

REPORT TITLE:

Hornsey town Hall (Mews) - Residential Sound Insulation Test Report

CLIENT DETAILS:

Ardmore Construction Ltd

DATE:

16th February 2022

REPORT REFERENCE:

PC-18-0326-RP5

PREPARED BY:

Peter Young MSc AMIOA

CHECKED/AUTHORISED BY:

Joan-Carles Blanco BSc MIOA

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Document Status and Revision Schedule

Issue/Revision	Description/Comments	Date	Prepared by	Approved by
First Issue	Checked & authorised	16/02/22	PY	JCB

1 –Introduction

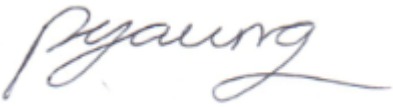
This report is an ANC Registered Report with the unique registration number 74094

Pre-completion sound insulation testing has been completed at Hornsey Town Hall (Mews).

The Hornsey Town Hall site is a mix of new-build and refurbishment residential, commercial & hotel buildings. The Mews is a new-build residential block.

The findings have been registered and are presented here within, and on the ANC Advance sound test verification server on line. A notice to Building control officer is included at the end of this report.

The testing has established the performance of the separating structures and associated flanking structures. The test method and measured performance have been presented against the applicable performance standards, being Requirement E1 of the Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments (Referred to as BR ADE 2003 as amended).

Report Author:	Report Checked & Authorised By:
Peter Young MSc AMIOA	Joan-Carles Blanco BSc MIOA
	
Dated: 16/02/22	Dated: 16/02/22

2 – General Information

Site name & address:

Plot / House name / Number: Hornsey Town Hall (Mews)
Road name: The Broadway
Town: London
Post Code: N8 9JJ

Type of property:

Purpose built dwelling house and flats

Historic or within a conservation area:

The site **is not** historic/within a conservation area

Test Date:

03/02/22

Carried Out By:

Company Name: Pace Consult Ltd, 652
Street name: 652 The Crescent
Town : Colchester
Postcode: CO4 9YQ
ANC Test Organisation No.: 0167

Persons in charge of testing:

Name & Qualifications: Peter Young MSc AMIOA
Registered ANC Test Engineer No.: 167/05

Carried Out For:

Company Name: Ardmore Construction Ltd
Street name: 6 Wharf Studios, 28 Wharf Road
Town : London
Postcode: N1 7GR

3 – Project Criteria & Constructions

Based on the information in section 2, the requirements BR ADE 2003 as amended are as follows:

Table 1: BR ADE (2003 as amended) Table 0.1a Dwelling houses and flats – performance standards for separating walls, separating floors, and stairs that have a separating function

Partition Type	Airborne sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum values)	Impact sound insulation $L'_{nT,w}$ dB (Maximum values)
Purpose built dwelling houses or flats		
Walls	45	-
Floors and Stairs	45	62

Table 2: Construction Details (Provided of the client)

Separating Partition	Construction Details
Wall	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption
Floor	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling

4 - Test Results

Table 3 - Measured airborne sound insulation of separating party walls against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
1	167740941	PM 103 KLD	86	PM 102 Bedroom	34	$\geq 45 D_{nT,w} + C_{tr}$ dB	53	PASS

Note. Dimensions and volumes have been estimated on site using an electronic disto

Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.

Table 4 - Measured **airborne sound insulation of separating party floors** against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
2	167740942	PM 102 KLD	94	PM 202 KLD	65	$\geq 45 D_{nT,w} + C_{tr}$ dB	56	PASS
3	167740943	PM 102 Bedroom	34	PM 202 Bedroom	29	$\geq 45 D_{nT,w} + C_{tr}$ dB	59	PASS

*Note. Dimensions and volumes have been estimated on site using an electronic disto
Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.*

Table 5 - Measured **impact sound insulation of separating floors** against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
4	167740944	PM 202 KLD	65	PM 102 KLD	94	$\leq 62 L'_{nT,w}$ dB	48	PASS
5	167740945	PM 202 Bedroom	29	PM 102 Bedroom	34	$\leq 62 L'_{nT,w}$ dB	47	PASS

*Note. Dimensions and volumes have been estimated on site using an electronic disto
Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.*

Appendix A – Compliance Statements:

Testing and assessment was completed in full accordance with the following standards pertaining to sound insulation testing of residential buildings, and associated documents:

BS EN ISO 140-4:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 4. Field measurements of airborne sound insulation between rooms.

BS EN ISO 140-7:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 7. Field measurements of impact sound insulation of floors.

BS EN ISO 717-1:1997 Acoustics – Rating of sound insulation in buildings and of building elements, Part 1. Airborne sound insulation.

BS EN ISO 717-2:1997 Acoustics – Rating of sound insulation in buildings and of building elements. Part 2. Impact sound insulation.

Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments including Annex B

BS EN ISO 3382-2:2008 Acoustics - Measurement of room acoustic parameters. Reverberation time in ordinary rooms.

The testing and assessment was also completed with reference to the following documents:

ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018

BS EN ISO 16283-1:2014 Incorporating corrigendum June 2014 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 1. Airborne sound insulation.

BS EN ISO 16283-2:2018 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 2: Impact sound insulation

BS EN ISO 140-14:2004 Acoustics. Measurement of sound insulation in buildings and of building elements. Guidelines for special situations in the field

BS EN ISO 17025:2005 'General Requirements for the competence of testing and calibration laboratories'

Appendix B – Description of Test Procedure

Building Regulations Approved Document E (as amended) is prescriptive in the approved manner and order of recording pre-completion testing results. Point 1.41 of BR ADE states the 'Approved manner of recording pre-completion testing results', while BR ADE Annex B states the 'Procedures for Sound Insulation Testing'.

Measurements were made using the following equipment

Table 6: Sound Test Kit B

Equipment Description	Type Number	Manufacturer	Serial Number	Date of Last Calibration	Calibration Certification Number
Sound Level Meter	NOR-118	Norsonic	31301	04/05/21	U37815
Microphone	1225	Norsonic	48084	04/05/21	37814
Preamplifier	1206	Norsonic	30486	04/05/21	37814
Calibrator	NOR-1251	Norsonic	30998	24/11/2021	U39543
Speaker	NOR-250	Norsonic	31434	-	-
Amplifier	NOR-280	Norsonic	2803650	-	-
Tapping Machine	NOR-277	Norsonic	2776140	26/08/2020	U35580

The sound level meter was calibrated before and after the measurements, to an accuracy of ± 0.1 dB unless otherwise noted. No significant drift was noted.

Rooms under test:

Suitable test conditions were found on site with access to all rooms. Rooms were unfurnished, but some materials and tools were in the rooms under test. Tests were undertaken during the working day, so some light road traffic noise was evident in the receiver rooms. Source and receiver room volumes are given with the statement of results.

For Airborne Tests:

5 fixed Microphone positions within both the source and receiver rooms were used for each of two source positions. The averaging time for each speaker position (source and receiver side) in each case was 30 seconds (6s each position) to give a total sampling time on each side of the structure under test of 60 seconds.

For Impact Tests:

4 tapping machine positions in the source room were used, with 2 microphone positions in the receiver room for each tapping machine position; for a total of 8 measurements. The total averaging time was 48 seconds (6s each position), this is 12s in excess of the minimum averaging time required by BS EN ISO 140-7: 1998 and is in accordance with the ANC practice guidance for sound insulation testing in dwellings (2018).

Reverberation times:

A total of 6 reverberation time measurements were taken in each receiver room, using three fixed microphone positions for each of two interrupted pink noise source locations; for a total of 6 no. decays.

Background noise:

Background noise measurements were taken within each receiver room. Background measurements were recorded at typically the same locations as those used for the fixed microphone receiver room (L2) measurements. For airborne tests, where the background noise in the receiving room was deemed to be sufficiently low and/or stable, 5 measurement positions (6 seconds each, for a total of 30 seconds) were used, and the global average value applied to both sets of receiver room measurements. This approach is discussed in the ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018, paragraph 1.10. Where background noise was deemed not to be sufficiently low and stable, (5 No. fixed microphone positions for each of two source positions) provided a minimum total duration of 60 seconds. For impact tests (5 No fixed microphone positions) with a total of 30 seconds were taken.

Airborne Result Rating:

The Weighted Standardized Level Difference ($D_{nT, w}$ dB) and the Spectrum Adaption Terms ($C:C_{tr}$) were calculated in accordance with British Standard BS EN ISO 717-1:1997. A single value test result for airborne tests ($D_{nT, w} + C_{tr}$ dB) is calculated using the rating methods detailed for airborne testing (ISO 717-1:1997).

Impact Result Rating:

A single value test result for impact tests ($L'_{n,T, w}$ dB) is calculated using the rating methods detailed for impact testing (ISO 717-2:1997).

Graphical report sheets

Details on each individual test are presented on the following graphical report sheets (see appendix A) as per ISO 140-4:1998 for airborne tests and as per ISO 140-7:1998 for impact tests.

These include details of room volumes, a description of the partition under test, and test result data in table and graphical form. Where the graphical report sheet denotes a 'B' next to the third octave level, the level is corrected for the effect of background noise. A ' $\leq$ ' or ' $\geq$ ' may indicate that the results are to

be taken as the limits of measurement and the $D_{nT,w}$ is to be considered $\geq$ the difference presented and the $L_{nT,w}$ is to be considered $\leq$ the level presented.

Appendix C - Test Certificate Graphs:

Please note: the dimensions of the test certificate graphs are scaled to the correct dimensions (in line with section 8 of BS EN ISO 140-4 & section 7 BS EN ISO 140-7) when the PDF is printed at custom scale 100%.

