



PEAK acoustics

Noise Assessment Report

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Environmental Noise Assessment

Report Ref: NM30092010NR

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Contents

1. Summary	4
1.1. Proposal	4
1.2. Reason for Assessment	4
1.3. Planning Conditions & Criteria	4
1.4. Assessment Standards & Justification	4
1.5. Environmental Noise Measurements	5
1.6. Noise Assessment Outcomes	5
1.6.1. Internal Noise Levels	5
1.8. Mitigation Recommendations	6
1.8.1. Residential Glazing & Ventilation Scheme	6
1.8.2. Boundary Treatment	6
1.9. Site & Measurement Location	7
2. Environmental Noise Survey	8
2.1. Sources Under Investigation	8
3. Survey Measurements	8
3.1. Measurement Location	8
3.2. Weather Conditions	8
3.3. Measurement Equipment	8
3.4. External Noise Levels	9
4. BS8233:2014 Environmental Noise Assessment	9
4.1. Criteria	9
4.2. Internal Noise Levels – Proposed Insulation	9
4.3. Assessment Outcome	10
4.3.1. Internal Noise Levels	10
4.3.2. Open Window Assessment	10
4.3.3. External Amenity Assessment	11
APPENDIX A – Measurement Details	12
APPENDIX B - Equipment Details	12
APPENDIX C - Meteorology Details	12
APPENDIX D - Calibration Details	12
APPENDIX E – Noise Survey Results	13
APPENDIX F – BS8233 Rigorous Design Calculations	14
APPENDIX G – Barrier Calculation	17
APPENDIX H – Acoustic Terminology	18

1. Summary

1.1. Proposal

A residential development is proposed for 8. no detached dwellings at land at Bescar Brow Lane, Scarisbrick, Ormskirk, L40 9QH.

1.2. Reason for Assessment

The Local Authority Environmental Health Manager has conditioned the requirement of a noise assessment to ensure desirable internal noise levels are met within habitable rooms due to road traffic noise.

1.3. Planning Conditions & Criteria

No specific criteria have been stipulated by the local authority. Therefore, desirable internal noise levels are to be maintained as given in BS8233:2014:

- 50-55dB $L_{Aeq, 16hr}$ within external amenity areas during the day (07:00 – 23:00)
- 35dB $L_{Aeq, 16hr}$ within living areas during the day (07:00 – 23:00)
- 30dB $L_{Aeq, 8hr}$ within bedrooms during the night (23:00 – 07:00)
- 45dB $L_{AFmax, 8hr}$ should not be regularly exceeded within bedrooms at night (23:00 – 07:00)

WHO Guidelines help to define the L_{AFmax} parameter requirements:

“For a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45dB L_{Amax} more than 10-15 times a night (Vallet & Vernet 1991)”.

1.4. Assessment Standards & Justification

‘BS8233:2014 – Guidance on sound insulation and noise reduction for buildings’ is a recognised standard for assessing and mitigating environmental noise levels upon a proposed noise sensitive development. The standard gives a rigorous calculation method for determining interior noise levels based on measured environmental noise levels.

‘World Health Organisation Guidelines for Community Noise (1999)’ details suitable noise levels for various activities within residential and commercial buildings.

1.5. Environmental Noise Measurements

In order to assess environmental noise levels, a noise survey was undertaken at the site from Friday 26th – Monday 29th March 2021. The results from these measurements are tabulated below.

Table 1. – Environmental Measurement Summary

Measurement	Date(s)	Period	L _{Aeq} (dB)	Typical L _{AFmax} (dB)
M1	26 th & 29 th March 2021	(07:00 – 23:00), 14.5hr aggregate period	57.2	-
	26 th – 27 th March 2021	(23:00 – 07:00), 8hr	51.0	66
	27 th March 2021	(07:00 – 23:00), 16hr	55.0	-
	27 th – 28 th March 2021	(23:00 – 07:00), 8hr	54.5	66
	28 th March 2021	(07:00 – 23:00), 16hr	56.1	-
	28 th – 29 th March 2021	(23:00 – 07:00), 8hr	57.5	66

The full measured sound levels are shown graphically in **Appendix E**.

1.6. Noise Assessment Outcomes

1.6.1. Internal Noise Levels

It is determined that by using mitigation as specified in section 1.8 for the building facades, the outcomes summarised in the following tables is achieved.

