



REPORT R260385R1

Revision 1

Noise Impact Assessment
Proposed Kennel/Dog Boarding
26 Wallace Street, Albion QLD

PREPARED FOR:
Megan Geldenhuys

18 June 2026

Noise Impact Assessment

Proposed Kennel/Dog Boarding

26 Wallace Street, Albion QLD

PREPARED BY:

Rodney Stevens Acoustics Pty Ltd

Telephone: 61 2 9943 5057 Facsimile 61 2 9475 1019
Email: info@rodneystevensacoustics.com.au
Web: www.rodneystevensacoustics.com.au

DISCLAIMER

Reports produced by Rodney Stevens Acoustics Pty Ltd are prepared for a particular Client's objective and are based on a specific scope, conditions and limitations, as agreed between Rodney Stevens Acoustics and the Client. Information and/or report(s) prepared by Rodney Stevens Acoustics may not be suitable for uses other than the original intended objective. No parties other than the Client should use any information and/or report(s) without first conferring with Rodney Stevens Acoustics.

The information and/or report(s) prepared by Rodney Stevens Acoustics should not be reproduced, presented or reviewed except in full. Before passing on to a third party any information and/or report(s) prepared by Rodney Stevens Acoustics, the Client is to fully inform the third party of the objective and scope and any limitations and conditions, including any other relevant information which applies to the material prepared by Rodney Stevens Acoustics. It is the responsibility of any third party to confirm whether information and/or report(s) prepared for others by Rodney Stevens Acoustics are suitable for their specific objectives.

DOCUMENT CONTROL

Reference	Status	Date	Prepared	Checked	Authorised
R260385R1	Revision 0	11 June 2026	Luke Strong	Desmond Raymond	Desmond Raymond
R260385R1	Revision 1	18 June 2026	Luke Strong	Desmond Raymond	Desmond Raymond

TABLE OF CONTENTS

1	INTRODUCTION	4
2	PROPOSED DEVELOPMENT	4
2.1	Development Site	4
3	BASELINE NOISE SURVEY	5
3.1	Unattended Noise Monitoring	5
4	NOISE GUIDELINES AND CRITERIA	6
4.1	Part 9 – Development Codes (Animal Keeping)	6
4.1.1	Application	6
4.1.2	Purpose	6
4.1.3	Performance outcomes and acceptable outcomes	6
4.2	Summary of Project Noise Criteria	7
5	NOISE IMPACT ASSESSMENT	8
5.1	Kennel Noise Emissions	8
5.1.1	Dog Barking Spectra	8
5.1.2	Operational Scenarios	8
5.2	Operational Noise Emissions	10
5.3	Predicted Noise Levels	11
6	RECOMMENDATIONS	12
7	CONCLUSION	14
	APPENDIX A – ACOUSTIC TERMINOLOGY	15
	APPENDIX B – LOGGER GRAPHS	18
	APPENDIX C – CALIBRATION CERTIFICATE	26
	APPENDIX D – ARCHITECTURAL PLANS	27
	APPENDIX E – NOISE MAP	28
Table 3-1	Measured Baseline Noise Levels	5
Table 4-1	Performance Outcomes and Acceptable Outcomes	6
Table 4-2	Project Noise Criteria	7
Table 5-1	Dog Barking Spectra	8
Table 5-2	Sensitive Receivers	11
Table 5-3	Predicted Noise Levels At Sensitive Receivers	11

Figure 2-1	Site Location	4
Figure 5-1	Kennel Layout – Daytime Operational Scenario	9
Figure 5-2	Kennel Layout – Nighttime Operational Scenario	9
Figure 5-3	Sensitive Receiver Location	10
Figure 6-1	Recommended wall construction	13

1 INTRODUCTION

Rodney Stevens Acoustics Pty Ltd (RSA) has been engaged by Megan Geldenhuys to prepare a noise impact assessment for the proposed dog boarding facility located at 26 Wallace Street, Albion QLD. The proposal involves a Material Change of Use (MOU) for animal keeping within an existing warehouse tenancy. No new building work or structural alterations are proposed.

This report details the results of an ambient noise survey and establishes the noise criteria for operational noise emissions of the development.

Specific acoustic terminology is used in this report. An explanation of common acoustic terms is provided in Appendix A.

2 PROPOSED DEVELOPMENT

2.1 Development Site

The facility is to be located at 26 Wallace Street, Albion QLD. The site adjoins industrial and light commercial uses to the north fronting Peffer Street and Greg Chappel Street. There is a residential development to the southwest on Nariel Street. The development is proposed to be open to the public between 6:30 am to 7:00 pm seven days per week. Figure 2-1 shows an aerial image of the site area and the surrounding environment.

Figure 2-1 Site Location



Aerial image courtesy of Google Maps © 2024

3 BASELINE NOISE SURVEY

3.1 Unattended Noise Monitoring

In order to characterise the existing acoustical environment of the area unattended noise monitoring was conducted between the dates of Monday 11th of May and Tuesday the 26th of May at the logging location shown in Figure 2-1.

The noise logger was located to provide the baseline background noise environs of the surrounding areas adjacent to the project site.

Logger location was selected with consideration to other noise sources which may influence readings, security issues for noise monitoring equipment and gaining permission for access from residents and landowners.

Instrumentation for the survey comprised of a RION NL-42 environmental noise logger (serial number 01000374) fitted with microphone windshield. Calibration of the logger was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dB(A). All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

The logger determines L_{A1} , L_{A10} , L_{A90} and L_{Aeq} levels of the ambient noise. L_{A1} , L_{A10} , L_{A90} are the levels exceeded for 1%, 10% and 90% of the sample time respectively (see Glossary for definitions in Appendix A). Detailed results at the monitoring location are presented in graphical format in Appendix B. The graphs show measured values of L_{A1} , L_{A10} , L_{A90} and L_{Aeq} for each 15-minute monitoring period. Weather conditions were fine during the noise survey.

In order to assess noise emission from the proposed operations, the data obtained from the noise logger has been processed in accordance with the procedures contained in the Part 9 – Development Codes (Animal Keeping) from Brisbane City Council DCP to establish representative noise levels that can be expected in the residential vicinity of the site. The monitored baseline noise levels are detailed in Table 3-1.

Table 3-1 Measured Baseline Noise Levels

Measurement Descriptor	Measured Noise Level – dB(A) re 20 μ Pa			
	Morning Shoulder 6 am - 7 am	Daytime 7 am - 6 pm	Evening 6 pm – 10 pm	Night-time 10 pm – 7 am
L_{Aeq}	60	61	57	55
RBL (Background)	47	48	46	41

4 NOISE GUIDELINES AND CRITERIA

4.1 Part 9 – Development Codes (Animal Keeping)

4.1.1 Application

This code applies to assessing a material change of use if:

- (a) Assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for a material change of use or a neighbourhood plan; or
- (b) Impact assessable development for animal keeping or a use of a similar nature.

4.1.2 Purpose

- (1) The purpose of the Animal keeping code is to assess the suitability of development to which this code applies.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Development provides animal enclosures and buildings that are located, designed and constructed to protect surrounding land used from noise.
 - (b) Development ensures that the design of an animal enclosure contains animals within the site.

4.1.3 Performance outcomes and acceptable outcomes

Table 4-1 Performance Outcomes and Acceptable Outcomes

Performance Outcomes	Acceptable Outcomes
<p>PO1</p> <p>Development for animal keeping protects an occupant of a nearby sensitive use from adverse noise impacts, including sleep disturbance, through design, siting and construction that prevents or reduces the emission of noise beyond the development site by ensuring noise emissions do not exceed:</p> <p>(a) $L_{Aeq,adj,15min}$ emitted from the development is not greater than the rating background level plus 3 at a sensitive use;</p> <p>(b) Where $L_{Aeq,adj,15min}$ is the A-weighted equivalent continuous sound pressure level during a 15-minute measurement time, adjusted for tonal and impulsive noise characteristics, determined in accordance with the methodology described in the Noise impact assessment planning scheme policy.</p> <p>Note—Rating background level is to be determined in accordance with the methodology described in the Noise impact assessment planning scheme policy.</p> <p>Note—A noise impact assessment report prepared in accordance with the Noise impact assessment planning</p>	<p>AO1</p> <p>Development ensures that animal noise is not clearly audible and does not create a disturbance within a dwelling or its associated balconies/patios.</p>

scheme policy can assist in demonstrating achievement of this performance outcome.

PO2

Development for a kennel protects an occupant of a nearby sensitive use from adverse noise impacts, including sleep disturbance, through design, siting and construction that prevents or reduces the emission of noise beyond the development site by ensuring noise emissions do not exceed $L_{Amax,adj}$ 45dB(A) measured at a nearby sensitive use.

Where $L_{Amax,adj}$ is the adjusted A-weighted maximum sound pressure level determined in accordance with the methodology described in the Noise impact assessment planning scheme policy.

Note—A noise impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.

A02

Development ensures that kennels, including runs, are located at a minimum of:

800m from the nearest dwelling not associated with the use; or

200m from the nearest dwelling not associated with the use and animals are kept in an enclosed structure made of acoustically resilient material such as brick, concrete or masonry with no openings except closed solid and sealed doors and sealed windows between 6pm and 7am.

4.2 Summary of Project Noise Criteria

The project specific project trigger noise levels are presented in Table 4-2. These project trigger noise levels are nominated for the purpose of assessing potential noise impacts from the development. It is noted that the Brisbane City Council Planning Scheme Policy SC6.21 does not specify a project trigger noise level for commercial premises. For the purposes of this report, an internal amenity noise level of 45 dB $L_{Aeq,adj,15min}$ has been applied in alignment with the Queensland Environmental Protection (Noise) policy 2019.

