



Residential Development  
DA Noise Assessment  
812 Pittwater Road & 4 Delmar Parade, Dee Why  
NSW 2099

Client:  
Dee Why 3 Pty Limited,  
and Dee Why 4 Pty  
Limited



25 November 2021


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## GLOSSARY

### NOISE

Noise is produced through rapid variations in air pressure at audible frequencies (20 Hz – 20 kHz). Most noise sources vary with time. The measurement of a variable noise source requires the ability to describe the sound over a particular duration of time. A series of industry standard statistical descriptors have been developed to describe variable noise, as outlined below.

### NOISE DESCRIPTORS

**dB** – Decibels. The fundamental unit of sound, a Bel is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bel. Probably the most common usage of the Decibel in reference to sound loudness is dB sound pressure level (SPL), referenced to the nominal threshold of human hearing. For sound in air and other gases, dB(SPL) is relative to 20 micropascals ( $\mu\text{Pa}$ ) =  $2 \times 10^{-5}$  Pa, the quietest sound a human can hear.

**L<sub>Aeq</sub>** – The A-weighted sound pressure level averaged over the measurement period. It can be considered as the equivalent continuous steady-state sound pressure level, which would have the same total acoustic energy as the real fluctuating noise over the same time period. Measured in dB.

**L<sub>Amax</sub>** – The maximum or peak A-weighted noise level that occurs over the measurement period. Measured in dB.

**Indoor Design Level** – The recommended maximum level in dB(A) inside a building from external noise sources.

### A-WEIGHTING

"A-weighting" refers to a prescribed amplitude versus frequency curve used to "weight" noise measurements in order to represent the frequency response of the human ear. Simply, the human ear is less sensitive to noise at some frequencies and more sensitive to noise at other frequencies. The A-weighting is a method to present a measurement or calculation result with a number representing how humans subjectively hear different frequencies at different levels.

### NOISE CHARACTER, NOISE LEVEL AND ANNOYANCE

The perception of a given sound to be deemed annoying or acceptable is greatly influenced by the character of the sound and how it contrasts with the character of the background noise. A noise source may be measured to have only a marginal difference to the background noise level, but may be perceived as annoying due to the character of the noise.

Acoustic Dynamics' analysis of noise considers both the noise level and sound character in the assessment of annoyance and impact on amenity.

## 1 INTRODUCTION

Acoustic Dynamics is engaged by **Dee Why 3 Pty Ltd & Dee Why 4 Pty Ltd** to conduct a Development Application noise assessment of the proposed mixed-use development at 812 Pittwater Road & 4 Delmar Parade, Dee Why NSW 2099. The site is currently occupied by individual commercial premises.

The scope of the noise assessment involves:

- Review of ambient noise measurements,
- Review of facade design
- Review of mechanical services noise emission; and
- Review of internal acoustic amenity of future residents of the development.

The following sections of this assessment detail the methodology, assessment criteria, results and acoustical recommendations.

### 1.1 LOCATION & DESCRIPTION OF PROPOSED PREMISES

The proposed multilevel residential and commercial building is to be located at 4 Delmar Pde and 812 Pittwater Rd, Dee Why. Acoustic Dynamics understands that the subject residential component is classified as Class 2 under the BCA.

The project is to consist of,

- i. Demolition of existing buildings, tree removal and site clearing
- ii. Construction of 2x new mixed-use buildings over a shared two storey basement car park comprising:
  - a) 230 residential apartments, and:
  - b) Commercial tenancies on ground floor.

The site is shown on the site plan presented within **Appendix A**. The indicative layout of the project is shown in **Appendix B**, however the architectural drawings should be reviewed for the most up to date drawings.

## 2 AMBIENT NOISE LEVELS

A noise survey was conducted at the adjacent site A previous Acoustic Assessment has been conducted by Acoustic Logic Consultancy (ALC) in November and December 2017 which has been used for this acoustic review. It is noted that the noise levels on site during these measurements are considered representative of noise levels on site when there are no COVID lockdowns.

From the background noise levels ( $L_{A90}$ ) the Rating Background Levels (RBLs) were determined using the methodology recommended in:

- Noise Policy for Industry (NPfI), dated October 2017, prepared by NSW Environment Protection Authority (EPA).

The EPA considers the RBLs to represent the background noise level. It is understood that the equipment calibration was checked before and after the survey and no significant drift was noted. **Table 3.1** summarises the results, for daytime, evening and night-time periods as defined in the NPfI. The results of ambient background noise monitoring are presented in **Table 2.1**.

**Table 2.1 Summary of Site Noise Levels**

Time of Day	$L_{A90}$ Rating Background Noise Level (RBL) [dBA]
Day 7:00am-6:00pm <sup>1</sup>	57
Evening 6:00pm-10:00pm	52
Night 10:00pm-7:00am <sup>1</sup>	40

In addition, the following traffic noise levels at the western façade of the development were determined from the ALC report:

- Day (15 hr)  $L_{Aeq}$  72 dBA
- Night (9 hr)  $L_{Aeq}$  69 dBA

### 3 AMBIENT NOISE LEVELS AND CRITERIA

Acoustic Dynamics has conducted a review of local council, state government and Federal Legislation that is applicable to noise assessment for the subject development. The relevant sections of the legislation are presented below.

#### 3.1 NORTHERN BEACHES COUNCIL REQUIREMENTS

The subject site exists within the Northern Beaches Council area of NSW.

Northern Beaches council utilises the Warringah Council DCP 2011 which states the following with respect to noise in Section D3.

##### **D3 Noise**

##### **Applies to Land**

*This control applies to land to which Warringah Local Environmental Plan 2011 applies.*

##### **Objectives**

- *To encourage innovative design solutions to improve the urban environment.*
- *To ensure that noise emission does not unreasonably diminish the amenity of the area or result in noise intrusion which would be unreasonable for occupants, users or visitors.*

##### **Requirements**

1. *Noise from combined operation of all mechanical plant and equipment must not generate noise levels that exceed the ambient background noise by more than 5dB(A) when measured in accordance with the NSW Industrial Noise Policy at the receiving boundary of residential and other noise sensitive land uses.  
See also NSW Industrial Noise Policy Appendices*
2. *Development near existing noise generating activities, such as industry and roads, is to be designed to mitigate the effect of that noise.*
3. *Waste collection and delivery vehicles are not to operate in the vicinity of residential uses between 10pm and 6am.*
4. *Where possible, locate noise sensitive rooms such as bedrooms and private open space away from noise sources. For example, locate kitchens or service areas closer to busy road frontages and bedrooms away from road frontages.*
5. *Where possible, locate noise sources away from the bedroom areas of adjoining dwellings/properties to minimise impact.*

The above objectives have been considered in developing site-specific noise criteria for this development.