Standardised level difference according to ISO 140-4																																																																																											
Field measurement of airborne sound insulation between rooms																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 03/02/2022	Test No. 1																																																																																								
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Source Room:	PM 103 KLD	Receive Room:	PM 102 Bedroom																																																																																								
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Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 61 (-2 ; -8) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable																																																																																									
Test Report No.:	PC-18-0326-RP5	Name of test institute:																																																																																									
Report Date:	16/02/2022	Signature:																																																																																									

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 03/02/2022	Test No. 2
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	PM 102 KLD	Receive Room:	PM 202 KLD
Source Room Volume	94.0 m ³		
Receive Room Volume	65.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	38.4		
125	44.9		
160	46.8		
200	54.5		
250	57.3		
315	57.1		
400	61.2		
500	63.2		
630	65.2		
800	70.1	B	
1000	68.5	B	
1250	71.7	B	$\geq$
1600	70.8		
2000	69.0		
2500	69.5		
3150	68.0	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 65 (-3 ; -9) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP5
Report Date:	16/02/2022
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 03/02/2022	Test No. 3
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	PM 102 Bedroom	Receive Room:	PM 202 Bedroom
Source Room Volume	34.0 m ³		
Receive Room Volume	29.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	44.0		
125	43.3		
160	48.2		
200	55.3		
250	62.8		
315	67.3		
400	66.7	B	
500	71.1	B	
630	72.8		
800	79.0		
1000	78.3		
1250	82.6		
1600	84.2		
2000	83.1		
2500	82.7	B	
3150	80.9	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Frequency, f, Hz

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 69 (-4 ; -10) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP5
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Signature:	

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 03/02/2022	Test No. 4																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
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Frequency f [Hz]	L' nT (one-third octave) dB	B	≤6																																																																																								
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Test Report No.: PC-18-0326-RP5		Name of test institute:																																																																																									
Report Date:	16/02/2022	Signature:																																																																																									

Appendix D – ANC Advance Notice to Building Control Officer:



Notice to Building Control Officer

Certification of Test Results

ANC operates an online, secure, paperless certification system for sound insulation tests.

The online verification (certification) system means that Building Control Bodies will need to follow the steps below to verify the results quoted in the relevant test report:

1. Go to the ANC secure server at www.theanc.co.uk
2. Navigate to the [ADvANCE](#) page which links to the ANC site available for use by BCOs.
3. Enter the following in the spaces provided:

Task Number: 74094 Task Password: BHWNF1
4. Select role "Building Control Officer" and press "Login"
5. You will then see a summary list of results of all the Tests undertaken to date for this project (Task) as held on the secure primary server and you can print this table for your records.

End of Report

REPORT TITLE:

Hornsey Town Hall (Block A North) Residential Sound Insulation Test Report

CLIENT DETAILS:

Ardmore Construction Ltd

DATE:

30th November 2021

REPORT REFERENCE:

PC-18-0236-RP3

PREPARED BY:

Peter Young MSc AMIOA

CHECKED/AUTHORISED BY:

Joan-Carles Blanco BSc MIOA

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Document Status and Revision Schedule

Issue/Revision	Description/Comments	Date	Prepared by	Approved by
First Issue	Checked & revised	30/11/21	PY	JCB

1 –Introduction

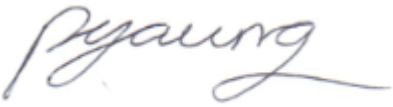
This report is an ANC Registered Report with the unique registration number 73742

Pre-completion sound insulation testing has been completed at Hornsey Town Hall (Block A North).

The Hornsey Town Hall site is a mix of new-build and refurbishment residential, commercial & hotel buildings. Block A is a new-build residential block.

The findings have been registered and are presented here within, and on the ANC Advance sound test verification server on line. A notice to Building control officer is included at the end of this report.

The testing has established the performance of the separating structures and associated flanking structures. The test method and measured performance have been presented against the applicable performance standards, being Requirement E1 of the Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments (Referred to as BR ADE 2003 as amended).

Report Author:	Report Checked & Authorised By:
Peter Young MSc AMIOA	Joan-Carles Blanco BSc MIOA
	
Dated: 30/11/21	Dated: 30/11/21

2 – General Information

Site name & address:

Plot / House name / Number: Hornsey Town Hall (Block A North)
Road name: The Broadway
Town: London
Post Code: N8 9JJ

Type of property:

Purpose built dwelling house and flats

Historic or within a conservation area:

The site **is not** historic/within a conservation area

Test Date:

29/11/21 & 30/11/21

Carried Out By:

Company Name: Pace Consult Ltd, 652
Street name: 652 The Crescent
Town : Colchester
Postcode: CO4 9YQ
ANC Test Organisation No.: 0167

Persons in charge of testing:

Name & Qualifications: Peter Young MSc AMIOA
Registered ANC Test Engineer No.: 167/05

Carried Out For:

Company Name: Ardmore Construction Ltd
Street name: 6 Wharf Studios, 28 Wharf Road
Town : London
Postcode: N1 7GR

3 – Project Criteria & Constructions

Based on the information in section 2, the requirements BR ADE 2003 as amended are as follows:

Table 1: BR ADE (2003 as amended) Table 0.1a Dwelling houses and flats – performance standards for separating walls, separating floors, and stairs that have a separating function

Partition Type	Airborne sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum values)	Impact sound insulation $L'_{nT,w}$ dB (Maximum values)
Purpose built dwelling houses or flats		
Walls	45	-
Floors and Stairs	45	62

Table 2: Construction Details (Provided of the client)

Separating Partition	Construction Details
Wall	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption
Floor	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling

4 - Test Results

Table 3 - Measured airborne sound insulation of separating party walls against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
1	167737421	AN14 KLD	90	AN13 Bedroom	28	$\geq 45 D_{nT,w} + C_{tr}$ dB	55	PASS
2	167737422	AN14 Master Bedroom	31	AN15 Master Bedroom	31	$\geq 45 D_{nT,w} + C_{tr}$ dB	52	PASS
3	167737423	AN11 KLD	71	AN12 Master Bedroom	34	$\geq 45 D_{nT,w} + C_{tr}$ dB	57	PASS
4	167737424	AN15 Bedroom	31	AN16 Bedroom	31	$\geq 45 D_{nT,w} + C_{tr}$ dB	56	PASS
5	167737425	AN18 KLD	79	AN17 Bedroom	34	$\geq 45 D_{nT,w} + C_{tr}$ dB	56	PASS
6	167737426	AN08 KLD	79	AN07 Bedroom	34	$\geq 45 D_{nT,w} + C_{tr}$ dB	60	PASS

Note. Dimensions and volumes have been estimated on site using an electronic disto

Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.

Table 4 - Measured **airborne sound insulation of separating party floors** against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
7	167737427	AN14 KLD	90	AN04 KLD	90	$\geq 45 D_{nT,w} + C_{tr}$ dB	56	PASS
8	167737428	AN14 Master Bedroom	31	AN04 Master Bedroom	31	$\geq 45 D_{nT,w} + C_{tr}$ dB	60	PASS
9	167737429	AN14 KLD	90	AN24 KLD	90	$\geq 45 D_{nT,w} + C_{tr}$ dB	57	PASS
10	1677374210	AN14 Master Bedroom	31	AN24 Master Bedroom	31	$\geq 45 D_{nT,w} + C_{tr}$ dB	57	PASS
11	1677374211	AN11 KLD	71	AN01 KLD	71	$\geq 45 D_{nT,w} + C_{tr}$ dB	59	PASS
12	1677374212	AN11 Bedroom	28	AN01 Bedroom	28	$\geq 45 D_{nT,w} + C_{tr}$ dB	57	PASS
13	1677374213	AN15 Bedroom	31	AN05 Bedroom	31	$\geq 45 D_{nT,w} + C_{tr}$ dB	60	PASS
14	1677374214	AN15 KLD	82	AN05 KLD	82	$\geq 45 D_{nT,w} + C_{tr}$ dB	56	PASS
15	1677374215	AN15 Bedroom	31	AN25 Bedroom	31	$\geq 45 D_{nT,w} + C_{tr}$ dB	58	PASS
16	1677374216	AN15 KLD	82	AN25 KLD	82	$\geq 45 D_{nT,w} + C_{tr}$ dB	54	PASS
17	1677374217	AN18 KLD	79	AN08 KLD	79	$\geq 45 D_{nT,w} + C_{tr}$ dB	59	PASS
18	1677374218	AN18 Bedroom	34	AN08 Bedroom	34	$\geq 45 D_{nT,w} + C_{tr}$ dB	60	PASS

Note. Dimensions and volumes have been estimated on site using an electronic disto

Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.

Table 5 - Measured **impact sound insulation of separating floors** against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
19	1677374219	AN24 KLD	90	AN14 KLD	90	$\leq 62 L'_{nT,w}$ dB	39	PASS
20	1677374220	AN24 Master Bedroom	31	AN14 Master Bedroom	31	$\leq 62 L'_{nT,w}$ dB	45	PASS
21	1677374221	AN14 KLD	90	AN04 KLD	90	$\leq 62 L'_{nT,w}$ dB	43	PASS
22	1677374222	AN14 Master Bedroom	31	AN04 Master Bedroom	31	$\leq 62 L'_{nT,w}$ dB	45	PASS
23	1677374223	AN11 KLD	71	AN01 KLD	71	$\leq 62 L'_{nT,w}$ dB	42	PASS
24	1677374224	AN11 Bedroom	28	AN01 Bedroom	28	$\leq 62 L'_{nT,w}$ dB	49	PASS
25	1677374225	AN25 Bedroom	31	AN15 Bedroom	31	$\leq 62 L'_{nT,w}$ dB	47	PASS
26	1677374226	AN25 KLD	82	AN15 KLD	82	$\leq 62 L'_{nT,w}$ dB	40	PASS
27	1677374227	AN15 Bedroom	31	AN05 Bedroom	31	$\leq 62 L'_{nT,w}$ dB	47	PASS
28	1677374228	AN15 KLD	82	AN05 KLD	82	$\leq 62 L'_{nT,w}$ dB	43	PASS
29	1677374229	AN18 KLD	79	AN08 KLD	79	$\leq 62 L'_{nT,w}$ dB	42	PASS
30	1677374230	AN18 Bedroom	34	AN08 Bedroom	34	$\leq 62 L'_{nT,w}$ dB	49	PASS

Note. Dimensions and volumes have been estimated on site using an electronic disto

Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.

