Design & Access Statement

for

Installation of window secondary glazing

at

Worthing Museum and Art gallery,
Chapel Road, Worthing,
BN11 1HP

For and on behalf of

Worthing Borough Council

21/10/2024

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1.0 Introduction – Worthing Museum and Art gallery, Chapel Road, Worthing, BN11 1HP – Installation of window secondary glazing

1.1 This statement is to accompany the application for the installation of window secondary glazing to the existing windows at Worthing Museum and Art gallery, Chapel Road, Worthing, BN11 1HP. The proposal is to

I. **Install secondary glazing to ground floor, and first floor sash windows – Series 20 Slimline VS. From the Selectaglaze range (Brochure attached).**

II. **Install secondary glazing to ground floor round windows –Series 45 Slimline Lift Out. From the Selectaglaze range (Brochure attached).**

III. **Install secondary glazing to ground floor, and first floor casement windows – Series 10 Slimline HS. From the Selectaglaze range (Brochure attached).**

1.2 This document is submitted in accordance with the council's listed building consent requirements for carrying out works within the borough. This document demonstrates that the proposed development to the property is of a minor nature and should not impact or contravene any of the local development plans currently in force.

2.0 Site Location and Description

2.1 The site is situated within the Chapel Road conservation area and is a Grade II listed building, list entry number 1429753. The proposal is to install secondary glazing to the inside window reveals to improve the thermal efficiency of the building whilst retaining the original listed timber single glazed windows. The building is used as Worthing Museum and Art Gallery, operated by Worthing Theatres and Museum and leased from Worthing Borough Council.

2.2 The works would take place internally and the impact on the neighbouring properties would be minimal.

3.0 Heritage statement

Weal
Prima

3.1 The site sits inside the Chapel Road conservation area. The building is Grade II listed.

3.2 Harmful impacts considered would be that the secondary glazing would be an addition to the original timber sash windows. The secondary glazing is installed internally and therefore would not negatively impact on the character or townscape of the wider area. Mitigation efforts to minimise the effects on the internal character of the building will be taken. AECOM spoke with the Worthing Borough Council conservation officer Richard Small to understand which secondary glazing products would best match the style and colour of the originals, as outlined in further detail in subsequent sections.

3.3 It is anticipated that the level of harm from installing secondary glazing internally to the sash windows would be mitigated by closely matching the style and colour of windows. The risk of harm is considered less than substantial. The manufacturer Selectaglaze visited the building and advised that for those windows with dado rail fitted to the window reveal, they could increase the depth of the timber fixing grounds. The bespoke timber fixing grounds can then be templated onsite around the dado rail when the windows are installed.

3.4 The enhancement and public benefits would be primarily for the building users, including staff and the public, who would benefit from increased thermal and noise insulation, improving their enjoyment of the property. The improvement to the running costs and comfort of users of the building through improved thermal performance is considered to outweigh any harm.

4.0 Sustainable Design Statement

4.1 The purpose of this sustainable design statement is to demonstrate that the design has positively addressed the sustainable design principles set out in Policy DM8 (Planning for sustainable communities / community facilities) in the Worthing Local Plan 2020-2036. DM8 a) states that "The Council will support improvements to health, education, social, community and cultural facilities to ensure they meet the needs of local communities where it is demonstrated that there would be no unacceptable impact on the occupiers of adjacent properties." The installation of secondary glazing will ensure that the Worthing Museum and Art Gallery will meet the needs of local communities while not adversely affecting neighbouring properties.

4.2 DM16 Sustainable Design of the Worthing Local Plan 2020-2036 was considered. Item 5.235 in the 'Improving Energy Performance' section covers Energy Performance Certificate (EPC) Bands, also referred to as Display Energy Certificate (DEC). This mentions the Government consultations on "a preferred target for all non-domestic rented properties to achieve an EPC Band B by 2030." The current DEC rating is Band C in the most recent report 0664-7317-9592-1601-3202. The accompanying DEC report number 0250-0223-6039-9223-0006 includes recommendations to "Consider replacing or improving glazing."

Item 5.236 in the Worthing Local Plan 2020-2036 refers to the challenges of achieving the EPC target, especially for listed buildings and those in conservation areas. Reference is made to regarding Historic England guidance.

The Historic England Advice Note 18 (HEAN 18) 'Adapting Historic Buildings for Energy and Carbon Efficiency' was regarded. Section 80 covers installation of secondary glazing. This includes the advice "In most cases, the impact of its [secondary glazing] installation on significance will only cause minimal harm to historic fabric and architectural interest, which will generally be acceptable in view of the benefits obtained."