Table 2. – Noise Assessment Outcome – Residential

Internal Space	Noise Parameter	Internal Noise Level (dB)	Within Desirable Limit (BS8233)
Living/Kitchens	Daytime L _{Aeq} , 16hr	26	Yes
Bedrooms	Night-time L _{Aeq} , 16hr	18	Yes
Bedrooms	Night-time L _{AFmax}	39	Yes
External Space	Noise Parameter	External Noise Level (dB)	Within Desirable Limit (BS8233)
External Garden areas	Daytime L _{Aeq} , 16hr	55	Yes*

*See Section 4.3.3 for external noise assessment.

1.8. Mitigation Recommendations

1.8.1. Residential Glazing & Ventilation Scheme

The recommended glazing and ventilation scheme is given below.

Table 3. – Residential Glazing & Ventilation Scheme

Internal Space	Glazing		Ventilation	
	Minimum Performance $R_w (+C_{tr})$	Example Specification	Minimum Performance $D_{ne,W} (+C_{tr} \text{ (Open)})$	Example Specification
Living / Kitchens	30 (26)	4 / 16 / 4mm	32	Titon Trimvent XS13 4400EA
Bedrooms	30 (26)	4 / 16 / 4mm	32	Titon Trimvent XS13 4400EA

N.B: The sound insulation value of the glazing should take into account the glass as well as the frame and perimeter seal.

1.8.2. Boundary Treatment

In order to achieve desirable external noise levels in all rear garden areas, it is recommended that boundary treatment of close boarded timber fencing at a height of 1.8m would be suitable to ensure external noise levels are within the acceptable limit in accordance with BS8233. See **Section 4.3.3** for further information on the external amenity assessment.

1.9. Site & Measurement Location

The site is located on the east side of Ruabon in a predominantly residential area. A Primary School is located adjacent to site, with another Primary school located 130m south of site. To the east lies the A483, approximately 90m from site. Residential housing and farmland make up most of the wider surrounding area.

The site and measurement locations are shown on Figure 1 below.

Figure 1: Site & Measurement Locations – earth.google.com



- Unattended Environmental Monitoring Location (M1)
- ▬ Site Boundary (Approx.)
- ▬ Mitigation – Boundary Fencing (Approx.)

2. Environmental Noise Survey

2.1. Sources Under Investigation

The primary noise source identified on site was passing road traffic on the A483 which dominated the noise climate. When traffic levels dropped low, children could be heard playing in the adjacent school grounds. During early hours of the morning, birdsong dominates the noise climate.

Secondary noise sources included distant slow-moving traffic around the nearby roads.

The prevailing noise climate is typical of areas dominated by road traffic, characterised by a decrease in noise levels during the night, when use of the nearby road network is reduced.

3. Survey Measurements

Day and night-time environmental noise measurements have been carried out over a weekend period from Friday 26th – Monday 29th March 2021.

Measurements of $L_{Aeq,T}$, L_{AFmax} and L_{A90} were logged in 5-minute intervals in accordance with the provisions of BS7445 - 'Description and Measurement of Environmental Noise'.

3.1. Measurement Location

At position M1, the microphone was positioned toward the rear of site and close to major noise sources as to best represent worst-case conditions regarding both traffic noise and school recess. The microphone was placed approximately 1.7m from local ground level.

3.2. Weather Conditions

Daytime temperatures of 8 – 15°C were present during the survey with increasing winds throughout the measurement period which began at a low 5 – 6 m/s. Toward the end of the survey, wind speed was reaching up to approximately 10 – 11 m/s and therefore noise data towards the beginning of the survey is deemed more reliable and will be used throughout the assessment.

Very light precipitation occurred during the beginning of the noise survey but was deemed not to have adversely affect monitoring data. Detailed weather conditions are given in **Appendix C**.

3.3. Measurement Equipment

Measurement equipment complies with accuracy requirements for common environmental noise measurement standards. Up to date calibration certification can be provided upon request. A detailed equipment list is given in **Appendix B** with calibration information in **Appendix D**.

3.4. External Noise Levels

The highest results of measurement M1 are summarised in the table below. Daytime noise data has been taken from aggregate periods of both Friday 26th and Monday 29th, inclusive of school playground noise and busy rush hour traffic periods. Night-time noise data has been taken from early stages of the noise survey to reduce uncertainty caused by weather conditions.

The full measured sound levels are shown graphically in **Appendix E**.

