1-5 CHESTER STREET, ANNANDALE
DA ACOUSTIC REPORT
FOR
CORVAS PTY
C/- BRITELY PROPERTY

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1.PROJECT DESCRIPTION

1.1.REPORT TO SUPPORT DEVELOPMENT APPLICATION

This Acoustic Report has been prepared for Change of Use and the Development Application for the property located at 1-5 Chester Street, Annandale for the construction of a new residential and commercial development.

The report is aimed at addressing noise from the district and noise created at site by both the mechanical services plant at the closest sensitive receiver locations.

1.2.REFERENCE DOCUMENTATION

The report is based on the details given in the following set of documents:

1. AE Design Partnership Chester Street

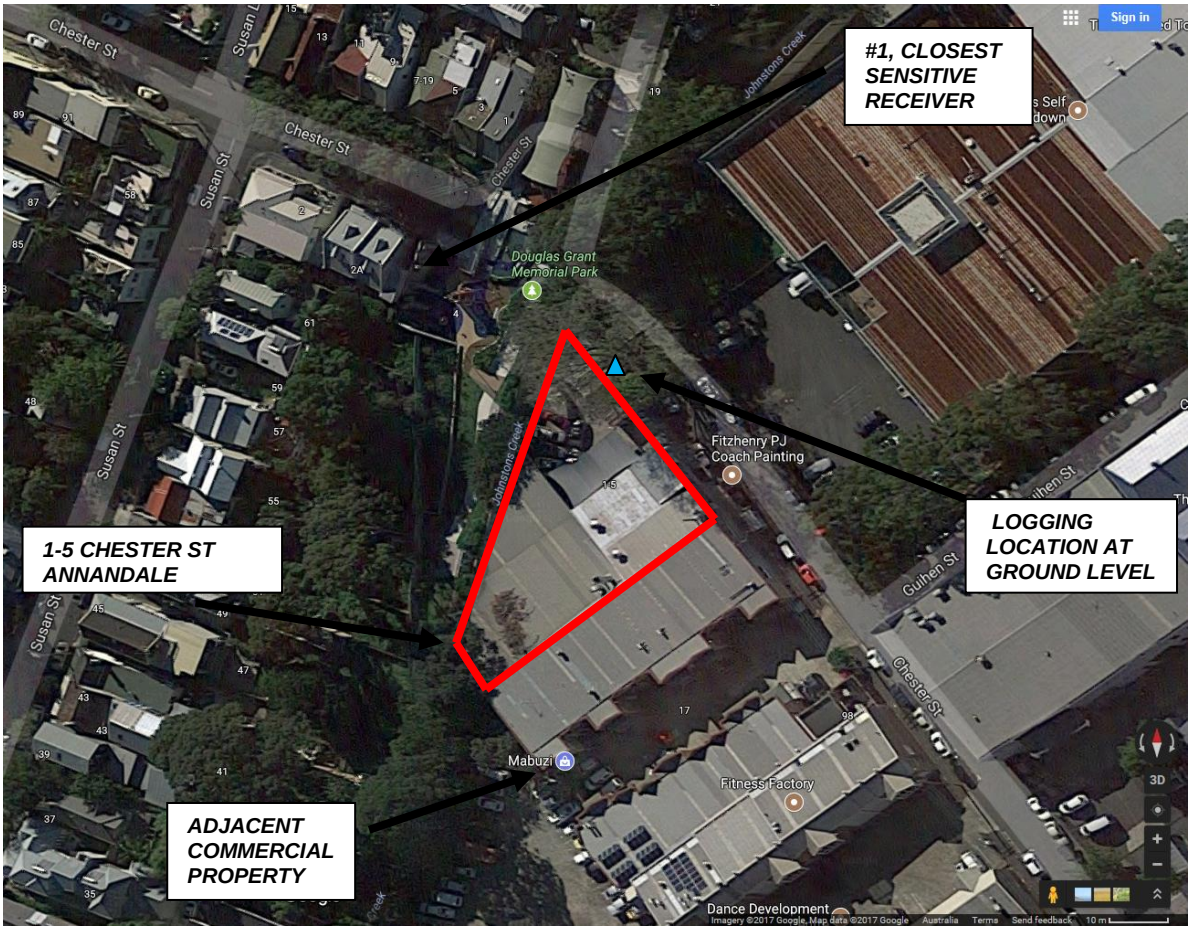
1.3.DESCRIPTION OF THE SITE

The proposed site is currently being used as a commercial property to be rezoned as residential and demolished.

