

Acute Acoustics Ltd

8 Bayliss Close

Quorn, Loughborough

LE12 8PF

01509 550 335

info@acuteacoustics.co.uk

SOUND INSULATION ADVICE

Proposed Development at 15-19 New Buildings.
Hinckley, LE10 1HN.

Client: Ankit Thakkar.

Report by

P M Dyson BSc Dip Acoustics MIOA

Acute Acoustics Ltd.

Report Date: 6th March 2023

Ref: 2781 Hinckley – 15-19 New Buildings SI Advice

Site Visited by: P M Dyson

Site Visit: 22nd February 2023

1.0 INTRODUCTION

Acute Acoustics Ltd (AAL) was instructed by Ankit Thakkar (AT) to carry out preliminary sound insulation testing on the party floor between first floor rooms and the ground floor cafe and make recommendations about sound insulation of the ground/first floor on a proposed development site at 15-19 New Buildings, Hinckley, LE10 1HN. The ground floor was previously a public house but has been converted to form a cafe, the first floor was previously a manager's flat and is to be converted for form 3no flats.

The second and extended loft floors are to be converted to form 3no flats but are not considered within this report.

The purpose of the test was to determine whether the tested construction meet the performance standards of The Building Regulations.

This report describes the rooms tested by Peter Dyson on 22/2/2023, the equipment used, the results obtained, and draws conclusions as to the performance of the structure in comparison with the standards required in the current Building Regulations. The detailed result graph appears at the rear of the report. Information about recommended construction details are shown at Appendix 1 together with generic information about resilient battens, mineral wool quilt, mineral wool slabs, acoustic decks, flanking strip, acoustic underlay and acoustic rated back boxes.

2.0 CRITERIA

2.1 Building Regulations – Approved Document E

For airborne sound insulation, Part E of The Building Regulations relies on a “single number value” for assessment of sound insulation; this term is known as $D_{nT,w}+C_{tr}$; $D_{nT,w}$ was the previous single figure term and C_{tr} is a spectrum adaptation term designed to give more weight to the performance of separating structures at low frequencies. For dwellings and rooms for residential purposes formed by a material change of use, the airborne sound insulation should achieve a value of 43 dB $D_{nT,w}+C_{tr}$ or higher. The larger the $D_{nT,w}+C_{tr}$ the better the airborne sound insulation.

2.2 National Planning Policy Guidance - Noise

Paragraph 009 (Reference ID: 30-009-20190722) of NPPG discusses the risk of conflict between new development and existing businesses or facilities and states that:

“Development proposed in the vicinity of existing businesses, community facilities or other activities may need to put suitable mitigation measures in place to avoid those activities having a significant adverse effect on residents or users of the proposed scheme.”

“In doing so, the agent of change will need to take into account not only the current activities that may cause a nuisance, but also those activities that

businesses or other facilities are permitted to carry out, even if they are not occurring at the time of the application being made.

The agent of change will also need to define clearly the mitigation being proposed to address any potential significant adverse effects that are identified. Adopting this approach may not prevent all complaints from the new residents/users about noise or other effects but can help to achieve a satisfactory living or working environment and help to mitigate the risk of a statutory nuisance being found if the new development is used as designed (for example, keeping windows closed and using alternative ventilation systems when the noise or other effects are occurring)".

With that in mind, for separating floors with residential above retail/commercial use with no use of amplified music, some local authorities are specifying $D_{ntw} \geq 60\text{dB}$.

2.3 Discussion of Criteria

The ground floor cafe will not be playing amplified music.

3.0 EXISTING CONSTRUCTION & SITE DESCRIPTION

The external walls are 9" brickwork. Internal walls appear to be either 4.5" or 9" brickwork. The existing floors are timber floorboards on timber joists with a plasterboard ceiling below.

The dominant background noise source was low level and constant distant road traffic.

4.0 MEASUREMENTS

4.1 Sound Insulation Test Measurements

Approximate room dimensions were measured on site. Where cupboards were located on walls, they were opened during the measurements. In addition, all the procedures described in Annex B of Approved Document E of the Building Regulations have been followed except when stated otherwise.

