NOISE IMPACT ASSESSMENT

REPORT REFERENCE: **NCSL1527**

ACTON GATE AUDIO
56 PEN-Y-BRYN, WREXHAM, LL13 7HY
15TH SEPTEMBER 2026

Issue 1

NOISE CONTROL SOLUTIONS LIMITED

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REVISION HISTORY

Issue Number	Issue Date	Revision Details	Approved By
1	15/09/2026	First Issue	AT

1 INTRODUCTION

Noise Control Solutions Limited (NCSL) has been commissioned by Acton Gate Audio to undertake a noise impact assessment for the proposed 6no residential dwellings at 56 Pen-Y-Bryn, Wrexham, LL13 7HY. The assessment is required in order to accompany the planning application P/2026/0415 which is to be considered by Wrexham County Borough Council. The scope of this application is the introduction of 6no. residential dwellings across the first-floor level, and partially to the ground-floor level.

Consultee comments were made by Mr Roger Mapleson, Head of Service Public Protection for Wrexham County Borough Council following submission of the planning application. The acoustic considerations for the development are considered by Mr Roger Mapleson to be;

1. Due to the existing commercial use of the proposal a scheme of noise insulation and attenuation measures between the commercial and residential usage, to include both relevant floors and walls in compliance with Building Regulations Guidance: Part E - Resistance to the Passage of Sound, has been submitted to, and approved in writing by, the Local Planning Authority. To include a scheme for the permanent retention of any proposed mitigation.

2. Due to the A5152 being a busy access road into Wrexham and the presence of commercial units, including a garage and licensed premises a noise survey shall be carried out, and a detailed report of the survey findings submitted to, and approved in writing by, the Local Planning Authority. The noise survey shall determine noise levels for both Day (07:00 – 23:00 hours) and Night (23:00 – 07:00 hours), having regard to Planning Policy Wales (PPW) Guidance, Technical Advice Note (TAN) 11 – Noise. The report of the noise survey findings shall include:

    a. Noise levels arising from day / night time activities in the vicinity of the proposed development site and the impact upon the proposed accommodation, and

    b. A detailed scheme of noise insulation and / or attenuation measures so designed to safeguard the amenity of the occupants of the proposed accommodation.

In order to address these considerations, a noise impact assessment and acoustic design specifications have been provided by NCSL, details of which are shown within this report.

[redacted]

2 COMPETENCE

This report has been prepared by Mr Andrew Todd, a corporate member of the Institute of Acoustics, a holder of an MSc in Acoustics and a Chartered Engineer registered with the United Kingdom Engineering Council. Andrew has over 18 years of experience as an acoustic consultant/engineer working in various aspects of acoustics.

3 SUMMARY OF TERMS, DESCRIPTORS & QUANTITIES

Within this report, several acoustic descriptors and quantities are referred to. Due to their specialised nature, the following summary is provided.

DECIBELS (dB): Ten times the logarithm (base 10) of the ratio between a measured quantity and a reference quantity. For sound pressure levels defined within this report, the reference quantity is 20 Micropascals (µPa).

A-WEIGHTING: The filtering of acoustic signals in order to provide a closer approximation to the human hearing response. Measurements with this weighting applied are denoted with "(A)", for example, "dB(A)".

NTH PERCENTILE NOISE LEVEL ($L_{AN,T}$): The A-weighted sound pressure level, in decibels, exceeded for N% of the measurement duration (T). This metric is generally used to assess background noise levels (L_{A90}) as it allows for the removal of non-constant noise sources, for example, passing vehicles. The subscript 'T' defines the measurement duration.

EQUIVALENT CONTINUOUS NOISE LEVEL ($L_{AEQ,T}$): The logarithmically averaged sound pressure level, in decibels, over the measurement duration (T) with A-weighting applied. The subscript 'T' defines the measurement duration.

FAST TIME WEIGHTING: The integration time constant of the measurement. Fast time weighting, denoted by the subscript 'F', integrates sound pressure levels over 0.125 seconds.

MAX LEVEL ($L_{AF\ MAX}$): The maximum reported RMS sound pressure level during a measurement period. The level is A-weighted and is calculated with a Fast time weighting.

DAY-TIME AND NIGHT-TIME PERIODS: Following guidance contained within BS 4142:2014, the day-time period is defined as 07:00 to 23:00 and the night-time period is defined as 23:00 to 07:00.

NOISE SENSITIVE RECEPTOR (NSR): A premises or area which is sensitive to noise disturbance. This is generally an existing, or future residential premises close to a proposed development.

SOUND POWER LEVEL (L_W): The sound energy radiated per unit time by a sound source, measured in Watts (W) on a decibel scale with a reference value of 10^{-12} W.

DNTW+CTR: Standardised level difference + spectrum adaption term (Ctr). A single figure value of airborne sound insulation performance corrected for room characteristics.

LNTW: Standardised impact sound pressure level. A measurement of impact sound insulation corrected for room characteristics.

4 APPLICABLE LITERATURE

4.1 PLANNING POLICY WALES

Planning Policy Wales (PPW), published by the Welsh Government, sets out the land use planning policies of the Welsh Government and provides the policy framework for the effective preparation of Local Development Plans. PPW is supported by Technical Advice Notes, circulars and policy clarification letters, which together comprise national planning policy in Wales.

In respect of noise and soundscape, PPW requires planning decisions to consider the effects of pollution and other environmental impacts on people, communities and the natural environment. The policy promotes a preventative approach, whereby potentially harmful effects are avoided or minimised through good design, appropriate siting and the use of mitigation measures where necessary.

PPW also places emphasis on placemaking and the creation of healthy, high-quality environments. In the context of this assessment, consideration has therefore been given to whether existing environmental noise sources could affect the amenity of future residents of the proposed development, and whether suitable mitigation can be incorporated into the design.

4.2 TECHNICAL ADVICE NOTE 11: NOISE

Technical Advice Note 11: Noise (TAN 11), published by the Welsh Government, provides technical guidance on the assessment of noise within the planning system in Wales. TAN 11 should be read alongside Planning Policy Wales and is intended to assist local planning authorities in considering noise-sensitive development and development that may generate noise.

TAN 11 recognises that noise can be a material planning consideration and that the planning system has an important role in ensuring that noise-sensitive uses are appropriately located and protected. The guidance advises that, where noise-sensitive development is proposed in areas affected by existing noise sources, the likely noise exposure should be considered and, where necessary, mitigation measures should be incorporated into the scheme.

4.3 BS 8233:2014 GUIDANCE ON SOUND INSULATION AND NOISE REDUCTION FOR BUILDINGS

BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings (BS 8233:2014) provides guidance on internal noise levels within dwellings allowing for sufficient resting and sleeping conditions, as shown in Table 1. However, it is also noted that these values may be relaxed by 5dB where a development is considered necessary or desirable with reasonable internal conditions still achieved.

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35dB $L_{Aeq,16hour}$	N/A
Dining	Dining room	40dB $L_{Aeq,16hour}$	N/A
Sleeping	Bedroom	35dB $L_{Aeq,16hour}$	30dB $L_{Aeq,8hour}$ 45dB L_{Amax}

TABLE 1 - BS 8233:2014 RECOMMENDATIONS FOR INDOOR NOISE LEVELS

BS 8233:2014 also provides guidance as to acceptable external noise levels, as shown in Table 2.

Activity	Location	Desirable Noise Level	Upper Guideline Level
Relaxation	External Amenity Space	50dB $L_{Aeq,T}$	55dB $L_{Aeq,T}$

TABLE 2 - BS 8233:2014 RECOMMENDATIONS FOR EXTERNAL NOISE LEVELS

BS 8233:2014, however, does recognise that these external guideline values are not achievable in all circumstances where development may be desirable. The standard also provides guidance on estimated noise reduction levels of commonly used building materials and constructions.

4.4 APPROVED DOCUMENT E

Approved Document E provides guidance on the resistance to the passage of sound in domestic buildings and schools. This guidance applies to new buildings, alterations to pre-existing premises, and buildings being converted to flats and Houses of Multiple Occupancy (HMO(s)).

The document provides guidance on the internal sound insulation between dwellings, including the transmission of sound between walls, ceilings, windows and floors. It includes unwanted sound travel within different areas of a building, including common areas within schools and buildings containing apartments, and in-between connecting buildings.

Two types of sound transmission and testing are covered by Approved Document E, airborne sound and impact sound.

Table 3 shows the acoustic performance required to pass the assessment in accordance with Approved Document E.

Test Type	New Build Premises	Converted Premises
Airborne Noise Assessment	≥ 45dB DnTw + Ctr	≥ 43dB DnTw + Ctr
Impact Noise Assessment	≤ 62dB LnTw	≤ 64dB LnTw

TABLE 3 - PERFORMANCE REQUIREMENTS FOR APPROVED DOCUMENT E

5 SITE DETAILS & BASELINE ENVIRONMENT

5.1 SITE LOCATION

The development in question is located at 56 Pen-Y-Bryn, Wrexham, LL13 7HY, (reference 'D1'). This is an existing ground floor commercial premises (Acton Gate Audio) with a proposed introduction of 6no. residential dwellings across the first-floor level, and partially to the ground-floor level.

The area surrounding the site is comprised of mixed residential and commercial premises. Of note, 'The Bowling Green Inn' public house is located in close proximity to the east of D1. Additionally, there is a significant public highway, (A5152) to the south-east of D1.

5.2 SITE PLAN

The proposed floor plan of D1 is shown below in Figure 1.



FIGURE 1 - PROPOSED D1 LAYOUT

5.3 NOISE SENSITIVE RECEPTOR LOCATION

One group of noise sensitive receptors has been identified in reference to this noise impact assessment, this is detailed in Table 4.

NSR Reference	NSR Address	Distance to Development
NSR1	Proposed New Dwellings	NA

TABLE 4 - NOISE SENSITIVE RECEPTOR DETAILS

5.4 MEASUREMENT LOCATIONS

Environmental noise measurements detailed within this report were taken using an outdoor microphone positioned at one measurement location (ML). ML1 was located protruding from existing first-floor windows at the D1 south-east façade (overlooking the A5152) at a distance of 1m from the property façade. This Measurement Location is considered to be representative of NSR1.

