

Our Ref: 9216.LE01.0

22 December 2020



W. [www.rba-acoustics.co.uk](http://www.rba-acoustics.co.uk)

E. [info@rba-acoustics.co.uk](mailto:info@rba-acoustics.co.uk)

**London**

44 Borough Road, London SE1 0AJ

T. +44 (0) 20 7620 1950

**Manchester**

Lowry House, 17 Marble Street,  
Manchester M2 3AW

T. +44 (0) 16 1661 4504

K Smith Esq.  
Studio Anyo  
Studio 21  
Monohaus  
143 Mare Street  
London  
E8 3FW

Dear Kaldon

## 10 GATE STREET INTERNAL SOUND INSULATION

It is proposed to construct a two-storey extension to the existing property at 10 Gate Street, London, WC2A. RBA Acoustics has been commissioned to review the proposed party floor construction between the existing building and the new extension to show compliance with the requirements of the planning permission (ref. 2017/4062/P).

### Planning Condition 7

Planning Condition 7 requires:

*Prior to occupation of any relevant part of the development, details of sound insulation measures for the residential units shall be submitted to and approved in writing by the Local Planning Authority. The approved sound insulation measures shall be installed prior to occupation of any of the residential units, and retained and maintained thereafter.*

### Building Regulations

Requirement E1 of The Building Regulations requires that,

*Dwelling-houses, flats and rooms for residential purposes shall be designed and constructed in such a way that they provide reasonable resistance to sound from other parts of the same building and from adjoining buildings.*



## Approved Document E

Building Regulations Approved Document E (2003 edition incorporating 2004, 2010 and 2015 amendments) provides guidance for levels of sound insulation within residential developments. These criteria are applicable to separating walls and floors between individual demises and also between demises and common parts. Criteria are provided for both “purpose-built dwelling houses and flats”, and for “dwelling houses and flats formed by material change of use”. As the redevelopment of 10 Gate Street relates to an extension of the existing building, normally the ‘change of use’ criteria would be applied.

The sound insulation criteria to be achieved for separating floors are, therefore:

Minimum airborne sound insulation of 43dB  $D_{nT,w} + C_{tr}$ . This is an on-site performance rating.

Maximum impact sound pressure level of 64dB  $L'_{nT,w}$ . This is an on-site performance rating.

## Proposed Construction

Studio Anyo Drawing 35—103-C3, ‘Interior Junction Details – Ceiling to Window Box’, shown in the attached Figure 1, proposes the following construction.

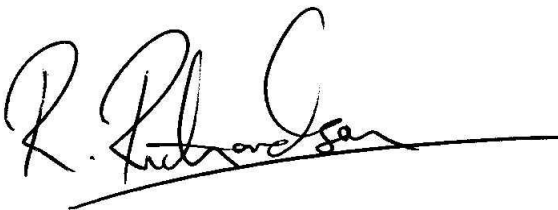
- Engineered timber flooring
- Foil underlay
- Fermacell 2E32
- 18mm Plywood deck
- Existing joists
- 150 mm Rockwool Flexi mineral wool in the joist void
- Resilient bar to underside of joists
- 2 layers 15mm Knauf Soundshield Plus

## Discussion

We consider the proposed party floor construction is acoustically acceptable with regard to achieving the airborne and impact sound insulation requirements of the Building Regulations Requirement E1. As such, we suggest it satisfies the requirement of planning Condition 7.

We trust the above is clear and of use, however should you have any questions, please do not hesitate to contact the undersigned.

Yours sincerely,  
For RBA Acoustics

A handwritten signature in black ink, appearing to read 'R. Richardson', with a long horizontal line extending from the end of the signature.

Russell Richardson