Appendix A – Compliance Statements:

Testing and assessment was completed in full accordance with the following standards pertaining to sound insulation testing of residential buildings, and associated documents:

BS EN ISO 140-4:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 4. Field measurements of airborne sound insulation between rooms.

BS EN ISO 140-7:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 7. Field measurements of impact sound insulation of floors.

BS EN ISO 717-1:1997 Acoustics – Rating of sound insulation in buildings and of building elements, Part 1. Airborne sound insulation.

BS EN ISO 717-2:1997 Acoustics – Rating of sound insulation in buildings and of building elements. Part 2. Impact sound insulation.

Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments including Annex B

BS EN ISO 3382-2:2008 Acoustics - Measurement of room acoustic parameters. Reverberation time in ordinary rooms.

The testing and assessment was also completed with reference to the following documents:

ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018

BS EN ISO 16283-1:2014 Incorporating corrigendum June 2014 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 1. Airborne sound insulation.

BS EN ISO 16283-2:2018 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 2: Impact sound insulation

BS EN ISO 140-14:2004 Acoustics. Measurement of sound insulation in buildings and of building elements. Guidelines for special situations in the field

BS EN ISO 17025:2005 'General Requirements for the competence of testing and calibration laboratories'

Appendix B – Description of Test Procedure

Building Regulations Approved Document E (as amended) is prescriptive in the approved manner and order of recording pre-completion testing results. Point 1.41 of BR ADE states the 'Approved manner of recording pre-completion testing results', while BR ADE Annex B states the 'Procedures for Sound Insulation Testing'.

Measurements were made using the following equipment

Table 6: Sound Test Kit B

Equipment Description	Type Number	Manufacturer	Serial Number	Date of Last Calibration	Calibration Certification Number
Sound Level Meter	NOR-118	Norsonic	31301	04/05/21	U37815
Microphone	1225	Norsonic	48084	04/05/21	37814
Preamplifier	1206	Norsonic	30486	04/05/21	37814
Calibrator	NOR-1251	Norsonic	30998	24/11/2021	U39543
Speaker	NOR-250	Norsonic	31434	-	-
Amplifier	NOR-280	Norsonic	2803650	-	-
Tapping Machine	NOR-277	Norsonic	2776140	26/08/2020	U35580

The sound level meter was calibrated before and after the measurements, to an accuracy of ± 0.1 dB unless otherwise noted. No significant drift was noted.

Rooms under test:

Suitable test conditions were found on site with access to all rooms. Rooms were unfurnished, but some materials and tools were in the rooms under test. Tests were undertaken during the working day, so some light road traffic noise was evident in the receiver rooms. Source and receiver room volumes are given with the statement of results.

For Airborne Tests:

5 fixed Microphone positions within both the source and receiver rooms were used for each of two source positions. The averaging time for each speaker position (source and receiver side) in each case was 30 seconds (6s each position) to give a total sampling time on each side of the structure under test of 60 seconds.

For Impact Tests:

4 tapping machine positions in the source room were used, with 2 microphone positions in the receiver room for each tapping machine position; for a total of 8 measurements. The total averaging time was 48 seconds (6s each position), this is 12s in excess of the minimum averaging time required by BS EN ISO 140-7: 1998 and is in accordance with the ANC practice guidance for sound insulation testing in dwellings (2018).

Reverberation times:

A total of 6 reverberation time measurements were taken in each receiver room, using three fixed microphone positions for each of two interrupted pink noise source locations; for a total of 6 no. decays.

Background noise:

Background noise measurements were taken within each receiver room. Background measurements were recorded at typically the same locations as those used for the fixed microphone receiver room (L2) measurements. For airborne tests, where the background noise in the receiving room was deemed to be sufficiently low and/or stable, 5 measurement positions (6 seconds each, for a total of 30 seconds) were used, and the global average value applied to both sets of receiver room measurements. This approach is discussed in the ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018, paragraph 1.10. Where background noise was deemed not to be sufficiently low and stable, (5 No. fixed microphone positions for each of two source positions) provided a minimum total duration of 60 seconds. For impact tests (5 No fixed microphone positions) with a total of 30 seconds were taken.

Airborne Result Rating:

The Weighted Standardized Level Difference ($D_{nT, w}$ dB) and the Spectrum Adaption Terms ($C:C_{tr}$) were calculated in accordance with British Standard BS EN ISO 717-1:1997. A single value test result for airborne tests ($D_{nT, w} + C_{tr}$ dB) is calculated using the rating methods detailed for airborne testing (ISO 717-1:1997).

Impact Result Rating:

A single value test result for impact tests ($L'_{n,T, w}$ dB) is calculated using the rating methods detailed for impact testing (ISO 717-2:1997).

Graphical report sheets

Details on each individual test are presented on the following graphical report sheets (see appendix A) as per ISO 140-4:1998 for airborne tests and as per ISO 140-7:1998 for impact tests.

These include details of room volumes, a description of the partition under test, and test result data in table and graphical form. Where the graphical report sheet denotes a 'B' next to the third octave level, the level is corrected for the effect of background noise. A ' $\leq$ ' or ' $\geq$ ' may indicate that the results are to

be taken as the limits of measurement and the $D_{nT,w}$ is to be considered $\geq$ the difference presented and the $L_{nT,w}$ is to be considered $\leq$ the level presented.

Appendix C - Test Certificate Graphs:

Please note: the dimensions of the test certificate graphs are scaled to the correct dimensions (in line with section 8 of BS EN ISO 140-4 & section 7 BS EN ISO 140-7) when the PDF is printed at custom scale 100%.

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 1
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption		
Source Room:	AN14 KLD	Receive Room:	AN13 Bedroom
Source Room Volume	90.0 m ³		
Receive Room Volume	28.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	39.2		
125	43.9		
160	48.9		
200	51.6		
250	53.3		
315	54.6		
400	55.7		
500	58.9		
630	58.5		
800	60.0		
1000	60.6		
1250	62.1		
1600	63.0		
2000	63.0		
2500	64.3		
3150	63.6		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 60 (-1 ; -5) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	paceconsult
Signature:	<i>P. J. J. J.</i>

Standardised level difference according to ISO 140-4																																																																																											
Field measurement of airborne sound insulation between rooms																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 2																																																																																								
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption																																																																																										
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Receive Room Volume	34.0 m ³																																																																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Frequency [Hz]</th> <th style="width: 20%;">D_{nT} (one-third octave) dB</th> <th style="width: 10%;">B</th> <th style="width: 10%;">≥6</th> </tr> </thead> <tbody> <tr><td>50</td><td></td><td></td><td></td></tr> <tr><td>63</td><td></td><td></td><td></td></tr> <tr><td>80</td><td></td><td></td><td></td></tr> <tr><td>100</td><td>41.2</td><td>B</td><td>IV</td></tr> <tr><td>125</td><td>43.9</td><td>B</td><td>IV</td></tr> <tr><td>160</td><td>49.6</td><td>B</td><td>IV</td></tr> <tr><td>200</td><td>57.1</td><td></td><td>IV</td></tr> <tr><td>250</td><td>58.4</td><td>B</td><td>IV</td></tr> <tr><td>315</td><td>56.4</td><td></td><td>IV</td></tr> <tr><td>400</td><td>54.9</td><td>B</td><td></td></tr> <tr><td>500</td><td>60.1</td><td></td><td>IV</td></tr> <tr><td>630</td><td>61.6</td><td></td><td>IV</td></tr> <tr><td>800</td><td>63.3</td><td></td><td>IV</td></tr> <tr><td>1000</td><td>66.8</td><td></td><td>IV</td></tr> <tr><td>1250</td><td>68.3</td><td></td><td>IV</td></tr> <tr><td>1600</td><td>68.3</td><td></td><td>IV</td></tr> <tr><td>2000</td><td>66.0</td><td></td><td>IV</td></tr> <tr><td>2500</td><td>67.7</td><td></td><td>IV</td></tr> <tr><td>3150</td><td>69.3</td><td></td><td>IV</td></tr> <tr><td>4000</td><td></td><td></td><td></td></tr> <tr><td>5000</td><td></td><td></td><td></td></tr> </tbody> </table>	Frequency [Hz]	D _{nT} (one-third octave) dB	B	≥6	50				63				80				100	41.2	B	IV	125	43.9	B	IV	160	49.6	B	IV	200	57.1		IV	250	58.4	B	IV	315	56.4		IV	400	54.9	B		500	60.1		IV	630	61.6		IV	800	63.3		IV	1000	66.8		IV	1250	68.3		IV	1600	68.3		IV	2000	66.0		IV	2500	67.7		IV	3150	69.3		IV	4000				5000				--- Frequency range according to the curve of reference values (ISO 717-1) — DnT 1/3rd octave dB — Reference Curve acc. to ISO 717-1		
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Test Report No.:	PC-18-0326-RP3	Name of test institute:																																																																																									
Report Date:	06/12/2021	Signature:																																																																																									