Table 4. – Measurement Results

Measurement	Date(s)	Period	$L_{Aeq, 16hr}$ (dB)	Typical L_{AFmax} (dB)
M1	26 th & 29 th March 2021	(07:00 – 23:00), 14.5hr aggregate period	57.2	-
	26 th – 27 th March 2021	(23:00 – 07:00), 8hr	51.0	66

**The selected L_{AFmax} corrected noise level spectra, is an average of the spectra of the noisiest 10 events of the 3 night-time periods; the maxima levels selected would not ordinarily be exceeded more than 10 times within the night-time, in accordance with the guidance.*

4. BS8233:2014 Environmental Noise Assessment

4.1. Criteria

Desirable internal noise levels are to be maintained as given in BS8233:2014:

- 50-55dB $L_{Aeq, 16hr}$ within external amenity areas during the day (07:00 – 23:00)
- 35-40dB $L_{Aeq, 16hr}$ within living areas during the day (07:00 – 23:00)
- 30-35dB $L_{Aeq, 8hr}$ within bedrooms during the night (23:00 – 07:00)
- 45dB $L_{AFmax, 8hr}$ should not be regularly exceeded within bedrooms at night (23:00 – 07:00)

WHO Guidelines help to define the L_{AFmax} parameter requirements:

“For a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45dB L_{Amax} more than 10-15 times a night (Vallet & Vernet 1991)”.

4.2. Internal Noise Levels – Proposed Insulation

Room dimensions and glazed areas have been approximated based on the drawings supplied to Peak Acoustics and drawn by ‘Blueprint Architectural Services’. Note that assessment is not required for each individual room. The selection of habitable rooms has been chosen as representative of the most noise sensitive areas, which have been selected on account of room and windows sizes. Standard brick & block construction has been assumed at this stage. Full construction details and calculations are provided within **Appendix F**.

4.3. Assessment Outcome

4.3.1. Internal Noise Levels

Internal noise levels have been calculated to demonstrate that the proposed residential dwellings can achieve suitable noise levels inside habitable rooms when appropriate glazing and ventilation systems are used. The recommended mitigation and corresponding internal noise levels are summarised in table 5 below.

Table 5. – Assessment Outcome

Internal Space	Glazing Minimum Performance $R_w (+C_{tr})$	Ventilation Minimum Performance $D_{ne,W} + C_{tr} (Open)$	Internal Noise Level, dB
Living / Kitchens			26 $L_{Aeq, 16hr}$
Bedrooms	30 (26)	32	18 $L_{Aeq, 8hr}$ 39 L_{AFmax}

N.B: The sound insulation value of the glazing should consider the glass as well as the frame and perimeter seal.

For the daytime assessment for living areas, the desirable limit of BS8233:2014 suggests a guideline of 35 dB $L_{Aeq, 16hr}$ for resting conditions, and up to 40 dB is considered acceptable for necessary developments.

All results, with the recommended façade mitigation, would place the internal levels in kitchen/living areas as below 35 dB, therefore within the desirable category of BS8233.

For the night-time assessment for bedrooms, BS8233:2014 suggests a desirable guideline of 30 dB $L_{Aeq, 8hr}$ for sleeping conditions, with an acceptable limit of 35 dB $L_{Aeq, 8hr}$. Individual noise events (Measured with fast time-weighted Maximum) should not normally exceed 45 dB L_{AFmax} (as in BS8233:1999).

The with the recommended façade mitigation would place the internal continuous levels in bedrooms as below 30 dB and the maximum noise events as typically below 45 dB L_{AFmax} , therefore within the desirable category of BS8233.

4.3.2. Open Window Assessment

It is noted that BS8233 section 7.2.2 states ‘If relying on closed windows to meet the guide values, there needs to be an appropriate alternative ventilation that does not compromise the façade insulation or the resulting noise level’. This statement implies that the use of closed windows and an alternative means of ventilation is acceptable. The development will be required to achieve the minimum ventilation rates indicated in the Building Regulations Approved Document F (AD-F). Habitable rooms should therefore be provided with passive wall or window ventilators that meet or exceed the acoustic performance given in Table 3 whilst providing an open area equivalent to an open window in order to negate the need for open windows for the purposes of ventilation.

4.3.3. External Amenity Assessment

BS8233:2014 provides a desirable guideline of 50 dB $L_{Aeq, 16hr}$ for external amenity spaces and an acceptable guideline of 55 dB $L_{Aeq, 16hr}$ for noisier environments. However, the local authority has requested the 'desirable' level of non-exceedance set at 50 dB $L_{Aeq, 16hr}$.