For Airborne Sound Insulation Tests

The airborne sound insulation of the separating structures was tested in full accordance with the methodology of ISO 140:1998 Part 4 and single number values for $D_{nT,w}$ & $D_{nT,w+Ctr}$ were calculated using the methodology of ISO 717: 1997 part 1.

The source level for each room was determined according to the following method. The sound sources were placed on stands in the larger of the two rooms and the second source position was at least 1.4m from the first, with neither speaker facing towards the partition tested; the minimum distance from each speaker to any room boundary was at least 500mm and the

minimum difference in those distances was 100mm. The speakers operated simultaneously using separate, uncorrelated, pink noise sources.

A preliminary sweep measurement was made over the course of at least 30 seconds and any differences between adjacent 1/3 octaves, greater than 6 dB, were eliminated by a combination of adjusting the source settings, moving the loudspeakers or by moving diffusers (or furniture). Subsequently 10 second measurements were made at least five microphone positions for both the source and receiver rooms (received levels and background noise measurements).

No microphone position was closer than 0.5m from the room boundaries.

Instrumentation

Details of the measuring instrumentation are shown below:

Instrument	Type	Serial No.	Calibration Cert. No.	Date of Due Calibration
Svan 949	Sound Level Meter	12224	14015832-1c	29/03/2023
Svan SV12L	Preamp	17060	14015832-1c	29/03/2023
Svan SV22	Microphone	4012351	14015832-1c	29/03/2023
Castle GA 607	Calibrator	39893	14015832-1a	29/03/2023
Sound Solutions	Tapping Machine	TP02014	TP02014/12/21	14/12/2023
Prosound	Amplifier	44312	n/a	n/a
Behringer	1/3 stereo graphic EQ	N0607411166	n/a	n/a
Prosound	Speaker	9039009	n/a	n/a
Prosound	Speaker	9039021	n/a	n/a

Reverberation Time Measurements

The reverberation times were determined by using the sound level meter and its internal software. The average value of T20 for six starting pistol impulses at six different source and receiver positions was used.

Reverberation time calculations were made using the “reverse-Schroeder integration method”.

5.0 RESULTS

The full results appear at the rear of the report. The single figure rating values are presented below:

Table 1: Airborne Sound Insulation Results [dB] - A1					Criterion	Results			Pass /
Source	Vol	Receiver	Vol	Element	$D_{nT,w}+C_{tr}$	$D_{nT,w}$	C_{tr}	$D_{nT,w}+C_{tr}$	Fail
	(m3)		(m3)		(dB)	(dB)	(dB)		
GF Café Unit	207	FF LivRm	75	Floor	≥43	37	-5	32	fail

6.0 ASSESSMENT AND CONCLUSIONS

It can be seen that the tested floor FAILED the sound insulation standards of The Building Regulations by 11dB so significant upgrading of the sound performance of the separating floor will be required.

7.0 RECOMMENDATIONS – SEPARATING FLOORS

7.1 Ground Floor/First Floor

Ceiling height in the ground floor café is restricted and prevent significant treatment below the ceiling so the majority of treatment will have to be above in first floor rooms and corridors where head height is significantly greater.

Treatment from Below

Remove plasterboard existing ceiling, fit resilient bars to underside of joists, together with 2 layers 12.5mm Soundbloc plasterboard.

Treatment From Above

Floorboards to be lifted and 100mm mineral wool quilt (minimum density – 10kg/m³) installed between timber joists.

Either:

Option 1 - Timber floorboards replaced and made good where necessary and overboarded with 1 layer 8mm ply.

Or

Option 2: 22mm T&G chipboard laid direct to joists.

A raised floating heavy platform floor to be installed on top of the ply or T&G chipboard comprising:

Deep resilient battens infilled with 50mm mineral wool batts (45kg/m³ minimum density). 19mm Gyproc plank and 22mm T&G chipboard on top of resilient battens.

Overall, second floor height would be expected to rise by some 120-130mm above the existing floor height although it may be worth considering increasing it by the height of one whole stair in order to keep the first floor height consistent throughout the first floor flats and corridors.

8.0 RECOMMENDATIONS – SEPARATING WALLS

At the time of the site visit, it was not possible to determine the exact construction of every internal wall, so recommendations have been included for the likely options. Once the exact construction has been determined, the appropriate course of action can be made from sections 8.1, 8.2 & 8.3 below.

