KP Acoustics Ltd.
info@kpacoustics.com
1 Galena Road, W6 0LT London, UK
+44 (0) 208 222 8778
www.kpacoustics.com

186 High Street, Edgware London

Building Regulations 2010
Approved Document E 2003

Sound Insulation Test Report
Report 18310.PCT.01

Shanly Homes Ltd (North London)
Sorbon 24-26 Aylesbury End
Beaconsfield
HP9 1LW

UKAS TESTING
7940

Date of issue: 18/05/2021		
Site Address	**Type of Property**	**Test Date**
186 High Street, Edgware, HA8 7EX	New-build	14/05/2021
Tested by:	**Written by:**	**Checked by:**
Gonçalo Lemos MIOA	Gonçalo Lemos MIOA	Aidan Tolkien MIOA

Revision History
Original report: 18310.PCT.01

Report number	**Changes**	**Reason of change**

Disclaimer

Contents

List of Attachments

1.0 INTRODUCTION

KP Acoustics Ltd, 1 Galena Road, London, W6 0LT has been commissioned by Shanly Homes Ltd (North London), Sorbon 24-26 Aylesbury End, Beaconsfield, HP9 1LW, to undertake pre-completion tests at 186 High Street, Edgware, HA8 7EX, under the provisions of Approved Document E (2003 Edition).

This report records the results of the sound insulation tests and details the procedures used throughout the measurement and post-processing phases.

The sound insulation tests detailed in this report were undertaken in full accordance with BS EN ISO 140-4: 1998 *"Field measurements of airborne sound insulation between rooms"*, BS EN ISO 140-7: 1998 *"Field measurements of impact sound insulation between rooms"* and the procedures described in Annex B of the Approved Document.

2.0 METHODOLOGY

2.1 Airborne Tests

High volume "pink" noise was generated from one loudspeaker in the source room, positioned to obtain a diffuse sound field. A spatial average of the resulting one-third octave band noise levels between 100 Hz and 3150 Hz was obtained by using a moving microphone technique over a minimum period of 30 seconds at each of two measurements. The same measurement procedure was used in the receiver room. The procedure was then repeated for a second loudspeaker position within the source room, as required by the Standard.

The results of the tests were rated in accordance with BS EN ISO 717-1: 1997 "Rating of sound insulation in buildings and of building elements. Part 1 Airborne sound insulation".

2.2 Impact Tests

A tapping machine complying with Annex A of BS EN ISO 140-7 was placed in four different positions in the source room. The resulting one-third octave band noise levels between 100 Hz and 3150 Hz were measured at six distributed positions, for a minimum of ten seconds at each position. Two receiver measurements were conducted for each tapping machine position for the first two positions, and one receiver measurement was conducted for each of the two subsequent positions.

The results of the tests were rated in accordance with BS EN ISO 717-2: 1997 "Rating of sound insulation in buildings and of building elements. Part 2 Impact sound insulation".

2.3 Reverberation Time

Reverberation time measurements were taken following the procedure described below in order to correct the receiver levels for room characteristics.

The source was moved to the receiver room and "white noise" was generated and stopped instantaneously in order to measure the reverberation time in each of the one-third octave bands between 100 Hz and 3150 Hz. The internal programme of the meter was used to measure the decay time of the sound in the room. This was repeated six times in the receiver room in order to obtain an average result.

2.4 Background Noise

The background noise levels in the receiver rooms were measured during the tests and the receiving room levels corrected in accordance with BS EN ISO 140-4:1998 and BS EN ISO 140-7:1998.

The dominant source of background noise observed during the tests was road traffic noise from surrounding roads.

3.0 INSTRUMENTATION

The instrumentation used during testing is shown in Table 3.1 below.

Instrument	Manufacturer and Type	Serial Number
SLM3 Precision integrating sound level meter & analyser	NTi Audio, XL2-TA Calibration No: UCRT20/2031-2 and UCRT20/2034 Calibration Date 26th October 2020	A2A-09034-E0
LS4 Active Loudspeaker	RCF ART 310A	PEQC02196
Pink Noise Source	NTi Audio Minirator MR-PRO	G2P-RAEXP-G0
Calibrator 1	Larson Davis CAL200 Calibration No: 05223/1 Calibration Date 27/04/2021	17148
TP4 Tapping machine 4	Sound Solutions Series 2 Calibration No: 04541/1 Calibration Date 09/01/2020	TP2286

Table 3.1 Instrumentation used during testing

4.0 REQUIREMENTS

The sound insulation requirements for this development, as prescribed by Approved Document E (2003 Edition) of the Building Regulations 2010, are shown in Table 6.1 where they are compared to the test results.

5.0 TEST ROOMS

Details of the rooms tested are shown in Table 5.1 below. All the rooms tested were in a finished state, with doors fitted, walls painted and all sockets installed.

Test Element	Room 1	Room 2	Approximate Test Area	Construction
Floor	Living Room/Kitchen, Plot 8 (74m^3)	Living Room/Kitchen, Plot 14 (74m^3)	30m^2	Unknown at time of test
Wall	Living Room/Kitchen, Plot 8 (74m^3)	Bedroom, Plot 9 (26m^3)	8m^2	Unknown at time of test

Test Element	Room 1	Room 2	Approximate Test Area	Construction
Floor	Living Room/Kitchen, Plot 8 (74m^3)	Living Room/Kitchen, Plot 2 (74m^3)	30m^2	Unknown at time of test
Wall	Bedroom, Plot 11 (43m^3)	Bedroom, Plot 12 (29m^3)	9m^2	Unknown at time of test
Wall	Living Room/Kitchen, Plot 11 (65m^3)	Bedroom, Plot 10 (36m^3)	10m^2	Unknown at time of test
Wall	Living Room/Kitchen, Plot 13 (60m^3)	Living Room/Kitchen, Plot 12 (52m^3)	8m^2	Unknown at time of test
Floor	Living Room/Kitchen, Plot 13 (60m^3)	Living Room/Kitchen, Plot 7 (60m^3)	23m^2	Unknown at time of test
Floor	Living Room/Kitchen, Plot 11 (65m^3)	Living Room/Kitchen, Plot 5 (65m^3)	25m^2	Unknown at time of test
Floor	Ground Floor Commercial Unit (224m^3)	Living Room/Kitchen, Plot 3 (57m^3)	23m^2	Unknown at time of test

Table 5.1 Room details

All the procedures described in Annex B of Approved Document E 2003 of the Building Regulations 2010 have been followed.