The proposed site is adjacent to a commercial property and opposite to residential properties. The existing front of the site is shown in the photo below.

Photo of site; 1-5 Chester St, Annandale

The existing site and surrounding area can be seen in the Google Aerial Photo below:



Google Aerial Photograph ,

1.4.CLOSEST SENSITIVE RECEIVERS

The closest sensitive receivers to this site are the buildings immediately adjacent to the site as identified below and shown on the Google aerial photo above.

The neighbouring closest sensitive receiver has been indentified below:

- Location #1, multi story house at 2b Chester St, to the North West

1.5.DISTRICT BACKGROUND NOISE

District background noise in the immediate location of the proposed site is dominated by Aircraft Noise and road traffic noise from Chester Street.

Other noise in the area is mechanical services noise in the form of air conditioning and ventilation fans serving the surrounding areas.

In addition to this there is a small children's playground area identified as Douglas Memorial Park located to the North West situated between the site and Closest sensitive Receiver. During our on site inspections there was little to no use of the park

1.6.TRAFFIC NOISE AT PROJECT LOCATON

The second most dominant background noise for this project is road traffic noise from Chester Street. As the site is located at the end of a dead street the noise generated by local traffic is minimal due to the small count and low speeds.

1.7.COMMERCIAL AREA NOISE AT PROJECT LOCATION

The site is located on Chester Street with commercial buildings located adjacent to the North East and South East.
The type of noise generated by these commercial properties is mechanical services noise and motor vehicle noise of people arriving and leaving the property.

1.8.PROPOSED HOURS OF OPERATION

The project is a residential development therefore the hours of operation has been taken as continuous except for the restricted after hour's use of domestic air conditioning installed.

2.CHANGE OF USE

2.1.PROPOSED CHANGE OF USE

The project is currently being used as an automotive painting and servicing shop.
As addressed within section 1.7 the immediate surrounding commercial properties consist of Kennard's Self Storage and a multi office complex.
Due to the type of use we would expect the current local commercial noise type to be cars entering and exiting, because of this we believe there is no major commercial noises which would disturb possible residents beyond acceptable levels.

2.2.CURRENT ZONING

The site is currently zoned as light industrial. We have addressed the current use of the surrounding industrial above however if a new commercial property moves they may produce more noise. To address this we have carried out calculations for attenuation based on the Recommended Maximum noise levels for Urban/Industrial areas.

3.EXTERNAL NOISE CRITERIA

3.1.NOISE GUIDE TO LOCAL GOVERNMENT

3.1.1.Project Specific Noise Level Determination

The Noise Guide for Local Government 2010 **(NG)** cross references the Industrial Noise Policy **(INP)** and both documents are used in the acoustic industry to interpret and administer the main legal framework in Australia as set out in the Protection of the Environment Operations Act 1997.

Both the NG and INP recommend the use of 1 week unattended monitoring of noise at a site to determine district background noise levels for the project when determining the background noise for a particular site.

The INP sets out the following method to determine single numbers background noise levels for a site:

- The Assessment Background Levels **(ABL)** are defined as the lower 1/10 percentile $L_{A\ 90\ t=15}$ descriptor background noise measurements of each period of the day.
- The Rating Background Level **(RBL)** is the median of the ABL for the respective day (7am-5pm), evening (5pm-10 pm) and night periods (10pm-7 am).
- Background noise monitored must not have any contribution of noise produced from the site being assessed.
- The Intrusiveness Criteria is defined as the single figure RBL for each particular period of the day +5 dB.

- The Amenity Criteria is determined by an assessment of existing noise levels and types of noise at site which is typically caused by road traffic noise for the various periods of the day and compared with an acceptable noise level nominated in the INP for the particular usage modified according to the level of site noise (road traffic noise in this case).
- The Project Specific Noise Level **(PSNL)** for the project is equal to the lesser of the Intrusiveness Criteria and the Amenity Criteria for each period of the day.

We have used this method to determine the external noise criteria from noise produced by this site. Environment Operations (Noise Control) Regulations.

3.1.2.Leichhardt Development Control Plan

The Leichhardt Development Control Plan (DCP) requires Acoustic privacy be addressed under AS3671 & AS2107 & AS2021.

