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PAWPIT WREXHAM

NOISE IMPACT ASSESSMENT REPORT

18 RIVULET ROAD, WREXHAM LL13 8DT

Client: Pawpit Wrexham

Report Ref: P10365-R1-V1

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		[redacted]	

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1 INTRODUCTION

1.1.1 By instruction from Pawpit Wrexham, 'the client', NoiseAir was commissioned to undertake a noise impact assessment for a proposed dog day care centre. The proposed facility is to be located at 18 Rivulet Road, Wrexham LL13 8DT, herein referred to as the 'development site'.

1.1.2 The planning application (Ref: P/2026/0281) specifically comprises the following description:

> *"Change of use of building from plumbers merchants to canine facility including secure outdoor area and drop off/ collection point."*

1.1.3 This noise report has been prepared in support of a planning application and assesses the results of a noise survey carried out in accordance with current guidance and includes recommendations and mitigation as appropriate.

1.2 Local Authority Comment

1.2.1 The planning application (Ref: P/2026/0281), at the time of writing, is live with Wrexham Council and a series of plans have been submitted with the application. The local authority have provided the following consultant response from the public protection team:

> *"Due to the presence of residential receptors in close proximity, this section has concerns about the potential for noise disturbance from the proposal. I recommend a noise report be required from the applicant prior to determination:*
>
> *A noise survey shall be carried out, and a detailed report of the survey findings submitted to the Local Planning Authority. The noise survey shall determine noise levels as applicable to the operating schedule, 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 and other applicable best practice guidance. The report of the noise survey findings shall include:*
>
> *a) Noise levels arising from day / nighttime activities from the proposed development site and the impact upon the existing accommodation, and*
>
> *b) A detailed scheme of noise insulation and / or attenuation measures so designed to safeguard the amenity of the existing accommodation.*

Furthermore, I recommend a noise action plan be included with the submission that details how noise will be minimised so as to prevent disturbance to neighbouring residential receptors."

1.2.2 This report seeks to provide the local authority with the above information. A noise management plan (NMP) is also to be provided under separate cover.

1.3 Site Description and Noise Sensitive Receptors (NSRs)

1.3.1 The development site fronts onto Rivulet Road and is located within a mixed-use area. Residential properties are located immediately to the east of the development site, although they are not structurally connected, and further residential properties are located on the opposite side of Rivulet Road at a distance of approximately 20 m.

1.3.2 Car parking associated with the local businesses, which are situated immediately to the west of the development, are located to the rear and to the west. Powerzone Gym is located approx. 15 m to the west of the development site. It was noted that gym music noise was audible in the local area.

1.3.3 The development site was a former plumbing merchant.

1.3.4 The development site condition at the time of writing, prior to any fit out works are shown in **Figure 1** and **Figure 2**.



Figure 1: Internal view to existing roller shutter door.



Figure 2: View to existing front of the building structure and NSR to the east.

1.3.5 The nearest NSRs are considered to be the following and shown in Figure 3.



Figure 3: Site aerial photograph and NSR locations.

1.4 Development Proposals

1.4.1 Development proposals outline the change of use of the existing building structure to form a dog daycare centre (Pawpit Wrexham). Hours of operation are as follows:

- Monday to Friday – 08:00 to 18:00 hours.

1.4.2 It is advised that the facility will accommodate up to 12no. dogs during general play sessions and all activities will take place within the confines of the building with all windows and doors closed.

1.4.3 It is understood that dogs will only go outside during supervised toilet breaks.

2 ASSESSMENT METHODOLOGY

2.1 Planning Policy Wales and Technical Advice Note 11: Noise

2.1.1 Planning Policy Wales (PPW) sets out the national planning policy framework for Wales and is supplemented by Technical Advice Notes (TANs), circulars and policy clarification letters. PPW confirms that planning decisions should support sustainable development and should take account of amenity, health and well-being, including the need to prevent or minimise adverse effects arising from pollution, including noise and soundscape matters.

2.1.2 For a proposed dog day care centre, the principal noise considerations are the potential for airborne noise from dogs barking, internal activity noise breaking out through the building envelope, and noise associated with arrivals, departures, drop-off and collection activity. These matters require consideration having regard to the proximity of existing residential receptors, the proposed operating hours, the number of dogs to be accommodated, the use of external areas, and the robustness of any proposed management and mitigation measures.

2.1.3 TAN 11 provides specific planning guidance on how the planning system can be used to reduce the adverse impact of noise. It advises that noise should be considered both where a proposed development would generate noise and where noise-sensitive development would be exposed to existing noise sources. It also identifies the need for local planning authorities to consider the likely characteristics, level, duration, timing and frequency of noise, and the practicability of mitigation, when determining planning applications.

2.1.4 In the context of this application, the assessment should therefore demonstrate whether noise from the proposed use would be likely to give rise to unacceptable disturbance at nearby residential receptors and whether reasonable measures have been incorporated to avoid, reduce or control noise at source. Relevant measures may include limiting dog numbers, requiring dogs to remain indoors except for supervised toilet breaks, keeping doors and windows closed during normal operation, managing arrivals and departures, and implementing a formal noise management plan.

2.1.5 This report has therefore considered site-specific baseline sound levels, the expected operational use of the building, predicted noise breakout from dog activity, the relationship of the development to the nearest noise-sensitive receptors and appropriate management controls. The assessment and recommendations are intended to provide the local planning authority with sufficient acoustic information to determine whether the proposed use can

operate without causing unacceptable adverse noise effects, subject to the mitigation and management measures described in this report.

2.2 South Holland District Council Supplementary Planning Guidance – Location of Premises for the Boarding and Breeding of Dogs and Other Animals (1999)

2.2.1 The South Holland District Council Supplementary Planning Guidance – Location of Premises for the Boarding and Breeding of Dogs and Other Animals (1999) provides one of the most commonly referenced assessment approaches for considering noise from premises where dogs and other animals are boarded, bred or otherwise accommodated. Although prepared as local supplementary planning guidance, it is widely cited in the absence of more specific adopted national assessment criteria for dog-related commercial uses.

2.2.2 The guidance recognises that animal noise, and particularly dog vocalisation, can be a highly distinctive source of sound and may give rise to adverse community response where premises are poorly located, poorly managed, or positioned close to noise-sensitive receptors. It therefore places importance on the relationship between the proposed use, the existing acoustic environment and the separation distance to nearby residential properties or other sensitive uses.