Table 4-2 Project Noise Criteria

Sensitive Receptor	Time of day L_{Aeq}	Noise Criteria - dB(A)	Noise Criteria - dB(A)
		$L_{Aeq, adj, 15min}$	$L_{Amax, adj, 15min}$
Residential	morning shoulder – 5am to 7am	50 (47 + 3)	-
	day – 7am to 6pm	51 (48 + 3)	-
	evening – 6pm to 10pm	49 (46 + 3)	-
	night – 10pm to 7am	44 (41 + 3)	45
Commercial (Internal)	When in use	45	-

5 NOISE IMPACT ASSESSMENT

5.1 Kennel Noise Emissions

5.1.1 Dog Barking Spectra

The presented spectra below have been measured by RSA of various dogs barking from a distance of 0.5 m. The spectra presented have been considered relevant for the purpose of the assessment. This data is presented below:

Table 5-1 Dog Barking Spectra

Description	L _w Sound Power Level per Octave Band – dB									Overall Level
	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	
Small dog barking	67	67	71	76	83	100	93	78	71	101
Mastiff barking	67	70	77	100	108	100	88	80	71	107
Pittbull Terrier Barking	65	71	63	65	99	102	92	80	74	103

5.1.2 Operational Scenarios

It is proposed that the kennel can hold a maximum of 60 dogs during the daytime and hold up to 20 dogs overnight. The daytime and nighttime operational layout of the proposed kennel is presented in Figure 5-1.

Figure 5-1 Kennel Layout – Daytime Operational Scenario

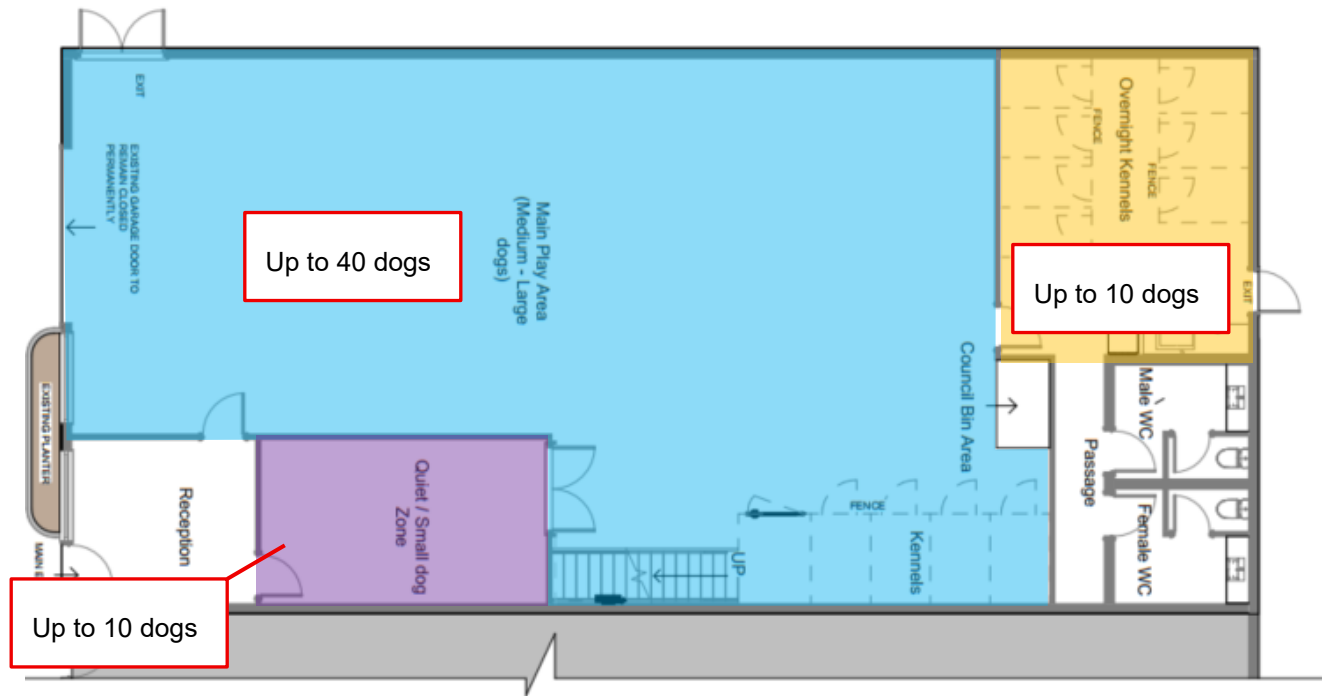
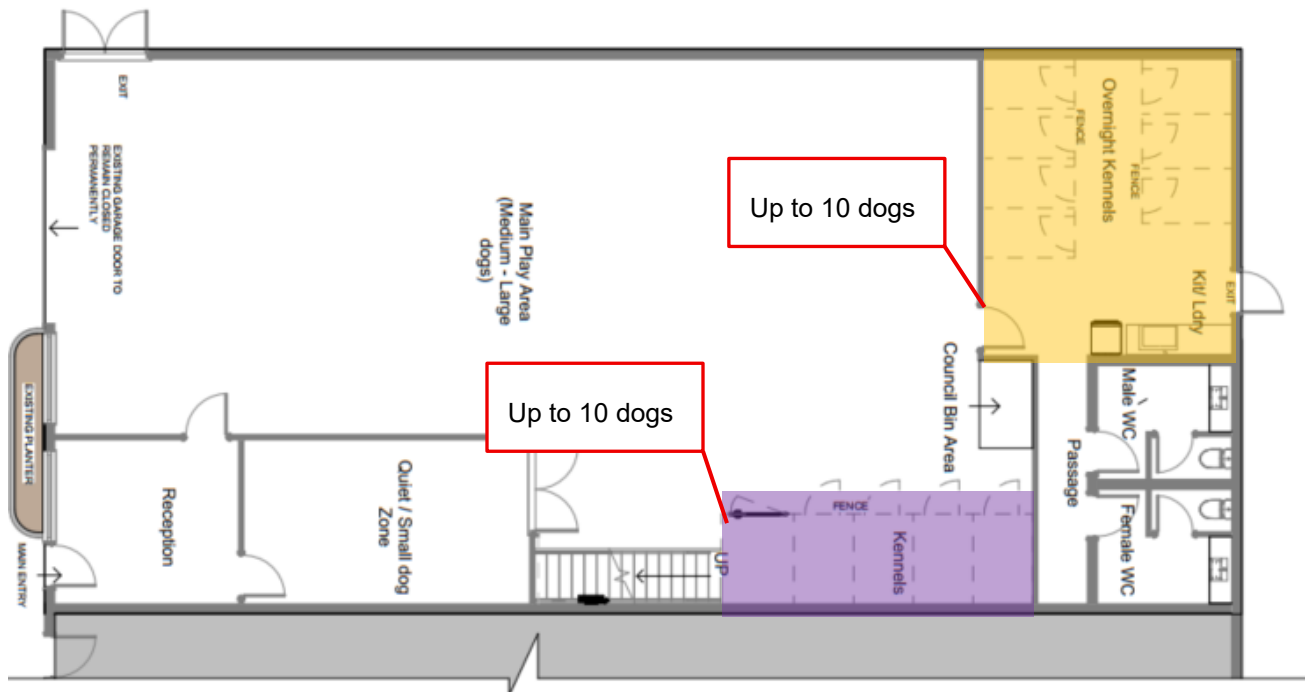


Figure 5-2 Kennel Layout – Nighttime Operational Scenario



5.2 Operational Noise Emissions

Calculations of the noise levels from the operation of the proposed kennel have been carried out using the specified data. We have used the various scenarios for the operation of the development as detailed below. Calculations consider factors such as distance, shielding from buildings and barriers.

Scenario 1 – Daytime Operation:

The daytime operational noise emission calculation considers the reasonable worst-case scenario where:

- The kennel is operating at full capacity with 60 dogs where there are 40 medium-large dogs in the main play area, 10 small dogs in the small dog zone, and 10 medium-large dogs in the overnight kennel zone.
- The calculation assumes approximately two dogs bark per second.
- The existing doors and windows are closed.

Scenario 2 – Nighttime Operation:

The nighttime operational noise emission calculation considers the reasonable worst-case scenario where:

- The kennel is operating at full capacity where there are 20 dogs being held across both areas.
- The calculation assumes approximately one dog bark every 2 seconds.
- The doors and windows are closed.

The following figure presents the proposed development and all sensitive receivers.

Figure 5-3 Sensitive Receiver Location

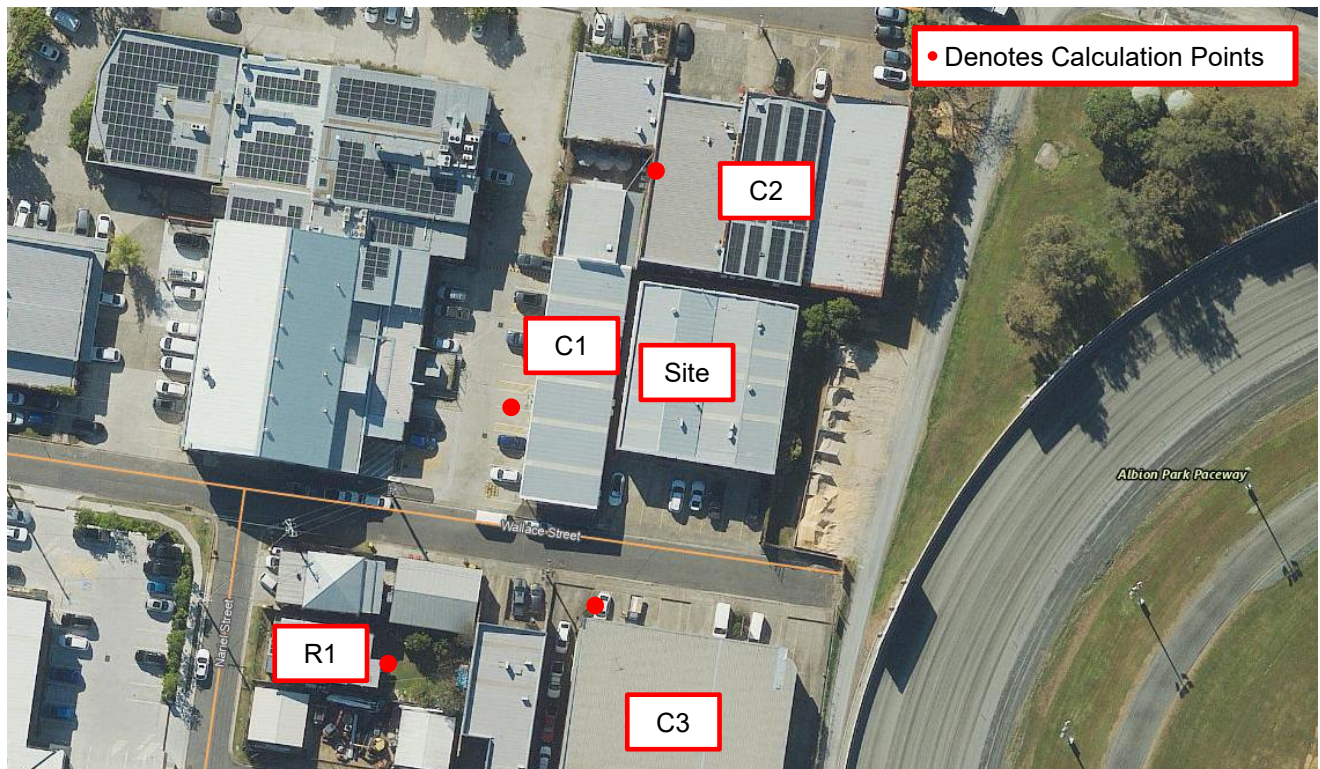


Table 5-2 Sensitive Receivers

Receiver	Number of Levels	Sensitive Receiver's Address
R1	2	61 Nariel Street
C1	2	97 Sandgate Road
C2	2	19 Pedder Street
C3	2	27 Wallace Street

