

Overview

The buildings in question are grade II listed for the principal reasons as follows:

Architectural interest:

- for its use of the innovative single-storey BAC, and multi-storey BAC II aluminium systems;
- as a rare survivor of a BAC-type secondary school;
- for the characteristic highly-glazed elevations that express the light-weight structure and have distinctive corrugated panels.

Historic Interest:

- as an illustrator of the post-war drive to build new secondary schools for an uprooted and rapidly expanding population, using innovative materials and skills originally developed for military purposes.

Legislative and policy background

In terms of heritage the proposals fall to be assessed against the potential impact of the proposals on a) the setting of The Manor and b) the character and appearance of the conservation area. These considerations need reference to national guidance in the form of the Planning (Listed Buildings and Conservation Areas) Act 1999, the NPPF and NPG (National Policy Guidance relating to the Historic Environment).

The Act states that:

Section 16 of the Planning (Listed Buildings and Conservation Areas) Act 1990 ("1990 Act") requires local planning authorities to have special regard to the desirability of preserving a listed building, its setting or any features of special architectural or historic interest when considering whether to grant listed building consent.

National Planning Policy Framework (NPPF)

184. Heritage assets range from sites and buildings of local historic value to those of the highest significance, such as World Heritage Sites which are internationally recognised to be of Outstanding Universal Value⁶¹. These assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.

189. In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including any contribution made by setting.

190. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.

192. In determining applications, local planning authorities should take account of:

- a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- c) the desirability of new development making a positive contribution to local character and distinctiveness.

193. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

Para 194 requires that 'any harm or loss of to the significance of a designated heritage asset requires clear and convincing justification'.

196. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.

Local Planning Policy:

Policy CS11 of the Core Strategy states that planning permission will be granted for development that:

Protects and where appropriate enhances the borough's statutory and non-statutory heritage designations by appropriately managing development in or adjacent to conservation areas, listed buildings, scheduled ancient monuments, historic parks and gardens, archaeological sites, buildings of local historic or architectural interest.

Policy CP16 (1a) of the Core Strategy states 'Planning permission will be granted for development that is designed to a high standard, which helps to create places where people want to live, work and relax. All development should demonstrate that its design:

Identifies and responds positively to existing features of natural, historic or local character within or close to the proposed development site'.

Policy DM20 of the Allocations Plan states that planning permission will be granted for development proposals that conserves and enhances the historic assets of Havant. It also states that application which affect, or have the potential to affect, heritage assets are expected to provide a Heritage Statement that:

1. Describe the significance of the asset and its setting, using appropriate expertise and where necessary original survey, at a level of detail proportionate to its significance and sufficient to understand the potential impact of the proposal.

2. Sets out the impact of the development on the heritage assets and mitigation that is proportionate to the impact and the significance of the heritage asset, including where possible positive opportunities to conserve and enjoy heritage assets.

Other guidance:

[Good Practice Advice Note 2: Managing Significance in Decision Taking in the Historic Environment](#) and [Historic England Advice Note 12: Statements of Heritage Significance](#).

Of particular relevance is guidance contained in Historic Environment Good Practice Advice in Planning: 3 – The Setting of Heritage Assets published by Historic England. At the local level policy Policy CS11 of the Core Strategy states that planning permission will be granted for development that:

Protects and where appropriate enhances the borough's statutory and non-statutory heritage designations by appropriately managing development in or adjacent to conservation areas, listed buildings, scheduled ancient monuments, historic parks and gardens, archaeological sites, buildings of local historic or architectural interest.

Council Window Guidance note

<https://cdn.havant.gov.uk/public/documents/Windows%20in%20Listed%20Buildings%20and%20Conservation%20Areas%20Guidance%20Note.pdf>

Proposal

'Replacement glazing proposal is to removal of the single glazing, by a process first removing the screw fixed beading, removal of the glass including the glazing compound, then fit replacement double glazed units in new compound and re-fit the beading. Refer to drawing C09314-601 for details. This drawing shows two solutions for each window type. The second option detail with stepped edged glass units will allow the beads to be re fitted in approximately the same position.

