



	Sewer Relining		
Project	SMW WTP - Westmead and Parramatta		
Client			
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Acoustic terms and acronyms

AA	Acoustic Advisor
АММ	Additional mitigation measures – applicable where standard measures have been implemented and NML is still expected to be exceeded.
dB(A)	Unit used to measure 'A-weighted' sound pressure levels. A-weighting is an adjustment made to sound-level measurement to approximate the response of the human ear.
DPE	NSW Department of Planning and Environment
EIS	Environmental Impact Statement
ICNG	Interim Construction Noise Guideline (Department of Environment and Climate Change 2009)
NCA	Noise Catchment Area
Noise level statistics	L _{A90} - The A-weighted sound pressure level exceeded 90% of the monitoring period. This is considered to represent the background noise.
	L _{Aeq} - The equivalent continuous A-weighted noise level—the level of noise equivalent to the energy average of noise levels occurring over a measurement period.
	L _{A1} – The A-weighted sound pressure level exceeded 1% of the monitoring period.
	L _{Amax} – The maximum A-weighted noise level associated with the measurement period.
NML	Noise Management Level
PPV	Peak Particle Velocity – Measurement of ground-borne vibration in units of mm/s
RBL	Rating Background Level - a single figure that represents the background noise level for assessment purposes
ROL	Road Occupancy Licence – granted by Transport for NSW and required for any activity likely to impact on traffic flow.
SWL	Sound Power Level - The A-weighted sound power level is a logarithmic ratio of the acoustic power output of a source relative to 10-12 watts and expressed in decibels. Sound power level is calculated from measured sound pressure levels and represents the level of total sound power radiated by a sound source.
SPL	Sound pressure level - This is the level of noise, usually expressed 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 noise.
	A technical definition for the sound pressure level, in decibels, is 20 times the logarithm (base 10) of the ratio of any two quantities related to a given sound pressure to a reference pressure (typically 20 μPa equivalent to 0 dB).
Tonal noise	Noise with perceptible and definite pitch or tone
VDV	Vibration dose value – used when assessing intermittent vibration as it is sensitive to peaks in vibration acceleration and accumulates the vibration energy received over the daytime and night-time periods





1 Introduction

1.1 Overview

The Sydney Metro Western Tunnelling Package is being delivered by the Gamuda Australia and Laing O'Rourke Consortium (GLC) and includes twin nine-kilometre tunnels between Sydney Olympic Park and Westmead, excavation of two new metro stations, and a stabling and maintenance facility at Clyde (the Project).

During the Project, there is potential for nearby sensitive receivers to experience adverse impacts relating to noise and vibration. The project's Noise and Vibration Management Sub Plan (NVMP) was developed to satisfy the project's Conditions of Approval (CoA) and addresses the assessment and management of noise and vibration impacts during construction.

Under the NVMP, KNOWnoise[™], a project-specific noise prediction tool, has been developed to prepare a Detailed Noise and Vibration Impact Statement DNVIS) for site and activity-specific noise works and provide ongoing risk analysis during project delivery and for when out-of-hours work is proposed (as per the Project's out-of-hours protocol).

This DNVIS has been prepared using KNOWnoise[™] and addresses activities for the sewer relining works at Westmead, as illustrated in Figure 1.

The structure of this DNVIS includes:

- Section 1.2 Construction works and hours with justification for these works in Section 1.3
- Section 2 Existing environment
- Section 3 Assessment framework including noise and vibration management levels
- Section 4 Construction noise assessment
- Section 5 Mitigation and management, including consultation

1.2 Planned works

GLC plans to carry out the sewer relining works in two (2) stages:

- Stage 1: Residential Sewer Connection Relining
- Stage 2: Parramatta Park Sewer Connection Relining

Those stages are described in Appendix A, which lists each assessed activity, its timing and proposed equipment.

1.3 Justification of the works

In line with the Interim Construction Noise Guidelines (DECC 2009), justification is typically required to work outside approved construction hours. These situations may involve low impact or emergency works and works under an out-of-hours work protocol.

