

# DA ACOUSTIC REPORT – ARTISAN FOOD & DRINK PREMISES

44/9 Powells Road, Brookvale

ID: 12845 R01v1 15 July 2024

**Prepared For:** Sale Pepe Slp Pty Ltd

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This firm is a member of the Association of Australian Acoustical Consultants.

The work reported herein has been carried out in accordance with the terms of membership. We stress that the advice given herein is for acoustic purposes only, and that the relevant authorities should be consulted with regard to compliance with regulations governing areas other than acoustics.



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# 1.0 INTRODUCTION

PKA Acoustic Consulting (PKA) has been engaged by Sale Pepe SLP Pty Ltd (client) to provide an acoustic report to assess the noise impact of the proposed use of the premises at Unit 44, 9 Powells Road, Brookvale (site) upon the surrounding environment. This report has been prepared as part of the approval documentation be submitted to the Northen Beaches Council.

# 2.0 SUMMARYSSS

An acoustic assessment has been conducted in accordance with the acoustic requirements of Northern Beaches Council, and the relevant Australian standards and guidelines such as the NSW Liquor and Gambling (L&G) acoustic criteria and the NSW EPA Noise Policy for Industry (NPfI 2017).

Unattended noise measurements were conducted on site to obtain existing background and ambient noise levels. Based on the measurement results, noise goals were established for various operations based on the above standards.

Providing our recommendations detailed in Section 7.0 are implemented, the proposed development at 44/9 Powells Road will comply with the acoustic requirements of the Northern Beaches Council.



# 3.0 SITE DESCRIPTION

The artisan food and drink premises are located at 44/9 Powells Road, Brookvale. The site is surrounded by existing commercial and industrial premises. The nearest sensitive residential receivers are situated to the south at approximately 120 meters away, at 9 Short Street and its adjacent residential premises. The site location and surroundings are shown in the figure below.

#### Figure 3-1 Site Location (Aerial View of Site – Located below the Carpark Platform)

(Source: Statement of Environmental Effects prepared by Sky Planning dated April 2024 – Additional markup by PKA).



Figure 3-2 Site Layout (Extract from Architectural Plans)



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# 4.0 NOISE CRITERIA

## 4.1 Liquor & Gaming (L&GNSW) Noise Requirements – Licensed Premises

The development includes the provision of liquor licensing. As such, noise from licensed premises is governed by criteria defined by the L&GNSW. The standard conditions are as follows:

The LA10 noise level emitted from the licensed premises shall not exceed the background noise level in any Octave Band Centre Frequency (31.5Hz - 8kHz inclusive) by more than 5dB between 7:00am and 12:00midnight at the boundary of any affected residence.

The LA10 noise level emitted from the licensed premises shall not exceed the background noise level in any Octave Band Centre Frequency (31.5Hz - 8kHz inclusive) between 12:00 midnight and 7:00am at the boundary of any affected residence.

Notwithstanding compliance with the above, the noise from the licensed premises shall not be audible within any habitable room in any residential premises between the hours of 12:00 midnight and 7:00am.

Interior noise levels which still exceed safe hearing levels are in no way supported or condoned by the Liquor & Gaming NSW.

This is a minimum standard. In some instances, the Board may specify a time earlier than midnight in respect of the above condition. For the purposes of this condition, the  $L_{A10}$  can be taken as the average maximum deflection of the noise emission from the premises.

#### 4.2 NSW EPA Noise Policy for Industry (NPfl)

Noise generated from commercial premises and mechanical equipment is generally assessed against the requirements of the *NSW EPA Noise Policy for Industry 2017 (NPfI)*. The policy sets out two separate criteria to ensure environmental noise objectives are met. The first criterion considers intrusive noise to residential properties and the second is set to ensure the amenity of the land use is protected. The lower value of both criteria is the Project noise trigger level, which is the limit of the L<sub>Aeq 15min</sub> noise level that must not be exceeded for the corresponding period of the day.

#### 4.2.1 Amenity Criterion

To limit continuing increases in noise levels, the maximum ambient noise level within an area from commercial noise sources should not normally exceed the levels as specified in Table 2.2 of the policy for the specified time of the day. The NPfI recommends the following Amenity Noise Levels for various receiver premises.

Type of receiver	Time of day	Recommended Amenity Noise Level L <sub>Aeq (period)</sub>
	Day	60 dB(A)
Residential Urban	Evening	50 dB(A)
	Night	45 dB(A)
Commercial	When In Use	65 dB(A)

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To ensure that industrial noise levels (existing plus new) remain within the recommended amenity noise levels for an area, a project amenity noise level applies for each new source of industrial noise as follows:

Project amenity noise level for development = recommended amenity noise level minus 5 dB(A).

