

Proposed Padel Facility

Blackland Lakes
Stockley Lane
Calne
SN11 0NQ

Planning Noise Assessment Report

On behalf of

Blackland Lakes Ltd

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Executive summary

Noise Solutions Limited has been commissioned to assess the potential noise impact from the use of the proposed Padel centre at Blackland Lakes, Calne.

The assessment shows that noise emissions from the proposed Padel centre will be adequately controlled through the use of standard building constructions, resulting in no adverse noise impact of the nearest neighbouring residential properties, and meet the requirements set out in Wiltshire Council's correspondence.

1.0 Introduction

- 1.1. Noise Solutions Ltd (NSL) has been commissioned to undertake an assessment of noise from the proposed Padel centre at Blackland Lakes, Calne.
- 1.2. This report presents the results of an environmental noise survey, the applicable policies and guidance, and a noise impact assessment to support the planning application.
- 1.3. This revised report includes additional information and commentary requested during the pre-application process.
- 1.4. To assist with the understanding of this report a brief glossary of acoustic terms can be found in **Appendix A**. A more in-depth glossary of acoustic terms can be assessed at the following web address <http://www.acoustic-glossary.co.uk/>.

2.0 Details of development proposals

- 2.1. It is proposed to redevelop part of the land at Blackland Lakes, Calne, to provide four padel tennis courts within a new building, which will also include a small café, reception and a seating area.
- 2.2. It is proposed that the courts will be open 07.00 to 22.00hours daily.
- 2.3. Plans and elevations of the proposed building are shown in **Appendix D**.

3.0 Nearest noise sensitive receptors

- 3.1. The nearest neighbouring house to the proposed building is understood to be at Knightsmarsh Cottage (Receptor R1), to the northwest of the site along Stockley Lane. This is approximately 80m from closest elevation of the proposed building. To provide a robust assessment it is assumed that the new building will be visible from the first floor windows of the property.
- 3.2. This receptor is indicated in the aerial view in **Appendix B**.

4.0 Noise policy

Noise Policy Statement for England

- 4.1. The Noise Policy Statement for England (NPSE¹), published in March 2010, sets out the long-term vision of Government noise policy. The Noise Policy aims, as presented in this document, are: *"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:*
- *avoid significant adverse effects on health and quality of life;*
 - *mitigate and minimise adverse effects on health and quality of life; and*
 - *where possible, contribute to the improvement of health and quality of life."*
- 4.2. The NPSE makes reference to the concepts of NOEL (No Observed Effect Level) and LOAEL (Lowest Observed Adverse Effect Level) as used in toxicology but applied to noise impacts. It also introduces the concept of SOAEL (Significant Observed Adverse Effect Level) which is described as the level above which significant adverse effects on health and quality of life occur.
- 4.3. The first aim of the NPSE is to avoid significant adverse effects, taking into account the guiding principles of sustainable development (as referenced in Section 1.8 of the NPSE). The second aim seeks to provide guidance on the situation that exists when the potential noise impact falls between the LOAEL and the SOAEL, in which case: *"...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development."*
- 4.4. Importantly, the NPSE goes on to state that: "This does not mean that such adverse effects cannot occur."
- 4.5. The NPSE does not provide a noise-based measure to define SOAEL, acknowledging that the SOAEL is likely to vary depending on the noise source, the receptor and the time in question. NPSE advises that: *"Not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available."*
- 4.6. It is therefore likely that other guidance will need to be referenced when applying objective standards for the assessment of noise, particularly in reference to the SOAEL, whilst also taking into account the specific circumstances of a proposed development.

¹ Noise Policy Statement for England, Defra, March 2010

National Planning Policy Framework

- 4.7. A new edition of NPPF was published in December 2024 and came into effect immediately, with corrections issued in February 2025. The original National Planning Policy Framework (NPPF²) was published in March 2012, with subsequent revisions made periodically - this document replaced the existing Planning Policy Guidance Note 24 (PPG 24) "Planning and Noise." The December 2024/February 2025 revised edition contains no new directions or guidance with respect to noise. The paragraph references quoted below relate to the December 2024/February 2025 edition.
- 4.8. Paragraph 187 of the NPPF states that the planning system should contribute to and enhance the natural and local environment by, (amongst others) *"preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air water or noise pollution or land instability."*
- 4.9. The NPPF goes on to state in Paragraph 198:
- "planning policies and decisions should ...*
- a) Mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development, - and avoid noise giving rise to significant adverse impacts on health and quality of life;*
 - b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason ...*
- 4.10. The NPPF document does not refer to any other documents or British Standards regarding noise other than the Noise Policy Statement for England (NPSE³).
- 4.11. Paragraph 2 of the NPPF states that *"planning law requires that applications for planning permission be determined in accordance with the development plan unless material considerations indicate otherwise."*
- 4.12. Paragraph 12 of the NPPF states that *"The presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making. Where a planning application conflicts with an up-to-date development plan (including any neighbourhood plans that form part of the development plan), permission should not usually be granted. Local planning authorities may take decisions that depart from an up-to-date development plan, but only if material considerations in a particular case indicate that the plan should not be followed"*.