4.3 It is expected that the replacement of the windows will reduce on-site energy demand to minimise the effects of climate change in accordance with Policy DM16 (Sustainable Design). There will be embedded carbon in the production of the secondary glazing, however this will be offset by the benefits of improved thermal efficiency which can reduce energy consumption and the associated carbon from this power generation.

4.4 Design implications from Policy DM23 Strategic Approach to the Historic Environment of the Worthing Local Plan 2020-2036 covers heritage assets. It is not considered that heritage assets character or appearance would be adversely affected. Important views would be retained after secondary glazing is installed internally to the building.

4.5 In accordance with DM24 of the Worthing Local Plan 2020-2036, AECOM considers "that the appearance, significance, or historic character of the Listed Building is not adversely affected" by the proposals.

5.0 Description of the Proposal

5.1 The works do not impact the existing original timber windows as they will not be fixed to the casements and sit apart.

The proposed secondary glazing will be determined by the type of window.

For timber sash windows to all floors, Selectaglaze Series 20 Slimline VS units are proposed. (Brochure attached)

For the ground floor round windows, Selectaglaze Series 45 Slimline Lift Out are proposed.

For the casement windows to all floors Series 10 Slimline HS are proposed.

5.2 The secondary glazing will be formed of extruded aluminium alloy. The finish would be polyester powder paint coated in the standard HIPCA White Semi-gloss. Paint finishes are very durable with a long-life expectancy and minimal maintenance. The gaskets are held in position by specialist gaskets or bonding tapes. Sliding units are fitted with twin silicone-treated, grey polypropylene pile seals. Hinging units are fitted with high performance Q-Lon seals. This material has excellent memory and retains its shape for years, maintaining optimum sealing and acoustic performance.

5.3 The secondary glazing units comply with BS 6262: 2005, the Code of Practise for glazing in buildings, and meets the requirements of Building Regulations Part K4, Protection against impact with glazing. The secondary glazing is 4mm toughened glass with low emissivity hardcoat (Low-E coat) to achieve a U-value of approx. 1.85 W/m²K overall for the original glazing and secondary glazing. This is below the 1.6 W/m²K required in the Approved Document L Conservation of fuel and power, Volume 2. However, this is a significant improvement on the current U-value of 4.7 W/m²K typical of single glazed timber windows. As this is a historic building, this appears to be a good result to achieve close to the Building regulations

guidelines whilst preserving the significance by causing minimal harm to historic fabric and architectural interest.

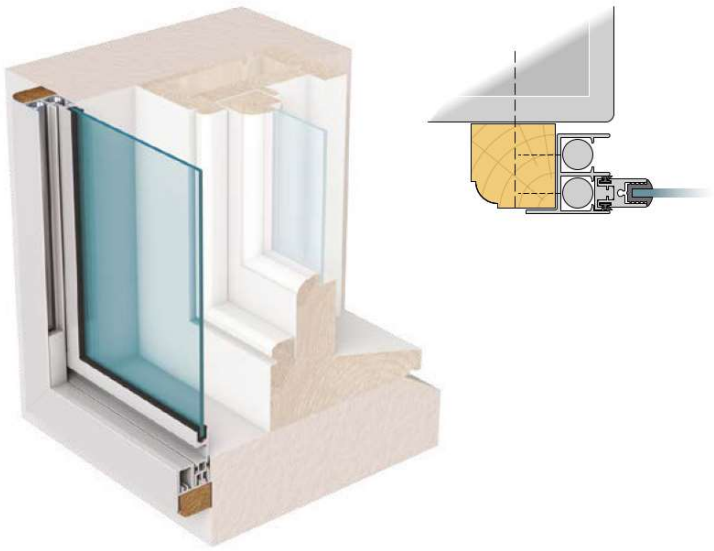
5.4 It is proposed that most secondary glazing to sash windows will be 'Face fix' mounted. The advantage of this is that the blinds fitted in the window reveal can be retained.

FACE FIX

- Softwood frame with minimum 38mm x 32mm section bedded in acrylic sealant and fixed to structure
- Optional moulding
- Odd leg frame with applied sealant is conceal fixed to timber

Guidance

- Suitable detail where:
  – no reveal exists
  – where clearance is needed for inward opening windows
- Remote blind controls and ventilators cannot normally be accommodated