To standardise the time periods for the intrusiveness and amenity noise levels, this policy assumes that the Amenity  $L_{Aeq, 15min}$  will be taken to be equal to the  $L_{Aeq, period} + 3$  decibels (dB).

#### 4.2.2 Intrusiveness Criterion

The intrusiveness of a stationary noise source may be considered acceptable if the average of the maximum A-weighted levels of noise,  $L_{Aeq 15 minute}$  from the source do not exceed by more than 5dB the Rating Background Level (RBL) measured in the absence of the source. This applies during all times of the day and night. There also exists an adjustment factor to be applied as per the character of the noise source. This includes factors such as tonal, fluctuating, low frequency, impulsive, intermittent etc. qualities of noise. The RBL is determined in accordance with Section 2.3 of the NSW EPA NPfI. The intrusiveness criterion is  $L_{Aeq 15 minute} < RBL+5$ .

#### 4.2.3 Maximum Noise level event assessment

In addition to the above criteria, to protect the receivers from potential sleep disturbance during the night-time hours (typically between 10pm and 7am), the following noise criteria is applicable.

Where the subject development/premises night-time noise levels at a residential location exceed:

- L<sub>Aeq,15min</sub> 40dB(A) or the prevailing RBL + 5dB, whichever is greater and/or
- L<sub>AFmax</sub> 52dB(A) or the prevailing RBL + 15dB, whichever is greater.

## 4.3 Application of Noise Criteria

Based on PKA's experience, the noise criteria for this assessment will be applied as follows:

- The L&GNSW criteria will be applied to music and patron noise within the indoor areas of the club.
- The NPfI criteria will be applied to assess noise breakout from potential carpark activity, mechanical plant, and equipment.

# 5.0 NOISE SURVEY & PROJECT NOISE GOALS

#### 5.1 Methodology

Unattended noise monitoring was conducted on site between  $27^{th}$  June and  $5^{th}$  July 2024 to record the existing background noise levels. The noise monitor was programmed to store the L<sub>n</sub> percentile noise levels for each 15-minute sampling period. Measurements were made of L<sub>min</sub>, L<sub>max</sub>, L<sub>90</sub>, and L<sub>eq</sub> and were later retrieved for analysis. The position of the noise monitor was at the location of the nearest sensitive residential receiver as shown in Figure 3-1.

The results and summary of the noise monitoring are listed in graphical form in Appendix B of this report. Noise monitoring data during periods of adverse weather conditions were excluded accordingly.

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## 5.2 Instrumentation

The noise measurements were conducted using the following equipment:

- Sound Analyser NTI XL2 Type Approved, Serial number A2A- 16434-E0.
- Larson Davis Calibrator CAL200, Serial number 11419.

The instruments were calibrated before and after the noise measurements and there were no adverse deviations between the two.

The analysers are type 1 and comply with AS IEC 61672.2-2004. The instruments carry traceable calibration certificates.

### 5.3 Project Noise Goals

#### 5.3.1 Noise Policy for Industry Goals

The tables below present the results of the ambient noise monitor measurements and the noise goals for noise breakout to surrounding premises. The assessment periods are defined by the NPfI are as Daytime: 7 am to 6 pm, Evening: 6 pm to 10 pm, Night: 10 pm to 7 am.

Receiver		Measured RBL	Acceptable Amenity	NSW Noise Po Cri	Project Noise Trigger	
Type Perio	Period	(LA90)	Levels (L <sub>Aeq-period</sub> )	Amenity L <sub>Aeq15min</sub>	Intrusiveness L <sub>Aeq15min</sub>	Levels L <sub>Aeq15min</sub>
Residential (Urban)	Day	50 dB(A)	60 dB(A)	58 dB(A)	55 dB(A)	55 dB(A)
	Evening	42 dB(A)	50 dB(A)	48 dB(A)	47 dB(A)	47 dB(A)
	Night	39 dB(A)*	45 dB(A)	43 dB(A)	44 dB(A)	43 dB(A)
Commercial	When in use	65 dB(A)	-	63 dB(A)	N/A	63 dB(A)

#### Table 5-1 NPfI Project Noise Trigger Levels at Receiver Boundaries

\*For the shoulder period of operation between 10pm and 12am to match the proposed operating hours.

