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SOUND TRANSMISSION TEST REPORT

149 – 153 COUNTY ROAD
SWINDON
(SN1 2EB)

CLIENT:

Lawson Demolition Limited
Station Yard
Station Road
Shrivenham
Swindon
Wiltshire
SN6 8JL

**NOISE & ACOUSTIC
CONSULTANT:**

Acoustic Consultants Limited
Raleigh House
Wellsway
Keynsham
Bristol
BS31 1HS

ANC TASK NUMBER: 108/36613
5288/BL/pw

November 2012

Incorporated in the UK as Acoustic Consultants Limited, Reg. Office: Raleigh House, Wellsway, Keynsham, Bristol.
Reg. No. 2089096

MEMBER OF THE ASSOCIATION OF NOISE CONSULTANTS

Rachel Hutchins

From: Blake Lucas [Blake@acoustic-ltd.co.uk]
Sent: 27 November 2012 15:40
To: Rachel Hutchins
Subject: RE: Accoustic testing

Our Reference: 5288/BL
27th November 2012

BY EMAIL: rachel.hutchins@lawsongrouppltd.co.uk

Dear Rachel,

SOUND INSULATION TEST RESULTS – 149-153 COUNTY ROAD, SWINDON

Please find below a summary of the preliminary results of the sound insulation tests carried out at the above site on the 26th November 2012

Floor tests

1) Impact ($L'_{nT,w}$)

Transmit Room	Receive Room	Measured Level	Maximum Required	Pass/Fail Approved Document 'E' (2003)
149 C Lounge/Kitchen	149 A Lounge/Kitchen	55 dB	64 dB	Pass
151 D Lounge/Kitchen	153 B Lounge/Kitchen	52 dB	64 dB	Pass

2) Airborne ($D_{nTw} + C_{tr}$)

Transmit Room	Receive Room	Measured Level	Minimum Required	Pass/Fail ADE
149 A Lounge/Kitchen	149 C Lounge/Kitchen	47 dB	43 dB	Pass

Wall Tests

1) Airborne ($D_{nTw} + C_{tr}$)

Transmit Room	Receive Room	Measured Level	Minimum Required	Pass/Fail ADE
149 A Lounge/Dining	149 B Lounge/Dining	49 dB	43 dB	Pass
151 C Lounge	151 B Bedroom 1	46 dB	43 dB	Pass
151 B Lounge/Kitchen	149 D Lounge/Kitchen	51 dB	43 dB	Pass
151 B Lounge/Kitchen	151 D Lounge/Kitchen	49 dB	43 dB	Pass

All floors and wall tests achieved the required Approved Document 'E' (2003) criteria. The report and Association of Noise Consultants certification is to follow.

I trust this is of assistance. Please call if you wish to discuss.

Best Regards

Blake Lucas BEng. (Hons), MIOA

For Acoustic Consultants Limited
Raleigh House, Wellsway, Keynsham, Bristol, BS31 1HS

Telephone : 0117 986 2956

www.acoustic-ltd.co.uk

blake@acoustic-ltd.co.uk

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Company Reg. 2089096

This message and any associated attachments may contain confidential information and must not be copied, disclosed or used by anyone other than the intended recipient(s). If you are not the intended recipient, please delete this email and any copies of it. Thank you for your assistance.

From: Rachel Hutchins [<mailto:rachel.hutchins@lawsongroupltd.co.uk>]

Sent: 27 November 2012 15:25

To: Blake Lucas

Subject: Accoustic testing

Blake,

If possible, please can you send me the results from the testing yesterday as I have to meet someone tomorrow and they would be useful to take with me.

Thank you

Regards

Rachel

Rachel Hutchins
Finance and Office Coordinator

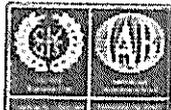


T: 01793 782000

F: 01793 782666

E: Rachel.hutchins@lawsongroupltd.co.uk

W: www.lawsongroupltd.co.uk



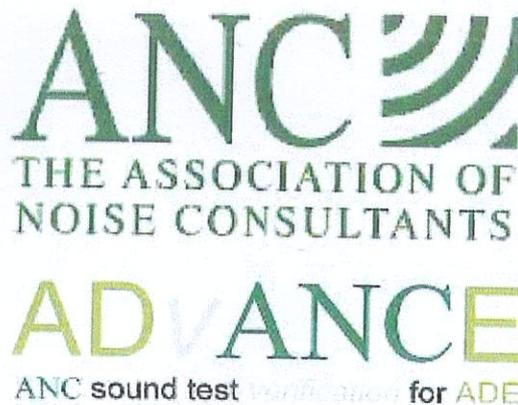
ISO 9001:2008

ISO 14001:2004

Short listed for the Contract of the Year 2010



Disclaimer



Notice to Building Control Officer

Certification of Test Results.

From the 1st January 2010 the ANC have ceased to issue paper certificates and have moved to 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 Building Control page with its link to the ANC site available for use by BCOs.
3. Enter the following in the spaces provided:
Task Number: **36613** Task Password: **UUB5ER**
4. 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.

SOUND TRANSMISSION TEST REPORT

149 – 153 COUNTY ROAD
SWINDON
(SN1 2EB)

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Test Report 1/5288	Impact (floor) 149C Lounge/Kitchen to 149A Lounge/Kitchen
Test Report 2/5288	Impact (floor) 151D Lounge/Kitchen to 153B Lounge/Kitchen
Test Report 3/5288	Airborne (floor) 149A Lounge/Kitchen to 149C Lounge/Kitchen
Test Report 4/5288	Airborne (floor) 151D Lounge/Kitchen to 153B Lounge/Kitchen
Test Report 5/5288	Airborne (wall) 149A Lounge/Kitchen to 149B Lounge/Kitchen
Test Report 6/5288	Airborne (wall) 151C Lounge to 151B Bedroom 1
Test Report 7/5288	Airborne (wall) 151B Lounge/Kitchen to 149D Lounge/Kitchen
Test Report 8/5288	Airborne (wall) 151B Lounge/Kitchen to 151D Lounge/Kitchen

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Figure 1/5288	149 GROUND FLOOR PLAN
Figure 2/5288	149 FIRST FLOOR PLAN
Figure 3/5288	151 AND 153 GROUND FLOOR PLAN
Figure 4/5288	151 AND 153 FIRST FLOOR PLAN

SOUND TRANSMISSION TEST REPORT

149 – 153 COUNTY ROAD
SWINDON
(SN1 2EB)

1.0 INTRODUCTION

Lawson Demolition Limited instructed Acoustic Consultants Limited in November 2012 to conduct on-site sound transmission tests on floors and walls to the flats, in 149 – 153 County Road, Swindon, formed by material change of use.

The report presents the outline basis of site tests and provides the test results in relation to the airborne sound insulation of the walls and the airborne and impact sound insulation of the floors. This report is an ANC Registered Report with the unique registration number 108/36613.

The report limits itself to addressing solely on the noise control and acoustic aspects as included in this report. It is recommended that appropriate expert advice is sought on all the ramifications (e.g. CDM, structural, condensation, fire, legal, etc.) associated with any proposals in this report or as advised and concerning this appointment.

The report has been prepared in good faith, with all reasonable skill and care, based on information provided or available at the time of its preparation and within the scope of work agreement with the Client. We disclaim any responsibility to the Client and others in respect of any matters outside the scope of the above.

The report is provided for the sole use of the named Client and is confidential to them and their professional advisors. No responsibility is accepted to other parties.

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Copy of report: 31 December 2012
Acoustic Consultant Project Reference Number: 5588 / 149-153 County Road Swindon
ANC Task Number: 108/36613

2.0 TESTS CARRIED OUT

The sound transmission tests were carried out on the 26th November 2012 by Mr. B. Lucas and on the 28th November 2012 by Mr. D. Oldaker.

Airborne sound tests were carried out on four walls between flats. Airborne and Impact sound tests were carried out on two floors between flats.

A total of eight tests were carried out. This report presents the basis and finding of the airborne and impact sound transmission tests. Table 1 summarises the results.