² National Planning Policy Framework, DCLG, March 2012

³ Noise Policy Statement for England, DEFRA, March 2010

- 4.13. Paragraph 124 states that *“Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or ‘brownfield’ land”.*

Planning Practice Guidance – Noise

- 4.14. An updated Planning Practice Guidance (PPG⁴) for noise was published on 22 July 2019 and provides additional guidance and elaboration on the NPPF. It advises that when plan-making and decision-taking, the Local Planning Authority should consider the acoustic environment in relation to:
- Whether or not a significant adverse effect is occurring or likely to occur;
 - Whether or not an adverse effect is occurring or likely to occur; and
 - Whether or not a good standard of amenity can be achieved.
- 4.15. This guidance introduced the concepts of NOAEL (No Observed Adverse Effect Level), and UAEL (Unacceptable Adverse Effect Level). NOAEL differs from NOEL in that it represents a situation where the acoustic character of an area can be slightly affected (but not such that there is a perceived change in the quality of life). UAEL represents a situation where noise is ‘very disruptive’ and should be ‘prevented’ (as opposed to SOAEL, which represents a situation where noise is ‘disruptive’, and should be ‘avoided’).
- 4.16. As exposure increases above the LOAEL, the noise begins to have an adverse effect and consideration needs to be given to mitigating and minimising those effects, taking account of the economic and social benefits being derived from the activity causing the noise. As the noise exposure increases, it will then at some point cross the SOAEL boundary.
- 4.17. The LOAEL is described in PPG⁵ as the level above which *“noise starts to cause small changes in behaviour and attitude, for example, having to turn up the volume on the television or needing to speak more loudly to be heard”.*
- 4.18. PPG identifies the SOAEL as the level above which *“noise causes a material change in behaviour such as keeping windows closed for most of the time or avoiding certain activities during periods when the noise is present.”*

⁴ Planning Practice Guidance – Noise, <https://www.gov.uk/guidance/noise--2>, 22 July 2019

⁵ Paragraph: 005 Reference ID: 30-005-20190722

- 4.19. In line with the Explanatory Note of the NPSE, the PPG goes on to reference the LOAEL and SOAEL in relation to noise impact. It also provides examples of outcomes that could be expected for a given perception level of noise, plus actions that may be required to bring about a desired outcome. However, in line with the NPSE, no objective noise levels are provided for LOAEL or SOAEL although the PPG⁶ acknowledges that *"...the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation."*
- 4.20. The relevant guidance in the PPG in relation to the adverse effect levels is summarized below:

Table 1 PPG Noise effects table

Response	Examples of Outcomes	Increasing Effect Level	Action
No Observed Effect Level			
Not Present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level			
Present and not Intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Present and Intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum

⁶ Paragraph: 006 Reference ID: 30-006-20190722

Response	Examples of Outcomes	Increasing Effect Level	Action
Significant Observed Adverse Effect Level			
Present and Disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very Disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

4.21. The Planning Practice Guidance⁷ states the following in relation to mitigation measures:

"For noise sensitive developments, mitigation measures can include avoiding noisy locations in the first place; designing the development to reduce the impact of noise from adjoining activities or the local environment; incorporating noise barriers; and optimising the sound insulation provided by the building envelope."

4.22. In addition, the Guide notes that it may also be relevant to consider⁸:

"... whether any adverse internal effects can be completely removed by closing windows and, in the case of new residential development, if the proposed mitigation relies on windows being kept closed most of the time (and the effect this may have on living conditions). In both cases a suitable alternative means of ventilation is likely to be necessary. Further information on ventilation can be found in the Building Regulations".

5.0 Local authority guidance

Wiltshire Council

5.1. In response to the planning application, Wiltshire Council has advised⁹:

⁷ Paragraph: 010 Reference ID: 30-010-20190722

⁸ Paragraph: 006 Reference ID: 30-006-20190722

⁹ Public Protection's Comment dated 12th March 2026

Thank you for consulting Public Protection. We have concerns in respect of the local amenity and noise and so request further information as we are currently unable to determine the likely noise impact from the Proposed Padel Courts. Please consider this response as a holding objection in lieu of the submission of further information

The site is located within a rural area where background sound levels are expected to be low, and the proposed use is intensive, 4 courts potentially operating from 07:00 to 22:00, seven days a week. The nearest noise-sensitive property is approximately 110 m from the proposed courts, and there is potential for adverse noise effects without further technical assessment. To properly assess the impact of the development, please provide a full noise impact assessment prepared by a suitably qualified acoustic consultant. The assessment should include, as a minimum, the following:

Required Information

1. Baseline sound survey

Measurement of existing background sound levels (LA90) at times representative of:

Early morning (around 07:00)

Evening (19:00–22:00)

Typical daytime periods

Survey methodology, equipment details, weather conditions and calibration data.

2. Noise predictions for padel court activity

Predicted noise levels at the nearest noise-sensitive properties from:

Ball impacts

Player vocalisations

Cumulative use of all four courts

Predictions should consider peak (LAmax) and continuous (LAeq) sound levels.

3. Assessment method

Assessment carried out in accordance with BS 4142:2014+A2:2019 (including any applicable acoustic feature corrections for impulsivity, intermittency or tonality).

Consideration of the evening period (19:00–23:00), where increased sensitivity applies.

4. Operating hours

The assessment should explicitly consider the proposed hours of use (07:00–22:00) and comment on the suitability of these hours in relation to residential amenity.

5. Proposed mitigation

If adverse effects are predicted, the assessment should provide details of reasonable and practicable mitigation measures, such as:

Acoustic fencing or barriers (including height, location and expected performance)

Court orientation

Enclosures or other design modifications

Any operational management controls

6. Conclusion

A clear statement of the likely impact at each receptor, including professional judgement on:

Low impact

Adverse impact

Significant adverse impact

A summary of any recommended planning conditions.

Until we have received this information we are unable to support the application.

It is noted that sports noise is outside of the scope of BS4142 but given the lack of specific guidance we would argue the method of BS4142 is the most suitable to demonstrate impact on sensitive receivers from this type of sports establishment.