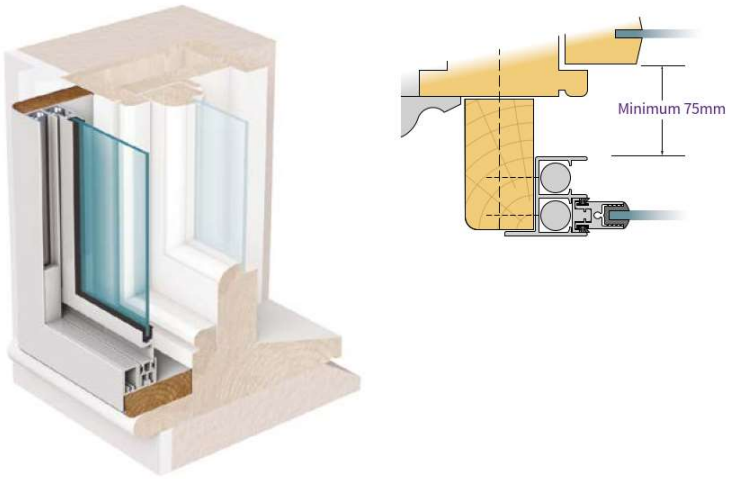
5.5 Where there is no window reveal to sash windows, it is anticipated that the secondary glazing windows will be 'Flush box sash' mounted. The 'flush box sash' would be extended out sufficiently that the blinds could be retained.

FLUSH BOX SASH

- Timber sized to provide a minimum 75mm clearance at meeting rail and fixed to box sash
- Optional moulding
- Odd leg frame with applied sealant is conceal fixed to timber

Guidance

- Minimum 75mm cavity applies to use of matching sash window system
- If a wider timber is specified the architrave can be resited to the face of the secondary window



5.6 For those windows where dado railing is fitted to the window reveal, it will be necessary to increase the depth of the timber fixing grounds. The bespoke timber fixing grounds can then be notched onsite

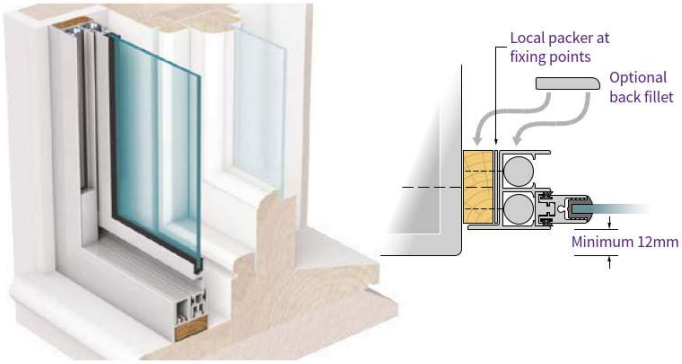
around the dado rail when the windows are installed. For those window reveals where there is a dado rail, then the windows would need to be 'standard square reveal fixed'.

STANDARD SQUARE REVEAL FIX

- 33mm x 15mm twice primed softwood ground bedded in acrylic sealant and fixed to structure
- Odd leg frame with applied sealant is conceal fixed to ground
- Local hidden packers take up opening tolerance
- Optional caulking joint between frame and wall allows finished decoration

Guidance

- Set back minimum 12mm from face of plastered reveals to avoid blowing plasterwork
- Fixings for hinged units must penetrate into structure
- Enlarged timber grounds required when:
  – openings are very irregular
  – access needed for remote blind controls
- Optional back fillet available to conceal packing



1.0 Use of the Building

1.1 The building is used as the Worthing Museum and Art Gallery.

2.0 Layout and Scale of the property

2.1 The layout and floor area of the property will not be affected by the proposals. All secondary glazing windows installed internally to the reveal of the original existing windows.

3.0 Appearance

3.1 There are no proposals for altering the size, glazing fenestration or glazing beads of the existing original windows. The secondary glazing proposed will be white to match the colour of the existing window frames. The operating of the secondary glazing will match the original windows, for example vertical sash secondary glazing will be fitted to the timber sash original windows.

4.0 Access Statement

4.1 Contractor's requirements/site set up

4.1.1 There are parking spaces to the North elevation of the property. Scaffolding is not required for the installation of secondary glazing internally. Pedestrians or any potential vehicle

movements should not be affected through this road during the length of the works. All site activity will be within the boundary of the site and the works will be conducted internally.

4.1.2 Some provision may need to be made for a site compound for secure storage of materials and tools, and welfare unit for the contractors. The exact location of this will need to be confirmed after a contractor has been appointed. Any use of neighbouring properties' land or parking spaces would need to be agreed with the relevant parties or other alternative arrangements made.

4.1.3 If necessary, any licences would be applied for prior to commencement of works as well as any notices for closure of any roads as deemed necessary by the contractor. As already outlined, it is not anticipated that scaffolding or road closures are required for the proposed works of installing secondary glazing.

4.2 Emergency Vehicular Access

4.2.1 Emergency services will continue to be able to access Worthing Museum and Art Gallery and neighbouring buildings. The ability to reach and serve the building and surrounding area will not be diminished during these works.

5.0 Summary

5.1 The works proposed are considered minor in nature to install secondary glazing internally to the existing windows to the property and provide substantial thermal improvement and carbon savings to the building.