Table 1: Tabulated Results

Source Room		Receiver Room		Measured $D_{nsw} + C_{tr}$	Measured L'_{ntiv}	Required Performance	PASS/ FAIL
Description	Vol.	Description	Vol.				
149C Lounge/Kitchen	49m ³	149A Lounge/Kitchen	55m ³	-	-	-	-
				-	55	≤64	pass
151D Lounge/Kitchen	50m ³	153B Lounge/Kitchen	33m ³	43	-	≥43	pass
				-	52	≤64	pass
149A Lounge/Kitchen	55m ³	149C Lounge/Kitchen	49m ³	47	-	≥43	pass
				-	-	-	-
149A Lounge/Dining	55m ³	149B Lounge/Dining	25m ³	49	-	≥43	pass
				-	-	-	-
151C Lounge	38m ³	151B Bedroom 1	15m ³	46	-	≥43	pass
				-	-	-	-
151B Lounge/Kitchen	50m ³	149D Lounge/Kitchen	36m ³	51	-	≥43	pass
				-	-	-	-
151B Lounge/Kitchen	50m	151D Lounge/Kitchen	50m	49	-	≥43	pass
				-	-	-	-

3.0 EQUIPMENT & TEST PROCEDURE

3.1 Equipment Used

Table 2: Details of Equipment Used

Equipment Description / Manufacturer / Type	Serial number	Date of calibration	Calibration Certification Number
Real Time Analyser, CEL, Type 593	3/0472212	27/06/2012	T29517
Pre-Amplifier, CEL, Type 527	3/1262243	27/06/2012	T29517
Microphone, CEL, Type 250	7134	27/06/2012	T29517
Calibrator, CEL, Type 177	424062	27/06/2012	T29516
Pink Noise Generator, CEL, Type 513	055281	n/a	n/a
Amplification & Loudspeaker System, JBL EON 510	VT0891- 03029	n/a	n/a

3.2 Airborne Sound Transmission Test

Field measurements of airborne sound insulation between rooms were carried out in full accordance with ISO 140-4:1998(E). The ratings of airborne sound insulation were calculated in accordance with British Standard EN ISO 717-1:1997.

The sound source was used to feed broadband (pink) noise into the source room and the one-third octave band sound pressure levels were measured in the source and receiving rooms (at two source locations).

The microphone was located at least one metre from any of the room surfaces and travelled in an arc with a sweep radius of approximately 1.5 metres and a traverse angle greater than ten degrees of the room planes.

Measurements were averaged for two sets of 30-second duration in each room, with each pair of transmit and receive room measurements being made without moving the sound source. For the calculation process, it is the level difference from each pair of transmit and receive measurements which is averaged.

Reverberation time measurements were carried out in each of the receiving rooms, averaging from six recordings (using interrupted pink noise sound source).

TOTAL

The ambient noise levels were also measured in the receiving rooms. The ambient noise (due to local road traffic) was, in all the tests and at all frequency bands, high enough to affect the measurement results. In this situation, background noise level corrections have been applied in accordance with ISO 140-7:1998(E). The results which should be taken as 'limit of measurement' are marked (with the symbol *) on the test report sheets which are included in this report.

In some of the test the ambient noise level was very high and affected the measurements. We would expect with lower ambient noise levels the separating walls/floors would perform better.

The measuring system was checked for calibration before and after the tests and no drift exceeding 0.1 decibels was detected.

3.3 Impact Sound Transmission Test

Field measurements of impact sound insulation between rooms were carried out in full accordance with ISO 140-7:1998(E). The ratings of impact sound insulation were calculated in accordance with British Standard EN ISO 717-2:1997.

The tapping machine was set up and located on the floor of the source room at 45 degrees to the room's vertical surfaces. The tapping machine was located at four locations on the floor being tested and for each location the sound pressure level (in one-third octave bands) was measured in the room below using a 30 second measurement period. The measurements were averaged over the four sets of 30 second runs.

Reverberation time measurements were carried out in each of the receiving rooms, averaging from six recordings (using interrupted pink noise sound source).

The ambient noise levels were also measured in the receiving rooms. The ambient noise (due to local road traffic) was, in all the tests and at some frequency bands, high enough to affect the measurement results. In this situation, background noise level corrections have been applied in accordance with ISO 140-7:1998(E). The results which should be taken as 'limit of measurement' are marked (with the symbol *) on the test report sheets which are included in this report.

In one of the test the ambient noise level was very high and affected the measurements. We would expect with lower ambient noise levels the separating floor would perform better.

The measuring system was checked for calibration before and after the tests and no drift exceeding 0.1 decibels was detected.

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5.0 BUILDING REGULATIONS

The sound insulation requirements of the Building Regulations 2000 are addressed by the Approved Document 'E' (2003 Edition) entitled "Resistance to the passage of sound". It took effect from 1st July 2003 and addresses sound insulation for "dwelling-houses and flats" and for "rooms for residential purposes".

The Requirement E1 relates to the protection against sound from other parts of the building and adjoining buildings, it states:

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

The normal way of satisfying Requirement E1 will be to build separating walls and separating floors in such a way that they achieve the sound insulation values for 'dwelling-houses and flats' set out in 'Table 1a', and the values for 'rooms for residential purposes' set out in 'Table 1b' of the Approved Document 'E' (2003).

6.0 PERFORMANCE STANDARDS

The Approved Document 'E' (2003) requirements for dwellings are as noted in Table 1a below:

	Airborne sound insulation $D_{nT,W} + C_{tr}$ dB (minimum values)	Impact sound insulation $L'_{nT,W}$ dB (maximum values)
Table 1a: Dwelling-houses and flats - performance standards for separating walls, separating floors, and stairs that have a separating function.		
Purpose built dwelling-houses and flats		
Walls	45	-
Floors and stairs	45	62
Dwelling-houses and flats Formed by material change of use		
Walls	43	-
Floors and stairs	43	64

7.0 TEST RESULTS

7.1 Impact Floor Tests

The maximum required level of $L'_{nT,w}$ is 64 dB.
The test results are as follows:

Floor Separating;	$L'_{nT,w}$	ACL Test Report No.	ANC Test Reference No.
149C Lounge/Kitchen to 149A Lounge/Kitchen	55 dB	1/5288	108/36613/01
151D Lounge/Kitchen to 153B Lounge/Kitchen	51dB	2/5288	108/36613/02

The measured $L'_{nT,w}$ between all floors tested falls within the required criteria.

7.2 Airborne Floor Tests

The minimum required level of $D_{nT,w} + C_{tr}$ is 43 dB.
The test results are as follows:

Floor Separating;	$D_{nT,w} + C_{tr}$	ACL Test Report No.	ANC Test Reference No.
149A Lounge/Kitchen to 149C Lounge/Kitchen	47 dB	3/5288	108/36613/03
151D Lounge/Kitchen to 153B Lounge/Kitchen	43 dB	4/5288	108/36613/04

The measured $D_{nT,w} + C_{tr}$ of all floors tested fall within the required criteria.

7.3 Wall Test

The minimum required level of $D_{nT,w} + C_{tr}$ is 43 dB
The test results are as follows:

Wall Separating;	$D_{nT,w} + C_{tr}$	ACL Test Report No.	ANC Test Reference No.
149A Lounge/Dining to 149B Lounge/Dining	49 dB	5/5288	108/36613/05
151C Lounge to 151B Bedroom 1	46 dB	6/5288	108/36613/06
151B Lounge/Kitchen to 149D Lounge/Kitchen	51 dB	7/5288	108/36613/07
151B Lounge/Kitchen to 151D Lounge/Kitchen	49 dB	8/5288	108/36613/08

The measured $D_{nT,w} + C_{tr}$ of all walls tested fall within the required criteria.

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Page 13 of 24 | 27 November 2013

Acoustic Consultants Project Reference Number: 108/36613/08 | 108/36613/08 | 108/36613/08

ANC Test Number: 108/36613

Measurements carried out by:

B.D. Lucas (MIOA) and D. Oldaker (MIOA)

~~BL~~
DOLL

Report prepared by:

B.D. Lucas (MIOA)

~~BL~~

Report approved by:

S. R. Peliza (MIOA)

SP/9/11

Standardised impact sound pressure levels according to BS EN ISO 140-7, Field measurements of impact sound insulation of floors