Location Reference	Location Description	Measured Values
ML1	D1 First-Floor SE Façade	L_{Aeq}, L_{AFMax}

TABLE 5 - MEASUREMENT LOCATIONS

5.5 LOCAL AREA MAP

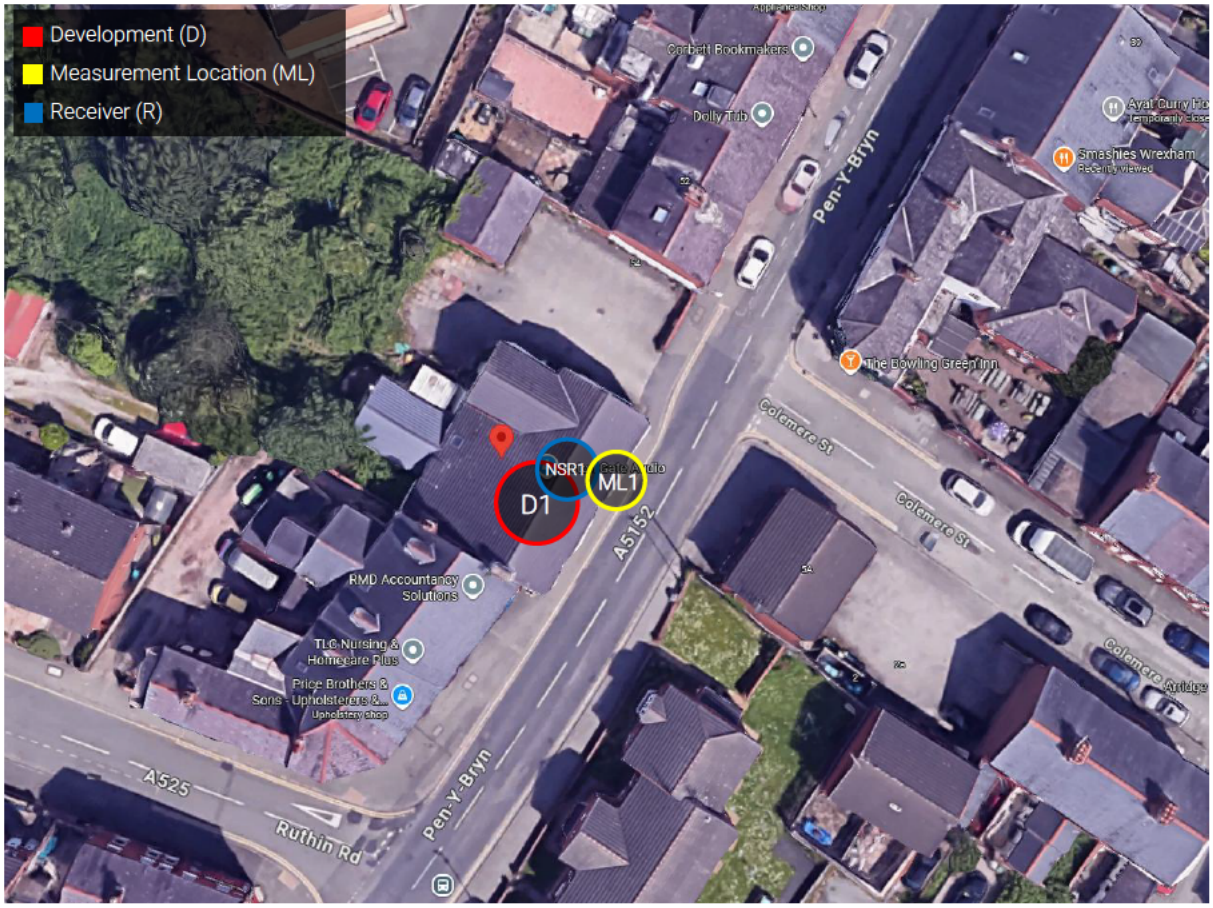


FIGURE 2 - LOCAL AREA MAP

5.6 SUBJECTIVE APPRAISAL OF THE EXISTING ACOUSTIC ENVIRONMENT

During a site visit on 2nd September 2026, a subjective assessment of the existing acoustic environment, in conjunction with a review of logged audio recordings during survey measurements, was conducted by NCSL.

At the noise sensitive receptor locations, the residual sound is dominated by noise from vehicle traffic along the A5152.

5.7 EQUIPMENT DETAILS

All measurements detailed within this report relating to the assessment of environmental noise levels were made using one Class 1 NTi Audio XL2 sound level meter (serial number A2A-19038-E0). Field calibration of the meter was conducted using a Class 1 Norsonic Type 1251 114dB acoustic calibrator (serial number 33421). Pre and post measurement sensitivity checks were conducted and showed no significant deviation to the nominal sound level meter sensitivity of 40.2mV/Pa or reference signal levels.

Details of these tests are documented in Table 6.

Test Reference	dB Level	Sensitivity	Comments
Pre-test calibration	114.0dB	40.2 mV/Pa	NA
Post-test check	114.0dB	40.2 mV/Pa	No significant variance

TABLE 6 - FIELD CALIBRATION DETAILS (S/N A2A-19038-E0)

All equipment is calibrated in accordance with IEC 61672-3, IEC 61260 and BS EN 60942:2003 where applicable. Calibration certificates are available upon request.

5.8 GROUND CONDITIONS

The ground was mostly dry throughout the survey period. Periods of heavy rain which would be expected to artificially increase the ambient sound level measurement results have been excluded from the measured dataset.

5.9 WEATHER CONDITIONS

Weather conditions during survey measurements were mostly clement and dry. Periods of heavy rain which would be expected to artificially increase the ambient sound level measurement results have been excluded from the measured dataset. Further details of the environmental conditions are shown in Table 7.

Parameter	Survey Start	Survey End
Barometric Pressure	1008 mbar	1021 mbar
Temperature	12° Celsius	11° Celsius
Wind Velocity	2.1 ms^{-1}	2.5 ms^{-1}
Cloud Cover	50%	100%

TABLE 7 - ENVIRONMENTAL CONDITIONS

5.10 ACOUSTIC MEASUREMENTS & DEFINED SOUND LEVELS

5.10.1 AMBIENT SOUND LEVEL

The ambient sound level defines the total sound pressure level in a specific location at a specific time, generally composed of acoustic radiation from several sources. Measurements of ambient sound level take the form of an A-weighted equivalent continuous sound pressure level ($L_{Aeq,T}$). This metric logarithmically averages the observed sound level over the measurement period.

In the case of this noise assessment, the ambient sound level has been measured, allowing the quantification of the sound level generated as a result of noise from existing sources contributing to the acoustic environment at NSR1. These measurements were taken at ML1. A −3 dB correction has been applied to measurements made approximately 1m from the façade to derive representative free-field levels.

The ambient sound level has been measured as an equivalent continuous A-weighted sound pressure level ($L_{Aeq,T}$) logged at 15-minute intervals between 1040hrs 2nd September 2026 and 0900hrs 6th September 2026. This measurement period covers weekdays and weekend periods in order to allow for a robust assessment, incorporating a significant sample of road traffic noise and noise from the nearby public house, which is expected to exhibit higher noise levels during the weekend period.

The discrete logged values have been logarithmically averaged over a daytime measurement time interval of 16-hours, between 0700hrs and 2300hrs on each full measurement day-time period.

The discrete logged values have been logarithmically averaged over a night-time measurement time interval of 8-hours, between 2300hrs to 0700hrs on each full measurement night-time period.

To provide a robust assessment, the daytime and night-time periods exhibiting the highest ambient sound levels during suitable weather conditions have been used within all subsequent calculations. Measurement periods affected by heavy rainfall have been excluded from the assessment. These time periods are detailed below within Table 8.

Time Period	Measurement Location	Representative Receptor	Measurement Date	Ambient Sound Level (dB $L_{Aeq,T}$)	Max L_{AFMax} (10^{th} Highest)
Day-Time	ML1	NSR1	0700 – 2300hrs Friday 4th September 2026	64dB $L_{Aeq,16hrs}$	-
Night-Time	ML1	NSR1	2300hrs Saturday 5th September – 0700hrs Sunday 6th September 2026	57dB $L_{Aeq,8hrs}$	77dB L_{AFMax}

TABLE 8 – EXISTING AMBIENT SOUND LEVEL (FAÇADE CORRECTED)

6 ASSESSMENT OF EXTERNAL NOISE SOURCES

6.1 DAYTIME MEASURED NOISE LEVELS

The proposed development includes 6no. residential dwellings. The measured noise levels at ML1 have been undertaken over a period which includes several full daytime and night-time periods.

The measured sound levels at the NSR façades have been considered against the internal noise guideline levels provided within BS 8233:2014.

6.1.1 OUTDOOR AMENITY AREAS

The proposed development does not include any outdoor amenity areas, and therefore this has not been considered further within this assessment.

6.1.2 NOISE IN HABITABLE ROOMS DURING THE DAYTIME

The free-field corrected daytime noise level at the south-east (front) façade of D1 is measured at 64dB $L_{Aeq,16hr}$. The internal noise guideline level for living rooms and bedrooms during the daytime is 35dB $L_{Aeq,16hr}$.

Adequate ventilation must be provided to habitable rooms which could be provided by an open window where an alternative is not provided.

An open window typically provides 13dB attenuation. With an open window for ventilation, the highest internal noise level in rooms could be up to 51dB(A) which would exceed the internal noise guideline level provided within BS 8233:2014.

Therefore, mitigation measures to provide adequate glazing, and an alternative to an open window which provides at least 29dB attenuation is required. This will ensure that habitable rooms within the proposed development achieve internal noise guideline levels. Full details are discussed in Section 6.4 of this report.

6.2 NIGHT-TIME MEASURED NOISE LEVELS

6.2.1 NOISE IN BEDROOMS DURING THE NIGHT-TIME

The free-field corrected night-time noise level at the south-east (front) façade of D1 is 57dB $L_{Aeq,8hr}$. The internal noise guideline level for bedrooms during the night-time is 30dB $L_{Aeq,8hr}$.

Adequate ventilation must be provided to habitable rooms which could be provided by an open window where an alternative is not provided.

An open window typically provides 13dB attenuation. With an open window for ventilation, the highest internal noise level in rooms could be up to 44dB(A) which would exceed the internal noise guideline level provided within BS 8233:2014.

Therefore, mitigation measures to provide adequate glazing, and an alternative to an open window which provides at least 27dB attenuation is required. This will ensure that habitable rooms within the proposed development achieve internal noise guideline levels. Full details are discussed in Section 6.4 of this report.

In addition, the L_{AFmax} levels must be considered during the night-time period. The free-field corrected night-time L_{AFmax} noise level (10^{th} highest) at the south-east (front) façade of the building is 77dB L_{AFmax}. The internal noise guideline level for bedrooms during the night-time is 45dB L_{AFmax}. Therefore, mitigation measures to provide adequate glazing, and an alternative to an open window which provides at least 32dB attenuation is required. This will ensure that habitable rooms within the proposed development achieve internal noise guideline levels. Full details are discussed in Section 6.4 of this report.

6.3 EXTERNAL NOISE ASSESSMENT SUMMARY

The internal noise levels will vary depending on the façade facing, glazing area and ventilation strategy. In the case of this assessment, the noise level incident at the façade has been considered in octave-band levels. A full assessment of the predicted internal noise levels is shown in Appendix B.

6.4 NOISE MITIGATION MEASURES

The proposed development comprises 6no. residential dwellings. It is assumed that the existing premises is fitted with double glazing units of at least 4mm/6-20mm/4mm configuration.

The following sections detail NCSL's recommendations in terms of acoustic mitigation measures.

6.4.1 MITIGATION MEASURES

In order to meet the requirements of BS 8233:2014, it is recommended that habitable rooms are fitted with background acoustic ventilators, such as the Rytons AAC125HP Super Acoustic. It is recommended that the client checks ventilation requirements of Approved Document F with a suitable consultant, to ensure that this proposal is sufficient.

These measures are expected to allow for the acoustic requirements of BS 8233:2014 to be met.

The calculated internal noise levels, based upon the mitigation measures shown above, are detailed in Table 9.

Ref.	Plot Reference	Room Reference	Predicted Internal Noise Levels			Mitigation Requirements	
			Daytime L_{Aeq}	Night-Time L_{Aeq}	Night-Time L_{AMax}	Vents	Glazing
1	Flat 3	Lv/K	31	24	40	Rytons AAC125HP Super Acoustic	4/6-20/4mm
2	Flat 4	Lv/K	33	26	43	Rytons AAC125HP Super Acoustic	4/6-20/4mm
3	Flat 5	Lv/K	33	26	43	Rytons AAC125HP Super Acoustic	4/6-20/4mm
4	Flat 6	Lv/K	31	24	41	Rytons AAC125HP Super Acoustic	4/6-20/4mm
5	Flat 3	Bedroom	34	26	41	Rytons AAC125HP Super Acoustic	4/6-20/4mm
6	Flat 4	Bedroom	35	27	42	Rytons AAC125HP Super Acoustic	4/6-20/4mm
7	Flat 5	Bedroom	35	27	43	Rytons AAC125HP Super Acoustic	4/6-20/4mm
8	Flat 1	Bedsit	32	25	41	Rytons AAC125HP Super Acoustic	4/6-20/4mm
9	Flat 2	Bedsit	32	25	41	Rytons AAC125HP Super Acoustic	4/6-20/4mm

TABLE 9 – PREDICTED INTERNAL NOISE LEVELS

The acoustic performance of the required mitigation measures is given below in Table 10.