Raw measurement data 'M1' was recorded at 57.2 dB $L_{Aeq, 16hr}$. It is believed that the main contributor to external noise emanates from the nearby motorway (A483). Cars travel freely around the national speed limit of 70mph, causing high levels of broadband noise.

At present, a close boarded wooden boundary fence separates the site and neighbouring dwellings to the west. To the east an approximate 2.0m existing brick wall separates site from the adjacent school grounds. However, to the rear, a wire mesh fence separates the laying fields.

If a 1.8 – 2.0m close boarded fence were to be erected at the rear, the reduction of noise within the site would be within the acceptable limit. An ISO 9613-2 barrier calculation is provided in **Appendix G**.

APPENDIX A – Measurement Details

Measurement(s)	Kit	Start Date	Start Time	End Date	End Time
M1	A2	26/03/2021	11:05	29/03/2021	10:05

APPENDIX B - Equipment Details

Kit	Equipment	Make	Model	Class	Serial Number
A2	Sound Meter	Svantek	971	1	40305
A2	Pre-Amp	Svantek	SV12L	1	32484
Cal	Calibrator	Svantek	SV33A	1	90273

APPENDIX C - Meteorology Details

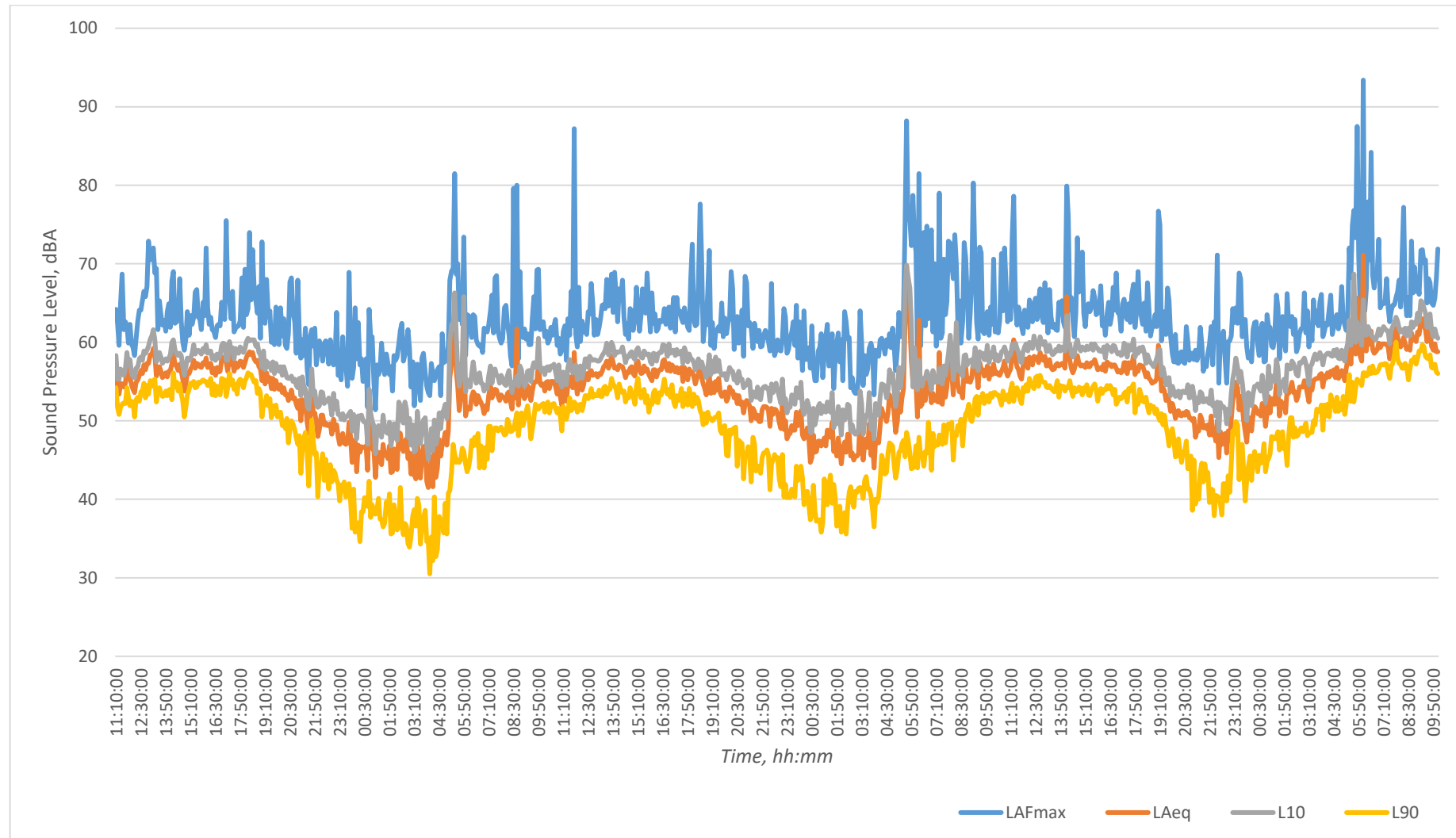
Date	Temp C°	Wind Speed m/s	Wind Direction	Humidity %	Precipitation mm	Cloud Cover (Oktas)
26/03/21 (Start of Survey)	8	5 – 6	WSW	68	0.5	4/8
27/03/21	11	7 – 8	W	54	0	6/8
28/03/21	15	8 – 9	WSW	77	1	8/8
29/03/21 (End of Survey)	14	10	SW	68	0	2/8