5.3 Predicted Noise Levels

Predictive resultant noise levels have been calculated for the proposed kennel operating at full capacity as per the scenarios listed above. Noise emissions at the nearest residential receivers are presented in the table below, and a noise map is provided in Appendix E. The predicted noise calculations consider the following:

- Shielding from barriers and buildings.
- Receivers are 1.5 m above respective level.
- The levels have been calculated to the points detailed in Figure 5-3.
- The calculated scenarios implement the assumptions detailed in Section 5.2.
- A minus 20 dB correction has been applied to simulate the external to internal levels for commercial receivers.

Table 5-3 Predicted Noise Levels At Sensitive Receivers

Receiver	Period	Calculated Noise Level $L_{Aeq} - dB(A)$	Criteria	Compliance
R1	Morning Shoulder	37	50	Yes
	Day	42	51	Yes
	Evening	37	49	Yes
	Night	37	45	Yes

C1 (Internal)	When in use	26	45	Yes
C2 (Internal)	When in use	45	45	Yes
C3 (Internal)	When in use	44	45	Yes

6 RECOMMENDATIONS

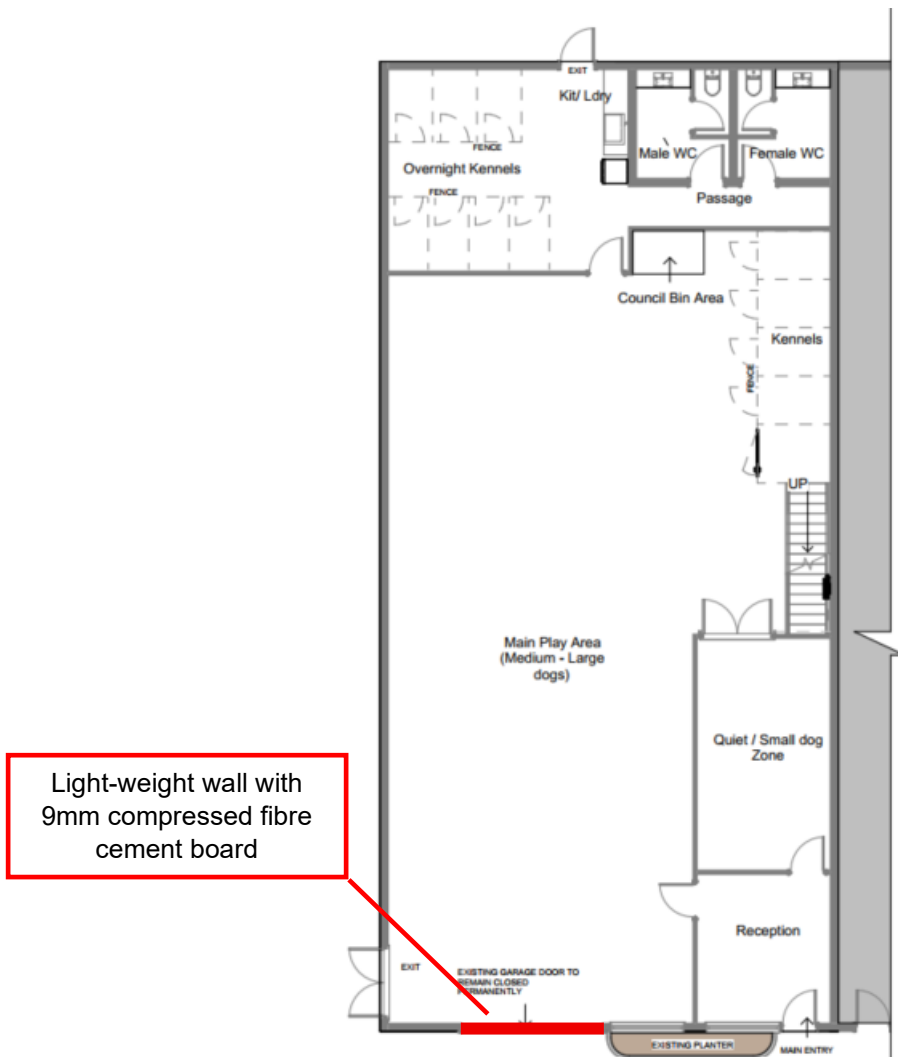
The proposed kennel has been assessed to comply with the project specific noise criteria with the implementation of the following general noise controls:

- The maximum number of dogs should not exceed 60.
- Windows and doors are to remain closed during operation.
- During nighttime hours, the business should implement a plan of management to tend to distressed dogs immediately by placing them in the quiet zone.
- The business should implement a noise complaint register and take mitigating measures if community complaints are raised.
- The existing roller-door requires acoustic treatment using one of the following options:

Option 1: A light-weight timber or stud wall with 9mm compressed fibre-cement boards should be constructed to block the existing garage door as per Figure 6-1.

Option 2: The roller-door is to be entirely lined with a minimum Rw 30 acoustic panel or mass-loaded vinyl, such as Pyrotek Wavebar 8 kg/m². Care should be taken to ensure that the lining extends over the edges of the roller-door to minimise gaps.

Figure 6-1 Recommended wall construction



7 CONCLUSION

A noise impact assessment has been conducted in relation to the operation of the Proposed Kennel/Dog Boarding at 26 Wallace Street, Albion QLD.

This assessment has been conducted, and appropriate noise emission criteria have been established in accordance with Part 9 – Development Codes (Animal Keeping) from Brisbane City Council DCP.

This report shows that under the most conservative operating scenarios and the implementation of the recommendations while considering the existing construction of outer walls, ceiling and glazing elements of the building and the AC units noise levels, operational noise emission from the proposed Doggie Day Care and associated mechanical plant will achieve the established criteria at neighbouring residences.

Prepared by:



Luke Strong

Acoustic Consultant

Approved by:



Desmond Raymond

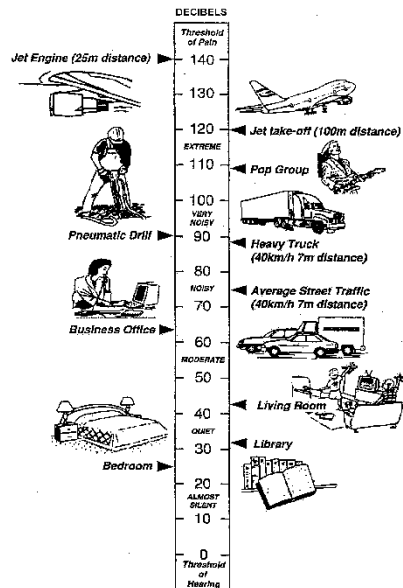
Director

Appendix A – Acoustic Terminology

A-weighted sound pressure	The human ear is not equally sensitive to sound at different frequencies. People are more sensitive to sound in the range of 1 to 4 kHz (1000 – 4000 vibrations per second) and less sensitive to lower and higher frequency sound. During noise measurement an electronic ' <i>A-weighting</i> ' frequency filter is applied to the measured sound level <i>dB(A)</i> to account for these sensitivities. Other frequency weightings (B, C and D) are less commonly used. Sound measured without a filter is denoted as linear weighted dB(linear).
Ambient noise	The total noise in a given situation, inclusive of all noise source contributions in the near and far field.
Community annoyance	Includes noise annoyance due to: character of the noise (e.g. sound pressure level, tonality, impulsiveness, low-frequency content) character of the environment (e.g. very quiet suburban, suburban, urban, near industry) miscellaneous circumstances (e.g. noise avoidance possibilities, cognitive noise, unpleasant associations) human activity being interrupted (e.g. sleep, communicating, reading, working, listening to radio/TV, recreation).
Compliance	The process of checking that source noise levels meet with the noise limits in a statutory context.
Cumulative noise level	The total level of noise from all sources.
Extraneous noise	Noise resulting from activities that are not typical to the area. Atypical activities may include construction, and traffic generated by holiday periods and by special events such as concerts or sporting events. Normal daily traffic is not considered to be extraneous.
Feasible and reasonable measures	Feasibility relates to engineering considerations and what is practical to build; reasonableness relates to the application of judgement in arriving at a decision, taking into account the following factors: Noise mitigation benefits (amount of noise reduction provided, number of people protected). Cost of mitigation (cost of mitigation versus benefit provided). Community views (aesthetic impacts and community wishes). Noise levels for affected land uses (existing and future levels, and changes in noise levels).
Impulsiveness	Impulsive noise is noise with a high peak of short duration or a sequence of these peaks. Impulsive noise is also considered annoying.
Low frequency	Noise containing major components in the low-frequency range (20 to 250 Hz) of the frequency spectrum.

