Technical Briefing Note

227 Shepherds Bush Road, Hammersmith

ACA acoustics

Client:	Space Agent
Project:	227 Shepherds Bush Road, Hammersmith
Reference:	250219-R003
Report date:	March 4, 2026
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1. Introduction

ACA Acoustics Limited has been commissioned to provide ongoing design advice in relation to the acoustic aspects of this development.

The project consists of two key parts; the permitted-development conversion of an existing office/commercial block into a residential development (retaining commercial units on the front section ground floor and residential on rear section ground floor and 1st to 3rd floors) and the new-build 2-storey rooftop residential extension (also permitted development).

2. PLANNING CONDITIONS

The acoustic related planning conditions are detailed below;

3.1 Existing/Permitted Development Part

6) The development hereby granted prior approval shall be carried out and completed in accordance with the details contained within the Noise Impact Assessment (Ref. 250219-R001A, dated 11.04.2025) prepared by ACA Acoustics. No part of the development shall be used or occupied until all commercial noise mitigation measures have been installed in accordance with the submitted details and the development shall be permanently retained in this form and maintained as necessary thereafter.

Reason: To mitigate against exposing future occupants to harmful levels of noise from commercial premises, in accordance with Policies CC11 and CC13 of the Local Plan (2018).

3.2 Rooftop Extension

5) Prior to commencement of the prior approval development hereby granted, details shall be submitted to and approved in writing by the Council, of the sound insulation of the floor/ ceiling/ walls separating the commercial part(s) of the premises from dwellings / noise sensitive premises. Details shall demonstrate that the sound insulation value DnT,w + Ctr and L'nT,w is enhanced by at least 10dB above the Building Regulations value and, where necessary, additional mitigation measures are implemented to contain commercial noise within the commercial premises and to achieve the criteria of BS8233:2014 within the dwellings/ noise sensitive premises. Approved details shall be implemented prior to occupation of the development and thereafter be permanently retained.

To mitigate against exposing future residential occupants to harmful levels of noise and disturbance from commercial premises, in accordance with Policy D14 of the London Plan (2021) and Policies CC11 and CC13 of the Local Plan (2018).

8) The noise level in rooms at the development hereby approved shall meet the noise standard specified in BS8233:2014 for internal rooms and external amenity areas.

To ensure that the amenity of occupiers of the development site and surrounding premises is not adversely affected by noise, in accordance with Policies CC11 and CC13 of the Local Plan (2018).

3. DESIGN ADVICE

Unless otherwise stated, this advice is based on the details contained within drawing *"SHE - DETAILS revF14e - 23.2.2026",* along with ongoing electronic and telephone conversations with project architect - Matthias Hamm.

3.3 Separating Floors between Commercial and Residential Areas – Permitted Development Section

As per ACA Acoustics report 250219-R001A, any separating partition between residential and commercial areas need to achieve sound insulation performance that is enhanced by 7dB above the Building Regulations. As this is a site formed by material change of use (refurbishment), the criterion is DnT,w + C'tr 50dB.

For the floors, ACA Acoustics recommend installing an acoustic ceiling below the existing 170 – 510mm existing ribbed concrete deck. The acoustic ceiling should comprise of 2 x 15mm layers of SoundBloc to create a minimum 100mm cavity 2/3 filled with Rockwool and fixed to the soffit with resilient fixings such as Gyproc acoustic hangers or Genie Clips. The layers of plasterboard should have taped and staggered joints. ACA Acoustics can confirm *'detail 02'*, complies with this advice. It is important that any penetration of the acoustics linings are kept to a minimum and where unavoidable, any gaps should be sealed with acoustic mastic.

3.4 Separating Walls between Commercial and Residential Areas – Permitted Development Section

As per ACA Acoustics report 250219-R001A, any separating partition between residential and commercial areas need to achieve sound insulation performance that is enhanced by 7dB above the Building Regulations. As this is a refurbishment site, the criteria is DnT,w + C'tr 50dB.

The client is proposing to use British Gypsum wall type 'A216013', which has a stated airborne sound insulation rating of Rw + C'tr 62dB. ACA Acoustics can confirm this wall type is suitable for this application.

3.5 Separating Floors between Residential Areas – Permitted Development Section

A criterion of DnT,w + C'tr 43dB and LnT,w 64dB must be achieved.

ACA Acoustics advise that 'detail 04' and 'detail 07' are slightly modified so that the ceiling linings extend below the 750mm RC beam i.e. right to the curtain wall rather than stopping slightly short as is shown on the drawing.