6.0 Acoustic Standards and Guidance

BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound

- 6.1. BS 4142:2014+A1:2019 is intended to be used to assess the likely effects of sound on people residing in nearby dwellings. The scope of BS 4142:2014 includes *"sound from fixed plant installations which comprise mechanical and electrical plant and equipment"*.
- 6.2. The procedure contained in BS 4142:2014 is to quantify the *"specific sound level"*, which is the measured or predicted level of sound from the source in question over a one hour period for the daytime and a 15 minute period for the night-time. Daytime is defined in the standard as 07:00 to 23:00 hours, and night-time as 23:00 to 07:00 hours.
- 6.3. The specific sound level is converted to a rating level by adding penalties on a sliding scale to account for either potentially tonal or impulsive elements. The standard sets out objective methods for determining the presence of tones or impulsive elements, but notes that it is acceptable to subjectively determine these effects.
- 6.4. The penalty for tonal elements is between 0dB and 6dB, and the standard notes: *"Subjectively, this can be converted to a penalty of 2 dB for a tone which is just perceptible at the noise receptor, 4 dB where it is clearly perceptible, and 6 dB where it is highly perceptible."*
- 6.5. The penalty for impulsive elements is between 0dB and 9dB, and the standard notes: *"Subjectively, this can be converted to a penalty of 3 dB for impulsivity which is just perceptible at the noise receptor, 6 dB where it is clearly perceptible, and 9 dB where it is highly perceptible."*
- 6.6. The assessment outcome results from a comparison of the rating level with the background sound level. The standard states:
 - *Typically, the greater this difference, the greater the magnitude of the impact.*
 - *A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context;*
 - *A difference of around +5 dB 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.*

- 6.7. The standard does state that *"adverse impacts include, but are not limited to, annoyance and sleep disturbance. Not all adverse impacts will lead to complaints and not every complaint is proof of an adverse impact."*
- 6.8. The standard goes on to note that: *"Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night."*
- 6.9. In addition to the margin by which the Rating Level of the specific sound source exceeds the Background Sound Level, the 2014 edition places emphasis upon an appreciation of the context, as follows:
- "An effective assessment cannot be conducted without an understanding of the reason(s) for the assessment and the context in which the sound occurs/will occur. When making assessments and arriving at decisions, therefore, it is essential to place the sound in context."*
- 6.10. BS 4142:2014+A1:2019 requires uncertainties in the assessment to be considered, and where the uncertainty is likely to affect the outcome of the assessment, steps should be taken to reduce the uncertainty.

7.0 Existing noise climate

- 7.1. An environmental noise survey was undertaken to establish the typical background sound levels at a location representative of the noise climate outside the façades of the nearest noise sensitive receptors.
- 7.2. The results of the environmental sound survey are summarised in Table 3 below. The full set of measurement results and details of the survey methodology are presented in [Appendix C](#).

Table 2 Summary of survey results

Measurement period	Range of recorded sound pressure levels (dB)			
	L _{Aeq} (15mins)	L _{Amax} (15mins)	L _{A10} (15mins)	L _{A90} (15mins)
Operating hours (07.00 – 22.00 hours)	39-59	63-85	39-62	29-49
Daytime (07.00 – 19.00 hours)	49-59	65-85	51-62	34-49
Evening (19.00 – 22.00 hours)	39-59	63-77	39-59	29-48

- 7.3. Analyses of the existing background (L_{A90 15min}), ambient (L_{Aeq 15min}) and instantaneous (L_{Af,max}) sound levels are shown in Figure 1 and Figure 2.