### 3.2 TRAFFIC NOISE CRITERIA

The site is subject to the requirements of the NSW State Environmental Planning Policy (Infrastructure) 2007 – (iSEPP) which requires assessment for traffic noise intrusion when an adjacent road has more than 40,000 vehicles on an average day. Clauses 102 are relevant to this project and are reproduced below:

*102 Impact of road noise or vibration on non-road development*

*(1) This clause applies to development for any of the following purposes that is on land in or adjacent to a road corridor for a freeway, a tollway or a transitway or any other road with an annual average daily traffic volume of more than 40,000 vehicles (based on the traffic volume data published on the website of the RTA) and that the consent authority considers is likely to be adversely affected by road noise or vibration:*

- (a) a building for residential use,*
- (b) a place of public worship,*
- (c) a hospital,*
- (d) an educational establishment or child care centre.*

The noise criteria relevant is summarised below:

*(3) If the development is for the purposes of a building for residential use, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following  $L_{Aeq}$  levels are not exceeded:*

- (a) in any bedroom in the building – 35 dB(A) at any time between 10pm and 7am,*
- (b) Anywhere else in the building (other than a garage, kitchen, bathroom or hallway) – 40 dB(A) at any time.*

The Interim Guideline 2008 that has been prepared by the NSW Department of Planning also provides additional information regarding the above noise criteria. In particular it clarifies the parameter to be used for day and night. During the night an  $L_{Aeq(9hr)}$  is to be used and for the day  $L_{Aeq(15hr)}$ .

Therefore assessment is based on the above requirements with respect the day and night periods of the Interim Guideline 2008.

- a) levels are exceeded, sound proofing measures will be required.*



### 3.3 BUILDING CODE OF AUSTRALIA

We provide the following information, addressing the acoustic requirements of the Building Code of Australia (BCA). The relevant acoustic provisions of the current BCA are summarised below.

#### 3.3.1 BCA MINIMUM FLOOR REQUIREMENTS

The BCA provides the following minimum requirement for insulation rating for floors:

##### **“PERFORMANCE REQUIREMENTS**

###### **FP5.1**

*Floors separating –*

- (a) sole-occupancy units; or*
- (b) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby, or the like, or parts of a different classification, must provide insulation against the transmission of airborne and impact generated sound sufficient to prevent illness or loss of amenity to the occupants.*

##### **VERIFICATION METHODS**

###### **FV5.1**

*Compliance with **FP5.1** and **FP5.3** to avoid the transmission of airborne and impact generated sound through floors is verified when it is measured in-situ that the separating floor has –*

- (a) airborne: a weighted standardised level difference with spectrum adaption term ( $D_{nT,w} + C_{tr}$ ) not less than 45 when determined under AS/NZS 1276.1 or ISO 717.1; and*
- (b) impact: a weighted standardised impact sound pressure level with spectrum adaption term ( $L_{nT,w}$ ) not more than 62 when determined under AS/ISO 717.2.*
- (c) “**Deemed-to-Satisfy Provisions**”*

###### **F5.4 Sound insulation rating of floors**

- (a) A floor in a Class 2 or 3 building must have an  $R_w + C_{tr}$  (airborne) not less than 50 and an  $L_{n,w}$  (impact) not more than 62 if it separates –*
  - (i) sole-occupancy units; or*
  - (ii) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.”*

### 3.3.2 BCA MINIMUM WALL REQUIREMENTS

The BCA provides the following **minimum** requirement for insulation rating of walls within residential developments:

#### **“PERFORMANCE REQUIREMENTS**

##### **FP5.2**

*Walls separating sole-occupancy units or a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby, or the like, or parts of a different classification, must provide insulation against the transmission of –*

*(a) airborne sound; and*

*(b) impact generated sound, if the wall is separating a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit, sufficient to prevent illness or loss of amenity to the occupants.*

#### **VERIFICATION METHODS**

##### **FV5.2**

*Compliance with **FP5.2(a)** and **FP5.3** to avoid the transmission of airborne sound through walls is verified when it is measured in-situ that –*

*(a) a wall separating sole-occupancy units has a weighted standardised level difference with spectrum adaption term ( $D_{nT,w} + C_{tr}$ ) not less than 45 when determined under AS/NZS 1276.1 or ISO 717.1; or*

*(b) a wall separating a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby, or the like, or parts of a different classification, has a weighted standardised level difference ( $D_{nT,w}$ ) not less than 45 when determined under AS/NZS 1276.1 or ISO 717.1; or*

*(c) any door assembly located in a wall that separates a sole-occupancy unit from a stairway, public corridor, public lobby, or the like has a weighted standardised level difference ( $D_{nT,w}$ ) not less than 25 when determined under AS/NZS 1276.1 or ISO 717.1.*

## **Deemed-to-Satisfy Provisions**

### **F5.5 Sound insulation rating of walls**

- (a) A wall in a Class 2 or 3 building must –
- (i) have an  $R_w + C_{tr}$  (airborne) not less than 50, if it separates sole-occupancy units; and
  - (ii) have an  $R_w$  (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and
  - (iii) comply with **F5.3(b)** if it separates:
    - (A) A bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or
    - (B) A sole-occupancy unit from a plant room or lift shaft.
- (b) A door may be incorporated in a wall in a Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby, or the like, provided the door assembly has an  $R_w$  not less than 30.
- (e) Where a wall required to have sound insulation has a floor above, the wall must continue to –
- (i) the underside of the floor above; or
  - (ii) a ceiling that provides the sound insulation required for the wall.
- (f) Where a wall required to have sound insulation has a roof above, the wall must continue to –
- (i) the underside of the roof above; or
  - (ii) a ceiling that provides the sound insulation required for the wall.”

### **“F5.3 Determination of impact sound insulation ratings**

- (b) A wall in a building required to have an impact sound insulation must –
- (i) for a class 2 or 3 building be of discontinuous construction
- (c) For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and
- (i) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and
  - (ii) for other than masonry, there is no mechanical linkage between leaves, except at the periphery.”