8.1 Existing Walls – 9” Brickwork

Openings (doorways, windows) to be bricked up with equivalent brickwork or 215mm very dense concrete blocks (1800-2200 kg/m³ block density). Apply one layer 12.5mm plasterboard (preferably Soundbloc) on dabs to one room face.

To the other room face, add a 50mm x 50mm timber studwork infilled with 50mm dense mineral wool quilt (10kg/m³ minimum density) and 2no layers 12.5mm Soundbloc plasterboard.

50mm metal frame can be used in place of timber if preferred.

NB. It is important that any continuous void above or below the wall (i.e. ceiling void or floor void) is blocked up with wood, plasterboard or other dense material to prevent noise flanking over or under the wall.

8.2 Existing Walls – 4.5” Brickwork

Any openings (doorways, windows) to be blocked up with 4.5” brick or 100mm dense concrete blockwork and make good where necessary.

Make good any holes, gaps or cracks in plaster and/or brickwork and apply 6mm scratch coat to one side.

To one room face, either a 13mm wet plaster finish OR 6mm scratch coat and one layer 12.5mm Soundbloc plasterboard.

To the other room face, add an independent partition as per Wall Treatment 1 of ADE and shown below at Figure 2 of Appendix 1. The void between the existing wall and panel can be as wide as is required for services and mineral wool quilt but should have a minimum width of 35mm.

50mm metal frame can be used in place of timber if preferred.

8.3 New Separating Walls

It is recommended that Wall Type 4 from ADE, 'Framed Walls with Absorbent Material' is used for new separating walls.

This is shown at Figure 3 of Appendix 1. The two timber studs to have 2 layers of 12.5mm Soundbloc plasterboard to the room face and 50mm (preferably 100mm) dense mineral quilt infill (minimum density – 10kg/m^3) in the cavity.

Do ensure that the minimum distance between the inner faces of the plasterboard to each stud is 200mm so the overall thickness of the wall will be $\approx 250\text{mm}$.

External walls to be stripped at the junction with the new separating walls.

50mm (or wider) metal studs can be used in place of timber studs if preferable.

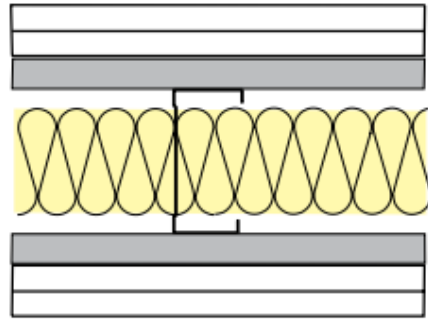
The separating walls should be built off the floor and continue up to the underside of the second floor above or, for second floor separating walls, continue up to the underside of the flat roof.

Do ensure that socket boxes are not mounted back to back but separated by 0.5m and fitted with acoustic rated back boxes.

Option 2.

If space is limited, then a metal stud frame with resilient bars can be used.

The wall to consist of 90mm metal stud with resilient bars to each side and 50mm mineral wool quilt infill, 2 layers 15mm Soundbloc plasterboard to each room face; overall thickness $\approx$ 180mm.



Two layers of board each side of Gypframe 'C'
Studs at 600mm centres with Gypframe RB1
Resilient Bar at 600mm centres to both sides.
50mm Isover Acoustic Partition Roll (APR 1200)
in the cavity. Linings as in table.

External walls to be stripped at the junction with the new separating walls.

Do ensure that socket boxes are not mounted back to back but separated by 0.5m and fitted with acoustic rated back boxes.

The separating walls should be built off the floor and continue up to the underside of the second floor above or, for second floor separating walls, continue up to the roof and firestopped.

It is important that any continuous void below the walls (i.e., floor void) is blocked up with wood, plasterboard or other dense material to prevent noise flanking under the walls.

SOUND INSULATION - GENERAL POINTS TO WATCH

The following section is general advice and not all points may apply in every situation.

9.0 GENERAL POINTS TO WATCH - PARTY WALLS

The following section is general advice and not all points may apply in every situation.