Figure 1. Histogram of existing background $L_{A90,15min}$ sound levels

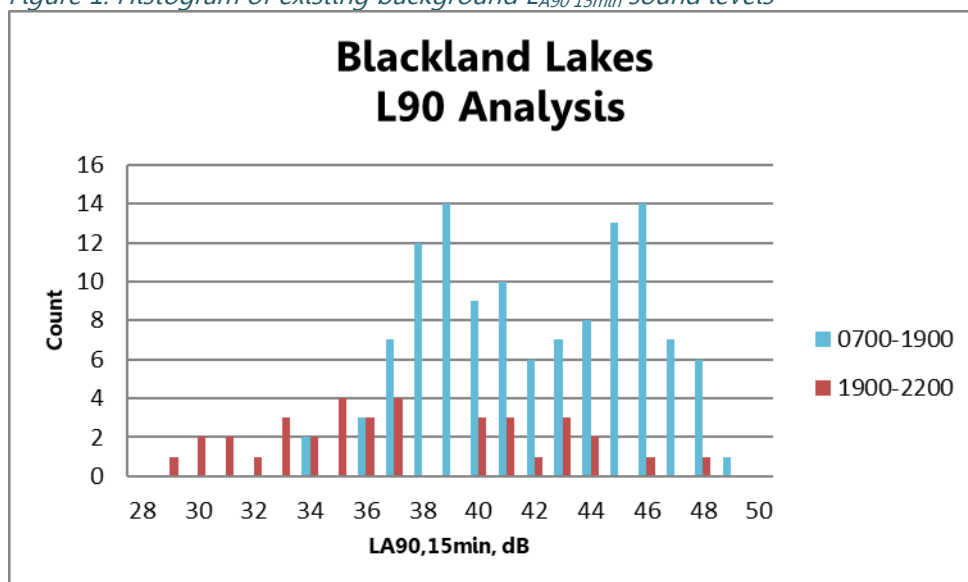


Figure 2. Histogram of existing ambient $L_{Aeq,15min}$ sound levels

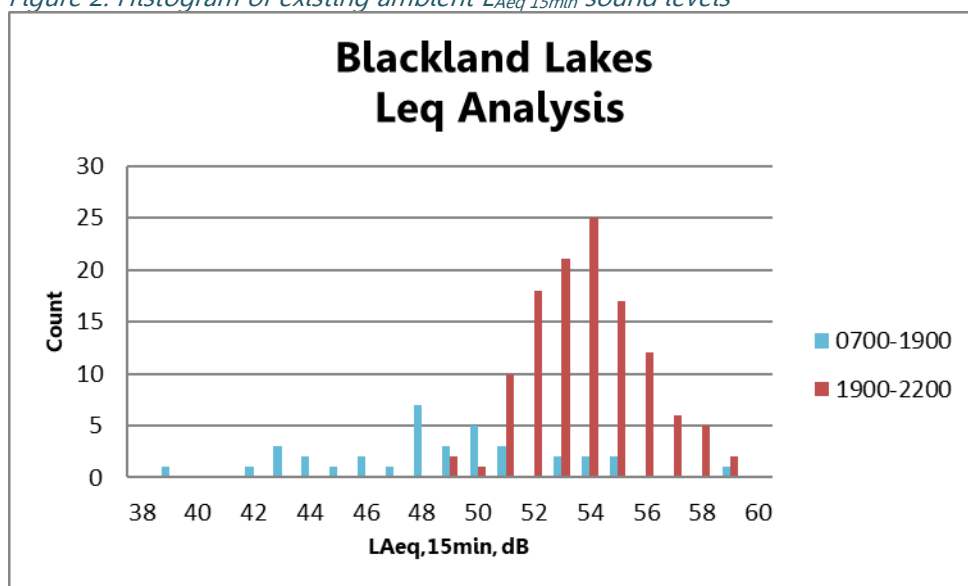
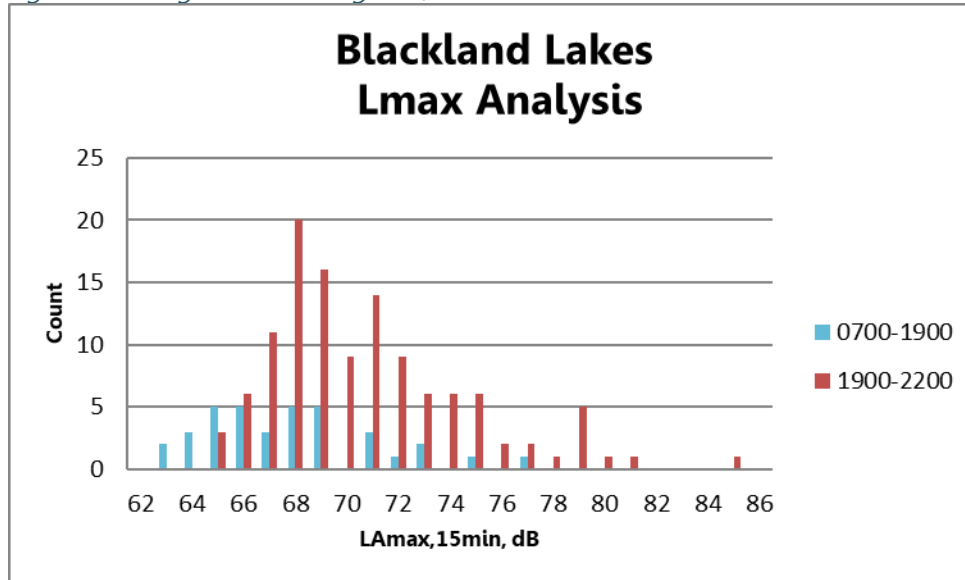


Figure 3. Histogram of existing $L_{A_{fmax}}$ sound levels



- 7.4. The existing environmental sound levels in the area are therefore considered to be as set out in Table 3.

Table 3 Summary of environmental sound levels

Parameter	Daytime (07.00-19.00)	Evening (19.00-22.00)
Representative background sound level, dB $L_{A90, 15min}$	38	33
Typical lowest ambient sound level, dB $L_{Aeq 15min}$	51	46
Lowest modal $L_{A_{f,max} 15min}$	68	65

8.0 Padel court noise assessment

Reference Survey

- 8.1. NSL has made measurements of noise resulting from play at an existing outdoor panel court at another location. Measurements were made during both casual and more focused play and therefore included player vocalizations as would normally be expected.
- 8.2. Measured sound pressure levels were up to 46dB $L_{Aeq (1 \text{ hour})}$ at 43m from the side of the court and up to 45dB $L_{Aeq (1 \text{ hour})}$ at 46m from the end of the court. Instantaneous levels were up to 75dB $L_{A_{fmax} (1 \text{ minute})}$ at 43m from the side and 64dB $L_{A_{fmax} (1 \text{ minute})}$ at 46m from the end, with tenth-highest values (representing the normal highest values within the typical hour) of 66dB $L_{A_{fmax} (1 \text{ minute})}$ and 55dB $L_{A_{fmax} (1 \text{ minute})}$ respectively.

