



Pontrhydyfen RFC Clubhouse

Noise Assessment for Planning

17th March 2026

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1. INTRODUCTION

1.1. Overview

inacoustic has been commissioned to assess the impact of potential noise arising from the proposed development of a new clubhouse for Pontrhydyfen Rugby Club.

The following technical noise assessment has been produced to provide supporting information to accompany a planning application to Neath Port Talbot County Borough Council and is based upon environmental noise measurements undertaken at the site and a predictive exercise.

This noise assessment is necessarily technical in nature; therefore a glossary of terms is included in Appendix A to assist the reader.

1.2. Scope and Objectives

The scope of the noise assessment can be therefore summarised as follows:

- A sound monitoring survey was undertaken at discrete locations around the Site;
- A detailed assessment of the suitability of the site, in accordance with relevant standards in respect of sound from proposed site uses; and
- Recommendation of mitigation measures, where necessary, to comply with the requirements of the relevant planning guidance.

2. LEGISLATION AND POLICY FRAMEWORK

The development proposals for the Site are guided by the following legislation, policy directives and guidance:

2.1. Legislation

2.1.1. Well-being of Future Generations (Wales) Act 2015

The Well-being of Future Generations (Wales) Act 2015 has a number of wellbeing goals to achieve through implementing sustainable development. Changes in noise levels can have an impact on the health of habitat and humans, as such the goals to create 'a resilient Wales' and 'a healthier Wales' are applicable.

2.2. National Policy

2.2.1. Future Wales: The National Plan 2040

The National Plan states the following under the heading Developing infrastructure responsibly:

When proposing new transport infrastructure or new development, average population exposure to air and noise pollution should be reduced and soundscapes improved where it is practical and feasible to do so. At the very least, exposure to pollution should be minimised. This will include taking into account the long-term effects of current and predicted levels of air and noise pollution on individuals, society and the environment arising as a result of proposals for transport infrastructure or development.

2.2.2. Planning Policy Wales

The Government's planning policies for Wales are contained in Planning Policy Wales (Edition 12, February 2024). The policy provides overarching requirements for developments to adequately control noise pollution, to provide appropriate soundscapes and to incorporate good acoustic design.

The policy is supplemented by the Noise and Soundscape Plan 2023-2028, which provides more detailed guidance on planning for a new development, but does not set out specific assessment methods or criteria. The guidance in this document has been used to inform a qualitative assessment of the effect the proposed development could have on the local soundscape.

2.2.3. Technical Advice Note (Wales) 11

This note provides advice on how the planning system in Wales can be used to minimise the adverse impact of noise without placing unreasonable restrictions on development or adding unduly to the costs and administrative burdens of business.

It outlines some of the main considerations which local planning authorities should take into account in drawing-up development plan policies and when determining planning applications for development which will either generate noise or be exposed to existing noise sources.

3. ASSESSMENT FRAMEWORK

3.1. Relative Change in Ambient Noise Level

In circumstances where a noise environment may be altered by addition or removal of a noise source, considered to be largely anonymous or within the prevailing acoustic character of an area, for example, changes to traffic quantum or patterns, it is normal to consider the relative change in ambient noise level. The assessment, therefore, considers this phenomenon to add context.

The impact scale adopted in this assessment is shown in the below table, which relates to established human responses to noise, in line with 'Table 7-12 Effect Descriptors' of the IEMA Guidelines.

TABLE 1: IMPACT SCALE FOR COMPARISON OF FUTURE NOISE AGAINST EXISTING NOISE

Noise Level Change dB(A)	Subjective Response	Significance
Less than 1.0	Not perceptible	Negligible
1.0 – 2.9	Barely perceptible	Minor impact
3.0 – 4.9	Noticeable	Moderate impact
5.0 – 9.9	Up to a doubling or halving of loudness	Substantial impact
10.0 or more	More than a doubling or halving of loudness	Major impact

The criteria above reflects the key benchmarks that relate to human perception of sound. A change of 3 dB(A) is generally considered to be the smallest change in environmental noise that is perceptible to the human ear. A 10 dB(A) change in noise represents a doubling or halving of the subjective perception of loudness. The difference between the minimum perceptible change and the doubling or halving of the loudness is split to provide greater definition to the assessment of changes in noise level. It is considered that the criteria specified in Table 1 provides a good indication as to the likely significance of changes in noise levels in this case and can be used to inform the context in which the sound occurs in order to assess the impact of noise from the proposed development.

3.2. IOA Good Practice Guide on the Control of Noise from Pubs and Clubs

The IOA Good Practice Guide on the Control of Noise from Pubs and Clubs (2003)¹ provides guidance for the assessment and control of noise affecting noise-sensitive properties, from the public and private use of public houses, clubs, hotels, discotheques, restaurants, cafes, community or village halls and other similar premises. The main sources of noise considered are music; singing; public address (PA) systems; children's play areas; beer gardens; people in general; car parks and access roads; deliveries; collections; materials handling; plant and machinery; and skittle alleys.

The guide goes on to suggest that music, singing and speech, both amplified and non-amplified, are common sources of noise disturbance arising from the types of premises mentioned above and, that noise from such sources is a common cause of complaints, the majority of which arise because music and associated noise is audible in nearby or adjoining noise-sensitive property, gardens and amenity areas.

¹ Good Practice Guide on the Control of Noise from Pubs and Clubs. Institute of Acoustics. 2003

The guide goes on to suggest that some of the reasons why disturbance arises from these sources are as follows:

- Music and associated noise usually occurs from mid-evening until either late evening or early morning when residents in adjacent properties may be attempting to go to sleep or are sleeping;
- Music and associated noise levels generally increase as an event progresses, whilst ambient noise levels fall, particularly in the evening and night. This can make the noise more noticeable and hence increase the likelihood of complaint;
- Music sources frequently contain a significant low frequency (bass) component that is less well attenuated by building structures than the higher frequency components. This can result in disturbing bass beat effects in or at nearby noise-sensitive properties, particularly if they are structurally attached;
- Noise problems associated with these sources can be exacerbated in the summer when windows and doors may be open for ventilation purposes, or when residents are outside, enjoying their gardens or amenity areas; and
- Noise problems can also occur when music events are held in acoustically weak structures.

As such, it is suggested that appropriate, objective noise criteria should be developed to ensure the following:

- Within premises where entertainment takes place on a regular basis, music and associated sources should not be audible inside noise-sensitive properties at any time.
- Within premises where entertainment takes place less frequently, music and associated sources should not be audible inside noise-sensitive property between 23:00 and 07:00 hours. For other times, appropriate criteria need to be developed which balance the rights of those seeking and providing entertainment, with those who may be disturbed by noise.

The guide goes on to suggest that noise may be considered inaudible when it is at a low enough level, such that it is not recognisable as emanating from the source in question and, it does not alter the perception of the ambient noise environment that would prevail in the absence of the source in question.

The guide also suggests that appropriate planning and good management can minimise the potential for noise disturbance and complaint, thereby reducing the likelihood of neighbour conflict and avoiding licensing problems. It also suggests that those having management responsibility for a business have a statutory duty to prevent excessive noise and, failure to do so can lead to prosecution.

Further to the above, it is also suggested that the implementation of procedures for noise control should be an essential part of the business management and, that it will generally be of benefit to hold discussions with the local authority on these matters, particularly in relation to enforcement policies.