9.1 Sound Transmission Paths

With regard to the party walls, the potential sound transmission paths that can allow sound to pass from one room to another are:

- Directly through the walls, due to poor intrinsic performance of the partition.
- Sound flanking over the top of the wall via a roof/ceiling void.
- Sound flanking around the walls along the external walls.
- Sound flanking under the wall via a floor void, or a continuous floating screed (probably only for lightweight party walls).
- Sound flanking around the walls, via the doors and corridor.

10.0 GENERAL POINTS TO WATCH - PARTY FLOORS

10.1 Sound Transmission Paths

For party floors, the potential sound transmission paths that can allow sound to pass from one room to another are

1. Poor intrinsic performance of the floor/ceiling.
2. Sound flanking around the walls via the external wall.
3. Sound flanking through the floor via openings for pipework and service ducts.
4. No resilient component to reduce impact noise or the resilient component has been compromised.

10.3 Flanking via openings for pipework and service ducts.

Approved Document E gives guidance on this in section 3.79-3.81

3.79 *Pipes and ducts that penetrate a floor separating habitable rooms in different dwellings should be enclosed for their full height in each dwelling.*

3.80 *The enclosure should be constructed of material having a mass per unit area of at least 15 kg/m². Either line the enclosure, or wrap the duct or pipe within the enclosure, with 25 mm unfaced mineral wool.*

3.81 *Leave a small gap (approx. 5 mm) between the enclosure and floating layer and seal with sealant or neoprene.*

ISO 140-4:Part 4 - Standardised level Difference			
Field measurements of airborne sound insulation between rooms			
Client:	Ankit Thakkar	Test Date	22/02/2023
Type	Floor	Version	2.50
Site	15-19 New Buildings, Hinckley, LE10 1HN	Source Rm	GF Café Unit
Cnstrn	Timber	Receiver Rm	FF LivRm
Room vols [m3]			
Source	207.0		
Rec	75.0		

Freq Hz	D _{nT} [1/3 oct] dB
50	--
63	--
80	--
100	19.4
125	19.2
160	20.4
200	24.8
250	28.9
315	31.0
400	32.3
500	35.4
630	36.8
800	38.0
1000	38.9
1250	39.0
1600	39.0
2000	38.6
2500	39.7
3150	41.5
4000	--
5000	--

Background noise

Traffic

Rating According to ISO 717-1	
D _{nT,w} (C ; C _{tr}) 37 (-2 ; -5) dB	D _{nT,w} + C _{tr} 32 dB
Evaluation based on field measurement results obtained in one-third octave bands by an engineering method	

Test No.	2781 -A1	Test Institute: Acute Acoustics Ltd
ANC Test	N/A	
Date of Report	00-Jan-00	Signature:

E DWELLING-HOUSES AND FLATS FORMED BY MATERIAL CHANGE OF USE

Floor treatment 1: Independent ceiling with absorbent material

4.26 The resistance to airborne and impact sound depends on the combined mass of the existing floor and the independent ceiling, the absorbent material, the isolation of the independent ceiling and the airtightness of the whole construction.

4.27 Independent ceiling with absorbent material (see Diagram 4-3)

- at least 2 layers of plasterboard with staggered joints, minimum total mass per unit area 20 kg/m²
- an absorbent layer of mineral wool laid on the ceiling, minimum thickness 100 mm, minimum density 10 kg/m³.

The ceiling should be supported by one of the following methods:

- independent joists fixed only to the surrounding walls. A clearance of at least 25 mm should be left between the top of the independent ceiling joists and the underside of the existing floor construction, or
- independent joists fixed to the surrounding walls with additional support provided by resilient hangers attached directly to the existing floor base.

Note: This construction involves a separation of at least 125 mm between the upper surface of the independent ceiling and the underside of the existing floor construction. However, structural considerations determining the size of ceiling joists will often result in greater separation. Care should be taken at the design stage to ensure that adequate ceiling height is available in all rooms to be treated.

4.28 Where a window head is near to the existing ceiling, the new independent ceiling may be raised to form a pelmet recess. See Diagram 4-4.