There are many top hung windows which are a previous modification. These windows are causing the most problems. They are poorly fitted, the hinges are twisted and the weather seals have perished. The approach with the windows will be a mix of repair and replacement, again refer to drawing C09314-601. Other eye level openable windows are the original side hung casements in fitted as a pair. These windows are arranged as a slave casement with top and bottom shoot bolts and a master casement with a cockspur. They also have friction restrictors. The proposal is to refurbish the windows so that the operators all function which will include some replacement of the furniture the new equivalents. The high-level bottom hung windows are part of the original system and generally in good working order. The proposal is to clean and lubricate the hinges and the catches, with some replacement of any failed components'.

Justification put forward for the scheme

The application documentation contains mentions a number of justification reason that are driving the application these are:

- Damaged windows fittings and poorly fitted windows particularly top hung windows
- Overheating of the building through solar gain, poor ventilation and insulation
- Reduce running cost by an estimated 25% carbon saving
- The timing of the application is to take advantage of the Government funding scheme to reduce carbon

Assessment of significance

The windows make up a large proportion of the façades of the building, the listing entry places distinct emphasis on the significance of the appearance of the external façade stating the Architectural interest for its 'highly glazed elevations that express the light-weight structure and have distinctive corrugated panels'. I would interpret this as both panel and window elements give the same level of significance to the structure as they are both held within frames that providing the special architectural interest particularly as the windows emphasise the lightness of the structure as they are held within quite narrow frames due to the very simple production methods of the frames. The cross-section detail shows the shallowness of the frame as well as the thin when view alongside the design of the proposed frames for top hang windows. The original window frames appear to be formed by very basic crimped, folded and box cross-section forms that allowed for a shallow and narrow frame.

The Council's policy for the replacement of single glazing in a listed building is clearly set out in the windows Guidance note. Which is to say Listed Building Consent will not normally be granted for the use of double-glazed units in a Listed Building'. Where single glazing exists, it is generally expected it should be retained as single glazing. The guidance does not make any distinction on the period or design of the listed building.

The reason for this stance is that double glazing can significantly change to appearance of the building as a result of the following: double reflection to the glass, the introduction of visible internal edges of the double-glazing units making the frames appear thicker and heavier. The visual impact of the seal around glazing, as well as any difference in the frames themselves. In this case to top hung opening windows have perpendicular reveals to the glass which may increase the shadow lines on the glass.

There are some general issues with the application as it currently stands. The first is the application states that the top hung windows will either be repaired or replaced. The difference between repair and replacement is hugely important as it key to the amount of fabric potentially being lost from the from the building and consequently assessing the level of harm this would represent.

A detailed survey should have been carried-out to determine this information and it should form part of the application as it goes to the heart of the consent process.

Secondly the application form refers to two options of double glazing and normal unit and a stepped edge unit. Again, Listed Building Applications need to be specific in the detail of what is being proposed. Subsequent enquiry seems to indicate that the stepped edge double glazed unit is no longer for consideration. The application should be amended to reflect this.

Works to a Listed building require clear and convincing justification in order to get Listed Building Consent. With the number of frames requiring replacement not being clear. option then other means of achieving the thermal enhancements of the building should be considered.

Whilst the effects of solar gain, coldness and heating cost are being cited as reasons for the improvements there are strong considerations against sealing the building envelope with double glazing.

1. Single glazing will actually aid ventilation as colder air forms against the windows and drops forming air movement
2. Sealing the building envelope will restrict the air flow and potentially the cooling of the building. As a result it is generally considered to assess the thermal retention and ventilation issues in a holistic approach.