Reverberant sound levels in the Padel centre

- 8.3. Since the proposed courts are to be enclosed within a building, it is necessary to calculate the reverberant sound pressure levels within the Padel centre. Therefore, equivalent sound power levels must be derived from the external measurements.
- 8.4. At the measurement distances used for the reference survey described, the court can be considered to be an acoustic point source¹⁰.
- 8.5. The equivalent sound power level is therefore 87dB $L_{WA\ eq\ (1hr)}$ at from measurements made to the side of the court and 85dB $L_{WA\ eq\ (1hr)}$ from measurements to the end. A value of 87dB $L_{WA\ eq\ (1hr)}$ is therefore assumed as a robust case. Similarly, the 10th highest $L_{AFmax\ (1minute)}$ equivalent sound power level is predicted to be 107dB.
- 8.6. Making corrections for the volume of the Padel centre and the internal surface finishes, the reverberant sound level within is predicted to be up to 71 dB $L_{Aeq\ 1hr}$ with all four courts in use., and the reverberant L_{Amax} sound level is predicted to be generally no higher than 85dB L_{AFmax} with highest values up to 94dB $L_{AF,max}$. It should be noted that L_{AFmax} sound levels arise from individual events and it is therefore not appropriate to make a correction for the number of courts in use at any time.

Proposed Padel centre construction

- 8.7. The external envelope of the proposed building is understood to comprise the following:
- Walls to be concrete construction with external timber cladding at high level, providing airborne sound insulation significantly in excess of 35dB R_{wi} ;
 - Glazing to lobby to be thermal double glazing with airborne sound insulation (for two panes 4mm thick glass with 16mm cavity) typically at least 28dB R_{wi} ;
 - Roof to be concrete construction with airborne sound insulation at least 35dB R_{w} .
- 8.8. The weakest element acoustically will be the glazed entrance lobby, though as this is at the southeast end of the building it is screened from the nearest noise sensitive receptor.

Noise breakout assessment

- 8.9. Based on the predicted internal sound levels and the proposed building constructions noted in the previous sections, the resulting sound pressure level at the nearest identified noise-sensitive

¹⁰ At 43-36m from an area, line or point source the correction from sound power level is the same - Figure 11.6, *Noise Control in Building Services*, Sound Research Laboratories, Pergamon Press, 1988

receptor has been calculated. Calculations are given in **Appendix E**. A summary of the predicted sound levels, and a comparison with the existing environmental sound levels, is shown in [table]

Table 4 Summary of predicted and existing sound levels

	Sound pressure level, dB
Predicted activity sound level, dB $L_{Aeq\ 1hr}$	14
Predicted activity sound level, dB $L_{A_{fmax},\ 1\ min}$ (10th-highest in hour)	28
Predicted highest individual sound level, dB $L_{A_{fmax},\ 1\ min}$	37
Existing representative environmental level – daytime, $L_{Aeq\ 1hr}$	51
Existing representative background level – daytime, $L_{A90\ 15min}$	38
Existing representative environmental level – evening, $L_{Aeq\ 1hr}$	46
Existing representative environmental level – evening, $L_{A90\ 15min}$	33

- 8.10. While the typical highest event sound pressure level would be 28dB, and therefore below the representative background sound level in the evening, the very highest – very infrequent – event may be up to 4dBA above the background sound level and may potentially be just audible at the receptor. A 3dB BS4142:2014 feature correction for impulsivity has been applied to the following assessment.
- 8.11. It should be noted that the very highest event $L_{A_{fmax}\ 1min}$ sound level is itself significantly below the range of existing environmental $L_{A_{fmax}\ 15min}$ sound levels and would therefore. Not be likely to “cause any change in behaviour, attitude or other physiological response” in the phraseology in the PPG Noise effects matrix, and would therefore be below the Lowest Observed Adverse Effect Level.

Table 5 Assessment of predicted external service station noise levels at Receptor R1 using BS 4142:2014+A1:2019 during the daytime period

Results	07.00 – 19.00	19.00 – 22.00	Relevant Clauses of BS 4142:2014	Commentary
Background Sound level	38dB	33dB	8.1, 8.2	Representative typical background sound level during daytime period, determined from a range of measurements
Assessment made during the daytime, so the reference interval is one hour			7.2	
Specific Sound Level	14dB	14dB	7.3.6	Calculations presented in Appendix E
Acoustic Feature Correction	3dB	3dB	9.2	See paragraph 8.10
Rating Level	17dB	17dB		
Excess of Rating Level over background sound level	-21dB	-16dB		
Context	See below			
Assessment of impact:	None	None		

Context

- 8.12. The site is in a rural location, with relatively low ambient and background sound levels. Nevertheless, the predicted activity sound level is significantly below the background sound level and the potential for an adverse noise impact is considered to be very low.

Uncertainties

- 8.13. Where possible uncertainty in the above assessments has been minimised by taking the following steps:
- The meter and calibrator used have a traceable laboratory calibration and the meter was field calibrated before and after the measurements.
 - Uncertainty in the calculated impacts has been reduced by the use of a well-established calculation method.
- 8.14. While there is a degree of uncertainty in the internal reverberant field calculations and sound reduction values used in the assessment, since products and designs cannot be finalised until

detailed designs are developed, all estimates are considered to err toward conservative values, with resulting sound levels at the receptor being lower than set out in this report.

Conclusion

- 8.15. The assessment shows that the use of the Padel courts at full capacity is not likely to result in an adverse noise impact at the residence of the nearest identified noise-sensitive receptor.

9.0 Summary

- 9.1. Noise Solutions Ltd (NSL) has been commissioned to undertake an assessment of noise from a proposed Padel centre at Blackland Lakes, Calne.
- 9.2. An environmental noise survey has been undertaken to establish the existing prevailing noise levels at a location representative of the noise climate outside the nearest noise sensitive receptor.
- 9.3. The predicted sound level from all four courts in use simultaneously is expected to be significantly below the existing representative background sound levels and therefore not likely to lead to an adverse noise impact.
- 9.4. The council may wish to stipulate that the noise break-out assessment within this report is repeated when construction details for the external building fabric are finalised, though it is likely that the sound reduction is likely to exceed the values used in the calculations.
- 9.5. Noise emissions should not be a reason for refusal of planning permission for the proposed development.