6.0 RESULTS

The results of testing are summarised in the tables below. For airborne tests, the higher the value, the better the performance. For impact tests, the lower the value, the better the performance.

6.1 Airborne Tests

The summarised results of the airborne tests are shown in Table 6.1. Full third octave band results are shown in Figures 18310.AB1-9 attached.

Test Element	Source	Receiver	Criterion	Test Result	Pass/Fail
Floor	Living Room/Kitchen, Plot 8	Living Room/Kitchen, Plot 14	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 49dB	Pass
Wall	Living Room/Kitchen, Plot 8	Bedroom, Plot 9	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 57dB	Pass
Floor	Living Room/Kitchen, Plot 8	Living Room/Kitchen, Plot 2	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 49dB	Pass
Wall	Bedroom, Plot 11	Bedroom, Plot 12	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 52dB	Pass
Wall	Living Room/Kitchen, Plot 11	Bedroom, Plot 10	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 54dB	Pass
Wall	Living Room/Kitchen, Plot 13	Living Room/Kitchen, Plot 12	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 54dB	Pass
Floor	Living Room/Kitchen, Plot 13	Living Room/Kitchen, Plot 7	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 53dB	Pass
Floor	Living Room/Kitchen, Plot 11	Living Room/Kitchen, Plot 5	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 53dB	Pass
Floor	Ground Floor Commercial Unit	Living Room/Kitchen, Plot 3	$D_{nT,w} + C_{tr} \geq 45dB$	$D_{nT,w} + C_{tr}$ 64dB	Pass

Table 6.1 Airborne Test Results

6.2 Impact Tests

The summarised results of the impact tests are shown in Table 6.2. Full third octave band results are shown in Figures 18310.IP1-4 attached.

Test Element	Source	Receiver	Criterion	Test Result	Pass/Fail
Floor	Living Room/Kitchen, Plot 14	Living Room/Kitchen, Plot 8	$L'_{nT,w} \leq 62dB$	$L'_{nT,w}$ 60dB	Pass
Floor	Living Room/Kitchen, Plot 8	Living Room/Kitchen, Plot 2	$L'_{nT,w} \leq 62dB$	$L'_{nT,w}$ 58dB	Pass

Test Element	Source	Receiver	Criterion	Test Result	Pass/Fail
Floor	Living Room/Kitchen, Plot 13	Living Room/Kitchen, Plot 7	$L'_{nT,w} \leq 62dB$	$L'_{nT,w}$ 52dB	Pass
Floor	Living Room/Kitchen, Plot 11	Living Room/Kitchen, Plot 5	$L'_{nT,w} \leq 62dB$	$L'_{nT,w}$ 51dB	Pass

Table 6.2 Impact test results

7.0 CONCLUSIONS

Sound Insulation tests were undertaken at 186 High Street, Edgware, HA8 7EX under the requirement of Building Regulations 2010 Approved Document E (2003 Edition).

Ratings of the airborne sound insulation of the walls and floors tested have been calculated in accordance with the measurement and rating procedures defined in BS EN ISO 140 Part 4:1998 and BS EN ISO 717 Part 1:1997, respectively.

Ratings of the impact sound insulation of the floors have been derived in accordance with the measurement and rating procedures defined in BS EN ISO 140 Part 7:1998 and BS EN ISO 717 Part 2:1997, respectively.

The airborne performance of the walls tested meets the requirements of Approved Document E (2003 Edition).

The airborne performance of the floors tested meets the requirements of Approved Document E (2003 Edition).

The impact sound insulation performance of the floors tested meets the requirements of Approved Document E (2003 Edition).

Airborne Sound Insulation Test

Figure : 18310/AB1

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

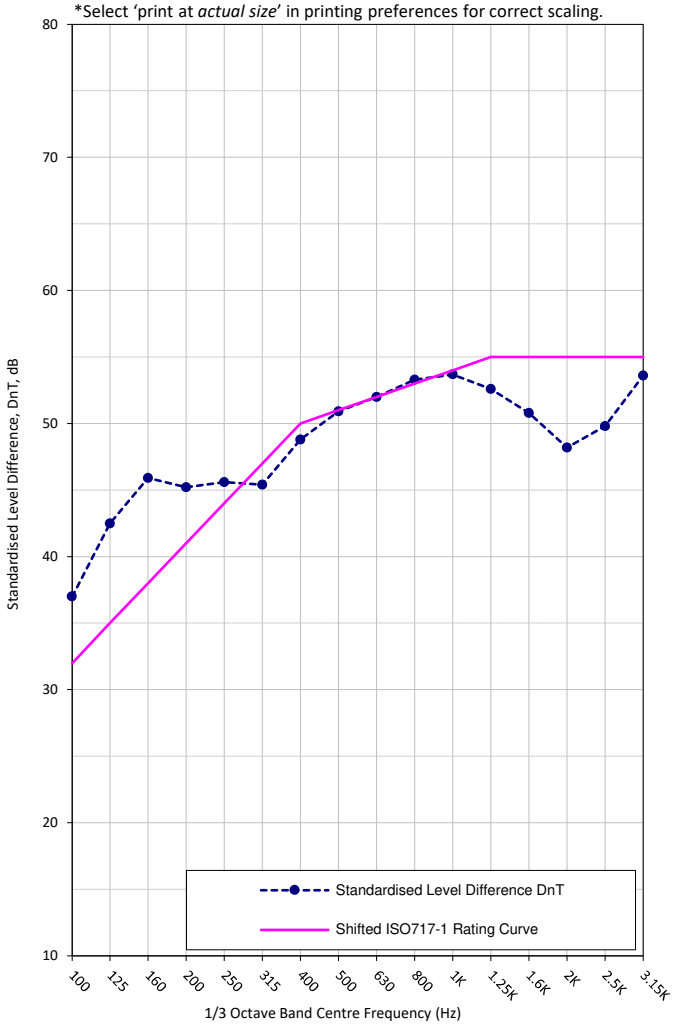
Floor:- unknown at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 8***