Mitigation	Sound Reduction $D_{n,e}$ (dB)						
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz
Rytons AAC125HP Super Acoustic	26.4	42.2	36.5	37.5	43.0	56.7	64.3

TABLE 10 - NOISE MITIGATION REQUIREMENTS (FIGURES IN dB)

In addition, it is assumed that habitable rooms located on the second floor will exhibit the following mitigation to minimise noise break-in via D1 roof area:

- Existing roof tiles (assumed 14mm).
- Existing roof joists.
- Joists lined with 2no 15mm SoundBloc Plasterboards (or 1no. 15mm SoundBloc, 1no 15mm FireLine, to be confirmed with relevant expert).

This mitigation is detailed within Appendix C.

Any alternative products must meet or exceed the performance values shown above. Please contact NCSL for additional information if required.

7 INTERNAL NOISE MITIGATION

As detailed within Section 1 of this report, Wrexham County Borough Council have requested a separating element acoustic design specification, between the existing commercial premises and the proposed residential dwellings, to meet the requirements of Approved Document E.

Details of these specifications are provided within this section of the report.

7.1 SEPARATING FLOOR DETAIL

It is understood that previous works have been undertaken within the ground floor commercial premises in order to increase the sound insulation performance of the separating ceiling / floor construction. The existing separating element detail is understood to be:

- Existing floorboards.
- Existing floor joists (~180mm).
- Existing ceiling.
- Independent ceiling installed 200mm below existing ceiling. Independent ceiling frame fixed to walls with no connection to existing joists / ceiling / structural steels.
- Insulation – assumed to be 100mm mineral wool (minimum 10kg/m^3).
- 2no. 15mm SoundBloc plasterboards (or 1no. 15mm SoundBloc board & 1no. 15mm FireLine board).
- 3mm plaster skim.

As shown in Appendix C, this construction is expected to provide a suitable basis for achieving the performance requirements of Approved Document E. Final compliance should be demonstrated by pre-completion airborne sound insulation testing.

NOTE: For preliminary design purposes, a conservative 10dB allowance has been applied between predicted laboratory and expected on-site performance to account for flanking transmission and construction variability.

7.2 SEPARATING WALL DETAIL

As shown in Figure 1, Flat 1 shares a separating wall element with the existing ground floor commercial premises. This wall will likely require upgrades to meet the requirements of Approved Document E.

If the existing wall structure is of single brick construction, the detail below is recommended:

- Existing 4" brick or blockwork. The brickwork must be repaired where there are gaps and holes.
- Minimum 25mm void between the new studwork, and existing brickwork.
- 50mm stud (metal/timber) to be installed independent of the existing brick with 50mm mineral wool insulation installed between the studs (min 10kg/m^3 density).
- 2no. 15mm SoundBloc board (or 1no. 15mm SoundBloc board & 1no. 15mm FireLine board – to be confirmed with relevant expert).
- Plaster skim.

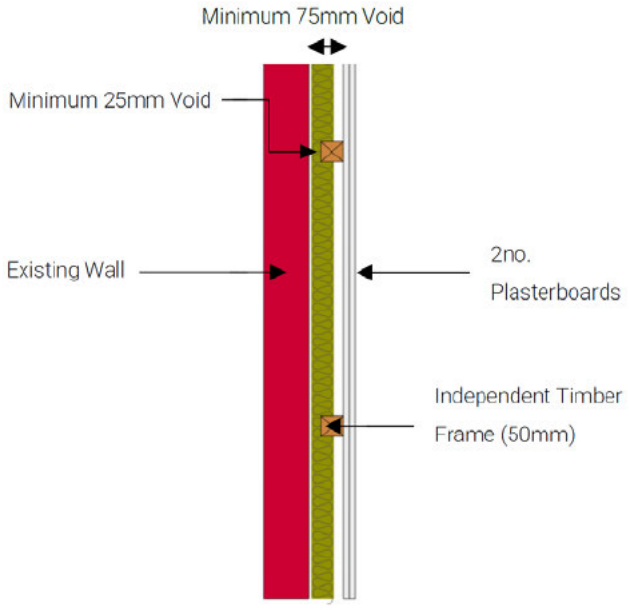


FIGURE 3 - EXISTING WALL TREATMENT

Further details are shown in Appendix C.

NOTE: Existing solid brick walls with a plaster finish (240mm) are expected to provide a suitable basis for achieving the performance requirements of Approved Document E. Final compliance should be demonstrated by pre-completion airborne sound insulation testing.

8 NOISE IMPACT ASSESSMENT

The existing ambient sound level has been measured at the proposed development site, incorporating several full daytime and night-time periods. In order to provide a robust assessment, the day-time and night-time periods exhibiting the highest ambient sound levels and suitable weather conditions have been used in all subsequent calculations.

These measurements have been used to define the mitigation measures required for each dwelling. The mitigation measures consider the daytime and night-time L_{Aeq} time-averaged ambient sound level and L_{AFMax} levels during the night-time period.

As shown within Table 9 and Appendix B, assuming the mitigation measures detailed within Section 6.4 of this report are followed, it is expected that the habitable rooms of the development will meet the acoustic requirements of BS 8233:2014 in relation to indoor ambient sound levels.

In addition, an acoustic design specification has been prepared and is detailed within Section 7 of this report. It is expected that this construction will meet the requirements of Approved Document E.

Therefore, the development is not expected to result in an adverse noise impact for future residents of the proposed development.

9 CONCLUSIONS & RECOMMENDATIONS

Noise Control Solutions Limited (NCSL) has been commissioned by Acton Gate Audio to undertake a noise impact assessment for the proposed 6no residential dwellings at 56 Pen-Y-Bryn, Wrexham, LL13 7HY. The assessment is required in order to accompany the planning application P/2026/0415 which is to be considered by Wrexham County Borough Council. The scope of this application is the introduction of 6no. residential dwellings across the first-floor level, and partially to the ground-floor level.

Consultee comments were made by Mr Roger Mapleson, Head of Service Public Protection for Wrexham County Borough Council following submission of the planning application. The acoustic considerations for the development are considered by Mr Roger Mapleson to be;

1. Due to the existing commercial use of the proposal a scheme of noise insulation and attenuation measures between the commercial and residential usage, to include both relevant floors and walls in compliance with Building Regulations Guidance: Part E - Resistance to the Passage of Sound, has been submitted to, and approved in writing by, the Local Planning Authority. To include a scheme for the permanent retention of any proposed mitigation.

2. Due to the A5152 being a busy access road into Wrexham and the presence of commercial units, including a garage and licensed premises a noise survey shall be carried out, and a detailed report of the survey findings submitted to, and approved in writing by, the Local Planning Authority. The noise survey shall determine noise levels for both Day (07:00 – 23:00 hours) and Night (23:00 – 07:00 hours), having regard to Planning Policy Wales (PPW) Guidance, Technical Advice Note (TAN) 11 – Noise. The report of the noise survey findings shall include:

    a. Noise levels arising from day / night time activities in the vicinity of the proposed development site and the impact upon the proposed accommodation, and

    b. A detailed scheme of noise insulation and / or attenuation measures so designed to safeguard the amenity of the occupants of the proposed accommodation.

The noise impact assessment includes data from an ambient sound level survey which was conducted between 1040hrs 2nd September 2026 and 0900hrs 6th September 2026. These time periods were selected to reflect the anticipated maximum noise levels from the nearby public house, and to provide representative noise levels due to traffic along the A5152, therefore ensuring a robust assessment.

Acoustic mitigation measures have been proposed by NCSL, which are detailed within Section 6 of this report. The internal noise levels during the daytime and night-time periods, assuming the introduction of these proposed measures, are shown in full in Appendix B. The predicted internal noise levels within habitable rooms are expected to be within the requirements of BS 8233:2014.

In addition, an acoustic design specification has been prepared and is detailed within Section 7 of this report. The proposed construction is expected to provide a suitable basis for achieving the performance requirements of Approved Document E. Final compliance should be demonstrated by pre-completion airborne sound insulation testing.

The development is therefore expected to result in a low noise impact on future residents of the proposed residential dwellings.

Based on the findings of this assessment, NCSL considers that there should be no objection to the proposed development on noise grounds, subject to implementation of the mitigation measures described in this report.

The design specifications provided by NCSL have been considered only from an acoustic perspective. Any other requirements (such as fire, structural, ventilation etc) should be assessed by a suitable consultant.

Any recommendations contained within this report should be approved by the relevant authority before works commence.

10 UNCERTAINTY

All measurements within this report have been taken under repeatable conditions and therefore any uncertainty in the result will be low.

To reduce measurement uncertainty, the following steps have been taken.

- The background noise measurements were undertaken during dry weather and with wind speeds of less than 5m/s.
- The results of each measurement period were reported to the nearest 0.1dB.
- Noise measurements were made using one Class 1, integrating sound level meter.

All noise impact assessments and similar acoustic assessments inherently rely upon estimations and assumptions. This report should therefore be considered within this context.

