



dB Acoustics and Environmental Services

Italian Centre,
49 Cochrane Street,
Glasgow G1 1HL

29th August 2001

FAO Mr. A. King
and Mr. A. Borland

Page and Park Architects,
Dickie Building Contractors.

PAGE & PARK ARCHITECTS

RECEIVED

31 AUG 2001

CHECKED

DJP EAP CIM DJP

ACTION

AK

Dear Sirs,

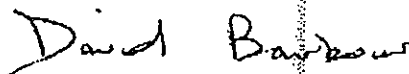
IMPACT SOUND INSULATION IMPROVEMENT AT WESTERTON ROAD, GRANGEMOUTH

Concerning your request to carry out additional impact sound insulation tests using two types of resilient floor covering, the test results are as follows:

<u>Location</u>	<u>Floor Test Result</u>	<u>Previous Test</u>
Block C Living Rooms 37/39	Impact L'nT,w = 57 dB (Sempafloor) PASS	64 dB (bare Floor)
	Impact L'nT,w = 63 dB (fibrous felt) FAIL	64 dB (bare floor)
Block C Bedrooms 37/39	Impact L'nT,w = 61 dB (Sempafloor) PASS	66dB (bare floor)
	Impact L'nT,w = 65 dB (fibrous felt) FAIL	66 dB (bare floor)

The test results show a pass on impact sound insulation performance when the Sempafloor resilient covering is used. However, the black fibrous felt material was unsuccessful in that the impact results still show a failure.

Yours faithfully,



David Barbour

David Barbour
BSc, MSc, MIOA, MCIBSE, CEng

David Barbour
Associate of the Institute of Acoustics

Tel/Fax: 01555 894877

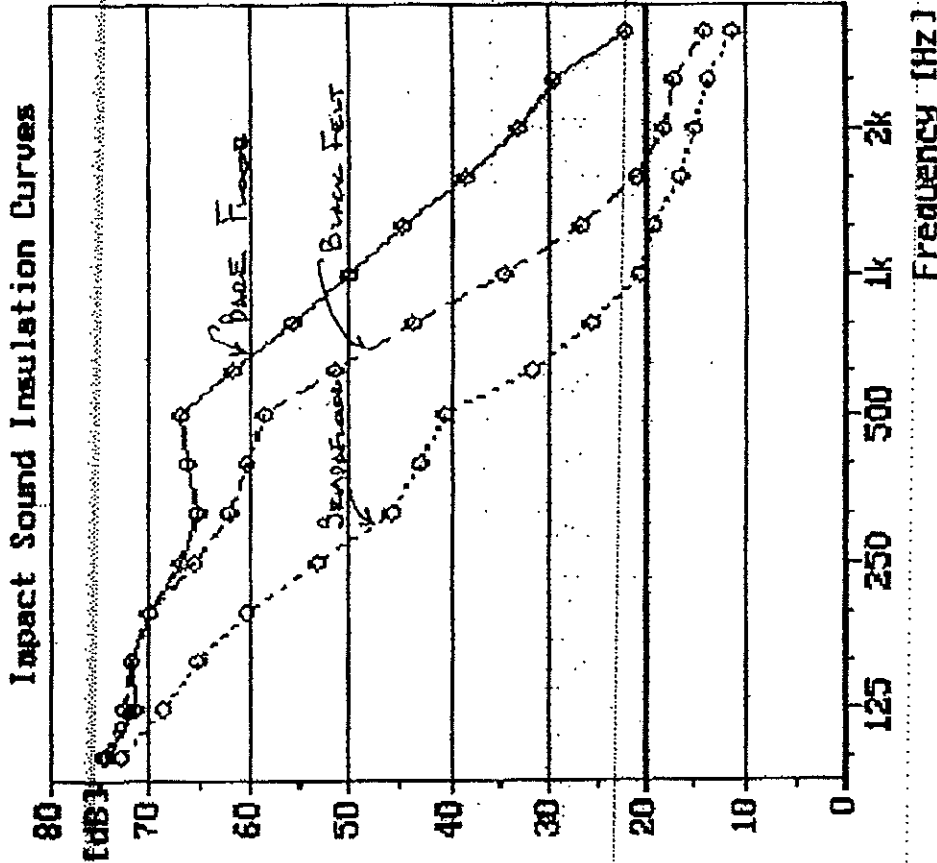
13 Cherry Tree Drive,
Blackwood,
Lanark,
ML11 9TF

Compare Impact Sound Insulation Curves

Luisa Room

Jobnames: Single Values:
 [db]

- 4808LR L'ntw ... = 64.0
- 4808LS L'ntw ... = 57.0
- 4808LU L'ntw ... = 63.0



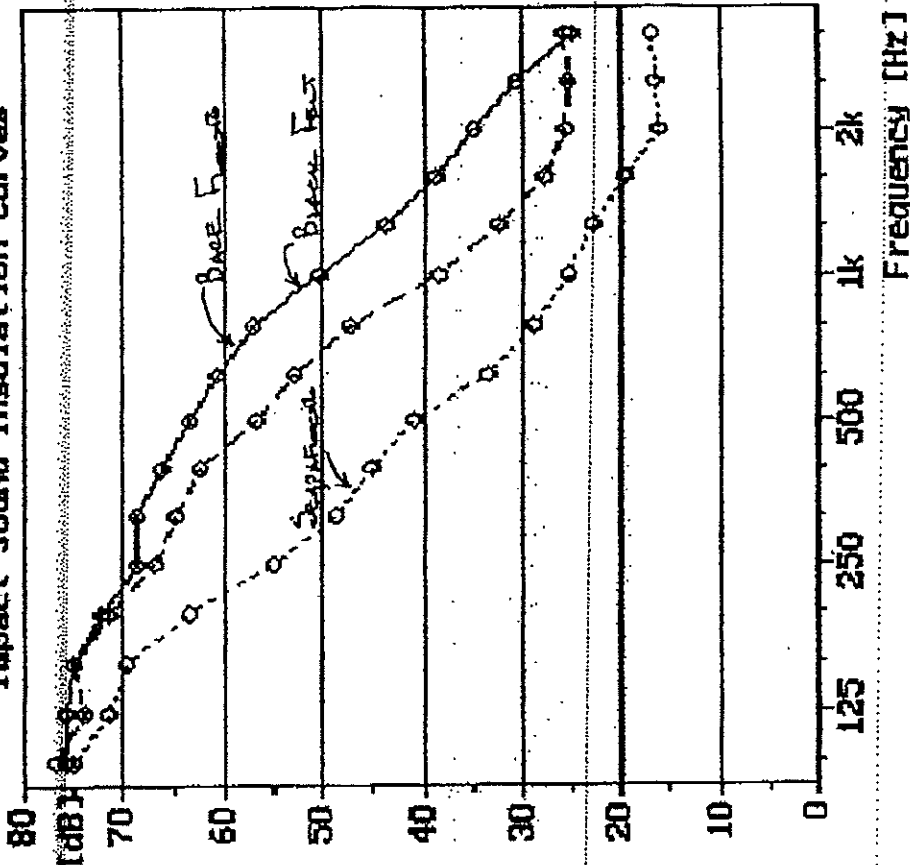
Impact Sound Insulation Curves [db] vs Frequency [Hz] for Jobnames: 4808LR, 4808LS, 4808LU. Single Values: [db].

Compare Impact Sound Insulation Curves

BEROOM

Jobnames: Single Values:
 [dB]
 --- 48088E L'nIw ... = 66.0
 48088S L'nIw ... = 61.0
 --- 48088U L'nIw ... = 65.0

Impact Sound Insulation Curves



ACOUSTIC TESTS

at

**WESTERTON ROAD SITE,
GRANGEMOUTH.**

for

**DICKIE CONSTRUCTION LIMITED
AND
PARK AND PAGE ARCHITECTS**

by

**DAVID BARBOUR BSc,MSc,CEng,MCIBSE,MIOA
JUNE BARBOUR ASSOCIATE OF THE INSTITUTE OF ACOUSTICS**

**dB Acoustics & Environmental Services,
13 Cherry Tree Drive
Blackwood
Lanark ML11 9TF**

Tel & Fax 01555 894877

Contents:

Section 1: To check for noise leakage through an indirect path between the living rooms No. 37 and No.39 Block C.

To check for noise transmission between the bathroom of the mid-flat with a stepped floor section and the ground store/cleaner/laundry areas of the Common Block.

Section 2: Airborne sound insulation test between the ground common room and upper living room in the Common Block.

Section 3: Airborne and impact sound insulation tests between the living rooms and bedrooms of No.37 and No.39 Block C.

Section 1: To check for noise leakage through an indirect path between the living rooms No. 37 and No.39 Block C.

To check for noise transmission between the bathroom of the mid-flat with a stepped floor section and the ground store/cleaner/laundry areas of the Common Block.



dB Acoustics and Environmental Services

Brief:

To check for noise leakage through an indirect path from the upper to the ground living rooms in Block C.

Test Arrangement:

Standard sound insulation tests were carried out between the upper floor living room No.37 and ground floor living room No.39 under the following situations:

- a. Both upper and ground living room doors closed.
Ground floor stair cupboard door closed.

Result - *Airborne DnT,w* = 53 dB (see graph No.2, 4808FD)

- b. Both upper and ground living room doors open.
Ground floor stair cupboard door open.

Result - *Airborne DnT,w* = 53 dB (see graph No.1, 4808FC)

Conclusions.

1. The single figure *DnT,w* performance rating was the same (*DnT,w* = 53 dB) for both closed and open door situations.
2. There is a reduction in high frequency sound insulation performance above 800 Hz as shown in 'red' between the graphs.
3. Above 800 Hz, the sound insulation between the living rooms with the doors open is still 'good', providing over 60 dB.