To : ***Living Room/Kitchen, Plot 14***

Frequency Hz	DnT dB
100	37.0
125	42.5
160	45.9
200	45.2
250	45.6
315	45.4
400	48.8
500	50.9
630	52.0
800	53.3
1k	53.7
1.25k	52.6
1.6k	50.8
2k	48.2
2.5k	49.8
3.15k	53.6

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	-1 dB
Sum of Adverse Deviations =	23.2 dB
C_{tr} =	-2 dB
$D_{nT,w}$ =	51 dB

$D_{nT,w} + C_{tr}$ = 49 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB2

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

Wall:- unknown at time of tests

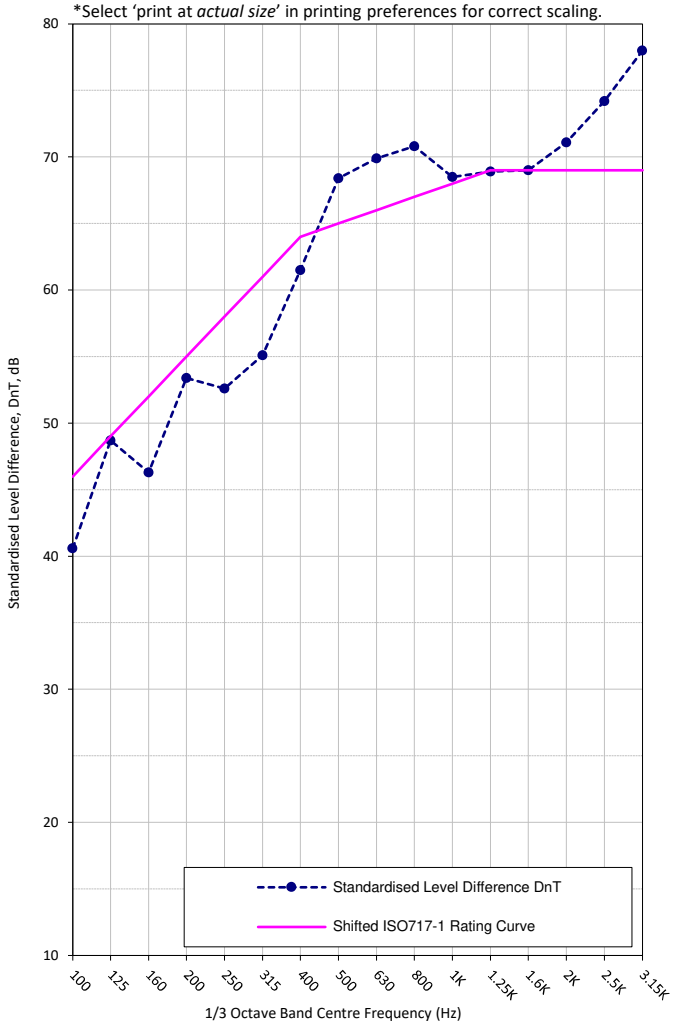
Rooms Tested From : ***Living Room/Kitchen, Plot 8***

To : ***Bedroom, Plot 9***

Frequency Hz	DnT dB	
100	40.6	
125	48.7	
160	46.3	
200	53.4	
250	52.6	
315	55.1	
400	61.5	
500	68.4	
630	69.9	*
800	70.8	*
1k	68.5	*
1.25k	68.9	*
1.6k	69.0	*
2k	71.1	*
2.5k	74.2	*
3.15k	78.0	*

* Limit of Measurement

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	13 dB
Sum of Adverse Deviations =	26.9 dB
C_{tr} =	-8 dB
$D_{nT,w}$ =	65 dB

$D_{nT,w} + C_{tr}$ = 57 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB3

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

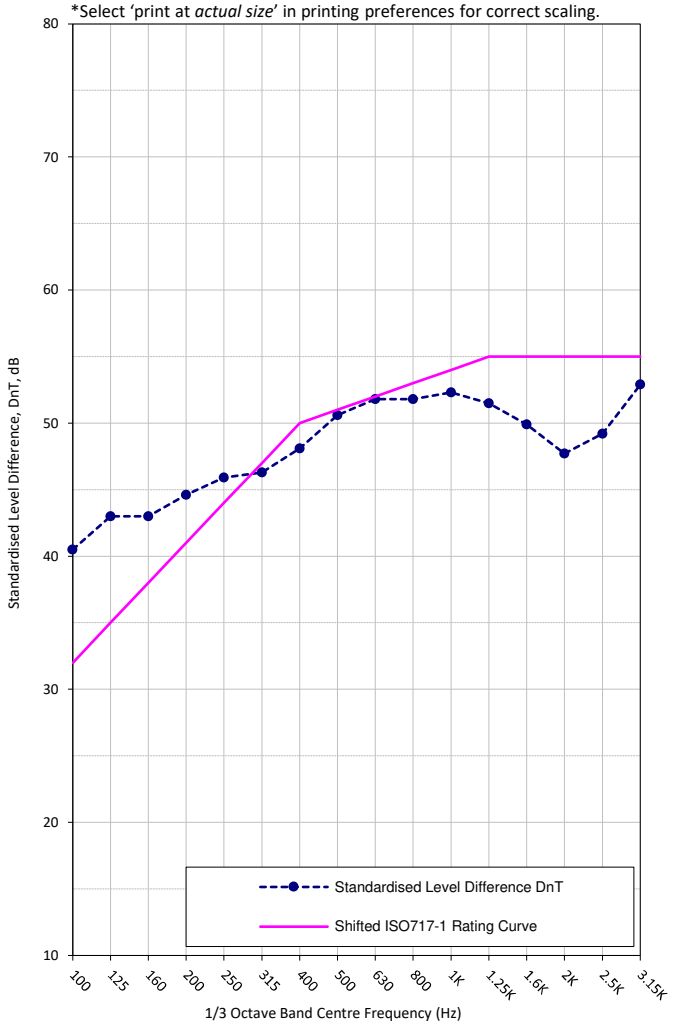
Floor:- unknown at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 8***

To : ***Living Room/Kitchen, Plot 2***

Frequency Hz	DnT dB
100	40.5
125	43.0
160	43.0
200	44.6
250	45.9
315	46.3
400	48.1
500	50.6
630	51.8
800	51.8
1k	52.3
1.25k	51.5
1.6k	49.9
2k	47.7
2.5k	49.2
3.15k	52.9