Noise criteria	The general set of non-mandatory noise levels for protecting against intrusive noise (for example, background noise plus 5 dB) and loss of amenity (e.g. noise levels for various land use).
Noise level (goal)	A noise level that should be adopted for planning purposes as the highest acceptable noise level for the specific area, land use and time of day.
Noise limits	Enforceable noise levels that appear in conditions on consents and licences. The noise limits are based on achievable noise levels, which the proponent has predicted can be met during the environmental assessment. Exceedance of the noise limits can result in the requirement for either the development of noise management plans or legal action.
Performance-based goals	Goals specified in terms of the outcomes/performance to be achieved, but not in terms of the means of achieving them.
Rating Background Level (RBL)	The rating background level is the overall single figure background level representing each day, evening and night time period. The rating background level is the 10 th percentile min L _{A90} noise level measured over all day, evening and night time monitoring periods.
Receptor	The noise-sensitive land use at which noise from a development can be heard.
Sleep disturbance	Awakenings and disturbance of sleep stages.
Sound and decibels (dB)	Sound (or noise) is caused by minute changes in atmospheric pressure that are detected by the human ear. The ratio between the quietest noise audible and that which should cause permanent hearing damage is a million times the change in sound pressure. To simplify this range the sound pressures are logarithmically converted to decibels from a reference level of 2 x 10 ⁻⁵ Pa.

The picture below indicates typical noise levels from common noise sources.



dB is the abbreviation for decibel – a unit of sound measurement. It is equivalent to 10 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure.

Sound power Level (SWL)

The sound power level of a noise source is the sound energy emitted by the source. Notated as SWL, sound power levels are typically presented in $dB(A)$.

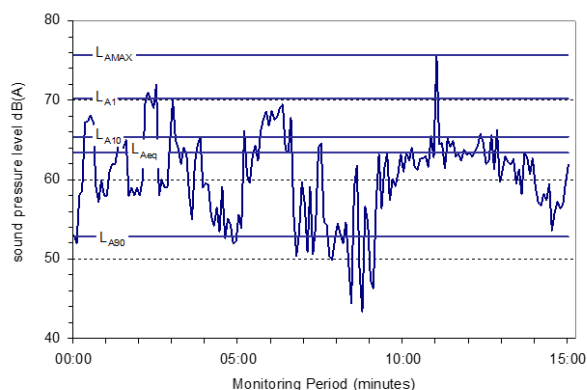
Sound Pressure Level (SPL)

The level of noise, usually expressed as SPL in $dB(A)$, as measured by a standard sound level meter with a pressure microphone. The sound pressure level in $dB(A)$ gives a close indication of the subjective loudness of the noise.

Statistic noise levels

Noise levels varying over time (e.g. community noise, traffic noise, construction noise) are described in terms of the statistical exceedance level.

A hypothetical example of A weighted noise levels over a 15 minute measurement period is indicated in the following figure:



Key descriptors:

L_{Amax} Maximum recorded noise level.

L_{A1} The noise level exceeded for 1% of the 15 minute interval.

L_{A10} Noise level present for 10% of the 15 minute interval. Commonly referred to the average maximum noise level.

L_{Aeq} Equivalent continuous (energy average) A-weighted sound pressure level. It is defined as the steady sound level that contains the same amount of acoustic energy as the corresponding time-varying sound.

L_{A90} Noise level exceeded for 90% of time (background level). The average minimum background sound level (in the absence of the source under consideration).

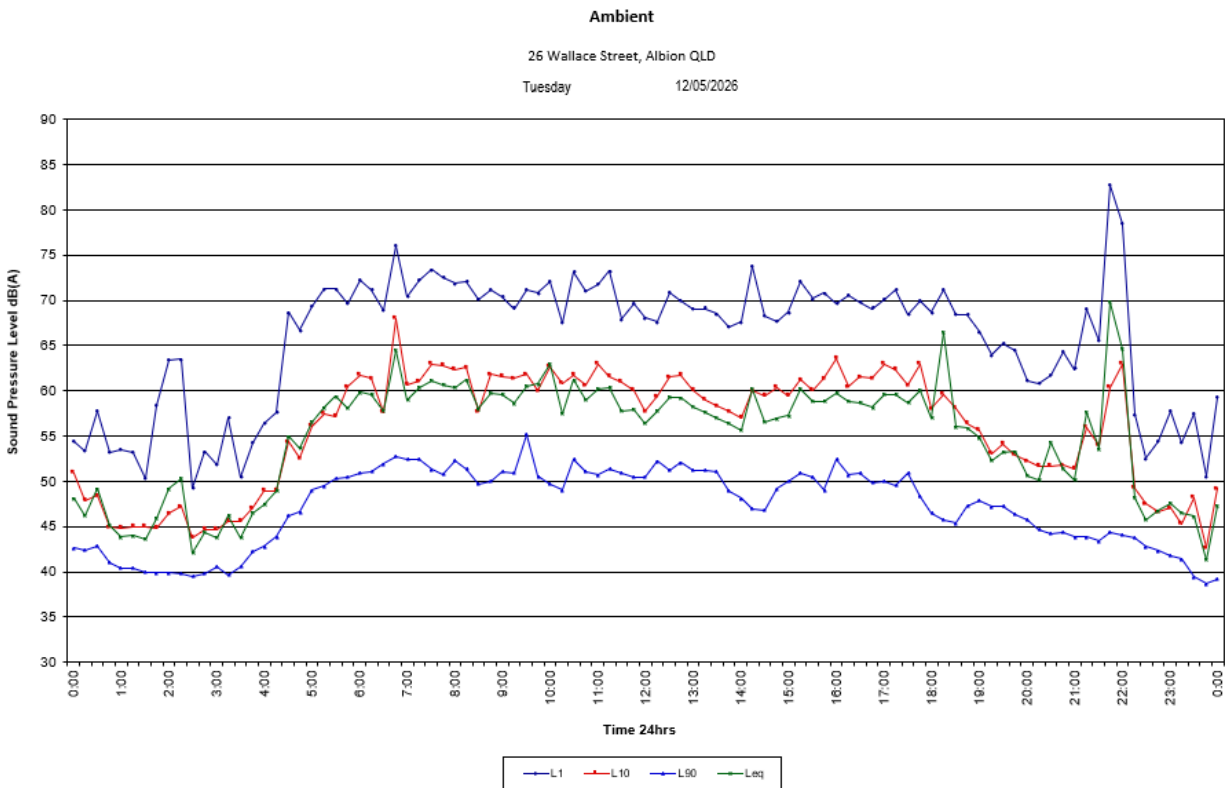
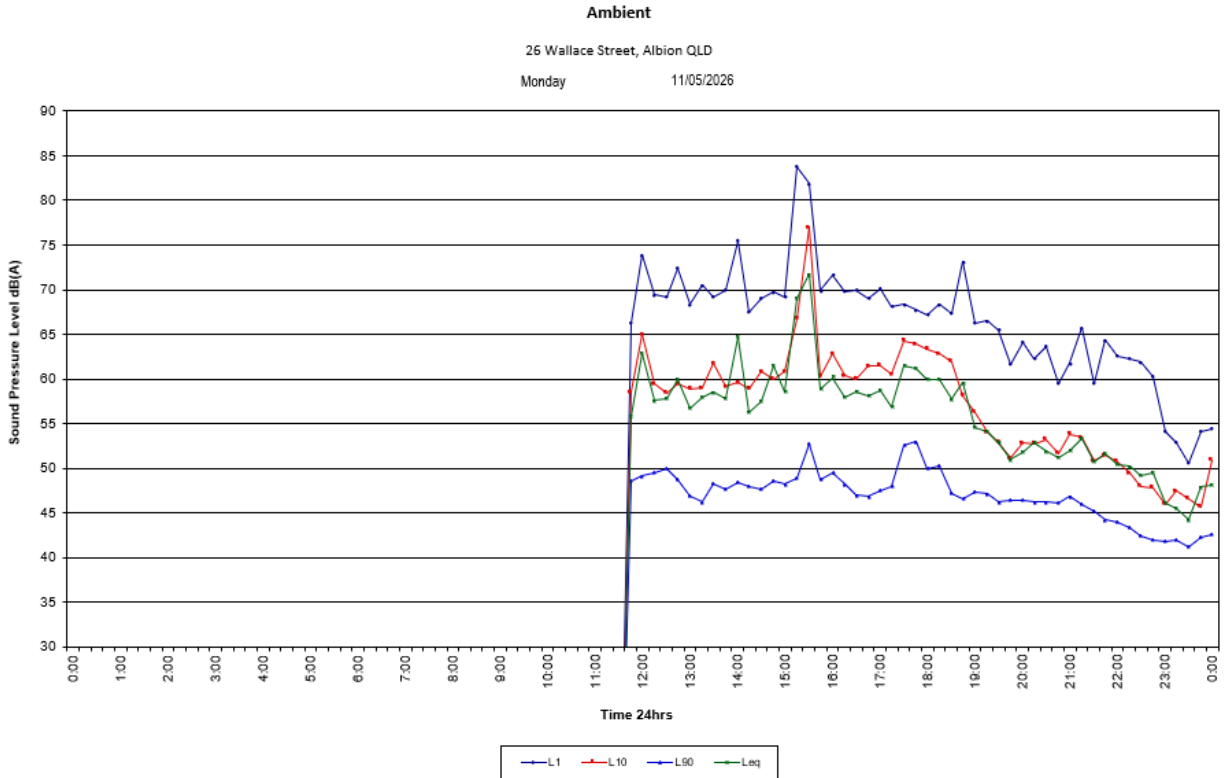
Threshold

The lowest sound pressure level that produces a detectable response (in an instrument/person).