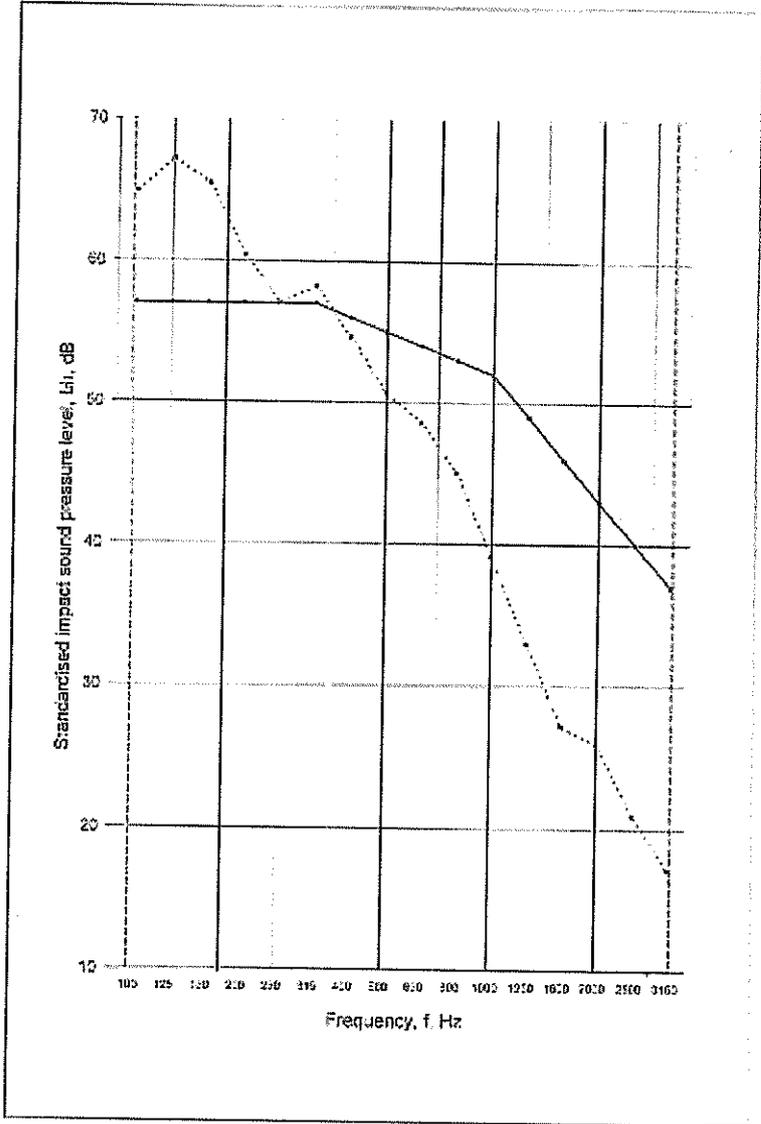
149 C Lounge/Kitchen to 149 A Lounge/Kitchen

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS	
Site:	149 - 153 County Road, Swindon
Date of test:	26th November 2012

Area of separating element:	20 m ²
Source Room Volume:	49 m ³
Receiving Room Volume:	55 m ³

----- Frequency range according to the
 ----- curve of reference values (ISO 717-2)

Frequency f, Hz	L _{inT} dB
50	
63	
80	
100	64.9
125	67.2
160	65.5
200	60.4
250	57.0
315	58.2
400	54.6
500	50.8
630	48.6
800	45.1
1000	39.1
1250	33.0
1600	27.2
2000	25.9
2500	20.9
3150	17.1
4000	
5000	



ISO 717-2 RATING: L_{inT} = 55 dB

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

TEST REPORT No. 1/5288	test carried out by ACOUSTIC CONSULTANTS LIMITED © (tel: 0117 - 9832956)
DATE OF REPORT 30/11/2012	SIGNED 

Standardised impact sound pressure levels according to BS EN ISO 140-7, Field measurements of impact sound insulation of floors

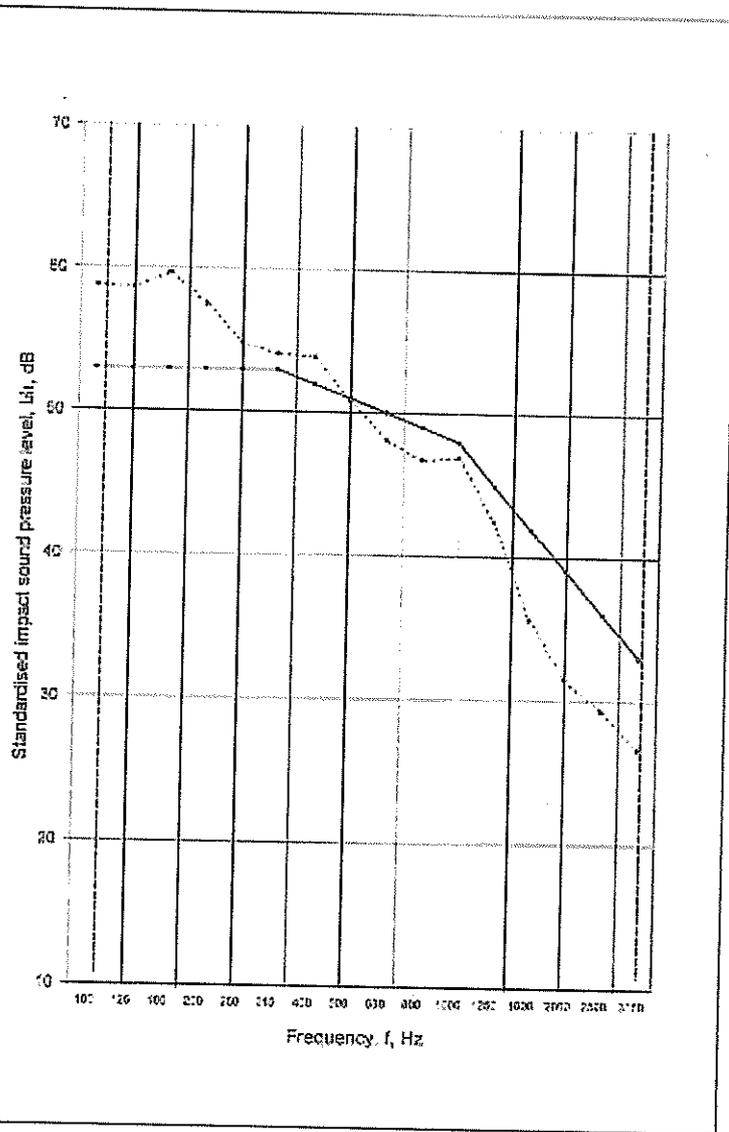
151 D Lounge/Kitchen to 153 B Lounge/Kitchen

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS	
Site:	149 - 153 County Road, Swindon
Date of test:	26th November 2012

Area of separating element:	14 m ²
Source Room Volume:	50 m ³
Receiving Room Volume:	33 m ³

----- Frequency range according to the curve of reference values (ISO 717-2)

Frequency f [Hz]	L _{inT} [dB]
50	
63	
80	
100	58.8
125	58.8
160	59.7
200	57.5
250	54.8
315	54.1
400	53.9
500	50.8
630	48.1
800	46.8
1000	46.9
1250	42.5
1600	35.6 *
2000	31.5 *
2500	29.3 *
3150	28.7 *
4000	
5000	



ISO 717-2 RATING: L_{inT} = 51 dB

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

TEST REPORT No. 2/5288	test carried out by ACOUSTIC CONSULTANTS LIMITED © (tel: 0117 - 9852956)
DATE OF REPORT 30/11/2012	SIGNED 

Standardised level difference according to BS EN ISO 140-4, Field measurements of airborne sound insulation between rooms

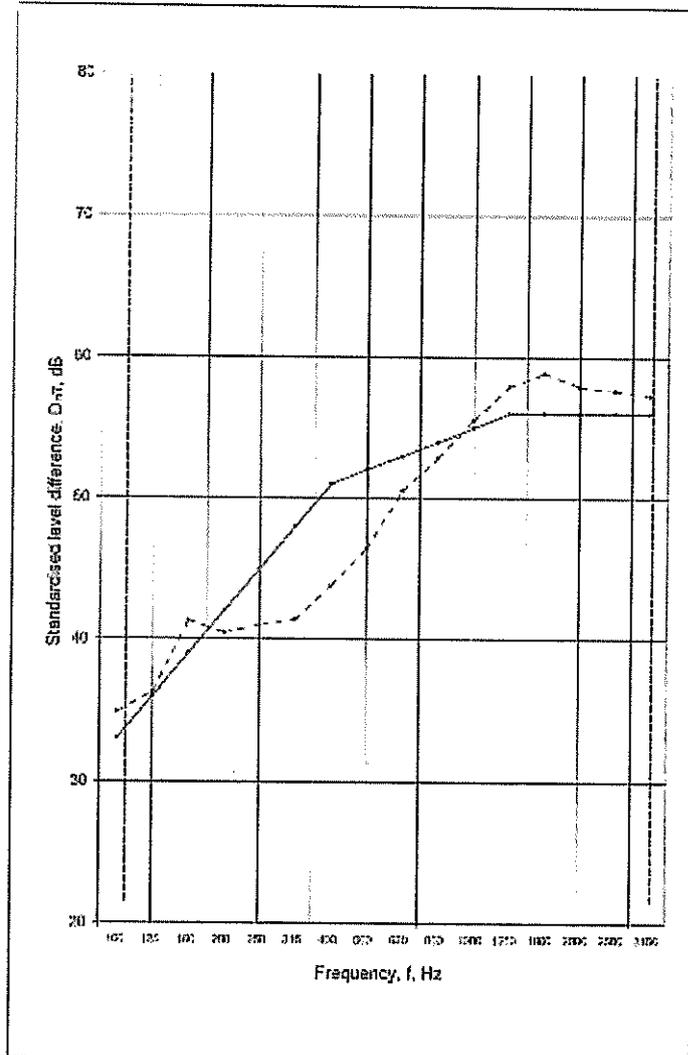
149 A Lounge/Kitchen to 149 C Lounge/Kitchen