APPENDIX A: ACOUSTIC SURVEY DATA

Date	Time	LAeq	LAF90.0%	LAF10.0%	LAFmax	LAFmin	LZeq	LCeq
02/09/2026	10:45:00	68.9	57.3	71.7	93.2	48.2	81.7	78.2
02/09/2026	11:00:00	68.8	58.1	71.9	83.6	45.5	82	76.2
02/09/2026	11:15:00	71.2	61.7	74.6	81.5	52.1	82.6	76.9
02/09/2026	11:30:00	70.8	59	74.1	84.8	48.3	83.1	77.7
02/09/2026	11:45:00	70.8	58.9	72.8	95.5	47	81.9	76.5
02/09/2026	12:00:00	68.3	56.6	71.1	82.9	47.1	80.4	75.9
02/09/2026	12:15:00	67.5	56	70.4	78.3	47.9	81.5	77
02/09/2026	12:30:00	68	57.6	70.8	83.3	49.9	79.1	75.6
02/09/2026	12:45:00	68.7	57.1	72.1	78	50.1	79.1	76.8
02/09/2026	13:00:00	69.9	58.3	73.2	82.4	47.5	79.2	77.1
02/09/2026	13:15:00	69.1	57.8	71.9	88.7	48.4	78.4	75.7
02/09/2026	13:30:00	68	57.1	70.7	82.5	48	82.9	76.9
02/09/2026	13:45:00	68.3	58.2	71	86.8	49	83.8	78.8
02/09/2026	14:00:00	68.9	56.8	71.4	86.5	49.7	84	77.2
02/09/2026	14:15:00	66.8	54.8	70.1	78.6	47.3	85.1	77.2
02/09/2026	14:30:00	67.1	58.7	69.1	91	50.7	81.6	77.4
02/09/2026	14:45:00	66.9	55.7	70	84.9	45.2	79.6	77.5
02/09/2026	15:00:00	67.8	57.9	69.3	84.4	44.4	81	78.4
02/09/2026	15:15:00	66.5	56.7	69	86.3	46.3	80.7	77.9
02/09/2026	15:30:00	67	60	69.8	80.2	49.9	82.4	78.9
02/09/2026	15:45:00	66.6	58.5	69.4	80.3	49.7	82.1	77.3
02/09/2026	16:00:00	66.4	58.8	69	90.1	48.8	81.2	77.1
02/09/2026	16:15:00	72.6	57.2	69.9	101.8	46.9	81.6	77.9
02/09/2026	16:30:00	66.6	58.3	69.4	87.8	49.3	79.3	77
02/09/2026	16:45:00	67.7	61.6	70.2	80.4	52.8	79.3	77.6
02/09/2026	17:00:00	68.5	60.9	71.4	80.4	52.6	79	77.4
02/09/2026	17:15:00	68.1	61.8	70.8	79.8	52.8	80.5	78.4
02/09/2026	17:30:00	67.3	60.1	70.3	80.2	49.9	80.4	78.4
02/09/2026	17:45:00	67.6	61.5	70.1	82	48.9	80.5	79.1
02/09/2026	18:00:00	66.9	57.9	69.9	79.8	48.1	79.5	78.2
02/09/2026	18:15:00	67.6	55.2	70.1	85.9	44.4	79.1	77
02/09/2026	18:30:00	65.9	55.9	69.3	77.7	46	78.5	76.2
02/09/2026	18:45:00	67.8	51.1	69	93.9	41.3	81	78.8
02/09/2026	19:00:00	65.4	52.1	68.8	79.8	44.3	78.2	74.8
02/09/2026	19:15:00	65.8	51.8	69.4	81.3	43.9	79.5	75.9
02/09/2026	19:30:00	65.2	52.3	68.4	85.2	44.5	79.9	74.3
02/09/2026	19:45:00	65.7	52.4	69.2	84.8	44.5	79.8	75.1
02/09/2026	20:00:00	64.9	49.7	69	82.1	42.7	77.2	74.2
02/09/2026	20:15:00	65.1	51.9	69	82	46	76.6	73.9

02/09/2026	20:30:00	63.6	46.1	68.1	79.5	41.5	74.8	72.2
02/09/2026	20:45:00	64.3	45.9	68.3	83.5	37.6	75.4	73.4
02/09/2026	21:00:00	63.2	45.7	67.8	79.7	38.6	77	71.6
02/09/2026	21:15:00	62.6	46.1	67.2	79.1	38.6	79.6	72.3
02/09/2026	21:30:00	63.1	47.8	67.2	78.6	39.6	76	74
02/09/2026	21:45:00	62	47.6	66.6	76.7	42.4	73.9	71.7
02/09/2026	22:00:00	61.2	42	65.7	78.5	37.5	73.8	71.2
02/09/2026	22:15:00	61.1	41.6	65.9	75.1	35.6	71.6	69.6
02/09/2026	22:30:00	62.2	44.2	66.7	79.1	35.1	72.8	70.9
02/09/2026	22:45:00	60	37.6	64.6	79.5	34	73.4	71.1
02/09/2026	23:00:00	59.4	38.5	63.5	77.3	32.9	71.5	68.1
02/09/2026	23:15:00	59.9	34.4	63.7	76.7	32	69.5	67.4
02/09/2026	23:30:00	57.6	33.9	61.8	74.6	29.3	68.3	65.3
02/09/2026	23:45:00	58.9	32.6	62	78.4	30.5	69.3	66.9
03/09/2026	00:00:00	56.9	31.7	59.6	76.9	29.9	69.1	64.5
03/09/2026	00:15:00	59.9	32	59.8	82.5	30.1	69.3	65.9
03/09/2026	00:30:00	54.1	30.3	53.9	73.2	28.1	62.9	60.4
03/09/2026	00:45:00	51.6	28.9	49.6	74.2	26.3	67.2	60.4
03/09/2026	01:00:00	53.5	27.7	50.9	76	25.9	65.6	61.2
03/09/2026	01:15:00	54.9	26.7	49.7	77.5	25.5	64.4	60.5
03/09/2026	01:30:00	58.3	30.6	58.6	79.1	28.9	67.3	64.5
03/09/2026	01:45:00	51.8	26.6	47	72	24.9	58.9	57.2
03/09/2026	02:00:00	55.2	26.4	53.9	76.5	24.7	62.4	60.1
03/09/2026	02:15:00	51.9	25.9	44.6	74.2	25.1	60.8	59.2
03/09/2026	02:30:00	54	26.1	51.1	76.2	25	61.7	60.5
03/09/2026	02:45:00	55.1	26	45.8	78.8	24.7	64.3	63.4
03/09/2026	03:00:00	50	27	45.9	73.3	25.8	56.3	54.9
03/09/2026	03:15:00	48.5	27.7	38.5	71.7	25.9	55.7	52.8
03/09/2026	03:30:00	58.4	29.4	50.1	84	27.2	70.1	68
03/09/2026	03:45:00	53.9	28.7	51.3	74.9	27.1	64	62
03/09/2026	04:00:00	52.9	29.5	45.6	75.3	27.8	66.3	59.7
03/09/2026	04:15:00	50.9	30.3	44.6	74.5	28.6	67.1	57.9
03/09/2026	04:30:00	56.9	31.2	55.8	77.6	29.4	67.8	62.4
03/09/2026	04:45:00	53.7	30.9	53.2	72.7	27.8	66.5	63
03/09/2026	05:00:00	58.5	32.7	60.3	78.3	30.6	70	66.1
03/09/2026	05:15:00	62.4	32.9	62.4	84.4	29.5	70.2	67.6
03/09/2026	05:30:00	62.4	37.7	66.5	79.4	33	75.2	73.1
03/09/2026	05:45:00	64.8	38.5	68.4	87.5	33.3	75.4	74
03/09/2026	06:00:00	65.8	41.1	68.7	87.6	32.4	73.4	72
03/09/2026	06:15:00	61.4	37.5	66.2	75.3	34.8	74	72.2
03/09/2026	06:30:00	62.2	40.9	66.7	77.7	35	72.7	69.8
03/09/2026	06:45:00	63.1	40.3	67.9	79.7	36.5	75.3	72.8
03/09/2026	07:00:00	66.7	45.5	69.8	89.1	39.7	75.7	73.7

03/09/2026	07:15:00	63.8	43.4	68.4	77	37.8	74.1	72.2
03/09/2026	07:30:00	65.3	47.4	69.4	82.3	38.3	74.4	72.8
03/09/2026	07:45:00	66.8	48	70.3	82.8	41.5	76.1	74.4
03/09/2026	08:00:00	66.8	54.2	70	84.8	46.1	77	75.2
03/09/2026	08:15:00	67.1	54.8	70.2	84.7	46.9	77.6	76.4
03/09/2026	08:30:00	67.7	59.8	70.4	82.7	51.3	80	78.4
03/09/2026	08:45:00	67	58	69.5	85.8	49.7	79.2	77.4
03/09/2026	09:00:00	67.8	58.7	69.8	90.8	45.9	79.8	77.8
03/09/2026	09:15:00	66.4	60.3	68.7	85.1	55.5	80.8	78.5
03/09/2026	09:30:00	65.7	58.5	67.6	87	54.3	80.6	77.7
03/09/2026	09:45:00	66.4	54.5	69.4	87.8	47.4	80.6	77.2
03/09/2026	10:00:00	66.8	52.9	70.1	83	42.8	80.7	77.2
03/09/2026	10:15:00	66.7	53.1	69.5	82.2	43.8	80.4	76.9
03/09/2026	10:30:00	65	52	67.9	82.7	43.1	79.1	75.1
03/09/2026	10:45:00	65.9	52.4	68.7	89.8	43.5	80	75.8
03/09/2026	11:00:00	65.3	54.4	68.2	84.1	43.6	79.5	76.7
03/09/2026	11:15:00	64.7	52.1	68.2	81.2	45.4	79.1	75.3
03/09/2026	11:30:00	65.7	52.5	68.4	87.6	44	80	77.9
03/09/2026	11:45:00	65.2	52.8	68.5	82.9	43.9	77.9	75.6
03/09/2026	12:00:00	65.5	54.5	68.7	79	41.1	79	77.6
03/09/2026	12:15:00	66.2	54.3	68.9	85.4	46.4	77.7	75.6
03/09/2026	12:30:00	65.9	53.8	68.7	81.2	43.9	79.5	76.4
03/09/2026	12:45:00	65.5	57.2	68.4	79.7	48.3	78.7	76.2
03/09/2026	13:00:00	65.9	55.3	69	80.1	47.5	78.1	76.2
03/09/2026	13:15:00	68.1	54	70	92.1	43.2	80.5	78.9
03/09/2026	13:30:00	65.8	54.7	69.1	80.5	46.9	78.4	76.8
03/09/2026	13:45:00	65.8	52.1	68.6	85.9	44.6	79.1	77.7
03/09/2026	14:00:00	65.7	54.2	68.8	82	46.9	77.4	75.6
03/09/2026	14:15:00	69.9	53.5	69.6	99.7	43.1	79	77.7
03/09/2026	14:30:00	69.7	56.6	69.8	92.1	47.2	79.1	77.3
03/09/2026	14:45:00	67.4	57.2	69.3	88.7	45.6	79.7	77.7
03/09/2026	15:00:00	67.9	56.8	69	87.6	48.4	79.2	77
03/09/2026	15:15:00	65.4	56.4	68.4	79.9	45.8	80.2	77.4
03/09/2026	15:30:00	67.1	59.7	67.9	93.4	47.7	81.4	78.5
03/09/2026	15:45:00	71	57.1	69	97.7	45.4	80.1	78
03/09/2026	16:00:00	66.9	56.8	68.7	92.8	46.7	79.9	77.8
03/09/2026	16:15:00	65.6	53.6	68.4	78	44.7	78.3	75.9
03/09/2026	16:30:00	67.2	55.5	69.2	88.5	46.6	81	76.8
03/09/2026	16:45:00	65.8	55.8	68.5	82.7	49.9	79.6	76.3
03/09/2026	17:00:00	66.5	57.7	68.8	87.5	48.3	82.6	79
03/09/2026	17:15:00	65.8	55.6	68.9	83.5	46.3	81.8	77
03/09/2026	17:30:00	66.2	57.5	68.6	83.7	47.9	81.2	78.3
03/09/2026	17:45:00	65.3	54.4	68.3	77.5	46.5	79.3	77.2