Tonality

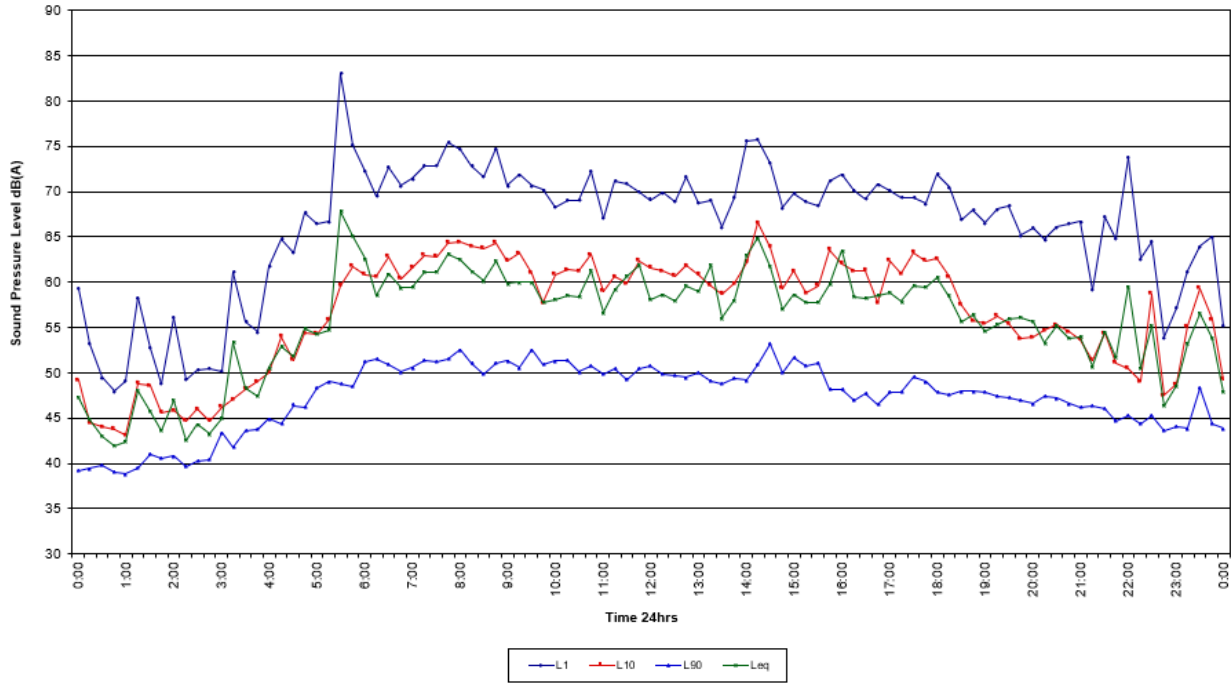
Tonal noise contains one or more prominent tones (and characterised by a distinct frequency components) and is considered more annoying. A 2 to 5 $dB(A)$ penalty is typically applied to noise sources with tonal characteristics

Appendix B – Logger Graphs



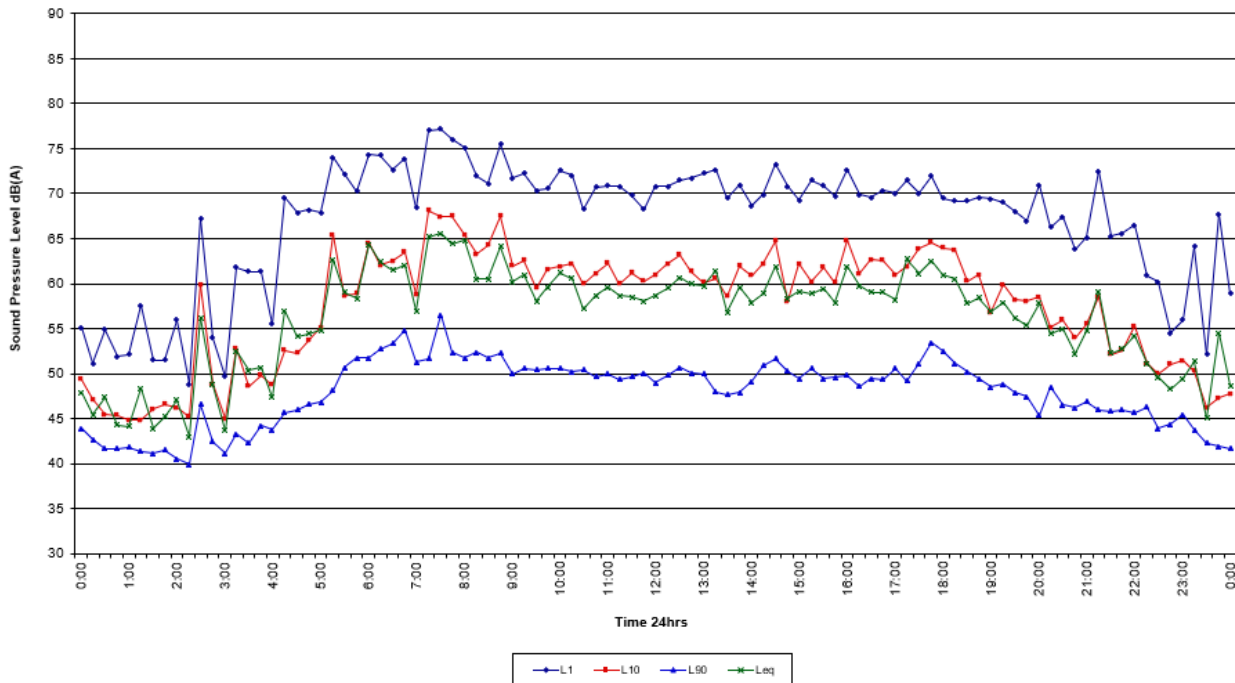
Ambient

26 Wallace Street, Albion QLD
Wednesday 13/05/2026



Ambient

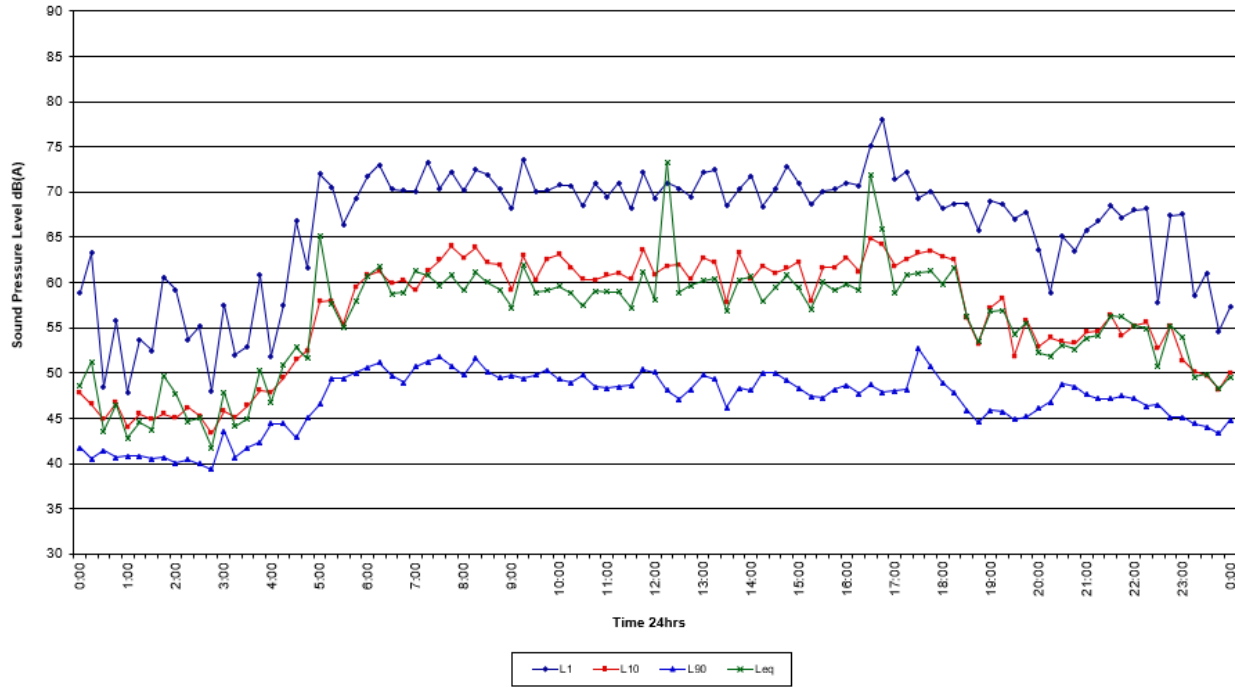
26 Wallace Street, Albion QLD
Thursday 14/05/2026