4.29 For the junction detail between floor treatment 1 and wall treatment 1, see Diagram 4-5.

4.30 Points to watch

Do

- a. Do remember to apply appropriate remedial work to the existing construction.
- b. Do seal the perimeter of the independent ceiling with tape or sealant.

Do not

- a. Do not create a rigid or direct connection between the independent ceiling and the floor base.
- b. Do not tightly compress the absorbent material as this may bridge the cavity.

Diagram 4-3: Floor treatment 1

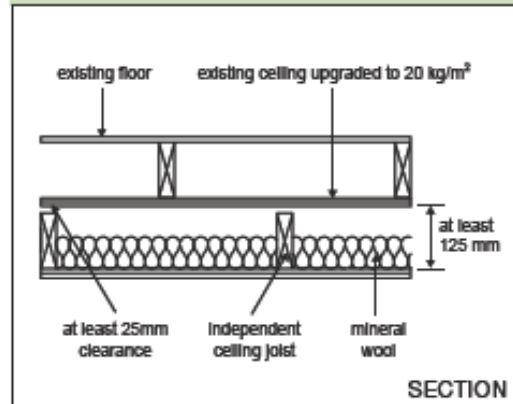


Diagram 4-4: Floor treatment 1 - high window head detail

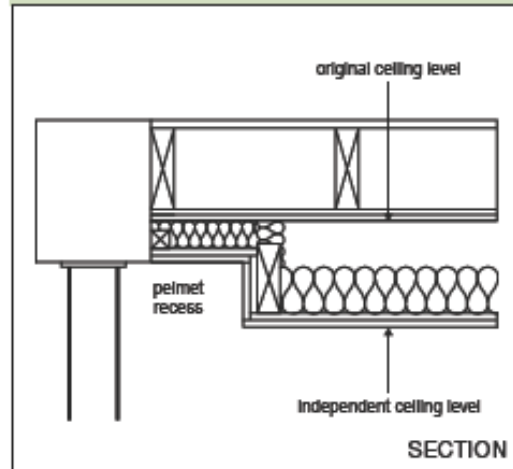


Figure 1: Floor Treatment 1

DWELLING-HOUSES AND FLATS FORMED BY MATERIAL CHANGE OF USE

E

Wall treatment 1: Independent panel(s) with absorbent material

4.22 The resistance to airborne sound depends on the form of existing construction, the mass of independent panel(s), the isolation of the panel(s) and the absorbent material.

Construction

4.23 The independent panel may be used on one side of the existing wall only where the existing wall is masonry, and has a thickness of at least 100 mm and is plastered on both faces. With other types of existing wall the independent panels should be built on both sides.

4.24 Independent panel(s) with absorbent material (see Diagram 4-2)

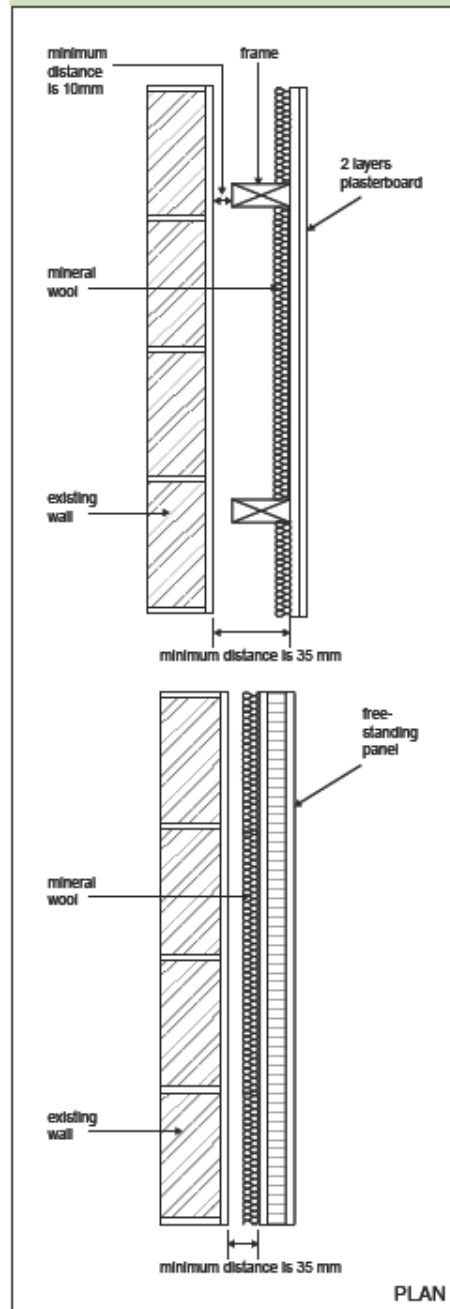
- minimum mass per unit area of panel (excluding any supporting framework) 20 kg/m^2
- each panel should consist of at least 2 layers of plasterboard with staggered joints
- if the panels are free-standing they should be at least 25 mm from masonry core
- if the panels are supported on a frame there should be a gap of at least 10 mm between the frame and the face of the existing wall
- mineral wool, minimum density 10 kg/m^3 and minimum thickness 35 mm, in the cavity between the panel and the existing wall