FIELD MEASUREMENTS OF AIRBORNE SOUND INSULATION BETWEEN ROOMS
 Site: 149 - 153 County Road, Swindon
 Date of test: 25th November 2012

Area of separating element: 20 m²
 Source Room Volume: 55 m³
 Receiving Room Volume: 49 m³

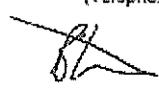
----- Frequency range according to the
 curve of reference source (see ISO 717-1)

Frequency f, Hz	D _{nT} dB
50	
63	
80	
100	34.9
125	36.3
160	41.3
200	40.4
250	41.0
315	41.4
400	43.8
500	46.4
630	50.5
800	52.8
1000	55.5
1250	57.0
1600	59.9
2000	57.9
2500	57.6
3150	57.3
4000	
5000	



ISO 717-1 RATING: D_{nT} = 52 dB
 C_n = -5 dB
 D_{nT} + C_n = 47 dB

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

TEST REPORT No. 3/5288	Test carried out by ACOUSTIC CONSULTANTS LIMITED © (Telephone: 0117 - 9862956)
DATE OF REPORT 30/11/2012	SIGNED 

Standardised level difference according to BS EN ISO 140-4, Field measurements of airborne sound insulation between rooms

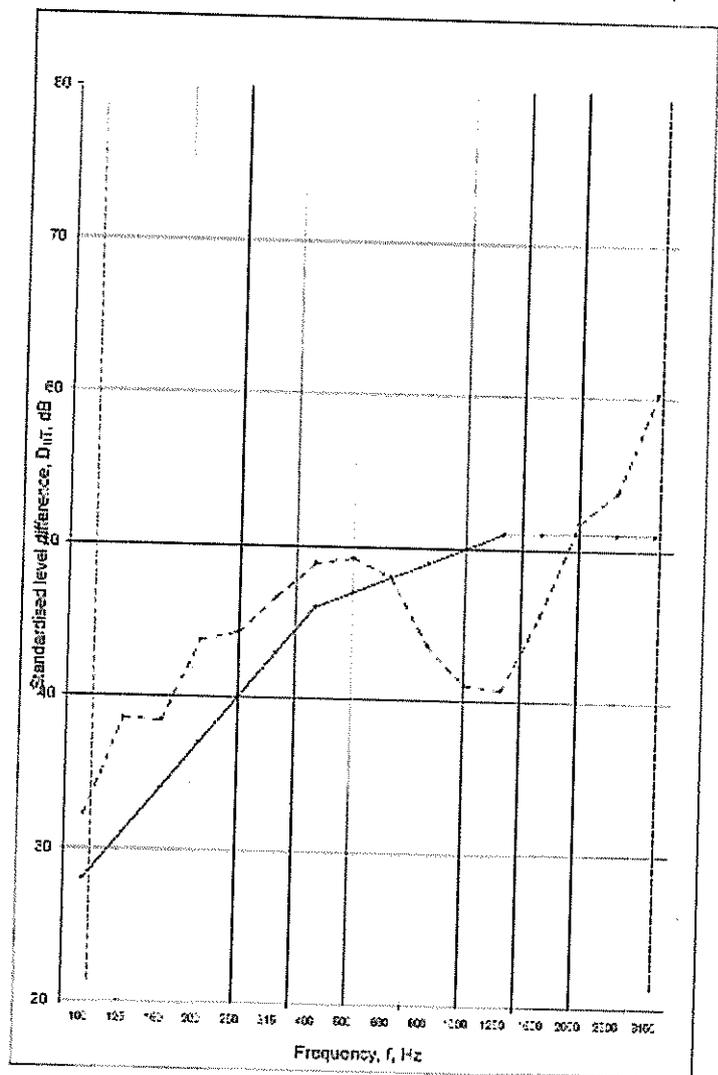
151 D Lounge/Kitchen to 153 B Lounge/Kitchen

FIELD MEASUREMENTS OF AIRBORNE SOUND INSULATION BETWEEN ROOMS
 Site: 149 - 153 County Road, Swindon
 Date of test: 28th November 2012

Area of separating element:	14 m ²
Source Room Volume:	58 m ³
Receiving Room Volume:	33 m ³

----- Frequency range according to 119
 ———— curve of reference values (ISO 717-1)

Frequency f, Hz	D _{nr} dB
50	
63	
80	
100	32.3
125	38.5
160	38.5
200	43.7
250	44.3
315	46.5
400	48.9
500	49.2
630	48.0
800	43.8
1000	41.0
1250	40.7
1600	45.7
2000	51.8
2500	53.8
3150	60.3
4000	
5000	



ISO 717-1 RATING: D_{nr,w} = 47 dB
 C_n = -4 dB
 D_{nr,w} + C_n = 43 dB

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

TEST REPORT No 4/5288	Test carried out by ACOUSTIC CONSULTANTS LIMITED ☺ (Telephone: 0117 - 9882956)
DATE OF REPORT 30/11/2012	SIGNED <i>[Signature]</i>

Standardised level difference according to BS EN ISO 140-4, Field measurements of airborne sound insulation between rooms

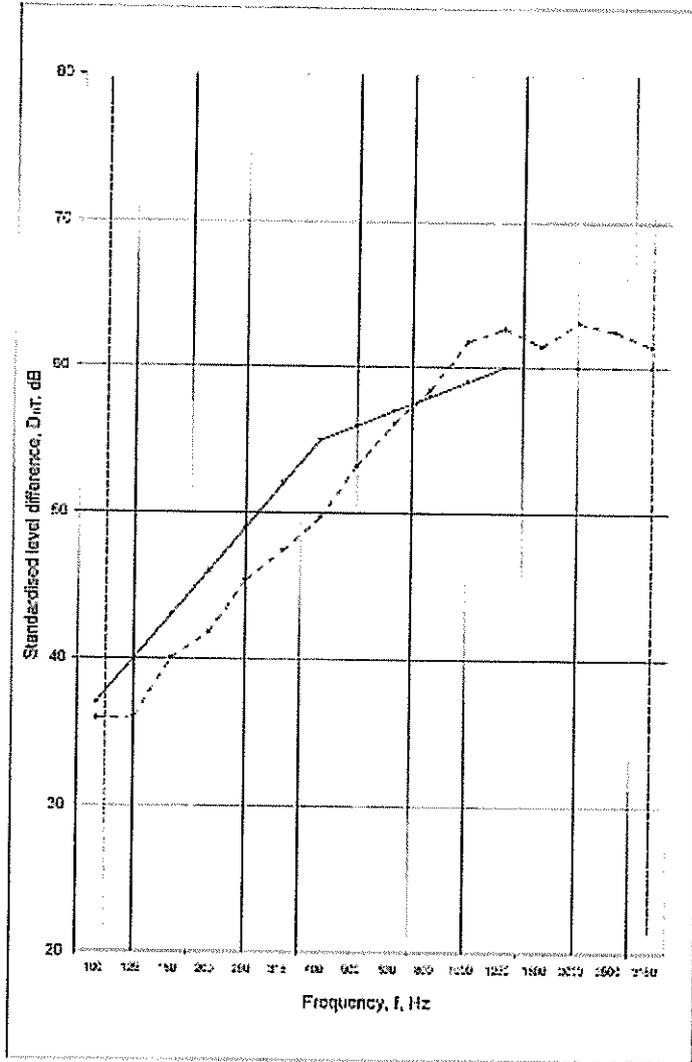
149 A Lounge/Dining to 149 B Lounge/Dining

FIELD MEASUREMENTS OF AIRBORNE SOUND INSULATION BETWEEN ROOMS
 Site: 149 - 153 County Road, Swindon
 Date of test: 26th November 2012

Area of separating element:	14 m ²
Source Room Volume:	55 m ³
Receiving Room Volume:	25 m ³

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

Frequency f, Hz	D _{nT} dB
50	
63	
80	
100	35.9
125	36.0
160	40.0
200	41.8
250	45.4
315	47.4
400	49.8
500	53.2
630	56.1
800	59.4
1000	61.8
1250	62.7
1600	61.5
2000	63.1
2500	62.5
3150	61.5
4000	
5000	



ISO 717-1 RATING: D_{nT,R} = 56 dB
 C_n = -7 dB
 D_{nT,R} + C_n = 49 dB

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

TEST REPORT No. 6/5288	Test carried out by ACOUSTIC CONSULTANTS LIMITED © (Telephone: 0117 - 9862658)
DATE OF REPORT 30/11/2012	SIGNED

Standardised level difference according to BS EN ISO 140-4. Field measurements of airborne sound insulation between rooms