Ambient

26 Wallace Street, Albion QLD

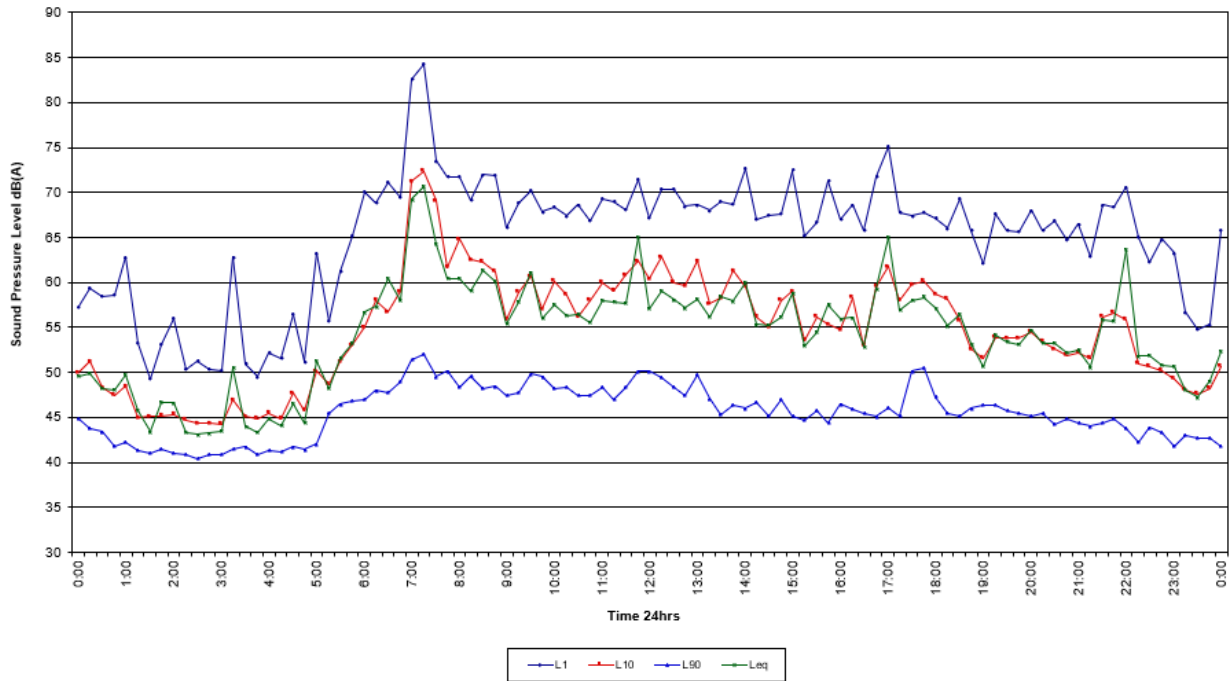
Friday 15/05/2026



Ambient

26 Wallace Street, Albion QLD

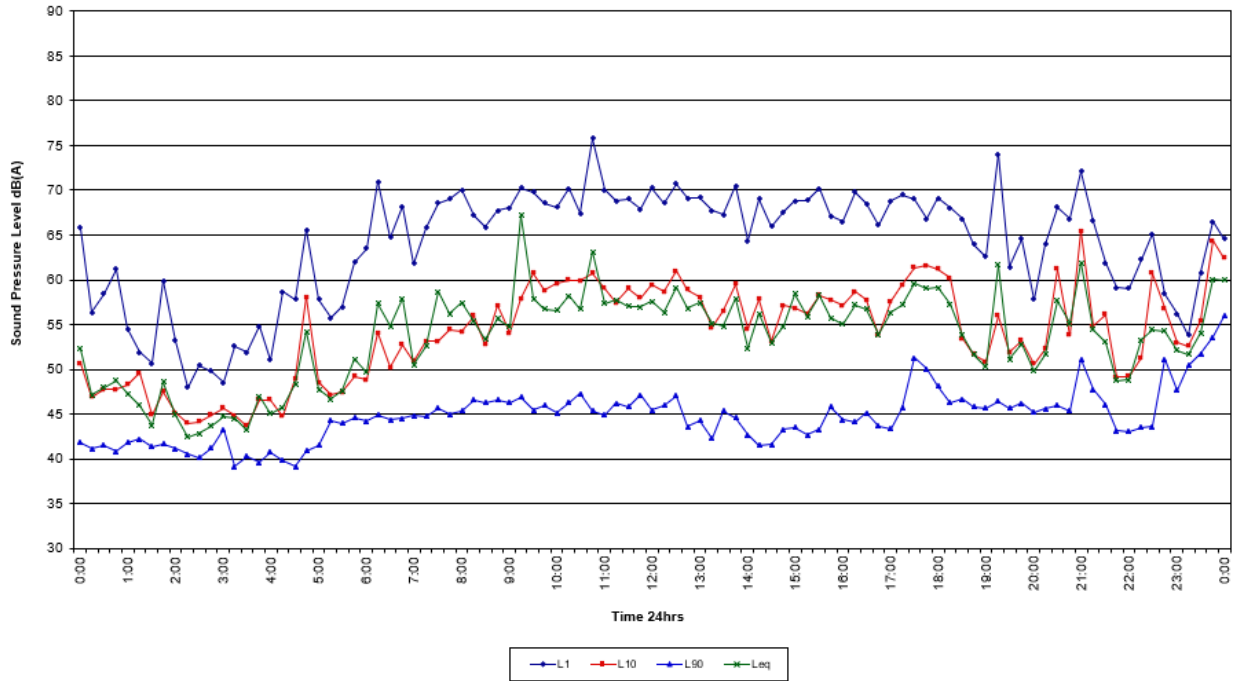
Saturday 16/05/2026



Ambient

26 Wallace Street, Albion QLD

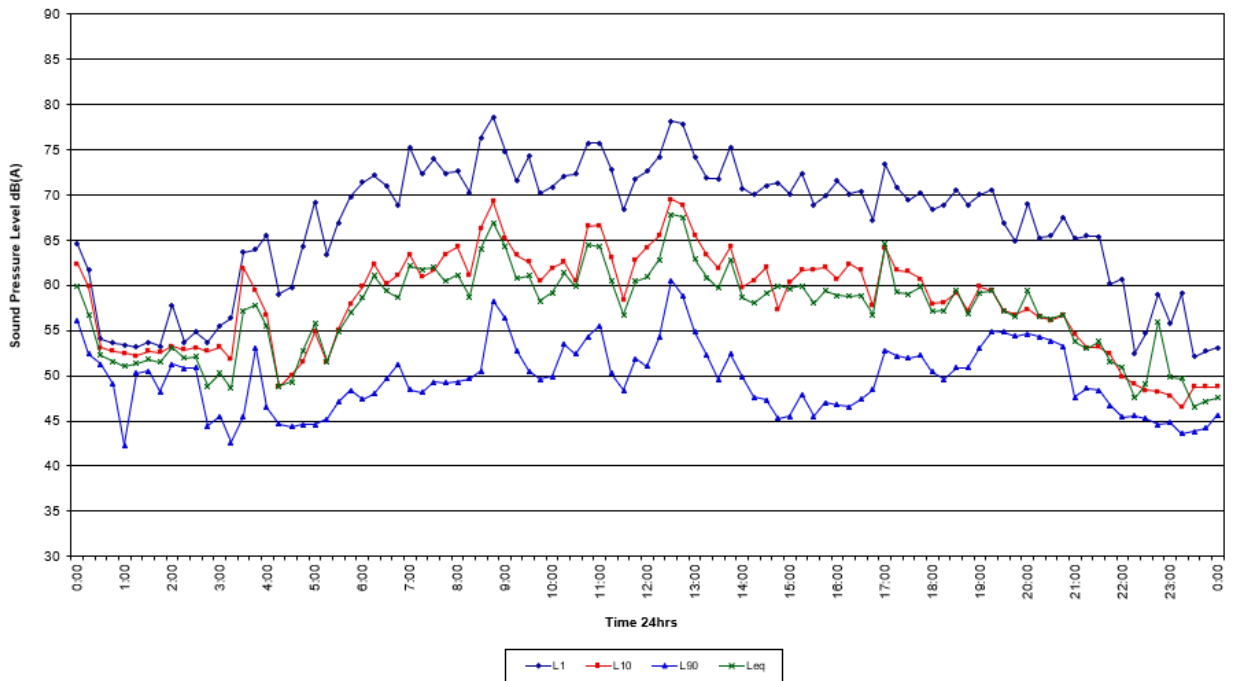
Sunday 17/05/2026



Ambient

26 Wallace Street, Albion QLD

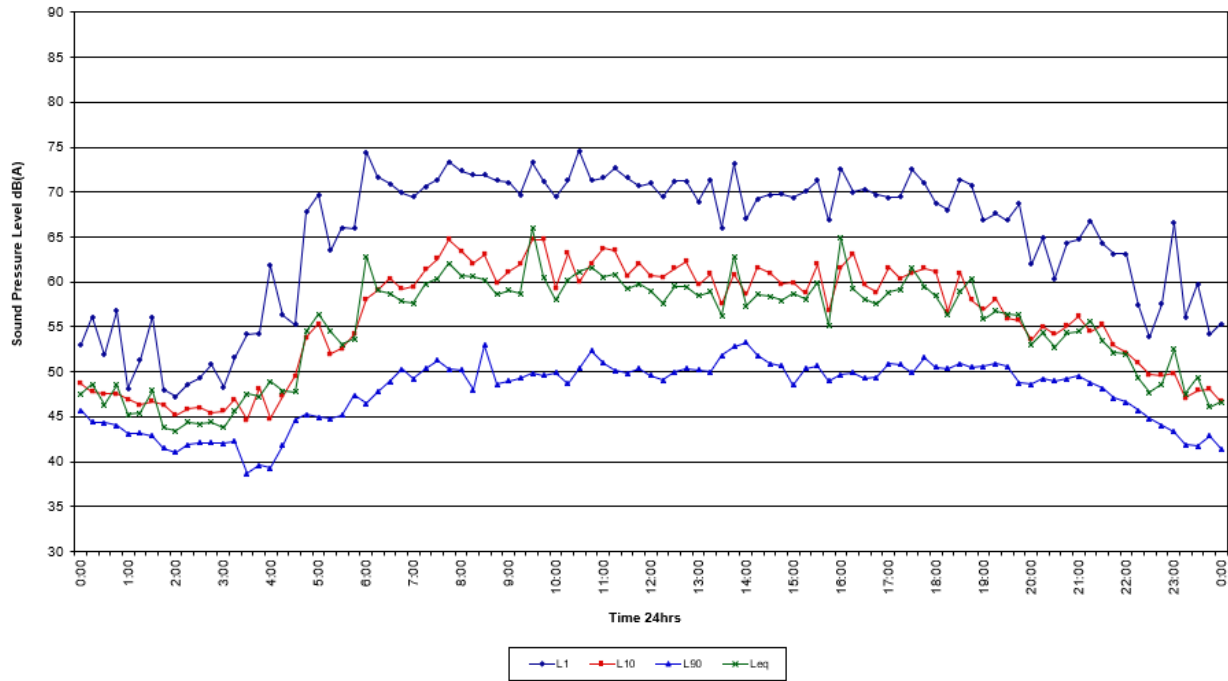
Monday 18/05/2026



Ambient

26 Wallace Street, Albion QLD

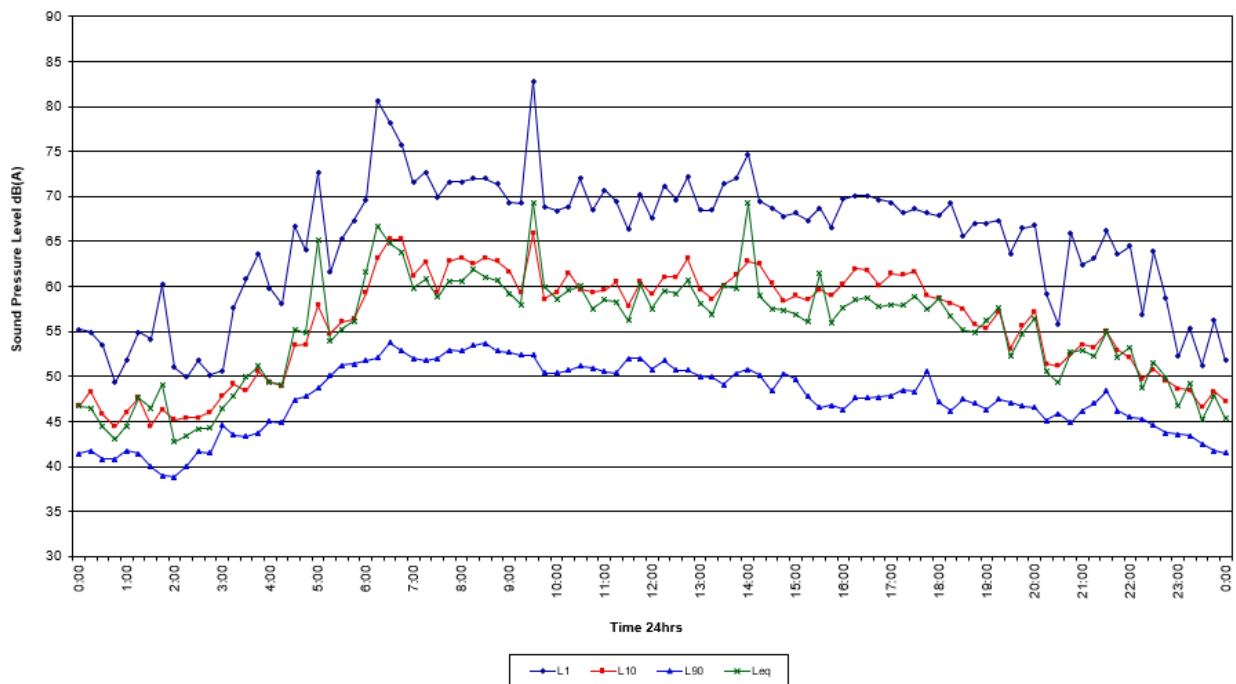
Tuesday 19/05/2026



Ambient

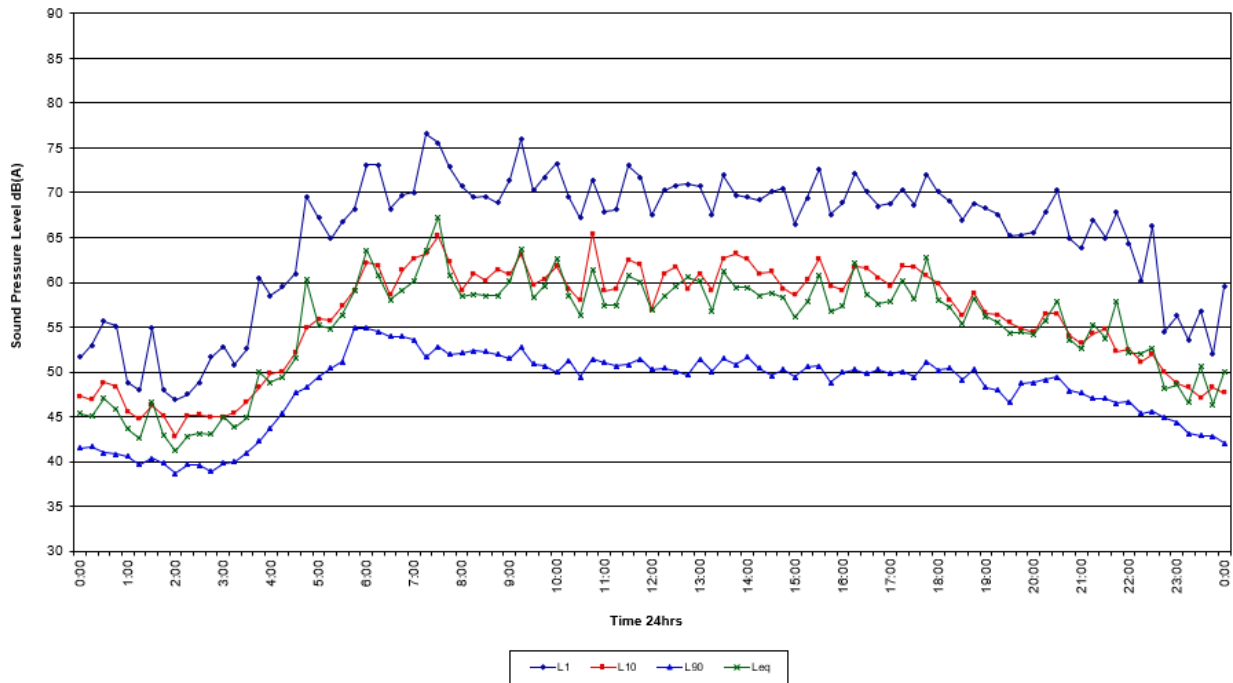
26 Wallace Street, Albion QLD

Wednesday 20/05/2026



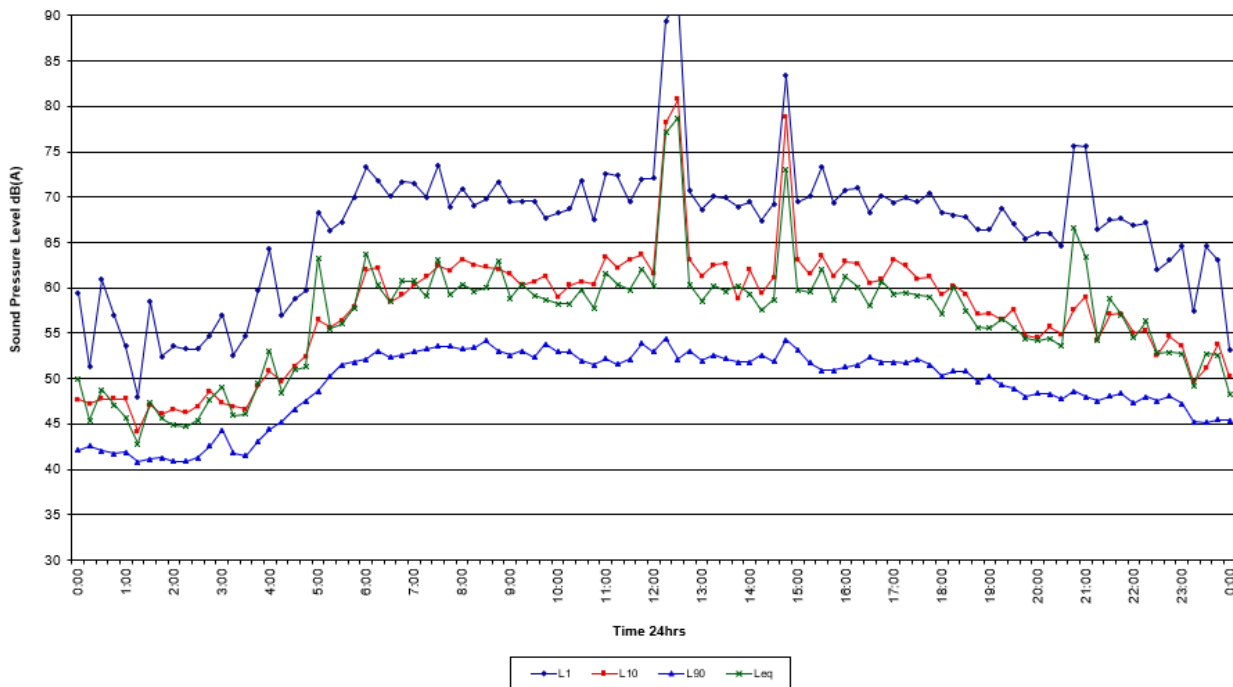
Ambient

26 Wallace Street, Albion QLD
Thursday 21/05/2026



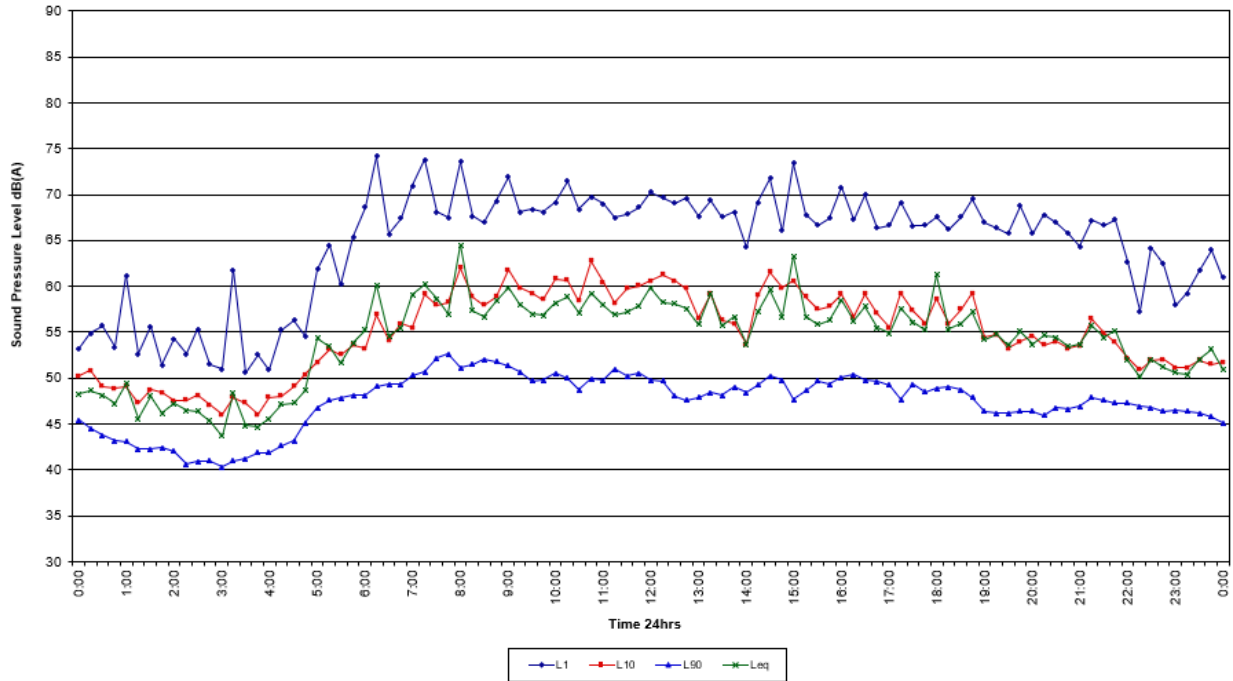
Ambient

26 Wallace Street, Albion QLD
Friday 22/05/2026



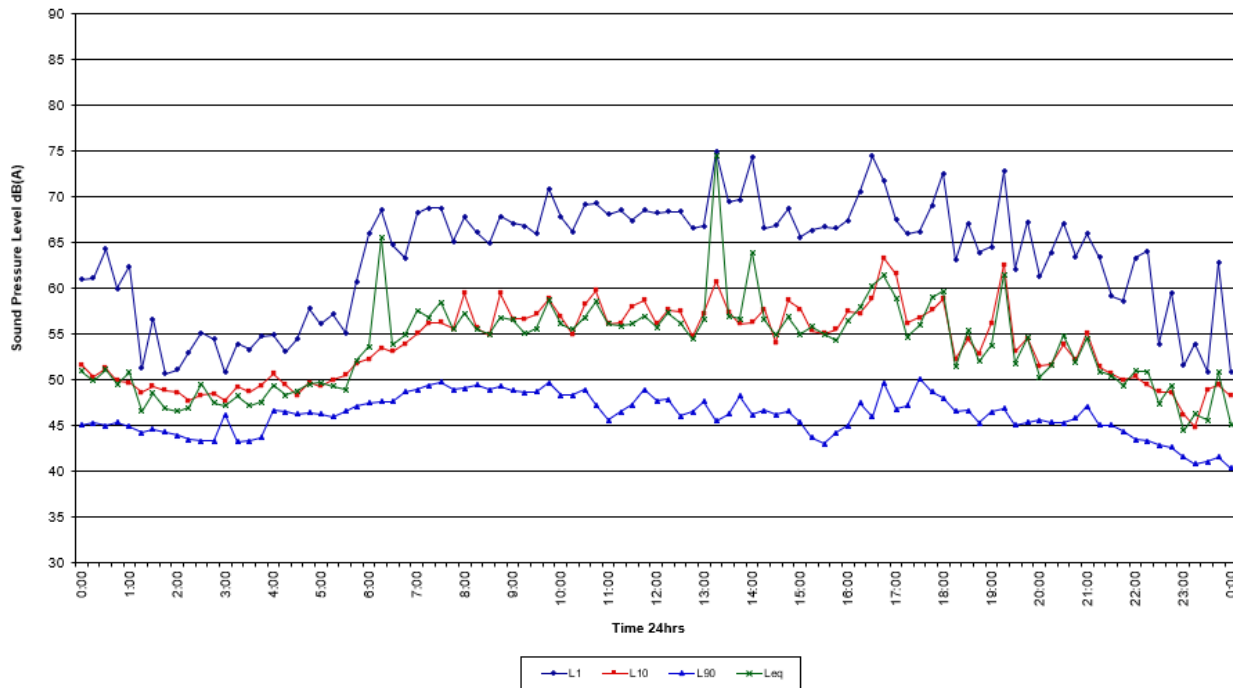
Ambient

26 Wallace Street, Albion QLD
Saturday 23/05/2026



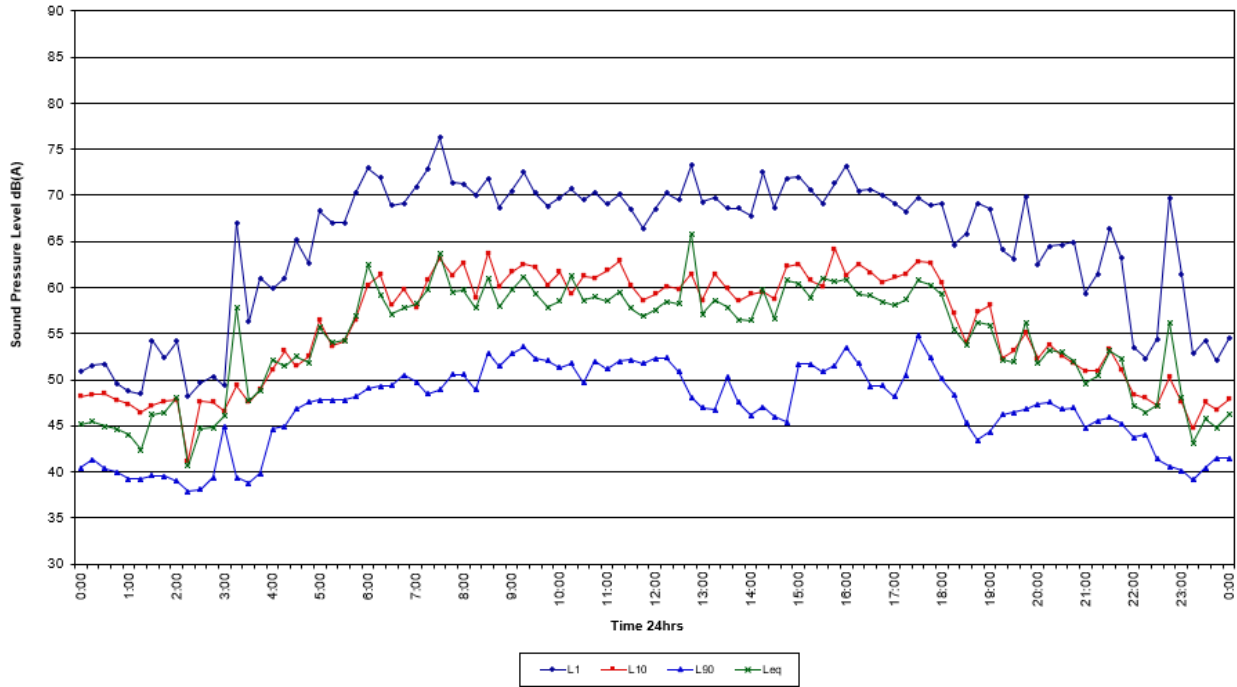
Ambient

26 Wallace Street, Albion QLD