The guide also suggests that at the design stage, when planning the refurbishment of existing premises, or when noise disturbance is occurring from existing premises, the following measures should be considered:

- The determination of an appropriate level of sound insulation, based on realistic source and reception levels;
- The construction of cavity masonry walls or the addition of sound insulating, independent wall linings to enhance the containment and attenuation of sound;
- The provision of lobbies with automatic door-closers for building entrances and exits. Where possible, the distance between the inner and outer doors should be sufficient to ensure that one door set is normally closed as people pass through the lobby;
- The provision of well-sealed acoustic doors on emergency exits;

- The provision of acoustically insulated glazing;
- The provision of mechanical ventilation or air conditioning systems that will enable windows and doors to be kept closed, hence reducing noise breakout;
- The installation of visual, manual or audible alarms, to alert staff that doors or windows which should be kept closed, are open;
- The control of music noise at source, either by reducing the overall sound level of the music, or by reducing the sound level at individual frequencies which are causing, or have the potential to cause, disturbance;
- The playing of more calming types of music towards the end of an event;
- The use of an approval system for DJs and other performers;
- The installation of sound level regulatory devices (noise limiters), connected to all permanent music and public address equipment and all available mains power sockets within the area around a stage, within a performance area, or near to a control desk. However, in very noise-sensitive situations, it may be found that such devices have to be set to low that music events are not viable; and
- Alterations to the number and mounting of loudspeakers, so that internal music levels can be kept as low as possible and the transmission of structure-borne noise is minimised.

3.3. British Standards

3.3.1. BS4142:2014+A1:2019

BS4142:2014+A1:2019 sets out a method to assess the likely effect of sound from factories, industrial premises or fixed installations and sources of an industrial nature in commercial premises, on people who might be inside or outside a dwelling or premises used for residential purposes in the vicinity.

The procedure contained in BS4142:2014+A1:2019 for assessing the effect of sound on residential receptors is to compare the measured or predicted sound level from the source in question, the $L_{Aeq,T}$ 'specific sound level', immediately outside the dwelling with the $L_{A90,T}$ background sound level.

Where the sound contains a tonality, impulsivity, intermittency and other sound characteristics, then a correction depending on the grade of the aforementioned characteristics of the sound is added to the specific sound level to obtain the $L_{A,r,Tr}$ 'rating sound level'. A correction to include the consideration of a level of uncertainty in sound measurements, data and calculations can also be applied when necessary.

BS4142:2014+A1:2019 states: *"The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs"*. An estimation of the impact of the specific sound can be obtained by the difference of the rating sound level and the background sound level and considering the following:

- *"Typically, the greater this difference, the greater the magnitude of the impact."*
- *"A difference of around +10dB or more is likely to be an indication of a significant adverse impact, depending on the context."*
- *"A difference of around +5dB is likely to be an indication of an adverse impact, depending on the context."*
- *"The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."*

During the daytime, the assessment is carried out over a reference time period of 1-hour. The periods associated with day or night, for the purposes of the Standard, are considered to be 07.00 to 23.00 and 23.00 to 07.00, respectively.

3.4. Assessment Method

In light of the above, the adopted assessment method for the Proposed Development is twofold:

- The assessment of use of the premises for amplified music has been assessed in terms of the relative change in ambient noise level and IoA Guidance;
- The assessment of patron activity from the external terrace has been assessed in terms of the relative change in ambient noise level; and
- The static plant complement has been considered with reference to BS4142:2014+A1:2019.

4. SITE DESCRIPTION

4.1. Site and Surrounding Area

The Proposed Development site comprises the existing facilities; storage, welfare, car parking and access, associated with the Pontrhydyfen Rugby Pitch, which is occupied, operated and maintained by Pontrhydyfen Rugby Football Club.

The closest noise-sensitive receptors to the proposal are the residential dwellings on Oakwood Avenue to the west and north of the proposals.

The Application Area, in the local context can be seen in Figure 1, below.

The ambient sound environment of the area surrounding the site comprises road traffic, primarily on the Afan Valley Road, flowing water in the Afon Afan and wind-induced vegetation noise. During training sessions and match days, this sound environment also includes the sound of pitch activity, vehicle activity within the car park and coach/supporter activity.

FIGURE 1: APPLICATION AREA AND SURROUNDINGS



4.2. Proposed Development Overview

The Proposed Development seeks to provide Pontrhydyfen RFC with a dedicated clubhouse, providing changing and ancillary facilities, at ground floor level, alongside a licensed bar area at first floor level, including a small external terrace area.

The proposals will also seek to improve the existing car park; improving access and adding bay demarcation.

The proposed location and layout is shown in Figure 2, and the proposed internal layout is shown in Figure 3, with the proposed elevations shown in Figure 4.