Works are required to be completed outside of standard construction hours as the applicable council permits and traffic control plans (TCP's) required to access the footpaths and road network, will only be issued for non peak periods (i.e. weekend, evening and night works) along Alexandra Avenue and Park Avenue, Westmead. Also, the works are required to be performed during low-demand hours at night when the sewage network experiences less usage.





Legend



Westmead construction site



- Sewer relining works Stage 1
- Sewer relining works Stage 2

Figure 1 Location map





1 Existing environment

1.1 Sensitive receivers

The Westmead study area is centred on the Westmead metro station construction site. The construction site is located to the south of the existing Westmead Station and is bound by Hawkesbury Road to the west, Hassall Street to the east and Baily Street to the south.

Existing noise levels in this study area are generally controlled by transportation noise from the surrounding road network and existing rail line. The area surrounding the construction site is generally suburban and the nearest receivers are residential.

1.2 Noise catchment areas

To facilitate the assessment of noise impacts from the project and to apply representative Noise Management Levels (NMLs) to all receivers, receivers adjacent to the Westmead site have been divided into Noise Catchment Areas (NCAs). The Westmead site contains two noise catchments (NCA01 and NCA02).

NCAs group individual sensitive receivers by representative traits such as existing noise environment and potential exposure to noise and vibration from the Project.

NCAs established as part of the EIS are summarised in Table 1 and illustrated in figure below. Background noise monitoring has been completed as part of the EIS to apply appropriate NML to each NCA.

Table 1 Summary of work areas, Noise Catchment Areas and land uses



NCA	Location	Description
1	Westmead	North of the existing rail corridor in Westmead and mainly residential. 'Other sensitive' receivers include Westmead Hospital, Western Sydney University – Westmead, and Parramatta Marist High School. A child care centre and a number of medical facilities are to the north of the existing Westmead Station.
2		South of the existing rail corridor and mainly residential. Westmead Primary School is in the north of the catchment on Hawksbury Road.





2 Assessment framework

2.1 Approved construction hours

Working hours are set by CoA D35 to D36 as summarised in Table 2. Use of power saws, rock breakers, drills and other tonal or impulsive activities are defined as annoying under the Interim Construction Noise Guideline (ICNG) and are 'highly noise intensive works'.

Table 2	Approved	construction	hours
	/		

CoA	Construction activity	Monday to Friday	Saturday	Sunday / Public holiday
D35	Approved construction	7:00 am to 6:00 pm	8:00 am to 6:00 pm	No work (unless approved under EPL or out-of-hours work protocol)
D36	Highly noise intensive works	8:00 am to 6:00 pm ¹	8:00 am to 1:00 pm ¹	No work (unless approved under EPL or out-of-hours work protocol)

Notes:

1. if continuously, then not exceeding three hours, with a minimum cessation of work of not less than one hour.

2.2 Noise assessment criteria

2.2.1 Construction noise

The ICNG describes noise in excess of the background level as potentially having an adverse impact on sensitive receivers and increasing the likelihood of complaint. During standard construction hours, where construction noise is within 10 dB(A) of the RBL, impacts would be acceptable.

Where construction noise is more than 10 dB(A) above the RBL during standard construction hours, a residential receiver is considered noise affected and the proponent should undertake all reasonable and feasible steps necessary to manage the impact and consult with the affected community.

Above a $L_{Aeq, 15 \text{ minute}}$ noise level of 75 dB(A), a receiver is highly affected, requiring consideration of additional mitigation measures including alternative accommodation in the night period.

Outside standard construction hours, construction noise at a residential receiver more than 5 dB(A) above the RBL is taken to be noise affected. Table 1 (reproduced from Table 2 of the ICNG) sets out the NMLs for residences and how they are to be applied.

In addition, annoying noise such as rock hammers, impact piling, or other impulsive noise sources usually result in greater annoyance than continuous construction noise. A 5 dB(A) penalty is applicable to such activities prior to comparison with the NMLs.