Sunday 24/05/2026



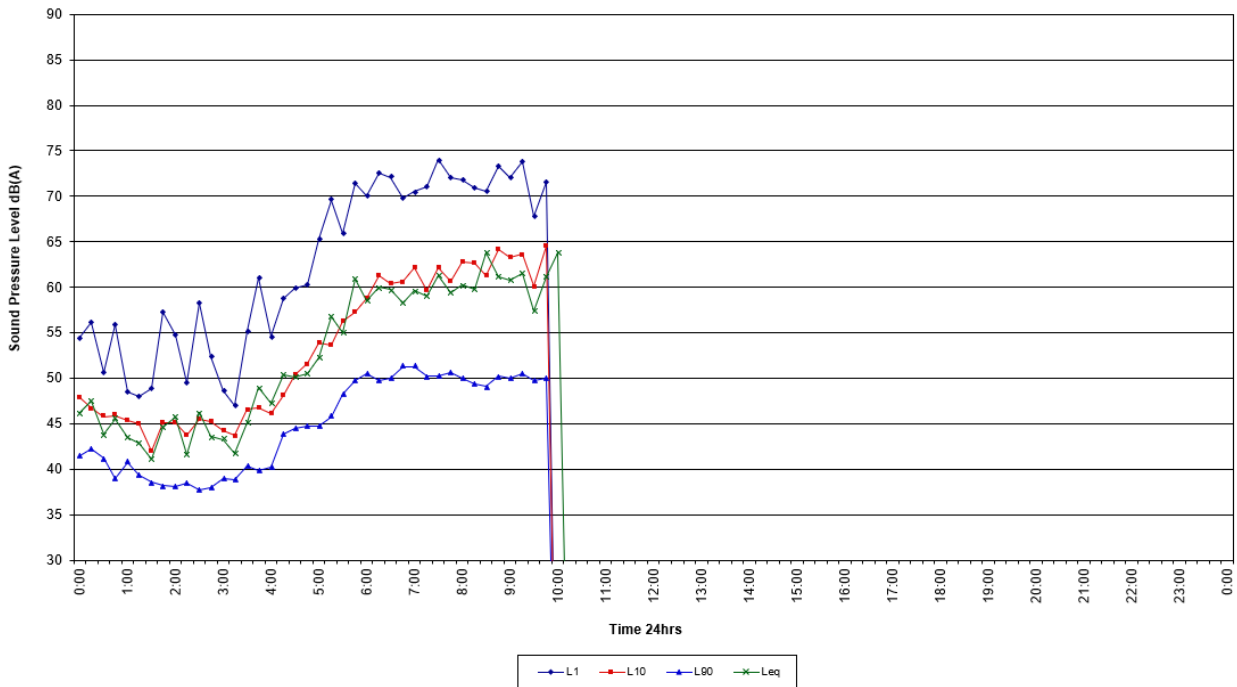
Ambient

26 Wallace Street, Albion QLD
Monday 25/05/2026



Ambient

26 Wallace Street, Albion QLD
Tuesday 26/05/2026



Appendix C – Calibration Certificate

CERTIFICATE OF CALIBRATION

CERTIFICATE NO: SLM54576

EQUIPMENT TESTED: Sound Level Meter

Make & Model: Svantek SV 977D	Serial No: 167934
Mic. Model: MTG MK255	Serial No: 29044
Pre-Amp. Model: Svantek SV 12L	Serial No: 127001
Band-Pass Filter: 1/3 Octave	Test No: F054577

Owner: Acu-Vib Electronics
Unit 14, 22 Hudson Avenue
Castle Hill NSW 2154

Tests Performed: IEC 61672-3:2013 & IEC 61260-3:2016

Comments: All Test passed for Class 1. (See overleaf for details)

CONDITIONS OF TEST:

Ambient Pressure	996 hPa ±1 hPa	Date of Receipt :	08/07/2025
Temperature	23 °C ±1° C	Date of Calibration :	08/07/2025
Relative Humidity	45 % ±5%	Date of Issue :	08/07/2025


Acu-Vib Test Procedure: AVP10 (SLM) & AVP06 (Filters)

CHECKED BY: *V. Bray*

AUTHORISED SIGNATURE: *H. Soe*
H. Soe


Accredited for compliance with ISO/IEC 17025 - Calibration
Results of the tests, calibration and/or measurements included in this document are traceable to SI units through reference equipment that has been calibrated by the Australian National Measurement Institute or other NATA accredited laboratories demonstrating traceability.

This report applies only to the item identified in the report and may not be reproduced in part.
The uncertainties quoted are calculated in accordance with the methods of the ISO Guide to the Uncertainty of Measurement and quoted at a coverage factor of 2 with a confidence interval of approximately 95%.



Acu-Vib Electronics
ACOUSTICS AND VIBRATIONS

Head Office & Calibration Laboratory
Unit 14, 22 Hudson Avenue, Castle Hill NSW 2154
(02) 9680 8133
www.acu-vib.com.au



NATA

WORLD RECOGNISED
ACCREDITATION
Accredited Laboratory
No. 9262
Acoustic and Vibration
Measurements

Page 1 of 2 Calibration Certificate
AVCERT10.3 Rev.3.0 10/03/2025

Appendix E – Noise Map