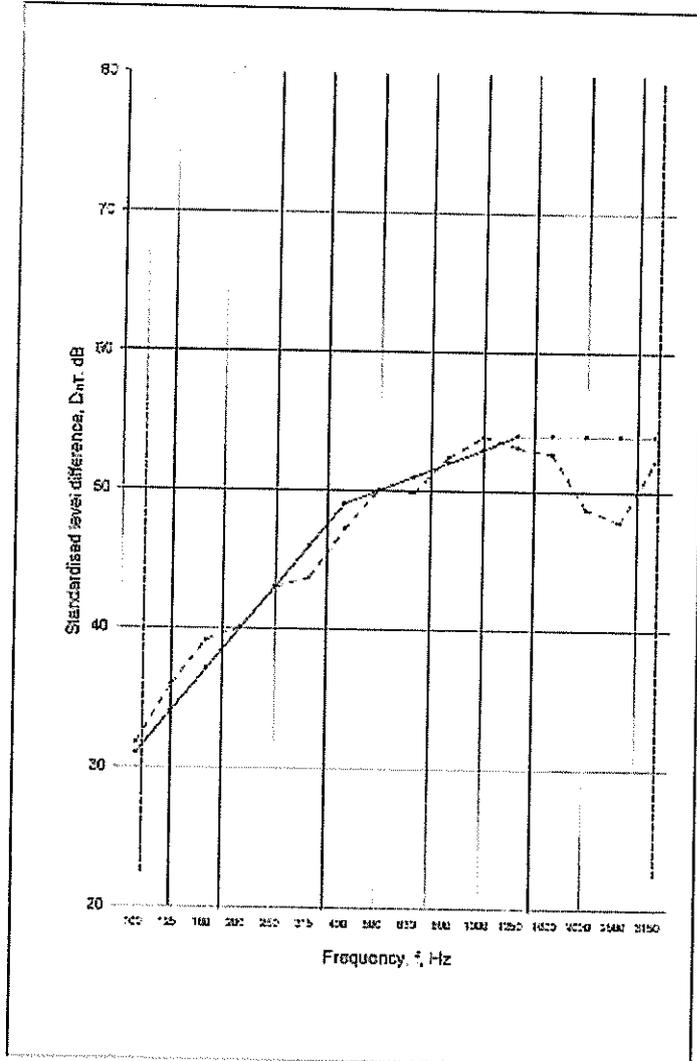
151 C Lounge to 151 B Bedroom 1

FIELD MEASUREMENTS OF AIRBORNE SOUND INSULATION BETWEEN ROOMS
 Site: 149 - 153 County Road, Swindon
 Date of test: 26th November 2012

Area of separating element: 12 m²
 Source Room Volume: 38 m³
 Receiving Room Volume: 16 m³

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

Frequency / Hz	D _{nt} dB
50	
63	
80	
100	31.7
125	35.9
160	39.1
200	40.0
250	43.0
315	43.7
400	47.2
500	50.1
630	49.8
800	52.4
1000	53.0
1250	53.1
1600	52.7
2000	48.7
2500	47.8
3150	52.1
4000	
5000	



ISO 717-1 RATING: D_{nt,w} = 50 dB
 C_w = -4 dB
 D_{nt,w} + C_w = 46 dB

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

TEST REPORT No 6/5285
 DATE OF REPORT 30/11/2012
 Test carried out by ACOUSTIC CONSULTANTS LIMITED ©
 (Telephone 0117 - 9862956)
 SIGNED 

Standardised level difference according to BS EN ISO 140-4, Field measurements of airborne sound insulation between rooms

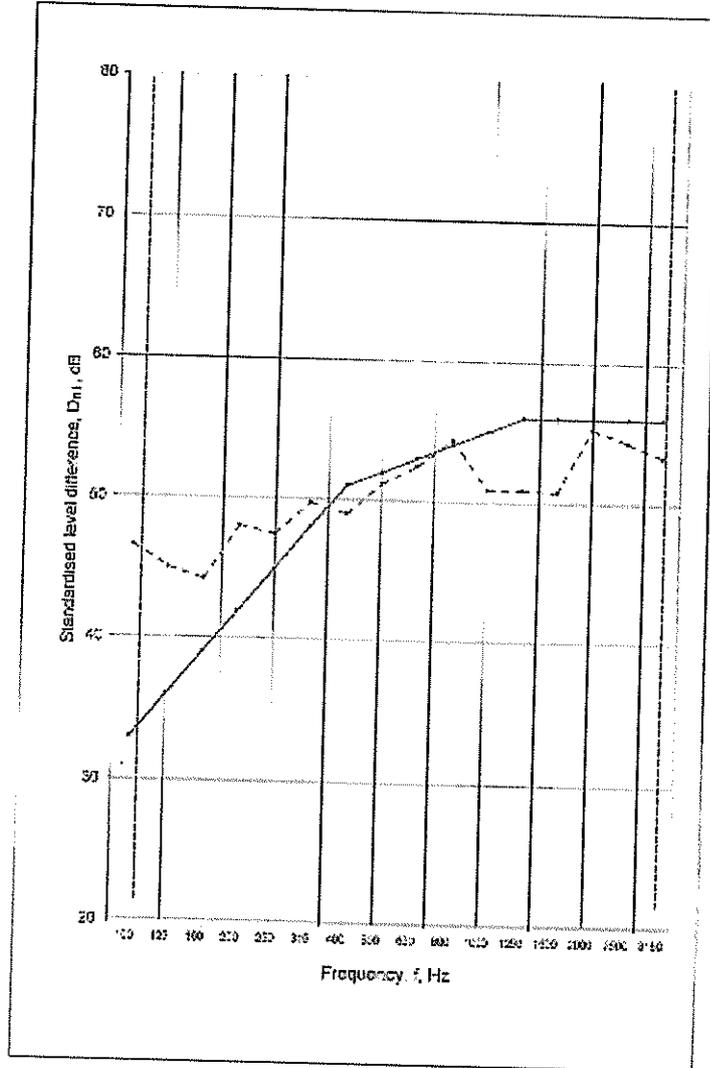
151 B Lounge/Kitchen to 149 D Lounge/Kitchen

FIELD MEASUREMENTS OF AIRBORNE SOUND INSULATION BETWEEN ROOMS
 Site: 149 - 153 County Road, Swindon
 Date of test: 26th November 2012

Area of separating element: 7 m²
 Source Room Volume: 80 m³
 Receiving Room Volume: 36 m³

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

Frequency f Hz	D _{st} dB
50	
63	
80	
100	46.6
125	45.0
160	44.2
200	48.0
250	47.5
315	49.8
400	49.0
500	51.2
630	52.4
800	54.3
1000	50.8
1250	50.9
1600	50.7
2000	55.3
2500	54.3
3150	53.3
4000	
5000	



ISO 717-1 RATING: D_{st,n} = 52 dB
 C_y = -1 dB
 D_{st,n} + C_y = 51 dB

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

TEST REPORT No. 7/5288	Test carried out by ACOUSTIC CONSULTANTS LIMITED (Telephone: 0117 - 6962956)
DATE OF REPORT 30/11/2012	SIGNED 

Standardised level difference according to BS EN ISO 140-4, Field measurements of airborne sound insulation between rooms

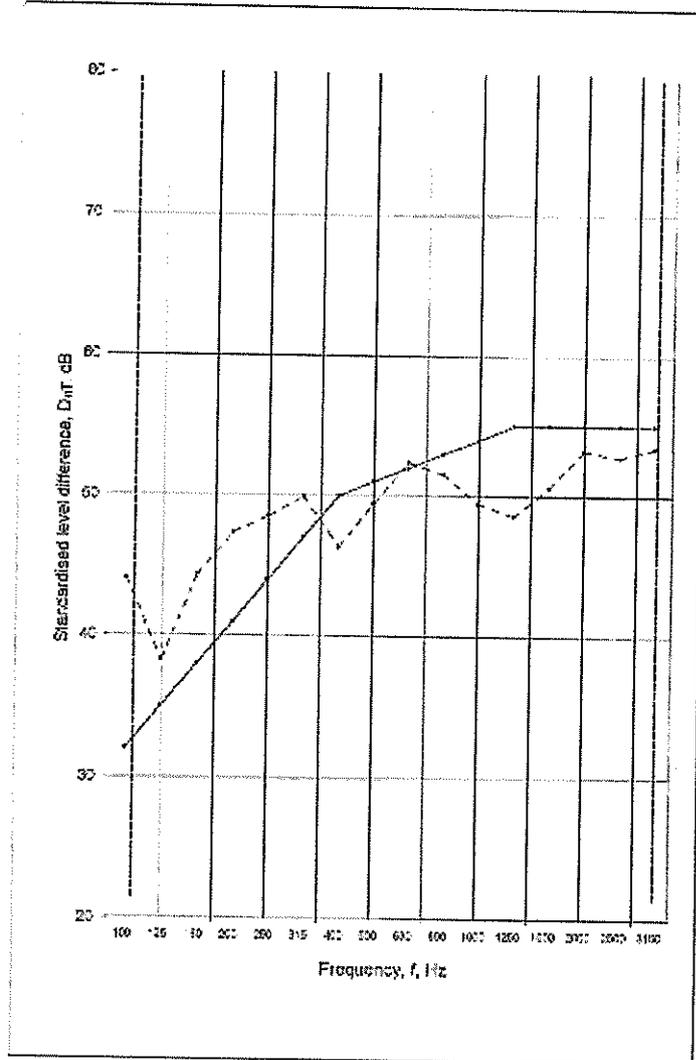
151 B Lounge/Kitchen to 151 D Lounge/Kitchen