FIGURE 2: PROPOSED DEVELOPMENT LOCATION AND LAYOUT

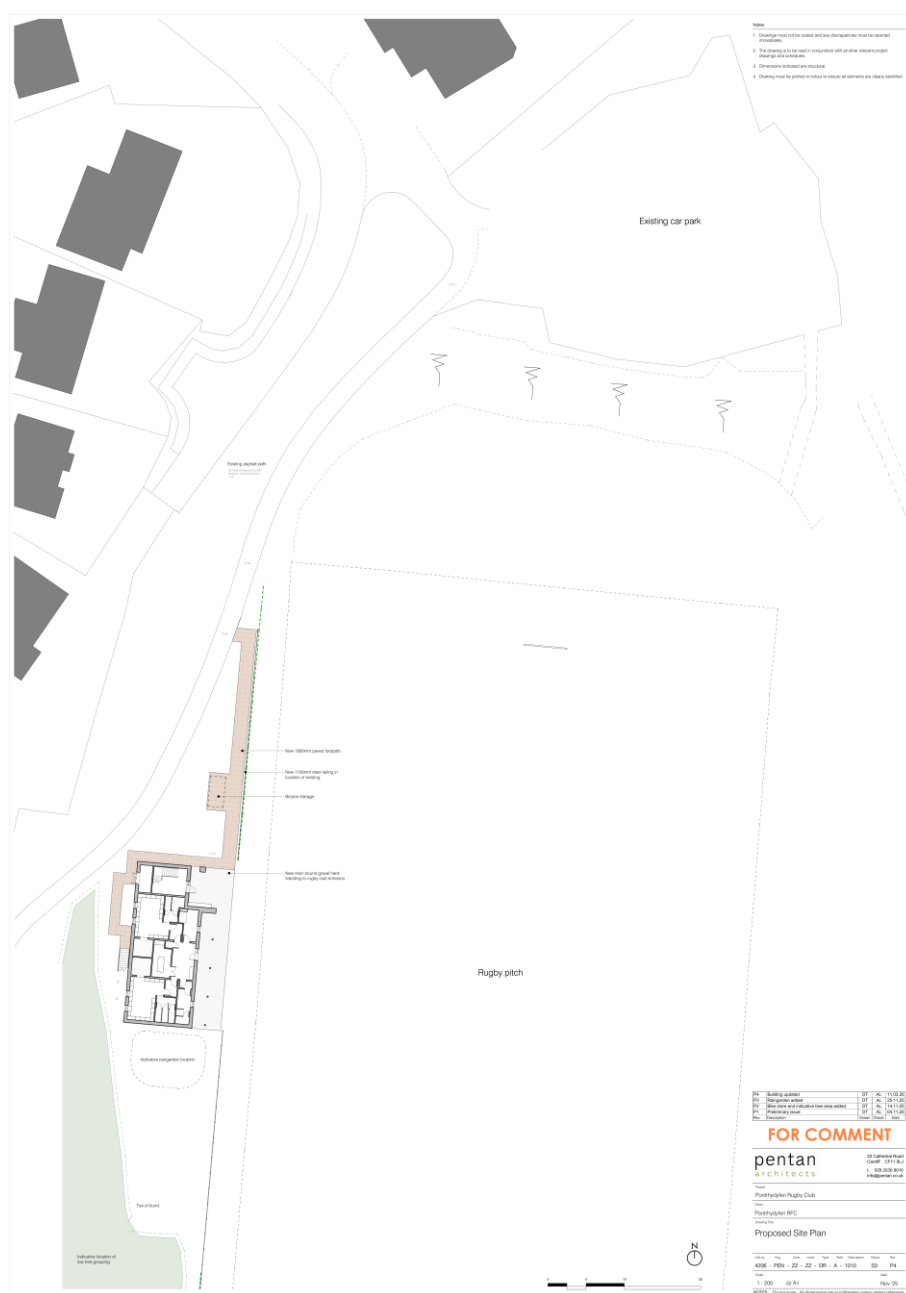
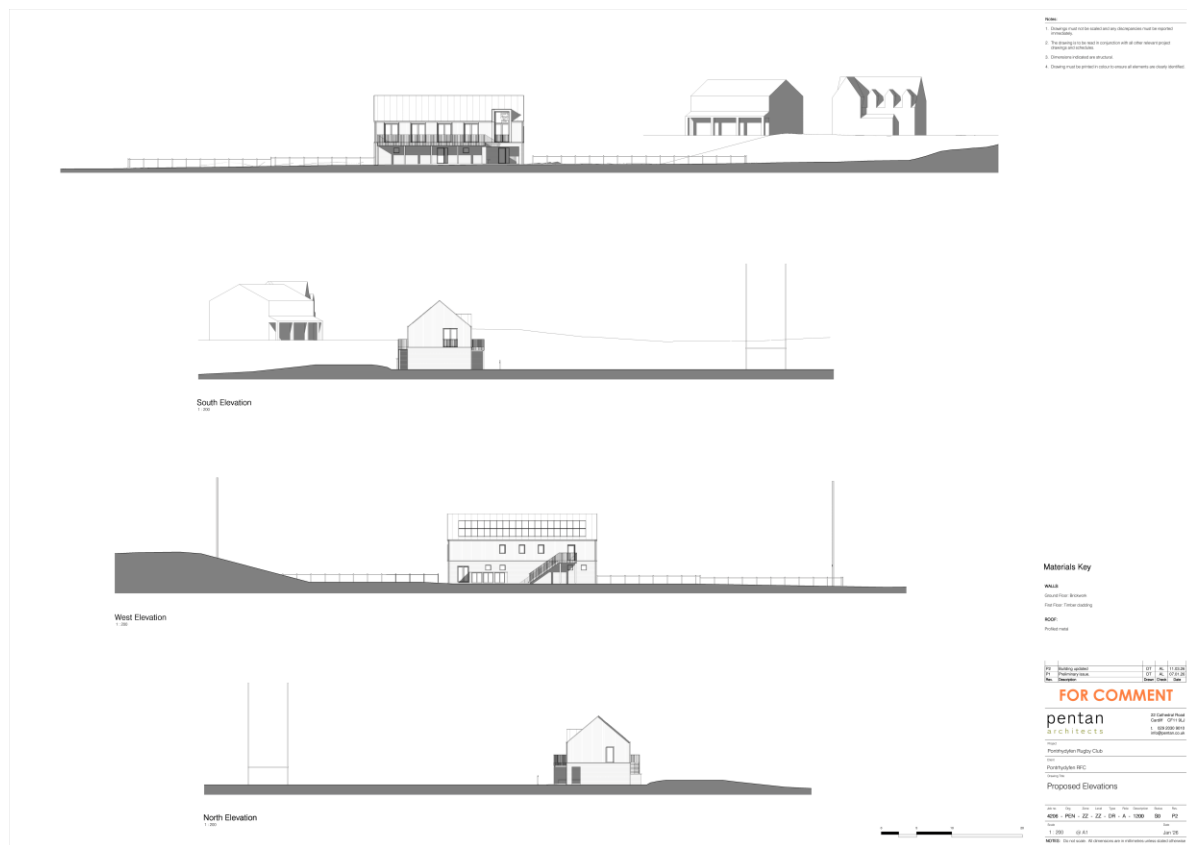


FIGURE 3: PROPOSED DEVELOPMENT LAYOUT



FIGURE 4: PROPOSED ELEVATIONS



4.3. Operational and Design Measures

Although the plant complement for the development isn't yet fully specified, the proposals do include an internalised ground floor plant room, where all heating and cooling plant, including beer chillers will be located. Although some external ventilation will be a requirement for this space, such a design feature does provide a great deal of opportunity for post-planning specification, such that compliance with a pre-determined operational noise limit can be achieved.

Deliveries to the premises will be provided by the operator/management, rather than via a brewery HGV (beer dray), and will be on an ad-hoc basis (cash and carry, manager's car, etc), with vehicular drop-off in the car park and manual delivery to the clubhouse, so are considered acoustically insignificant. Refuse collection will continue as per the existing arrangements, as wheelie bins are currently located at the pitchside and have to be moved up to the car park for collection. Consequently, refuse collection is considered extant, and receives no further detailed consideration within this report.

Although there are some access and operational improvements proposed for the car park, its capacity and location are not proposed to change, so this feature is also considered extant, and receives no further detailed consideration within this report, other than the recommendation of basic noise management advice.

The club is proposed to operate on an as needed basis, with opening hours until 23:00, as is typical for licensed premises. As is also typical for such premises, there is the potential for hiring the space for events (parties, etc), including amplified music, subject to appropriate controls.

The ground floor external structure is proposed to be of a masonry/cavity construction, with the first-floor walls and roof proposed to be of a lighter weight timber sandwich construction, which will achieve a similar acoustic performance. All windows will be fenestrated with thermally insulating double glazing, as will the glazed doors to the roof terrace area, all of which will be retained in a closed position during music events.

5. MEASUREMENT METHODOLOGY

5.1. General

The prevailing noise conditions in the area have been determined by an environmental noise survey conducted during both daytime and night-time periods between Wednesday 3rd and Friday 5th December 2025.

5.2. Measurement Details

All noise measurements were undertaken by a consultant certified as competent in environmental noise monitoring, and, in accordance with the principles of BS 7445². All acoustic measurement equipment used during the noise survey conformed to Type 1 specification of British Standard 61672³. A full inventory of this equipment is shown in Table 2 below.