2.2.3 The assessment approach is based on the principle that the predicted specific sound level from the animal premises should be considered relative to the prevailing background sound level at the nearest noise-sensitive receptors. Where the specific sound level is at or below the representative background sound level, the likelihood of adverse noise impact and complaint is generally reduced, subject to consideration of context and the character of the sound.

2.2.4 The methodology takes account of the measured background sound level, the predicted dog noise source level, distance attenuation, ground effects, screening, meteorological effects and, where relevant, cumulative noise from other similar establishments. It therefore provides a practical means of assessing whether a proposed facility is appropriately located and whether mitigation or management controls are required.

2.2.5 For the proposed dog day care centre, the guidance is relevant because the principal source under consideration is dog vocalisation from within the building and during any limited supervised external use. The South Holland assessment has therefore been used within this report to compare the predicted sound level from the proposed operation with

representative background sound levels at the nearest residential receptors, taking account of the proposed operating arrangements and mitigation measures.

2.2.6 In applying the guidance, the assessment has also considered the practical controls available to the operator, including limiting the number of dogs, keeping dog activity indoors for the majority of the operating period, maintaining closed doors and windows during dog activity, supervising any external toilet breaks and implementing a formal noise management plan where appropriate.

- The background sound level at the receptor location;
- Specific factors about the location of the proposal including the types of ground and any screening between the noise source and noise sensitive receptors in the vicinity;
- The influence of prevailing wind on noise impact; and,
- Where there are already boarding and breeding establishments within the vicinity of the proposed premises and noise sensitive locations then the cumulative noise impact.

2.3 ProPG: Guidance for the Assessment and Management of Noise from Dog Kennels

2.3.1 The ProPG: Guidance for the Assessment and Management of Noise from Dog Kennels has been prepared to provide a dedicated framework for the assessment and management of noise from dog-related facilities affecting noise-sensitive receptors. The guidance is intended to address the recognised limitations and inconsistency associated with applying more general industrial, commercial or community noise assessment methods to dog vocalisation.

2.3.2 The scope of the guidance includes premises such as boarding kennels, dog hotels, breeding kennels, day care facilities, dog training and agility facilities, rescue kennels, working dog kennels, hunt kennels and veterinary or scientific premises. The primary source considered is dog vocalisation, including barking, whining, yelping and howling, whether arising from dogs located inside buildings or from dogs using external exercise or activity areas.

2.3.3 The ProPG sets out guidance on source data, measurement procedures, prediction methods, assessment methodology, contextual factors, uncertainty, mitigation and the design and management of dog facility sites. It recognises that dog vocalisation is intermittent, distinctive and potentially attention-attracting, and that assessment should therefore consider not only calculated sound levels but also the character of the source, the

duration and frequency of audible events, the sensitivity of receptors and the effectiveness of management controls.

2.3.4 For this application, the ProPG is relevant because the proposed use is a dog day care centre and the key noise source is expected to be dog vocalisation from within the building, with only limited supervised external activity. The guidance therefore assists in defining appropriate baseline survey requirements, dog noise source assumptions, propagation and breakout assessment methods, consideration of façade and receptor locations, and the need for proportionate operational management measures.

2.3.5 The assessment contained in this report therefore has regard to the ProPG by considering the measured baseline sound climate, the likely dog vocalisation source levels, the proposed internal operating arrangement, the limited nature of external use, the proximity and sensitivity of nearby residential receptors, uncertainty in the assessment assumptions and the role of a noise management plan in controlling the risk of adverse effect during operation.

3 ACOUSTIC SURVEY

3.1 Acoustic Survey Details

3.1.1 NoiseAir carried out fixed position primarily unattended noise monitoring on the dates ranging from 11th August to 14th August 2026 at the development site.

3.1.2 Noise monitoring was undertaken at one monitoring location (ML1).

3.1.3 The noise monitoring location is shown in **Figure 4** and details provided in **Table 1** below.



Figure 4: Noise monitoring location.

Table 1: Summary of Noise Monitoring Locations

Monitor Location Number	Location Description	Time Period Monitored		Attended or Unattended Monitoring
		Start	End/ Duration	
ML1	At the southern boundary of the development site building. The sound level meter microphone was mounted to the building at a height of 2.0 m and at approximately 0.3 m from the façade.	19:15 11/08/26	00:45 14/08/26	Unattended

3.1.4 The monitor location was positioned to be representative of the background sound levels in the locality. Due to constraints on site, the microphone was installed at 0.3 m from the building façade. Given the close distance of the microphone to the building we have not applied a façade correction for this assessment.

3.1.5 It should also be noted that the monitoring period ceased in the early hours of 14th August as a result of the SLM supply battery becoming exhausted. Notwithstanding this, the

monitoring period is considered to provide sufficient measurement data to determine a representative background sound level.

3.1.6 The noise measurements were made using one Class 1, integrating sound level meter (SLM).

3.1.7 The acoustic equipment was calibrated to comply with Section 4.2 of BS7445-1:2003[1] before and after the noise monitoring periods.

3.1.8 Details of the SLM and associated field calibration can be found in **Table 2** below;

Table 2: Summary of SLM used for survey and associated field calibration

SLM (Serial Number)	Preamp (Serial Number	Microphone (Serial Number)	Calibrator (Serial Number)	Start Calibration	End Calibration	Drift
NOR140 (1402868)	NOR1209 (12320)	NOR1225 (72835)	NOR1251 (30940)	-25.0 dB	-25.1 dB	0.1 dB

3.1.9 The weather conditions were noted to be as outlined in **Table 3** during the site visits at the start and end of the monitoring periods.

Table 3: Summary of weather conditions noted at the start and end of the monitoring duration.

	11th August 2026	14th August 2026
Roads (Wet / Dry)	Dry	Dry
Temperature (˚C)	27	22
Wind speed (ms^{-1})	Up to 3.6 S	Up to 3.1 NW
Cloud Cover (Approx. %)	0	40
Humidity (%)	41	53

3.1.10 The weather conditions remained approximately consistent over the duration of the noise survey with typical temperature fluctuations over night and daytime hours.

3.1.11 A-weighted[2] L_{eq}[3] noise levels were measured to comply with the requirements of Pro-PG: Guidance for the Assessment and Management of Noise from Dog Kennels and SPG-LPBBD. A-weighted L_{90}[4] and L_{AMax}[5] were also measured to provide additional information.