FIELD MEASUREMENTS OF AIRBORNE SOUND INSULATION BETWEEN ROOMS
 Site: 149 - 153 County Road, Swindon
 Date of test: 26th November 2012

Area of separating element: 8 m²
 Source Room Volume: 50 m³
 Receiving Room Volume: 50 m³

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

Frequency / Hz	D _{nT} dB
50	
63	
80	
100	44.1 *
125	38.2
150	44.3
200	47.4 *
250	48.5 *
315	49.9
400	46.9
500	49.4
630	52.4 *
800	51.5 *
1000	49.5 *
1250	48.0
1600	50.6 *
2000	53.2 *
2500	52.7 *
3150	53.5 *
4000	
5000	



ISO 717-1 RATING: D_{nT,n} = 51 dB
 C_n = -2 dB
 D_{nT,n} + C_n = 49 dB

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

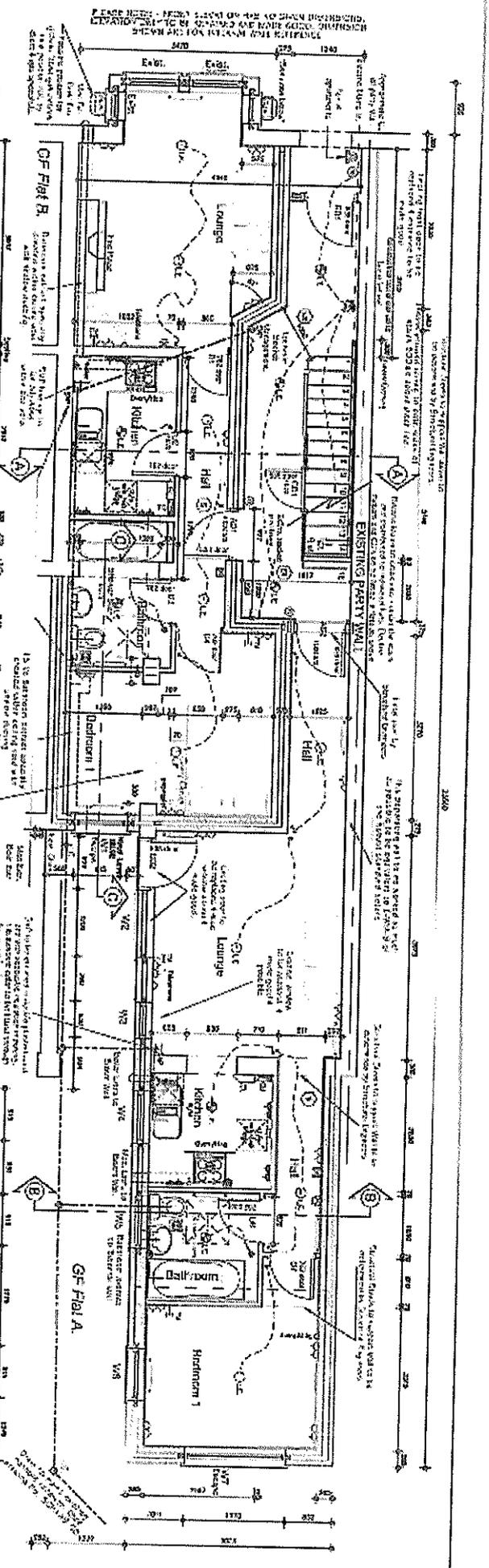
TEST REPORT No. 8/5288

Test carried out by ACOUSTIC CONSULTANTS LIMITED @
 (Telephone: 0117 - 9862956)

DATE OF REPORT 30/11/2012

SIGNED

Ground Floor Plan



REFERENCES / NOTES

1. Refer to the structural drawings for column and beam locations.
2. All dimensions are in millimeters unless otherwise stated.
3. The ground floor level is indicated by a dashed line.
4. The party wall is shown in solid lines.
5. The existing structure is shown in light grey.
6. The new structure is shown in dark grey.
7. The structural steel is shown in black.
8. The structural concrete is shown in light grey.
9. The structural brickwork is shown in dark grey.
10. The structural masonry is shown in light grey.
11. The structural plaster is shown in light grey.
12. The structural paint is shown in light grey.
13. The structural floor is shown in light grey.
14. The structural ceiling is shown in light grey.
15. The structural walls are shown in light grey.
16. The structural doors are shown in light grey.
17. The structural windows are shown in light grey.
18. The structural stairs are shown in light grey.
19. The structural lifts are shown in light grey.
20. The structural ramps are shown in light grey.
21. The structural balconies are shown in light grey.
22. The structural terraces are shown in light grey.
23. The structural parking spaces are shown in light grey.
24. The structural landscaping is shown in light grey.
25. The structural furniture is shown in light grey.
26. The structural fixtures are shown in light grey.
27. The structural fittings are shown in light grey.
28. The structural finishes are shown in light grey.
29. The structural materials are shown in light grey.
30. The structural methods are shown in light grey.
31. The structural standards are shown in light grey.
32. The structural codes are shown in light grey.
33. The structural regulations are shown in light grey.
34. The structural bylaws are shown in light grey.
35. The structural orders are shown in light grey.
36. The structural notices are shown in light grey.
37. The structural approvals are shown in light grey.
38. The structural permits are shown in light grey.
39. The structural licenses are shown in light grey.
40. The structural certificates are shown in light grey.
41. The structural reports are shown in light grey.
42. The structural drawings are shown in light grey.
43. The structural documents are shown in light grey.
44. The structural records are shown in light grey.
45. The structural files are shown in light grey.
46. The structural folders are shown in light grey.
47. The structural boxes are shown in light grey.
48. The structural bags are shown in light grey.
49. The structural bundles are shown in light grey.
50. The structural packages are shown in light grey.

FIGURE 1/5288 - 149 GROUND FLOOR

Area Schedule

Area	Description	Area (sqm)
1	Living Room	15.2
2	Dining Room	12.8
3	Kitchen	10.5
4	Bedroom 1	11.5
5	Bedroom 2	10.8
6	Bathroom	5.5
7	Hallway	3.2
8	Staircase	2.5
9	Corridor	1.8
10	Landscaping	15.0
11	Parking	10.0
12	Structural	10.0
13	Party Wall	10.0
14	Structural	10.0
15	Structural	10.0
16	Structural	10.0
17	Structural	10.0
18	Structural	10.0
19	Structural	10.0
20	Structural	10.0
21	Structural	10.0
22	Structural	10.0
23	Structural	10.0
24	Structural	10.0
25	Structural	10.0
26	Structural	10.0
27	Structural	10.0
28	Structural	10.0
29	Structural	10.0
30	Structural	10.0
31	Structural	10.0
32	Structural	10.0
33	Structural	10.0
34	Structural	10.0
35	Structural	10.0
36	Structural	10.0
37	Structural	10.0
38	Structural	10.0
39	Structural	10.0
40	Structural	10.0
41	Structural	10.0
42	Structural	10.0
43	Structural	10.0
44	Structural	10.0
45	Structural	10.0
46	Structural	10.0
47	Structural	10.0
48	Structural	10.0
49	Structural	10.0
50	Structural	10.0

The ground floor plan shows the layout of the building, including the living, dining, kitchen, bedrooms, bathrooms, and hallway. The plan also shows the structural elements, such as columns, beams, and stairs. The dimensions and annotations provide detailed information about the building's layout and structure.