03/09/2026	18:00:00	65.4	56.1	68.7	76.3	44.4	79.1	76.6
03/09/2026	18:15:00	68.4	53.8	68.8	95	43.8	80.1	78.2
03/09/2026	18:30:00	66.4	54.1	69.1	87.7	43.7	78.5	76.8
03/09/2026	18:45:00	65.5	52.5	68.9	80.1	44.4	78.2	75.5
03/09/2026	19:00:00	65.1	52.7	68.4	82.6	46	78.9	76.9
03/09/2026	19:15:00	66.4	48.6	68.4	89.7	42.3	79.9	78.2
03/09/2026	19:30:00	65.4	51.5	68.4	86.3	44	78.1	75.9
03/09/2026	19:45:00	65.1	48.2	68.7	80.2	41	76.2	74.7
03/09/2026	20:00:00	69.2	50.3	68.6	100.2	41.7	80.7	79.3
03/09/2026	20:15:00	69.7	50.6	68.4	97.3	43.1	77.8	76
03/09/2026	20:30:00	63.8	49.8	67.7	85.5	43.5	77	73.3
03/09/2026	20:45:00	64.4	50.7	68.1	82.4	43.2	76.4	74
03/09/2026	21:00:00	63.3	48.5	67.2	80.1	38.3	74.2	72
03/09/2026	21:15:00	63.5	49.3	67.6	75.1	43.2	75.3	73
03/09/2026	21:30:00	63.6	45	66.6	87.1	39.2	78	76.8
03/09/2026	21:45:00	61.9	44.3	66.4	78.3	35.5	73.1	71.2
03/09/2026	22:00:00	61.1	41.2	66.2	82.2	34.4	72	68.9
03/09/2026	22:15:00	62	40.6	66.4	77.4	35.5	75.7	74.4
03/09/2026	22:30:00	61.7	44.6	66.6	76.7	36.7	73.2	70.5
03/09/2026	22:45:00	59.8	38.4	64.9	73.8	33.7	72	69.7
03/09/2026	23:00:00	57.4	36.8	61.7	77.5	33.2	70.9	65.9
03/09/2026	23:15:00	60	38.2	65	75.7	32.9	74.4	68.9
03/09/2026	23:30:00	64.5	34.7	62	97.1	32	74.7	72.5
03/09/2026	23:45:00	56.8	34.4	58.9	74.1	31.8	67.7	65.2
04/09/2026	00:00:00	54.8	33.9	56.3	75.8	32.1	69.1	64.7
04/09/2026	00:15:00	54.3	33.5	55.9	73.3	30.9	72.6	61.7
04/09/2026	00:30:00	54.2	33	53.7	74	30.7	74	62.8
04/09/2026	00:45:00	52.2	32.5	51.4	69.7	30.2	68.2	58.9
04/09/2026	01:00:00	59	36.4	60.2	77.4	33.1	72.2	66.2
04/09/2026	01:15:00	60.5	48.3	61.6	79.1	40	70.4	64.5
04/09/2026	01:30:00	59.1	44.8	56.4	83.1	40.4	67.1	62.6
04/09/2026	01:45:00	61.5	55.2	63.2	79.5	48.5	63.7	60.3
04/09/2026	02:00:00	63.1	57.6	64.6	77.2	51.7	66.2	64.6
04/09/2026	02:15:00	61	54.7	62.3	81.3	49.2	64.3	62.7
04/09/2026	02:30:00	61.5	54.1	62.7	79.9	46.3	63.8	62.3
04/09/2026	02:45:00	62.7	52.5	64.1	79.5	45.3	63.8	62.2
04/09/2026	03:00:00	59.6	43.6	59.3	81.5	39.7	63.3	60.6
04/09/2026	03:15:00	56	43	55.1	75.6	39.3	60.5	57.4
04/09/2026	03:30:00	59	34.2	55.2	78.7	31.5	65.5	64.4
04/09/2026	03:45:00	51.9	31.6	46.5	74.3	28.6	59.3	57.7
04/09/2026	04:00:00	58.2	31.7	49.9	81.8	29.2	62	60.7
04/09/2026	04:15:00	52.3	33.9	43.2	74.8	31.8	59.5	58.2
04/09/2026	04:30:00	59.7	40.2	58.7	79.2	36	64.8	63.3

04/09/2026	04:45:00	62.4	40.5	62.8	81.3	36.3	69.5	67.4
04/09/2026	05:00:00	61.9	37.5	62.6	82.3	34.6	68.7	66.2
04/09/2026	05:15:00	64.8	38.7	65.9	88.7	34.4	73.5	70
04/09/2026	05:30:00	67.7	48.9	72.1	88.2	42	75.5	71.9
04/09/2026	05:45:00	68.3	49.8	73.3	82.3	41.4	76.3	74.3
04/09/2026	06:00:00	65.4	42	69.9	82	38.8	76.1	71.2
04/09/2026	06:15:00	66.9	41.8	69.9	88.3	37.9	76.8	72.2
04/09/2026	06:30:00	65.7	43.3	70.3	81.3	38.2	74.5	70.9
04/09/2026	06:45:00	64.8	44.9	69.2	83.6	38.1	71.5	69.4
04/09/2026	07:00:00	68.5	49	71.6	95.7	42.5	76.9	75.8
04/09/2026	07:15:00	64.8	47.8	69.8	77.9	41.4	73	71.7
04/09/2026	07:30:00	66.1	49	71	79.9	41.9	74.7	73
04/09/2026	07:45:00	68.4	50.3	71.3	85.5	43	77.3	75.3
04/09/2026	08:00:00	68.3	56.8	71.6	87.9	51.2	78.1	75.4
04/09/2026	08:15:00	71.4	55.8	71.2	100.8	50.1	81.5	76.7
04/09/2026	08:30:00	69	59.1	71.3	86.7	50.1	81.3	78.9
04/09/2026	08:45:00	68.5	60	70.6	89	50.8	81.4	78.5
04/09/2026	09:00:00	67.5	60.6	69.3	86.7	47.1	81.2	78.7
04/09/2026	09:15:00	66.3	60	69.5	81.6	52.8	80.2	78.1
04/09/2026	09:30:00	67.7	56.3	70.6	85.4	47.2	79.7	78.3
04/09/2026	09:45:00	65.5	51.7	69.2	80.3	43.5	75.6	74.1
04/09/2026	10:00:00	65.9	50.9	69.5	84.7	40.6	78.8	77.8
04/09/2026	10:15:00	65.5	50.5	69.4	76.7	40.6	75.6	74
04/09/2026	10:30:00	66.7	53.2	69.9	86.5	44.1	77.2	75.8
04/09/2026	10:45:00	66.9	55.7	69.7	83.2	46.1	78.4	76.9
04/09/2026	11:00:00	67.5	53.5	69.5	90.8	44.7	79.5	76.5
04/09/2026	11:15:00	66.2	56.4	69.3	82.1	48	78.6	76.2
04/09/2026	11:30:00	67.4	55.9	69.7	88.6	47.1	80.5	78.5
04/09/2026	11:45:00	66.8	57.7	69.9	81.3	48	79.6	77.6
04/09/2026	12:00:00	66.2	57.1	68.9	83	49	79.9	76.2
04/09/2026	12:15:00	66	57.2	69.1	77.4	45.9	80	76.5
04/09/2026	12:30:00	66.6	57	69.2	85.8	47.5	80.5	77.4
04/09/2026	12:45:00	66.7	55.4	69	87	44.1	80.6	77.5
04/09/2026	13:00:00	66.4	56.1	69.8	80.7	47.5	80.2	76.7
04/09/2026	13:15:00	65.5	52.3	68.9	78.8	44.6	80.6	76
04/09/2026	13:30:00	66.9	56.2	69.8	86.3	46.8	82	77.8
04/09/2026	13:45:00	66.3	55.4	69.2	79	45.1	80.3	76.5
04/09/2026	14:00:00	67.2	56.9	69.5	88.8	49	80.1	77.5
04/09/2026	14:15:00	65.5	55.8	68.5	78.2	44.8	80	76
04/09/2026	14:30:00	65.1	59.1	67.6	81.8	48.5	82.4	78.2
04/09/2026	14:45:00	68.5	57.6	69.9	85.6	47.9	80.7	77.6
04/09/2026	15:00:00	66.3	56.6	68.8	86	46.7	80.9	78.8
04/09/2026	15:15:00	65.8	56.6	68.5	82.4	46.1	81.3	77.1

04/09/2026	15:30:00	64.9	59.8	67.4	79.4	52.5	82.7	78.2
04/09/2026	15:45:00	66.6	60.2	70	78.9	48.4	82	78.5
04/09/2026	16:00:00	65.7	59.8	68.5	79.9	52.2	82.5	78.4
04/09/2026	16:15:00	67.2	55.9	69.7	89.2	47.2	82.1	77.6
04/09/2026	16:30:00	65.9	57	68.7	88.9	47.3	82.2	78.1
04/09/2026	16:45:00	65.3	54.7	68.3	86.3	47.3	81.4	77.1
04/09/2026	17:00:00	67.1	56.2	69.8	83.3	46.5	81.4	77.9
04/09/2026	17:15:00	66.6	56.8	69.3	82.8	47.8	80.9	77.3
04/09/2026	17:30:00	65.9	54.1	69.1	82.9	46.1	80	76.7
04/09/2026	17:45:00	67.3	53.4	69.4	90.7	43.4	82.9	78.1
04/09/2026	18:00:00	66.1	52.4	68.7	82.8	44.7	80.2	77.2
04/09/2026	18:15:00	65.2	55	68.9	79.4	44.8	79.3	75.9
04/09/2026	18:30:00	65.3	51.9	68.3	82.7	43.6	81.6	77.6
04/09/2026	18:45:00	65.1	52.3	67.9	85.4	43.9	81.5	77.4
04/09/2026	19:00:00	66.1	50.9	68.6	85.7	43.4	79.8	77.3
04/09/2026	19:15:00	64.6	52	68.4	79.3	44.8	77.2	73.9
04/09/2026	19:30:00	66.4	51.3	69.3	83.5	42.9	81	78.8
04/09/2026	19:45:00	65.2	51.3	68.8	83.6	44.3	78.5	75.2
04/09/2026	20:00:00	64.9	50	68.2	81.2	42.2	79.2	76
04/09/2026	20:15:00	71.7	50.1	69.6	99	42	80.1	77.7
04/09/2026	20:30:00	63.5	47.4	67.8	79.7	41.8	76.5	73.1
04/09/2026	20:45:00	63.3	46.4	67.5	83.1	39.4	76.1	72.7
04/09/2026	21:00:00	64	48.3	67.7	80.1	42.1	76.7	74.1
04/09/2026	21:15:00	63.6	48	67.8	83.5	40.4	75.9	72.1
04/09/2026	21:30:00	63.4	47.2	67.8	83.6	40.4	77	72.6
04/09/2026	21:45:00	67.1	44	67.5	92.4	39	79.9	78.8
04/09/2026	22:00:00	70.1	45.1	68.2	99.4	38.6	82.3	81.8
04/09/2026	22:15:00	65.2	47.1	68.3	87.6	41.9	76.7	74.5
04/09/2026	22:30:00	61.9	44.7	67	73.5	37.3	73.7	71.7
04/09/2026	22:45:00	61.8	43.5	66.5	76.4	37	73.4	70.8
04/09/2026	23:00:00	60.9	41.4	65.8	78.5	36.7	71.8	69.2
04/09/2026	23:15:00	60.5	40.1	64.9	76.8	35.3	72.4	71.1
04/09/2026	23:30:00	58.2	37.4	62.8	75.3	34.8	69.8	66.7
04/09/2026	23:45:00	60	39.9	63.7	79.3	35.9	72.5	69
05/09/2026	00:00:00	58.4	38.8	62.1	79.8	34.8	69.9	65.4
05/09/2026	00:15:00	58.9	39.4	63.7	73.5	34.7	69.9	66.5
05/09/2026	00:30:00	62.5	38.1	62.9	87.3	34.5	68.4	66.9
05/09/2026	00:45:00	55.1	36.4	57.4	71.9	33.8	68.3	66.8
05/09/2026	01:00:00	57.5	37.2	58.9	76.7	33.3	65.5	63.9
05/09/2026	01:15:00	59.6	35	61.5	77.6	32.4	66.1	64.8
05/09/2026	01:30:00	57.2	34.7	60	74.4	32.1	68.9	67.6
05/09/2026	01:45:00	57.6	34.1	59.8	78.5	31.7	65.5	64.2
05/09/2026	02:00:00	58.7	33.5	60.8	80.1	31.5	66.9	64.3