TABLE 2: INVENTORY OF SOUND MEASUREMENT EQUIPMENT

Position	Make, Model & Description	Serial Number	Calibration Certificate Number	Calibration Expiry Date
MP1	Rion NL-32 Sound Level Meter	01161955	1176253	12/02/2027
	Rion NH-21 Preamplifier	21990		
	Rion UC-53A Microphone	311064		
	Cirrus CR:515 Acoustic Calibrator	72886	1176254	12/02/2026

The sound measurement equipment used during the survey was field calibrated at the start and end of the measurement period. A calibration laboratory has calibrated the field calibrator used within the twelve months preceding the measurements. A drift of less than 0.2 dB in the field calibration was found to have occurred on the sound level meter.

The weather conditions during the survey were mixed, but monitored locally, such that any periods which weren't conducive to environmental noise measurement, i.e. where precipitation was noted to occur and wind speeds exceeded 5 ms⁻¹ were removed from the analysis.

THE MICROPHONE WAS FITTED WITH A PROTECTIVE WINDSHIELD FOR THE MEASUREMENT, WHICH IS DESCRIBED IN TABLE 3 WITH A PLAN INDICATING ITS LOCATION SHOWN IN

Figure 5.

TABLE 3: MEASUREMENT POSITION DESCRIPTION

Measurement Position	Description
MP1	A largely unattended daytime and night-time measurement of background noise, representative of receptors to the rear of the premises.

² British Standard 7445: 2003: Description and measurement of environmental noise. BSI

³ British Standard 61672: 2003: Electroacoustics. Sound level meters. Part 1 Specifications. BSI.

The microphone was located at a height of 2.5 metres above local ground level, under free-field conditions, on the cantilever of the canopy serving the storage units at the western pitchside.

The sound environment was influenced by the sound of passing vehicles on Afan Valley Road, wind-induced vegetation movement and flowing water in the Afon Afan.

FIGURE 5: MEASUREMENT POSITION



5.3. Summary of Results

The summarised results of the environmental noise measurements are presented in Table 4, with time histories and statistical analyses presented under Appendix B.

TABLE 4: SUMMARY OF NOISE MEASUREMENT RESULTS

Position	Period	Noise Level, dB		
		L _{Aeq,T}	L _{A90}	L _{Amax}
MPI	Day 07:00-19:00	51	Mean: 44 Mode: 43 - 45	77
	Evening 19:00-23:00	46	Mean: 41 Mode: 39 - 42	61
	Night 23:00-07:00	45	Mean: 40 Mode: 38	58

6. OPERATIONAL NOISE ASSESSMENT

6.1. Activity Noise

6.1.1. General Input Considerations

Data has been extracted from our extensive archive of source data for a similar environment, with two data sets proving suitable, which are:

- A bar with amplified music, with an internal reverberant sound level of 96 dB $L_{Aeq,T}$, thus representing potential peak use; and
- A peak use scenario of 30 patrons on the terrace (1 per square metre), with a sound power level of 72 dB(A) per patron (representing sustained conversation) thus representing typical peak use.

6.1.2. Building Envelope

In terms of the acoustic performance of the building envelope, the sound reduction statistics set out in Table 5 have been adopted.

TABLE 5: SOUND REDUCTION INDEX OF BUILDING COMPONENTS

Component	Example Type / Material	SRI – dB(A)
First Floor Walls	Timber Framed and Clad Insulated Sandwich Construction, with Inner Double Boarding	46
Roof / Ceiling	Profiled Steel-Clad, Thermally Insulated Sandwich Construction, with Inner Boarding	39
Windows and Terrace Doors	4/12/4 Thermal Glazing	31

6.1.3. Calculation Process

Calculations were carried out using Cadna/A, which undertakes its calculations in accordance with guidance given in ISO9613.

6.1.4. Sound Data Assumptions

Given that the land between Proposed Development and nearest receptors is mixed, the ground factor has been set to 0.5 in the calculation software, with two orders of reflection.

6.2. Assessment Methodology & Approach

The methodology adopted for this assessment has been based on determining a representative baseline noise climate for the nearest noise-sensitive receptors to the Proposed Development and assessing the impact of the Proposed Development on those receptors, according to the proposed use of the external seating areas.

The assessment for the Proposed Development has assumed a potential level of activity noise, as described in Section 6.1.1. This represents both potential peak usage scenarios.

6.3. Predicted Levels

To determine whether the noise emissions from the Proposed Development fall within acceptable limits, it is necessary to predict the noise levels that are likely as a result of the anticipated use of the Proposed Development.

Source data, relating to noise generation is as per the descriptions in Section 6.1.1.

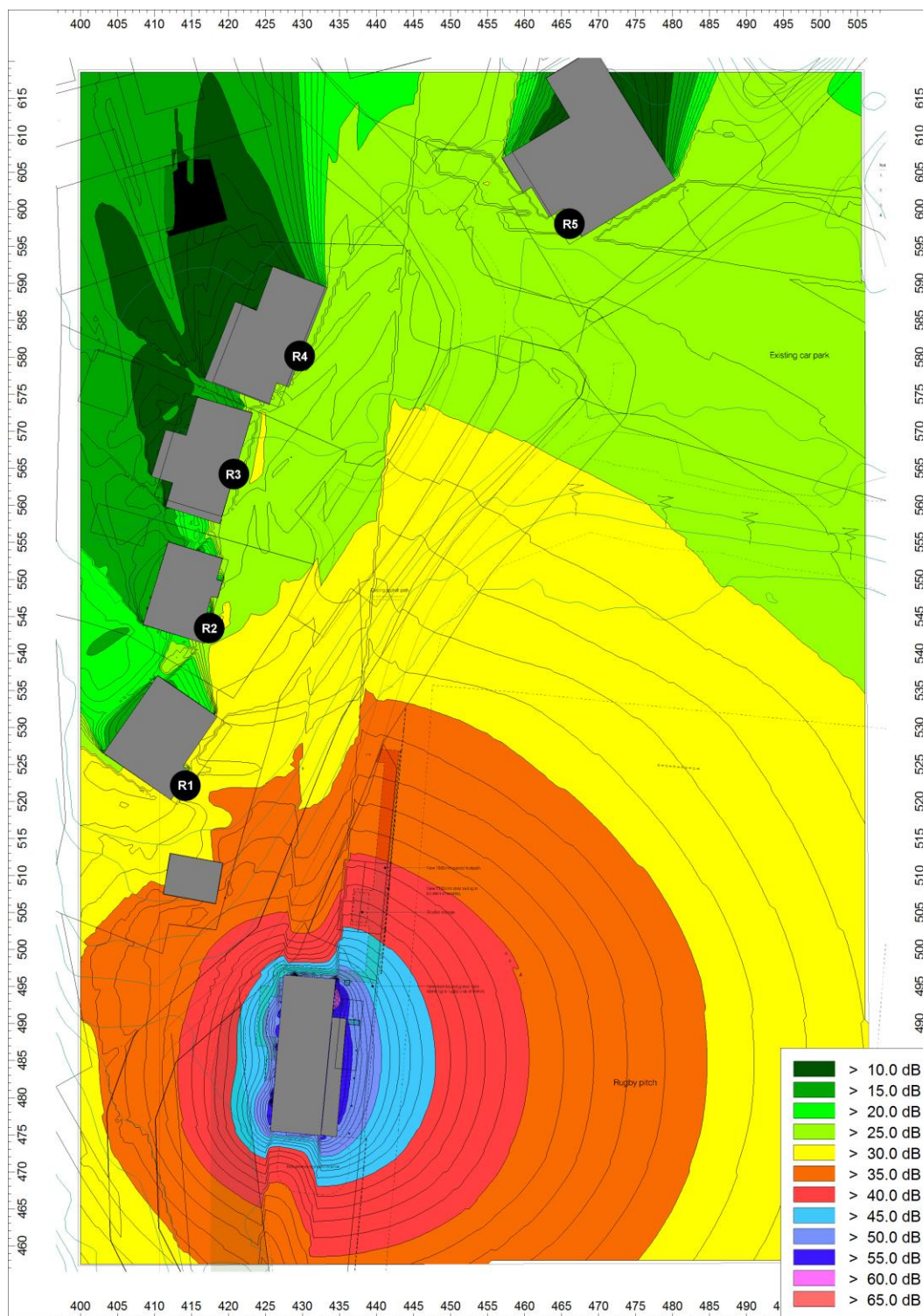
Noise levels from such developments are likely to be highly variable. This dataset is viewed as a robust basis for the assessment, providing reasonable worst-case noise generation statistics, which are repeatable.