#### Table 5-2 Maximum noise level Event Noise Goals (Sleep Disturbance)

Time	Dessiver Leastian	Measured Peakground I	Noise Criteria			
	Receiver Location	Measured Background L <sub>A90</sub>	L <sub>Aeq15min</sub>	L <sub>AFmax</sub>		
Night-time	Residential receivers	39 dB(A)	44 dB(A)	54 dB(A)		

#### 5.3.2 L&GNSW Acoustic Criteria for Patron Noise Goals

Based on the octave band noise monitoring conducted, the following is the NSW Liquor & Gambling acoustic criteria are applicable for use of the licensed premises based on octave band noise measurements of the background noise. The premises are not proposed to be used post-midnight and therefore, the relevant criteria has been presented accordingly.



#### Table 5-3 L&GNSW Criteria at Residential Receiver Boundaries

Description		L <sub>90</sub> Sound Pressure Level Octave Band Frequency (Hz)								dB(A)
	31.5	63	125	250	500	1К	2К	4К	8К	
Background before midnight L <sub>90-15min</sub> (Spectrum from 27/06/2024 at 11:45 pm)	47	47	41	35	36	36	28	18	12	39
L&GNSW Criteria before midnight L10 (L90 + 5)	52	52	46	40	41	41	33	23	17	44

# 6.0 ASSESSMENT

### 6.1 Operational Details

The operational details assumed in the preparation of this report are based on the provided Statement of Environmental Effects by Sky Planning, dated April 2024.

- The proposed hours of operation of the site are as follows:
  - Monday to Saturday: 9am to 12pm (Midnight).
  - Sunday: 9am to 11pm.
- A maximum of 100 patrons will be able to be seated at the premises. The seating will be in both the indoor and outdoor areas of the premises.
- One (1) x parking space is to be retained on the subject site for parking by staff. Customer parking and general customer parking will continue on the street and within vacant shared parking spaces on the site. As the vehicular activity within the premises is negligible, compliance will be readily achieved, and a further acoustic assessment is not being conducted.
- The proposed use maintains that no amplified or live music will be used at the site and most noise generated will be at a talking level from customers.
- PKA have assumed the following standard activity in the various spaces based on extensive measurements conducted in similar venues in the past.

#### Table 6-1 Patron and Music Source Noise Levels

Description	L <sub>10</sub> dBA	L <sub>10</sub> Sound Pressure Level Octave Band Frequency (Hz)								
		31.5	63	125	250	500	1K	2К	4К	8K
100 Patrons + Background Music within premises	85	72	75	78	80	81	81	77	71	59

For the purposes of calculations, it was assumed that the above levels are spatially divided between the indoor and outdoor seating areas.



### 6.2 Calculated Noise Impact to Sensitive Receivers

The following tables present the results of the calculations and comparison to the various applicable acoustic criteria. The noise impact calculations consider the effects of noise reduction from inside to outside (and vice-versa where applicable), directivity, shielding, effects of distance loss and recommendations made in Section 7.0.

Table 6-2 Calculated Noise Impact Compared to the NSW L&G Acoustic Criteria	а
-----------------------------------------------------------------------------	---

Description			y (Hz)						
Description		63	125	250	500	1k	2k	4k	8k
Calculated Noise Impact from Site until 12am at Residential Receiver Boundary	<34	<36	<29	<30	<31	<31	<27	<21	<9
L&GNSW Noise Criteria at Residential Receiver Boundary until 12am, (L90 + 5dB)	52	52	46	40	41	41	33	23	17
Compliance Achieved?	Y	Y	Y	Y	Y	Y	Y	Y	Y

Based on the above, due to the large distance to the receiver and line of sight shielding to the residential receivers, compliance with the NSW Liquor & Gambling criteria has been readily achieved by a significant margin.

# 7.0 RECOMMENDATIONS

The following recommendations need to be implemented to ensure that acoustic compliance is achieved and maintained during operation. The recommendations have been based on data provided to PKA for the preparation of this report and assumptions made in calculations.

#### 1. Mechanical Plant and equipment

The selection and placement of any new outdoor mechanical equipment such as condenser units, exhausts serving toilets, cooking areas (if applicable) etc. must be designed to acoustically comply with the criteria established in Table 5-1 and Table 5-2 of this report. The final selections and locations must be checked by an acoustic consultant to ensure compliance with these noise goals.

#### 2. General recommendations

- Supervision should be provided for patrons leaving the premises to ensure an orderly departure.
- The manager should also be alerted to give warning to those patrons who may use high noise levels when using the un-enclosed area.
- The venue operation must be conducted in accordance with the Responsible Services of Alcohol Legislation to prevent unruly behaviour or loud voices.

#### 3. Complaints Handling

- If any complaints occur from other external residents/receivers during operation, section 11 titled "Reviewing performance" of the NSW Industrial Noise Policy (now superseded) provides



a method of complaint handling and management. Post negotiations, the following recommendations should be implemented (taken from the NSW INP).

