing window. These panels are sometimes hinged, sometimes completely removable, to allow access for cleaning and use. They can also be used as a temporary fixture in the winter months.

For the best thermal insulation results, there should be a space of at least 20mm between the original window and the internal panel. Secondary glazing is not an ideal solution because, while it protects the exterior appearance of the windows, it compromises the internal aesthetic.

options 3: replacing a sash or casement window

If your windows are beyond repair, or if previous owners have already removed them, there are many companies supplying new sash and casement windows. Most companies will use your original window, or those in neighbouring properties, as a template. Pay attention to details like the profile of glazing bars and horns, but resist the temptation to over-embellish. If your building is a

protected structure or in a conservation area, make sure you obtain permission to replace windows from your local council.

When replacing sash windows you can opt for traditional weighted sashes or for simpler sliding bar type sash windows, which are generally cheaper. Prices range from €800 to over €2,000, depending on the specification. Make sure you know which kind of mechanism you are buying, the level of historical detail on the glazing bars, whether they are hard or softwood, what treatments the timber has been exposed to, and whether the quote includes architraves or painting. Some products will also have easy-clean options.

Remember that stained glass panels can be salvaged from original windows and incorporated into your new double-glazed units.

Replacement windows should last 20-30 years before they require upgrades, with the exception of painting. If you want a truly maintenance-free product, extruded aluminium sash windows (a combination of timber and aluminium) are now being installed in many period properties. It's very much a lifestyle choice. The aluminium exterior can be finished in one of 19 colours, matching hardwood front doors and giving the appearance of painted wood without the need for re-painting" says Ann Mooney.

option 4: curtains, blinds and shutters

If you are struggling to improve the insulation values of single-glazed windows, don't underestimate the power of traditional solutions such as curtains, blinds and

TIP: ALARMING HISTORIC SASH WINDOWS

"Sensors which electronically detect vibrations are the modern version of the bell on the shutter and can be very effective in securing sash windows. Windows should be overhauled first to eliminate rattling, as this could set off the alarm."

Dr Nessa Roche, Architectural Conservation Advisor

shutters. If ordering curtains, get a thermal inter-liner fitted. In Glasgow Caledonian University's study, shutters were the most effective option, reducing heat flow by an impressive 51%.

patio doors

Whether your home is historic or contemporary, the back of the house is an area in which you have more architectural freedom. Opening the house to the garden through the use of French doors, sliding doors or bi-fold doors can add an enormous sense of space. Glass doors to the garden are often the biggest selling point. A good open-plan kitchen and dining area which maximises the connection with the garden space is probably the number one requirement for most of our buyers.

option 1: french doors

Traditional French doors can be outward or inward opening. Swing out doors keep indoor space free for furniture and give you a sense of literally opening up the house into the garden." Patio doors with architraves start at around €3,000 and increase in price if you opt for hard-wood or elaborate use of glazing bars.

option 2: sliding doors

Sliding doors save space and work particularly well with large, dramatic panes of glass. A good sliding door system should have an easy movement, enabling you to slide the door with two fingers. Prices start at around €3,000.

option 3: bi-fold doors

In recent years, bi-fold doors – doors which concertina back to create a complete opening to the garden – have become increasingly fashionable. They open up the property into the garden and really set off that 'wow factor' for viewers, especially if the property benefits from a sunny aspect." Bi-fold systems start at around €6,000.

Before jumping in, it's worth considering whether this type of door is suitable for your home. Bi-fold doors can get limited use in this climate and are not suitable for exposed gardens – most of the buyers are people who want to maximise the use of a small, protected city garden.

roof windows

Most homes have areas which would benefit from more natural light, but where traditional windows are not an option, or would require expensive adjustments like the building of dormers. This is where roof windows/skylights or sun tunnels come into play.

