

ACOUSTIC TECHNICAL NOTE



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Revision:	1
To:	Wates
From:	Toby Walton
Date:	29 June 2023
Project:	Abbey Area, Phase 3
Subject:	Letter of Conformity – Planning Conditions 11 & 12

1.0 INTRODUCTION

The development consists of the demolition and redevelopment of Emminster and Hinstock blocks including Belsize Priory Health Centre, Abbey Community Centre, public house and commercial units to provide new residential accommodation (Use Class C3) and ground floor commercial space (Use Class E) to be used as flexible commercial units, across three buildings ranging from 4 to 11 storeys, along with car and bicycle parking, landscaping and all necessary ancillary and enabling works.

This Technical Note serves to confirm that the requirements of Planning Conditions 11 & 12 will be met.

2.0 PLANNING CONDITION 11

Planning Condition 11 for the development states:

“Prior to commencement of above ground works, details shall be submitted to and approved in writing by the Council, of an enhanced sound insulation value $D_{nT,w}$ and $L'_{nT,w}$ of at least 5 dB above the Building Regulations value, for the floor/ceiling/wall structures separating different types of rooms/uses in adjoining dwellings (e.g., living room and kitchen above bedroom of separate dwelling). Approved details shall be implemented prior to occupation of the development and thereafter permanently retained.

Reason: To ensure that the amenity of the occupiers of the development site is not adversely affected by noise in accordance with Policy A1 of the Camden Local Plan 2017”.

RBA Acoustics have worked closely with the wider design team to ensure that the above requirements will be met, and to ensure compliance with Planning Condition 11 that was applied to ensure accordance with Policy A1 of the Camden Local Plan 2017.

The separating structures agreed are outlined within the following.

2.1 Main Separating Wall (S2)

We understand that the main separating wall construction between flats, as shown on the Pollard Thomas Edwards Architects (PTEA) drawing number ARP3-PTE-ZZ-ZZ-DR-A-22401 dated November 2022 (Revision P4), comprises the following.

- 2 layers of 15 mm dense plasterboard (12.5 kg/m² each)
- 50 mm metal studs with Siniat GTEC Acoustic V-brace creating 90 mm cavity between frames fully filled with mineral wool (minimum 16 kg/m³)
- 2 layers of 15 mm dense plasterboard (12.5 kg/m² each)

The above equates to an overall dimension of 250 mm.

Subject to a high level of build quality and appropriate detailing of the flanking transmission paths we consider the proposed separating wall construction to be commensurate with the enhanced performance standards for airborne sound insulation.

2.2 Separating Wall with Sacrificial Lining to Both Sides (S17)

We understand that the separating wall construction between flats with a sacrificial lining to both sides, as shown on the PTEA drawing number ARP3-PTE-ZZ-ZZ-DR-A-22402 dated November 2022 (Revision P4), comprises the following.

- 1 layer of 15 mm plasterboard (9.5 kg/m²)
- 65 mm metal stud with 25 mm mineral wool (10 – 40 kg/m³)
- 2 layers of 15 mm dense plasterboard (12.5 kg/m² each)
- 50 mm metal studs with Siniat GTEC Acoustic V-brace creating 40 mm cavity fully filled with mineral wool (minimum 16 kg/m³)
- 2 layers of 15 mm dense plasterboard (12.5 kg/m² each)
- 65 mm metal stud with 25 mm mineral wool (10 – 40 kg/m³)
- 1 layer of 15 mm plasterboard (9.5 kg/m²)

The above equates to an overall dimension of 360 mm.

Subject to a high level of build quality and appropriate detailing of the flanking transmission paths we consider the proposed separating wall construction to be commensurate with the enhanced performance standards for airborne sound insulation.

2.3 Separating Wall with Sacrificial Lining to One Side (S17a)

We understand that the separating wall construction between flats with a sacrificial lining to one side, as shown on the PTEA drawing number ARP3-PTE-ZZ-ZZ-DR-A-22402 dated November 2022 (Revision P4), comprises the following.