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 4
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption		
Source Room:	AN15 Bedroom	Receive Room:	AN16 Bedroom
Source Room Volume	31.0 m ³		
Receive Room Volume	31.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	38.5	B	
125	43.9	B	
160	51.2		IV
200	55.2		IV
250	56.4		IV
315	55.7		IV
400	54.7	B	
500	59.5		IV
630	61.4	B	IV
800	63.2	B	IV
1000	63.4	B	IV
1250	64.1		IV
1600	65.5		IV
2000	65.0	B	IV
2500	64.4	B	IV
3150	63.7		IV
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Standardised level difference, D_{nT} , dB

Frequency, f , Hz

Legend:
— D_{nT} 1/3rd octave dB
— Reference Curve acc. to ISO 717-1

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 62 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 5
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption		
Source Room:	AN18 KLD	Receive Room:	AN17 Bedroom
Source Room Volume	79.0 m ³		
Receive Room Volume	34.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	41.0		
125	44.3		
160	44.9		
200	53.6		
250	55.3		
315	54.2		
400	54.4		
500	59.3		
630	62.1		
800	64.0	B	IV
1000	62.9	B	IV
1250	65.7		
1600	64.9	B	
2000	65.6	B	
2500	68.2	B	
3150	66.6	B	IV
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

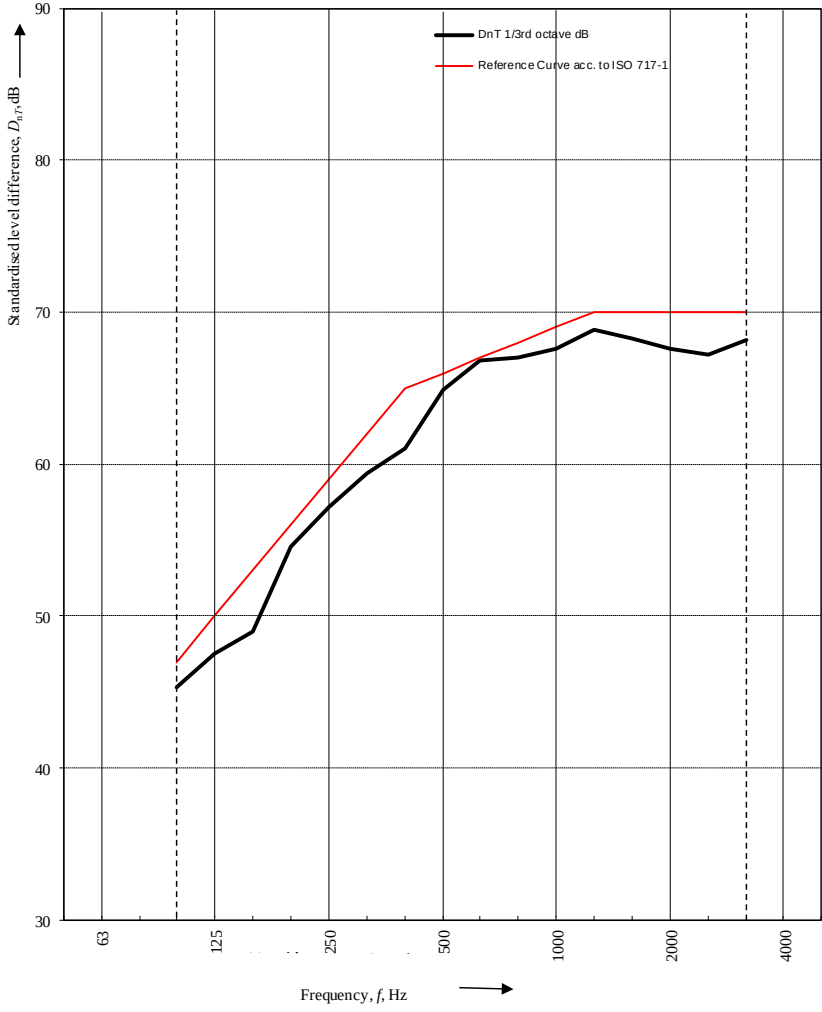
Standardised level difference, D_{nT} , dB

Frequency, f , Hz

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 62 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 6
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption		
Source Room:	AN08 KLD	Receive Room:	AN07 Bedroom
Source Room Volume	79.0 m ³		
Receive Room Volume	34.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	45.3		
125	47.5		
160	49.0		
200	54.6		
250	57.2		
315	59.4		
400	61.0		
500	64.9		
630	66.8		
800	67.0		
1000	67.6		
1250	68.8		
1600	68.3		
2000	67.6		
2500	67.2		
3150	68.2		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
Rating According to ISO 717-1			
$D_{nT,w}(C;C_{tr})$ 66 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable	
Test Report No.:	PC-18-0326-RP3	Name of test institute:	
Report Date:	06/12/2021	Signature:	

--- Frequency range according to the curve of reference values (ISO 717-1)
— D_{nT} 1/3rd octave dB
— Reference Curve acc. to ISO 717-1



Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 7
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN14 KLD	Receive Room:	AN04 KLD
Source Room Volume	90.0 m ³		
Receive Room Volume	90.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	42.5		
125	46.8		
160	41.9		
200	51.2		
250	59.2		
315	61.1		
400	62.0		
500	64.4		
630	63.2		
800	65.7		
1000	66.1		
1250	69.5		
1600	71.7		
2000	73.2		
2500	73.7		
3150	72.4		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 65 (-3 ; -9) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 8
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN14 Master Bedroom	Receive Room:	AN04 Master Bedroom
Source Room Volume	31.0 m ³		
Receive Room Volume	31.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	44.5		
125	45.5		
160	52.3		
200	52.6		
250	65.3		
315	68.5		
400	68.6		
500	72.1		
630	70.9		
800	75.2		
1000	77.7		
1250	79.0		
1600	79.3		
2000	79.2		
2500	78.6		
3150	77.1	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 70 (-3 ; -10) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4																																																																																											
Field measurement of airborne sound insulation between rooms																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 9																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
Source Room:	AN14 KLD	Receive Room:	AN24 KLD																																																																																								
Source Room Volume	90.0 m ³																																																																																										
Receive Room Volume	90.0 m ³																																																																																										
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6																																																																																								
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Report Date:	06/12/2021	Signature:																																																																																									

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 10
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN14 Master Bedroom	Receive Room:	AN24 Master Bedroom
Source Room Volume	31.0 m ³		
Receive Room Volume	31.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	41.5		
125	41.3		
160	48.8		
200	53.8		
250	61.4		
315	63.0		
400	62.6		
500	68.1		
630	71.0		
800	73.2		
1000	75.4		
1250	78.1		
1600	77.7		
2000	78.3		
2500	78.5		
3150	77.8	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Frequency, f , Hz

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 67 (-3 ; -10) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 11
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN11 KLD	Receive Room:	AN01 KLD
Source Room Volume	71.0 m ³		
Receive Room Volume	71.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	44.0		
125	47.1		
160	52.8		
200	59.4		
250	59.5		
315	57.0		
400	58.1		
500	59.4		
630	58.2		
800	62.3		
1000	63.3		
1250	65.9		
1600	67.7		
2000	67.9		
2500	68.9		
3150	68.6		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1) — D_{nT} 1/3rd octave dB — Reference Curve acc. to ISO 717-1			
Rating According to ISO 717-1		Additional spectrum adaptation terms for enlarged frequency range not applicable	
$D_{nT,w}(C;C_{tr})$ 64 (-2 ; -5) dB; Evaluation based on field measurement results obtained by an engineering method			
Test Report No.:	PC-18-0326-RP3	Name of test institute:	paceconsult
Report Date:	06/12/2021	Signature:	<i>P. J. J. J.</i>

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 12
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN11 Bedroom	Receive Room:	AN01 Bedroom
Source Room Volume	28.0 m ³		
Receive Room Volume	28.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	42.3		
125	44.3		
160	49.7		
200	56.6		
250	61.2		
315	58.0		
400	58.6		
500	60.3		
630	60.2		
800	60.0		
1000	62.4		
1250	64.0		
1600	65.4		
2000	66.6		
2500	67.6		
3150	68.7		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Frequency, f , Hz

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 63 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 13
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN15 Bedroom	Receive Room:	AN05 Bedroom
Source Room Volume	31.0 m ³		
Receive Room Volume	31.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	44.0		
125	47.5		
160	53.1		
200	58.3		
250	59.9		
315	58.6		
400	61.8		
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1250	65.6		
1600	67.0		
2000	67.1		
2500	66.1		
3150	64.4		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1) Standardised level difference, D_{nT}, dB Frequency, f, Hz			
Rating According to ISO 717-1		Additional spectrum adaptation terms for enlarged frequency range not applicable	
$D_{nT,w}(C;C_{tr})$ 65 (-1 ; -5) dB; Evaluation based on field measurement results obtained by an engineering method			
Test Report No.:	PC-18-0326-RP3	Name of test institute:	
Report Date:	06/12/2021	Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 14
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN15 KLD	Receive Room:	AN05 KLD
Source Room Volume	82.0 m ³		
Receive Room Volume	82.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	42.4		
125	45.0		
160	41.5		
200	50.3		
250	59.8		
315	60.3		
400	63.1		
500	64.7		
630	65.5		
800	64.8		
1000	67.6		
1250	70.0		
1600	72.5		
2000	72.9		
2500	72.4		
3150	71.2	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Standardised level difference, D_{nT} , dB

Frequency, f , Hz

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 65 (-4 ; -9) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP3
Report Date:	06/12/2021
Name of test institute:	paceconsult
Signature:	<i>P. J. J. J.</i>