APPENDIX D - Calibration Details

Kit	Calibrator Ref Level (dB)	Deviation Before (dB)	Deviation After (dB)
A2	113.8	1.68	1.78

APPENDIX E – Noise Survey Results

Environmental Noise Measurement (M1), 26th – 29th March 2021

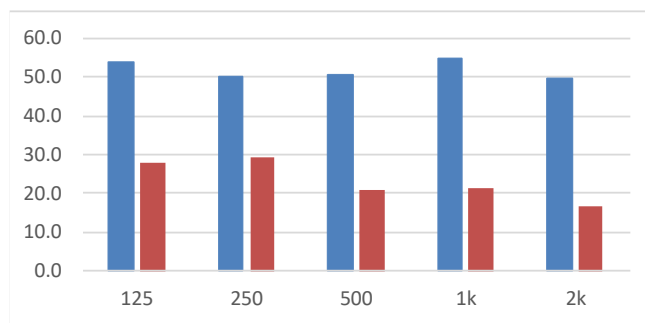


APPENDIX F – BS8233 Rigorous Design Calculations

Living & Kitchen Rooms, LAeq (07:00 - 23:00)

Room Properties		Sound Insulation Properties					
Room Width (m)	3.6	Freq. Hz	125	250	500	1k	2k
Room Depth (m)	4.2	Wall, dB R _{w+Ctr}	41	45	45	54	58
Room Height (m)	2.4	Roof, dB R _{w+Ctr}	41	45	45	54	58
Glazed Area (m ²)	2.5	Glazing, dB R _{w+Ctr}	24	18	26	40	45
Is dwelling within roof	☒	Vents, D _{n,e,w+Ctr}	34	27	37	35	34

Noise Levels, dB



External Level	57.2 dB LAeq
Internal Level	25.9 dB LAeq
Insertion Loss	31.3 dB LAeq

Sound Insulation Requirement

Minimum Sound Insulation Requirement			Suitable Systems
Glazing	30(26)	dB R _{w(+Ctr)}	Double Glazing 4/16/4
Ventilation	32	D _{n,e,w+Ctr}	Hit & miss trickle vent Titon Trimvent XS13 4400EA

Suitable systems given as reference only. Other products that achieve the required sound insulation values are available.

Technical Calculations

Frequency, Hz	125	250	500	1k	2k
Term 1	0.000461	0.0023	0.00023	0.0004	0.00046
Term 2	0.001152	0.0046	0.00073	3E-05	9.2E-06
Term 3	5.64E-05	2E-05	2.2E-05	3E-06	1.1E-06
Term 4	0	0	0	0	0
Internal, dB L _{eq}	28.0	29.2	20.9	21.3	16.8
Internal, dB LAeq	11.9	20.6	17.7	21.3	18.0

Façade Components

Wall	Brick and block, 75mm cavity
Roof	Not Within Roof Space
Glazing	Double Glazing
Vents	Hit & miss trickle vent