### 3.4 NSW EPA'S ENVIRONMENTAL NOISE CRITERIA

#### 3.4.1 NOISE POLICY FOR INDUSTRY (NPFI)

Acoustic Dynamics advises that noise emission assessment at nearby and adjacent noise sensitive receivers has been conducted with reference to relevant acoustic criteria and standards and has yielded the following information.

The NSW Noise Policy for Industry (NPFI, 2017) has replaced the NSW Industrial Noise Policy (INP, 2000), with certain specific exceptions. Acoustic Dynamics advise that the following criteria have been applied for the assessment of the mechanical plant associated with the proposed residential development.

##### ***Project Intrusiveness Noise Level***

The intrusiveness noise level is determined as follows:

<b><math>L_{Aeq, 15min} = \text{rating background noise level} + 5 \text{ dB}</math></b>	
where:	
<b><math>L_{Aeq, 15min}</math></b>	represents the equivalent continuous (energy average) A-weighted sound pressure level of the source over 15 minutes.
and	
<b>Rating background noise level</b>	represents the background level to be used for assessment purposes, as determined by the method outlined in Fact Sheets A and B.

##### ***Project Amenity Noise Level***

The recommended amenity noise levels represent the objective for **total** industrial noise at a receiver location, whereas the **project amenity noise level** represents the objective for a noise from a **single** industrial development at a receiver location.

Following the general procedures outlined in the EPA's NPFI, a summary of the established noise environment, and relevant environmental noise criteria is presented in **Table 2.1**.

Acoustic Dynamics advises that the assessment has been based on the **lowest** background noise levels in the area during typical **maximum** operations of the proposed residential development. Acoustic Dynamics advises that such an assessment is conservative and will ensure no loss of amenity to the nearby residential receivers.

Following the general procedures outlined in the EPA's NPfI, a summary of the established noise environment, and relevant environmental noise criteria is presented in **Table 2.1**.

**Table 2.1 Summary of Measured Noise Levels and Noise Emission Criteria – At Residences**

Location	Time of Day	L <sub>A90</sub> Rating Background Noise Level (RBL) [dB]	Project Intrusive Noise Level [dB]	Project Amenity Noise Level <sup>2</sup> L <sub>Aeq</sub> [dB]	Project Noise Trigger Level L <sub>Aeq</sub> [dB]
Nearest residential receiver(s)	Daytime <sup>1</sup> (7am to 6pm)	57	62	58	<b>57</b>
	Evening (6pm to 10pm)	52	57	48	<b>48</b>
	Night time (10pm to 7am)	40	48	43	<b>43</b>

Note: 1) 8am to 6pm on Sundays and public holidays  
 2) Amenity adjustment based on "Suburban" receiver type (Table 2.3 of the NPfI). The noise emission objective has been modified in accordance with the recommendations detailed within the NPfI Section 2.2, for time period standardising of the intrusiveness and amenity noise levels (L<sub>Aeq,15min</sub> will be taken to be equal to the L<sub>Aeq, period</sub> + 3 decibels (dB).

Although the NPfI does not apply for the assessment of noise emission from the subject development, Acoustic Dynamics advises that achieving compliance with the NPfI intrusive noise emission objectives applicable at the boundaries of the nearest non-residential premises will adequately protect the acoustic amenity of these receivers.

### 3.5 SUMMARY OF APPLICABLE ASSESSMENT CRITERIA

Acoustic Dynamics advises that assessment of noise emission associated with the premises must comply with the various relevant noise criteria detailed above.

Assessment of the noise emission from the use of the premises against the most stringent applicable criteria will ensure compliance with the various other relevant criteria.

Accordingly, **Table 2.2** provides a summary of the noise emission criteria applicable to the site, which are based on long term unattended background noise measurements.

**Table 2.2 Applicable Noise Criteria – All Receivers**

Time of Day	Maximum Noise Emission L <sub>Aeq</sub> (15-min) [dB]
Day 7:00am-6:00pm <sup>1</sup>	57
Evening 6:00pm-10:00pm	48
Night 10:00pm-7:00am <sup>1</sup>	43

## 4 NOISE EMISSION LEVELS & ASSESSMENT

The following section provides an assessment of the noise emission from the use and operation of the premises located at 4 Delmar Pde and 812 Pittwater Rd Dee Why against the noise emission criteria and objectives outlined in **Section 2** above.

### 4.1 NOISE EMISSION TO EXTERNAL RECEIVERS

No details of mechanical plant have been determined at this early stage of the project. Likely sources of mechanical noise from the proposed development will be as follows:

#### Basement

- Carpark Supply Fan on the roof;
- Carpark Exhaust Fan on the roof; and
- Jet fans circulating air flow within the basement.

Typical levels of Fans will be in the order of 75 dB(A) at 3 m. Allowing for distance and shielding of the building parapet it is likely that an intake silencer on the CPSF and outlet silencer on the CPEF will be required. The exact performance of the silencers is to be determined at detailed design stage when actual fan selection is known.

In addition the following measures are recommended:

- Fans to operate on CO monitors
- Fans to be variable speed

In the case of plant located in the Basement it is noted that any noise generated by these fans will be contained within the building structure.

#### Apartments

The air conditioning will be:

- Either ducted or bulkhead units
- Condensers will be located on apartment balconies

In the case of apartments condensers are to be located on the balcony of apartments. Typical noise levels of units are 48 dB(A) at 1 m.

Based on the nearest distance to residence from balconies a noise level of 33 dB(A) predicted at the nearest boundaries being the eastern and southern boundaries. Allowing for 3 units running simultaneously an overall level of 38 dB(A) is predicted indicating compliance with day, evening and night criteria.

Mechanical plant such as air-conditioning associated with the development should be assessed at the time of detailed design and selection, having regard to nearby residential and commercial properties surrounding the development and the noise criteria detailed in **Section 2.4**.

Any noise control measures can be incorporated into the development to ensure the acoustic amenity of nearby residences is protected. Therefore, no particular difficulty is foreseen in meeting the noise emission requirements from the development.

## 5 TRAFFIC NOISE ASSESSMENT

The proposed development will not generate significant traffic volumes. Therefore, no appreciable increase in traffic noise is predicted at surrounding residences. It is also noted that the carpark entrance is located on Delmar Parade, a road with significant traffic volumes. As such there will be no noticeable increase in traffic noise levels associated with the operation of the new building.

