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1-7 Howardsgate, Welwyn, AL8 6AL  
Replacement of Existing Windows  
Design and Access Statement

Filing reference: 4898/3.4 DAS1

Client: GPL 2014 Ltd

Revision: P1

# 1. Introduction

This Design and Access Statement has been prepared by Househam Henderson Architects to support a planning application for a replacement of 1<sup>st</sup> and 2<sup>nd</sup> floor windows at Fountain House, 1-7 Howardsgate. Househam Henderson act as the agent on behalf of GPL 2014 Ltd.'.

The design submitted in this application follows a Prior Approval (Permitted Development) application 6/2017/1686/PN11 for a conversion of the 1<sup>st</sup> and 2<sup>nd</sup> floor of the property into residential use, and a planning application 6/2017/0400/FULL for a new roof formation to accommodate an additional storey at third floor level providing eight self-contained flats.

The new windows are an important part of the design of the apartments. They have been designed to provide them with a high-performance envelope, which would protect them against noise and cold, and at the same time enable adequate ventilation and improved security properties.

Acoustic design of the windows is critical to ensure that the quality of the residential accommodation is not compromised by the nearby commercial premises. The submitted design is based on an acoustic engineer's advice following a series of surveys carried out to consider all acoustic aspects of this challenging location.

## 1.1 Existing Property

The building was constructed in the late 1960's and the architectural detailing corresponds with the trends of that period. The building is locally known as Fountain House due to the nearby fountain. The first and second floor were used as offices but have been vacant since January 2017.

The ground floor of the building is divided into several commercial units. The commercial units will retain their existing windows / shop fronts and are not part of this application.

The Eastern part of the ground floor is occupied by the Two Willows pub, with the freehold belonging to the owners of Fountain House. All of the ground floor properties are separated from the upper floors and have independent means of access and escape.

The Northern end of the building is occupied by licensed premises on the ground and 1<sup>st</sup> floor. This has a basement and a small back of house area at the rear of the 2<sup>nd</sup> floor. There is a separate access and escape with no connection internally with the rest of the building. This part of the building will retain the existing windows.

The existing single-glazed steel windows have degraded over time and are in a worn-down condition, some of them have ceased to be weather-tight. Their design was apt at the original time of construction for the office use but they are not suitable for the proposed residential use because of their insufficient thermal and acoustic properties.



Picture 1: Existing steel windows on 1<sup>st</sup> and 2<sup>nd</sup> floor



Picture 2: Existing windows from inside

## 1.2 Proposal

The proposal is for new replacement aluminium windows with double-glazing to the 1<sup>st</sup> and 2<sup>nd</sup> floor of the property, with the exception of the Northern part of the property, which is occupied by the licensed premises. This part of the building will retain the existing windows.

## 1.3 Listing Status, Conservation Area

The building is not listed but it is situated within the Welwyn Garden City Conservation Area. However, while the majority of the buildings along Howardsgate and Parkway have been built in a pseudo Georgian style, Fountain House is a genuine representative of the 1960's architecture. Therefore we believe that also the replacement windows should be modern, respecting the building, rather than following the historical features of the surrounding buildings.

# 2. Design

## 2.1 Shape, Configuration, Proportions, Detail

It is proposed that the windows of the front elevations will follow the existing profile on plan, which means the side lights will be set about 250mm back behind the central bay window. This shape is dictated by the edge of the existing 2nd floor slab.

Whereas the existing bay windows are fixed and the side lights are openable, we are proposing to switch this arrangement to make the bay windows openable - tilt and turn inwards. This is in order to provide sufficient purge ventilation for the flats and to facilitate window cleaning.

The lower section of each window is proposed to be formed with spandrel panels that will accommodate ventilation extract grilles and passive ventilators, which cannot be located at high level due to existing down-stand beams.

As far as possible the existing vertical proportions of the windows were maintained in the new design. The level of the lower transoms (horizontal section) is determined by the size of the passive vents that have to be accommodated under the windows. The level of the upper transom is set to comply with the Approved Document K – Protection from Falling. In the existing building, the issue of protection against falling was dealt with by timber rails fixed to the perimeter walls – refer to photo 2. This solution is not suitable for the residential use.

In terms of details we have chosen a slender aluminium window system with nominal depth of the sections 50mm and sightlines of 45mm for fixed lights and 100mm for openable vents (vent to mullion). Though aluminium double-glazed windows will always appear more robust than the current single-glazed steel windows, the proposal presents a well-considered compromise between performance and aesthetics.

Two windows (1no. on 1<sup>st</sup> floor and 1no. on 2<sup>nd</sup> floor) nearest to the Two Willows pub are proposed to be replaced with Juliet balconies / French windows. The sills of these windows will be removed to increase the openings sizes. This is to improve access to daylight and so increase the quality of the accommodation. Glass balustrades will be fitted to these openings.

On the Northern elevation (service yard) the new windows are also proposed to follow the existing shape. Two larger openings concealed behind the new lift shaft will accommodate smoke vents. Transoms have had to be incorporated to the windows on the Northern elevation to comply with the Approved Document K.

Windows on the Eastern elevation (service yard) have been adjusted against the existing ones to match with the windows on the Northern elevation and to create space for services that have to be diverted / extended – mainly the duct from the bar's kitchen.