General observations

In building conservation when we refer to slim line glazing we are talking of 4:4:4 glazing or possibly 4:6:4 this is because keeping the air gap to a minimum keeps the visual impact of the internal edge of the glazing unit to a minimum whilst also limiting the effect of double reflection that is often experienced with standard width double glazed units. The glazing units proposed in this application are substantially thicker than slim line particularly those panes in top hung windows.

There is no elevation detail or vertical section of the proposed new window frames to confirm the absence of trickle vents or if there is any change to the frame thickness.

Summary

Building fabric losses top hung window frame – unknown number and all glazing beads

Visual changes created by the proposal include: shadow lines caused by deeper window frame reveals; visibility of internal separation bars around double glazing units; potential different appearance of the glazing surface dependant on treatment; and double reflection

Carbon saving

Aluminium is a very high energy cost material to produce and so id carbon saving is the target I would recommend limiting replacements window frame to only those that have ‘failed’ and not a wholesale approach.

Replacing all the glazing will result in a large deficit of embedded carbon from the glass that is replaced. The glazing that will replace it contains twice as much glass on account of the proposed units being double glazed. Being modern double glazing, it will not be recyclable as glass coatings make it non-recyclable. Not to mention the finite gasses that fill the glazing units. However, the biggest issue with double glazing is the actual life span of the units themselves. This is limited by the seal to the unit and can be as little as 10 or 15 years. In which case the cost of replacing the windows may actually be less than the cost of extra heating and ventilation both in terms of carbon saving and financial cost.

There is a lot of on-going research in this area of sustainability and carbon savings, but the general picture emerging is one of caution against knee jerk reactions to replace large elements of an existing building and the need for careful consideration over the whole life span of the building verses the lifespan of individual parts to be changed. Being a listed building it is likely that the life span will be longer than this type of building would usually expect to be in use.

Missing information:

Unknow top of frame design/trickle vents?

Number of frames to be replaced?

Glazing beads to be replace or altered? This is not entirely clear from the application

Is replacing later top hung windows with more top hung windows best for ventilating the building if they were previously casements?

Where else could the energy savings be made in the building and would they be less intrusive on the fabric of the listed building?

Details of full external re-decoration as mentioned on plan P09314-HCC-ZZ-601 area required to clarify they do not require LBC.

Recommendation

I understand the possibility that there may be information that has influence the proposal that has not been included in the application. However, the issues of overheating from solar gain and ventilation are directly linked and should be considered together in a holistic approach.

From the information presented two previous changes are apparent; 1. That windows were changed from side hung to top hung and 2. the presence of brackets at eave level. What has not changed is the proportion of glazing in the building and the daytime use of the building. It would seem unlikely that a purpose designed building of 60% glass would not have built in measures to mitigate the issue of solar gain and overheating. Measure to ensure comfortable room temperature are a little harder to identify but generally include draft proofing and insulation. Usually approach in listed buildings in relation to windows is for secondary glazing. This can be removable for the warmer seasons as well as possibly creating a larger void between the existing glass to and the room to provide insulation. The creation of a larger 'greenhouse void' may ease over heating but may also prove more difficult to ventilate the room.

The top hung windows are believed to be later alterations it would be more appropriate to consider replacement with windows that are sympathetic to the original design of the building. This may also have benefits in the ventilation of the building in hot weather as top hung windows are more restrictive to air movement than side hung casements.

I would suggest a full holistic assessment of the heating/cooling and ventilation of the building by a building services engineer/scientist would be appropriate to support any proposed changes and to provide clear and 'convincing justification' required. It

Contacting Historic England's Building Research team for advice as owners you are able to seek their advice in a way LPA cannot. Historic England are aware that C20 buildings pose unique problems and challenges not experienced in buildings of traditional construction and with more C20 buildings being listed this is a growing issue and one that is still very much being researched.

Summary

Given the missing details and justification for wholesale replacement glazing verses other means of improving occupant comfort and energy saving I would conclude that the proposal would result in less than substantial harm and therefore I would not support the application as it currently stands.