From our assessment of the Australian Noise Exposure Forecast ANEF 2033 Contour graph we believe the property is located within Contour 20 or higher so we have assessed the implications of AS 2021.

3.1.3.Code AS2107

The indoor mechanical services sound levels nominated in the code AS 2107, 2000, titled 'Acoustics, Recommended design sound levels and reverberation times for building interiors' is used for the areas as set out in the Tables below:

Table 2; Recommended internal design sound levels L_{Aeq}-dB(A)

Type of Occupancy; #*7; Residential Building, Apartments near minor roads*	**AS 2107 Satisfactory ❶**	**AS 2107 Maximum ❷**	**Selected Req.**
- Toilets & Bathrooms, Hallways	45	55	**55**
- Car park	55	65	**65**

❶ *AS 2107 Satisfactory; regarded as appropriate in quiet environments or luxury accommodation*

❷ *AS 2107 Maximum; regarded as level where most people become dissatisfied*

Table 3; Recommended internal design sound levels L_{Aeq}-dB(A)

Type of Occupancy; #*7; Residential Building, Apartments near minor roads*	**AS 2107 Satisfactory ❶**	**AS 2107 Maximum ❷**	**Selected Req.**
- Bedrooms	30 dB(A)	35 dB(A)	**35**
- Living Areas	30 dB(A)	40 dB(A)	**40**
- Toilets & Bathrooms, Hallways	45	55	**55**
- Car park	55	65	**65**

❶ *AS 2107 Satisfactory; regarded as appropriate in areas of major roads*

❷ *AS 2107 Maximum; regarded as level where most people become dissatisfied*

3.1.4.Code AS2021

Within AS2012-2015 table 2.1 documents different building types and the acceptability for each ANEF zone. We have determined that 1-5 Chester Street, Annandale is located within the 20 to 25 ANEF contour. Table 2.1 determines that a 'House, home unit, flat, caravan park' type of construction is Conditionally Acceptable.

The indoor sound levels has been determined using AS2021-2015 Aircraft Noise Reduction in accordance to Note 4 of Table 2.1.

The ANR is based off Table 3.3: Indoor Design Sound Levels for Determination Of Aircraft Noise Reduction which has been included in the table below:

Table 4; Indoor Design Sound Levels for Determination Of ANR L_{Aeq}-dB(A)

Type of Building: ***Houses, Home Units, Flats, Caravan Parks***	**Indoor Design Sound Level dB(A)**
Sleeping Areas, Dedicated Lounges	**50**
Other Habitable Spaces	**55**
Bathrooms, Toilets Laundries	**60**

3.2.CODE AS 3671 USED TO DETERMINE PERIMETER SOUND INSULATION REQUIREMENTS

The code; AS 3671-1989 'Acoustics-Road traffic noise intrusion-building siting and construction' is used for this project to determine the level airborne sound insulation required for the construction of perimeter building elements so as the intrusive road traffic noise is sufficiently attenuated to result in a internal noise level that complies with the relevant internal road traffic noise criteria.

3.3.BCA PART F5 REQUIREMENTS

Compliance with the Building Code of Australia **(BCA)** is a statutory requirements of new residential multi occupancy buildings. Part F5 of the BCA titled details the "Sound Transmission and Insulation Requirements" for residential developments.

West and Associates Pty Ltd were not commissioned to detail the internal building construction elements of the proposed building that would be required to insulate the air borne and impact noise transmission requirements.

4.NOISE MEASUREMENTS

4.1.DISTRICT BACKGROUND NOISE MONITORING LOCATION AND TIME

The fifteen minute, unattended, continuous L_{AEq} and L_{A90} descriptor background noise monitoring was carried out at ~12 metre above ground level and on the boundary of 1-5 Chester Street, between 10:00 AM on 24/07/2017 to 9:15 AM on 31/07/2017.

The log of the results of background noise monitoring for the roof are shown in Appendix 1. Raw data is available upon request.

4.1.1.Monitoring Instrumentation

Noise measurement instrumentation used to log continuous district background noise in this report is an ARL, Model EL 316 (Type 1) environmental noise logger Serial No. 16-203-500. Attended site analysis of district noise was taken using a SVAN 945A sound analyser, Serial No 9418. Field calibration checks for the instruments were carried out using a Acoustic Calibrator Type Rion NC 73 Serial No. 11127967. All instruments hold current NATA calibration certificates and measurement instruments are in accordance with the requirements of AS 1259.2, Sound Level Metres, Integrating Averaging.