3.6 Separating Walls and Floor Junctions between Residential Areas – Permitted Development Section

A criterion of DnT,w + C'tr 43dB must be achieved. The client is proposing to use British Gypsum wall type 'L216017F', which has a stated airborne sound insulation rating of Rw + C'tr 57dB. ACA Acoustics can confirm this wall type is suitable for this application.

Where the separating partition meets the ribbed concrete soffit as per 'detail 08', it is advised that the horizontal insulation layer is moved to the void below, otherwise, this detail is also acceptable.

3.7 Separating Floors between Commercial and Residential Parts – Rooftop Extension

Planning condition 8 requires that any separating partition between residential and commercial parts need to achieve sound insulation performance that is enhanced by 10dB above the building regulations. As this is a material change of use site, the criteria is DnTw + Ctr 53dB and LnTw 54dB. However, there are no commercial parts adjoining the new-build residential parts, therefore this criterion is irrelevant.

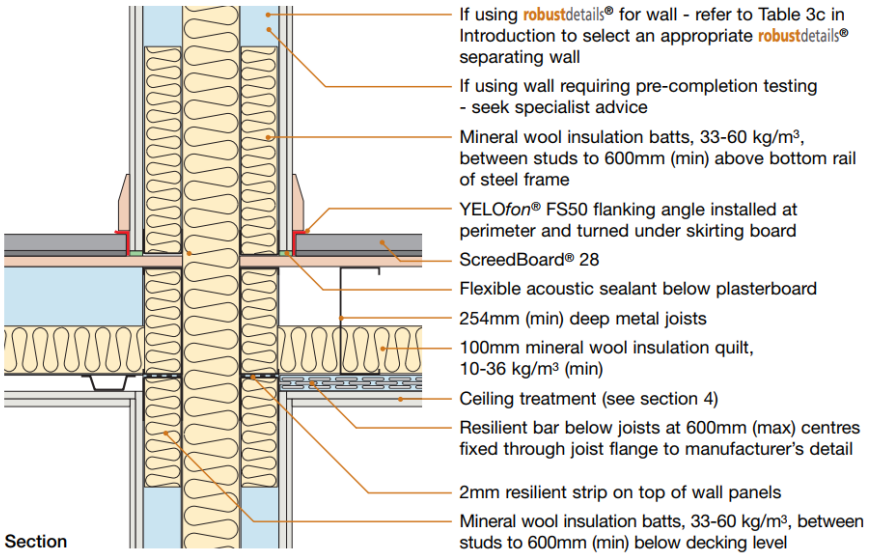
3.8 Separating Floors and Walls – Rooftop Extension

Criteria of DnT,w + C'tr 43dB and LnT,w 64dB must be achieved.

As the client is proposing steel frame walls and steel frame floor constructions are used, ACA Acoustics recommend the below detail (Robust Details E-FS-2) or similar. It is recommended this detail is used for 3rd – 4th floors (i.e. the floor separating the permitted development and the rooftop extension).

The 4th – 5th floor is not a party floor (as they are duplex apartments) and therefore would not require the resilient bars or ScreedBoard layers, however as there are party walls, a similar junction detail is still recommended for this floor. **It is essential that there are no continuous steel beams/channels between different apartments.**

2. Separating wall junction



3.9 Glazing / Ventilation Requirements

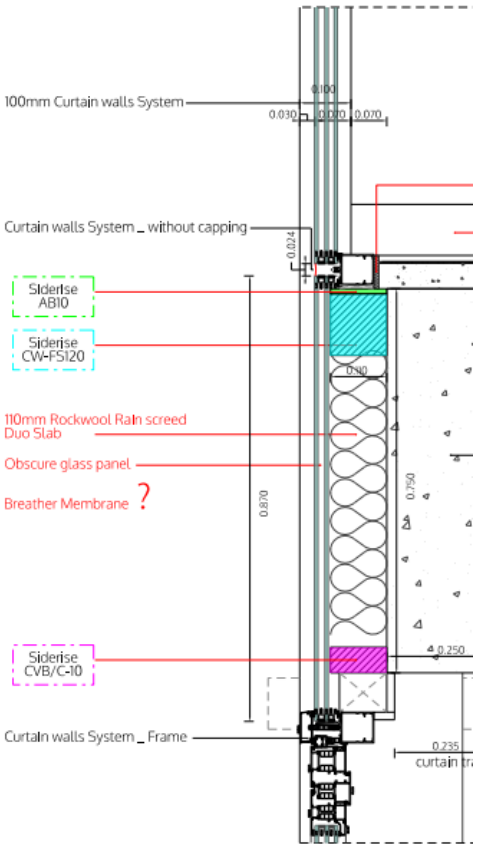
Description	Location	Rw (dB)	Rw + C'tr (dB)	Typical Construction
Windows	Permitted Development Living Rooms – Rear*	34	30	Double glazing such as 4-16-6 Thermal Double Glazing
	Permitted Development Bedrooms – Rear*	37	35	Double glazing such as 10-12-6 Thermal Double Glazing
	Front and side Rooftop Extension Living Rooms & Bedrooms	46	40	Double glazing such as 10.5-16-12 Laminated Double Glazing
	Rooftop Extension Bedrooms - Rear	37	35	Double glazing such as 10-12-6 Thermal Double Glazing
	Rooftop Extension Living rooms - Rear	34	30	Double glazing such as 4-16-6 Thermal Double Glazing
Ventilation	Throughout Site, except newbuild front and sides	Dnew 45dB		Passivent Acoustic Window Vent ALdB 450-40 WS or equivalent
	Rooftop Extension front and sides	N/A	N/A	Mechanical Ventilation