In the case of traffic noise intrusion into future apartments calculations of internal traffic noise levels at apartments that are affected by Pittwater Road traffic noise have been conducted. Preliminary internal traffic noise calculations indicate that the following glazing that is above standard glazing (typically 6 mm float glass) will be required.

- Type A – Rw 38 – 10.5 mm V Lam Hush Laminated Acoustic Glass or 12.38 mm laminated glass with acoustic seals.
- Type B – Rw 35 – 10.38 mm Laminated Glass with acoustic seals.
- Type C – Rw 31 – 6.38 mm Laminated Glass with acoustic seals
- Type D – Standard Glazing

The following **Table 5.1** details recommended glazing for the proposed development in the building on Pittwater Road.

**Table 5.1 Recommended Glazing at Pittwater Road Building**

Level	Apartment	Living	Bed
Ground	E105	C	C
Ground	E106	D	C
Ground	E 107	D	C
Ground	E101	D	C
Level 1	F202	C	C
Level 1	F203	C	C
Level 1	E201	D	D
Level 1	E202	D	D
Level 1	E209	D	D

Level	Apartment	Living	Bed
Level 1	E210	D	D
Level 1	E211	D	D
Level 1	E212	D	D
Level 2	F302	A	D
Level 2	F303	A	A
Level 2	F304	A	A
Level 2	F305	A	A
Level 2	F306	C	C
Level 2	F307	C	C
Level 2	E309	C	D
Level 2	E310	C	D
Level 2	E311	D	D
Level 2	E301	D	D
Level 2	E302	D	D
Level 3	F402	A	D
Level 3	F403	A	A
Level 3	F404	A	A
Level 3	F405	A	A
Level 3	F406	C	C
Level 3	F407	C	C
Level 3	E409	C	D
Level 3	E410	C	D
Level 3	E411	D	D
Level 3	E401	D	D
Level 3	E402	D	D
Level 4	F502	A	D
Level 4	F503	A	A
Level 4	F504	A	A
Level 4	F505	A	A
Level 4	F506	C	C
Level 4	F507	C	C



Level	Apartment	Living	Bed
Level 4	E509	C	D
Level 4	E510	C	D
Level 4	E511	D	D
Level 4	E501	D	D
Level 4	E502	D	D
Level 5	F601	B	D
Level 5	F602	B	B
Level 5	F603	B	B
Level 5	F604	C	C
Level 5	F505	C	D
Level 5	E606	C	D
Level 5	E607	D	D
Level 5	E608	D	D
Level 5	E609	D	D
Level 6	F701	B	D
Level 6	F702	B	B
Level 6	F703	B	B
Level 6	F704	C	C
Level 6	F705	C	D
Level 7	F801	B	D
Level 7	F802	B	B
Level 7	F803	B	B
Level 7	F804	C	C
Level 7	F805	C	D

It is noted that wind and other requirements may require increased glazing and the findings here are only provided with respect to acoustics. It is recommended that these findings be confirmed at detail design stage when the CC façade design is to be finalised.

## 6 RECOMMENDATIONS

Acoustic Dynamics' analysis and prediction calculations indicate that predicted noise emission associated with the subject development requires implementation of the following recommendations, to ensure the amenity of the surrounding area is protected.

Mechanical plant such as air-conditioning associated with the development should be assessed in greater detail at the time of detailed design and selection, having regard to nearby residential and commercial properties surrounding the development and the noise criteria detailed in **Section 2**.

In the case of the building on Pittwater Road apartments requiring improved glazing have been identified and improved glazing as detailed in Table 5.1 is recommended, these findings are confirmed at detail design stage when the CC facade design is finalised

## 7 NOISE TRANSFER BETWEEN HABITABLE AREAS OF DEVELOPMENT

The details of wall and floor constructions that meet the requirements of the NCC will be determined in the detail design stage of the project. Potential measures that can be adopted include:

- Masonry and/or plasterboard walls with acoustic insulation;
- Impact isolation installed below hard flooring;
- Concrete floor slabs with suspended ceilings and insulation in cavities; and
- Acoustic treatment of waste water pipe work.

## 8 CONCLUSION

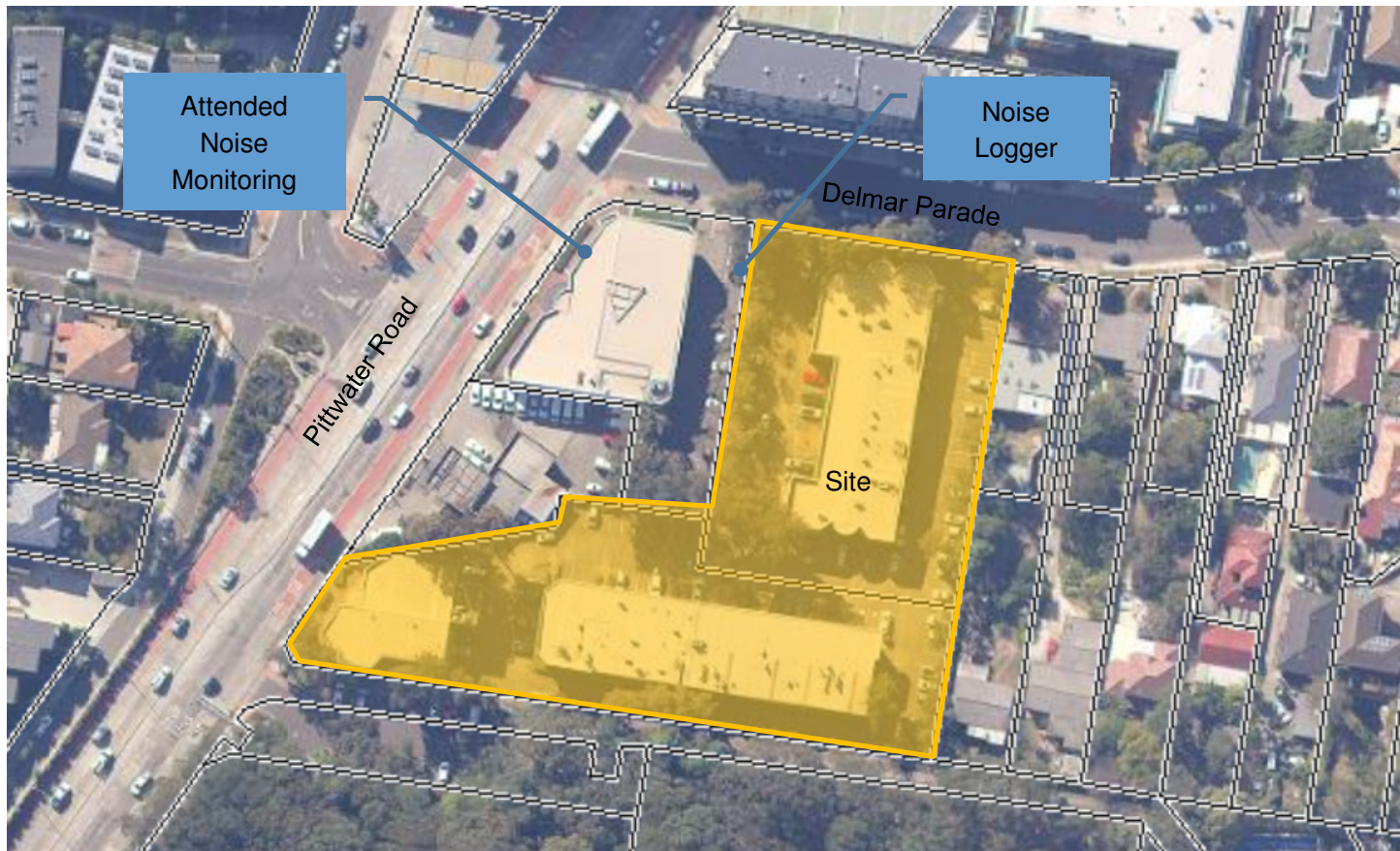
An acoustic assessment has been undertaken for the Development Application for the proposed mixed-use development at 4 Delmar Pde and 812 Pittwater Rd Dee Why.