05/09/2026	02:15:00	55.7	33.8	53.2	76.7	31.5	63.2	60.5
05/09/2026	02:30:00	54.5	33.3	52.9	79.1	31.4	62.9	59.8
05/09/2026	02:45:00	54.7	33.4	55.2	75.7	30.2	63.1	60.8
05/09/2026	03:00:00	56.9	31.9	56.7	76.5	29.9	65	63.9
05/09/2026	03:15:00	53.3	29.6	50	74.9	27.3	60.7	58.9
05/09/2026	03:30:00	55	30.1	52.5	73.7	27.9	64.3	61.7
05/09/2026	03:45:00	57.3	30.6	55.6	77.6	28.1	65.6	64.3
05/09/2026	04:00:00	54.9	30.1	52.9	76	27.6	62	60.4
05/09/2026	04:15:00	54	30.1	53.4	74.1	27.6	61.2	59.4
05/09/2026	04:30:00	57.8	31.5	59.1	75.8	28.4	67	65.9
05/09/2026	04:45:00	57.7	31.1	48.9	81.1	29.3	67.1	65.9
05/09/2026	05:00:00	59.5	31.5	56.9	84.8	28.6	66	64.7
05/09/2026	05:15:00	61.1	32.1	60.9	84.7	29.4	72.2	71.2
05/09/2026	05:30:00	59.9	35	63	76.9	32.8	67.4	66.2
05/09/2026	05:45:00	59.3	36.2	62.6	74.4	33.5	67.5	66.1
05/09/2026	06:00:00	59	35.2	61.9	76.6	33	68.9	67.4
05/09/2026	06:15:00	59	33.4	61.4	76.3	30.7	67.1	65.7
05/09/2026	06:30:00	59.3	37.7	62.3	77.2	32.7	68.6	67.3
05/09/2026	06:45:00	56.3	35.7	57.1	74.7	33.4	66.3	64.1
05/09/2026	07:00:00	60.8	37.1	64.7	77.2	34.5	69.5	68.1
05/09/2026	07:15:00	59.9	36.3	62.9	77.7	33.5	70.4	69.1
05/09/2026	07:30:00	61.8	39.4	65.8	79.6	34.7	72.2	70.8
05/09/2026	07:45:00	62.4	41.4	67.3	76.8	36.5	71.7	69.8
05/09/2026	08:00:00	64.3	45.8	69.2	81	39.3	73	71.4
05/09/2026	08:15:00	64.1	44.1	68.7	80.7	36.9	75.1	73.9
05/09/2026	08:30:00	65.5	47.3	69.5	83.5	40.8	76.4	73.9
05/09/2026	08:45:00	65.9	49.2	69.8	82.8	39.5	75.7	73.3
05/09/2026	09:00:00	65.3	51.8	69.3	77.4	39.6	76.9	74.8
05/09/2026	09:15:00	64.8	49.6	69.3	75.5	43.1	74.8	72.6
05/09/2026	09:30:00	65.6	48.8	69.6	79.4	40.3	77.8	75.1
05/09/2026	09:45:00	65.5	50	68.9	82.3	43.1	77.2	74.5
05/09/2026	10:00:00	66.2	52	68.9	87.2	45.3	77	74.4
05/09/2026	10:15:00	64.7	50.1	68.2	84.8	42	77.3	74.9
05/09/2026	10:30:00	65.3	52.2	68.8	80.1	43.3	78.1	76
05/09/2026	10:45:00	65.3	50.4	68.6	82.6	43.8	79.1	77
05/09/2026	11:00:00	66.1	50.8	68.3	87	42.7	78.5	76.3
05/09/2026	11:15:00	65.9	55.1	68.8	79.4	44.2	78.9	76.9
05/09/2026	11:30:00	66.4	56.4	69.1	81.7	47.3	78.4	76.6
05/09/2026	11:45:00	65.2	51.9	68.4	84.1	42.5	77.9	76.1
05/09/2026	12:00:00	66.4	55.6	68.5	86.9	44.4	79	77.1
05/09/2026	12:15:00	65.6	54.2	68.9	84.5	43.6	78.9	76.9
05/09/2026	12:30:00	66.1	56.4	68.8	82.3	46.1	79.9	78.2
05/09/2026	12:45:00	65.6	52.8	68.8	80.3	42.5	77.8	75.9

05/09/2026	13:00:00	67	55.2	69	85.5	46.9	78.4	76.7
05/09/2026	13:15:00	65.1	51.6	68.4	78	43.2	75.6	73.7
05/09/2026	13:30:00	70.4	55.4	68.8	97.7	46.8	81	80.1
05/09/2026	13:45:00	64.9	51.4	68.1	81.2	41.2	77.7	76
05/09/2026	14:00:00	64.9	52.1	67.9	78.5	43.4	78.7	77
05/09/2026	14:15:00	64.8	54.5	68	78.1	48.4	78.9	75.7
05/09/2026	14:30:00	65.8	54	68.4	88.3	43.8	79.2	77.3
05/09/2026	14:45:00	65.9	51.9	68.6	88.2	40.8	79.4	77
05/09/2026	15:00:00	66	52.3	68.5	91.2	44.8	78.1	75.2
05/09/2026	15:15:00	64.7	54.7	67.9	76.8	47.3	78.7	76.3
05/09/2026	15:30:00	66.1	53.4	68.5	84.7	44.6	79.3	77.1
05/09/2026	15:45:00	65.3	54.4	68	84	40.3	77.5	75.9
05/09/2026	16:00:00	65	51.9	68.6	77.1	42	77.2	75.4
05/09/2026	16:15:00	64.4	50.4	68	82.8	44.4	77.2	73.7
05/09/2026	16:30:00	66.2	53.2	68.7	88.9	44	79.1	76.8
05/09/2026	16:45:00	64.6	51.9	68.1	80.6	45.2	77.1	75.2
05/09/2026	17:00:00	64.7	51.9	68.3	78.9	42.2	77.6	74.6
05/09/2026	17:15:00	64.9	54.4	68.2	84	47.3	76.7	74.7
05/09/2026	17:30:00	64.8	53.5	68.4	80.4	46.3	76.6	75.1
05/09/2026	17:45:00	65.9	50.3	68.9	82	43.7	79	77.4
05/09/2026	18:00:00	68.2	53.6	69.1	89.9	46.2	77.9	76.7
05/09/2026	18:15:00	66.6	51.2	68.8	95	44.4	77.3	75.6
05/09/2026	18:30:00	64.6	52.5	68.2	76.1	43.7	76.8	75
05/09/2026	18:45:00	63.8	50	68	77.5	44	75.6	73.8
05/09/2026	19:00:00	65.1	49.8	68.1	83.3	43.2	79.7	78.6
05/09/2026	19:15:00	63.6	47.8	67.9	78.6	41.6	76	74.6
05/09/2026	19:30:00	64.4	50.8	68.3	77.8	42.6	76.8	75.5
05/09/2026	19:45:00	64.8	49.2	68.8	81.7	41.3	78.9	77.8
05/09/2026	20:00:00	64.3	48.6	68	82	42.9	78	77.1
05/09/2026	20:15:00	63.3	51.7	67.2	78.5	44.4	74.4	73.2
05/09/2026	20:30:00	64.3	51.4	68	87.4	41.3	75.9	74.9
05/09/2026	20:45:00	63.4	52.1	67.9	79.9	46.3	73.8	72.7
05/09/2026	21:00:00	64.3	52.4	68.2	78.3	45.2	78	77.1
05/09/2026	21:15:00	64	53.8	67.4	84.1	46.5	75.7	74.4
05/09/2026	21:30:00	63.2	51.1	67.3	75.6	44.7	75.1	73.5
05/09/2026	21:45:00	63.4	48.7	67	87.6	39.1	77.2	75.9
05/09/2026	22:00:00	63.2	50.3	67.1	84.9	41.3	73.3	72.1
05/09/2026	22:15:00	62.3	51.3	66.4	87	44.8	72.5	71.3
05/09/2026	22:30:00	71.3	51.2	67.9	100	44.8	76.7	75.6
05/09/2026	22:45:00	62.5	49.9	66.5	74.8	42.7	73.5	72.2
05/09/2026	23:00:00	74	50.1	67.3	105.1	43.6	75.6	74.7
05/09/2026	23:15:00	61.6	48.1	66.5	75.4	41.3	72	70.5
05/09/2026	23:30:00	61	45.4	65.4	77.4	38.2	70.1	68.8

05/09/2026	23:45:00	61.3	46.2	65.2	77.5	37.7	69.4	68.3
06/09/2026	00:00:00	59.8	46.9	64	76.3	38.1	68.8	67.5
06/09/2026	00:15:00	61.6	48.2	65.6	80.7	39.7	74.7	73.8
06/09/2026	00:30:00	59.6	45.3	64.6	75.8	37.4	68.3	66.8
06/09/2026	00:45:00	60.6	43.5	65.3	78.4	37.9	71.3	69.8
06/09/2026	01:00:00	58.5	41.8	63.2	74.5	36	68.9	67
06/09/2026	01:15:00	58.8	37.1	61.9	77.1	34.3	71.5	69.8
06/09/2026	01:30:00	58	37.7	62.1	74.5	34.4	71.4	66.4
06/09/2026	01:45:00	61.2	35	63.8	82.7	32	71.9	68.3
06/09/2026	02:00:00	59.2	35.2	62	76.5	32.5	70	66.7
06/09/2026	02:15:00	53.5	35.2	54.1	72.8	32.2	69.3	59.7
06/09/2026	02:30:00	58.5	35.2	60.3	77.5	32.7	72.7	66.2
06/09/2026	02:45:00	55.8	31.7	58.1	75.4	29	70	65.2
06/09/2026	03:00:00	57.1	30.9	56.4	77	29.1	71.2	65.9
06/09/2026	03:15:00	58.4	30.9	59	79.4	28.9	71.6	65
06/09/2026	03:30:00	58.7	32	59.7	78.6	28.5	66.6	64.6
06/09/2026	03:45:00	57.5	32.3	58.7	75.8	28.7	66.9	64
06/09/2026	04:00:00	58.1	29.5	57.2	79.7	26.9	66.2	64
06/09/2026	04:15:00	65.2	31.3	57.5	94.4	27.5	71.8	70.9
06/09/2026	04:30:00	63.5	31.3	63	87.8	28.4	73.7	73.1
06/09/2026	04:45:00	60.7	29.8	58.5	83.2	27.3	68.9	67.9
06/09/2026	05:00:00	61.8	29.8	64	82.2	28	71.9	68.9
06/09/2026	05:15:00	57	29.8	55.6	81.9	27.8	66.2	63.9
06/09/2026	05:30:00	59.6	32	60.6	80.2	28.3	70	65.9
06/09/2026	05:45:00	60.4	34.2	63.4	76.7	30.4	69.8	67.7
06/09/2026	06:00:00	59.4	34	62.5	78.4	30.8	67.1	65.8
06/09/2026	06:15:00	54.9	32.7	51.1	77.6	29.9	63.9	61.5
06/09/2026	06:30:00	59.3	34.9	62	76.3	32.5	73.7	71.9
06/09/2026	06:45:00	58.2	34.8	57.2	78.4	31.3	68.1	65.4
06/09/2026	07:00:00	60.7	36.6	63.9	79.5	33.5	72.9	70.7
06/09/2026	07:15:00	59.2	37.8	62.5	75.9	34.9	69	66.4
06/09/2026	07:30:00	59.3	35.7	61.9	77.7	32.7	68.7	65.8
06/09/2026	07:45:00	60.4	36.3	63.7	80	32.8	70.6	69.3
06/09/2026	08:00:00	61	38.7	64.8	79.8	32.9	69.5	68
06/09/2026	08:15:00	63.8	39.3	68.2	79.7	34.3	70.1	68.4
06/09/2026	08:30:00	65.2	40.2	69.1	81.4	35.3	71.2	68.4
06/09/2026	08:45:00	67.6	44.3	71.4	84.4	40.5	79.5	78.3
06/09/2026	09:00:00	69.8	45.5	72.3	90.2	40.4	77.4	76.4
06/09/2026	09:08:41	64.7	42.6	69.2	79.8	37.7	71.3	68.8