Appendix A Acoustic terminology

Parameter	Description
Ambient Noise Level	The totally encompassing sound in a given situation at a given time, usually composed of a sound from many sources both distant and near ($L_{Aeq,T}$).
Decibel (dB)	A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s_1 and s_2 is given by $20 \log_{10} (s_1/s_2)$. 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 $20\mu\text{Pa}$. The threshold of normal hearing is in the region of 0 dB and 140 dB is the threshold of pain. A change of 1 dB is only perceptible under controlled conditions.
dB(A), L_{Ax}	Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) broadly agree with people's assessment of loudness. A change of 3 dB(A) is the minimum perceptible under normal conditions, and a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound. The background noise in a living room may be about 30 dB(A); normal conversation about 60 dB(A) at 1 metre; heavy road traffic about 80 dB(A) at 10 metres; the level near a pneumatic drill about 100 dB(A).
Fast Time Weighting	Setting on sound level meter, denoted by a subscript F, that determines the speed at which the instrument responds to changes in the amplitude of any measured signal. The fast time weighting can lead to higher values than the slow time weighting when rapidly changing signals are measured. The average time constant for the fast response setting is 0.125 (1/8) seconds.
Free-field	Sound pressure level measured outside, far away from reflecting surfaces (except the ground), usually taken to mean at least 3.5 metres
$L_{Aeq,T}$	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 recorded during a noise event with a 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.
$L_{10,T}$	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. $L_{A10,18h}$ is the A-weighted arithmetic average of the 18 hourly $L_{A10,1h}$ values from 06:00-24:00.
$L_{90,T}$	A noise level index. The noise level that is exceeded for 90% of the measurement time interval, T. It gives an indication of the lower levels of fluctuating noise. It is often used to describe the background noise level and can be considered to be the "average minimum" noise level and is a term used to describe the level to which non-specific noise falls during quiet spells, when there is lull in passing traffic for example.

Parameter	Description
R_w	A measure of the sound reduction of a building element. Like $D_{nT,w}$ it is a single-figure value derived from 1/3 octave band data; unlike that parameter, is measured under laboratory conditions, where noise flanking is controlled such that the performance relates to sound only passing through the element being considered.

Appendix B Photograph of site showing areas of interest



Photograph 1 Courtesy of Google Earth © 2026

Appendix C Environmental sound survey

Details of environmental sound survey

- C.1 Measurements of the existing environmental sound levels were undertaken between 16.45 hours on Friday 10th April and 10.30 hours on Monday 13th April 2026.
- C.2 The sound level meter was programmed to record the A-weighted L_{eq} , L_{90} , L_{10} and L_{max} noise indices for consecutive fifteen-minute sample periods for the duration of the survey.

Measurement position

- C.3 The meter was secured to a tree toward the north west corner of the site (location indicated on the site plan in [Appendix B](#)). In accordance with BS 7445-2:21991 '*Description and measurement of environmental noise – Part 2: Guide to the acquisition of data pertinent to land use*', the measurements were undertaken under free-field conditions.

Equipment

- C.4 Details of the equipment used during the survey are provided in the table below. The sound level meter was calibrated before and after the survey; no significant change (± 0.2 dB) in the calibration level was noted.

Description	Model / serial no.	Calibration date	Calibration certificate no.
Class 1 Sound level meter	Svantek 977/ 97446	16/01/2025	1511004-1
Condenser microphone	Microtech MK255 / 20194		
Preamplifier	Svantek SV12L / 58574		
Calibrator	Svantek SV 30A / 10847	13/06/2025	1512563-1