Signed: David Barbour Date: 4th Sept 01

David Barbour
BSc, MSc, MIOA, MCIBSE, CEng

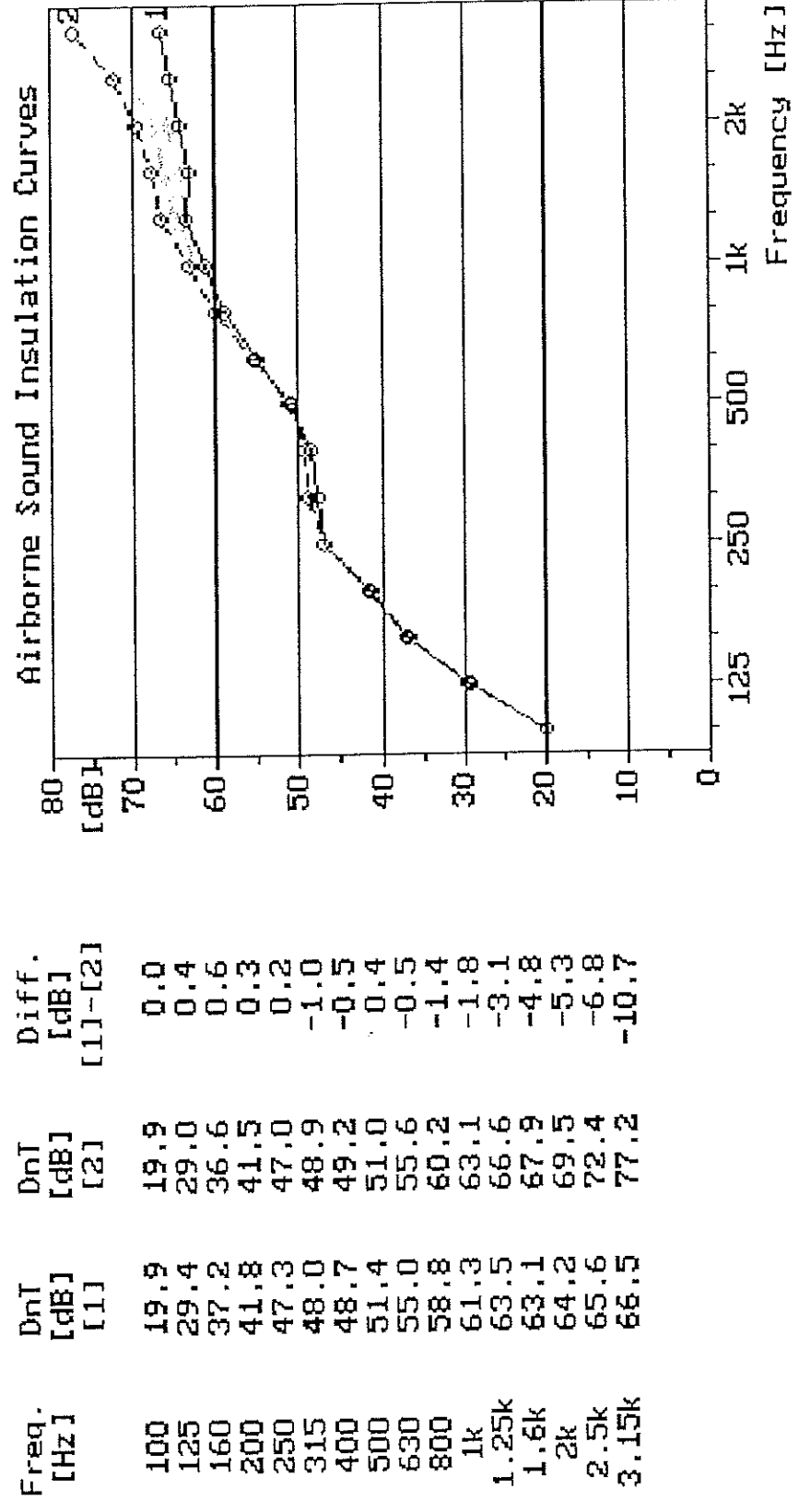
Junc Barbour
Associate of the Institute of Acoustics

Tel/Fax: 01555 894877

13 Cherry Tree Drive,
Blackwood,
Lanark,
ML11 9TF

Compare Airborne Sound Insulation Curves

Jobnames: Single Values: Max.Dev.:
 1: 4808FC DnTw = 53 dB -14.1 dB
 2: 4808FD DnTw = 53 dB -14.1 dB





dB Acoustics and Environmental Services

Brief:

To check for noise transmission between the bathroom of the mid-flat with a stepped floor section and the ground store/cleaner/laundry areas of the Common Block.

Test Arrangement:

A standard airborne sound insulation test could not be carried out because of the limited space for equipment within the bathroom. However, a sound source was set up to produce white noise within the laundry area and subjective listening tests were carried out in the upper bathroom. With the noise source volume turned up to maximum, very little noise could be heard within the bathroom.

Conclusion.

Although an airborne sound insulation test could not be carried out due to limited space, on the basis of listening tests, it is my opinion that the floor meets the current standard for airborne sound insulation performance.

Signed: David Barbour

Date: 4th Sept 01

Section 2: Airborne sound insulation test between the ground common room and upper living room in the Common Block.

SOUND INSULATION TESTS

at

**WESTERTON ROAD SITE,
GRANGEMOUTH.**

COMMON BLOCK:

**COMMON ROOM
(GROUND FLOOR)**

TO

**LIVING ROOM (MID-FLAT)
(FIRST FLOOR)**

for

**DICKIE CONSTRUCTION LIMITED
AND
PARK AND PAGE ARCHITECTS**

by

**DAVID BARBOUR BSc,MSc,CEng,MCIBSE,MIOA
JUNE BARBOUR ASSOCIATE OF THE INSTITUTE OF ACOUSTICS**

**dB Acoustics & Environmental Services,
13 Cherry Tree Drive
Blackwood
Lanark ML11 9TF**

Tel & Fax 01555 894877

Report No: 4822/01

EXECUTIVE SUMMARY: TEST RESULTS

A single figure sound insulation performance value was calculated for the separating element to: BS EN ISO 717-1:1997.

This was as follows:

Date of Tests: 27th July 2001.

Location: Westerton Road, Grangemouth.

Common Block:			-FLOOR-	
Common Room	to Living Room		Airborne Rating DnT,w	= 60 dB
Ground Floor	First Floor			

where:

DnT,w is the Weighted Standardised Level Difference in dB.

Comments

1. The tests were performed on the floor specification shown in the Report.
2. The sound insulation performance result is based on a test carried out on the floor stated in this report. The sound insulation performance of other floors within the development may differ from this test result.
3. The current Scottish Building Technical Standards Part H on "Resistance to the Transmission of Sound" allows for several floors to be tested and the results averaged. The performance criteria is set out as follows:

FLOORS

Airborne Performance Standard:	Mean DnT,w of 52 dB or more, with no individual DnT,w value less than 48 dB.
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On the basis of a sample of one floor, the airborne sound insulation DnT,w rating of 60 dB satisfies the required standard from Part H.

1.0 Introduction

Further to discussions with Mr. Alistair King of Park and Page Architects and Mr. Andrew Borland of Dickie Construction Limited, it was agreed that dB Acoustics and Environmental Services, Consultants, arranges to carry out an airborne sound insulation test across one separating floor within the Common Block at Westerton Road Site, Grangemouth.

2.0 Equipment

The following equipment was used to carry out the test work.

A calibration check was carried out before and after the tests according to the manufacturer's recommendations.

2.1 **Airborne Sound Insulation Test and Reverberation Time Measurement:**

Svantech Acoustic Analyser	Type 912A
Bruel and Kjaer Sound Level Meter	Type 2231
Bruel and Kjaer Filter Set	Type 1625
Bruel and Kjaer Microphone	Type 4155
Bruel and Kjaer Rotating Boom	Type 3923
Bruel and Kjaer Building Acoustics Module	Type BZ7114
Dodecahedric Noise Generator System	Type DO12

2.3 **Calibration:**

Bruel and Kjaer Sound level Calibrator	Type 4231
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3.0 Test Procedure

Airborne Sound Insulation Test. (BS EN ISO 140-4:1998)

Sound pressure levels were measured in the source and receiving room using a rotating boom and microphone system.

Background noise levels and reverberation time times were measured in the receiving room.

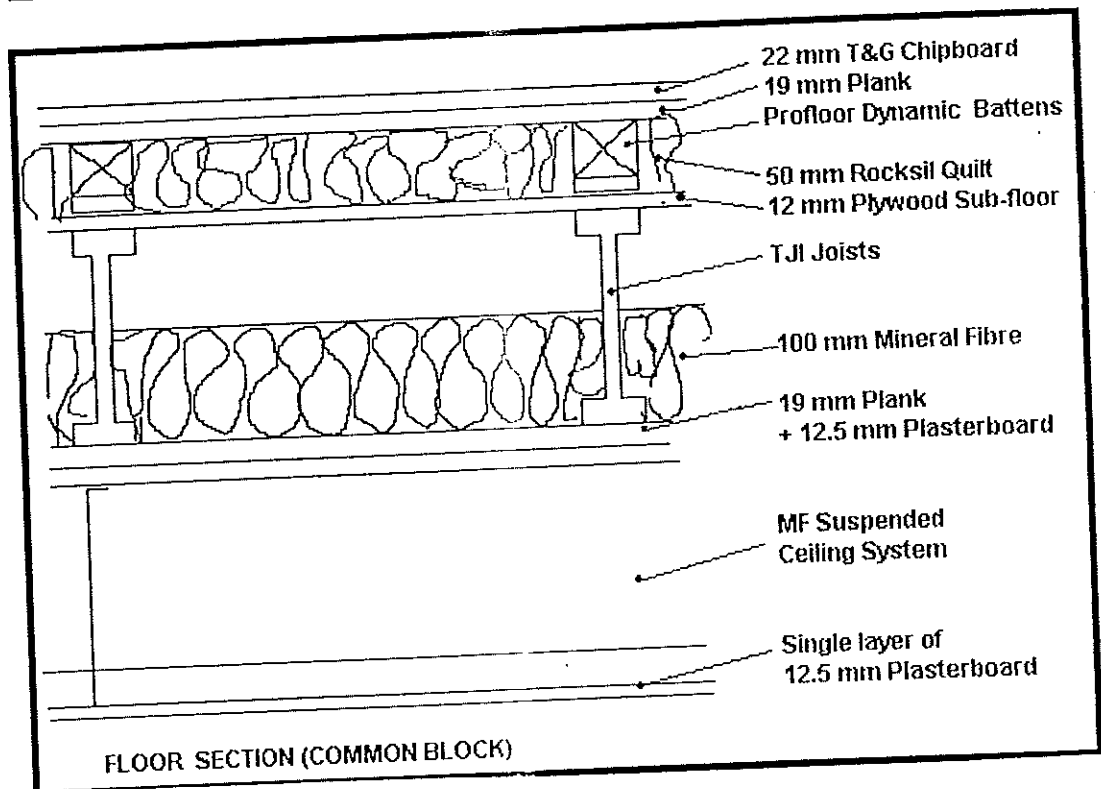
Test readings are shown on the results sheet in Appendix 1.