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	-1 dB
Sum of Adverse Deviations =	29.9 dB
C_{tr} =	-2 dB
$D_{nT,w}$ =	51 dB

$D_{nT,w} + C_{tr}$ = 49 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB4

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

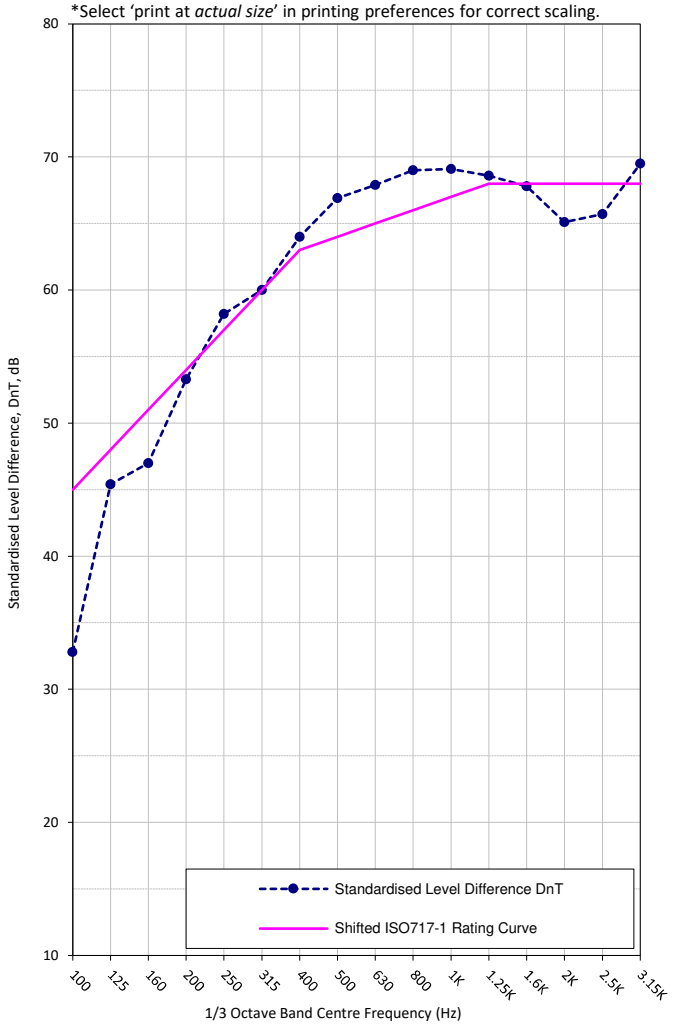
Wall:- unknown at time of tests

Rooms Tested From : ***Bedroom, Plot 11***

To : ***Bedroom, Plot 12***

Frequency Hz	DnT dB
100	32.8
125	45.4
160	47.0
200	53.3
250	58.2
315	60.0
400	64.0
500	66.9
630	67.9
800	69.0
1k	69.1
1.25k	68.6
1.6k	67.8
2k	65.1
2.5k	65.7
3.15k	69.5

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	12 dB
Sum of Adverse Deviations =	24.9 dB
C_{tr} =	-12 dB
$D_{nT,w}$ =	64 dB

$D_{nT,w} + C_{tr}$ = 52 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB5

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

Wall:- unknown at time of tests

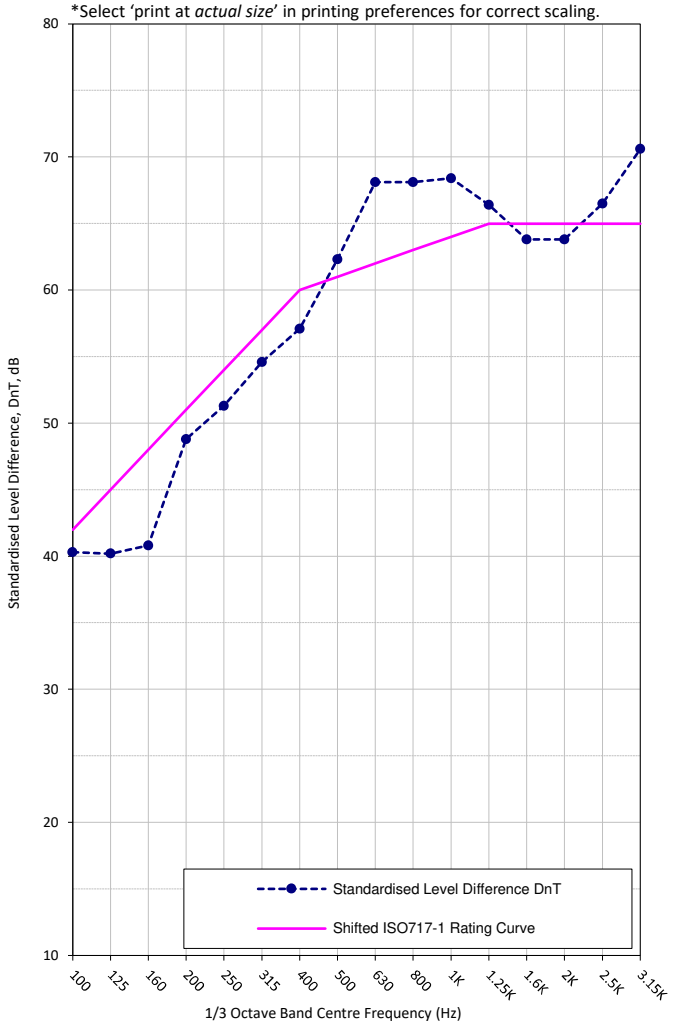
Rooms Tested From : ***Living Room/Kitchen, Plot 11***

To : ***Bedroom, Plot 10***

Frequency Hz	DnT dB	
100	40.3	
125	40.2	
160	40.8	
200	48.8	
250	51.3	
315	54.6	
400	57.1	
500	62.3	
630	68.1	*
800	68.1	*
1k	68.4	*
1.25k	66.4	*
1.6k	63.8	
2k	63.8	
2.5k	66.5	
3.15k	70.6	

* Limit of Measurement

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	9 dB
Sum of Adverse Deviations =	26.3 dB
C_{tr} =	-7 dB
$D_{nT,w}$ =	61 dB