[1] BS7445-2003 "Description and measurement of environmental noise – Part 1: Guide to quantities and procedures.
[2] An electronic filter in a sound level meter which mimics the human ear's response to sounds at different frequencies under defined conditions.
[3] Equivalent continuous noise level; the steady sound pressure which contains an equivalent quantity of sound energy as the time-varying sound pressure levels.
[4] The noise level which is exceeded for 90% of the measurement period.
[5] The instantaneous maximum noise level recorded for a measurement period.

3.1.12 Data is shown in **Figure 5** detailing a level vs. time graph of the recorded L_{Amax}, L_{Aeq} and L_{A90} sound levels over 15-minute time periods for ML1.

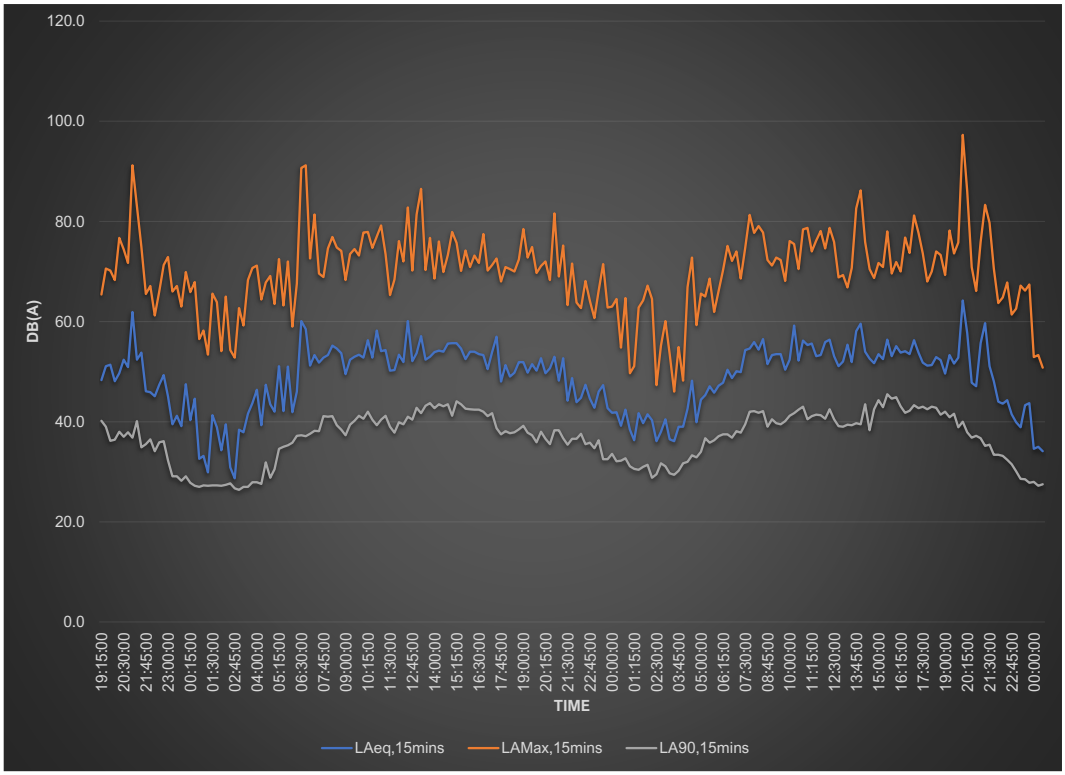


Figure 5: Level vs. time graph showing L_{Amax}, L_{Aeq} and L_{A90} sound levels – ML1.

3.2 Background Sound Levels

3.2.1 Data analyses have been performed on the background sound levels in order to determine typical values for the locality. A histogram showing the distribution of existing $L_{A90,T}$ sound levels for the daytime is presented in **Figure 6** for ML1.

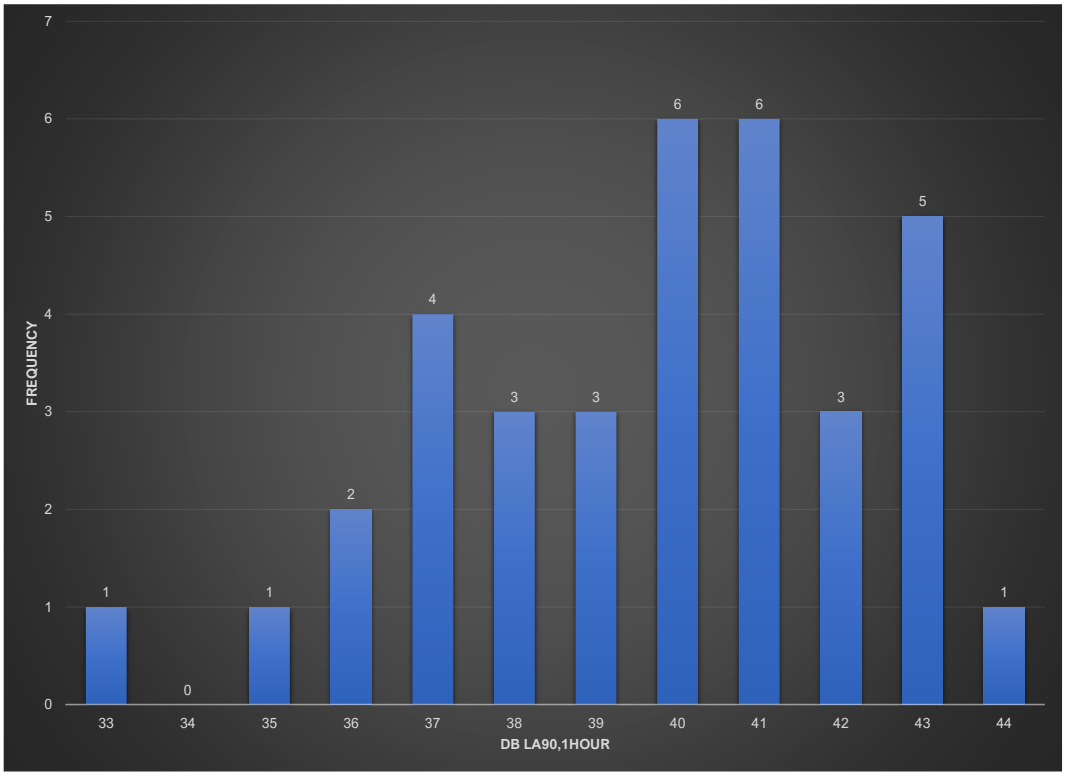


Figure 6: Histogram showing frequency distribution of $L_{A90,15mins}$ noise readings at ML2 – daytime.