Common Block: Common Room to Upper Living Room Test

Source Room Volume = 80 m³

Receiving Room Volume = 66 m³

4.0 Construction Details



5.0 Test Results

Single figure sound insulation performance values were calculated for the separating element to EN ISO 717-1:1997 and EN ISO 717-2:1997.

This was as follows:

Date of Tests: 27th July 2001.

Location: Westerton Road, Grangemouth.

Common Block:		-FLOOR-	
Common Room to Living Room	Airborne Rating DnT,w		= 60 dB
Ground Floor	First Floor		

where:

DnT,w is the Weighted Standardised Level Difference in dB.

L'nT,w is the Weighted Standardised Impact Sound Pressure Level in dB.

6.0 Comments

1. The tests were performed on the floor specification shown in the Report.
2. The subjective rating for the 'average occupant' is shown in a **Guide Value Table** in the Report. Note that this is for general guidance only, is for the average occupant and may not reflect the opinion of an individual occupant.
3. The sound insulation performance result is based on a test carried out on the floor stated in this report. The performance of other floors within the development may be different from this test result.

Signed David Barbour Dated 4th Sept 01

David Barbour, Member of the Institute of Acoustics.

GUIDE VALUES FOR SOUND INSULATION BETWEEN DWELLINGS

Airborne Sound DnT,w FLOOR	Subjective Description*
* 60	"Very Good"
56	"Good"
52	"Reasonable"
48	"Poor"
44	"Bad"
40	"Intolerable"

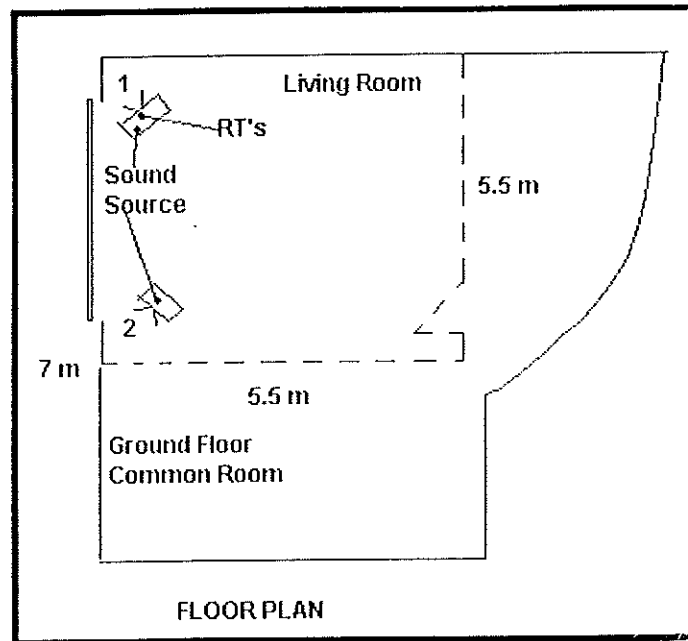
*Typical subjective response for the 'average occupant'.

Guide Value Table.

Reference: Guide Value Table Data from 'Noise Control in the Built Environment' Gower Technical, Edited by John Roberts and Diane Fairhall).

APPENDIX 1

SOUND INSULATION TEST RESULTS AND GRAPHS.



Airborne Sound Insulation
Jobname: 4822F2

Freq. Hz	L1A dB	L2A dB	B2A dB	T2A s	DnT dB	Dev. dB
100	83.0	52.1	29.9	0.65	32.0	-9.0
125	82.0	47.3	29.7	1.20	38.5	-5.5
160	85.6	45.4	28.4	1.27	44.2	-2.8
200	88.4	46.8	35.2	1.51	46.4	-3.6
250	90.5	45.2	28.4	1.80	50.9	-2.1
315	92.0	43.8	27.4	1.90	54.0	-2.0
400	96.4	44.7	28.2	2.22	58.2	-0.8
500	98.2	43.2	28.8	2.18	61.4	1.4
630	97.1	41.8	26.0	2.23	61.8	0.8
800	99.3	42.9	26.4	2.11	62.7	0.7
1k	96.9	37.6	25.5	2.13	65.6	2.6
1.25k	93.2	31.8	26.2	2.15	69.1	5.1
1.6k	96.8	33.9	24.7	2.04	69.6	5.6
2k	97.8	34.1	25.2	1.87	70.0	6.0
2.5k	98.3	35.6	18.4	1.71	68.0	4.0
3.15k	97.9	29.5	13.5	1.56	73.3	9.3

DnTw = 60 dB
Max.Dev. = -9.0 dB at 100Hz
Sum Dev. = -25.8 dB

Number of marked files :

.L1A : 1 files
.L2A : 1 files
.B2A : 1 files
.T2A : 1 files

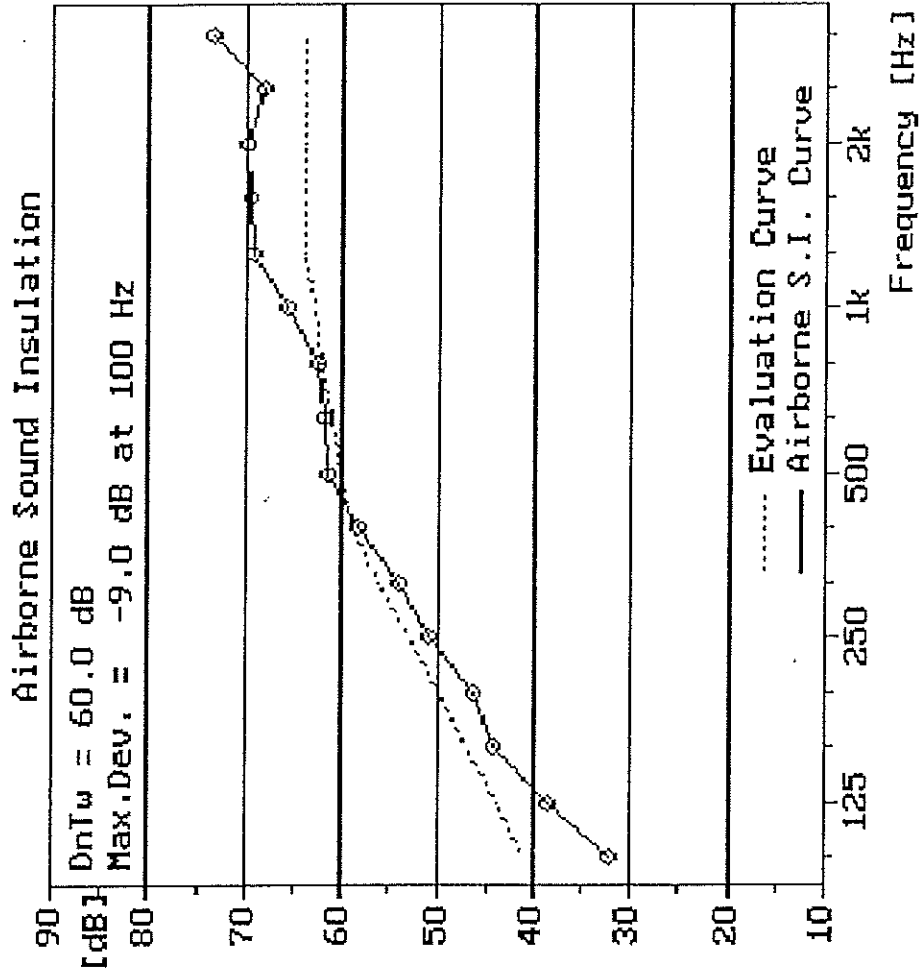
Measured Airborne Sound Insulation

Jobname: 4822F2

Source Room:

Receiving Room:

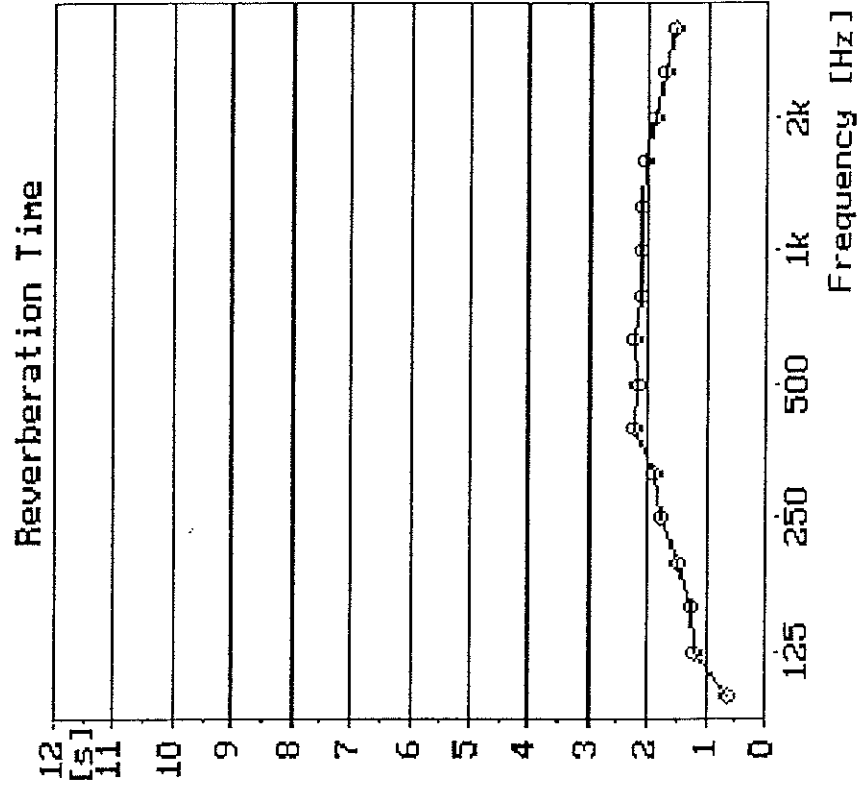
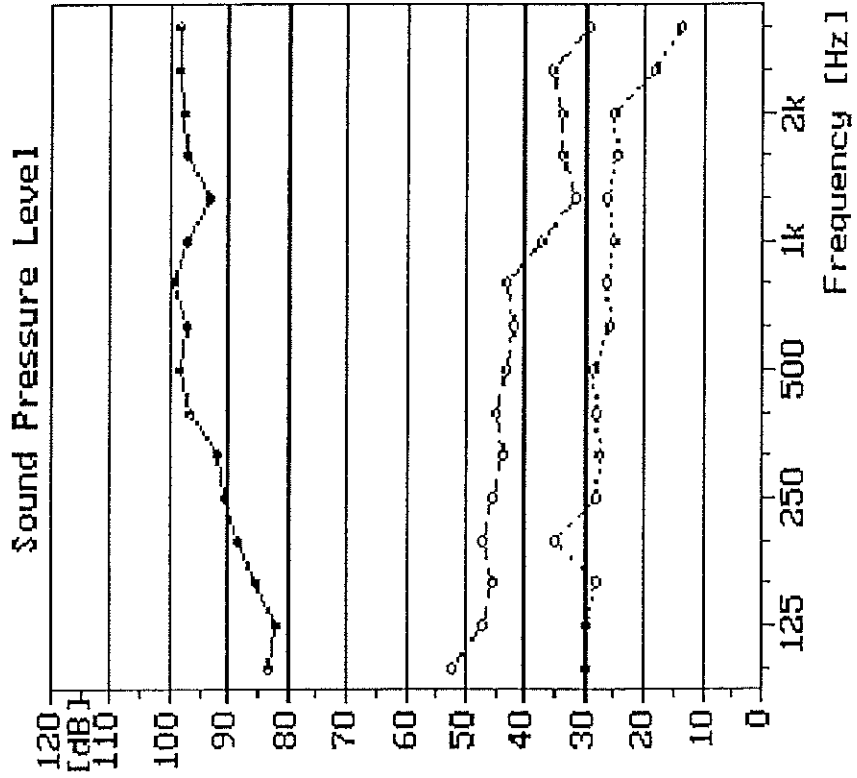
Freq. [Hz]	DnT [dB]
100	32.0
125	38.5
160	44.2
200	46.4
250	50.9
315	54.0
400	58.2
500	61.4
630	61.8
800	62.7
1k	65.6
1.25k	69.1
1.6k	69.6
2k	70.0
2.5k	68.0
3.15k	73.3



Airborne Sound Insulation, Measured SPL and T60

Jobname: 4822F2

- Source Room Level, L1
 - Receiving Room Level, L2
 - Background Noise Level, B2
- in the Receiving Room



Section 3: Airborne and impact sound insulation tests between the living rooms and bedrooms of No.37 and No.39 Block C.

SOUND INSULATION TESTS

at

**WESTERTON ROAD SITE,
GRANGEMOUTH.**

**BLOCK C: LIVING ROOM/KITCHEN TO LIVING ROOM/KITCHEN
NO.37 NO.39**

**BLOCK C: BEDROOM TO BEDROOM
NO.37 NO.39**

for

**DICKIE CONSTRUCTION LIMITED
AND
PARK AND PAGE ARCHITECTS**

by

**DAVID BARBOUR BSc,MSc,CEng,MCIBSE,MIOA
JUNE BARBOUR ASSOCIATE OF THE INSTITUTE OF ACOUSTICS**

**dB Acoustics & Environmental Services,
13 Cherry Tree Drive
Blackwood
Lanark ML11 9TF**

Tel & Fax 01555 894877

Report No: 4808/01

EXECUTIVE SUMMARY: TEST RESULTS

Single figure sound insulation performance values were calculated for the separating elements to: BS EN ISO 717-1:1997 and BS EN ISO 717-2:1997.

These were as follows:

Date of Tests: 19th and 26th August 2001.

Location: Westerton Road, Grangemouth.

		-FLOOR-	
LR/Kit	to	Airborne Rating DnT,w	= 54 dB
No.37	LR/Kit	Impact Rating L'nT,w	= 57 dB
	No.39		
Bedroom to	Bedroom	Airborne Rating DnT,w	= 53 dB
No.37	No.39	Impact Rating L'nT,w	= 61 dB

where:

DnT,w is the Weighted Standardised Level Difference in dB.

L'nT,w is the Weighted Standardised Impact Sound Pressure Level in dB.

Comments

1. The tests were performed on the floor specifications shown in the Report.
2. The sound insulation performance results are based on tests carried out on floors stated in this report. The sound insulation performance of other floors within the development may differ from these test results.
3. The current Scottish Building Technical Standards Part H on "Resistance to the Transmission of Sound" allows for several floors to be tested and the results averaged. The performance criteria is set out as follows:

FLOORS

Airborne Performance Standard:

Mean DnT,w of 52 dB or more, with no individual DnT,w value less than 48 dB.

Impact Performance Standard:

Mean L'nT,w of 61 dB or less, with no individual L'nT,w value over 65 dB.

On the basis of a sample of two floors, both of the airborne sound insulation DnT,w ratings of 54 dB and 53 dB give an mean DnT,w of 53.5 dB. The impact sound insulation L'nT,w ratings of 57 dB and 61 dB give a mean L'nT,w of 59 dB. These ratings satisfy the required standard from Part H.

1.0 Introduction

Further to discussions with Mr. Alistair King of Park and Page Architects and Mr. Andrew. Borland of Dickie Construction Limited, it was agreed that dB Acoustics and Environmental Services, Consultants, arranges to carry out airborne and impact sound insulation tests across two separating floors at Westerton Road Site, Grangemouth.

2.0 Equipment

The following equipment was used to carry out the test work.

A calibration check was carried out before and after the tests according to the manufacturer's recommendations.

2.1 **Airborne Sound Insulation Test and Reverberation Time Measurement:**

Svantech Acoustic Analyser	Type 912A
Bruel and Kjaer Sound Level Meter	Type 2231
Bruel and Kjaer Filter Set	Type 1625
Bruel and Kjaer Microphone	Type 4155
Bruel and Kjaer Rotating Boom	Type 3923
Bruel and Kjaer Building Acoustics Module	Type BZ7114
Dodecahedric Noise Generator System	Type DO12

2.2 **Impact Sound Insulation Test:**

Bruel and Kjaer Tapping Machine	Type 3204
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2.3 **Calibration:**

Bruel and Kjaer Sound level Calibrator	Type 4231
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3.0 Test Procedure

Airborne Sound Insulation Test. (BS EN ISO 140-4:1998)

Sound pressure levels were measured in the source and receiving room using a rotating boom and microphone system.

Background noise levels and reverberation time times were measured in the receiving room.

Test readings are shown on the results sheet in Appendix 1.

Impact Sound Insulation Test. (BS EN ISO 140-7:1998)

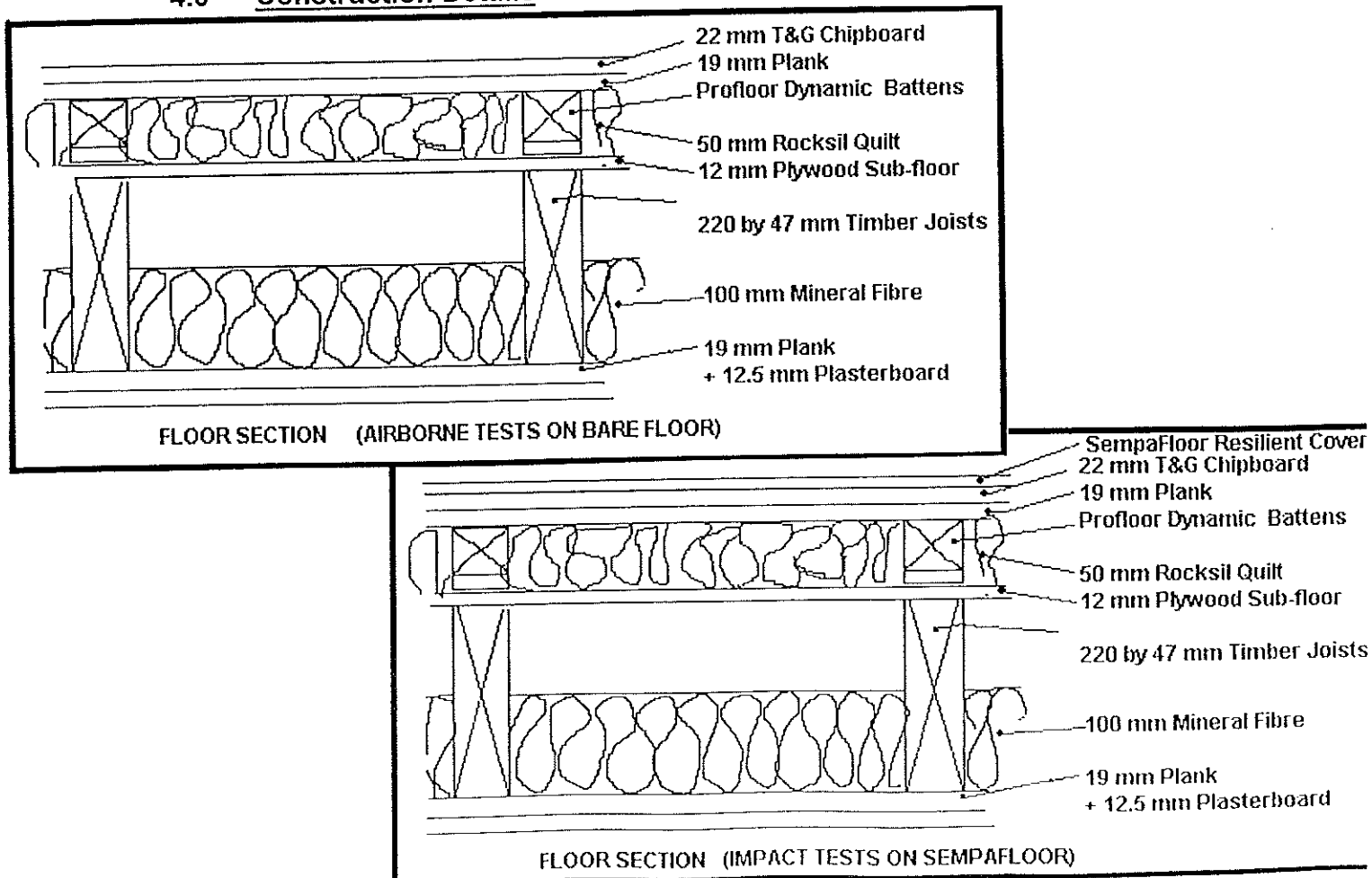
With the tapping machine placed on the test floor, sound pressure levels were measured in the receiving room. This procedure was carried out for other positions on the test floor and the results averaged.