Casement Windows in this bay in Glasnevin supplied Marvin Architectural





option 1: Standard roof windows

Roof windows provided by manufacturers like Velux, Keylite and Fakro capture 30% more light than an ordinary window of the same size, and enable you to play with light by angling the window to the north for a muted, even daylight, or to the south or west for stronger sun. Windows require a minimum pitch of 15 % and can be hung from the top or pivot from the centre. If you have a period property, Velux offers a conservation roof window, which is designed to blend discreetly into the roof of your old building with a vertical centre bar and black finish exterior.

The supply and installation of an average roof window will cost €400-600 (make sure quotes include insulation and 'making good' the plaster around the new opening). Planning permission is not required for roof windows at the rear of your property.

option 2: flat roof windows

If you have a flat roof, you can install a polyurethane dome window, but bear in mind that these normally come as fixed units, or with a remote-control-operated opening mechanism. If you would like a manually operated window – perhaps for a bathroom where a remote control mechanism would be unsuitable – an alternative is to use an off-the-shelf kit like Velux's 'Flat Roof Kerb' to create a pitch around the window.

option 3: sun tunnels

A relatively low cost solution for dark interior spaces is the installation of a sun tunnel. These tend to be slightly cheaper than roof windows and work by channelling light from an opening in the roof through a flexible tunnel into a circular ceiling diffuser unit, which unobtrusively blends into the ceiling, offering a gentle natural light. The flexible nature of the tunnel enables the installer to work around obstacles like water tanks and structural beams – but negotiating these obstacles can add to the installation cost.

option 4: Roof balconies and terraces

A number of high end roof window systems are available

for those with larger budgets, such as Velux's 'CABRIO Balcony System', which gives the appearance of a standard roof window but pops open to create an instant balcony in seconds. These products are most suitable for detached houses, where the issue of overlooking other properties doesn't arise, and planning permission is likely to be required.

front doors

The front door is a focal point and often the most decorative part of a home's facade, giving your home instant warmth, character and kerb appeal.

option 1: restoring a period front door

Period doors are often warped and draughty, but Frank Clissmann of sashwindows.ie says that many doors can be restored. "A refurbished period door can be just as well-sealed as a brand new door. We use a discreet rubbery draught-proofing material called 'Q-Lon' to ensure there are no gaps around the frame. Stick-on or screw-on seals simply do not work. Moderate warping can be dealt with by applying what is known as a 'fillet' – basically a narrow piece of timber which subtly fills the gap created by the warp." Refurbishment of an existing door is usually carried out in situ, taking on average a day, and costing in the region of €500.

option 2: custom-made new front doors

If your period door is badly damaged or has already been replaced with an inappropriate PVC front door, you can have a replica door made for approximately €1,500. Don't be tempted to improvise in relation to the style of the door – use neighbouring houses as a guide. Remember to salvage any original door furniture (letter boxes, door pulls and knockers) from the old door for re-use. [f](#)

USEFUL CONTACTS

- > Senator Windows, Seaview Industrial Estate, Wexford. Tel: 053 915 5300 Web: www.senatorwindows.ie
- > DK Windows, Unit C, Westland Business Park, Willow Road, Dublin 12. Tel: 01 424 2067 Web: www.dkwindows.ie
- > McMahon and Nagle Environmental, The Stables Office Park, Portmarnock, Co Dublin. Tel: 01 846 0364 Web: www.mcmnwindows.ie
- > Marvin Architectural Limited, Stephen Street, Dunlavin, Co Wicklow. Tel: 045 401 000 Web: www.marvin-architectural.com
- > SashWindows.ie, 87 Bracken Hill, Sandyford, Dublin 18. Tel: 086 255 4945 / 01 213 0213 Web: www.sashwindows.ie
- > VELUX Company Ltd, Unit 1, Willsborough Cluster, Willsborough Industrial Estate, Clonshaugh, Dublin 17. Tel: 01 816 1620 Web: www.velux.co.uk
- > Harmon Vindeur, 28 Northwood Court, Northwood Business Campus, Santry, Dublin 9. Tel: 01 852 4470 Web: www.h-v.ie