APPENDIX B: NOISE BREAK-IN CALCULATIONS

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 3
Room Reference:	Lv/K
Façade Reference:	E

Room Details	
Length (m)	5
Width (m)	5
Height (m)	2.6
Surface Area (m^2)	102
Volume (m^3)	65
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	Pitched Roof w Ceiling	Area:	10

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00003	0.00010	0.00008	0.00002	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00072	0.00181	0.00029	0.00003	0.00002	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00009	0.00003	0.00000	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	40	48	54	59	56	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00005	0.00001	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-30.5	-27.1	-34.3	-42.8	-46.9	-
A Room Absorption (m^2)	-	20.9	20.9	20.9	20.9	20.9	-
10*log(S/A)	G	0.2	0.2	0.2	0.2	0.2	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	41
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	22.7	28.1	23.9	19.4	14.3	**31**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	12.7	21.1	17.9	13.4	7.3	**24**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	23.7	32.1	36.9	35.4	28.3	**40**

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 4
Room Reference:	Lv/K
Façade Reference:	E

Room Details	
Length (m)	3.5
Width (m)	4
Height (m)	2.6
Surface Area (m^2)	67
Volume (m^3)	36.4
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	Pitched Roof w Ceiling	Area:	10

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00003	0.00010	0.00008	0.00002	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00072	0.00181	0.00029	0.00003	0.00002	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00009	0.00003	0.00000	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	40	48	54	59	56	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00005	0.00001	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-30.5	-27.1	-34.3	-42.8	-46.9	-
A Room Absorption (m^2)	-	11.7	11.7	11.7	11.7	11.7	-
10*log(S/A)	G	2.7	2.7	2.7	2.7	2.7	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	41
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	25.2	30.6	26.5	21.9	16.8	**33**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	15.2	23.6	20.5	15.9	9.8	**26**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	26.2	34.6	39.5	37.9	30.8	**43**

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 5
Room Reference:	Lv/K
Façade Reference:	E

Room Details	
Length (m)	5
Width (m)	3
Height (m)	2.6
Surface Area (m^2)	71.6
Volume (m^3)	39
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	Pitched Roof w Ceiling	Area:	10

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00003	0.00010	0.00008	0.00002	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00072	0.00181	0.00029	0.00003	0.00002	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00009	0.00003	0.00000	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	40	48	54	59	56	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00005	0.00001	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-30.5	-27.1	-34.3	-42.8	-46.9	-
A Room Absorption (m^2)	-	12.6	12.6	12.6	12.6	12.6	-
10*log(S/A)	G	2.4	2.4	2.4	2.4	2.4	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	41
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	24.9	30.3	26.2	21.6	16.5	**33**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	14.9	23.3	20.2	15.6	9.5	**26**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	25.9	34.3	39.2	37.6	30.5	**43**

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 6
Room Reference:	Lv/K
Façade Reference:	E

Room Details	
Length (m)	4.8
Width (m)	4.8
Height (m)	2.6
Surface Area (m^2)	96
Volume (m^3)	59.904
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	Pitched Roof w Ceiling	Area:	0

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00005	0.00019	0.00015	0.00004	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00132	0.00333	0.00053	0.00005	0.00003	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00017	0.00005	0.00001	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	40	48	54	59	56	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00000	0.00000	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-28.1	-24.5	-31.7	-40.2	-44.5	-
A Room Absorption (m^2)	-	19.3	19.3	19.3	19.3	19.3	-
10*log(S/A)	G	-2.1	-2.1	-2.1	-2.1	-2.1	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	38
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	22.8	28.5	24.3	19.7	14.4	**31**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	12.8	21.5	18.3	13.7	7.4	**24**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	23.8	32.5	37.3	35.7	28.4	**41**

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 3
Room Reference:	Bedroom
Façade Reference:	E

Room Details	
Length (m)	5
Width (m)	5
Height (m)	2.6
Surface Area (m^2)	102
Volume (m^3)	65
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	2no SB Plasterboard on Roof Joists	Area:	25

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00002	0.00006	0.00005	0.00001	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00043	0.00108	0.00017	0.00002	0.00001	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00005	0.00002	0.00000	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	23	43	51	55	53	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00339	0.00003	0.00001	0.00000	0.00000	-
10*log(B+C+D+E)	F	-24.1	-29.2	-36.5	-44.8	-48.3	-
A Room Absorption (m^2)	-	20.9	20.9	20.9	20.9	20.9	-
10*log(S/A)	G	2.5	2.5	2.5	2.5	2.5	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	41
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	31.4	28.2	24.0	19.7	15.2	**34**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	21.4	21.2	18.0	13.7	8.2	**26**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	32.4	32.2	37.0	35.7	29.2	**41**

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 4
Room Reference:	Bedroom
Façade Reference:	E

Room Details	
Length (m)	3
Width (m)	6
Height (m)	2.6
Surface Area (m^2)	82.8
Volume (m^3)	46.8
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	2no SB Plasterboard on Roof Joists	Area:	18

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00002	0.00007	0.00006	0.00002	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00053	0.00133	0.00021	0.00002	0.00001	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00007	0.00002	0.00000	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	23	43	51	55	53	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00301	0.00003	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-24.4	-28.4	-35.6	-44.0	-47.6	-
A Room Absorption (m^2)	-	15.1	15.1	15.1	15.1	15.1	-
10*log(S/A)	G	3.0	3.0	3.0	3.0	3.0	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	41
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	31.6	29.6	25.4	21.0	16.3	**35**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	21.6	22.6	19.4	15.0	9.3	**27**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	32.6	33.6	38.4	37.0	30.3	**42**

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 5
Room Reference:	Bedroom
Façade Reference:	E

Room Details	
Length (m)	4
Width (m)	4
Height (m)	2.6
Surface Area (m^2)	73.6
Volume (m^3)	41.6
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	2no SB Plasterboard on Roof Joists	Area:	16

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00002	0.00008	0.00006	0.00002	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00057	0.00143	0.00023	0.00002	0.00001	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00007	0.00002	0.00000	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	23	43	51	55	53	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00286	0.00003	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-24.5	-28.1	-35.3	-43.7	-47.4	-
A Room Absorption (m^2)	-	13.4	13.4	13.4	13.4	13.4	-
10*log(S/A)	G	3.2	3.2	3.2	3.2	3.2	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	41
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	31.7	30.1	25.9	21.5	16.8	**35**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	21.7	23.1	19.9	15.5	9.8	**27**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	32.7	34.1	38.9	37.5	30.8	**43**

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BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 1
Room Reference:	Bedsit
Façade Reference:	W

Room Details	
Length (m)	5
Width (m)	4
Height (m)	2.6
Surface Area (m^2)	86.8
Volume (m^3)	52
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	Pitched Roof w Ceiling	Area:	0

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00005	0.00019	0.00015	0.00004	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00132	0.00333	0.00053	0.00005	0.00003	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00017	0.00005	0.00001	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	40	48	54	59	56	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00000	0.00000	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-28.1	-24.5	-31.7	-40.2	-44.5	-
A Room Absorption (m^2)	-	16.7	16.7	16.7	16.7	16.7	-
10*log(S/A)	G	-1.4	-1.4	-1.4	-1.4	-1.4	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	38
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	23.4	29.1	24.9	20.3	15.0	**32**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	13.4	22.1	18.9	14.3	8.0	**25**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	24.4	33.1	37.9	36.3	29.0	**41**

APPENDIX B

BS8233:2014 INTERNAL NOISE CALCULATION

FORM VERSION: 2.6

NOISE CONTROL SOLUTIONS LIMITED

Project Details	
NCSL Peoject Reference:	1527
Plot Reference:	Flat 2
Room Reference:	Bedsit
Façade Reference:	W

Room Details	
Length (m)	5
Width (m)	4
Height (m)	2.6
Surface Area (m^2)	86.8
Volume (m^3)	52
Reverberation Time (s)	0.5

Vent Specification:	Rytons AAC125HP Super Acoustic	No:	1
Wall Specification:	Two leaves of 102.5mm brickwork, 50mm cavity,rigid wall ties	Area:	10
Glazing Specification:	4/6-20/4mm	Area:	2
Ceiling / Roof Specification:	Pitched Roof w Ceiling	Area:	0

	REF	125	250	500	1000	2000	Sum
$L_{eq,ff}$ Daytime External noise level (free-field), dB(Z)	$A_{day,Leq,Ext}$	66.1	60.6	58.2	59.0	56.8	**68.5**
$L_{eq,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Leq,Ext}$	56.1	53.6	52.2	53.0	49.8	**60.4**
$L_{Max,ff}$ Night-time External noise level (free-field), dB(Z)	$A_{night,Max,Ext}$	67.1	64.6	71.2	75.0	70.8	**78.1**
$D_{n,e}$ Sound reduction of vent	-	42	37	38	43	57	-
$(A_0/S)\ 10^{\wedge(-Dn,e/10)}$	B	0.00005	0.00019	0.00015	0.00004	0.00000	-
R_{wi} Sound reduction of window	-	21	17	25	35	37	-
$(S_{wi}/S_f)\ 10^{\wedge(-Rwi/10)}$	C	0.00132	0.00333	0.00053	0.00005	0.00003	-
R_{ew} Sound reduction of external wall	-	37	42	52	60	63	-
$(S_{ew}/S_f)\ 10^{\wedge(-Rew/10)}$	D	0.00017	0.00005	0.00001	0.00000	0.00000	-
R_{rr} Sound reduction of roof	-	40	48	54	59	56	-
$(S_{rr}/S_f)\ 10^{\wedge(-Rrr/10)}$	E	0.00000	0.00000	0.00000	0.00000	0.00000	-
10*log(B+C+D+E)	F	-28.1	-24.5	-31.7	-40.2	-44.5	-
A Room Absorption (m^2)	-	16.7	16.7	16.7	16.7	16.7	-
10*log(S/A)	G	-1.4	-1.4	-1.4	-1.4	-1.4	-
A-weighting	A_{weight}	-16.1	-8.6	-3.2	0.0	1.2	-
Rw Sound reduction of complete partition	H	-	-	-	-	-	38
L_{Aeq} Daytime Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	23.4	29.1	24.9	20.3	15.0	**32**
L_{Aeq} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	13.4	22.1	18.9	14.3	8.0	**25**
L_{AMax} Night-time Internal noise level, dB(A)	A_n+F+G+3+ A_{weight}	24.4	33.1	37.9	36.3	29.0	**41**

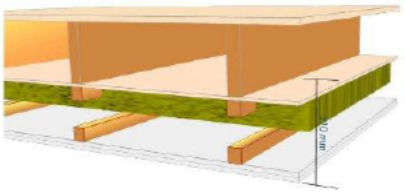
APPENDIX C: SEPARATING ELEMENT PERFORMANCE

Sound Insulation Prediction (v9.0.23)