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 15
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN15 Bedroom	Receive Room:	AN25 Bedroom
Source Room Volume	31.0 m ³		
Receive Room Volume	31.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	41.4		
125	47.2		
160	49.1		
200	57.5		
250	60.9		
315	55.6		
400	56.8		
500	61.3		
630	64.5		
800	64.8		
1000	65.2		
1250	66.5		
1600	68.1		
2000	68.7		
2500	68.7		
3150	66.9		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1)			
Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 64 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable	
Test Report No.:	PC-18-0326-RP3	Name of test institute:	
Report Date:	06/12/2021	Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 16
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN15 KLD	Receive Room:	AN25 KLD
Source Room Volume	82.0 m ³		
Receive Room Volume	82.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	37.9		
125	43.3		
160	47.3		
200	53.7		
250	55.5		
315	54.8		
400	57.3		
500	57.2		
630	58.2		
800	57.0		
1000	57.9		
1250	60.4		
1600	63.1		
2000	64.4		
2500	63.5		
3150	61.2		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1) — D_{nT} 1/3rd octave dB — Reference Curve acc. to ISO 717-1			
Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 60 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable	
Test Report No.:	PC-18-0326-RP3	Name of test institute:	
Report Date:	06/12/2021	Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 17
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN18 KLD	Receive Room:	AN08 KLD
Source Room Volume	79.0 m ³		
Receive Room Volume	79.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	43.5		
125	45.0		
160	47.5		
200	56.3		
250	61.9		
315	60.2		
400	61.1		
500	63.0		
630	63.9		
800	66.0		
1000	65.0		
1250	68.6		
1600	70.2		
2000	70.6		
2500	70.2		
3150	67.5		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1) Standardised level difference, D_{nT}, dB Frequency, f, Hz			
Rating According to ISO 717-1		Additional spectrum adaptation terms for enlarged frequency range not applicable	
$D_{nT,w}(C;C_{tr})$ 65 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method			
Test Report No.:	PC-18-0326-RP3	Name of test institute:	
Report Date:	06/12/2021	Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 18
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AN18 Bedroom	Receive Room:	AN08 Bedroom
Source Room Volume	34.0 m ³		
Receive Room Volume	34.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	45.5		
125	45.7		
160	52.4		
200	58.0	B	
250	61.1	B	
315	61.3		
400	62.4		
500	64.4		
630	65.9		
800	65.2		
1000	66.2		
1250	65.6		
1600	66.1		
2000	68.0		
2500	69.0		
3150	68.3		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1) Standardised level difference, D_{nT}, dB Frequency, f, Hz			
Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 66 (-2 ; -6) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable	
Test Report No.:	PC-18-0326-RP3	Name of test institute:	paceconsult
Report Date:	06/12/2021	Signature:	<i>P. J. J. J.</i>

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 19																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
Source Room:	AN24 KLD	Receive Room:	AN14 KLD																																																																																								
Receive Room Volume (Approx)	90.0 m ³																																																																																										
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Test Report No.: PC-18-0326-RP3		Name of test institute:																																																																																									
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Standardised impact sound pressure levels according to ISO 140-7																																																																																											
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Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors						
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 21			
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling					
Source Room:	AN14 KLD	Receive Room:	AN04 KLD			
Receive Room Volume (Approx)	90.0 m ³	--- Frequency range according to the curve of reference values (ISO 717-2)				
Frequency f [Hz]	L'_{nT} (one-third octave) dB				B	≤6
50						
63						
80						
100	52.9					
125	50.0					
160	48.0					
200	45.5					
250	42.9					
315	41.7					
400	43.7					
500	43.0					
630	39.4					
800	38.7					
1000	37.6					
1250	34.7					
1600	33.8					
2000	32.3					
2500	30.3					
3150	29.0					
4000						
5000						
B = Background Corrected Sample Level						
≤ = Limit of Measurement $L'_{nT} \leq \text{value}$						
Rating According to ISO 717-2 $L'_{nT,w}(C_f)$ 43 (-1) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method						
Test Report No.:		PC-18-0326-RP3				
Report Date:		06/12/2021				
Name of test institute:						
Signature:						

Standardised impact sound pressure levels according to ISO 140-7																																																																																											
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Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 29/11/2021	Test No. 23																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
Source Room:	AN11 KLD	Receive Room:	AN01 KLD																																																																																								
Receive Room Volume (Approx)	71.0 m ³																																																																																										
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125	50.8					
160	51.0					
200	46.7					
250	45.6					
315	44.6					
400	43.5					
500	44.7					
630	41.1					
800	40.2					
1000	37.0					
1250	34.6					
1600	31.9					
2000	28.1					
2500	25.0					
3150	23.4					
4000						
5000						
B = Background Corrected Sample Level						
≤ = Limit of Measurement $L'_{nT} \leq \text{value}$						
Rating According to ISO 717-2 $L'_{nT,w} (C_f)$ 43 (2) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method						
Test Report No.:	PC-18-0326-RP3		Name of test institute:			
Report Date:	06/12/2021		Signature:			

Standardised impact sound pressure levels according to ISO 140-7																																																																																											
Field measurements of impact sound insulation of floors																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 30/11/2021	Test No. 29																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
Source Room:	AN18 KLD	Receive Room:	AN08 KLD																																																																																								
Receive Room Volume (Approx)	79.0 m ³																																																																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Frequency f [Hz]</th> <th>L'_{nT} (one-third octave) dB</th> <th>B</th> <th>≤6</th> </tr> </thead> <tbody> <tr><td>50</td><td></td><td></td><td></td></tr> <tr><td>63</td><td></td><td></td><td></td></tr> <tr><td>80</td><td></td><td></td><td></td></tr> <tr><td>100</td><td>54.3</td><td></td><td></td></tr> <tr><td>125</td><td>51.8</td><td></td><td></td></tr> <tr><td>160</td><td>45.7</td><td></td><td></td></tr> <tr><td>200</td><td>43.3</td><td></td><td></td></tr> <tr><td>250</td><td>42.8</td><td></td><td></td></tr> <tr><td>315</td><td>45.1</td><td></td><td></td></tr> <tr><td>400</td><td>45.6</td><td></td><td></td></tr> <tr><td>500</td><td>47.0</td><td></td><td></td></tr> <tr><td>630</td><td>40.0</td><td></td><td></td></tr> <tr><td>800</td><td>38.8</td><td></td><td></td></tr> <tr><td>1000</td><td>31.7</td><td></td><td></td></tr> <tr><td>1250</td><td>29.1</td><td></td><td></td></tr> <tr><td>1600</td><td>28.6</td><td></td><td></td></tr> <tr><td>2000</td><td>22.5</td><td></td><td></td></tr> <tr><td>2500</td><td>19.5</td><td></td><td></td></tr> <tr><td>3150</td><td>18.8</td><td></td><td></td></tr> <tr><td>4000</td><td></td><td></td><td></td></tr> <tr><td>5000</td><td></td><td></td><td></td></tr> </tbody> </table> B = Background Corrected Sample Level ≤ = Limit of Measurement $L'_{nT} \leq$ value		Frequency f [Hz]	L'_{nT} (one-third octave) dB	B	≤6	50				63				80				100	54.3			125	51.8			160	45.7			200	43.3			250	42.8			315	45.1			400	45.6			500	47.0			630	40.0			800	38.8			1000	31.7			1250	29.1			1600	28.6			2000	22.5			2500	19.5			3150	18.8			4000				5000				--- Frequency range according to the curve of reference values (ISO 717-2)	
Frequency f [Hz]	L'_{nT} (one-third octave) dB	B	≤6																																																																																								
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Test Report No.: PC-18-0326-RP3		Name of test institute:																																																																																									
Report Date:	06/12/2021	Signature:																																																																																									

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors						
Client Details:	Ardmore Construction Ltd	Test Date:	30/11/2021	Test No. 30		
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling					
Source Room:	AN18 Bedroom	Receive Room:	AN08 Bedroom			
Receive Room Volume (Approx)	34.0 m ³	--- Frequency range according to the curve of reference values (ISO 717-2)				
Frequency [Hz]	L'_{nT} (one-third octave) dB				B	≤6
50						
63						
80						
100	59.6					
125	59.0					
160	49.2					
200	46.7					
250	42.8					
315	44.5					
400	44.8					
500	44.7					
630	45.7					
800	44.0					
1000	41.5					
1250	41.5					
1600	40.4					
2000	40.2					
2500	37.5					
3150	35.0					
4000						
5000						
B = Background Corrected Sample Level						
≤ = Limit of Measurement $L'_{nT} \leq \text{value}$						
Rating According to ISO 717-2 $L'_{nT,w}(C_f)$ 49 (-1) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method						
Test Report No.:		PC-18-0326-RP3				
Report Date:		06/12/2021				
Name of test institute:						
Signature:						

Appendix D – ANC Advance Notice to Building Control Officer:



Notice to Building Control Officer

Certification of Test Results

ANC operates an online, secure, paperless certification system for sound insulation tests.

The online verification (certification) system means that Building Control Bodies will need to follow the steps below to verify the results quoted in the relevant test report:

1. Go to the ANC secure server at www.theanc.co.uk
2. Navigate to the [ADvANCE](#) page which links to the ANC site available for use by BCOs.
3. Enter the following in the spaces provided:

Task Number: 73742 Task Password: QEWG9P
4. Select role "Building Control Officer" and press "Login"
5. You will then see a summary list of results of all the Tests undertaken to date for this project (Task) as held on the secure primary server and you can print this table for your records.

End of Report

REPORT TITLE:

Hornsey Town Hall (Block A South) Residential Sound Insulation Test Report

CLIENT DETAILS:

Ardmore Construction Ltd

DATE:

16th February 2022

REPORT REFERENCE:

PC-18-0326-RP4

PREPARED BY:

Peter Young MSc AMIOA

CHECKED/AUTHORISED BY:

Joan-Carles Blanco BSc MIOA

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2 – General Information.....	4
3 – Project Criteria & Constructions.....	5
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Appendix D – ANC Advance Notice to Building Control Officer:	29

Document Status and Revision Schedule

Issue/Revision	Description/Comments	Date	Prepared by	Approved by
First Issue	Checked & authorised	16/02/22	PY	JCB

1 –Introduction

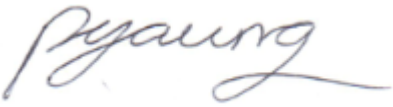
This report is an ANC Registered Report with the unique registration number 74089

Pre-completion sound insulation testing has been completed at Hornsey Town Hall (Block A South).