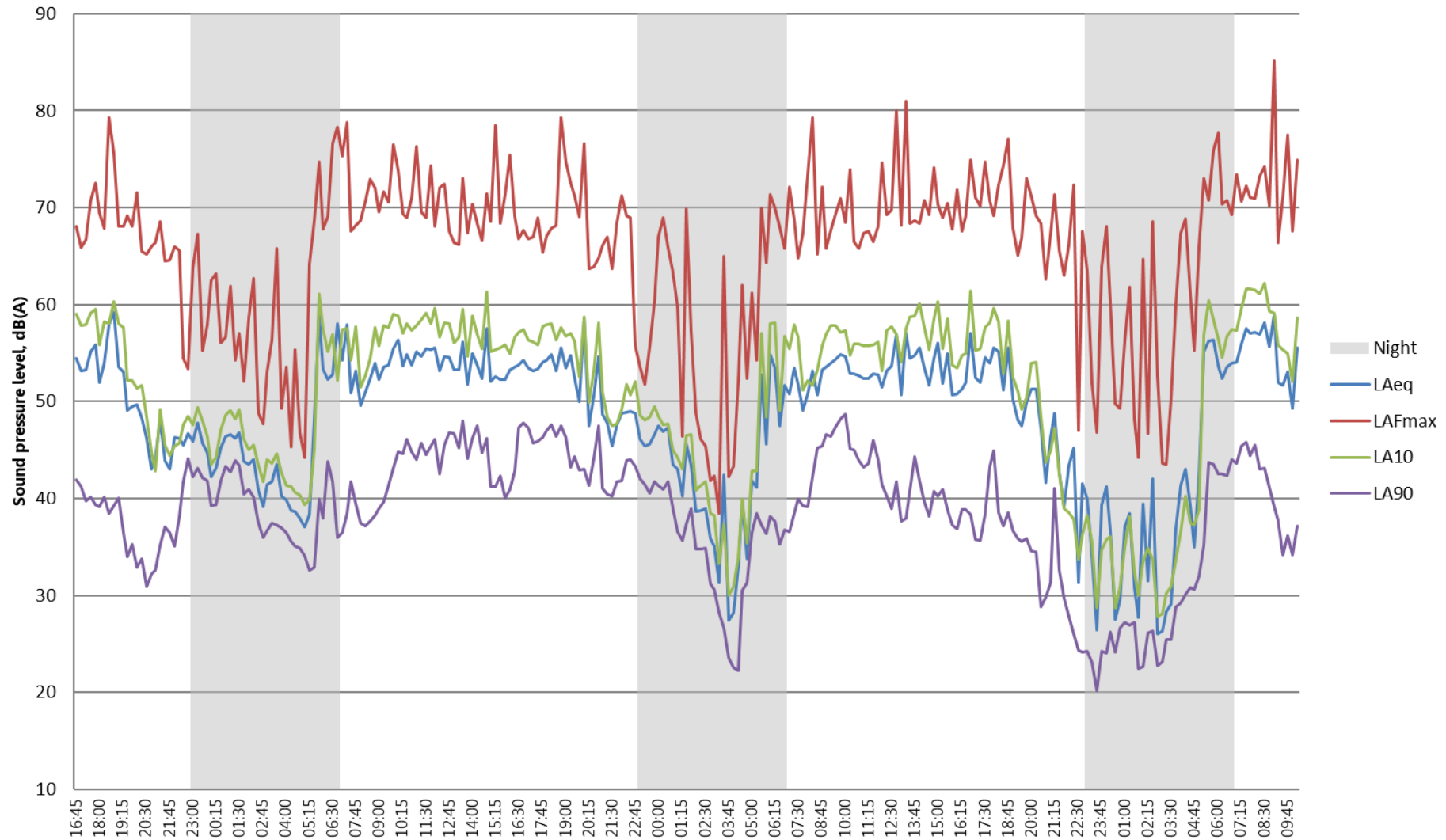
- C.5 Weather conditions were determined both at the start and on completion of the survey. It is considered that the meteorological conditions were appropriate for environmental noise measurements. The table below presents the weather conditions recorded on site at the installation and removal of the meter.

Weather Conditions				
Measurement Location	Time/Date	Description	Beginning of Survey	End of Survey
As indicated on Appendix B	16.45 10 Apr - 10.30 13 Apr 2026	Temperature (°C)	11	9
Cloud Cover Symbol Scale in oktas (eighths)  0 Sky completely clear  1  2  3  4 Sky half cloudy  5  6  7  8 Sky completely cloudy  (9) Sky obstructed from view		Precipitation:	No	No
		Cloud cover (oktas – see guide)	8	6
		Presence of fog/snow/ice	No	No
		Presence of damp roads/wet ground	No	No
		Wind Speed (m/s)	<1	2.3
		Wind Direction	W	SE
		Conditions that may cause temperature inversion (i.e. calm nights with no cloud)	No	No

