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20180007.1/1601A/R2/GW

16/01/2018

Tomasy Planning Pty Ltd

**ATTN: MATTHEW CHOI** 

# Proposed Extended Operation Hours for F45 Gymnasium at 874 Pittwater Rd, Dee Why - Noise Impact Assessment

#### 1 INTRODUCTION

This letter presents our opinion for the proposed extended trading hours of F45 Gymnasium at 874 Pittwater Rd, Dee Why. This office has been advised that the current approved operation hours are 5:30am to 10pm Monday to Sunday and this application is to add the proposed extended hours as below:

Monday to Sunday: 5:00am – 5:30am

#### 2 DESCRIPTION

The project site is located on the first floor of commercial building at 874 Pittwater Rd, Dee Why. This office has been advised that the remaining commercial shops are not open during the proposed extended hours.

The nearest residential receiver is the existing multistorey residential development located at 10 Oaks Avenue. Detailed site map refers to Figure 1 below.

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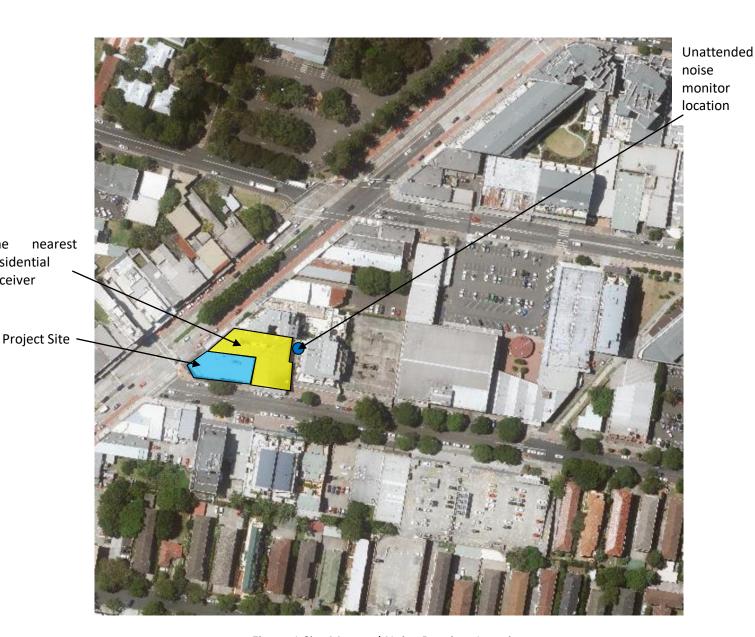


Figure 1 Site Map and Noise Receiver Location

## **EXISTING BACKGROUND NOISE LEVELS**

The

residential receiver

> The unattended background noise monitors have been setup around the project site to record the existing background noise levels with details below:

This noise monitor was between the 5<sup>th</sup> and 11<sup>th</sup> December 2014 before construction work of Dee Why Town Centre.

Equipment used consisted of an Acoustic Research Laboratories Pty Ltd noise logger. The logger was programmed to store 15-minute statistical noise levels throughout the monitoring period. The equipment was calibrated at the beginning and the end of the measurement using a Rion NC-73 calibrator; no significant drift was detected. All measurements were taken on A-weighted fast response mode. There were no significant periods of adverse weather conditions during the measurement period.

The results of the monitoring are summarised in the following table.

Table 1 – Measured Rating Background Noise Level

Location	Time of Day	Rating Background Noise Level dB(A) L <sub>90</sub>
Location 1	5am-5:30am	44
	5:30am -7am	45

#### 4 NOISE EMISSION CRITERIA

The criteria will be based on the following documents:

 NSW EPA Industry Noise Policy which has been superseded by Noise Policy for Industry 2017

#### 4.1 REQUIREMENTS BY NOISE POLICY FOR INDUSTRY

The Industrial Noise Policy has been superseded by Noise Policy for Industry 2017.

The NPfI 2017 provides guidelines for assessing noise impacts from industrial developments. The recommended assessment objectives vary depending on the potentially affected receivers, the time of day, and the type of noise source. The NPfI has two requirements which both have to be complied with, namely project amenity criterion and an intrusiveness criterion.

#### 4.1.1 Intrusiveness Criterion

The guideline is intended to limit the audibility of noise emissions at residential receivers and requires that noise emissions measured using the  $L_{eq}$  descriptor not exceed the background noise level by more than 5 dB(A).

Intrusive criteria based on the minimum RBL recommended by EPA for project site are detailed in **Error! Reference source not found.** 

Table 2 – NPfI Intrusiveness Criteria

Time of day	Background Noise Level dB(A)L <sub>90</sub>	Intrusiveness Criteria (Background+5dB(A)) dB(A)L <sub>eq</sub>
Night (5am-5:30am)	44	49

#### 4.1.2 Project Amenity Criterion

The guideline is intended to limit the absolute noise level from all noise sources to a level that is consistent with the general environment.

The NPfI requires Project Amenity Noise Levels to be calculated below:

 $L_{Aeg, 15 min}$ = Recommended Amenity Noise Level -5 dB(A) + 3 dB(A)

Pursuant to the NPfI, the residential receivers in the vicinity would be considered suburban. Corresponding Project Amenity Criteria noise emission goals are presented below.

Table 3 -NPfI Project Amenity Criteria

Type of Receiver	Time of day	Recommended Amenity Noise Level dB(A) L <sub>eq</sub>	Project Amenity Noise Level dB(A)L <sub>eq, 15min</sub>
Residential (suburban)	Night	40	38

#### 4.1.3 Sleep Arousal Criteria

Section 2.5 of NPfI 2017 recommended the following noise limit to mitigate sleeping disturbance:

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

- L<sub>Aeq, 15min</sub> 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or
- $L_{AFmax}$  52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater, A detailed maximum noise level even assessment should be undertaken.

**Table 4 - Sleep Arousal Emergence Criteria (Night)** 

Location	Rating Background Noise Level (Night) - dB(A)L <sub>90</sub>	Emergence Level
All Potentially Affected Residential Properties	44	49 dB(A)L <sub>eq, 15min</sub> ; 59 dB(A)L <sub>max, F</sub>

## 4.1.4 Summary of Noise Emission Criteria

The noise emission criteria from project site have been summarised below.

**Table 5 - Summarised Noise Emission Criteria** 

Location	Time	Noise Objectives
Residential Boundaries around Project site	Night	49 dB(A)L <sub>eq, 15min</sub> 59 dB(A)L <sub>max, F</sub>

## **5 RECOMMENDATION**

The following noise management control are recommended for the operation of the proposed extended hours:

- 1) The external windows shall be closed during the proposed extended hours.
- 2) No free weight is allowed to be dropped before 5:30am.

3) PA is not allowed to be used before 5:30am.

## **6 CONCLUSION**

Acoustic review for the proposed extended trading hours of F45 Gymnasium at 874 Pittwater Rd, Dee Why has been carried out. Provided acoustic treatments in Section 5 of this report the noise emission shall satisfy the requirements of NSW EPA Noise Policy for Industry.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Consultancy Pty Ltd

George Wei