3.2.2 The datasets presented demonstrate a wide range of measured values, this is expected given the locality and the noise from other commercial sources in the locality being included within the datasets.

3.2.3 It is therefore considered that a daytime background sound level of 40 dB(A) is considered typical.

3.3 Internal Dog Noise Levels

3.3.1 ProPG:Guidance for the Assessment and Management of Noise from Dog Kennels and SPG-LPBBD both propose typical spectra for a medium-sized dog barking, with the former nominating a level of 65 dB(A) at 10 m and the latter nominating a level of 66 dB(A) at 10 m. Both derivations are based on a wide range of data and relate to outdoor environments. For this assessment, NoiseAir has therefore adopted internal dog-noise measurement data obtained from a broadly comparable dog facility at Gables Farm, Swanley, as this is considered more directly applicable than adapting outdoor source measurements to an indoor environment.

3.3.2 An internal noise measurement was undertaken within an existing dog kennel building accommodating two rows of kennels with dogs present. The measurement was based on 20

dogs within a highly reverberant kennel environment. The measured level is presented in **Figure 7** and comprises a 15-minute time-averaged sound level of 84.3 dB(A).

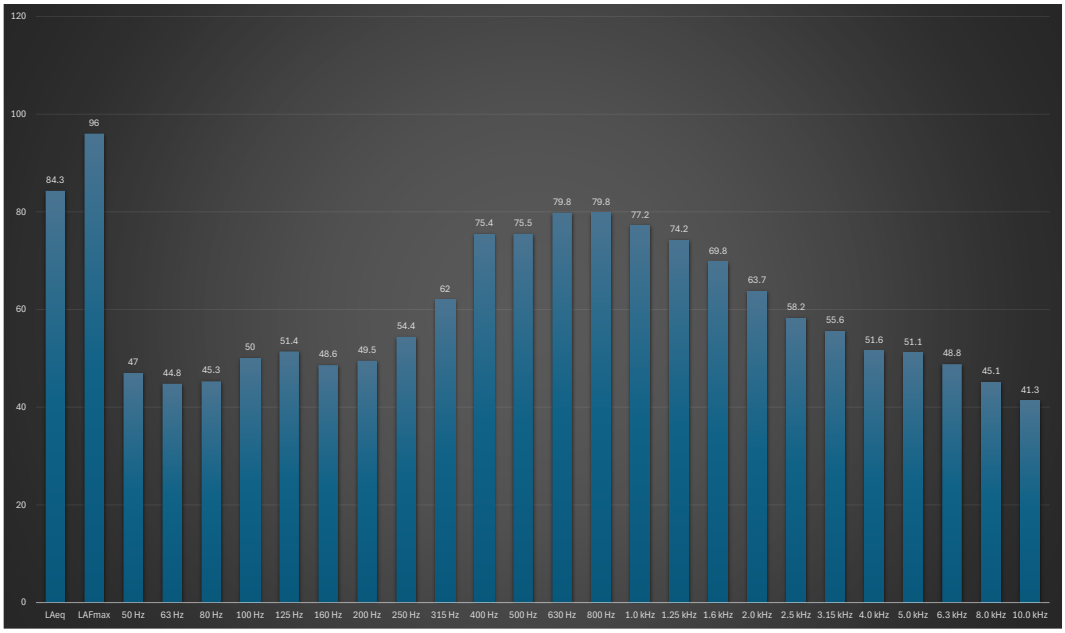


Figure 7: Internal Dog Noise Measurement.

4 3D SOUND MODEL

4.1 Introduction

4.1.1 A 3D sound model has been constructed in SoundPLAN™ to calculate the predicted sound pressure levels at selected NSRs. The model uses the calculation method from ISO 9613-2:2024[6] to account for the distance between the source and receiver and any screening or reflections provided by the surrounding buildings.

4.2 3D Sound Model

4.2.1 The 3D sound model has been calibrated to an overall ambient sound level of 84 dB(A) within the proposed building.

4.2.2 Two scenarios have been modelled as below:

- **Scenario 1** – 84 dB(A) ambient internal sound level, no acoustic mitigation applied to the existing building. The existing roller shutter door and roof structure have both been set with R_w of 12 dB; and,
- **Scenario 2** – as above with the roller shutter door and roof enhanced to offer not less than R_w 25 dB. This has been achieved in the model using a Kingspan KS1000RW insulation panel with the acoustic performance as outlined in **Table 4**.

Table 4: Kingspan KS1000RW Panel Acoustic Properties

63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1000 Hz dB	2000 Hz dB	4000 Hz dB	8000 Hz dB	Rw dB
20	18	20	24	20	29	39	47	25

4.2.3 A noise contour plot illustrating the propagation of sound from source to receptor during the day ($L_{Aeq,T}$) is given in **Figure 8** and **Figure 9** for Scenario 1 and Scenario 2, respectively.

[6] ISO9613-2:2024 "Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation"