Predictions of received noise levels have been undertaken at the closest receptor points.

6.3.1. Specific Sound Level Map – Music Noise Breakout

The sound map showing the specific sound level emissions from the club house during a music event, with windows closed, can be seen in Figure 6.

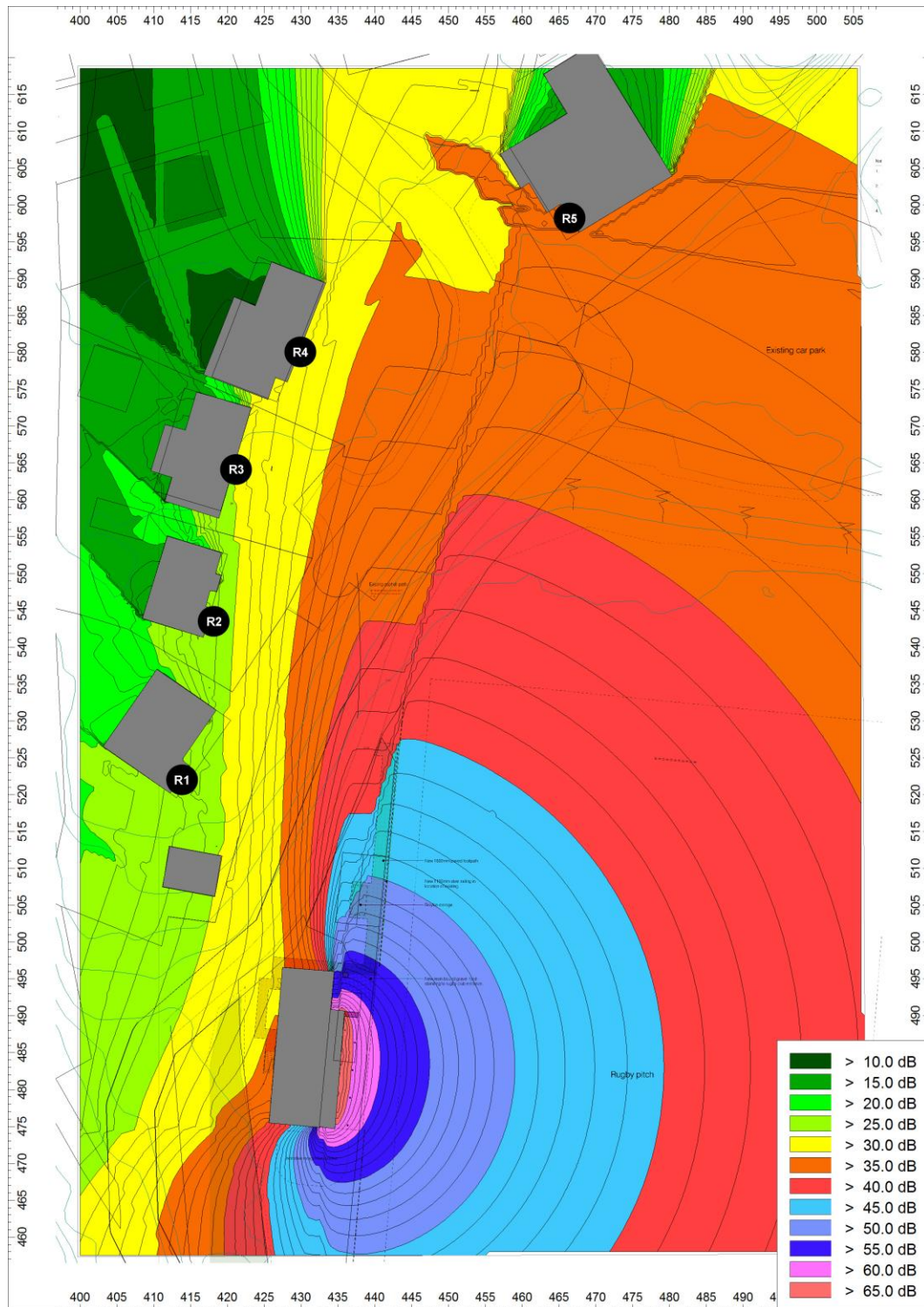
FIGURE 6: SPECIFIC SOUND LEVEL MAP – INTERNAL MUSIC EVENT



6.3.2. Specific Sound Level Map – External Patron Activity

The sound map showing specific sound level emissions from the terrace at full capacity can be seen in Figure 7.

FIGURE 7: SPECIFIC SOUND LEVEL MAP – PEAK TERRACE USE



The result of the predictive exercise is set out in Table 6, below.

TABLE 6: PREDICTED PATRON ACTIVITY NOISE LEVELS AT RECEPTORS

Receptors	Predicted Specific Sound Level from Patron Activity (dB)		
	Music Breakout	External Terrace Use	Combined
R1	32	28	33
R2	30	29	33
R3	28	30	32
R4	27	32	33
R5	27	37	37

6.4. Assessment

6.4.1. Relative Change in Ambient Noise from Proposed Development

An assessment of the likely relative change in noise levels has been undertaken in accordance with standard good acoustic practice, based on the predicted levels set out in Table 6 and the measured ambient baseline noise levels set out in Table 4.

Table 7 presents the assessment of potential relative changes in noise from the proposed activity areas at the closest receptors, based upon the ambient sound level measured during the evening period.

TABLE 7: PREDICTED CHANGE IN EVENING AMBIENT SOUND LEVEL AT RECEPTORS

Receptor	Specific Noise Level at First Floor – L _{Aeq} dB	Prevailing Evening Ambient Sound Level L _{Aeq,T} - dB	Future Ambient Sound Level L _{Aeq,T} - dB	Change in Ambient Sound Level - dB
Music Event				
R1	32	46	46.2	+0.2
R2	30		46.1	+0.1
R3	28		46.1	+0.1
R4	27		46.1	+0.1
R5	27		46.1	+0.1
Terrace Use				
R1	28	46	46.1	+0.1
R2	29		46.1	+0.1
R3	30		46.1	+0.1
R4	32		46.2	+0.2
R5	37		46.5	+0.5
Combined Use				
R1	33	46	46.2	+0.2
R2	33		46.2	+0.2
R3	32		46.2	+0.2
R4	33		46.2	+0.2
R5	37		46.5	+0.5

The assessment detailed in Table 7 above identifies that under probable peak use conditions, noise impacts from the operation of the Proposed Development are in the imperceptible, negligible impact range.