*No criteria have been imposed by the Local Authority for noise intrusion to the front/side facades of the existing floors. However, ACA Acoustics recommend adopting the same specifications as the rear as a minimum or preferably adopting the rooftop extension specifications.

Once the glazing supplier has been selected, ACA Acoustics can confirm the selected products meet the above specifications.

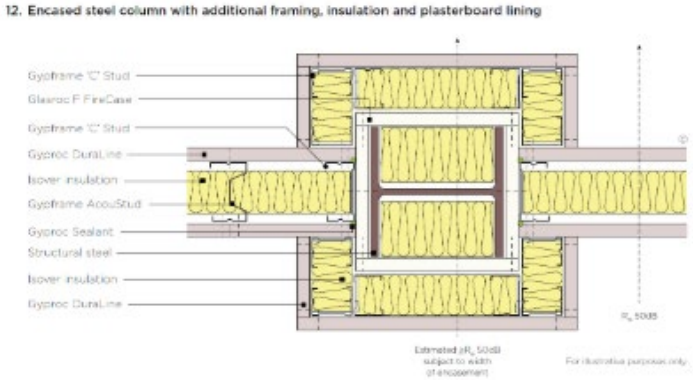
3.10 Curtain Wall Gap

The below detail has been recommended by a Technical Services Engineer for manufacturer, Siderise. He has advised that the below will achieve Dn,f,w 53dB. ACA Acoustics can confirm that this stated performance is sufficient to maintain the same sound insulation performance as the primary separating floor. It should also be ensured that there are no continuous vertical mullions between different apartments i.e. the mullions are separated by a rubber strip.



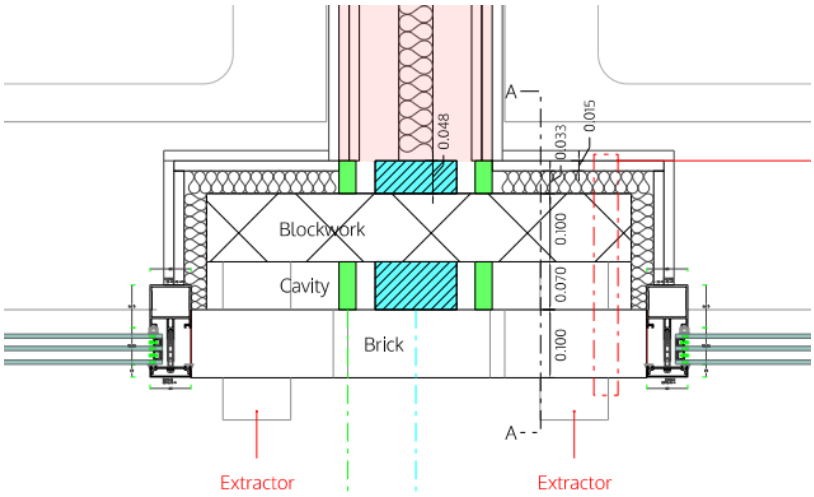
3.11 Steel Columns

It is recommended that the below detail is nominally adopted where there are steel columns between separate dwellings. However, it is important that the studs are offset the from the column (by circa 10mm) so they are not directly fixed to/touching the column at all, i.e. only fixed to the floor/ceiling. Also, the linings need to be the same as the separating walls with 2 x 15mm plasterboard. It is important to acquire independent fire advice to check this is acceptable. This detail is indicative and the separating wall should be as per British Gypsum wall type 'L216017F'.



3.12 Junction between Separating Walls and External Walls

The below detail as proposed by the client is confirmed as acceptable. It is essential that no separating walls abut the glazing directly.



4. Disclaimer Statement

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