$D_{nT,w} + C_{tr}$ = 54 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB6

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

Wall:- unknown at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 13***

To : ***Living Room/Kitchen, Plot 12***

Frequency Hz	DnT dB
100	36.7
125	43.3
160	47.8
200	50.5
250	53.4
315	54.4
400	57.3
500	61.9
630	62.9
800	63.6
1k	64.8
1.25k	66.1
1.6k	65.7
2k	64.3
2.5k	65.9
3.15k	69.6

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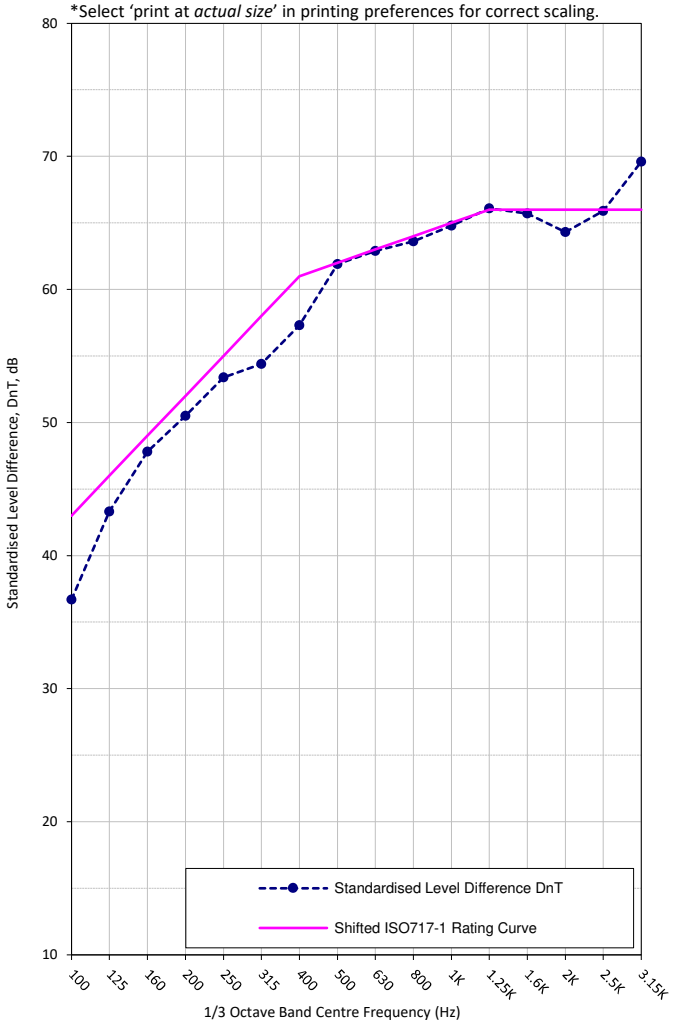

Shift Curve By:	10 dB
Sum of Adverse Deviations =	23.5 dB
C_{tr} =	-8 dB
$D_{nT,w}$ =	62 dB

$D_{nT,w} + C_{tr}$ = 54 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB7

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

Floor:- unknown at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 13***

To : ***Living Room/Kitchen, Plot 7***

Frequency Hz	DnT dB
100	39.9
125	45.0
160	44.8
200	49.8
250	49.6
315	52.0
400	52.6
500	55.4
630	57.7
800	57.4
1k	58.3
1.25k	57.4
1.6k	54.6
2k	51.8
2.5k	53.2
3.15k	56.0

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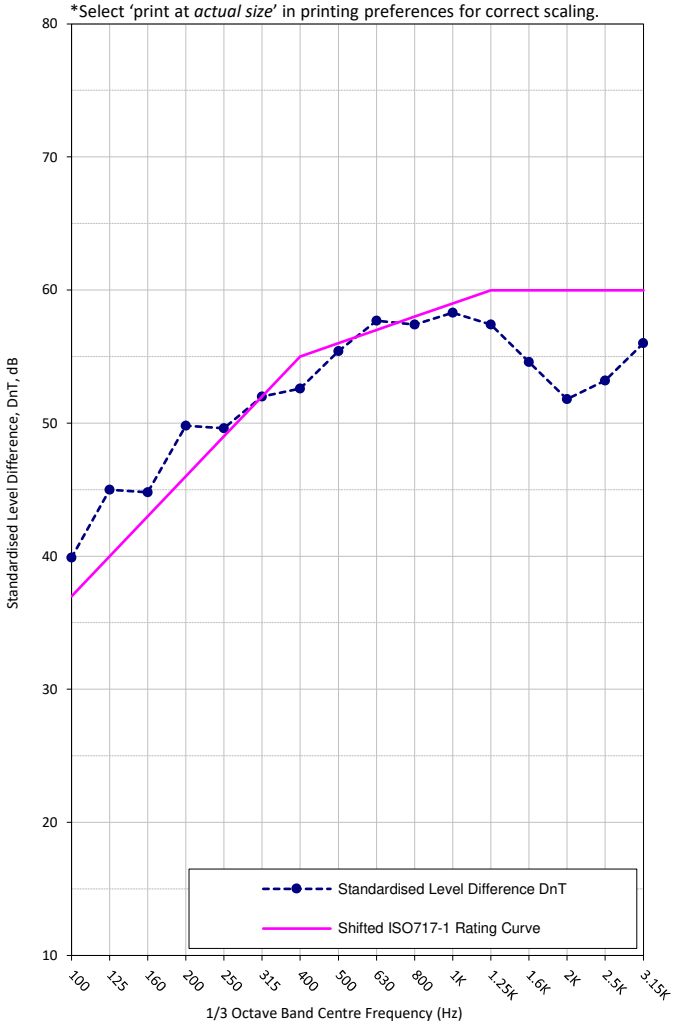

Shift Curve By:	4 dB
Sum of Adverse Deviations =	31.3 dB
C_{tr} =	-3 dB
$D_{nT,w}$ =	56 dB

$D_{nT,w} + C_{tr}$ = 53 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB8

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

Floor:- unknown at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 11***

To : ***Living Room/Kitchen, Plot 5***

Frequency Hz	DnT dB
100	40.8
125	45.1
160	45.7
200	48.6
250	51.1
315	52.5
400	53.2
500	54.1
630	56.4
800	57.1
1k	57.2
1.25k	56.5
1.6k	54.5
2k	51.8
2.5k	52.1
3.15k	55.6