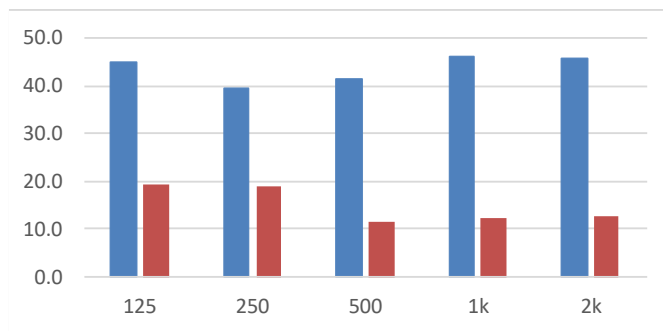
Calculations conducted in accordance with BS8233:2014 rigorous calculation method

$$L_{eq,2} = L_{eq,ff} + 10 \log_{10} \left(\frac{A_0}{S} 10^{\frac{-D_{fa}}{10}} + \frac{S_{wi}}{S} 10^{\frac{-R_{wi}}{10}} + \frac{S_{ew}}{S} 10^{\frac{-R_{ew}}{10}} + \frac{S_{gl}}{S} 10^{\frac{-R_{gl}}{10}} \right) + 10 \log_{10} \left(\frac{S}{A} \right) + 3$$

Bedrooms, LAeq (23:00 - 07:00)

Room Properties			Sound Insulation Properties					
Room Width (m)	3.6	Freq. Hz	125	250	500	1k	2k	
Room Depth (m)	4.2	Wall, dB R _{w+Ctr}	41	45	45	54	58	
Room Height (m)	2.4	Roof, dB R _{w+Ctr}	41	45	45	54	58	
Glazed Area (m ²)	2.5	Glazing, dB R _{w+Ctr}	24	18	26	40	45	
Is dwelling within roof	☒	Vents, D _{n,e,w+Ctr}	34	27	37	35	34	

Noise Levels, dB



External Level	51.0 dB LAeq
Internal Level	17.9 dB LAeq
Insertion Loss	33.1 dB LAeq

Sound Insulation Requirement

Minimum Sound Insulation Requirement			Suitable Systems
Glazing	30(26)	dB R _{w(+Ctr)}	Double Glazing 4/16/4
Ventilation	32	D _{n,e,w+Ctr}	Hit & miss trickle vent Titon Trimvent XS13 4400EA

Suitable systems given as reference only. Other products that achieve the required sound insulation values are available.

Technical Calculations

Frequency, Hz	125	250	500	1k	2k
Term 1	0.000461	0.0023	0.00023	0.0004	0.00046
Term 2	0.001152	0.0046	0.00073	3E-05	9.2E-06
Term 3	5.64E-05	2E-05	2.2E-05	3E-06	1.1E-06
Term 4	0	0	0	0	0
Internal, dB L _{eq}	19.2	18.9	11.5	12.2	12.8
Internal, dB LAeq	3.1	10.3	8.3	12.2	14.0

Façade Components

Wall	Brick and block, 75mm cavity
Roof	Not Within Roof Space
Glazing	Double Glazing
Vents	Hit & miss trickle vent

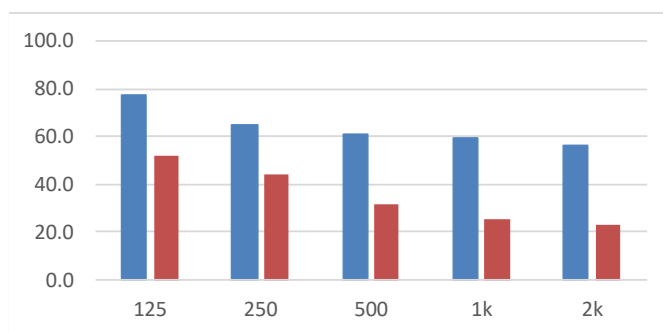
Calculations conducted in accordance with BS8233:2014 rigorous calculation method

$$L_{eq,2} = L_{eq,ff} + 10 \log_{10} \left(\frac{A_0}{S} 10^{\frac{-D_{0,1}}{10}} + \frac{S_{wi}}{S} 10^{\frac{-R_{wi}}{10}} + \frac{S_{ew}}{S} 10^{\frac{-R_{ew}}{10}} + \frac{S_{gl}}{S} 10^{\frac{-R_{gl}}{10}} \right) + 10 \log_{10} \left(\frac{S}{A} \right) + 3$$

Bedrooms, L_{Amax} (23:00 - 07:00)