4.25 Points to watch**Do**

- Do ensure that the independent panel and its supporting frame are not in contact with the existing wall.
- Do seal the perimeter of the independent panel with tape or sealant.

Do not

Do not tightly compress the absorbent material as this may bridge the cavity.

Diagram 4-2: Wall treatment 1**Figure 2: Wall Treatment 1**

SEPARATING WALLS (NEW BUILDINGS)

E

Wall type 4: Framed walls with absorbent material

2.141 In this guidance only a timber framed wall is described. For steel framed walls, seek advice from the manufacturer.

2.142 The resistance to airborne sound depends on the mass per unit area of the leaves, the isolation of the frames, and the absorption in the cavity between the frames.

Construction

2.143 The construction consists of timber frames, with plasterboard linings on room surfaces and with absorbent material between the frames.

2.144 One wall type 4 construction (type 4.1) is described in this guidance.

2.145 Details of how junctions should be made to limit flanking transmission are also described in this guidance.

2.146 Points to watch**Do**

- a. Do ensure that where fire stops are needed in the cavity between frames that they are either flexible or fixed to only one frame.
- b. Do stagger the position of sockets on opposite sides of the separating wall, and use a similar thickness of cladding behind the socket box.
- c. Do ensure that each layer of plasterboard is independently fixed to the stud frame.
- d. Do control flanking transmission from walls and floors connected to the separating wall as described in the guidance on junctions.

Do not

- a. Where it is necessary to connect the two leaves together for structural reasons, do not use ties of greater cross section than 40mm x 3mm fixed to the studwork at or just below ceiling level and do not set them at closer than 1.2m centres.
- b. Do not locate sockets back to back. A minimum edge to edge stagger of 150mm is recommended. Do not chase plasterboard.

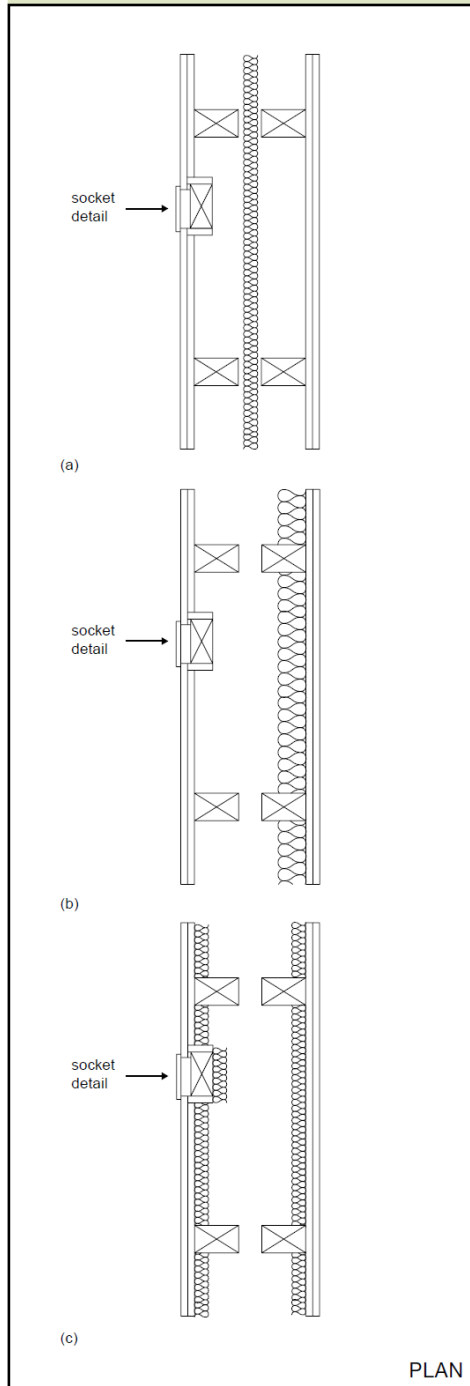
2.147 Wall type 4.1 Double leaf frames with absorbent material (see Diagram 2-37)