### ***Acoustic Opinion and Conclusion:***

- Site-specific noise emission criteria have been established for the residential areas surrounding the site. It is noted that mechanical services and plant have not been selected; however, preliminary calculations indicate compliance with all established criteria can be achieved. Where necessary standard engineering noise controls on fans can be implemented at design stage to meet established noise criteria.
- Traffic associated the development will not adversely impact on the acoustic amenity of surrounding residences.
- Special glazing is required on selected apartments facing Pittwater Road.
- Internal noise isolation requirements in accordance with the NCC will be achieved by adopting appropriate constructions.

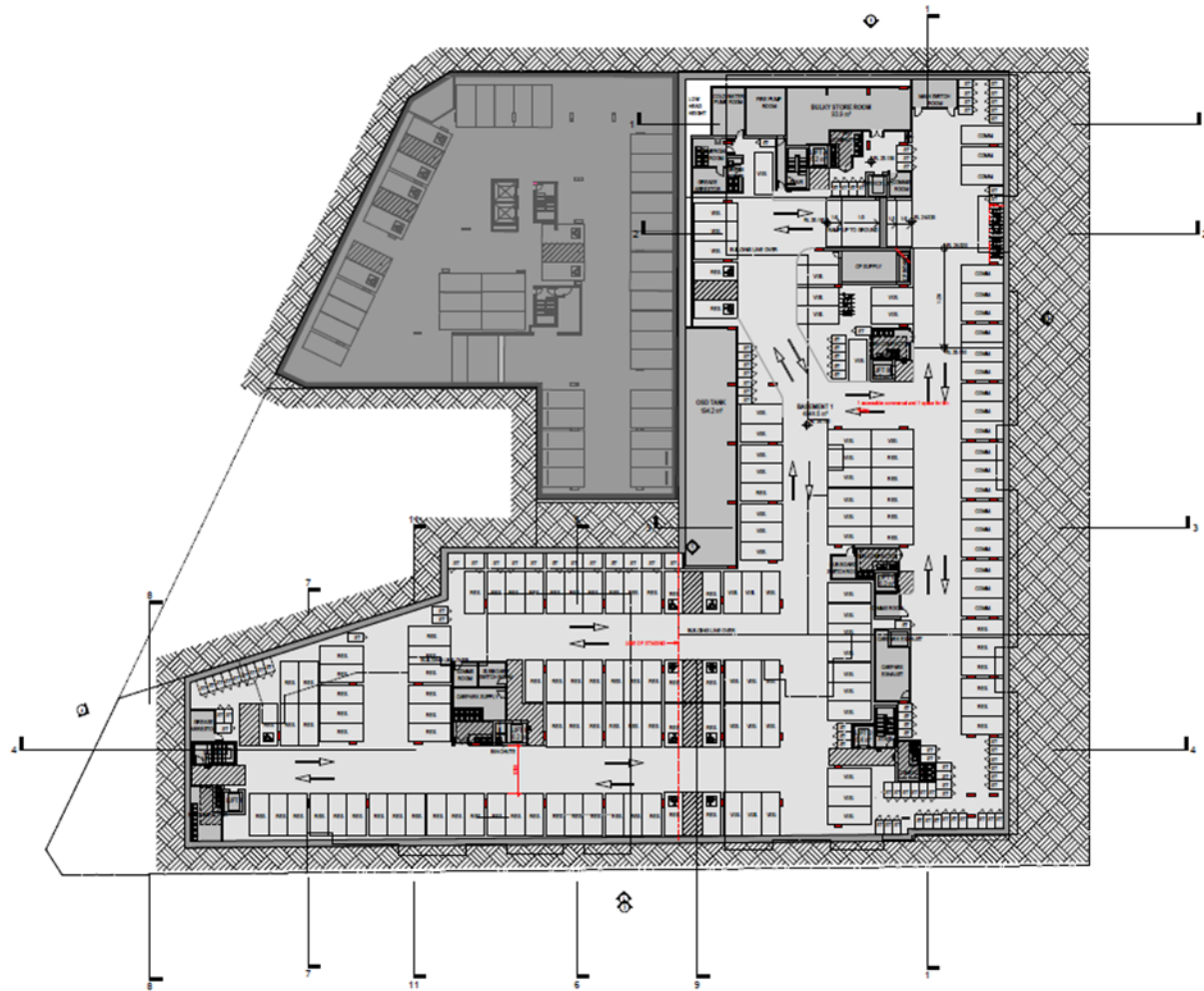
We trust that the above information meets with your requirements and expectations. Please do not hesitate to contact us on 02 9908 1270 should you require more information.