The Hornsey Town Hall site is a mix of new-build and refurbishment residential, commercial & hotel buildings. Block A is a new-build residential block.

The findings have been registered and are presented here within, and on the ANC Advance sound test verification server on line. A notice to Building control officer is included at the end of this report.

The testing has established the performance of the separating structures and associated flanking structures. The test method and measured performance have been presented against the applicable performance standards, being Requirement E1 of the Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments (Referred to as BR ADE 2003 as amended).

Report Author:	Report Checked & Authorised By:
Peter Young MSc AMIOA	Joan-Carles Blanco BSc MIOA
	
Dated: 16/02/22	Dated: 16/02/22

2 – General Information

Site name & address:

Plot / House name / Number: Hornsey Town Hall (Block A South)
Road name: The Broadway
Town: London
Post Code: N8 9JJ

Type of property:

Purpose built dwelling house and flats

Historic or within a conservation area:

The site **is not** historic/within a conservation area

Test Date:

02/02/22 & 03/02/22

Carried Out By:

Company Name: Pace Consult Ltd, 652
Street name: 652 The Crescent
Town : Colchester
Postcode: CO4 9YQ
ANC Test Organisation No.: 0167

Persons in charge of testing:

Name & Qualifications: Peter Young MSc AMIOA
Registered ANC Test Engineer No.: 167/05

Carried Out For:

Company Name: Ardmore Construction Ltd
Street name: 6 Wharf Studios, 28 Wharf Road
Town : London
Postcode: N1 7GR

3 – Project Criteria & Constructions

Based on the information in section 2, the requirements BR ADE 2003 as amended are as follows:

Table 1: BR ADE (2003 as amended) Table 0.1a Dwelling houses and flats – performance standards for separating walls, separating floors, and stairs that have a separating function

Partition Type	Airborne sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum values)	Impact sound insulation $L'_{nT,w}$ dB (Maximum values)
Purpose built dwelling houses or flats		
Walls	45	-
Floors and Stairs	45	62

Table 2: Construction Details (Provided of the client)

Separating Partition	Construction Details
Wall	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption
Floor	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling

4 - Test Results

Table 3 - Measured airborne sound insulation of separating party walls against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
1	167740891	AS04 Bedroom	33	AS03 Bedroom	29	$\geq 45 D_{nT,w} + C_{tr}$ dB	58	PASS
2	167740892	AS04 Master Bedroom	33	AS05 Master Bedroom	33	$\geq 45 D_{nT,w} + C_{tr}$ dB	57	PASS
3	167740893	AS25 Bedroom	30	AS26 Bedroom 1	30	$\geq 45 D_{nT,w} + C_{tr}$ dB	55	PASS

*Note. Dimensions and volumes have been estimated on site using an electronic disto
Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.*

Table 4 - Measured **airborne sound insulation of separating party floors** against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
4	167740894	AS03 KLD	91	AS13 KLD	91	$\geq 45 D_{nT,w} + C_{tr}$ dB	58	PASS
5	167740895	AS03 Master Bedroom	34	AS13 Master Bedroom	34	$\geq 45 D_{nT,w} + C_{tr}$ dB	65	PASS
6	167740896	AS04 Bedroom	33	A14 Bedroom	33	$\geq 45 D_{nT,w} + C_{tr}$ dB	63	PASS
7	167740897	AS04 KLD	87	AS14 KLD	87	$\geq 45 D_{nT,w} + C_{tr}$ dB	60	PASS
8	167740898	AS05 Master Bedroom	33	AS15 Master Bedroom	33	$\geq 45 D_{nT,w} + C_{tr}$ dB	62	PASS
9	167740899	AS05 KLD	98	AS15 KLD	98	$\geq 45 D_{nT,w} + C_{tr}$ dB	56	PASS

*Note. Dimensions and volumes have been estimated on site using an electronic disto
Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.*

Table 5 - Measured **impact sound insulation of separating floors** against BR ADE 2003 as amended.

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
10	1677408910	AS13 Master Bedroom	34	AS03 Master Bedroom	34	$\leq 62 L'_{nT,w}$ dB	43	PASS
11	1677408911	AS13 KLD	91	AS03 KLD	91	$\leq 62 L'_{nT,w}$ dB	46	PASS
12	1677408912	AS14 Bedroom	33	AS04 Bedroom	33	$\leq 62 L'_{nT,w}$ dB	46	PASS
13	1677408913	AS14 KLD	87	AS04 KLD	87	$\leq 62 L'_{nT,w}$ dB	44	PASS
14	1677408914	AS15 KLD	98	AS05 KLD	98	$\leq 62 L'_{nT,w}$ dB	45	PASS
15	1677408915	AS15 Master Bedroom	33	AS05 Master Bedroom	33	$\leq 62 L'_{nT,w}$ dB	42	PASS

*Note. Dimensions and volumes have been estimated on site using an electronic disto
Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.*

Appendix A – Compliance Statements:

Testing and assessment was completed in full accordance with the following standards pertaining to sound insulation testing of residential buildings, and associated documents:

BS EN ISO 140-4:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 4. Field measurements of airborne sound insulation between rooms.

BS EN ISO 140-7:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 7. Field measurements of impact sound insulation of floors.

BS EN ISO 717-1:1997 Acoustics – Rating of sound insulation in buildings and of building elements, Part 1. Airborne sound insulation.

BS EN ISO 717-2:1997 Acoustics – Rating of sound insulation in buildings and of building elements. Part 2. Impact sound insulation.

Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments including Annex B

BS EN ISO 3382-2:2008 Acoustics - Measurement of room acoustic parameters. Reverberation time in ordinary rooms.

The testing and assessment was also completed with reference to the following documents:

ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018

BS EN ISO 16283-1:2014 Incorporating corrigendum June 2014 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 1. Airborne sound insulation.

BS EN ISO 16283-2:2018 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 2: Impact sound insulation

BS EN ISO 140-14:2004 Acoustics. Measurement of sound insulation in buildings and of building elements. Guidelines for special situations in the field

BS EN ISO 17025:2005 'General Requirements for the competence of testing and calibration laboratories'

Appendix B – Description of Test Procedure

Building Regulations Approved Document E (as amended) is prescriptive in the approved manner and order of recording pre-completion testing results. Point 1.41 of BR ADE states the 'Approved manner of recording pre-completion testing results', while BR ADE Annex B states the 'Procedures for Sound Insulation Testing'.

Measurements were made using the following equipment

Table 6: Sound Test Kit B

Equipment Description	Type Number	Manufacturer	Serial Number	Date of Last Calibration	Calibration Certification Number
Sound Level Meter	NOR-118	Norsonic	31301	04/05/21	U37815
Microphone	1225	Norsonic	48084	04/05/21	37814
Preamplifier	1206	Norsonic	30486	04/05/21	37814
Calibrator	NOR-1251	Norsonic	30998	24/11/2021	U39543
Speaker	NOR-250	Norsonic	31434	-	-
Amplifier	NOR-280	Norsonic	2803650	-	-
Tapping Machine	NOR-277	Norsonic	2776140	26/08/2020	U35580

The sound level meter was calibrated before and after the measurements, to an accuracy of ± 0.1 dB unless otherwise noted. No significant drift was noted.

Rooms under test:

Suitable test conditions were found on site with access to all rooms. Rooms were unfurnished, but some materials and tools were in the rooms under test. Tests were undertaken during the working day, so some light road traffic noise was evident in the receiver rooms. Source and receiver room volumes are given with the statement of results.

For Airborne Tests:

5 fixed Microphone positions within both the source and receiver rooms were used for each of two source positions. The averaging time for each speaker position (source and receiver side) in each case was 30 seconds (6s each position) to give a total sampling time on each side of the structure under test of 60 seconds.

For Impact Tests:

4 tapping machine positions in the source room were used, with 2 microphone positions in the receiver room for each tapping machine position; for a total of 8 measurements. The total averaging time was 48 seconds (6s each position), this is 12s in excess of the minimum averaging time required by BS EN ISO 140-7: 1998 and is in accordance with the ANC practice guidance for sound insulation testing in dwellings (2018).

Reverberation times:

A total of 6 reverberation time measurements were taken in each receiver room, using three fixed microphone positions for each of two interrupted pink noise source locations; for a total of 6 no. decays.

Background noise:

Background noise measurements were taken within each receiver room. Background measurements were recorded at typically the same locations as those used for the fixed microphone receiver room (L2) measurements. For airborne tests, where the background noise in the receiving room was deemed to be sufficiently low and/or stable, 5 measurement positions (6 seconds each, for a total of 30 seconds) were used, and the global average value applied to both sets of receiver room measurements. This approach is discussed in the ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018, paragraph 1.10. Where background noise was deemed not to be sufficiently low and stable, (5 No. fixed microphone positions for each of two source positions) provided a minimum total duration of 60 seconds. For impact tests (5 No fixed microphone positions) with a total of 30 seconds were taken.

Airborne Result Rating:

The Weighted Standardized Level Difference ($D_{nT, w}$ dB) and the Spectrum Adaption Terms ($C:C_{tr}$) were calculated in accordance with British Standard BS EN ISO 717-1:1997. A single value test result for airborne tests ($D_{nT, w} + C_{tr}$ dB) is calculated using the rating methods detailed for airborne testing (ISO 717-1:1997).