The predicted level of music noise breakout is also sufficiently below the prevailing ambient and background sound levels, so as to ensure virtual inaudibility within the nearest residential receptors, with their windows partially open for ventilation. On the basis of sound attenuating across a partially

open window at a rate of 15 dB, the worst-case predicted music noise level would equate to a level of below 17 dB within the most potentially exposed room of the closest receptor.

Consequently, no specific mitigation measures aside from an appropriate Noise Management Plan, are considered necessary with regard to noise associated with the Proposed Development.

6.4.2. Caveat / Non-Routine Events

This assessment covers the typical, routine use of the premises in its proposed form, including the use of the bar area for internal events, including the playing of live or pre-recorded music.

Should the premises host additional events, including music events within the external area, or potentially using the bar area with the terrace doors open, these would be considered to be outside of the routine uses covered in this planning report.

Such events would be covered by Temporary Events Notices (TENS) and would be a licensing consideration, rather than a planning matter.

6.5. New Static Plant

The exact details of any static plant to be installed as part of the development are not currently known, therefore, for the purposes of this noise assessment, it is considered appropriate to set noise emission limits in accordance with the requirements of BS4142:2014+A1:2019, which can be conditioned and discharged at a later date.

Consequently, the noise limits set out in Table 8 have been derived for the daytime and night-time periods, at the closest noise-sensitive receptors to the Proposed Development, which equate to a level of 5 dB below the *typical* prevailing background sound level. This requirement is in excess of the Low Impact requirements of BS4142, but does acknowledge the potential for cumulative effects, nature of the area and receptor sensitivity.

TABLE 8: PROPOSED STATIC PLANT NOISE EMISSION LIMITS – RESIDENTIAL RECEPTORS

Period	Proposed Plant 'Rating Noise Level' at the Nearest Residential Receptor – dB(A)
Day (07:00-23:00)	34
Night (23:00-07:00)	33

The above limits would apply to the total noise emission level from all plant within the Proposed Development. Individual plant items may need to be designed to a lower limit such that the overall total achieves the stated criteria above.

Compliance with the above criteria would ensure that any plant noise impacts are Negligible.

6.6. Noise Management Measures

The following measures and procedures will be incorporated into the management of the premises:

- A designated Duty Manager will be responsible for noise control during all operating hours.
- Staff will be trained on noise management procedures.
- A contact number will be made available to local residents for complaints.
- Doors and windows to remain closed during regulated entertainment (except for access/egress).
- Installation and use of a noise limiter set to an agreed level (if required by licence).
- Regular checks of noise breakout at site boundaries.
- Signage requesting customers to respect neighbours when leaving.
- Maximum sound levels to be agreed with Environmental Health.
- DJs/bands to be briefed on volume limits before performances.
- No external speakers to be used.
- Bass levels to be controlled to minimise low-frequency transmission.
- Music volume to be reduced towards closing time.
- Use of outdoor areas to be controlled, especially after 22:00.
- Limits on the number of patrons permitted outside during late evening.
- No music played externally.
- Staff to supervise and manage noise levels.
- Staff to encourage quiet and orderly patron departure.
- Taxi firms to be encouraged to use designated pick-up points away from residential facades where possible.
- No loitering outside the premises.
- Event organisers to be informed of noise restrictions.
- Maximum capacity to be adhered to.
- Staff supervision during private events.
- All conditions of this NMP to apply equally to private hires.
- All complaints to be recorded in a Complaint Log.
- Immediate investigation of complaints.
- Corrective actions to be implemented where necessary.
- Complainants to be contacted where appropriate.
- Bottling out and waste handling to be avoided late at night/early morning.
- The NMP will be reviewed periodically or following any complaint.
- Adjustments will be made in consultation with Environmental Health if required.

The incorporation of the above measures into the operation of the premises as a licensed bar/venue, will ensure appropriate neighbour relations and minimise any noise impacts upon those receptors.

7. CONCLUSION

inacoustic has been commissioned to assess the impact of potential noise arising from the proposed development of a new clubhouse for Pontrhydyfen Rugby Club.

This technical noise assessment has been produced to provide supporting information to accompany a planning application to Neath Port Talbot County Borough Council and is based upon environmental noise measurements undertaken at the site and a predictive exercise.

The assessment considers the potential noise emissions arising from peak usage of the proposed venue and external patron areas, on the basis of robust operational and building fabric assumptions. On the basis of this worst-case scenario assessment, the predicted sound impacts have been identified to be in the range of imperceptible and negligible.

Noise limits for the static plant complement associated with the development have been set, which can be conditioned and discharged at a later date, when specifications are known, to ensure that neighbouring acoustic amenity is unaffected.

Consequently, no specific acoustic mitigation measures, beyond those described within this report are considered necessary in relation to the operation of the Proposed Development.

In light of the above, which demonstrates that the site is predicted to meet the requirements of the relevant planning guidance, it is considered that noise does not present a constraint to the granting of planning permission for the Proposed Development.

8. APPENDICES

8.1. Appendix A – Definition of Terms

Sound Pressure	Sound, or sound pressure, is a fluctuation in air pressure over the static ambient pressure.
Sound Pressure Level (Sound Level)	The sound level is the sound pressure relative to a standard reference pressure of 20µPa (20x10 ⁻⁶ Pascals) on a decibel scale.
Decibel (dB)	A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s1 and s2 is given by $20 \log_{10} (s1 / s2)$. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is 20µPa.
A-weighting, dB(A)	The unit of sound level, weighted according to the A-scale, which takes into account the increased sensitivity of the human ear at some frequencies.
Noise Level Indices	Noise levels usually fluctuate over time, so it is often necessary to consider an average or statistical noise level. This can be done in several ways, so a number of different noise indices have been defined, according to how the averaging or statistics are carried out.
$L_{eq,T}$	A noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.
$L_{max,T}$	A noise level index defined as the maximum noise level during the period T. L_{max} is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
$L_{90,T}$	A noise level index. The noise level exceeded for 90% of the time over the period T. L_{90} can be considered to be the "average minimum" noise level and is often used to describe the background noise.
$L_{10,T}$	A noise level index. The noise level exceeded for 10% of the time over the period T. L_{10} can be considered to be the "average maximum" noise level. Generally used to describe road traffic noise.
Free-Field	Far from the presence of sound reflecting objects (except the ground), usually taken to mean at least 3.5m
Facade	At a distance of 1m in front of a large sound reflecting object such as a building façade.
Fast Time Weighting	An averaging time used in sound level meters. Defined in BS 5969.

In order to assist the understanding of acoustic terminology and the relative change in noise, the following background information is provided.

The human ear can detect a very wide range of pressure fluctuations, which are perceived as sound. In order to express these fluctuations in a manageable way, a logarithmic scale called the decibel, or dB scale is used. The decibel scale typically ranges from 0 dB (the threshold of hearing) to over 120 dB. An indication of the range of sound levels commonly found in the environment is given in the following table.

