

[REDACTED]

From: Walker, Angela [REDACTED]
Sent: 10 November 2017 11:11
To: Simon Davis
Cc: [REDACTED]
Subject: RE: The Whyke House, 47 Felpham Way - FP/175/17/L

Dear Mr Davis

Thank you for your recent email highlighting the recent comments received back from your new temporary conservation officer. We were originally due a decision in August and now several months later we receive a surprisingly and disappointing negative response to our proposals.

Having made applications for many listed buildings to have secondary glazing added across the country for a considerable number of years this is the first instance that we have had where we have received such a negative response.

I have discussed the concerns with the applicant, Mrs Victor, she has advised me that there are reasons for the secondary glazing being required. The property has only been recently purchased and it has become apparent that with only single glazing in place the property is extremely cold and is affecting their quality of life. Furthermore she is currently recovering from cancer treatment and with the winter season fast approaching the already cold weather is having a negative impact. The application was originally submitted in July to ensure that the secondary glazing could be installed to avoid this scenario. The secondary glazing would also provide noise reduction. The property is situated along a main road and makes respite and sleep difficult due to road traffic noise.

The request for secondary glazing has been carefully considered and advice within the English Heritage guidance has been taken into consideration when making the decision. I have detailed below extracts from the guidance which clearly highlights the benefits of secondary glazing from heat loss, noise reduction and protection of the historic windows. Secondary glazing allows a home owner to live in conditions considered appropriate to 21st century standards whilst retaining the historic value the property offers.

Supporting argument for secondary glazing

To overcome severe heat loss

Draughts will replace warm indoor air with cool air from the exterior, and radiant heat loss can make people within a room with large windows uncomfortably cold, even if the windows are completely sealed. A brisk winter breeze

cooling the exterior glass can set up convection currents that make the room feel draughty, even if there is no exchange with the exterior.

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. It is also usually less expensive. Some of these measures enable buildings that retain historic windows to be more energy efficient than buildings whose windows are simply replaced with double glazed units.

4.2 Adding secondary glazing

Secondary glazing is a fully independent window system installed to the room side of existing windows. The original windows remain in position in their unaltered form (without draught-proofing to prevent possible condensation). Secondary glazing is available as open-able, removable or fixed units. The open-able panels can be either casements or sliding sashes. These allow access to the external window for cleaning and the opening of both the secondary glazing and external windows for ventilation. Other secondary glazing is designed to be removed in warmer months when its thermal benefits are not required.

Recent research has shown heat losses by conduction and radiation through a window as a whole can be reduced by over 60% by using secondary glazing with a low emissivity (low-E) hard coating facing the outside. The research has also shown that further savings can be made if the secondary glazing uses insulating frames or incorporates double or vacuum-glazed units (vacuum glazed units can achieve a U value of 0.6W/m²K with single glazed windows).

Although the primary purpose of secondary glazing units in older buildings is to improve the thermal performance of windows by draught-proofing as well as reducing the conduction of heat through glass, secondary glazing can provide a number of other benefits including insulation from noise, improved security and protection from ultra-violet radiation.

Thermal benefits

Heat loss from a room through a window during the heating season is complex because three main mechanisms are in play:

- by convection and conduction, from the warm room air to the colder surfaces of the glass and the frame
- by the colder surface of the window absorbing infrared radiation from the room

By uncontrolled air leakage, which can either bring in cold air from the exterior or take warm air out from the interior; often called air infiltration, this can occur even when the window is closed

Heat loss through the glass and frames

Whether it leaves the room by convection, conduction or radiation, the lost heat all passes through the glass and the frame as conduction. The glass is the most conductive part of the window but heat is also lost through the frame, albeit at a lower rate for timber windows. Single glazing is a poor thermal insulator and readily conducts heat. A typical 4mm-thick glass has a typical U-value of 5.4W/m²K. The thermal loss through a single-glazed window will depend on the total area of glass, the conductance of the frame material and the quality of the fit of the framing and glazing materials. A typical value of a timber framed single glazed window is 4.8W/m²K.