4.1.2.Monitoring, Calibration and Calculation Procedures

In accordance with the procedures laid out in AS 1055.1 field calibration check of the environmental noise logger was carried out immediately prior to and at completion of monitoring sessions and instrument was found to be within the specified limits.

A microphone wind-guard was in place for the full duration of the monitoring and so no correction factor required.

The 15 minute L_{Aeq} and L_{A90}, log results were down loaded and single figure L_{A90} representative values calculated using Microsoft Excel software in accordance with the procedures given in the INP for the day(7AM to 6 PM), the evening period, (6 PM to 10 PM) and the night time period, (10PM to 7 AM) and single figure L_{Aeq} over the days monitored.

4.1.3.Environmental Conditions During Monitoring

Temperatures on site were between 10 to 30^{o}C for the logging period.

Metrological data including temperature, barometric pressure, wind speed at site were not outside the recommendations of AS 1055 and INP and so the L_{A90} measurements are considered valid

The resulting L_{A90} log averages over the period monitored was then used to determine the Intrusiveness Criteria. The resulting L_{AEq} log averages over the period monitored was then calculated and used to determine the Amenity Criteria. The Project Specific Noise Level for the site was determined as the lesser of the Intrusiveness and Amenity Criteria.

4.1.4.Logger Settings

The settings of the environmental noise logger is shown in the Table below:

Table 5; Noise Logger Settings

Acoustic Research Laboratories Pty Ltd - Type 1 Environmental Noise Logger	**Logger Settings**
Logger Serial Number	16-203-500
Measurement Title	1-5 chester
Measurement started at	24/07/2017 8:48
Measurement stopped at	31/07/2017 11:41
Frequency Weighting	A
Time Averaging	Fast
Statistical Interval	15 minute

Pre-measurement Reference	94.1
Post-measurement Reference	93.9
Engineering Units	dB SPL

4.2.BACKGROUND NOISE RESULTS

4.2.1.Background Noise Single Figure Results

Analysis of the 15 minute L_{A90} and L_{AEq} results were carried out using Microsoft EXCEL according to the requirements of the INP and the single figure RBL and the site noise from road traffic results for each period are shown in the table below:

Table 6; Single Figure RBL's and Site Noise for Project

NOISE DETAILS/Period times	**Day (0700 to 1800)**	**Evening (1800 to 2200)**	**Night (2200 to 0700)**
RBL $L_{A90\ 15\ min}$	44.1	44.3	38.9
Leq period log average Noise	60.7	51.8	48.4

5.PROJECT SPECIFIC NOISE LEVEL DETERMINATION

5.1.EXTERNAL NOISE LEVEL DETERMINATION

5.1.1.Single Figure Results

The INP requires the external noise criteria for the project to be determined as the lesser of the Intrusiveness and Amenity Criteria for the site for each period of the day which are derived from the 15 minute noise logging at site.

The single figure day, evening and night period Rated Background Levels **(RBL)** results are given in the following table along with the single figure Intrusiveness Criteria being the RBL +5 rounded to the nearest integer. The Acceptable Noise Level specified by the INP are also given in the following table along with the site Leq noise levels, Amenity Criteria and modification factor calculated according to site noise levels. The final Project Specific Noise Level **(PSNL)** for the site for each period is then shown in the table which is the lesser of the Intrusiveness and Amenity Criteria.

Table 7; Noise Monitoring results

Period times	**Day**	**Evening**	**Night**
NOISE DETAILS	**0700 to 1800**	**1800 to 2200**	**2200 to 0700**
Location #1-			
RBL $L_{A90\ 15\ min}$	44.1	44.3	38.9
Intrusiveness Criteria $L_{AEq\ 15\ min}$ (RBL+5)	49	49	44
Acceptable Noise Level $L_{AEq\ 15\ min,}$ (Urban/Industrial, Table 2.1 INP) ❶	65	55	50
Leq period log average Road Traffic Noise	60.7	51.8	48.4
Site noise >Acceptable Noise plus 2-Line 2 Table 2.2	61=65-4	52=55-3	48=50-2