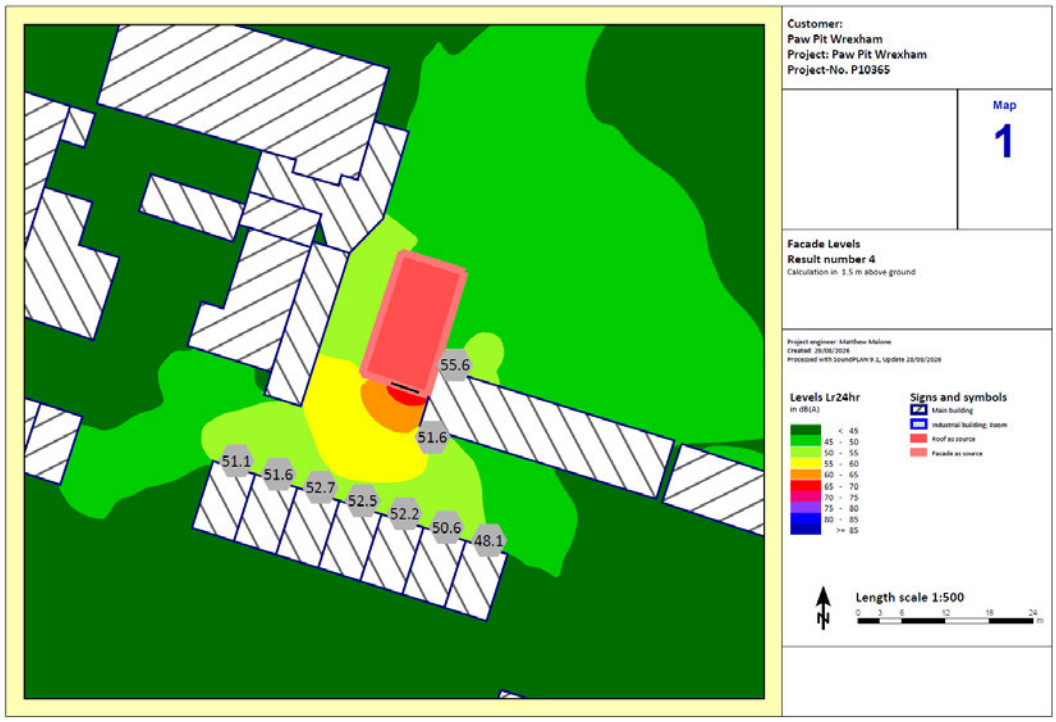


Figure 8*: Noise contour plot illustration of the predicted dog noise propagation to the existing residential receptors during the daytime, Scenario 1 – $L_{Aeq,T}$.*

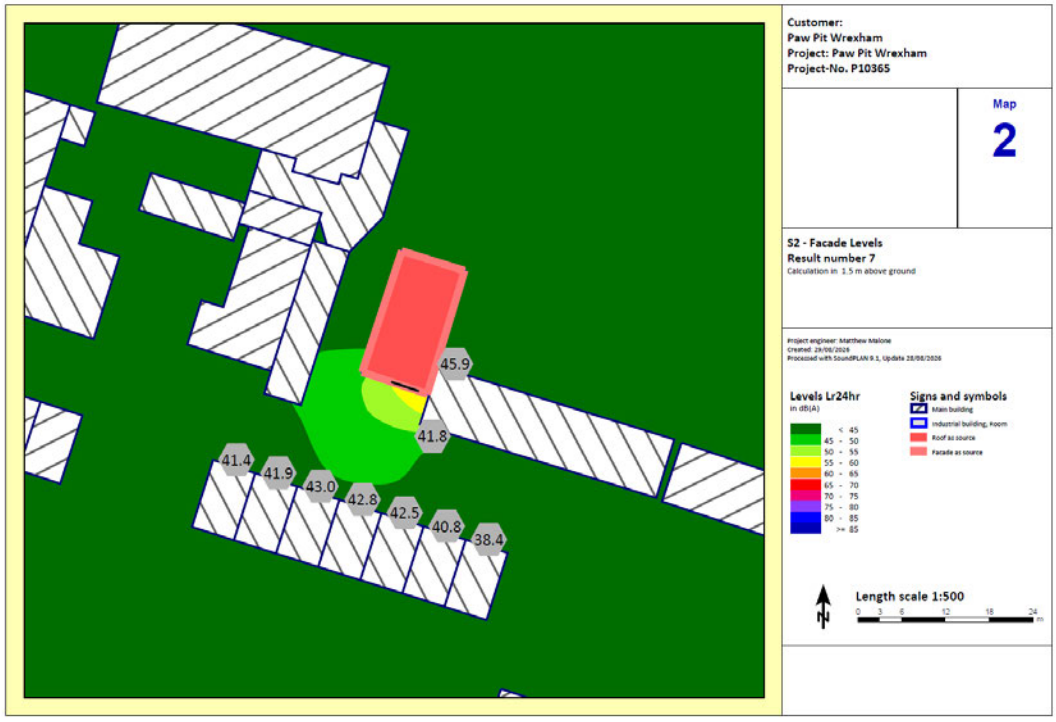


Figure 9*: Noise contour plot illustration of the predicted dog noise propagation to the existing residential receptors during the daytime, Scenario 2 – $L_{Aeq,T}$.*

4.2.4 **Table 5** below details the predicted noise levels at each façade receptor location.

Table 5: Summary of predicted façade sound levels from 3D sound model		
Scenario	Calculated Noise Level (Figures in dB $L_{Aeq,T}$)	
	NSR – Adjacent Rear Facade	NSR – Facades facing Rivulet Road
1	55.6	52.7
2	45.9	43.0

5 NOISE IMPACT ASSESSMENT

5.1.1 This section presents the assessment of potential noise impact associated with the proposed dog day care centre. The assessment adopts a relative approach, whereby the predicted specific sound level from the proposed dog-related activity is compared with the representative background sound level at the nearest noise-sensitive receptors. This approach is consistent with the assessment principles set out within the South Holland District Council Supplementary Planning Guidance – Location of Premises for the Boarding and Breeding of Dogs and Other Animals (1999) and the ProPG: Guidance for the Assessment and Management of Noise from Dog Kennels.

5.1.2 Both guidance documents recognise that dog vocalisation can be distinctive, intermittent and potentially attention-attracting, and that an assessment based solely on absolute sound levels may not fully describe the potential for adverse response. Accordingly, the assessment considers the predicted level of dog noise relative to the prevailing acoustic environment, together with the character of the source, the proposed operating hours, the use of the building, the proximity of residential receptors and the mitigation and management measures proposed.

5.1.3 In accordance with the ProPG approach, for daytime operation, a predicted dog noise level of more than 5 dB(A) above the representative background sound level would be indicative of an adverse impact, subject to consideration of context. This +5 dB(A) threshold has therefore been used within this report as the primary daytime indicator for assessing the significance of predicted dog noise at the nearest residential receptors.

5.2 Noise Level Assessment

5.2.1 An assessment of the predicted noise levels is presented in **Table 6** and quantifies the calculated façade levels against the measured background sound levels.

Table 6: Summary of SPG-LPBBD Assessment					
Scenario	Background Sound Level dB(A)	NSR Sound level dB(A)			
		NSR – Adjacent Rear Facade		NSR – Facades facing Rivulet Road	
		Façade Sound Level	Excess over Background	Façade Sound Level	Excess over Background
1	40	56	**+16**	53	**+13**
2	40	46	**+6**	43	**+3**

5.3 Context and Discussion

5.3.1 The results presented in **Table 6** compare the predicted façade sound levels from the proposed dog day care use with the adopted representative daytime background sound level of 40 dB(A). The assessment has been undertaken in the context of the ProPG approach, whereby a predicted dog noise level of more than 5 dB(A) above the representative background sound level would be indicative of an adverse impact during the daytime, subject to consideration of context.