## APPENDIX A – SITE PLAN









**PRELIMINARY**

REV	DATE	DESCRIPTION
01	22.10.2021	ISSUE FOR CONSTRUCTION
02	22.10.2021	ISSUE FOR CONSTRUCTION
03	22.10.2021	ISSUE FOR CONSTRUCTION
04	22.10.2021	ISSUE FOR CONSTRUCTION

221054-11-2021-01

Project: **4 Deimar Pde & 812 Pitwater Rd, Dee Why**

Client: **BASEMENT 1**

Project #: **221054**

Date: **22.10.2021**

Author: **BR**

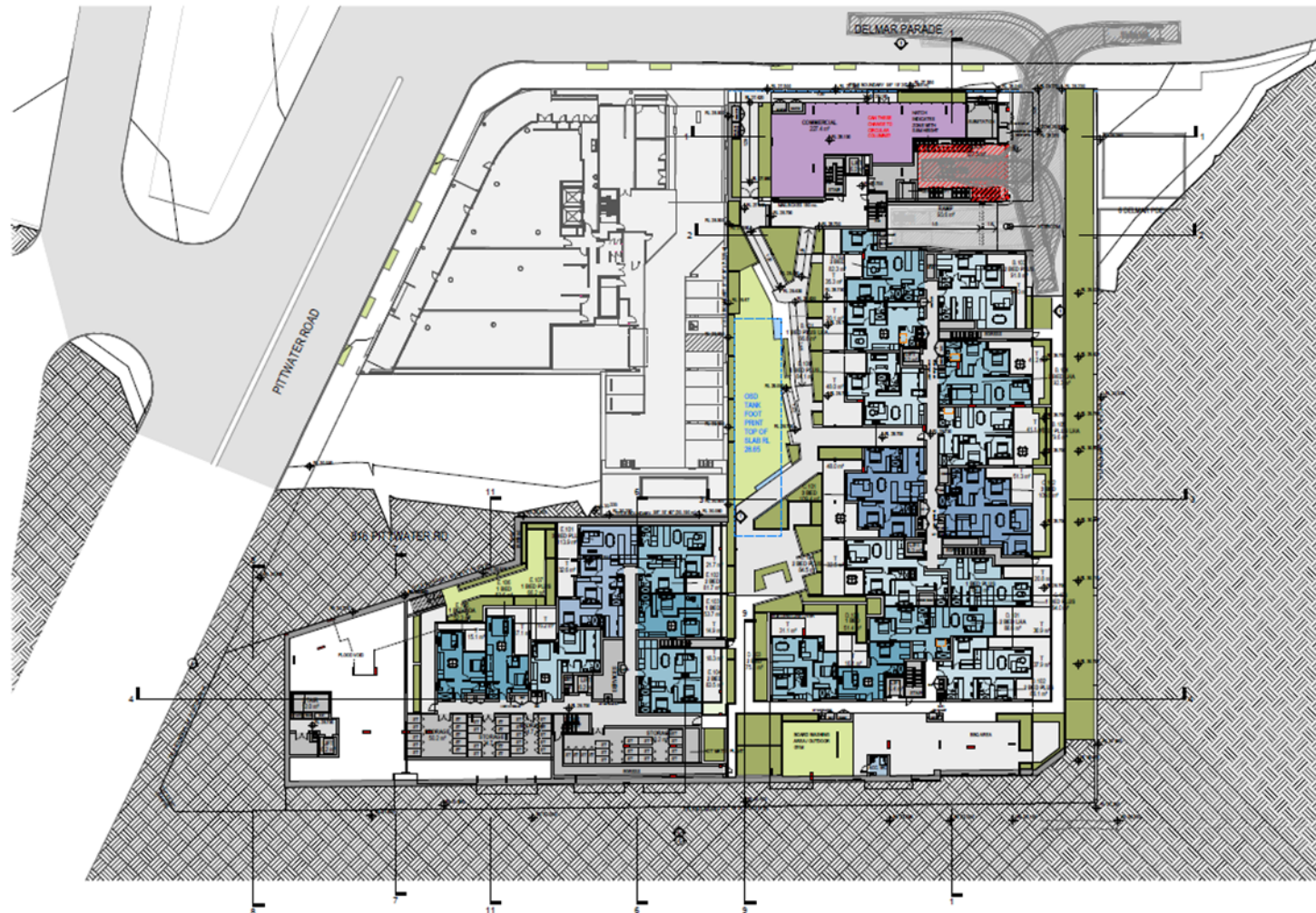
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**PRELIMINARY**

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Project: 4 Delmar Parade & 812  
 Pitwater Rd, Dee Why  
 4 Delmar Parade & 812 Pitwater Rd, Dee Why

Site: GROUND

Project: 221054 Date: 22.10.2021 Author: DM  
 Scale: 1:250

TP01.03 P18

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REV	DATE	DESCRIPTION
01	22.10.2021	ISSUE FOR PERMIT
02	22.10.2021	ISSUE FOR PERMIT
03	22.10.2021	ISSUE FOR PERMIT
04	22.10.2021	ISSUE FOR PERMIT
05	22.10.2021	ISSUE FOR PERMIT