Where residual noise impacts have been negotiated, it is recommended that the proponent run a complaints-monitoring system. Components of such a system could include:

- a complaint hotline to record receiver complaints regarding the development.
- a system for logging complaints and dealing with them.
- a database of complaints and the proponent's responses/actions. This should be readily accessible to the community and regulatory authorities.
- a system for providing feedback to the community (this could be in the form of regular meetings with affected residents, or a newsletter).



# APPENDIX A DRAWINGS USED TO PREPARE REPORT

This report was prepared using drawings provided by Drafter.com.au, Project No. 20-10-2023.

No.	Rev.	Title	Date
AR-00	C	Indicative Site Plan	17-04-2024
AR-01	C	Shop Floor Plan	20-02-2024
AR-02	В	Kitchen Callout	20-02-2024
AR-03	C	Proposed Seating Plan	20-02-2024
AR-04	D	Existing Elevation	17-04-2024



## APPENDIX B NOISE MEASUREMENTS (GRAPHICAL)

# 12845 Powells Road (Unit 44,9), Brookvale

# **PKA** Acoustic Consulting

Project Address: 44/9 Powells Road, Brookvale

Logger Location: At the Front Yard of Residential Property at 9 Short Street, Measuring Existing Background Noise Levels

			Backgro	und Noi	se Level	s L <sub>A90</sub> dE	3			Existing Noise Levels L <sub>Aeq</sub> dB						
		Daytime		Evening		Nighttime				Daytime		Evening		Nighttime		
		07:00 - 18:00		18:00	- 22:00	22:00	- 07:00			07:00	- 18:00	18:00	- 22:00	22:00	- 07:00	s
		Measured	Corrected	Measured	Corrected	Measured	Corrected			Measured	Corrected	Measured	Corrected	Measured	Corrected	d H
Thursday	27/06/2024			42.8	42.8	37.4	37.4	Thursday	27/06/2024			55.5	55.5	52.6	52.6	
Friday	28/06/2024	49.5	49.5	42.9	42.9	37.2	37.2	Friday	28/06/2024	61.1	61.1	55.4	55.4	52.4	52.4	
Saturday	29/06/2024	46.2	46.2	42.6	42.6	34.6	34.4	Saturday	29/06/2024	58.7	58.7	54.1	54.1	50.8	50.0	
Sunday	30/06/2024	44.7	44.7	41.6	41.6	37.7	37.7	Sunday	30/06/2024	58.0	58.0	53.3	53.3	54.4	54.4	
Monday	1/07/2024	50.5	50.5	42.1	41.5	35.4	35.3	Monday	1/07/2024	60.9	60.9	58.0	57.4	53.3	53.5	
Tuesday	2/07/2024	50.7	50.7	40.7	40.7	39.2	39.0	Tuesday	2/07/2024	60.7	60.6	54.3	54.3	52.8	52.8	
Wednesday	3/07/2024	50.8	50.8	42.8	42.3	35.0	35.0	Wednesday	3/07/2024	60.5	60.5	58.6	58.2	52.4	52.4	
Thursday	4/07/2024	48.5	48.5	39.0	39.0	34.0	33.5	Thursday	4/07/2024	59.2	59.2	54.7	54.7	52.1	52.8	
Friday	5/07/2024							Friday	5/07/2024							
																_
Rating Backgrou		50	50	42	42	36	36	Auguaga Nati	e Level (L <sub>Aeq</sub> )	60	60	56	56	53	53	















#### 12845 Powells Road (Unit 44,9), Brookvale **PKA** Acoustic Consulting Project Address: 44/9 Powells Road, Brookvale Logger Location: At the Front Yard of Residential Property at 9 Short Street, Measuring Existing Background Noise Levels Daytime Evening Nighttime 08:00 - 18:00 18:00 - 22:00 22:00 - 08:00 BOM weather data: Terrey Hills IDN60901 red Correcte Measured Corrected Measured Correcter 30/06/2024 🗘 Sunday dB 58.0 58.0 53.3 53.3 54.4 54.4 Existing Ambient Noise Levels (dBA) L<sub>A90</sub> dB 44.7 44.7 41.6 41.6 37.7 37.7 90 Excluded 80 Wind Rain 70 —L1 60 \_L10 Sound Pressure Level (dBA) 50 -190 40 —L99 30 15 20 10 o s Wind Speed (m/s) Rainfall (mm) 10 ullullill **0:00** 1:00 2:00 3:00 4:00 5:00 6:00 7:00 9:00 10:00 11:00 12:00 14:00 15:00 16:00 18:00 19:00 20:00 21:00 22:00 23:00 8:00 13:00 17:00







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