For thermal performance, the optimum airspace between primary and secondary glazing is 50-60mm. A larger air space allows convection currents to develop within the cavity and more heat to be lost. The positioning of the secondary unit is usually dictated by the window reveal and can often only be fitted at a distance of about 100mm from the primary glazing. However, a significant proportion of the thermal benefit of secondary glazing comes from decoupling the frame from the primary timber window frame and this can reduce the U-value to approximately 2.5W/m²K. The use of low emissivity glass for the secondary glazing can further improve the thermal performance to less than 2.0W/m²K. To maintain this figure it is important to keep the coating clean – the standard is 'visually' clean.

Heat loss through air leakage

Heat losses from a typical traditional window are predominantly through gaps around the window. With larger windows, the proportion of heat lost by conduction through the glass tends to be greater. Since draughts caused by convection and air infiltration make people feel colder, the occupants may turn up the heating and also run it for longer. Purpose-made secondary windows, with efficient perimeter sealing and brush or compression seals on the opening panels, form an effective seal over the whole of the frame of the original window and can significantly reduce excessive draughts.

U-values are expressed in units of Watts per square metre per degree.

Of temperature difference (W/m²K). The lower the U value the slower the rate of heat transfer through the barrier and therefore the better the insulation quality

Noise insulation

Windows are one of the most vulnerable parts of a building to noise transmission due to their relatively lightweight construction. Depending on the number of openings and the quality of the seals between the openings, a single glazed window without seals may only achieve a noise reduction of 18-25dBA. When closed, sealed double glazed units perform little better than single glazing because the two panes of glass are rigidly connected with a minimal cavity so the two panes resonate together. A secondary window with an air space of 100mm or more de-couples the movement of the two panes of glass and reduces the resonance between the two. Sound insulation of up to 45dBA can typically be achieved. Higher levels of sound insulation are obtained as the gap increases, particularly if the reveals are lined with an acoustic material, though minimal improvements occur with cavities beyond 200mm. The use of thicker or acoustic laminate glass within the secondary window also improves the acoustic performance of the installation.

With the above in mind we feel that if the application is determined on the basis of the comments received from the temporary conservation officer that the decision would lack consideration of/be in breach of Article 8 Right to a private and family life -- 'a right to not have one's home life interfered with' and Article 1 Of the First Protocol: Protection of property -- not to 'interfere with peaceful enjoyment of property', 'subject a person's possession to control' and any interference must 'strike a fair balance between the demands of general interests of the community and the requirements of the individuals' fundamental rights'.

With regards to the point made about the two layers of reflectivity we would like to highlight that the windows to the rear of the property are not overlooked so would not be intrusive to the community. In addition, as the purpose of secondary glazing is to allow the home owner a level of control of heat, in the warmer months when the sun is most likely to reflect on the glass the secondary glazing would be open and only in the colder months, when they would be closed there sun reflection would not be an issue.

Secondary glazing is not a permanent structure and is fully removable and therefore the original windows remain untouched and can be maintained in the future to ensure their further longevity.

Mrs Victor has not asked to replace the windows as she acknowledges and respects the historical value that the property offers, she merely wants to maintain sympathetically and make it a comfortable home.

With all of the above in mind we trust that you will consider our application favourably and I look forward to your further response.

Kind regards

Angela Walker

Planning Administrator (National Administration Centre)

From: Simon Davis [<mailto:Simon.Davis@arun.gov.uk>]

Sent: 26 October 2017 11:00

To: Walker, Angela [REDACTED]
Subject: The Whyke House, 47 Felpham Way - FP/175/17/L

Dear Angela,

I have now received comments from our new temporary Conservation Officer. These are as follows:

"Generally, I'd say no to this, as secondary double glazing is as intrusive visually as double-glazing. That is to say there are two layers of reflectivity which inevitably has an adverse effect on the appearance of the property as a whole. In this case, secondary glazing would also encroach on the historic timber window reveals (and possibly shutters – although they have not photographed all windows). In addition to this, the submitted photographs (towards the end of the application), show secondary glazing already in situ. This appears to be unauthorised, and should be removed."

Therefore our decision would be to refuse.

Can you comment on the secondary glazing shown in the photos. It is not clear; are these photos of existing windows in the property or are they of a completely different property?

Kind Regards

Simon J Davis MRTPI | Principal Planning Officer, Planning Department, Directorate of Place, Arun District Council |
Location: 1st Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF
Internal: 37874 | External: +44 (0) 1903 737874 | E-mail: simon.davis@arun.gov.uk

Visit Arun's web site at www.arun.gov.uk



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