Test readings are shown on the results sheet in Appendix 1.

Block C Living Room Test: Source Room Volume = 70 m³
Receiving Room Volume = 55 m³

Block C Bedroom Test: Source Room Volume = 27m³
Receiving Room Volume = 27m³

4.0 Construction Details



5.0 Test Results

Single figure sound insulation performance values were calculated for the separating element to EN ISO 717-1:1997 and EN ISO 717-2:1997.

These were as follows:

Date of Tests: 19th and 26th August 2001.

Location: Westerton Road, Grangemouth.

		-FLOOR-		
LR/Kit	to	LR/Kit	Airborne Rating DnT,w	= 54 dB
No.37		No.39	Impact Rating L'nT,w	= 57 dB
Bedroom to		Bedroom	Airborne Rating DnT,w	= 53 dB
No.37		No.39	Impact Rating L'nT,w	= 61 dB

where:

DnT,w is the Weighted Standardised Level Difference in dB.

L'nT,w is the Weighted Standardised Impact Sound Pressure Level in dB.

6.0 Comments

1. The tests were performed on the floor specifications shown in the Report.
2. The subjective rating for the 'average occupant' is shown in a **Guide Value Table** in the Report. Note that this is for general guidance only, is for the average occupant and may not reflect the opinion of an individual occupant.
3. The sound insulation performance results are based on tests carried out on the floors stated in this report. The performance of other floors within the development may be different from these test results.

Signed.....*David Barbour*.....Dated.....*5th September*.....

David Barbour, Member of the Institute of Acoustics.

GUIDE VALUES FOR SOUND INSULATION BETWEEN DWELLINGS.

Airborne Sound DnT,w FLOOR	Impact Sound L'nT,w FLOOR	Subjective Description*
		"Very Good"
56	* 57	
* 54		"Good"
* 53		
52	* 61 Minimum Mean	
	Standard	"Reasonable"
48	65	
		"Poor"
44	69	
		"Bad"
40	73	
		"Intolerable"

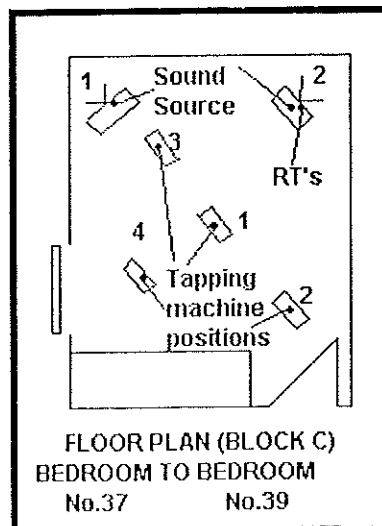
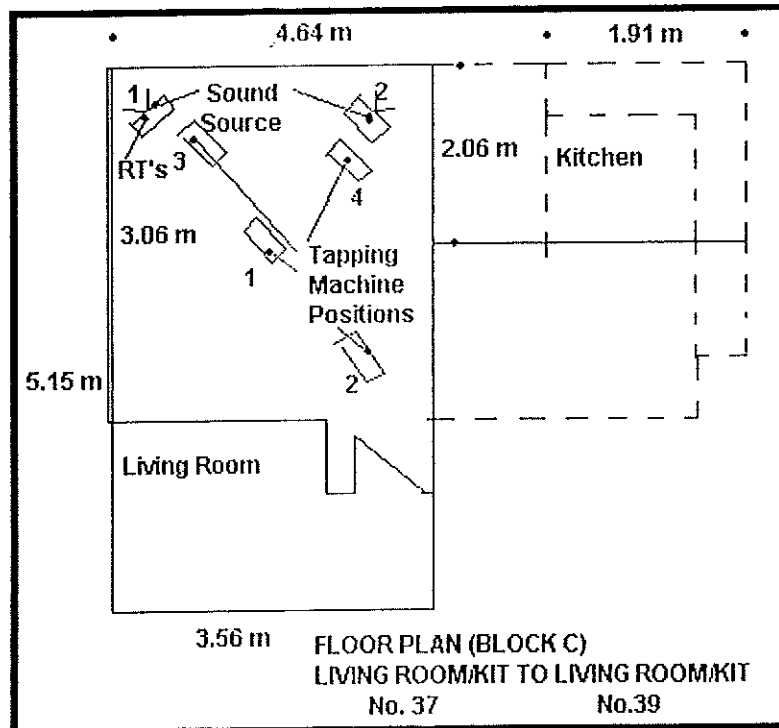
*Typical subjective response for the 'average occupant'.

Guide Value Table.

Reference: Guide Value Table Data from 'Noise Control in the Built Environment' Gower Technical, Edited by John Roberts and Diane Fairhall).

APPENDIX 1

SOUND INSULATION TEST RESULTS AND GRAPHS.



Airborne Sound Insulation
Jobname: 4808LR

Freq. Hz	L1A dB	L2A dB	B2A dB	T2A s	DnT dB	Dev. dB
100	80.5	54.8	33.0	0.39	24.6	-10.4
125	87.3	56.5	28.1	0.54	31.2	-6.8
160	97.3	61.2	25.9	0.73	37.7	-3.3
200	99.7	59.3	23.3	1.10	43.8	-0.2
250	100.3	55.8	22.5	1.10	48.0	1.0
315	100.3	55.4	20.3	1.18	48.6	-1.4
400	99.7	53.3	18.1	1.34	50.6	-2.4
500	99.7	52.0	16.4	1.40	52.2	-1.8
630	98.8	47.4	16.3	1.33	55.7	0.7
800	98.4	42.9	21.6	1.42	60.0	4.0
1k	98.1	38.9	20.1	1.41	63.7	6.7
1.25k	99.9	37.2	15.5	1.30	66.9	8.9
1.6k	102.1	36.8	12.8	1.14	68.9	10.9
2k	101.0	33.0	11.4	1.12	71.5	13.5
2.5k	99.6	29.8	9.7	1.05	73.0	15.0
3.15k	99.1	24.7	10.2	1.08	77.7	19.7

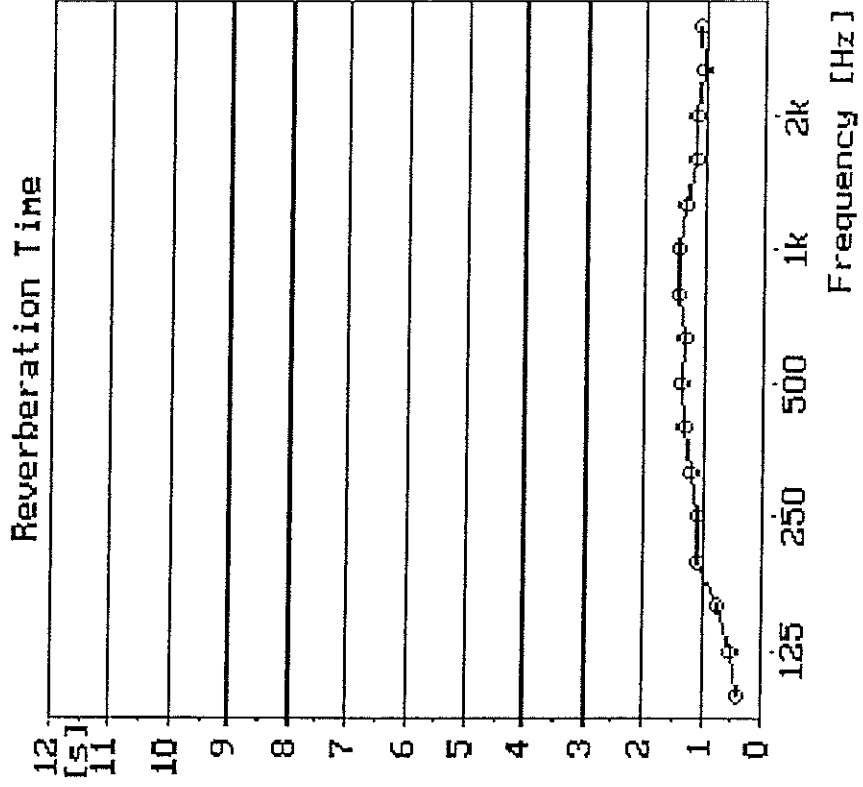
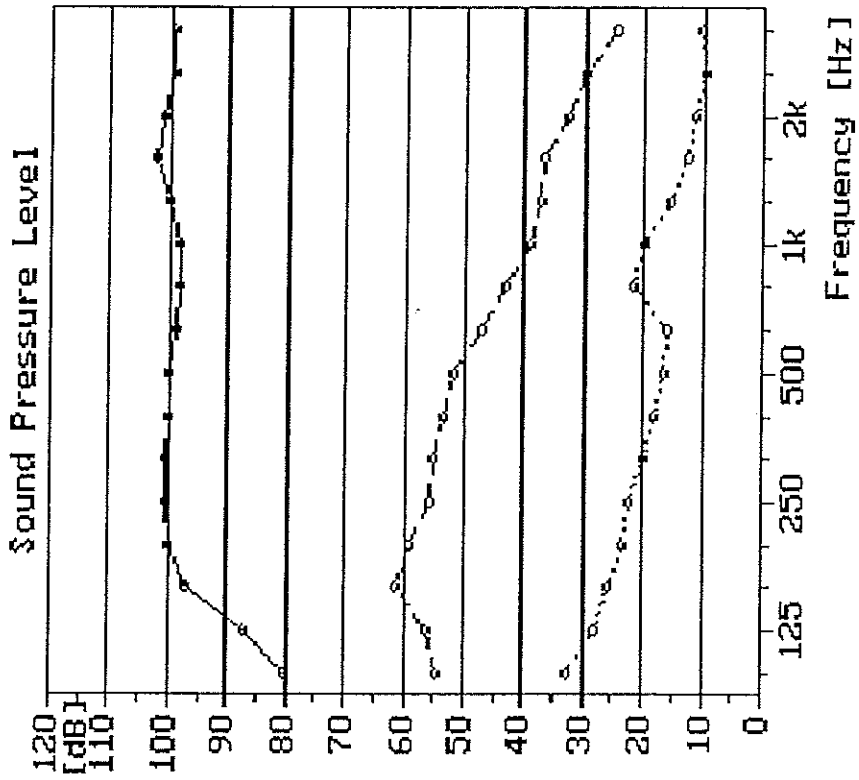
DnTw = 54 dB
Max.Dev. = -10.4 dB at 100Hz
Sum Dev. = -26.3 dB