5.3.2 Scenario 1 represents the building in its existing form, with no additional acoustic enhancement to the existing roller shutter door or roof structure. Under this scenario, the predicted façade sound levels are 56 dB(A) at the adjacent rear façade receptor and 53 dB(A) at the façades facing Rivulet Road. These levels are respectively 16 dB(A) and 13 dB(A) above the adopted background sound level and therefore exceed the +5 dB(A) daytime criterion. On this basis, operation of the proposed use within the building in its existing condition would be expected to present a risk of adverse noise impact at the nearest residential receptors.

5.3.3 Scenario 2 considers the effect of enhancing the acoustic performance of the building envelope through the application of Kingspan KS1000RW panel to the existing roller shutter door and to the roof. This reduces the predicted façade sound levels to 46 dB(A) at the adjacent rear façade receptor and 43 dB(A) at the façades facing Rivulet Road. The corresponding excesses above background are +6 dB(A) and +3 dB(A), respectively.

5.3.4 The Scenario 2 results therefore demonstrate a substantial reduction in predicted dog noise breakout when compared with the existing building condition. At the façades facing Rivulet Road, the predicted level is below the +5 dB(A) adverse impact indicator. At the adjacent rear façade receptor, the predicted level is marginally above the +5 dB(A) indicator, by

approximately 1 dB. Given the small magnitude of this exceedance, the result should be considered in context rather than as a simple pass/fail outcome.

5.3.5 The local acoustic environment is influenced by existing commercial activity on and around Rivulet Road, including noise from nearby businesses and car park activity. During the survey, music noise associated with Powerzone Gym, located approximately 15 m to the west of the development site, was noted to be audible in the locality. This indicates that the existing daytime sound climate is not characterised solely by low-level residential or road traffic noise and already includes commercial sound sources of varying character.

5.3.6 It is recognised, however, that limited benefit should be assumed from acoustic masking by existing commercial noise sources. Dog vocalisation has a distinct character and may be intermittent and attention-attracting, whereas music noise from the gym has a different temporal and spectral character. Accordingly, while the presence of existing commercial noise forms part of the contextual evaluation, it has not been relied upon as a primary means of reducing the significance of the predicted dog noise impact.

5.3.7 Noise emissions from premises such as dog day care facilities are also highly dependent on the standard of operational noise management applied once the use is established. Unlike many fixed mechanical or industrial noise sources, dog vocalisation can vary materially depending on the number of dogs present, their behaviour, the level of supervision, the grouping of dogs, the degree of stimulation, the use of internal and external areas, and how quickly periods of elevated barking are identified and addressed by staff.

5.3.8 The calculated results presented in **Table 6** therefore represent a reasonable prediction of noise breakout based on the stated operational and building-envelope assumptions. However, the acceptability of the use in practice will also rely on effective day-to-day management to ensure that dog noise is minimised at source and that the operating arrangements assumed within this assessment are maintained. This is particularly important given that the Scenario 2 prediction at the adjacent rear façade receptor is marginally above the +5 dB(A) daytime adverse-impact indicator.

5.3.9

5.3.10

5.3.11

5.3.12 It is therefore recommended that the development is operated in accordance with a formal Noise Management Plan. The purpose of the Noise Management Plan should be to set out

clear, auditable procedures for controlling noise from the premises, with particular emphasis on maintaining dogs indoors during normal activity, keeping external doors and windows closed during dog occupation, limiting external use to supervised toilet breaks only, avoiding prolonged or uncontrolled barking, and ensuring that staff have defined responsibilities for monitoring and responding to noise events.

5.3.13 The Noise Management Plan should also include a procedure for assessing the suitability of dogs for the day care environment, managing incompatible or persistently vocal dogs, controlling arrivals and departures, recording and investigating any noise complaints, and implementing corrective actions where required. Subject to the building-envelope enhancements described under Scenario 2 and the implementation of an appropriate Noise Management Plan, it is considered that the risk of adverse noise impact can be appropriately controlled.

6 RECOMMENDATIONS

6.1 Introduction

6.1.1 This section sets out the recommended mitigation and operational controls required to manage noise from the proposed dog day care facility. The recommendations are based on the assessment findings and are intended to ensure that noise breakout is minimised through both building-envelope improvements and effective day-to-day noise management.

6.2 Enhancement to the Building Envelope

6.2.1 It is recommended that the existing roller shutter door and roof structure to the main building are acoustically enhanced prior to occupation of the proposed dog day care use. The enhanced constructions should be designed and installed to achieve, as a minimum, the acoustic performance values set out in Table 4, or otherwise achieve an equal or better octave-band sound reduction performance and weighted sound reduction index.

6.2.2 The enhancement should include the application of a suitable acoustically rated panel system, such as the Kingspan KS1000RW panel considered within Scenario 2, to the existing roller shutter door and roof areas. All panel joints, junctions, perimeter interfaces, penetrations and abutments should be well sealed acoustically to avoid gaps, flanking paths or weak elements which could materially reduce the overall performance of the enhanced building envelope.

6.3 Noise Management Plan

6.3.1 It is recommended that the client prepares a noise management plan for the operation of the development site. The noise management plan should recognise that noise emissions from dog day care premises are highly dependent on day-to-day operational control, including dog numbers, supervision, dog behaviour, use of external areas and the management response to elevated barking. The noise management plan should cover the following main points:

- Identify an individual/ manager responsible for noise management for the business;
- Outline clear procedures to minimise noise breakout which should include;
- Confirm the maximum number of dogs on site and ensure that this does not exceed the number assessed within this report, unless subject to further acoustic review;
- Ensure that dogs remain indoors during general activity periods, with external use limited to short, supervised toilet breaks only;

- Keep external doors and windows closed when dogs are present within the building, except for necessary access and egress;
- Prohibit unsupervised external play or exercise unless this is subject to further acoustic review;
    - Procedures for non-compliant dogs (in terms of excessive barking);
    - Procedures to ensure dogs are stimulated appropriately;
    - Procedures for separation of dogs into groups where appropriate;
    - Procedures for staff to monitor barking events and intervene promptly where elevated or prolonged barking occurs;
    - Procedures to stagger dog exercise as appropriate;
- Provide an appropriate channel for the reporting of noise complaints by residents to the business;
- Provide appropriate complaints logs and procedures when a complaint is received;
- Outline procedures for investigation of any complaints that may be received and options for remedial action. This should include logging of any actions taken.
- Where complaints persist a procedure to undertake professional noise investigation.
- Provide staff training and briefing on the requirements of the noise management plan, including responsibilities for supervision, door/window control, external use and complaint response;
- Review the noise management plan following any substantiated noise complaint, material change to the operation, increase in dog numbers, or change to the use of external areas.