G.F. Window Opening Schedule

Window	Location	Size (mm)	Area (sqm)
W1	Living Room	1800 x 1200	2.16
W2	Dining Room	1500 x 1000	1.50
W3	Kitchen	1200 x 800	0.96
W4	Bedroom 1	1400 x 1000	1.40
W5	Bedroom 2	1300 x 900	1.17
W6	Bathroom	800 x 600	0.48
W7	Hallway	600 x 400	0.24
W8	Staircase	400 x 300	0.12
W9	Corridor	300 x 200	0.06
W10	Landscaping	1000 x 1000	1.00
W11	Parking	1000 x 1000	1.00
W12	Structural	1000 x 1000	1.00
W13	Party Wall	1000 x 1000	1.00
W14	Structural	1000 x 1000	1.00
W15	Structural	1000 x 1000	1.00
W16	Structural	1000 x 1000	1.00
W17	Structural	1000 x 1000	1.00
W18	Structural	1000 x 1000	1.00
W19	Structural	1000 x 1000	1.00
W20	Structural	1000 x 1000	1.00
W21	Structural	1000 x 1000	1.00
W22	Structural	1000 x 1000	1.00
W23	Structural	1000 x 1000	1.00
W24	Structural	1000 x 1000	1.00
W25	Structural	1000 x 1000	1.00
W26	Structural	1000 x 1000	1.00
W27	Structural	1000 x 1000	1.00
W28	Structural	1000 x 1000	1.00
W29	Structural	1000 x 1000	1.00
W30	Structural	1000 x 1000	1.00

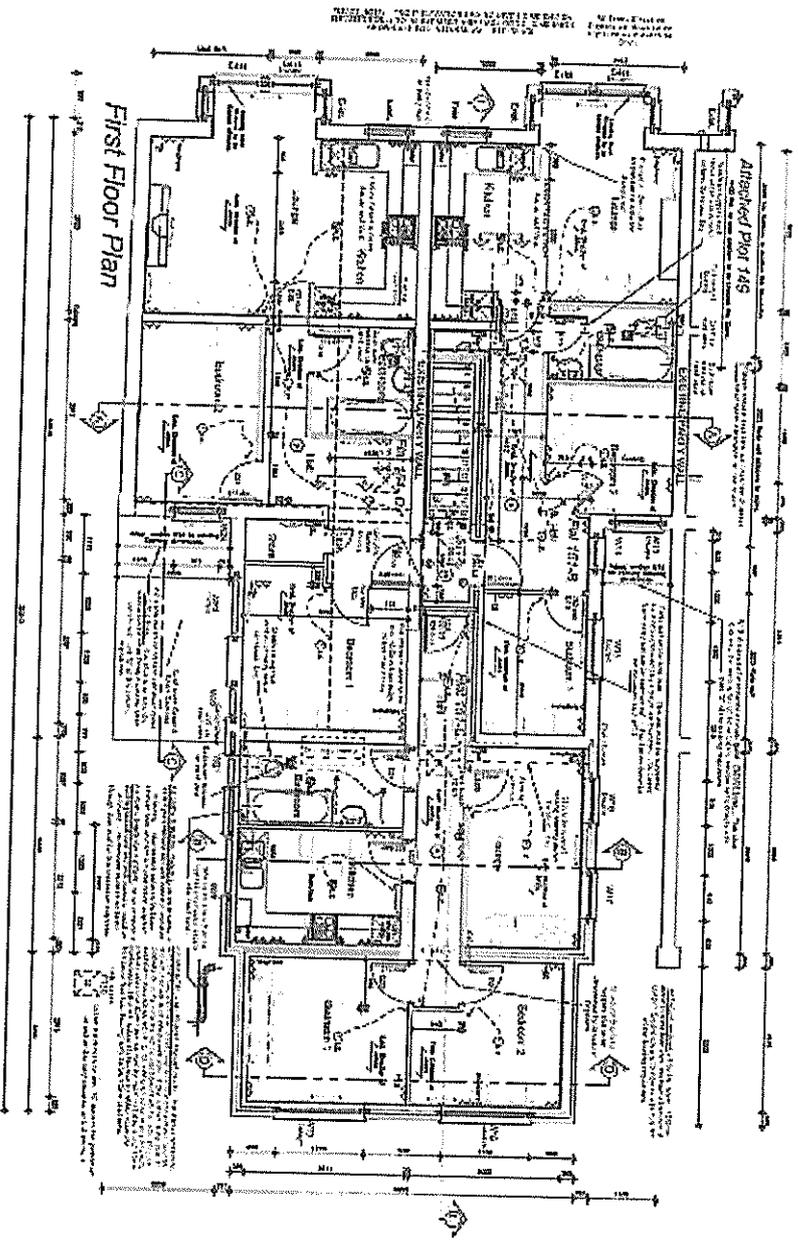
The window opening schedule provides a detailed list of all windows in the ground floor, including their location, size, and area. This information is essential for determining the building's energy performance and ventilation requirements.

Door Opening Schedule

Door	Location	Size (mm)	Area (sqm)
D1	Living Room	1800 x 800	1.44
D2	Dining Room	1500 x 700	1.05
D3	Kitchen	1200 x 600	0.72
D4	Bedroom 1	1400 x 700	0.98
D5	Bedroom 2	1300 x 600	0.78
D6	Bathroom	800 x 500	0.40
D7	Hallway	600 x 400	0.24
D8	Staircase	400 x 300	0.12
D9	Corridor	300 x 200	0.06
D10	Landscaping	1000 x 1000	1.00
D11	Parking	1000 x 1000	1.00
D12	Structural	1000 x 1000	1.00
D13	Party Wall	1000 x 1000	1.00
D14	Structural	1000 x 1000	1.00
D15	Structural	1000 x 1000	1.00
D16	Structural	1000 x 1000	1.00
D17	Structural	1000 x 1000	1.00
D18	Structural	1000 x 1000	1.00
D19	Structural	1000 x 1000	1.00
D20	Structural	1000 x 1000	1.00
D21	Structural	1000 x 1000	1.00
D22	Structural	1000 x 1000	1.00
D23	Structural	1000 x 1000	1.00
D24	Structural	1000 x 1000	1.00
D25	Structural	1000 x 1000	1.00
D26	Structural	1000 x 1000	1.00
D27	Structural	1000 x 1000	1.00
D28	Structural	1000 x 1000	1.00
D29	Structural	1000 x 1000	1.00
D30	Structural	1000 x 1000	1.00

The door opening schedule provides a detailed list of all doors in the ground floor, including their location, size, and area. This information is essential for determining the building's energy performance and ventilation requirements.

Mr. M. Wilson
149 County Road, Swindon.
Ground Floor Plan Structural
Date: 1/1/2021
Scale: 1:50
Sheet: SCR149 02