INP Northern boundary			
Modification to Acceptable Noise Level - Table 2.2 INP Northern boundary	-2❹	-3❸	-4❷
Amenity Criteria- Ex. Noise minus Mod Factor-Table 2.1 INP	65-2=63	55-3=52	50-4=46
Project Specific Noise Level(PSNL) $L_{AEq\ 15\ min}$ =stricter of Intrusiveness and Amenity Criteria Roof and Southern boundary/facade	**49**	**49**	**44**

❶ *Residential urban premises is selected in accordance with the INP, Table 2.1*

❷ *Set amenity criteria as ANL level as Acceptable Noise level–4; Table 2.2 INP; as site noise >acceptable noise by -2*

❷ *Set amenity criteria as ANL level as Acceptable Noise level–3; Table 2.2 INP; as site noise >acceptable noise by -3*

❷ *Set amenity criteria as ANL level as Acceptable Noise level–2; Table 2.2 INP; as site noise >acceptable noise by -4*

5.1.2.Project Specific Noise Level for this Project

The PSNL based on unattended noise logging over the period is therefore taken as **49 dB(A**) in the day period, **49 dB(A)** in the evening period and **44 dB(A)** in the night period which are required to be measured as a $L_{AEq,\ t=15\ min}$ descriptor.

This is the level of patron noise that is acceptable to be heard immediately adjacent to each of the closest sensitive receivers, measured as a $L_{A\ Eq\ t=15\ min}$ descriptor.

5.2.ROAD TRAFFIC NOISE AND AS2107 CRITERIA

5.2.1.Road Traffic Noise with Open & Closed Windows

We have used 10 dB(A) attenuation for an open window.

Table 8 Summary of Road Traffic Noise for Open Windows

Location	9 Hour Laeq Night	Open Window Attenuation	Resulting Internal Road Traffic Noise Levels	AS2107 Criteria	Compliance with Criteria
Bedrooms,	48	10	38	35	**No**
Habitable Rooms	48	10	38	40	**Yes**

Note ❶: Internal Road Traffic Noise Levels with Distance Attenuation

As can be seen in the table above, this criterion for bedrooms and habitable rooms on the Chester Street facade cannot be satisfied during the night. The window attenuation is shown in the following table that satisfies the required Acoustic Privacy criteria. In the event of compliance not being met through a standard closed window an acoustic rated window will be required.

Table 9: Summary of Road Traffic Noise for Closed Windows

Location	9 Hour Laeq	Closed	Resulting	AS2107	Compliance

	Night	Required Window Attenuation	Internal Road Traffic Noise Levels	Criteria	with Criteria
Bedrooms, East Windows	48	13	35	35	**Yes**

6.DETERMINATION OF CONSTRUCTION REQUIREMENTS

6.1.1.Calculations of Building Attenuation Works Using AS 3671

The calculation method to determine the attenuation of facade elements is given in AS 3671; 1989 which uses the 9 hour log average for the night period as the basis for design.

Table 10: Summary of Traffic Noise For Each Facade

Road Traffic Noise Monitored $L_{Aeq, -1\ Hr.\ Repeatable\ Night\ period\ Maximum}$	**Night Max $L_{Aeq, T=1hr}$**
Road Traffic Noise $L_{Aeq, -}$	48 dB(A)

6.2.REQUIRED TRAFFIC NOISE REDUCTION

6.2.1.Construction Category

Code AS 3671 defines Road Traffic Noise Reduction(TNR) as the difference between the appropriate $L_{Aeq, T}$ monitored and the appropriate internal or "receiving" room background level L_{Arec} and values for this site are shown in the Table below:

Table 11; Recommended background design sound levels L_{Aeq}-dB(A)

Face, Location & Use of Space in the Building	$L_{Aeq, T}$❶	L_{Arec} ❷	**TNR (❶-❷)**	**Construction Category ❸**
All Facades	48 dB(A)	40	**8**	Category 1
Roof of Building	<50 dB(A)	40	**10**	Category 1

❶ *Night period repeatable maximum LAeq value*

❷ *Recommended internal level from AS 2107, Table 1. Maximum levels are 5 dB(A) above Recommended levels. This value also corresponds to the recommended internal value required by The State Environmental Planning Policy (Infrastructure) 2007, Clause 102*