Number of marked files :
.L1A : 2 files
.L2A : 2 files
.B2A : 1 files
.T2A : 1 files

Airborne Sound Insulation, Measured SPL and T60

Jobname: 4808LR

- Source Room Level, L1
- Receiving Room Level, L2
- Background Noise Level, B2
in the Receiving Room



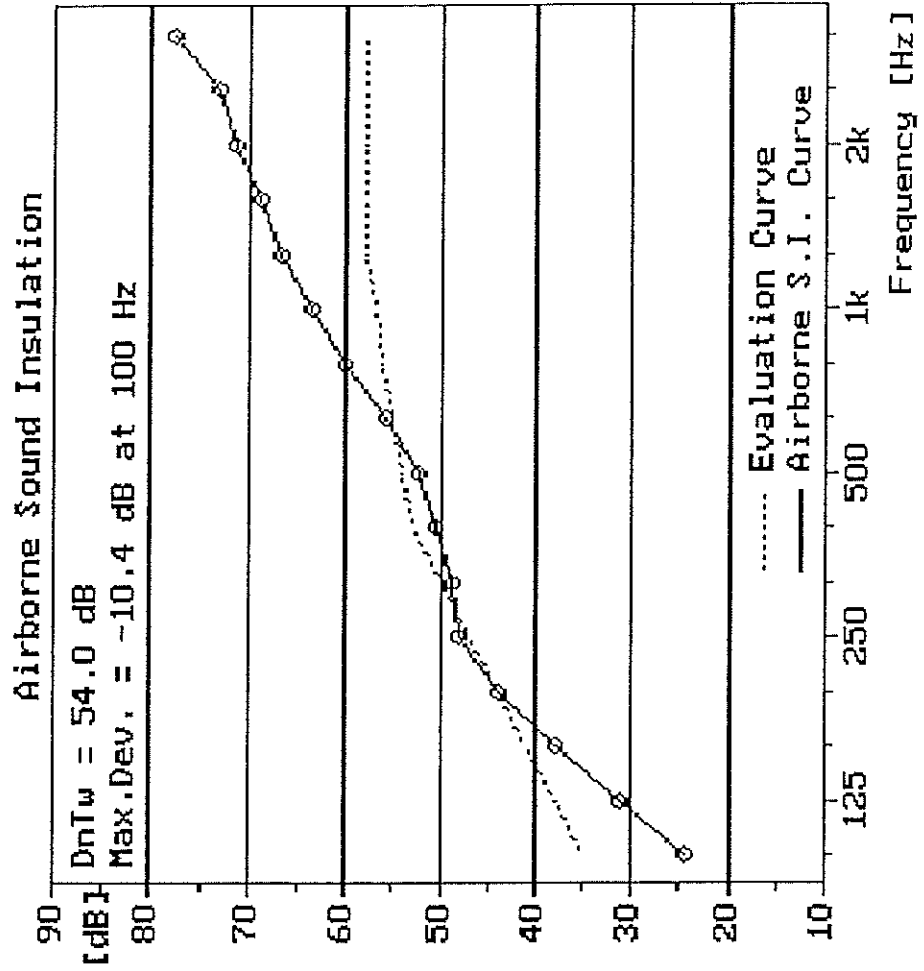
Measured Airborne Sound Insulation

Jobname: 4808LR

Source Room:

Receiving Room:

Freq. [Hz]	DnT [dB]
100	24.6
125	31.2
160	37.7
200	43.8
250	48.0
315	48.6
400	50.6
500	52.2
630	55.7
800	60.0
1k	63.7
1.25k	66.9
1.6k	68.9
2k	71.5
2.5k	73.0
3.15k	77.7



Impact Sound Insulation
Jobname: 4808LS

Freq.	L2S	B2S	T2S	L'nT	Dev.
100	71.8	33.0	0.39	72.9	13.9
125	69.1	28.1	0.54	68.7	9.7
160	66.9	25.9	0.73	65.3	6.3
200	63.7	23.3	1.10	60.3	1.3
250	56.6	22.5	1.10	53.2	-5.8
315	49.7	20.3	1.18	45.9	-13.1
400	47.1	18.1	1.34	42.9	-15.1
500	45.0	16.4	1.40	40.6	-16.4
630	35.9	16.3	1.33	31.7	-24.3
800	30.8	21.6	1.42	25.7	-29.3
1k	26.5	20.1	1.41	20.9	-33.1
1.25k	24.1	15.5	1.30	19.3	-31.7
1.6k	20.8	12.8	1.14	16.4	-31.6
2k	19.4	11.4	1.12	15.2	-29.8
2.5k	17.8	9.7	1.05	13.8	-28.2
3.15k	16.0	10.2	1.08	11.3	-27.7

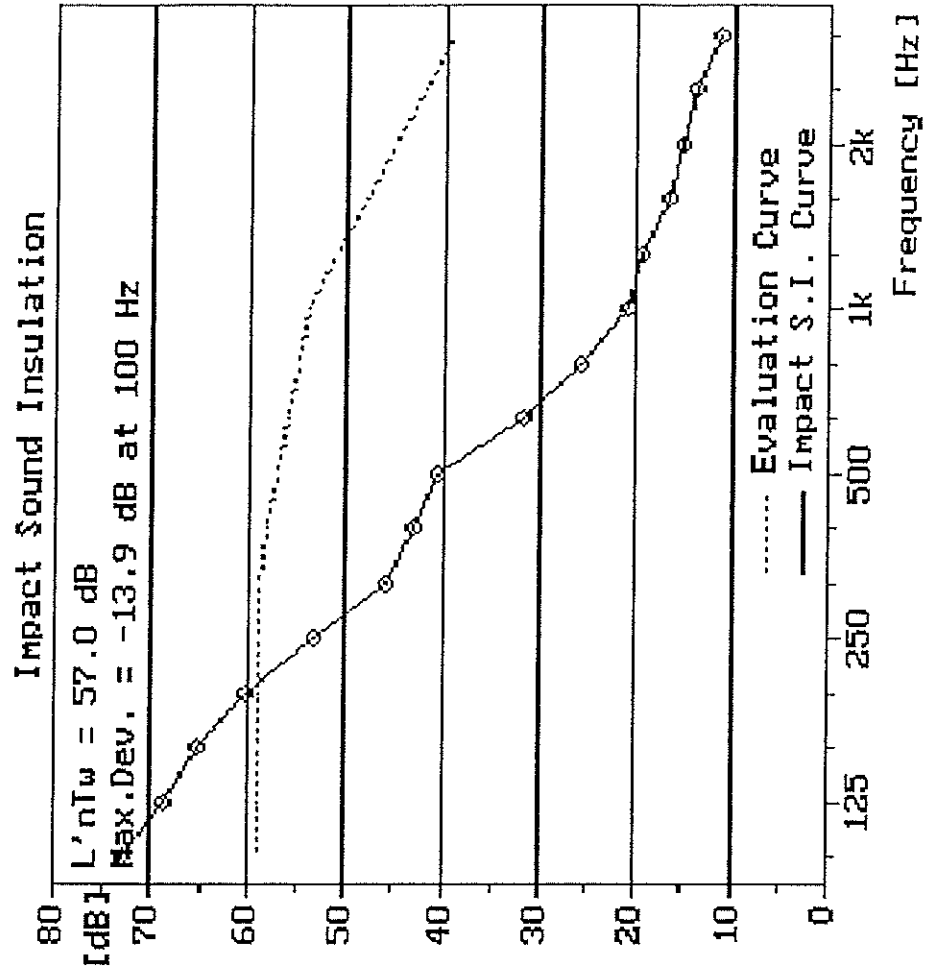
L'nTw = 57 dB
Max.Dev. = -13.9 dB at 100Hz
Sum Dev. = -31.2 dB

Number of marked files :
.L2S : 4 files
.B2S : 1 files
.T2S : 1 files

Measured Impact Sound Insulation

Jobname: 4808LS

Freq. [Hz]	L'nT [dB]
100	72.9
125	68.7
160	65.3
200	60.3
250	53.2
315	45.9
400	42.9
500	40.6
630	31.7
800	25.7
1k	20.9
1.25k	19.3
1.6k	16.4
2k	15.2
2.5k	13.8
3.15k	11.3