TABLE 9: TYPICAL SOUND LEVELS FOUND IN THE ENVIRONMENT

Sound Level	Location
0dB(A)	Threshold of hearing
20 to 30dB(A)	Quiet bedroom at night
30 to 40dB(A)	Living room during the day
40 to 50dB(A)	Typical office
50 to 60dB(A)	Inside a car
60 to 70dB(A)	Typical high street
70 to 90dB(A)	Inside factory
100 to 110dB(A)	Burglar alarm at 1m away
110 to 130dB(A)	Jet aircraft on take off
140dB(A)	Threshold of Pain

The ear is less sensitive to some frequencies than to others. The A-weighting scale is used to approximate the frequency response of the ear. Levels weighted using this scale are commonly identified by the notation dB(A).

In accordance with logarithmic addition, combining two sources with equal noise levels would result in an increase of 3 dB(A) in the noise level from a single source.

A change of 3 dB(A) is generally regarded as the smallest change in broadband continuous noise which the human ear can detect (although in certain controlled circumstances a change of 1 dB(A) is just perceptible). Therefore, a 2 dB(A) increase would not be normally be perceptible. A 10 dB(A) increase in noise represents a subjective doubling of loudness.

A noise impact on a community is deemed to occur when a new noise is introduced that is out of character with the area, or when a significant increase above the pre-existing ambient noise level occurs.

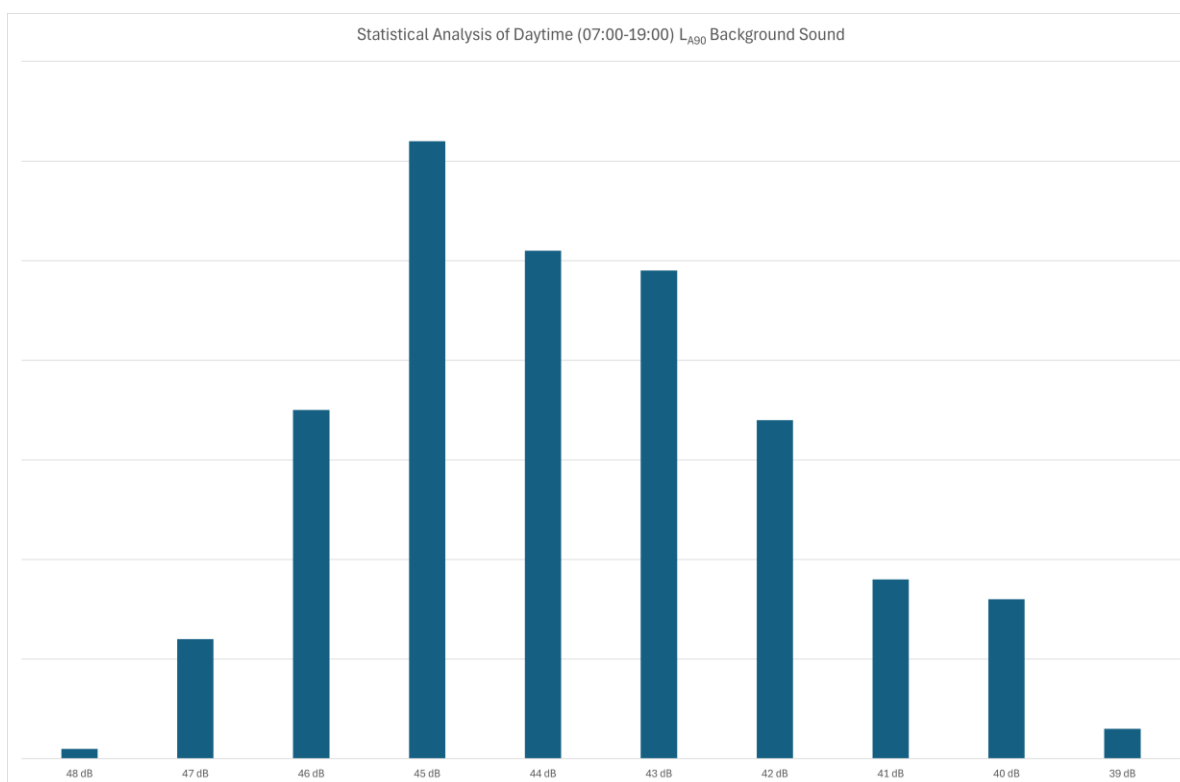
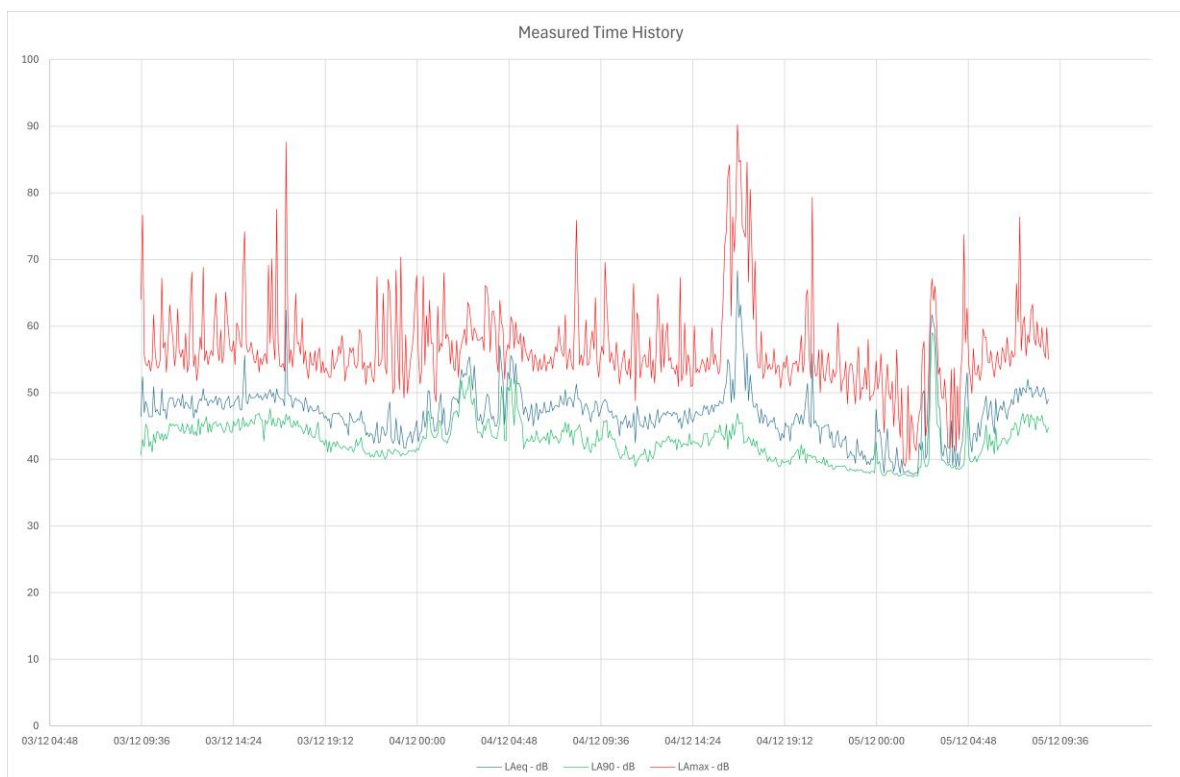
For levels of noise that vary with time, it is necessary to employ a statistical index that allows for this variation. These statistical indices are expressed as the sound level that is exceeded for a percentage of the time period of interest. In the UK, traffic noise is measured as the L_{A10} , the noise level exceeded for 10% of the measurement period. The L_{A90} is the level exceeded for 90% of the time and has been adopted to represent the background noise level in the absence of discrete events. An alternative way of assessing the time varying noise levels is to use the equivalent continuous sound level, L_{Aeq} .