❸ *Construction 1, 2, & 3 Categories defined in AS 3671 as, Category 1 is TRN=< 10, Category 2 is TRN>10 ,<=25 and Category 3 TNR >25, <=35, Category 4 > 36*

6.3.EXTERNAL BUILDING DESIGN REQUIREMENTS

Compliance is met by a ~13Rw window installation, as the final wall and window dimensions are yet to be confirmed we have carried out the following as approximate. The approximate construction requirements to satisfy the Acoustic Criteria, determined according to the methods set out in AS 3671 are shown in the following table:

Table 12; Calculated Traffic Noise Wall Attenuation for each Facade

Face, Location all levels & Use of Space in the Building	**TNR**	***TNAc Requirement***	***Rw equivalent***
All Facades bedroom/ habitable walls	8	10	**16**

Roof of Building	10	12	18

❶ N/A- Not applicable, no traffic noise acoustic requirement

Table 13; Calculated Traffic Noise Window& Sliding Door Attenuation

Face, Location all levels & Use of Space in the Building	**TNR**	***TNAc Requirement***	***Rw equivalent***
Front of Building, (West facade) bedroom/ habitable walls	8	10	**16**
Roof of Building	10	12	18

❶ N/A- Not applicable, no traffic noise acoustic requirement

Table 14; Entrance Door Attenuation

Face, Location all levels & Use of Space in the Building	**TNR**	***TNAc Requirement***	***Rw equivalent***
Entrance doors to each apartment from Stairwell	N/A	N/A	20❶

❶ BCA Section F5.4 acoustic requirement, door requires side and top seals, threshold plate and drop seal at bottom

6.4.REQUIRED MAXIMUM ALLOWED COMMERCIAL NOISE REDUCTION

6.4.1.Construction Category

We have used the methods as described in Code AS 3671 to determine construction requirements to address possible noise levels produced by surrounding commercial properties in the table below:

Table 15; Recommended background design sound levels L_{Aeq}-dB(A)

Face, Location & Use of Space in the Building	$L_{Aeq, T}$❶	L_{Arec} ❷	**TNR (❶-❷)**	**Construction Category** ❸
All Facades, Sleeping Areas	55 dB(A)	35	**20**	Category 1
All Facades, Habitable Areas	70 dB(A)	40	**30**	Category 2

❶ *Night period repeatable maximum LAeq value / Day Period*

❷ *Recommended internal level from AS 2107, Table 1. Maximum levels are 5 dB(A) above Recommended levels. This value also corresponds to the recommended internal value required by The State Environmental Planning Policy (Infrastructure) 2007, Clause 102*

❸ *Construction 1, 2, & 3 Categories defined in AS 3671 as, Category 1 is TRN=< 10, Category 2 is TRN>10 ,<=25 and Category 3 TNR >25, <=35, Category 4 > 36*

6.5.EXTERNAL BUILDING DESIGN REQUIREMENTS

The approximate construction requirements to satisfy the Acoustic Criteria, determined according to the methods set out in AS 3671 are shown in the following table:

Table 16; Calculated Traffic Noise Wall Attenuation for each Facade

Face, Location all levels & Use of Space in the	**TNR**	***TNAc***	***Rw***

Building		***Requirement***	***equivalent***
NE Facades, Sleeping Areas	20	22	**26**
NE Facades, Habitable Areas	30	32	**38**

❶ N/A- Not applicable, no traffic noise acoustic requirement

Table 17; Calculated Traffic Noise Window& Sliding Door Attenuation

Face, Location all levels & Use of Space in the Building	**TNR**	***TNAc Requirement***	***Rw equivalent***
NE Facades, Sleeping Areas	20	22	**26**
NE Facades, Habitable Areas	30	32	**38**

❶ N/A- Not applicable, no traffic noise acoustic requirement

7.REQUIRED AIRCRAFT NOISE REDUCTION

7.1.NOISE LEVEL FOR AIRCRAFT

In accordance with AS2021 we have reviewed table 3.13 to determine the arrival and departure noise levels for a Boeing 747-400.

The arrival noise level for a Boeing 747-400 (short haul) at 1-5 Chester St, Annandale is 67dB(A) and the departure noise is 73dB(A).

The ANR dB attenuation requirements have been listed in the below table.