221054-11-10-10-00

4 Delmar Pde & 812  
Pittwater Rd, Dee Why

1/10/2021 - 1/10/2021

LEVEL 1

Project/ 221054 Date/ 22.10.2021 Author/ DM Scale & Date/ 1:250

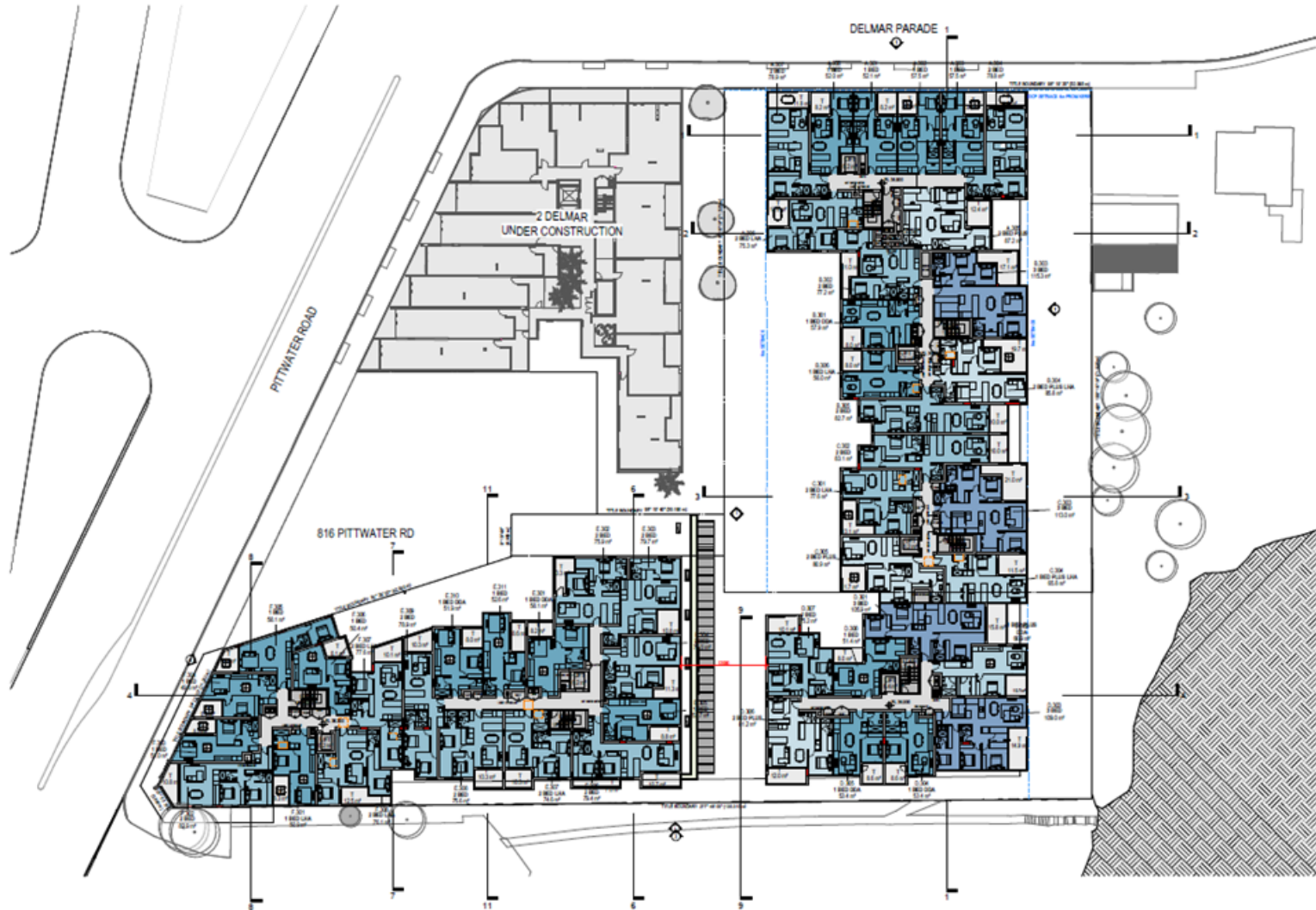
TP01.04 P16

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05	11.08.2021	FOR INFORMATION

Project: 4 Delmar Pde & 812 Pitwater Rd, Dee Why  
 4 Delmar Pde & 812 Pitwater Rd, Dee Why

Level: LEVEL 2

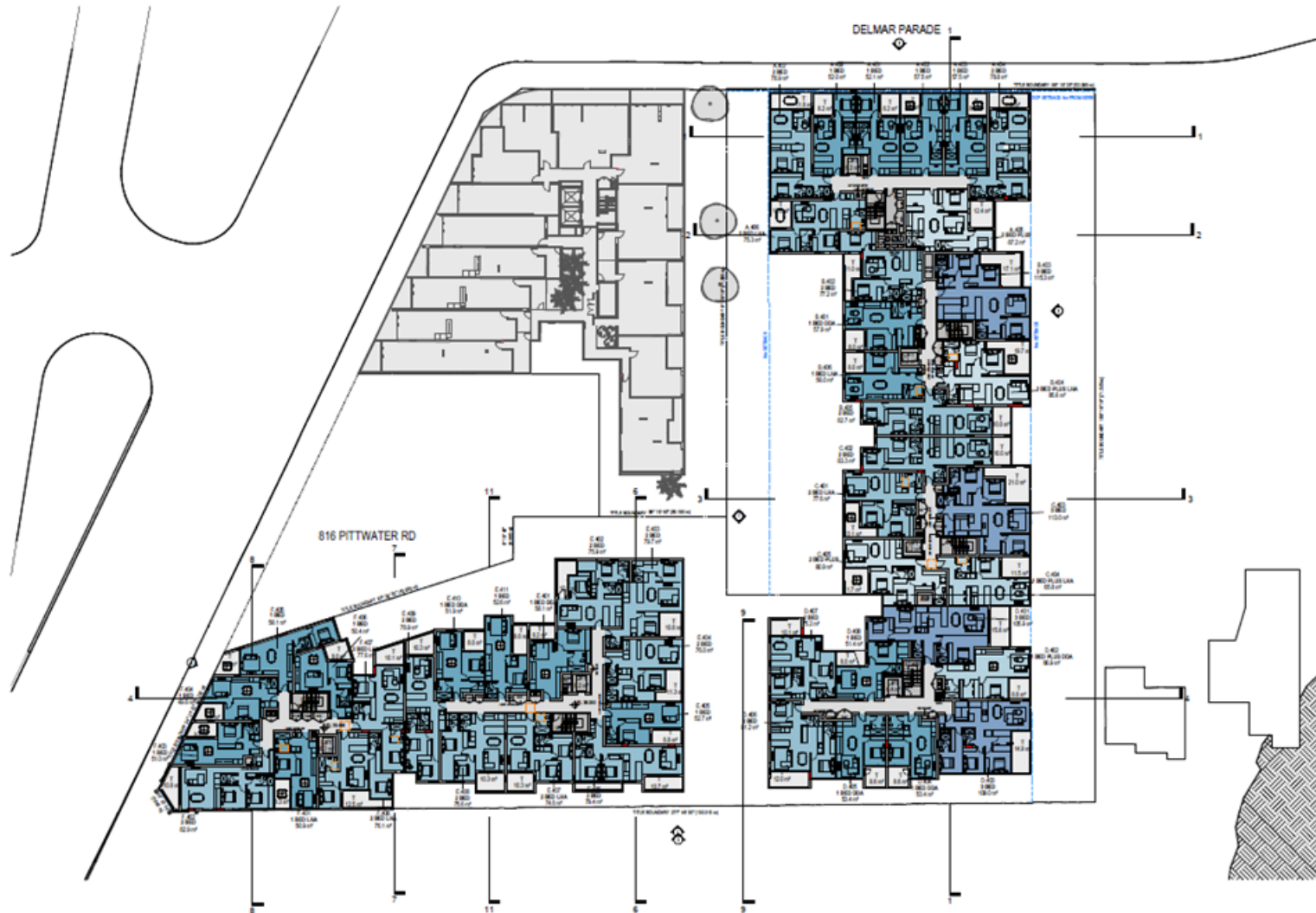
Project No: 221054 Date: 22.10.2021 Author: DM Scale: 1:250