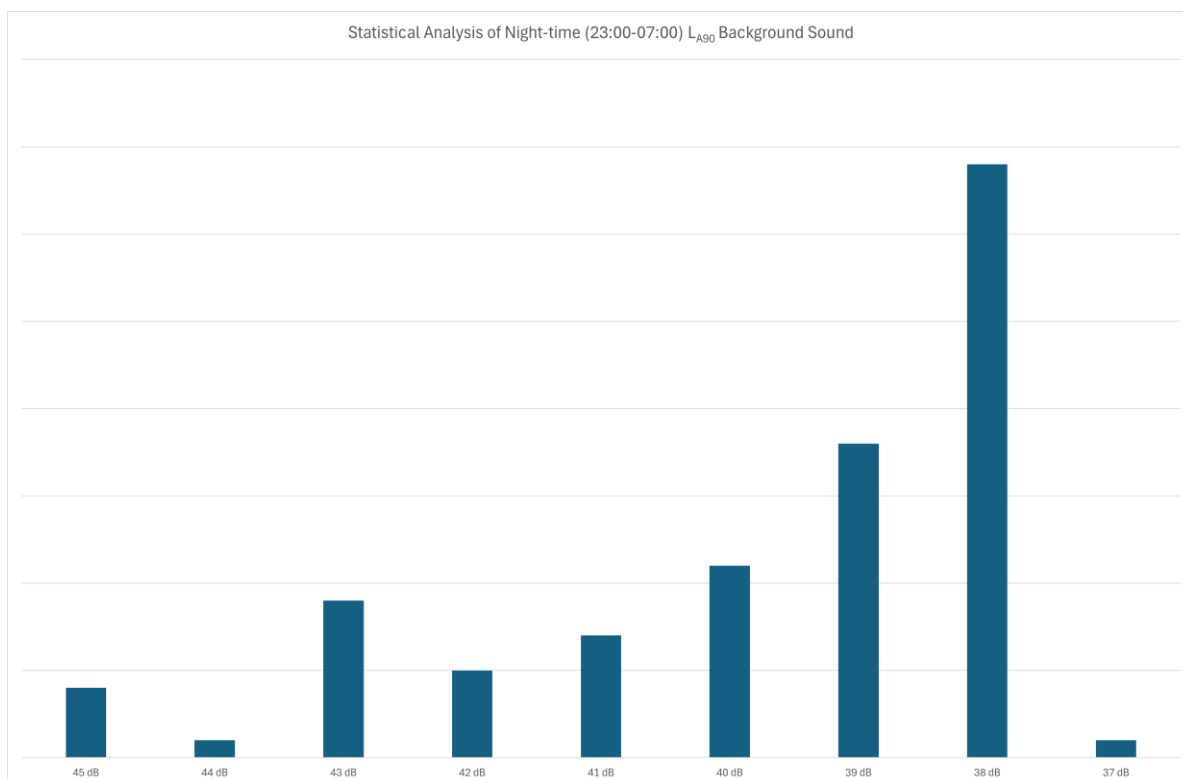
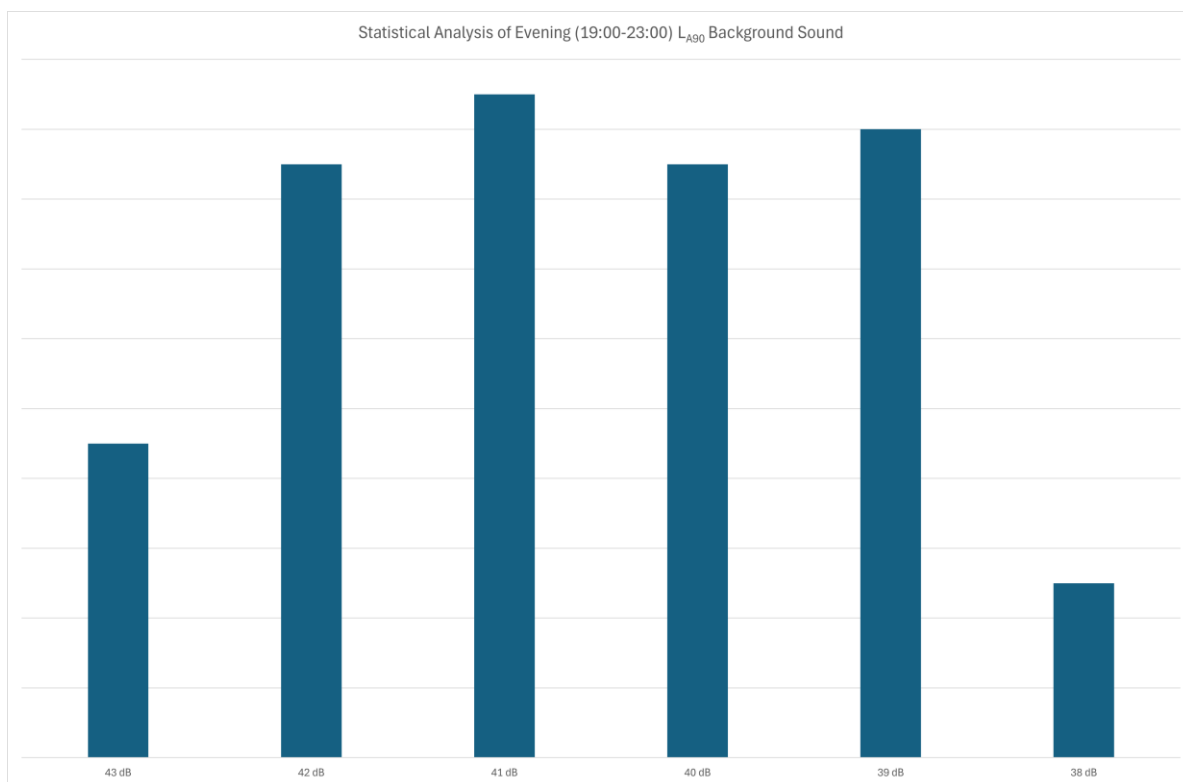
This is a notional steady level that would, over a given period of time, deliver the same sound energy as the actual fluctuating sound.

To put these quantities into context, where a receiver is predominantly affected by continuous flows of road traffic, a doubling or halving of the flows would result in a just perceptible change of 3 dB, while an increase of more than 25%, or a decrease of more than 20%, in traffic flows represent changes of 1 dB in traffic noise levels (assuming no alteration in the mix of traffic or flow speeds).

Note that the time constant and the period of the noise measurement should be specified. For example, BS 4142 specifies background noise measurement periods of 1 hour during the day and 15 minutes during the night. The noise levels are commonly symbolised as $L_{A90,1\text{hour}}$ dB and $L_{A90,15\text{mins}}$ dB. The noise measurement should be recorded using a 'FAST' time response equivalent to 0.125 ms.

8.2. Appendix B – Measurement Results





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