Table 18; Aircraft Noise Reduction L_{Aeq}-dB(A)

Face, Location & Use of Space in the Building	Aircraft Noise❶	Internal Design Levels ❷	**ANR dB (❶-❷)**
Sleeping Areas	73 dB(A)	50	23
Habitable Areas	73 dB(A)	55	18
Bathrooms	73 dB(A)	60	13

❶ *AS2021 Determined Aircraft Noise*

❷ *Recommended internal level from AS 2021, Table 3.3.*

7.2.REQUIRED FINAL NOISE REDUCTION

The final exact ANR Rw's cannot be determined without final window sizing's so at the DA stage the required dB reduction has been nominated in the below table. We have compared the results from the environmental noise logging carried out and compared it to the ANR assessment.

As window sizes have not been confirmed we have included an approximate +3 to window dB to provide example Rw's.

A full assessment must be carried out within the CC stage when windows have been nominated by the architect. We also believe the nominated approximate Rw figures will provide enough attenuation so that noise generated within the children's playground complies with internal criteria.

Table 19; Calculated Traffic and Aircraft Noise Reductions

Face, Location all levels & Use of Space in the Building	TNR Rw	*ANR Rw*	*Criteria*
NW & SW Facades, bedroom walls & windows	~16	~26	**~26Rw**
NW & SW Facades, habitable walls & windows	~16	~21	**~21Rw**
NE Facades, Sleeping Areas walls & windows	**~26**	~26	**~26Rw**
NE Facades, Habitable Areas walls & windows	**~38**	~21	**~38Rw**

We note that final Rw may vary due to size and location of windows.

8.NOISE FROM PROPOSED DEVELOPMENT

8.1.SOURCES OF NOISE FROM SITE

8.1.1.Mechanical Services Noise

Mechanical Services that will be generated at site will include the following:

- Bathroom exhaust for each apartment
- Air Conditioning with outdoor air /ventilation supply fan for each apartment
- Variable Basement exhausts

8.2.MECHANICAL SERVICES NOISE LEVELS

8.2.1.Internal Noise levels from Building Plant

The DA drawings do not include any details of the proposed mechanical Services proposed to be installed. Therefore the internal noise levels produced by the mechanical services plant on site that includes the bathroom exhaust fans, air conditioning units /ventilation fans and any noise from the garbage room exhaust fan shall comply with the levels given for the nominated spaces as listed in Table 2 & 3.

8.2.2.External Noise levels from Building Plant

The DA drawings do not include any details of the proposed mechanical Services proposed to be installed. Therefore the external noise levels produced by the mechanical services plant on site that includes the bathroom exhaust fans, air conditioning units /ventilation fans and any noise from the garbage room exhaust fan shall comply with the Project Specific Noise level requirement for the building which is given in table 7.

8.2.3.Noise Levels From Domestic Air Conditioning Systems

The DA Drawings do not detail air conditioning systems serving each unit so specific acoustic design cannot be given for individual plant. This plant can only operate in the day and evening period and the PSNL for the evening period is 49 dB(A) so noise from any of this plant heard at the nearest residential boundary must comply with this level. Noise from this plant heard inside other units can be no louder than 35 dB(A) in the night period in bedrooms and 40-45 in habitable rooms.

We believe it is unlikely that any of these AC plant can operate during the night period without the use of suitable **inverter driven with night switch limitation control** or additional attenuation so that the PSNL of 44 dB(A) is met. Modern inverter type AC plant have such night switch controls included. Any problems that may occur with night period

operation of the AC plant can be easily handled by Body Corporate by requiring compliance with the POEO Regulations.

9.CHANGE OF USE

9.1.CHANGE OF USE EVALUATION

Based on the existing usage of the surrounding area the monitored district noise levels requirements are well within typical residential development levels.

As the surrounding area is zoned as Light industrial we have also addressed construction requirements for a residential property if the surrounding commercial property are operating at maximum noise levels in accordance with the INP.

As shown in Table 19 the maximum required attenuation is ~38Rw to protect from possible noise levels generated by future commercial developments as a worst case scenario.
West & Associates have previously submitted DA Acoustic reports to City of Sydney with ~38Rw requirements on walls and windows when located on busy roads such as Botany Road therefore we believe this type of construction for residential properties is within the specifications of some developments throughout Sydney.

End of Report

Report prepared by Joel West, 

1-5 CHESTER ST ANNANDALE

Background Noise Monitoring Front of Site