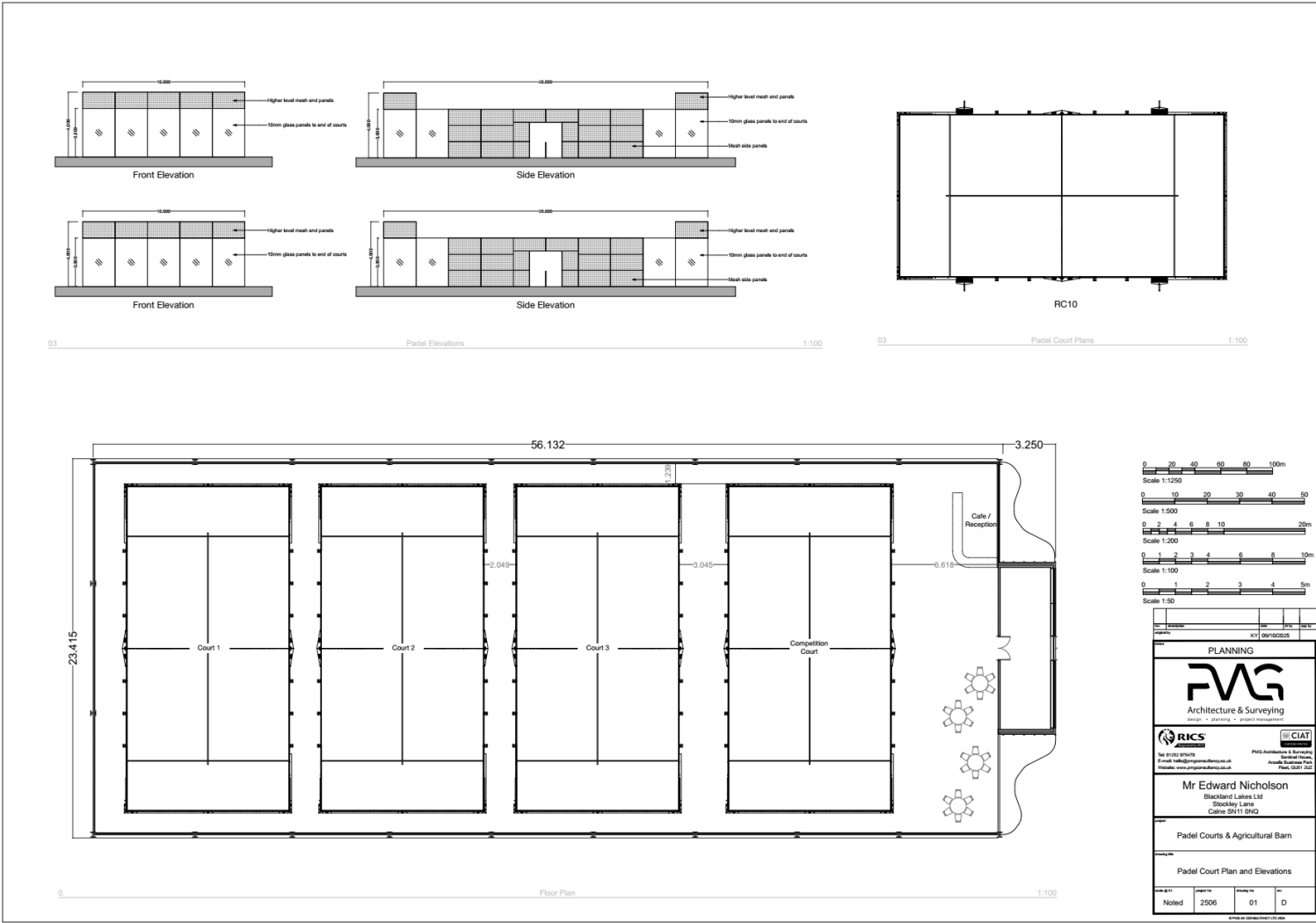
Results

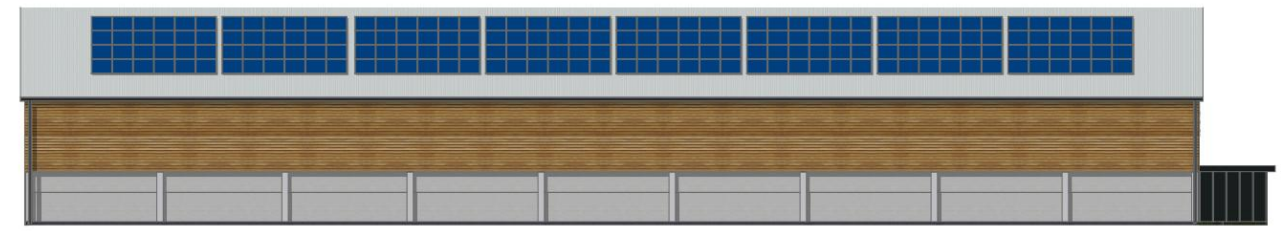
- C.6 The results of the survey are considered to be representative of the background sound pressure levels at the façades of the most affected noise sensitive receptors to the site. During installation and removal of the meter, the noise climate at the measurement position was observed to result from a mix of local and distant traffic, aircraft and birdsong.
- C.7 The results of the survey are presented in a time history graph overleaf.

Blackland Lakes Friday 10 - Monday 13 Apr 2026



Appendix D Proposed layout and elevations of Padel centre





E-1 South West Elevation 1:100



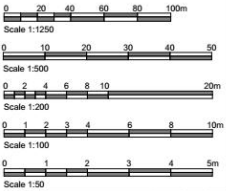
E-3 North East Elevation 1:100



E-2 South East Elevation 1:100



E-4 North West Elevation 1:100



0	20	40	60	80	100m
Scale 1:1250					
0	10	20	30	40	50
Scale 1:500					
0	2	4	6	8	10
Scale 1:200					
0	1	2	3	4	5
Scale 1:100					
0	1	2	3	4	5m
Scale 1:50					
DATE	15/06/2024	BY	XYJ	25/06/2024	DATE
PLANNING					
FVG					
Architecture & Surveying					
design • planning • project management					
RICS					
FVG Architecture & Surveying					
Tel: 01252 975478					
E-mail: info@fvgarchitecture.co.uk					
Website: www.fvgarchitecture.co.uk					
Mr Edward Nicholson					
Blackland Lakes Ltd					
Stockley Lane					
Caine SN11 9HG					
Padel Courts & Agricultural Barn					
Barn Elevations					
DATE	15/06/2024	BY	XYJ	25/06/2024	DATE
Noted	2506	02	D		

Appendix E Sound level predictions

	$L_{Aeq, 1hr}$	10 th -highest $L_{Af, max 1min}$
Reference survey sound pressure level, dB	46	66
Equivalent sound power level, dB	87	107
Reverberant field correction		
Total absorption, m ² Sabines	506	
Mean absorption coefficient, α_w	0.2	
Room correction, dB	-22	
Combined effect, 4 courts	+6	0
Reverberant sound pressure level, dB	71	85
NW End Wall		
Area, m ²	180	
Area correction, dB	+23	
In-out correction, dB	-6	
Sound reduction index, R_w , dB	-35	
Distance to R1, m	81	
Distance correction, dB	-46	
Sound Pressure Level at R1	7	21
NE Side wall and roof		
Area, m ²	1064	
Area correction, dB	+30	
In-out correction, dB	-6	
Sound reduction index, R_w , dB	-35	
Distance to R1, m	95	
Distance correction, dB	-47	
Sound Pressure Level at R1	13	27
Entrance Lobby (SE End Wall)		
Area, m ²	25	
Area correction, dB	+14	
In-out correction, dB	-6	
Sound reduction index, R_w , dB	-28	
Distance to R1, m	112	
Distance correction, dB	-49	
Screening (building orientation), dB	-8	
Sound Pressure Level at R1	-6	8

	$L_{Aeq, 1hr}$	10 th -highest $L_{Af, max 1min}$
NE Side wall and roof		
Area, m ²	1064	
Area correction, dB	+30	
In-out correction, dB	-6	
Sound reduction index, R_w , dB	-35	
Distance to R1, m	110	
Distance correction, dB	-49	
Screening (building orientation), dB	-8	
Sound Pressure Level at R1	-3	17
Combined SPL at R1	14	28