Room Properties		Sound Insulation Properties					
Room Width (m)	3.6	Freq. Hz	125	250	500	1k	2k
Room Depth (m)	4.2	Wall, dB R _{w+Ctr}	41	45	45	54	58
Room Height (m)	2.4	Roof, dB R _{w+Ctr}	41	45	45	54	58
Glazed Area (m ²)	2.5	Glazing, dB R _{w+Ctr}	24	18	26	40	45
Is dwelling within roof	☒	Vents, D _{n,e,w+Ctr}	34	27	37	35	34

Noise Levels, dB



External Level 65.6 dB L_{Amax}

Internal Level 39.4 dB L_{Amax}

Insertion Loss 26.2 dB L_{Amax}

Sound Insulation Requirement

Minimum Sound Insulation Requirement			Suitable Systems
Glazing	30(26)	dB R _{w(+Ctr)}	Double Glazing 4/16/4
Ventilation	32	D _{n,e,w+Ctr}	Hit & miss trickle vent Titon Trimvent XS13 4400EA

Suitable systems given as reference only. Other products that achieve the required sound insulation values are available.

Technical Calculations

Frequency, Hz	125	250	500	1k	2k
Term 1	0.000461	0.0023	0.00023	0.0004	0.00046
Term 2	0.001152	0.0046	0.00073	3E-05	9.2E-06
Term 3	5.64E-05	2E-05	2.2E-05	3E-06	1.1E-06
Term 4	0	0	0	0	0
Internal, dB L _{eq}	51.6	44.5	31.4	25.5	23.4
Internal, dB L _{Aeq}	35.5	35.9	28.2	25.5	24.6

Façade Components

Wall	Brick and block, 75mm cavity
Roof	Not Within Roof Space
Glazing	Double Glazing
Vents	Hit & miss trickle vent

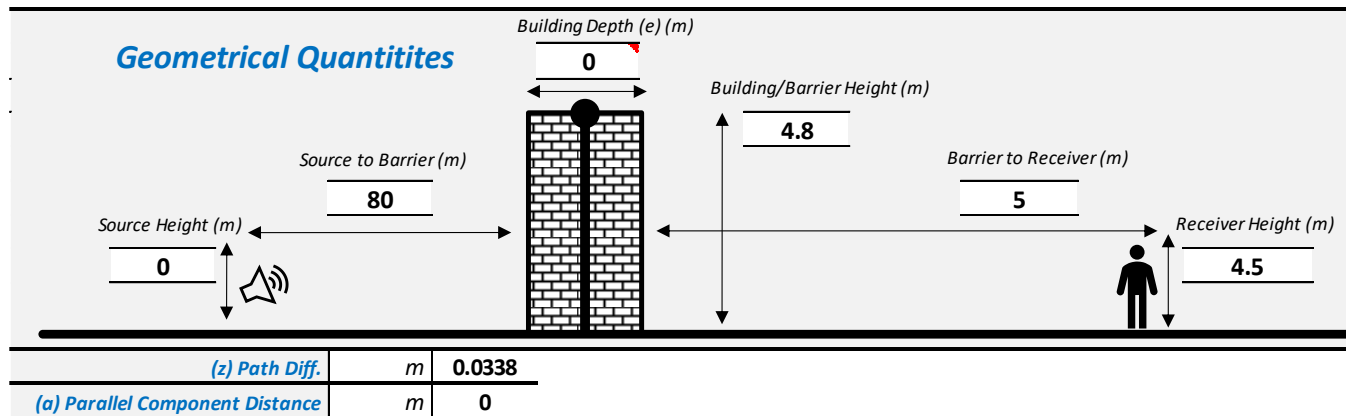
Calculations conducted in accordance with BS8233:2014 rigorous calculation method

$$L_{eq,2} = L_{eq,ff} + 10 \log_{10} \left(\frac{A_0}{S} 10^{\frac{-D_{0,1}}{10}} + \frac{S_{wi}}{S} 10^{\frac{-R_{wi}}{10}} + \frac{S_{ew}}{S} 10^{\frac{-R_{ew}}{10}} + \frac{S_{fr}}{S} 10^{\frac{-R_{fr}}{10}} \right) + 10 \log_{10} \left(\frac{S}{A} \right) + 3$$

APPENDIX G – Barrier Calculation

ISO - 9613-2 Barrier Calculation

Frequency (Hz)	125	250	500	1000	2000	dBA
Source Noise Levels	53.8	49.9	50.7	55.0	49.5	57.2



Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Dz - Barrier Attenuation (dB)	-4.9	-5.1	-5.4	-6.0	-7.0	-8.4	-10.4	-12.7

Frequency (Hz)	125	250	500	1000	2000	dBA
Receiver Noise Levels	48.7	44.5	44.7	48.0	41.1	50.0

Calculation Notes:

Source level set as 0 (motorway is approximately 3m below ground level at site)
 Barrier height set as 4.8m (representative of -3m source height + 1.8m fence)
 Receiver height set at 4.5m (representative of -3m source height and 1.5m typical receiver height)

APPENDIX H – Acoustic Terminology

To aid the understanding of acoustic terminology and the relative difference between noise levels the following background information is provided.

We perceive sound when the ear detects fluctuations in air pressure (sound waves), which are then processed by the brain and perceived as sound. Humans can hear an incredibly wide range of sound intensities ranging from jet engines to fingertips lightly brushing against each other. This range is quantified using a logarithmic scale called the decibel scale (dB). The comfortable range of the decibel scale typically ranges from 0dB (the threshold of hearing) to around 140dB. Here are some examples common environments and their typical noise levels.

Noise Level	Environment
0 dB(A)	Threshold of hearing
20 to 30 dB(A)	Quiet bedroom at night
30 to 40 dB(A)	Living room during the day
40 to 50 dB(A)	Typical office
50 to 60 dB(A)	Inside a moving car
60 to 70 dB(A)	Typical high street
100 to 110 dB(A)	Fire alarm at 1 metre away
140 dB(A)	Threshold of pain

Terminology

dB (decibel) – A unit used to quantify the pressure level of sound. Defined as 20 times the logarithm of the ratio between the root-mean-square pressure of a given sound field and a reference pressure level (2×10^{-5} Pa – threshold of hearing).

$L_{Aeq, T}$ – The equivalent continuous sound pressure level over a stated period. It quantifies a fluctuating sound level over a given period as the equivalent continuous sound level in which the same amount of acoustic energy is contained over. This is A-weighted in order to assess human perception.

L_{Amax} – the maximum RMS A-weighted sound pressure level occurring within a specified time period; the time weighting is typically either Fast or Slow.

R_w – The Weighted Sound Reduction Index (R_w) is a number used to rate the effectiveness of a soundproofing system or material.

$D_{n,e,w}$ – The Weighted Sound Reduction Index specifically for ventilators.

C_{tr} – C_{tr} is a spectrum adaptation term which method is defined in BS EN ISO 717. The standard uses a reference curve to determine the weighted value of airborne sound insulation. The spectrum adaptation terms C and C_{tr} may be used to take into account different source spectra. ' C_{tr} ' is the A-weighted urban traffic noise spectrum.



Let us introduce ourselves

Peak Acoustics formed in 2011, we are a fully accredited specialist consultancy and testing organisation.

We are a diverse team of Acoustic Consultants, Specialist Engineers and Building Compliance Technicians, with a network spanning the UK. We are proud to offer our services nationally, with no job too big or small.

We provide Acoustic Consultancy, Building Compliance Testing and Energy Services.

Additional Services

We offer an extensive range of services in the sectors of Acoustic Consultancy, Building Compliance & Energy Efficiency. We are able to put together custom packages combining multiple services which saves both time and money for you.

Building Compliance

- Sound Insulation Testing
- Air Tightness Testing
- Ventilation Testing
- Water Efficiency Calculations
- Sound Insulation Specification

Energy Efficiency

- SAP Calculations
- EPC's
- SBEM Calculations
- Energy Statements
- Sustainability Statements
- MEES Regulations
- Commercial EPC's

Acoustic Consultancy

- Noise Assessment for planning conditions
- Construction site noise monitoring
- Noise at work assessments
- Noise & Vibration Impact Assessments

Peace of mind

We are accredited and registered by all the relevant major UK authorities to provide the services we offer. Peak Acoustics is UKAS accredited for sound insulation testing, ATTMA registered for Air Leakage Testing. and our Energy team are all Domestic On-Completion Energy Assessors.

Our Added Value

We combine our detailed knowledge of building regulations with our technical understanding of building physics, acoustics and environmental sciences to maximise development quality. Our work ensures appropriate strategies and studies are prepared to demonstrate to local authorities how proposed developments will be of high quality and generate acceptable impact on the surrounding environment.

Contact Us

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Opening hours

Mon - Fri: 8:30 - 17:00