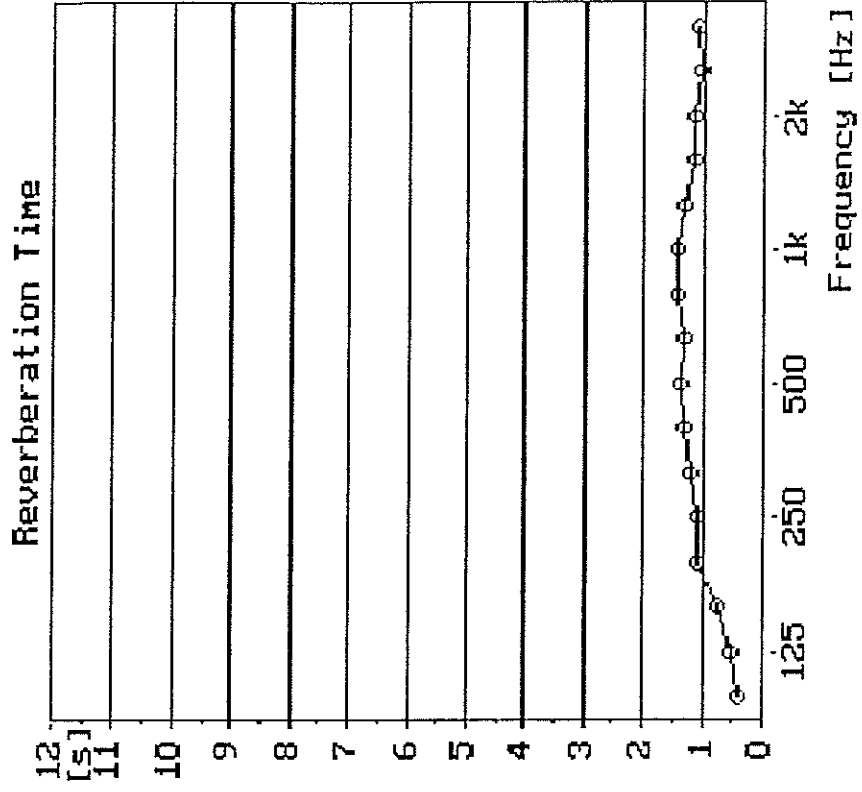
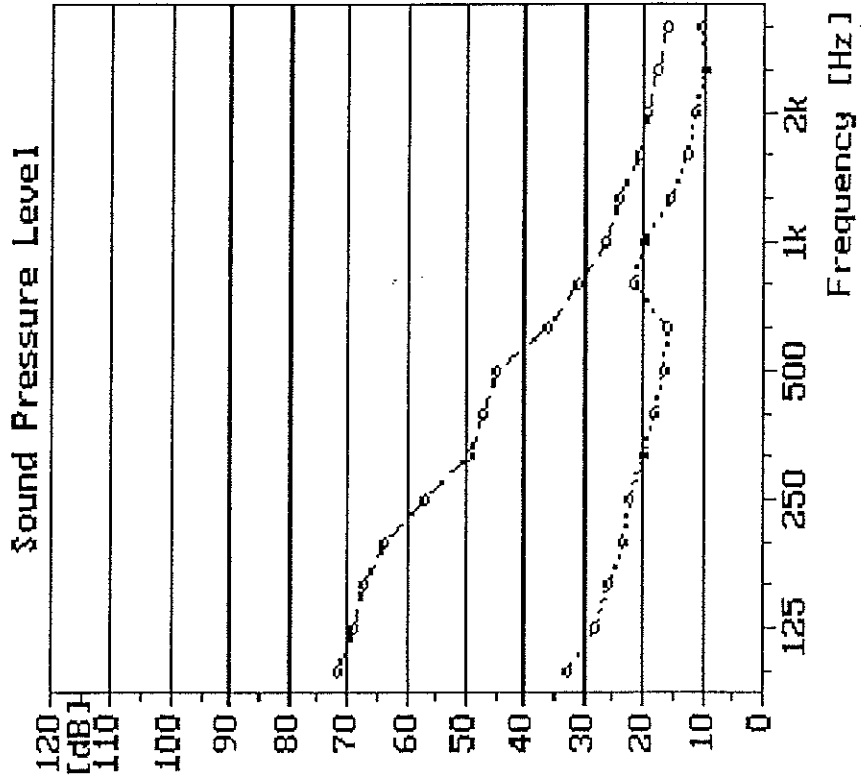


Impact Sound Insulation, Measured SPL and T60

Jobname: 4808L\$

— Reverberation Time, T2
in the Receiving Room

---- Receiving Room Level, L2
..... Background Noise Level, B2
in the Receiving Room



Airborne Sound Insulation
Jobname: 4808BE

Freq. Hz	L1A dB	L2A dB	B2A dB	T2A s	DnT dB	Dev. dB
100	87.6	57.7	24.7	0.48	29.8	-4.2
125	90.8	57.1	27.1	0.55	34.1	-2.9
160	98.2	66.8	19.5	0.59	32.2	-7.8
200	98.5	61.7	21.9	0.82	38.9	-4.1
250	102.5	62.2	16.0	1.20	44.1	-1.9
315	102.6	59.7	14.6	1.16	46.6	-2.4
400	102.9	56.2	17.5	1.21	50.6	-1.4
500	102.0	53.1	14.8	1.30	53.1	0.1
630	101.7	48.5	17.0	1.24	57.1	3.1
800	101.0	44.7	22.1	1.20	60.1	5.1
1k	100.5	40.3	20.3	1.21	64.1	8.1
1.25k	102.4	38.6	12.4	1.21	67.6	10.6
1.6k	104.8	38.7	11.6	1.16	69.8	12.8
2k	103.7	35.7	10.6	1.15	71.7	14.7
2.5k	102.2	31.6	9.1	1.06	73.9	16.9
3.15k	101.7	26.3	10.5	1.11	78.8	21.8

DnTw = 53 dB
Max.Dev. = -7.8 dB at 160Hz
Sum Dev. = -24.7 dB

Number of marked files :
.L1A : 2 files
.L2A : 2 files
.B2A : 1 files
.T2A : 1 files

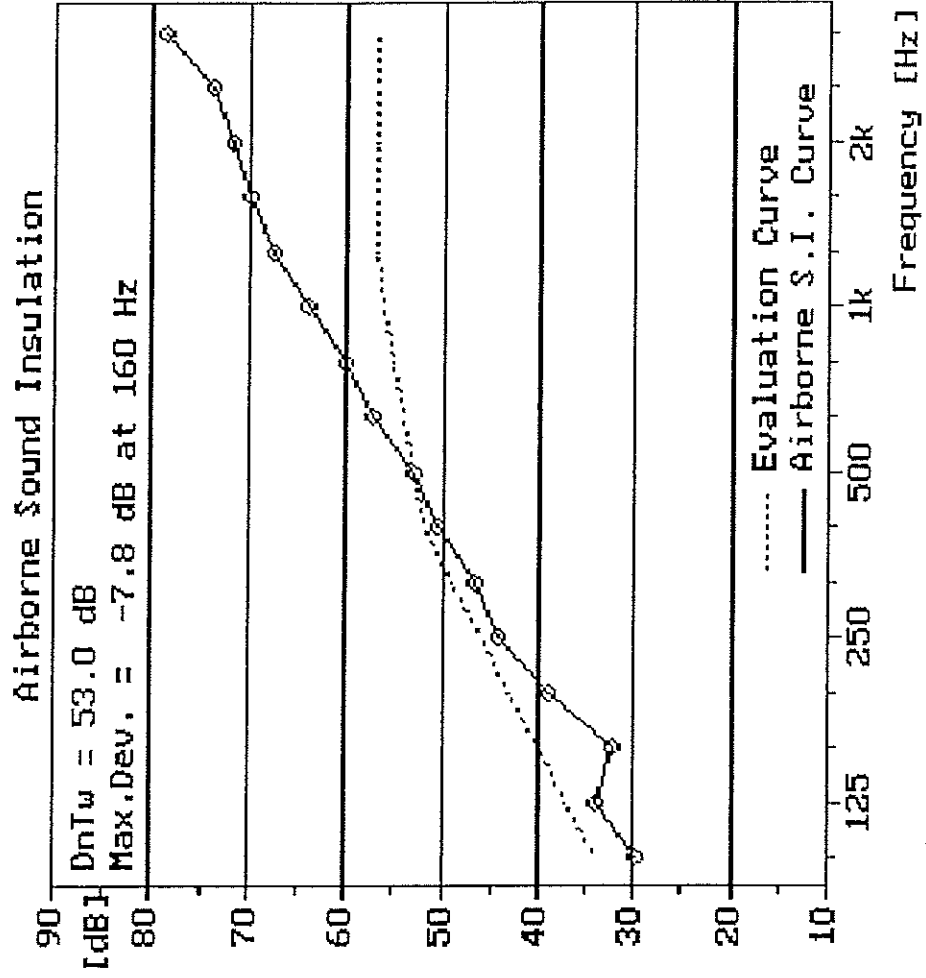
Measured Airborne Sound Insulation

Jobname: 4808BE

Source Room:

Receiving Room:

Freq. [Hz]	DnT [dB]
100	29.8
125	34.1
160	32.2
200	38.9
250	44.1
315	46.6
400	50.6
500	53.1
630	57.1
800	60.1
1k	64.1
1.25k	67.6
1.6k	69.8
2k	71.7
2.5k	73.9
3.15k	78.8