F.F. Window Opening Schedule

NO.	DESCRIPTION	NO. OF UNITS	AREA
1	10' x 10' Double Hung	100	1000
2	10' x 12' Double Hung	50	600
3	12' x 12' Double Hung	20	240
4	10' x 14' Double Hung	10	140
5	12' x 14' Double Hung	5	168
6	14' x 14' Double Hung	2	196
7	10' x 16' Double Hung	1	160
8	12' x 16' Double Hung	1	192
9	14' x 16' Double Hung	1	224
10	16' x 16' Double Hung	1	256
11	10' x 18' Double Hung	1	180
12	12' x 18' Double Hung	1	216
13	14' x 18' Double Hung	1	252
14	16' x 18' Double Hung	1	288
15	18' x 18' Double Hung	1	324
16	10' x 20' Double Hung	1	200
17	12' x 20' Double Hung	1	240
18	14' x 20' Double Hung	1	280
19	16' x 20' Double Hung	1	320
20	18' x 20' Double Hung	1	360
21	10' x 22' Double Hung	1	220
22	12' x 22' Double Hung	1	264
23	14' x 22' Double Hung	1	308
24	16' x 22' Double Hung	1	352
25	18' x 22' Double Hung	1	396
26	10' x 24' Double Hung	1	240
27	12' x 24' Double Hung	1	288
28	14' x 24' Double Hung	1	336
29	16' x 24' Double Hung	1	384
30	18' x 24' Double Hung	1	432
31	10' x 26' Double Hung	1	260
32	12' x 26' Double Hung	1	312
33	14' x 26' Double Hung	1	364
34	16' x 26' Double Hung	1	416
35	18' x 26' Double Hung	1	468
36	10' x 28' Double Hung	1	280
37	12' x 28' Double Hung	1	336
38	14' x 28' Double Hung	1	392
39	16' x 28' Double Hung	1	448
40	18' x 28' Double Hung	1	504
41	10' x 30' Double Hung	1	300
42	12' x 30' Double Hung	1	360
43	14' x 30' Double Hung	1	420
44	16' x 30' Double Hung	1	480
45	18' x 30' Double Hung	1	540
46	10' x 32' Double Hung	1	320
47	12' x 32' Double Hung	1	384
48	14' x 32' Double Hung	1	448
49	16' x 32' Double Hung	1	512
50	18' x 32' Double Hung	1	576
51	10' x 34' Double Hung	1	340
52	12' x 34' Double Hung	1	408
53	14' x 34' Double Hung	1	476
54	16' x 34' Double Hung	1	544
55	18' x 34' Double Hung	1	612
56	10' x 36' Double Hung	1	360
57	12' x 36' Double Hung	1	432
58	14' x 36' Double Hung	1	504
59	16' x 36' Double Hung	1	576
60	18' x 36' Double Hung	1	648
61	10' x 38' Double Hung	1	380
62	12' x 38' Double Hung	1	456
63	14' x 38' Double Hung	1	532
64	16' x 38' Double Hung	1	608
65	18' x 38' Double Hung	1	684
66	10' x 40' Double Hung	1	400
67	12' x 40' Double Hung	1	480
68	14' x 40' Double Hung	1	560
69	16' x 40' Double Hung	1	640
70	18' x 40' Double Hung	1	720
71	10' x 42' Double Hung	1	420
72	12' x 42' Double Hung	1	504
73	14' x 42' Double Hung	1	588
74	16' x 42' Double Hung	1	672
75	18' x 42' Double Hung	1	756
76	10' x 44' Double Hung	1	440
77	12' x 44' Double Hung	1	528
78	14' x 44' Double Hung	1	616
79	16' x 44' Double Hung	1	704
80	18' x 44' Double Hung	1	792
81	10' x 46' Double Hung	1	460
82	12' x 46' Double Hung	1	552
83	14' x 46' Double Hung	1	644
84	16' x 46' Double Hung	1	736
85	18' x 46' Double Hung	1	828
86	10' x 48' Double Hung	1	480
87	12' x 48' Double Hung	1	576
88	14' x 48' Double Hung	1	672
89	16' x 48' Double Hung	1	768
90	18' x 48' Double Hung	1	864
91	10' x 50' Double Hung	1	500
92	12' x 50' Double Hung	1	600
93	14' x 50' Double Hung	1	700
94	16' x 50' Double Hung	1	800
95	18' x 50' Double Hung	1	900
96	10' x 52' Double Hung	1	520
97	12' x 52' Double Hung	1	624
98	14' x 52' Double Hung	1	728
99	16' x 52' Double Hung	1	832
100	18' x 52' Double Hung	1	936
101	10' x 54' Double Hung	1	540
102	12' x 54' Double Hung	1	648
103	14' x 54' Double Hung	1	756
104	16' x 54' Double Hung	1	864
105	18' x 54' Double Hung	1	972
106	10' x 56' Double Hung	1	560
107	12' x 56' Double Hung	1	672
108	14' x 56' Double Hung	1	784
109	16' x 56' Double Hung	1	896
110	18' x 56' Double Hung	1	1008
111	10' x 58' Double Hung	1	580
112	12' x 58' Double Hung	1	696
113	14' x 58' Double Hung	1	812
114	16' x 58' Double Hung	1	928
115	18' x 58' Double Hung	1	1044
116	10' x 60' Double Hung	1	600
117	12' x 60' Double Hung	1	720
118	14' x 60' Double Hung	1	840
119	16' x 60' Double Hung	1	960
120	18' x 60' Double Hung	1	1080
121	10' x 62' Double Hung	1	620
122	12' x 62' Double Hung	1	744
123	14' x 62' Double Hung	1	868
124	16' x 62' Double Hung	1	992
125	18' x 62' Double Hung	1	1116
126	10' x 64' Double Hung	1	640
127	12' x 64' Double Hung	1	768
128	14' x 64' Double Hung	1	896
129	16' x 64' Double Hung	1	1024
130	18' x 64' Double Hung	1	1152
131	10' x 66' Double Hung	1	660
132	12' x 66' Double Hung	1	792
133	14' x 66' Double Hung	1	924
134	16' x 66' Double Hung	1	1056
135	18' x 66' Double Hung	1	1188
136	10' x 68' Double Hung	1	680
137	12' x 68' Double Hung	1	816
138	14' x 68' Double Hung	1	952
139	16' x 68' Double Hung	1	1088
140	18' x 68' Double Hung	1	1224
141	10' x 70' Double Hung	1	700
142	12' x 70' Double Hung	1	840
143	14' x 70' Double Hung	1	980
144	16' x 70' Double Hung	1	1120
145	18' x 70' Double Hung	1	1260
146	10' x 72' Double Hung	1	720
147	12' x 72' Double Hung	1	864
148	14' x 72' Double Hung	1	1008
149	16' x 72' Double Hung	1	1152
150	18' x 72' Double Hung	1	1296
151	10' x 74' Double Hung	1	740
152	12' x 74' Double Hung	1	888
153	14' x 74' Double Hung	1	1036
154	16' x 74' Double Hung	1	1184
155	18' x 74' Double Hung	1	1332
156	10' x 76' Double Hung	1	760
157	12' x 76' Double Hung	1	912
158	14' x 76' Double Hung	1	1064
159	16' x 76' Double Hung	1	1216
160	18' x 76' Double Hung	1	1368
161	10' x 78' Double Hung	1	780
162	12' x 78' Double Hung	1	936
163	14' x 78' Double Hung	1	1092
164	16' x 78' Double Hung	1	1248
165	18' x 78' Double Hung	1	1404
166	10' x 80' Double Hung	1	800
167	12' x 80' Double Hung	1	960
168	14' x 80' Double Hung	1	1120
169	16' x 80' Double Hung	1	1280
170	18' x 80' Double Hung	1	1440
171	10' x 82' Double Hung	1	820
172	12' x 82' Double Hung	1	984
173	14' x 82' Double Hung	1	1148
174	16' x 82' Double Hung	1	1312
175	18' x 82' Double Hung	1	1476
176	10' x 84' Double Hung	1	840
177	12' x 84' Double Hung	1	1008
178	14' x 84' Double Hung	1	1176
179	16' x 84' Double Hung	1	1344
180	18' x 84' Double Hung	1	1512
181	10' x 86' Double Hung	1	860
182	12' x 86' Double Hung	1	1032
183	14' x 86' Double Hung	1	1204
184	16' x 86' Double Hung	1	1376
185	18' x 86' Double Hung	1	1548
186	10' x 88' Double Hung	1	880
187	12' x 88' Double Hung	1	1056
188	14' x 88' Double Hung	1	1232
189	16' x 88' Double Hung	1	1408
190	18' x 88' Double Hung	1	1584
191	10' x 90' Double Hung	1	900
192	12' x 90' Double Hung	1	1080
193	14' x 90' Double Hung	1	1260
194	16' x 90' Double Hung	1	1440
195	18' x 90' Double Hung	1	1620
196	10' x 92' Double Hung	1	920
197	12' x 92' Double Hung	1	1104
198	14' x 92' Double Hung	1	1288
199	16' x 92' Double Hung	1	1472
200	18' x 92' Double Hung	1	1656
201	10' x 94' Double Hung	1	940
202	12' x 94' Double Hung	1	1128
203	14' x 94' Double Hung	1	1316
204	16' x 94' Double Hung	1	1504
205	18' x 94' Double Hung	1	1692
206	10' x 96' Double Hung	1	960
207	12' x 96' Double Hung	1	1152
208	14' x 96' Double Hung	1	1344
209	16' x 96' Double Hung	1	1536
210	18' x 96' Double Hung	1	1728
211	10' x 98' Double Hung	1	980
212	12' x 98' Double Hung	1	1176
213	14' x 98' Double Hung	1	1372
214	16' x 98' Double Hung	1	1568
215	18' x 98' Double Hung	1	1764
216	10' x 100' Double Hung	1	1000
217	12' x 100' Double Hung	1	1200
218	14' x 100' Double Hung	1	1400
219	16' x 100' Double Hung	1	1600
220	18' x 100' Double Hung	1	1800

Door Opening Schedule

NO.	DESCRIPTION	NO. OF UNITS	AREA
1	10' x 10' Double	100	1000
2	10' x 12' Double	50	600
3	12' x 12' Double	20	240
4	10' x 14' Double	10	140
5	12' x 14' Double	5	168
6	14' x 14' Double	2	196
7	10' x 16' Double	1	160
8	12' x 16' Double	1	192
9	14' x 16' Double	1	224
10	16' x 16' Double	1	256
11	10' x 18' Double	1	180
12	12' x 18' Double	1	216
13	14' x 18' Double	1	252
14	16' x 18' Double	1	288
15	18' x 18' Double	1	324
16	10' x 20' Double	1	200
17	12' x 20' Double	1	240
18	14' x 20' Double	1	280
19	16' x 20' Double	1	320
20	18' x 20' Double	1	360
21	10' x 22' Double	1	220
22	12' x 22' Double	1	264
23	14' x 22' Double	1	308
24	16' x 22' Double	1	352
25	18' x 22' Double	1	396
26	10' x 24' Double	1	240
27	12' x 24' Double	1	288
28	14' x 24' Double	1	336
29	16' x 24' Double	1	384
30	18' x 24' Double	1	432
31	10' x 26' Double	1	260
32	12' x 26' Double	1	312
33	14' x 26' Double	1	364
34	16' x 26		