- minimum distance between inside lining faces of 200 mm
- plywood sheathing may be used in the cavity as necessary for structural reasons
- each lining to be two or more layers of plasterboard, each sheet of minimum mass per unit area 10 kg/m², with staggered joints
- absorbent material to be unfaced mineral wool batts or quilt (which may be wire reinforced), minimum density 10 kg/m³
- minimum thickness of absorbent material:
 - (a) 25 mm if suspended in the cavity between frames,
 - (b) 50 mm if fixed to one frame,
 - (c) 25 mm per batt (or quilt) if one is fixed to each frame.

Note: A masonry core may be used where required for structural purposes, but the core should be connected to only one frame.

E SEPARATING WALLS (NEW BUILDINGS)

Diagram 2-37: Wall type 4.1



Junction requirements for wall type 4

Junctions with an external cavity wall with masonry inner leaf

2.148 No guidance available (seek specialist advice).

Junctions with an external cavity wall with timber frame inner leaf

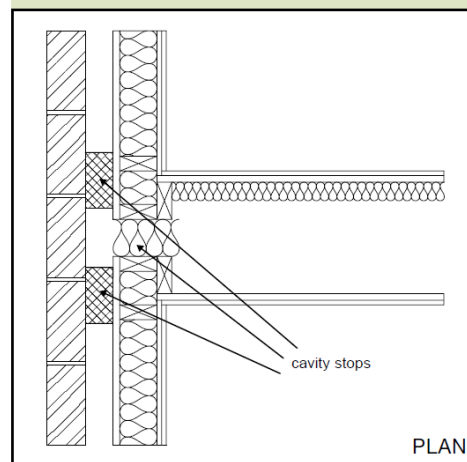
2.149 Where the external wall is a cavity wall:

- (a) the outer leaf of the wall may be of any construction, and
- (b) the cavity should be stopped between the ends of the separating wall and the outer leaf with a flexible closer. See Diagram 2-38.

2.150 The wall finish of the inner leaf of the external wall should be:

- (a) one layer of plasterboard, or
- (b) two layers of plasterboard where there is a separating floor
- (c) each sheet of plasterboard of minimum mass per unit area 10 kg/m^2 , and
- (d) all joints should be sealed with tape or caulked with sealant.

Diagram 2-38: Wall type 4 – external cavity wall with timber frame inner leaf



Junctions with an external solid masonry wall

2.151 No guidance available (seek specialist advice).

SEPARATING WALLS (NEW BUILDINGS)

E

Junctions with internal framed walls

2.152 There are no restrictions on internal walls meeting a type 4 separating wall.

Junctions with internal masonry walls

2.153 There are no restrictions on internal framed walls meeting a type 4 separating wall.

Junctions with internal timber floors

2.154 Block the air paths through the wall into the cavity by using solid timber blockings or continuous ring beam or joists.

Junctions with internal concrete floors

2.155 No guidance available (seek specialist advice).

Junctions with timber ground floors

2.156 Block the air paths through the wall into the cavity by using solid timber blockings or a continuous ring beam or joists.

2.157 See Building Regulation Part C - Site preparation and resistance to moisture, and Building Regulation Part L - Conservation of fuel and power.

Junctions with concrete ground floors

2.158 The ground floor may be a solid slab, laid on the ground, or a suspended concrete floor. A concrete slab floor on the ground may be continuous under a type 4 separating wall. A suspended concrete floor may only pass under a wall type 4 if the floor has a mass per unit area of at least 365 kg/m².