Program copyright Marshall Day Acoustics 2017
Margin of error is generally within Rw ±3 dB
Noise Control Solutions Limited - Key No. 5597
Job Name:
Job No.: Initials:conta
Date:14/09/2026
File Name:Ceiling2.ixl

NOISE CONTROL SOLUTIONS LIMITED

Notes:



Rw 63 dB
C -3 dB
Ctr -9 dB

Mass-air-mass resonant frequency = =41 Hz , 161 Hz
Panel Size = 2.7 m x 4.0 m
Partition surface mass = 43.7 kg/m²

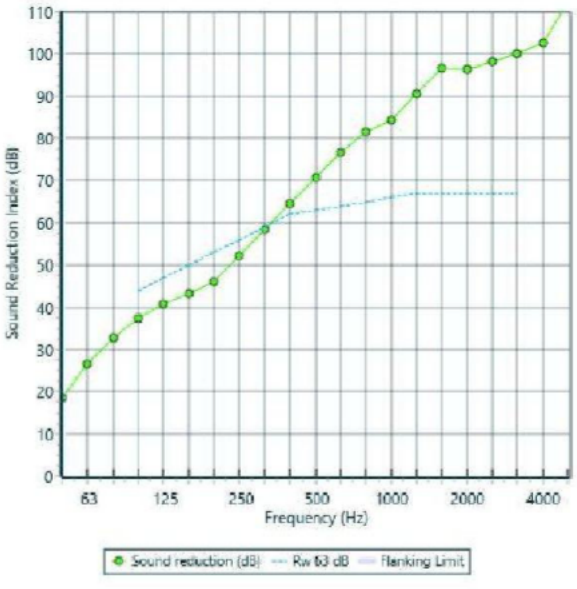
System description

Panel 1 : 1 x 20 mm Pine

Frame: Timber stud (2.2E2 mm x 40 mm), Stud spacing 600 mm ; Cavity Width 50 mm
Panel 2 : 1 x 10 mm Plasterboard

Frame: Separate Joists (50 mm x 45 mm), Stud spacing 600 mm ; Cavity Width 200 mm , 1 x Fibreglass (10kg/m3) Thickness 100 mm
Panel 3 : 2 x 15 mm Gyproc SoundBloc 15mm

freq.(Hz)	R(dB)	R(dB)
50	18	
63	27	22
80	33	
100	37	
125	41	40
160	43	
200	46	
250	52	50
315	58	
400	65	
500	71	68
630	77	
800	82	
1000	84	84
1250	91	
1600	97	
2000	96	97
2500	98	
3150	100	
4000	103	103
5000	112	



Sound Insulation Prediction (v9.0.23)

Program copyright Marshall Day Acoustics 2017
Margin of error is generally within Rw ±3 dB
Noise Control Solutions Limited - Key No. 5597
Job Name:
Job No.: Initials:conta
Date:13/09/2026
File Name:

NOISE CONTROL SOLUTIONS LIMITED

Notes:



Rw 72 dB
C -3 dB
Ctr -9 dB

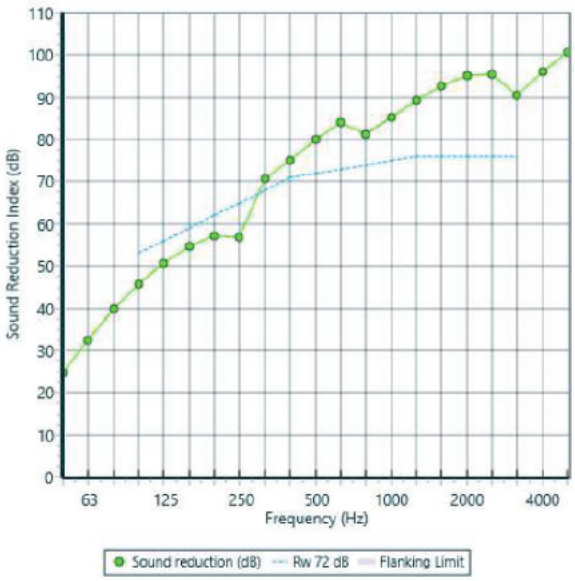
Mass-air-mass resonant frequency = =45 Hz
Panel Size = 2.7 m x 4.0 m
Partition surface mass = 184 kg/m²

System description

Panel 1 : 1 x 102.5 mm Brick

Frame: Right timber stud + air gap (50 mm x 50 mm), Stud spacing 600 mm ; Cavity Width 75 mm , 1 x Fibreglass (10kg/m3) Thickness 50 mm
Panel 2 : 2 x 15 mm Gyproc Wallboard 15mm

freq.(Hz)	R(dB)	R(dB)
50	25	
63	32	29
80	40	
100	46	
125	51	49
160	55	
200	57	
250	57	59
315	71	
400	75	
500	80	78
630	84	
800	81	
1000	85	84
1250	89	
1600	93	
2000	95	94
2500	96	
3150	91	
4000	96	94
5000	101	

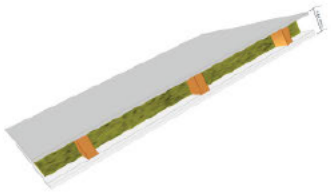


Sound Insulation Prediction (v9.0.23)

Program copyright Marshall Day Acoustics 2017
Margin of error is generally within Rw ±3 dB
Noise Control Solutions Limited - Key No. 5597
Job Name:
Job No.: Initials:conta
Date:13/09/2026
File Name:

NOISE CONTROL SOLUTIONS LIMITED

Notes:



Rw 51 dB
C -5 dB
Ctr -13 dB

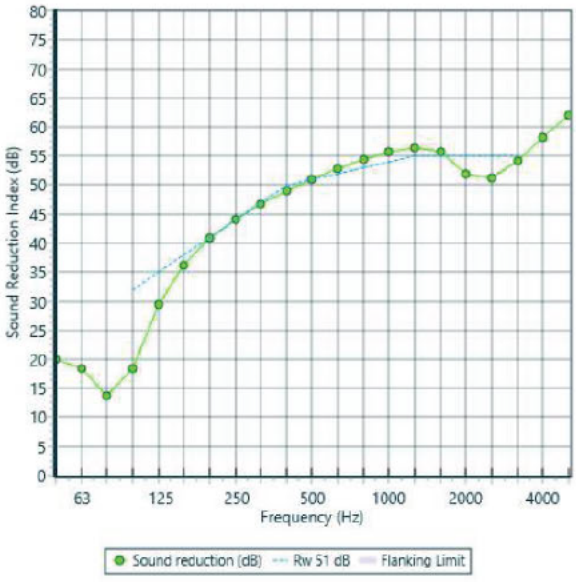
Mass-air-mass resonant frequency = =43 Hz
Panel Size = 2.7 m x 4.0 m
Partition surface mass = 59.7 kg/m²

System description

Panel 1 : 1 x 14 mm Roofing tiles

Frame: Solid Joist (1E2 mm x 45 mm), Stud spacing 600 mm , Cavity Width 100 mm , 1 x Fibreglass (10kg/m3) Thickness 100 mm
Panel 2 : 2 x 15 mm Gyproc SoundBloc 15mm

freq.(Hz)	R(dB)	R(dB)
50	20	
63	18	17
80	14	
100	19	
125	29	23
160	36	
200	41	
250	44	43
315	47	
400	49	
500	51	**51**
630	53	
800	54	
1000	56	55
1250	56	
1600	56	
2000	52	53
2500	51	
3150	54	
4000	58	57
5000	62	



TERMS AND CONDITIONS OF BUSINESS

1. GENERAL

Work done or services undertaken are subject to the terms and conditions detailed below and all other conditions, warranties and representations, expressed or implied are hereby excluded.

2. PRICES

Prices are based on current costs, exchange rates, duty and freight and are subject to change without notice. The quoted price does not cover the cost of attending meetings, telephone calls or email exchanges. This is charged separately at a pro rata hourly rate of £75 per hour.

3. TIMING ESTIMATES

Timing estimates are made in good faith and date from receipt of a written order and full information to enable us to proceed. While NCSL makes every effort to fulfil them, such estimates are subject to unforeseen events and if not maintained, cannot give rise to any claim.

4. CANCELLATION AND RETURNS

Cancellation of orders for services, training or consultancy is only acceptable by prior agreement of NCSL and a charge will normally be made. NCSL reserve the right to cancel any work at any time.

5. CLAIMS

Claims for errors etc should be notified within 10 days of date of receipt.

6. PAYMENT TERMS

Full payment is required before any work is undertaken by NCSL. Failure to comply with the terms of payment may result in delayed delivery of services and a review of the Customer's credit account (if applicable). Should the customer become subject to an administration order, or becomes bankrupt or goes into liquidation, NCSL has a right to cancel any contract and discontinue any work.

7. RETENTION OF TITLE

All reports & data remain the property of NCSL. Under no circumstances will a customer's purchase order override our Retention of Title clause. In the case of software and data, the ownership remains with NCSL. Payment of invoices in full will entitle the customer to use reports or other services under licence until (a) a set expiry date is passed (b) they cease trading. In both instances, the licence shall then revert to NCSL. All measurement data and reports are the sole property of NCSL and shall not be reproduced or distributed without written consent from NCSL.

8. TEST REPORTS

NCSL shall not be liable for any subsequent loss or damage incurred by the client as a result of information supplied in a test report.
Any specifications or targets supplied by NCSL are to be considered as guidance only. No guarantee is offered by NCSL that the meeting of any supplied targets or specifications will solve the relevant issue or prevent future issues.

9. RESPONSIBILITY

Every effort is made to ensure accuracy in description, drawings and other information in correspondence etc but no warranty is given in this respect and NCSL shall not be liable for any error therein. NCSL carries out all tests and/or advises only on the basis that the same are carried out, made or given without any responsibility whether for negligence or otherwise. NCSL and its servants or agents will not be liable for any damage or loss direct or indirect of whatsoever kind, whether or not the same results directly or indirectly from negligence on the part of NCSL or its servants or agents.

10. CONFIDENTIALITY

Unless specifically excluded in the terms of an individual contract between NCSL and its Customer, the following shall apply to all reports, advice, drawings, photographs, specifications or data:

i. The above shall not be disclosed to third parties or used in litigation without the consent of NCSL.
ii. Where NCSL has given consent to disclosure, the Customer shall draw the attention of the third party to these terms of business and the basis on which NCSL undertakes test, reporting and advising. The Customer shall indemnify NCSL for any failure to do so.
iii. The above items are submitted to the Customer as confidential documents. Confidentiality shall continue to apply after completion of the business but shall cease to apply to information or knowledge which may come into the public domain.

11. CONSTRUCTION AND ARBITRATION

The laws of England shall govern all contracts and the parties submit to exclusive jurisdiction of the courts of England, unless otherwise agreed.

12. JOB SPECIFIC TERMS

NCSL will not be held responsible for any adverse impact arising from the introduction of proposed palliative measures. Furthermore, no guarantee is given regarding the effectiveness of any proposed palliative and/or mitigation measures. The client is responsible for any palliative measures, including, but not limited to, the sourcing of suppliers, the quality of installation, the cost of all materials / installation, maintenance and safety. All advice given should be taken as guidance only. It is the responsibility of the client to ensure the safe operation of any mitigation measures, including but not limited to, adequate fire safety and ventilation requirements. NCSL provide no guarantee that adherence to provided specifications will result in no further noise and/or vibration complaints and/or the elimination of noise and/or vibration issues. NCSL do not supply, procure, install or maintain any materials. We reserve the right to publicise the work conducted by NCSL, including, where appropriate, client logos etc. On occasion, work may be conducted by sub-contract partners.