- 1 layer of 15 mm plasterboard (9.5 kg/m²)
- 65 mm metal stud with 25 mm mineral wool (10 – 40 kg/m³)
- 2 layers of 15 mm dense plasterboard (12.5 kg/m² each)
- 50 mm metal studs with Siniat GTEC Acoustic V-brace creating 120 mm cavity fully filled with mineral wool (minimum 16 kg/m³)
- 2 layers of 15 mm dense plasterboard (12.5 kg/m² each)

The above equates to an overall dimension of 360 mm.

Subject to a high level of build quality and appropriate detailing of the flanking transmission paths we consider the proposed separating wall construction to be commensurate with the enhanced performance standards for airborne sound insulation.

2.4 Separating Floor Construction (F3)

We understand that the separating floor between flats, as shown on the PTEA drawing number ARP3-PTE-ZZ-ZZ-DR-A-40401 dated November 2022 (Revision P4), is to comprise the following construction:

- 75 mm screed
- 25 mm phenolic foam boards
- 10 mm polyethylene foam resilient layer
- 225 mm reinforced concrete slab
- MF suspended ceiling comprising 1 layer of plasterboard

A single layer of 12.5mm standard plasterboard (min 8.5 kg/m²) would suffice for the enhanced standards being targeted.

Please note that the floating screed will require a high level of supervision to build quality. Acoustic failures are often encountered with floating screeds when the screed bridges on to the main structure. Attention will need to be given to ensure the following:

- Perimeter isolation strips are correctly implemented
- All joints within the resilient layer are well taped, with an adequate overlap

Subject to ensuring sufficient levels of build quality and control of the flanking paths the above construction is considered to be commensurate with the enhanced performance standards providing the resilient layer is included.

3.0 PLANNING CONDITION 12

Planning Condition 12 for the development states:

“Prior to commencement of above ground works, 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 noise sensitive premises. Details shall demonstrate that the sound insulation value $D_{nT,w}$ and $L_{nT,w}$ is enhanced by at least 10 dB above the Building Regulations value and, where necessary, additional mitigation measures implemented to contain commercial noise within the commercial premises and to achieve the criteria of BS8233:2014 within noise sensitive premises. Approved details shall be implemented prior to occupation of the development and thereafter be permanently retained.

Reason: To ensure that the amenity of the occupiers of the development site is not adversely affected by noise in accordance with Policy A1 of the Camden Local Plan 2017.”

RBA Acoustics have worked closely with the wider to design team to ensure that the above requirements will be met, and to ensure compliance with Planning Condition 12 that was applied to ensure accordance with Policy A1 of the Camden Local Plan 2017.

3.1 General

A number of commercial units are proposed for the ground floor levels of Block A and B. These commercial units will be located directly below residential apartments at first floor level.

We understand the uses for the commercial units have yet to be established and are under Use Class E.

3.2 Separating floor construction (F5)

We understand the separating floor construction between flats the commercial units, as shown on the PTEA drawing number ARP3-PTE-ZZ-ZZ-DR-A-40401 dated November 2022 (Revision P4), will comprise:

- 75 mm screed
- 25 mm polystyrene insulation
- 10 mm polyethylene foam resilient layer
- 225 mm reinforced concrete slab
- 185 mm mineral wool insulation (10 – 40 kg/m³)
- 380 mm service void
- 100 mm ceiling zone with MF suspended ceiling comprising 1 layer of plasterboard

Subject to a high level of build quality, we confirm this construction is commensurate with a performance 10 dB above the minimum Building Regulations requirement for airborne noise.

4.0 CONCLUSION

RBA Acoustics have worked closely with the wider to design team to ensure that the separating structures within the development will achieve the requirements of Planning Condition 11 & 12. The structures agreed upon have been outlined within this document.