2.159 See Building Regulation Part C - Site preparation and resistance to moisture, and Building Regulation Part L - Conservation of fuel and power.

Junctions with ceiling and roof space

2.160 The wall should preferably be continuous to the underside of the roof.

2.161 The junction between the separating wall and the roof should be filled with a flexible closer.

2.162 The junction between the ceiling and the wall linings should be sealed with tape or caulked with sealant.

Where the roof or loft space is not a habitable room and there is a ceiling with a minimum mass per unit area 10 kg/m² and with sealed joints, either:

- (a) the linings on each frame may be reduced to two layers of plasterboard, each sheet of minimum mass per unit area 10 kg/m², or
- (b) the cavity may be closed at ceiling level without connecting the two frames rigidly together and then one frame may be used in the roof space provided there is a lining of two

layers of plasterboard, each sheet of minimum mass per unit area 10 kg/m², on both sides of the frame.

2.163 Where there is an external wall cavity, the cavity should be closed at eaves level with a suitable material.

Junctions with separating floors

2.164 There are important details in Section 3 concerning junctions between wall type 4 and separating floors.

Figure 3: Wall Type 4

Generic Product Information

Examples of Mineral Wool Quilt include:

JCW Acoustic Quilt	(https://www.acoustic-supplies.com/)
Knauf Acoustic Mineral Wool RS60	(https://www.ikoustic.co.uk)
Rockwool RWA45	https://www.building-supplies-online.co.uk

Examples of Deep Resilient Battens include:

JCW 80C Concrete Floor Batten- JCW Acoustic Supplies
(<https://www.acoustic-supplies.com/>)

Hush-Batten 70
(<https://www.hushacoustics.co.uk/sound-control-products/hush-batten-70/>)

Profloor Dynamic batten – Proctor
(<https://www.proctorgroup.com/products/profloor-dynamic-batten>)

Examples of Mineral Wool Slabs include:

Hush Slab 100 (available in different thicknesses)	Hush Acoustics https://www.hushacoustics.co.uk/
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Rockwool RWA45 Semi-rigid Slabs (available in different thicknesses)	Various stockists
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Isover Acoustic Slabs (available in different thicknesses)	Isover https://www.isover.co.uk/products/acoustic-slab
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Examples of Acoustic Deck include:

Monarfloor Trideck (35mm thick) – Soundstop UK
<https://www.soundstop.co.uk/ZMKTRIDEC.php>

JCW Acoustic Deck 28 (28mm thick) - JCW Acoustic Supplies
(<https://www.acoustic-supplies.com/>)

Do note that there are thinner, cheaper alternatives available, but these offer less acoustic performance and should be avoided.

Examples of Flanking Strip include:

JCW Acoustic Isolation Strips JCW Acoustic Supplies

Cellecta YELOfon FS30 Flanking Strip Cellecta
https://www.insulationshop.co/cellecta_yelofon_fs30_flanking_strip.html

Hush Flanking Strips Hush Acoustics
<https://www.hushacoustics.co.uk/>

Monarfloor Flanking Band
<http://www.monarfloor.co.uk/products/accessories/monarfloor-flanking-band.aspx>

Examples of Acoustic Underlays include:

Cellecta Deckfon Ultralay 5 - <https://www.cellecta.co.uk/product/deckfon-ultralay-5/>

Acoustilay 3 - <https://www.soundinsulationstore.co.uk/products/acoustilay-3>

JCW Acoustic Impactalay 4551 Timber - <https://www.jcwacousticflooring.co.uk/>

Examples of Acoustic Rated Back Boxes include:

RD Compliant Acoustic Sockets Boxes Sound Reduction Systems
<https://www.soundreduction.co.uk/products/soundproofing-for-walls/acoustic-socket-boxes/>

SRS Socket Boxes

Trim Acoustics

<https://www.trimacoustics.co.uk/product/srs-acoustic-socket-boxes/>

JCW Acoustic & Fire Socket Box Inserts - Double x 35mm

<https://www.insulationsuperstore.co.uk/product/jcw-acoustic-fire-socket-box-inserts-double-x-35mm.html>