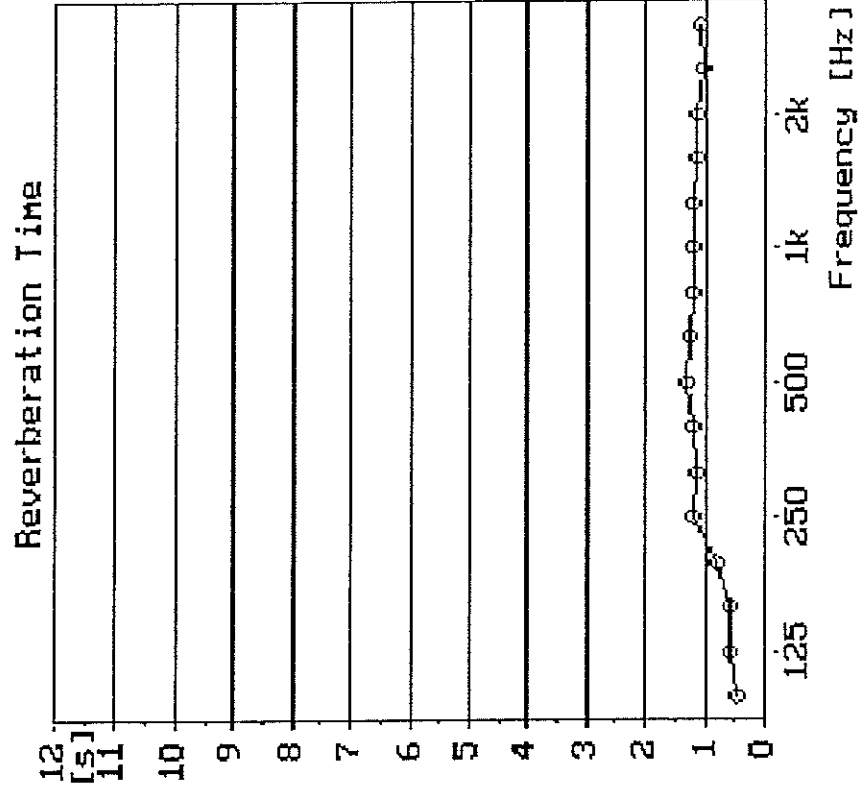
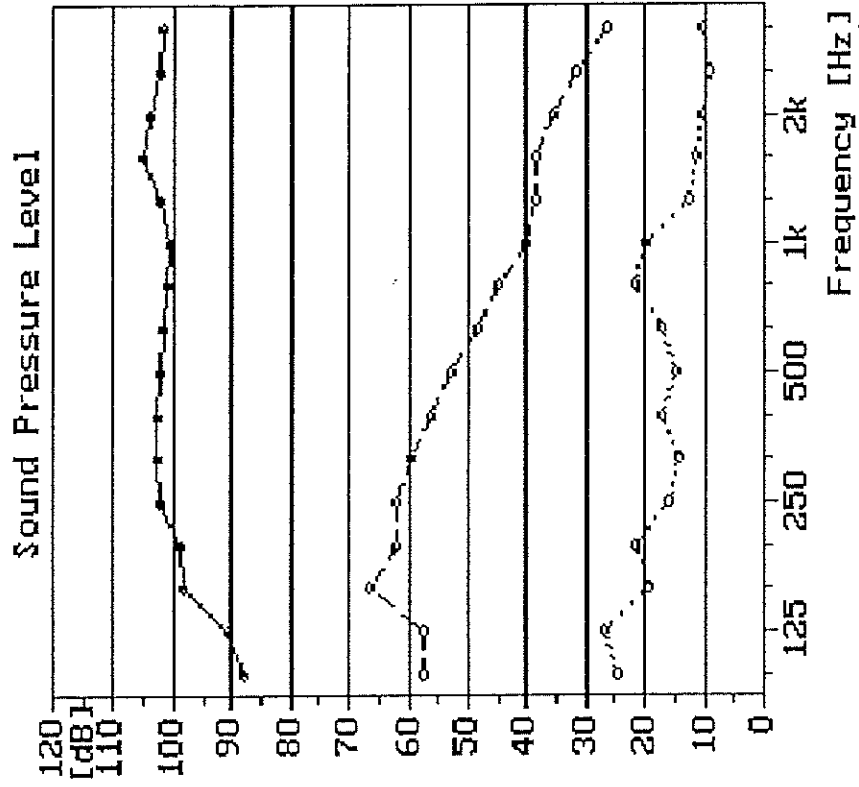


Airborne Sound Insulation, Measured SPL and T60

Jobname: 48088E

- Source Room Level, L1
- Receiving Room Level, L2
- Background Noise Level, B2

- Reverberation Time, T2
- in the Receiving Room



Impact Sound Insulation
Jobname: 4808BS

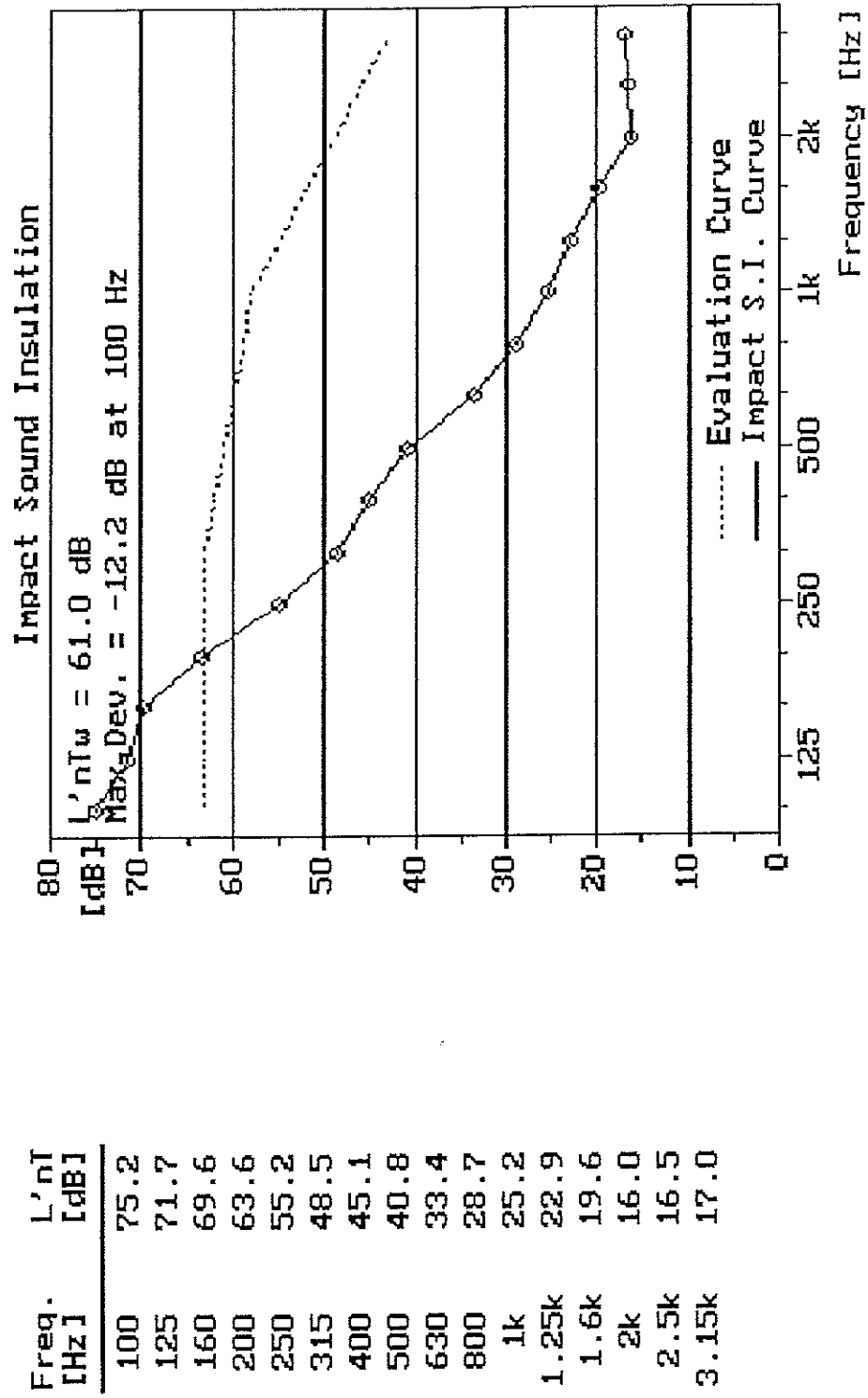
Freq.	L2S	B2S	T2S	L'nT	Dev.
100	75.0	24.7	0.48	75.2	12.2
125	72.1	27.1	0.55	71.7	8.7
160	70.3	19.5	0.59	69.6	6.6
200	65.8	21.9	0.82	63.6	0.6
250	59.0	16.0	1.20	55.2	-7.8
315	52.2	14.6	1.16	48.5	-14.5
400	49.0	17.5	1.21	45.1	-16.9
500	44.9	14.8	1.30	40.8	-20.2
630	37.3	17.0	1.24	33.4	-26.6
800	32.5	22.1	1.20	28.7	-30.3
1k	29.6	20.3	1.21	25.2	-32.8
1.25k	26.7	12.4	1.21	22.9	-32.1
1.6k	23.3	11.6	1.16	19.6	-32.4
2k	20.2	10.6	1.15	16.0	-33.0
2.5k	19.8	9.1	1.06	16.5	-29.5
3.15k	20.5	10.5	1.11	17.0	-26.0

L'nTw = 61 dB
Max.Dev. = -12.2 dB at 100Hz
Sum Dev. = -28.1 dB

Number of marked files :
.L2S : 4 files
.B2S : 1 files
.T2S : 1 files

Measured Impact Sound Insulation

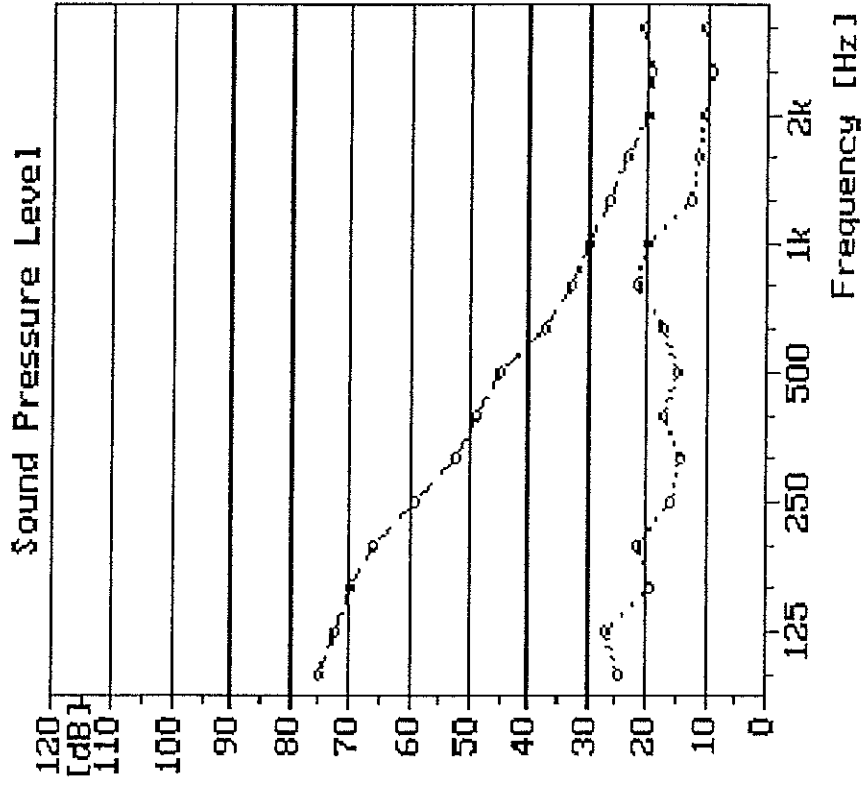
Jobname: 4808BS



Impact Sound Insulation, Measured SPL and T60

Jobname: 4808BS

--- Receiving Room Level, L2
..... Background Noise Level, B2
in the Receiving Room



— Reverberation Time, T2
in the Receiving Room