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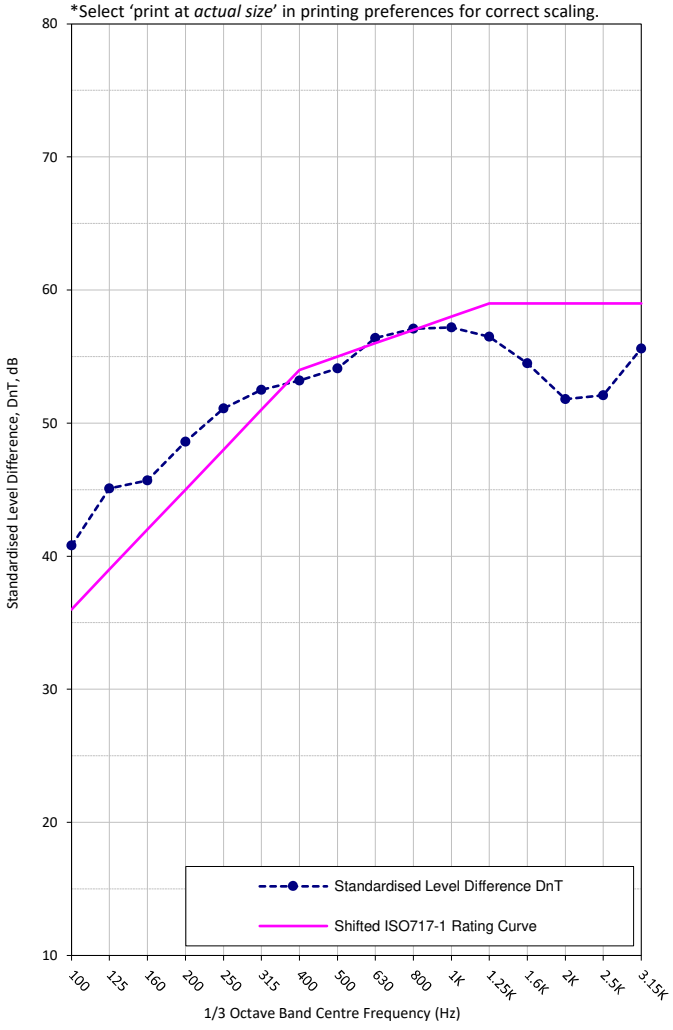


Shift Curve By:	3 dB
Sum of Adverse Deviations =	27.0 dB
C_{tr} =	-2 dB
$D_{nT,w}$ =	55 dB

$D_{nT,w} + C_{tr}$ = 53 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Airborne Sound Insulation Test

Figure : 18310/AB9

Standardised level difference according to ISO 140-4

Field measurements of airborne sound insulation between rooms

(NB Higher $D_{nT,w} + C_{tr}$ figures denote better sound insulation performance)

Construction Tested:

Floor:- unknown at time of tests

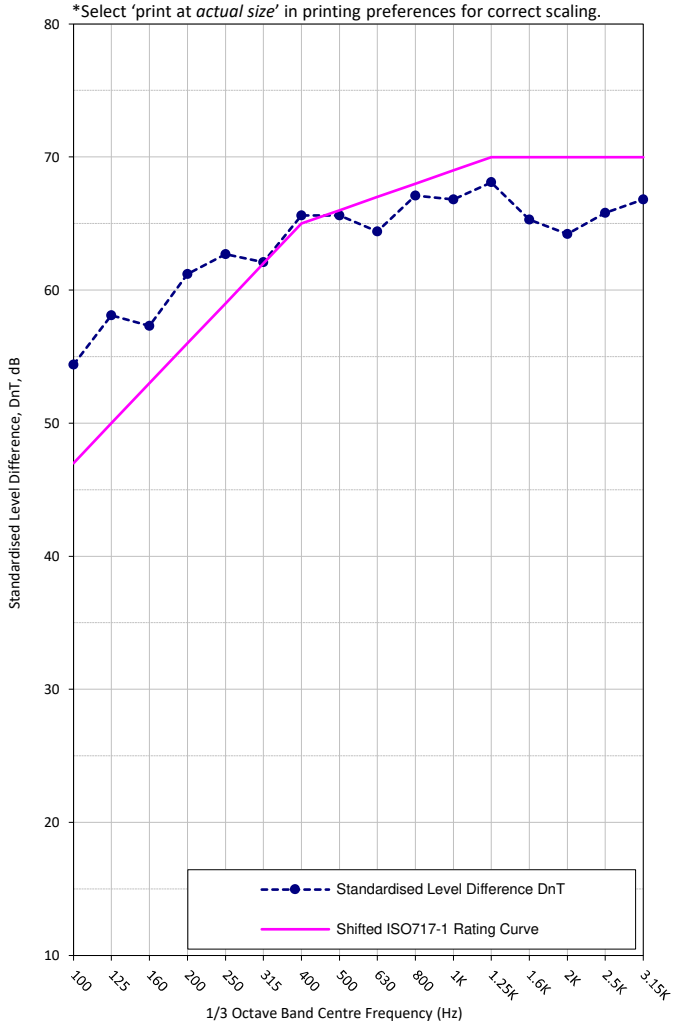
Rooms Tested From : ***Ground Floor Commercial Unit***

To : ***Living Room/Kitchen, Plot 3***

Frequency Hz	DnT dB	
100	54.4	
125	58.1	
160	57.3	
200	61.2	
250	62.7	*
315	62.1	*
400	65.6	*
500	65.6	*
630	64.4	*
800	67.1	*
1k	66.8	*
1.25k	68.1	*
1.6k	65.3	*
2k	64.2	*
2.5k	65.8	*
3.15k	66.8	*

* Limit of Measurement

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	14 dB
Sum of Adverse Deviations =	25.9 dB
C_{tr} =	-2 dB
$D_{nT,w}$ =	66 dB

$D_{nT,w} + C_{tr}$ = 64 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-4*

Rating Standard: *BS EN ISO 717-1*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Impact Sound Insulation Test

Figure : 18310/IP1

Standardised impact sound pressure level according to ISO 140-7

Field measurements of impact sound insulation of floors

(NB Lower $L'_{nT,w}$ figures denote better impact insulation performance)

Construction Tested:

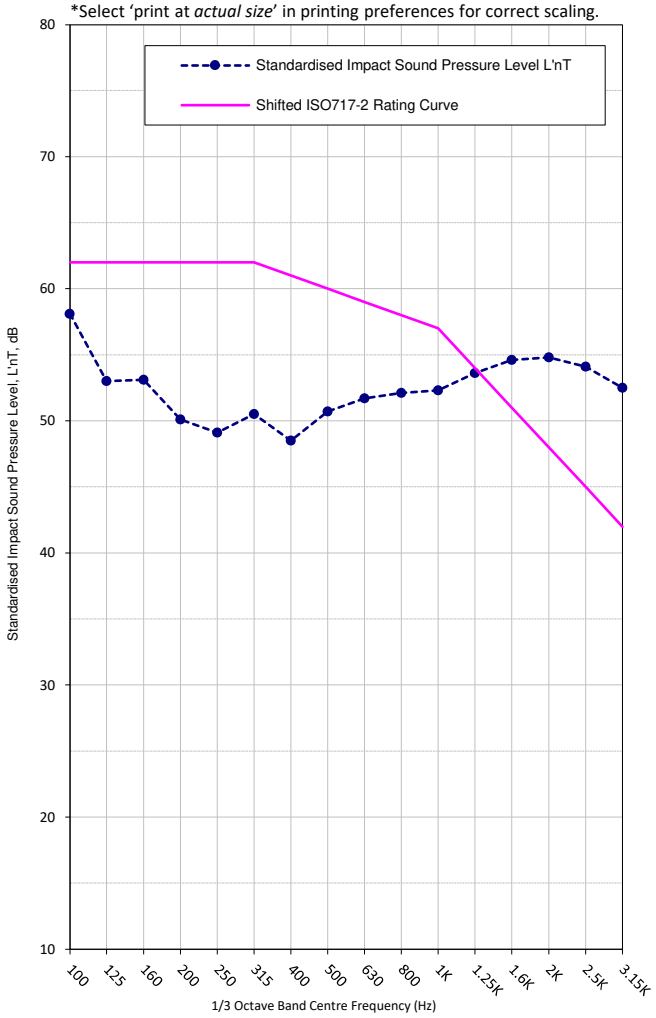
Floor:- Not known at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 14***

To : ***Living Room/Kitchen, Plot 8***

Frequency Hz	L'nT dB
100	58.1
125	53.0
160	53.1
200	50.1
250	49.1
315	50.5
400	48.5
500	60.0
630	51.7
800	52.1
1k	52.3
1.25k	53.6
1.6k	54.6
2k	54.8
2.5k	54.1
3.15k	52.5

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	0 dB
Sum of Adverse Deviations =	30.0 dB

$L'_{nT,w}$ = 60 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-7*

Rating Standard: *BS EN ISO 717-2*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Impact Sound Insulation Test

Figure : 18310/IP2

Standardised impact sound pressure level according to ISO 140-7

Field measurements of impact sound insulation of floors

(NB Lower $L'_{nT,w}$ figures denote better impact insulation performance)

Construction Tested:

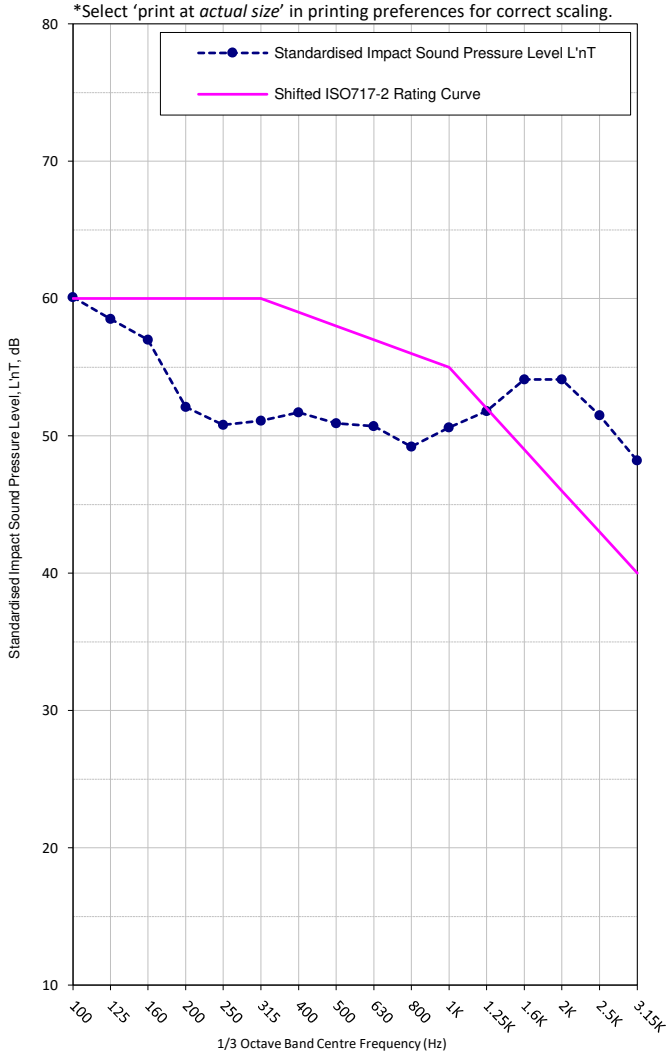
Floor:- Not known at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 8***

To : ***Living Room/Kitchen, Plot 2***

Frequency Hz	L'nT dB
100	60.1
125	58.5
160	57.0
200	52.1
250	50.8
315	51.1
400	51.7
500	50.9
630	50.7
800	49.2
1k	50.6
1.25k	51.8
1.6k	54.1
2k	54.1
2.5k	51.5
3.15k	48.2

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	-2 dB
Sum of Adverse Deviations =	30.0 dB

$L'_{nT,w}$ = 58 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-7*

Rating Standard: *BS EN ISO 717-2*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Impact Sound Insulation Test

Figure : 18310/IP3

Standardised impact sound pressure level according to ISO 140-7

Field measurements of impact sound insulation of floors

(NB Lower $L'_{nT,w}$ figures denote better impact insulation performance)

Construction Tested:

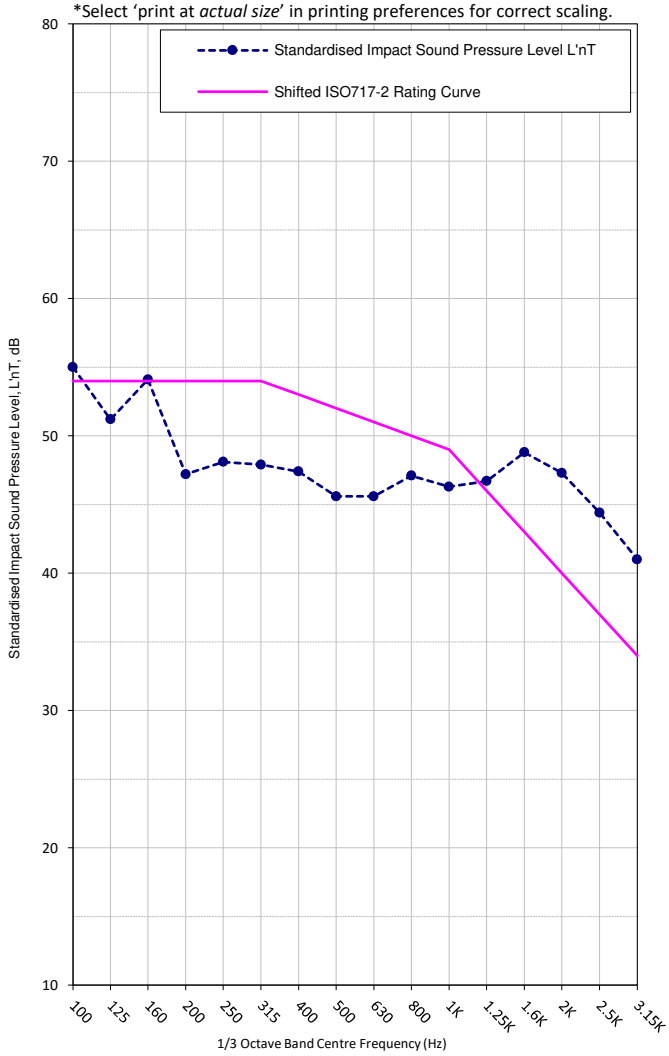
Floor:- Not known at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 13***

To : ***Living Room/Kitchen, Plot 7***

Frequency Hz	L'nT dB
100	55.0
125	51.2
160	54.1
200	47.2
250	48.1
315	47.9
400	47.4
500	45.6
630	45.6
800	47.1
1k	46.3
1.25k	46.7
1.6k	48.8
2k	47.3
2.5k	44.4
3.15k	41.0

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	-8 dB
Sum of Adverse Deviations =	29.3 dB

$L'_{nT,w}$ = 52 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-7*

Rating Standard: *BS EN ISO 717-2*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA

Impact Sound Insulation Test

Figure : **18310/IP4**

Standardised impact sound pressure level according to ISO 140-7

Field measurements of impact sound insulation of floors

(NB Lower $L'_{nT,w}$ figures denote better impact insulation performance)

Construction Tested:

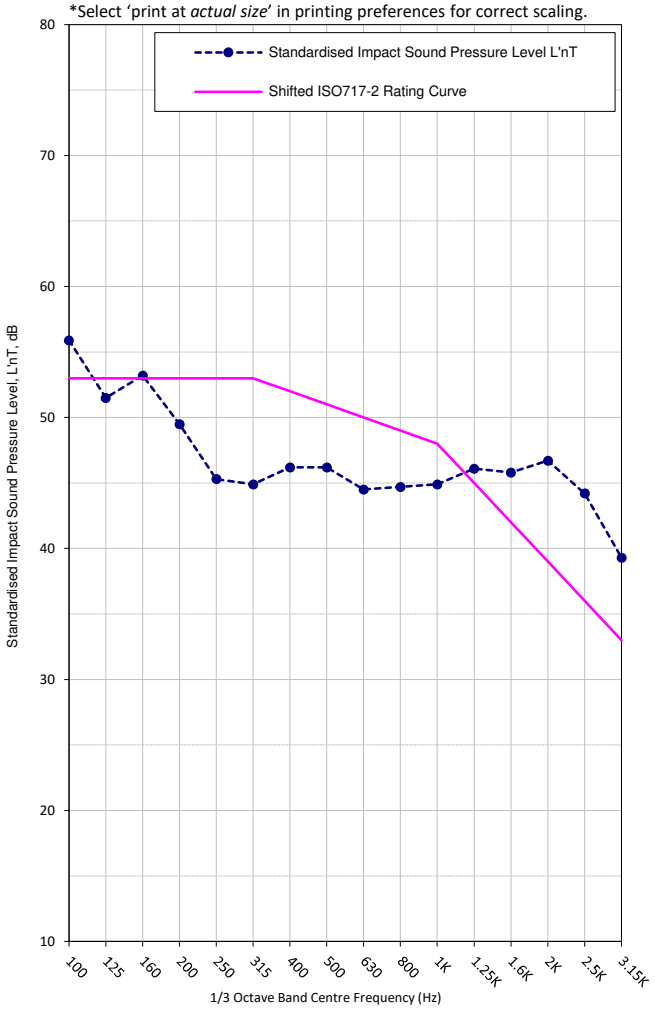
Floor:- Not known at time of tests

Rooms Tested From : ***Living Room/Kitchen, Plot 11***

To : ***Living Room/Kitchen, Plot 5***

Frequency Hz	L'nT dB
100	55.9
125	51.5
160	53.2
200	49.5
250	45.3
315	44.9
400	46.2
500	46.2
630	44.5
800	44.7
1k	44.9
1.25k	46.1
1.6k	45.8
2k	46.7
2.5k	44.2
3.15k	39.3

*Select 'print at *actual size*' in printing preferences for correct scaling.



Shift Curve By:	-9 dB
Sum of Adverse Deviations =	30.2 dB

$L'_{nT,w}$ = 51 dB

Evaluation based on field measurement results obtained in one-third octave bands by an engineering method.

Test Standard: *BS EN ISO 140-7*

Rating Standard: *BS EN ISO 717-2*

Test Date: *14/05/2021*

KP Project Number: *18310*

Client: *Shanly Homes Ltd (North London)*

Site: *186 High Street, Edgware, HA8 7EX*

Authorised Tester: Gonçalo Lemos MIOA