Impact Result Rating:

A single value test result for impact tests ($L'_{n,T, w}$ dB) is calculated using the rating methods detailed for impact testing (ISO 717-2:1997).

Graphical report sheets

Details on each individual test are presented on the following graphical report sheets (see appendix A) as per ISO 140-4:1998 for airborne tests and as per ISO 140-7:1998 for impact tests.

These include details of room volumes, a description of the partition under test, and test result data in table and graphical form. Where the graphical report sheet denotes a 'B' next to the third octave level, the level is corrected for the effect of background noise. A ' $\leq$ ' or ' $\geq$ ' may indicate that the results are to

be taken as the limits of measurement and the $D_{nT,w}$ is to be considered $\geq$ the difference presented and the $L_{nT,w}$ is to be considered $\leq$ the level presented.

Appendix C - Test Certificate Graphs:

Please note: the dimensions of the test certificate graphs are scaled to the correct dimensions (in line with section 8 of BS EN ISO 140-4 & section 7 BS EN ISO 140-7) when the PDF is printed at custom scale 100%.

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 1
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption		
Source Room:	AS04 Bedroom	Receive Room:	AS03 Bedroom
Source Room Volume	33.0 m ³		
Receive Room Volume	29.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	40.3		
125	48.4		
160	48.9		
200	58.1		
250	60.3		
315	64.2		
400	66.3		
500	67.1		
630	68.8		
800	68.9		
1000	73.2		
1250	76.8		
1600	76.7		
2000	75.5		
2500	75.9		
3150	76.0		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Frequency (Hz)	DnT (dB)	Reference Curve (dB)
125	48.4	50.0
160	48.9	53.0
200	58.1	56.0
250	60.3	59.0
315	64.2	62.0
400	66.3	65.0
500	67.1	68.0
630	68.8	71.0
800	68.9	73.0
1000	73.2	73.0
1250	76.8	73.0
1600	76.7	73.0
2000	75.5	73.0
2500	75.9	73.0
3150	76.0	73.0

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 69 (-4 ; -11) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP4
Report Date:	16/02/2022
Name of test institute:	paceconsult
Signature:	<i>P. J. Young</i>

Standardised level difference according to ISO 140-4																																																																																											
Field measurement of airborne sound insulation between rooms																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 2																																																																																								
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption																																																																																										
Source Room:	AS04 Master Bedroom	Receive Room:	AS05 Master Bedroom																																																																																								
Source Room Volume	33.0 m ³																																																																																										
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Frequency [Hz]	D _{nT} (one-third octave) dB	B	≥6																																																																																								
50																																																																																											
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800	63.8																																																																																										
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1250	68.1																																																																																										
1600	69.1																																																																																										
2000	68.8																																																																																										
2500	69.4																																																																																										
3150	69.7																																																																																										
4000																																																																																											
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B = Background Corrected Sample Level ≥ = Limit of Measurement D_{nT} ≥ value																																																																																											
Rating According to ISO 717-1 D_{nT,w} (C; C_{tr}) 64 (-2 ; -7) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable																																																																																									
Test Report No.:	PC-18-0326-RP4	Name of test institute:																																																																																									
Report Date:	16/02/2022	Signature:																																																																																									

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 03/02/2022	Test No. 3
Construction information:	x2 layers GTEC dB board each side of twin independent 60mm C studs forming 190mm cavity with absorption		
Source Room:	AS25 Bedroom	Receive Room:	AS26 Bedroom 1
Source Room Volume	30.0 m ³		
Receive Room Volume	30.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	37.5		
125	43.6		
160	46.2		
200	50.3		
250	55.2		
315	59.1		
400	60.5		
500	62.0		
630	65.2		
800	66.7		
1000	68.8		
1250	71.2		
1600	71.2		
2000	68.8		
2500	66.8		
3150	71.0		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Frequency (Hz)	DnT (dB)	Reference Curve (dB)
125	43.6	45.0
160	46.2	48.0
200	50.3	51.0
250	55.2	54.0
315	59.1	57.0
400	60.5	60.0
500	62.0	63.0
630	65.2	66.0
800	66.7	68.0
1000	68.8	69.0
1250	71.2	69.0
1600	71.2	69.0
2000	68.8	69.0
2500	66.8	69.0
3150	71.0	69.0

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 64 (-3 ; -9) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP4
Report Date:	16/02/2022
Name of test institute:	paceconsult
Signature:	<i>P. J. Young</i>

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 4
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AS03 KLD	Receive Room:	AS13 KLD
Source Room Volume	91.0 m ³		
Receive Room Volume	91.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	40.1		
125	47.7		
160	53.8		
200	56.9		
250	56.9		
315	58.2		
400	60.9		
500	61.3		
630	64.4		
800	64.0		
1000	66.8		
1250	69.9		
1600	70.4		
2000	69.4		
2500	66.4		
3150	63.8		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1)			
Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 65 (-2 ; -7) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable	
Test Report No.:	PC-18-0326-RP4	Name of test institute:	paceconsult
Report Date:	16/02/2022	Signature:	<i>P. J. J. J.</i>

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 5
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AS03 Master Bedroom	Receive Room:	AS13 Master Bedroom
Source Room Volume	34.0 m ³		
Receive Room Volume	34.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	48.5		
125	52.4		
160	54.9		
200	63.6		
250	68.9		
315	67.8		
400	67.5		
500	73.2		
630	75.2		
800	77.4		
1000	80.1		
1250	81.0		
1600	81.8		
2000	81.8		
2500	82.3	B	
3150	81.1	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Standardised level difference, D_{nT} , dB

Frequency, f , Hz

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 74 (-3 ; -9) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP4
Report Date:	16/02/2022
Name of test institute:	paceconsult
Signature:	<i>P. J. Young</i>

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 6
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AS04 Bedroom	Receive Room:	A14 Bedroom
Source Room Volume	33.0 m ³		
Receive Room Volume	33.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	45.3		
125	47.9		
160	55.6		
200	65.8		
250	71.0		
315	70.8		
400	73.1		
500	76.1		
630	79.5		
800	80.6		
1000	83.8		
1250	85.8		
1600	86.3		
2000	85.7	B	
2500	85.6	B	
3150	84.3		IV
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Standardised level difference, D_{nT} , dB

Frequency, f , Hz

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 75 (-5 ; -12) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP4
Report Date:	16/02/2022
Name of test institute:	paceconsult
Signature:	<i>P. J. Young</i>

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 7
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AS04 KLD	Receive Room:	AS14 KLD
Source Room Volume	87.0 m ³		
Receive Room Volume	87.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	43.7		
125	47.5		
160	53.0		
200	58.2		
250	56.9		
315	60.3		
400	63.6		
500	62.6		
630	68.4		
800	67.7		
1000	68.8		
1250	74.7		
1600	74.3		
2000	73.4		
2500	74.2	B	
3150	72.0	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 67 (-2 ; -7) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable
Test Report No.:	PC-18-0326-RP4
Report Date:	16/02/2022
Name of test institute:	
Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 8
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AS05 Master Bedroom	Receive Room:	AS15 Master Bedroom
Source Room Volume	33.0 m ³		
Receive Room Volume	33.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	44.5		
125	50.4		
160	54.4		
200	62.1		
250	68.5		
315	65.5		
400	68.0		
500	72.5		
630	72.5		
800	69.0		
1000	74.5		
1250	76.3		
1600	78.6		
2000	78.0		
2500	78.0		
3150	76.9	B	
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			

--- Frequency range according to the curve of reference values (ISO 717-1)

Rating According to ISO 717-1 $D_{nT,w}(C;C_{tr})$ 72 (-3 ; -10) dB; Evaluation based on field measurement results obtained by an engineering method	Additional spectrum adaptation terms for enlarged frequency range not applicable		
Test Report No.:	PC-18-0326-RP4	Name of test institute:	
Report Date:	16/02/2022	Signature:	

Standardised level difference according to ISO 140-4			
Field measurement of airborne sound insulation between rooms			
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 9
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling		
Source Room:	AS05 KLD	Receive Room:	AS15 KLD
Source Room Volume	98.0 m ³		
Receive Room Volume	98.0 m ³		
Frequency [Hz]	D_{nT} (one-third octave) dB	B	≥ 6
50			
63			
80			
100	37.0		
125	47.2		
160	48.9		
200	52.7		
250	63.0		
315	62.3		
400	63.7		
500	65.4		
630	67.8		
800	67.8		
1000	69.8		
1250	71.5		
1600	72.4		
2000	72.6		
2500	72.8		
3150	71.8		
4000			
5000			
B = Background Corrected Sample Level			
$\geq$ = Limit of Measurement $D_{nT} \geq$ value			
--- Frequency range according to the curve of reference values (ISO 717-1) — D_{nT} 1/3rd octave dB — Reference Curve acc. to ISO 717-1			
Rating According to ISO 717-1			
$D_{nT,w}(C;C_{tr})$ 67 (-4 ; -11) dB; Evaluation based on field measurement results obtained by an engineering method		Additional spectrum adaptation terms for enlarged frequency range not applicable	
Test Report No.:	PC-18-0326-RP4	Name of test institute:	
Report Date:	16/02/2022	Signature:	