Sheet: TP01.05 P17

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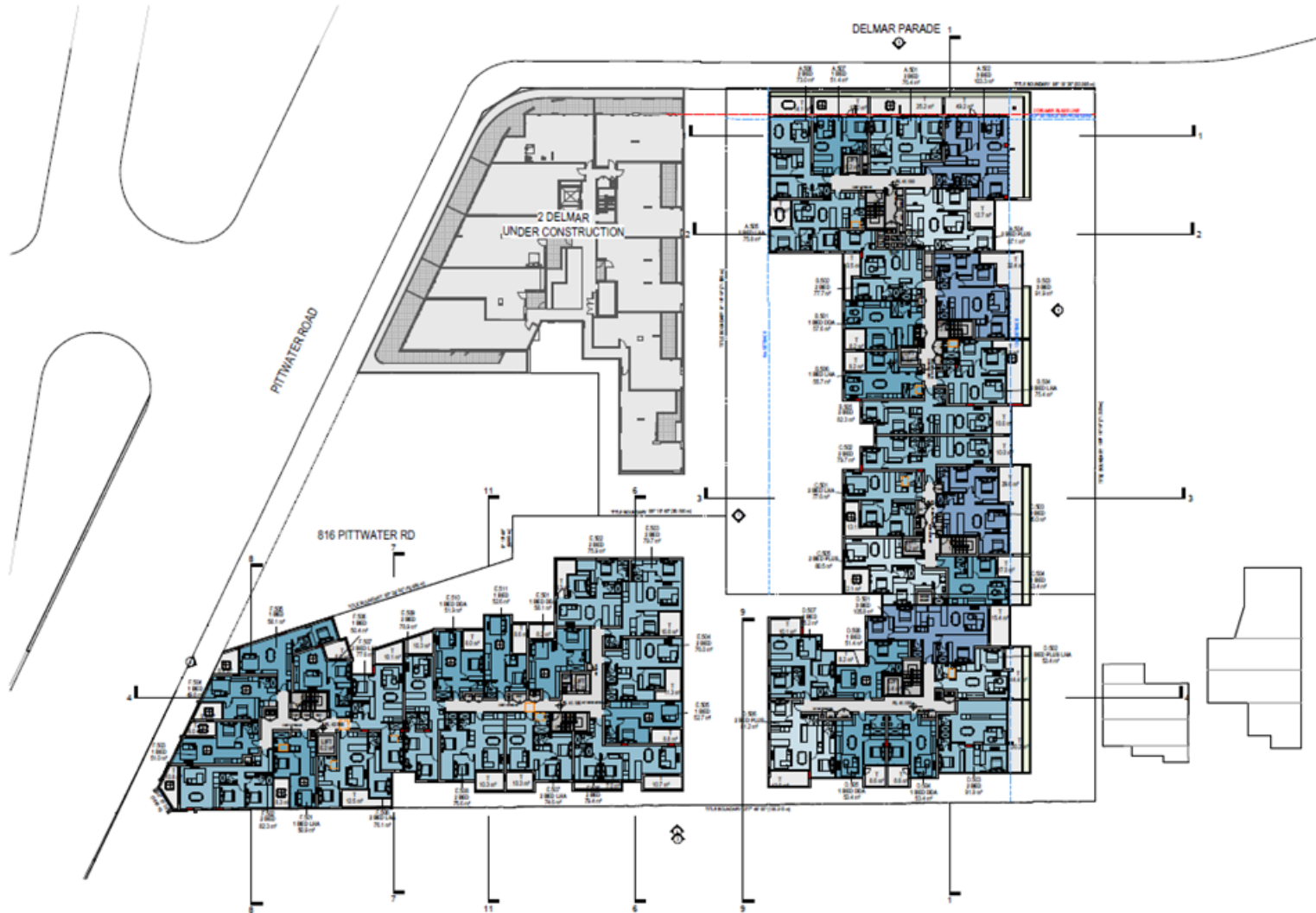
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Rev	Description	By	Chk
P01	FOR INFORMATION	JC	JC
P02	FOR INFORMATION	JC	JC
P03	FOR INFORMATION	JC	JC
P04	FOR INFORMATION	JC	JC
P05	FOR INFORMATION	JC	JC

4 Delmar Pde & 812 Pittwater Rd, Dee Why  
 LEVEL 3  
 Project / 221054 Date / 22.10.2021 Author / DM Scale & / 1:250 Drawing / TP01.06 P14



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04	11.08.2021	DM	DM	ISSUE FOR PERMIT
05	08.08.2021	DM	DM	ISSUE FOR PERMIT

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 LEVEL 4  
 Project No: 221054 Date: 22.10.2021 Author: DM Scale: 1:250 Drawing: TP01.07 P14



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11/18/2021	DM	FOR APPROVAL	11/18/2021
11/18/2021	DM	FOR APPROVAL	11/18/2021
11/18/2021	DM	FOR APPROVAL	11/18/2021

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Project / 4 Delmar Pde & 812 Pittwater Rd, Dee Why  
 Drawing / LEVEL 6

Project No / 221054 Date / 22.10.2021 Author / DM Scale & Dwg / 1:250

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05	02.10.2021	FOR INFORMATION

4 Delmar Pde & 812  
Pittwater Rd, Dee Why

LEVEL 7

Project No / 221054 Date / 22.10.2021 Author / DM Scale 1:250

TP01.10 P14

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