In some cases, predominantly on the rear facade, accommodating grilles for ventilation extracts and passive vents in the windows would not be practical. In these circumstances the grilles will be located in the brick wall – the grilles are shown on the application drawings. The grilles will be coloured red to match the adjacent brickwork.

It is proposed that all new windows will be powder coated white, to match the existing windows. Also the spandrel panels and the grilles incorporated into the windows will be white to match.

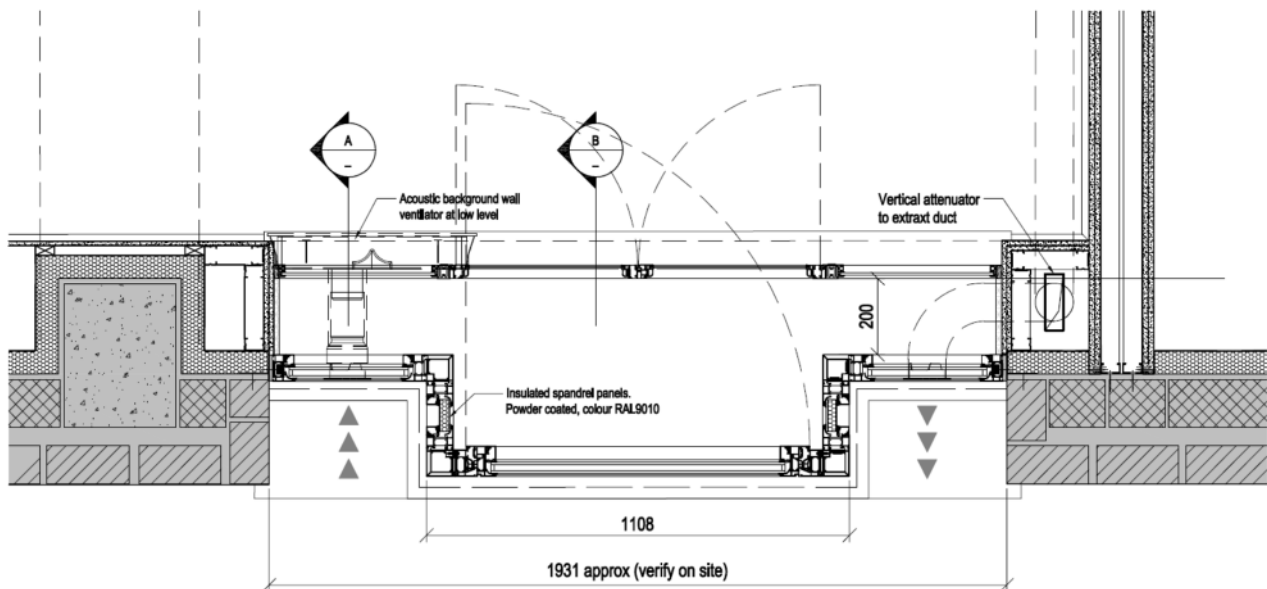
An aluminium system Aluk 58BW or equivalent is specified. The glazing will be clear as there are no situations of overlooking. The double-glazed units are proposed to consist of an 8.8mm acoustic laminated glass, 16mm argon filled cavity, and 6mm toughened glass to achieve sound attenuation  $R_w - C_{tr}$  35dB for living rooms, and  $R_w - C_{tr}$  45dB for bedrooms - in combination with secondary glazing. This is as advised by the acoustic engineer. A control window will be tested to confirm that the envelope performs as expected in the design.



Picture 3: Window section - example of an aluminium system proposed to be used

## 2.2 Secondary glazing

As mentioned above, secondary glazing is proposed to all bedrooms on the 1<sup>st</sup> and 2<sup>nd</sup> floor. This to achieve the acoustic parameters required by the Approved Document E. The secondary glazing will be positioned 200mm behind the primary glazing, as advised by the acoustic engineer, and will consist of double casement window with fixed lights on both sides. This configuration will allow the opening of the window to the primary glazing by 90 degrees. To turn the openable vent of the primary glazing through the secondary glazing, the top section of the primary glazing needs to be deeper so that the leaf of the vent can swing underneath the frame of the secondary glazing – this is illustrated on the submitted drawings A410 and A411. It is proposed that the glass of the secondary glazing will be 6.8mm thick, toughened. Selecta Glaze 45/46 or equivalent is specified for the secondary glazing. The frame of the secondary glazing will be powder coated white.



Picture 4: Typical bedroom window with secondary glazing – horizontal section

## 3. Access

The proposal does not affect access into the building. The apartments are not required or designed to comply with the Approved Document M but the window handles will be positioned as low as the window construction will allow, for ease of operation.

## 4. Drawings submitted with the application

- A920 rev.P2 Site Plan
- A921 rev.P1 Location Plan
- A910 rev.P4 Existing Elevations – South and West
- A911 rev.P4 Existing Elevations – North and East
- A260 rev.P2 Proposed Elevations – South and West
- A261 rev.P2 Proposed Elevations – North and East
- A410 rev.P1 Typical Window Details – South and West Elevations
- A411 rev.P1 Typical Window Details – North Elevation

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