7 CONCLUSIONS

7.1.1 NoiseAir has undertaken a noise impact assessment in support of the proposed change of use of the existing building at 18 Rivulet Road, Wrexham to form a dog day care facility operated by Pawpit Wrexham. The assessment has been prepared having regard to Planning Policy Wales, TAN 11, the South Holland District Council guidance and the ProPG dog kennels guidance.

7.1.2 The proposed use would accommodate up to 12 dogs, with activity taking place indoors and external use limited to supervised toilet breaks only. Baseline monitoring undertaken between 11th and 14th August 2026 has been used to adopt a representative daytime background sound level of 40 dB(A), with the locality noted to include existing commercial noise sources, including audible music from Powerzone Gym.

7.1.3 A 3D sound model has been used to predict dog noise breakout at the nearest residential receptors. The assessment compares predicted dog noise with the representative background level, with more than +5 dB(A) above background taken as indicative of adverse daytime impact, subject to context.

7.1.4 The existing building condition is predicted to exceed the +5 dB(A) indicator and is not considered acceptable without mitigation. With the Scenario 2 enhancements, comprising Kingspan KS1000RW or an acoustically equivalent system to the existing roller shutter door and roof, predicted levels are reduced to below the indicator at the Rivulet Road façades and to approximately +6 dB(A) at the adjacent rear façade.

7.1.5 The remaining marginal exceedance should be considered in the context of the commercial character of the locality, although limited reliance is placed on masking because dog vocalisation is distinctive and potentially attention-attracting. Overall acceptability is therefore dependent on the envelope enhancements and effective operational noise management.

7.1.6 Subject to the recommended building-envelope enhancements and operation in accordance with a formal Noise Management Plan controlling dog numbers, internal activity, external use, barking response, staff training and complaint review, it is concluded that noise from the proposed dog day care facility can be controlled to an acceptable level at the nearest residential receptors.

APPENDIX A - REPORT LIMITATIONS

This Report is presented to Pawpit Wrexham and may not be used or relied on by any other person or by the client in relation to any other matters not covered specifically by the scope of this report.

Notwithstanding anything to the contrary contained in the report, NoiseAir Limited is obliged to exercise reasonable skill, care and diligence in the performance of the services required by Pawpit Wrexham and NoiseAir shall not be liable except to the extent that it has failed to exercise reasonable skill, care and diligence, and this report shall be read and construed accordingly.

This report has been prepared by NoiseAir Limited. No individual is personally liable in connection with the preparation of this report. By receiving this report and acting on it, the client or any other person accepts that no individual is personally liable whether in contract, tort, for breach of statutory duty or otherwise.

The conclusions and recommendations contained in this report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from who it has been requested and that such information is accurate. Information obtained by NoiseAir Limited has not been independently verified by NoiseAir Limited unless otherwise stated in the report and should be treated accordingly.

Where assessments of works or costs identified in this report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available.

Where / if estimates and projects are made within this report, are made based on reasonable assumptions as of the date of this report, such statements however by their very nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. NoiseAir Limited specifically does not guarantee or warrant any estimates or projects contained in this report.

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APPENDIX B - GLOSSARY

A-weighted sound pressure, p_A	Value of overall sound pressure, measured in pascals (Pa), after the electrical signal derived from a microphone has been passed through an A-weighting network. *NOTE: The A-weighting network modifies the electrical response of a sound level meter with frequency in approximately the same way as the sensitivity of the human hearing system.*
A-weighted sound pressure level, L_{pA}	Quantity of A-weighted sound pressure in decibels (dBA).
Acoustic environment	Sound from all sound sources as modified by the environment [BS ISO 12913-1:2013].
Ambient sound	Totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far. *NOTE: The ambient sound comprises the residual sound and the specific sound when present.*
Ambient sound level, $L_a = L_{Aeq,T}$ (BS4142:2014)	Equivalent continuous A-weighted sound pressure level of the totally encompassing sound in a given situation at a given time, usually from many sources near and far, at the assessment location over a given time interval, T *NOTE: The ambient sound level is a measure of the residual sound and the specific sound when present.*
Background sound	Underlying level of sound over a period, *T*, which might in part be an indication of relative quietness at a given location.
Background sound level, $L_{A90,T}$ (BS4142:2014)	A-weighted sound pressure level that is exceeded by the residual sound at the assessment location for 90% of a given time interval, T, measured using time weighting F and quoted to the nearest whole number of decibels.
Break-in	Noise transmission into a structure from outside.
Break-out	Noise transmission from inside a structure to the outside.
Cross-talk	Noise transmission between one room and another room or space via a duct or other path.
C_{tr}	Correction term applied against the sound insulation single-number values (R_w, D_w, and $D_{nT,w}$) to provide a weighting against low frequency performance. *NOTE: The reference values used within the C_{tr} calculation are based on urban traffic noise.*
Equivalent continuous A-weighted sound pressure level, $L_{Aeq,T}$	Value of the A-weighted sound pressure level in decibels (dB) of a continuous, steady sound that, within a specified time interval, T, has the same mean-squared sound pressure as the sound under consideration that varies with time.
Equivalent continuous A-weighted sound pressure level, $L_{Aeq,T}$ (BS4142:2014)	Value of the A-weighted sound pressure level in decibels of continuous steady sound that, within a specified time interval, $T = t_2 - t_1$, has the same mean-squared sound pressure as a sound that varies with time.
Equivalent sound absorption area of a room, A	Hypothetical area of a totally absorbing surface without diffraction effects, expressed in square metres (m2), which, if it were the only absorbing element in the room, would give the same reverberation time as the room under consideration
Facade level	Sound pressure level 1 m in front of the façade. *NOTE: Facade level measurements of L_{pA} are typically 1 dB to 2 dB higher than corresponding free-field measurements because of the reflection from the facade.*
Free-field level	Sound pressure level away from reflecting surfaces. *NOTE: Measurements made 1.2 m to 1.5 m above the ground and at least 3.5 m away from other reflecting surfaces are usually regarded as free-field. To minimize the effect of reflections the measuring position has to be at least 3.5 m to the side of the reflecting surface (i.e. not 3.5 m from the reflecting surface in the direction of the source). Estimates of noise from aircraft overhead usually include a correction of 2 dB to allow for reflections from the ground.*