Standardised impact sound pressure levels according to ISO 140-7																																																																																											
Field measurements of impact sound insulation of floors																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 11																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
Source Room:	AS13 Master Bedroom	Receive Room:	AS03 Master Bedroom																																																																																								
Receive Room Volume (Approx)	34.0 m ³																																																																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Frequency f [Hz]</th> <th>L'_{nT} (one-third octave) dB</th> <th>B</th> <th>≤6</th> </tr> </thead> <tbody> <tr><td>50</td><td></td><td></td><td></td></tr> <tr><td>63</td><td></td><td></td><td></td></tr> <tr><td>80</td><td></td><td></td><td></td></tr> <tr><td>100</td><td>56.3</td><td></td><td></td></tr> <tr><td>125</td><td>47.2</td><td></td><td></td></tr> <tr><td>160</td><td>41.4</td><td></td><td></td></tr> <tr><td>200</td><td>45.5</td><td></td><td></td></tr> <tr><td>250</td><td>44.7</td><td></td><td></td></tr> <tr><td>315</td><td>40.0</td><td></td><td></td></tr> <tr><td>400</td><td>39.8</td><td></td><td></td></tr> <tr><td>500</td><td>42.1</td><td></td><td></td></tr> <tr><td>630</td><td>37.0</td><td></td><td></td></tr> <tr><td>800</td><td>38.7</td><td></td><td></td></tr> <tr><td>1000</td><td>33.9</td><td></td><td></td></tr> <tr><td>1250</td><td>28.2</td><td></td><td></td></tr> <tr><td>1600</td><td>28.1</td><td></td><td></td></tr> <tr><td>2000</td><td>27.0</td><td></td><td></td></tr> <tr><td>2500</td><td>24.5</td><td></td><td></td></tr> <tr><td>3150</td><td>40.2</td><td></td><td></td></tr> <tr><td>4000</td><td></td><td></td><td></td></tr> <tr><td>5000</td><td></td><td></td><td></td></tr> </tbody> </table>		Frequency f [Hz]	L'_{nT} (one-third octave) dB	B	≤6	50				63				80				100	56.3			125	47.2			160	41.4			200	45.5			250	44.7			315	40.0			400	39.8			500	42.1			630	37.0			800	38.7			1000	33.9			1250	28.2			1600	28.1			2000	27.0			2500	24.5			3150	40.2			4000				5000				--- Frequency range according to the curve of reference values (ISO 717-2)	
Frequency f [Hz]	L'_{nT} (one-third octave) dB	B	≤6																																																																																								
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Rating According to ISO 717-2 $L'_{nT,w}(C_f)$ 43 (0) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method																																																																																											
Test Report No.: PC-18-0326-RP4		Name of test institute:																																																																																									
Report Date:	16/02/2022	Signature:																																																																																									

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors						
Client Details:	Ardmore Construction Ltd	Test Date:	02/02/2022	Test No. 11		
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling					
Source Room:	AS13 KLD	Receive Room:	AS03 KLD			
Receive Room Volume (Approx)	91.0 m ³	--- Frequency range according to the curve of reference values (ISO 717-2)				
Frequency f [Hz]	L'_{nT} (one-third octave) dB				B	≤6
50						
63						
80						
100	57.5					
125	50.7					
160	50.0					
200	47.0					
250	47.1					
315	47.9					
400	47.5					
500	48.9					
630	45.5					
800	44.4					
1000	41.6					
1250	38.4					
1600	36.8					
2000	34.2					
2500	32.2					
3150	30.6					
4000						
5000						
B = Background Corrected Sample Level						
≤ = Limit of Measurement $L'_{nT} \leq \text{value}$						
Rating According to ISO 717-2 $L'_{nT,w} (C_f)$ 46 (0) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method						
Test Report No.:	PC-18-0326-RP4		Name of test institute:			
Report Date:	16/02/2022		Signature:			

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 12																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
Source Room:	AS14 Bedroom	Receive Room:	AS04 Bedroom																																																																																								
Receive Room Volume (Approx)	33.0 m ³																																																																																										
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Frequency f [Hz]	L'_{nT} (one-third octave) dB	B	≤6																																																																																								
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Test Report No.: PC-18-0326-RP4		Name of test institute:																																																																																									
Report Date:	16/02/2022	Signature:																																																																																									

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors																																																																																											
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 13																																																																																								
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling																																																																																										
Source Room:	AS14 KLD	Receive Room:	AS04 KLD																																																																																								
Receive Room Volume (Approx)	87.0 m ³																																																																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Frequency f [Hz]</th> <th style="width: 20%;">L' nT (one-third octave) dB</th> <th style="width: 10%;">B</th> <th style="width: 10%;">≤6</th> </tr> </thead> <tbody> <tr><td>50</td><td></td><td></td><td></td></tr> <tr><td>63</td><td></td><td></td><td></td></tr> <tr><td>80</td><td></td><td></td><td></td></tr> <tr><td>100</td><td>55.2</td><td></td><td></td></tr> <tr><td>125</td><td>50.0</td><td></td><td></td></tr> <tr><td>160</td><td>46.5</td><td></td><td></td></tr> <tr><td>200</td><td>45.4</td><td></td><td></td></tr> <tr><td>250</td><td>44.2</td><td></td><td></td></tr> <tr><td>315</td><td>45.2</td><td></td><td></td></tr> <tr><td>400</td><td>43.3</td><td></td><td></td></tr> <tr><td>500</td><td>46.6</td><td></td><td></td></tr> <tr><td>630</td><td>43.3</td><td></td><td></td></tr> <tr><td>800</td><td>45.8</td><td></td><td></td></tr> <tr><td>1000</td><td>44.5</td><td></td><td></td></tr> <tr><td>1250</td><td>39.5</td><td></td><td></td></tr> <tr><td>1600</td><td>38.4</td><td></td><td></td></tr> <tr><td>2000</td><td>32.1</td><td></td><td></td></tr> <tr><td>2500</td><td>23.9</td><td></td><td></td></tr> <tr><td>3150</td><td>19.7</td><td></td><td></td></tr> <tr><td>4000</td><td></td><td></td><td></td></tr> <tr><td>5000</td><td></td><td></td><td></td></tr> </tbody> </table> B = Background Corrected Sample Level ≤ = Limit of Measurement L' nT ≤ value		Frequency f [Hz]	L' nT (one-third octave) dB	B	≤6	50				63				80				100	55.2			125	50.0			160	46.5			200	45.4			250	44.2			315	45.2			400	43.3			500	46.6			630	43.3			800	45.8			1000	44.5			1250	39.5			1600	38.4			2000	32.1			2500	23.9			3150	19.7			4000				5000				--- Frequency range according to the curve of reference values (ISO 717-2) --- Frequency range according to the curve of reference values (ISO 717-2)	
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Rating According to ISO 717-2 $L'_{nT,w}(C_f)$ 44 (0) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method																																																																																											
Test Report No.: PC-18-0326-RP4		Name of test institute:																																																																																									
Report Date:	16/02/2022	Signature:																																																																																									

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors						
Client Details:	Ardmore Construction Ltd	Test Date:	02/02/2022	Test No. 14		
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling					
Source Room:	AS15 KLD	Receive Room:	AS05 KLD			
Receive Room Volume (Approx)	98.0 m ³	--- Frequency range according to the curve of reference values (ISO 717-2)				
Frequency f [Hz]	L'_{nT} (one-third octave) dB				B	≤6
50						
63						
80						
100	58.4					
125	50.9					
160	48.0					
200	45.8					
250	44.4					
315	45.0					
400	43.5					
500	46.1					
630	44.0					
800	44.8					
1000	43.6					
1250	39.1					
1600	38.2					
2000	33.4					
2500	28.6					
3150	26.1					
4000						
5000						
B = Background Corrected Sample Level						
≤ = Limit of Measurement $L'_{nT} \leq$ value						
Rating According to ISO 717-2 $L'_{nT,w}(C_f)$ 45 (1) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method						
Test Report No.:		PC-18-0326-RP4				
Report Date:		16/02/2022				
Name of test institute:						
Signature:						

Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors						
Client Details:	Ardmore Construction Ltd	Test Date: 02/02/2022	Test No. 15			
Construction information:	Floor finish, Approx. 65mm Screed, Resilient layer (e.g. Regupol 7210c), 250mm Concrete Slab, Assumed 200mm Ceiling zone, 12.5mm Plasterboard Ceiling					
Source Room:	AS15 Master Bedroom	Receive Room:	AS05 Master Bedroom			
Receive Room Volume (Approx)	33.0 m ³	--- Frequency range according to the curve of reference values (ISO 717-2)				
Frequency f [Hz]	L'_{nT} (one-third octave) dB				B	≤6
50						
63						
80						
100	59.2					
125	51.4					
160	46.2					
200	44.5					
250	43.8					
315	43.3					
400	40.9					
500	40.1					
630	39.3					
800	41.5					
1000	35.6					
1250	33.1					
1600	31.5					
2000	30.1					
2500	27.8					
3150	25.9					
4000						
5000						
B = Background Corrected Sample Level						
≤ = Limit of Measurement $L'_{nT} \leq \text{value}$						
Rating According to ISO 717-2 $L'_{nT,w}(C_f)$ 42 (4) dB; Additional spectrum adaptation terms for enlarged frequency range not applicable Evaluation based on field measurement results obtained, in one third octave bands by an engineering method						
Test Report No.:		PC-18-0326-RP4				
Report Date:		16/02/2022				
Name of test institute:						
Signature:						

Appendix D – ANC Advance Notice to Building Control Officer:



Notice to Building Control Officer

Certification of Test Results

ANC operates an online, secure, paperless certification system for sound insulation tests.

The online verification (certification) system means that Building Control Bodies will need to follow the steps below to verify the results quoted in the relevant test report:

1. Go to the ANC secure server at www.theanc.co.uk
2. Navigate to the [ADvANCE](#) page which links to the ANC site available for use by BCOs.
3. Enter the following in the spaces provided:

Task Number: 74089 Task Password: RXDOJ3
4. Select role "Building Control Officer" and press "Login"
5. You will then see a summary list of results of all the Tests undertaken to date for this project (Task) as held on the secure primary server and you can print this table for your records.

End of Report

BREEM Projects

BREEM : Projects : Home Qual

BREEM Projects

HQM-Technical-Manual-2015-E

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PRIVACY POLICY

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