Impact sound pressure level, L_i	Average sound pressure level in a specific frequency band in a room below a floor when it is excited by a standard tapping machine or equivalent.
Indoor ambient noise	Noise in a given situation at a given time, usually composed of noise from many sources, inside and outside the building, but excluding noise from activities of the occupants. *NOTE: The location(s) within the room at which the ambient indoor noise is to be measured or calculated ought to be considered.*
Measurement time interval, T_m (BS4142:2014)	Total time over which measurements are taken. *NOTE: This may consist of the sum of a number of non-contiguous, short-term measurement time intervals.*
Noise criteria	Numerical indices used to define design goals in a given space.
Noise rating, NR	Graphical method for rating a noise by comparing the noise spectrum with a family of noise rating curves.
Normalised impact sound pressure level, L_n	Impact sound pressure level normalized for a standard absorption area in the receiving room. *NOTE: Normalised impact sound pressure level is usually used to characterize the insulation of a floor in a laboratory against impact sound in a stated frequency band.*
Octave band	Band of frequencies in which the upper limit of the band is twice the frequency of the lower limit.
Percentile level, $L_{AN,T}$	A-weighted sound pressure level obtained using time-weighting “F”, which is exceeded for *N*% of a specified time interval.
Reference time interval, T_r (BS4142:2014)	Specified interval over which the specific sound level is determined. *NOTE: This is 1 h during the day from 07:00 h to 23:00 h and a shorter period of 15 min at night from 23:00 h to 07:00 h.*
Residual sound (BS4142:2014)	Ambient sound remaining at the assessment location when the specific sound source is suppressed to such a degree that it does not contribute to the ambient sound.
Residual sound level, $L_r = L_{Aeq,T}$ (BS4142:2014)	Equivalent continuous A-weighted sound pressure level of the residual sound at the assessment location over a given time interval, T.
Rating level, $L_{Ar,Tr}$	Equivalent continuous A-weighted sound pressure level of the noise, plus any adjustment for the characteristic features of the noise. *NOTE: This is used in BS 7445 and BS 4142 for rating industrial noise, where the noise is the specific noise from the source under investigation.*
Reverberation time, *T*	Time that would be required for the sound pressure level to decrease by 60 dB after the sound source has stopped.
Sound exposure level, *LAE*	Level of a sound, of 1 s duration, that has the same sound energy as the actual noise event considered.
Sound level difference, *D*	Difference between the sound pressure level in the source room and the sound pressure level in the receiving room.
Sound pressure, *p*	Root-mean-square value of the variation in air pressure, measured in pascals (Pa) above and below atmospheric pressure, caused by the sound.
Sound pressure level, L_p	Quantity of sound pressure, in decibels (dB).
Sound reduction index, *R*	Laboratory measure of the sound insulating properties of a material or building element in a stated frequency band.

Specific sound level, $L_s = L_{Aeq,Tr}$ (BS4142:2014)	Equivalent continuous A-weighted sound pressure level produced by the specific sound source at the assessment location over a given reference time interval, T_r.
Specific sound source (BS4142:2014)	Sound source being assessed.
Standardised impact sound pressure level, L'_{nT}	Impact sound pressure level normalized to a reverberation time in the receiving room of 0.5 s.
Standardised level difference, D_{nT}	Difference in sound level between a pair of rooms, in a stated frequency band, normalized to a reference reverberation time of 0.5 s for dwellings.
Groundborne noise	Audible noise caused by the vibration of elements of a structure, for which the vibration propagation path from the source is partially or wholly through the ground. *NOTE Common sources of ground-borne noise include railways and heavy construction work on adjacent construction sites.*
Structure-borne noise	Audible noise caused by the vibration of elements of a structure, the source of which is within a building or structure with common elements. *NOTE Common sources of structure-borne noise include building services plant, manufacturing machinery and construction or demolition of the structure.*
Third octave band	Band of frequencies in which the upper limit of the band is 2% times the frequency of the lower limit.
Weighted level difference, D_w	Single-number quantity that characterizes airborne sound insulation between rooms, but which is not adjusted to reference conditions. *NOTE Weighted level difference is used to characterize the insulation between rooms in a building as they are. Values cannot normally be compared with measurements made under other conditions (see BS EN ISO 717-1).*
Weighted normalised impact sound pressure level, $L'_{n,w}$	Single-number quantity used to characterize the impact sound insulation of floors over a range of frequencies.
Weighted sound reduction index, R_w	Single-number quantity which characterizes the airborne sound insulating properties of a material or
Weighted standardised impact sound pressure level $L'_{nT,w}$	Single-number quantity used to characterize the impact sound insulation of floors over a range of frequencies.
Weighted standardised level difference, $D_{nT,w}$	Single-number quantity that characterizes the airborne sound insulation between rooms.

Symbols

D_w	Weighted level difference (dB)
D_{nT}	Standardized level difference (dB)
$D_{nT,w}$	Weighted standardized level difference (dB)
L_{Amax}	Maximum noise level (dB)
$L_{Ar,Tr}$	Rating level (dB)
L_n	Normalised impact sound pressure level (dB)
L'_{nT}	Standardised impact sound pressure level (dB)
$L'_{nT,w}$	Weighted standardised impact sound pressure level (dB)
$L'_{n,w}$	Weighted normalised impact sound pressure level (dB)
L_p	Sound pressure level (dB)
L_{pA}	A-weighted sound pressure level (dB)
$L_{AN,T}$	Percentile level (dB)
L_{AE}	Sound exposure level (dB)
$LAeq,T$	Equivalent continuous A-weighted sound pressure level (dB)
p	Sound pressure (Pa)
p_A	A-weighted sound pressure (dB)
$p_{A(t)}$	Instantaneous A-weighted sound pressure (Pa)

R	Sound reduction index (dB)
R_w	Weighted sound reduction index (dB)
T	Time interval (also used for reverberation time) (s)
t_0	Reference time interval (s)

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