2.2.2 Sleep disturbance

The CNVS requires maximum noise levels to be analysed in terms of the extent and number of times the maximum noise exceeds specific noise trigger levels, in general accordance with the Noise Policy for Industry (NPfI) (EPA 2017). These triggers are:

- LAeq, 15 minute 40 dBA or the prevailing RBL plus 5 dB, whichever is greater, and the
- LAmax 52 dBA or the prevailing RBL plus 15 dB, whichever is greater.

The NPfI also recommends the DECCW (2011) Road Noise Policy (RNP) be reviewed for further risk assessment. The RNP recommends maximum internal noise levels below 50–55 dB(A) are unlikely to awaken people from sleep and one or two noise events per night, with maximum internal noise levels of 65–70 dB(A), are not likely to affect health and wellbeing significantly.



Table 3 Residential noise management levels

Time of day	NML L _{Aeq} (15 min) *	How to apply
Standard hours: Monday to Friday 7	Noise affected RBL + 10 dB	The noise affected level represents the point above which there may be some community reaction to noise.
am to 6 pm Saturday 8 am to 1 pm		Where the predicted or measured L _{Aeq (15 min)} is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level.
		The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected 75 dB(A)	The highly noise affected level represents the point above which there may be strong community reaction to noise.
		Where noise is above this level, the relevant authority may require respite periods by restricting the hours that the very noisy activities can occur, taking into account:
		 times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences);
		 if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside recommended	Noise affected RBL + 5 dB	A strong justification would typically be required for works outside the recommended standard hours.
standard hours		The proponent should apply all feasible and reasonable work practices to meet the noise affected level.
		Where all feasible and reasonable practices have been applied and noise is more than 5 dB(A) above the noise affected level, the proponent should negotiate with the community.

* Noise levels apply at the property boundary that is most exposed to construction noise, and at a height of 1.5 m above ground level. If the property boundary is more than 30 m from the residence, the location for measuring or predicting noise levels is at the most noise-affected point within 30 m of the residence. Noise levels may be higher at upper floors of the noise affected residence.

Other sensitive land uses, such as schools and offices, typically find noise from construction disruptive when the properties are being used (such as during work and school times). The noise management levels for non-residential receivers set in accordance with the Interim Construction Noise Guideline are provided in Table 4. These levels apply only during hours when the non-residential premises are being used.

The difference between an internal noise level and the external noise level is about 10 dB(A), which provides a conservative assumption that windows are open for ventilation. Buildings where windows are fixed or cannot otherwise be opened may achieve a greater noise level performance.





Table 4 Non-residential sensitive land uses noise management levels

Land use	Noise assessment location	NML (L _{Aeq,15min})
Classrooms at schools and other educational institutions	Internal	45
Places of worship	internal	
Active recreation areas (such as sporting activities and activities which generate their own noise or focus for participants)	External	65
Passive recreation areas (contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, for example, reading, meditation)	External	60
Industrial premises	External	75
Office, retail outlets	External	70

2.3 Project construction noise management levels

The Project specific construction noise management levels for residential receivers have been established in line with the ICNG, based on the RBLs relevant to each NCA. These are presented in Table 5. NMLs for non-residential sensitive receivers are described in Table 4.

Table 5 Project specific construction NMLs

		Noise Management Level, L _{Aeq 15 minute}					
Appro	ved hours	Outside approved hours					
Noise	Highly noise	Day	Evening Night		Sleep disturbance (CNV		
anecteu	anecteu				L _{Aeq, 15 minute}	L _{Amax}	
58	75	53	51	46	46	56	
59	75	54	52	42	42	52	
	Appro Noise affected 58 59	Approved hours Noise affected Highly noise affected 58 75 59 75	Noise MApproved hoursDayNoise affectedHighly noise affectedDay587553597554	Noise Management LevelApproved hoursOutNoise affectedHighly noise affectedDayEvening5875535159755452	Noise Management Level, Laeq 15 minuteApproved hoursOutstandNoise affectedHighly noise affectedDayEveningNight58755351465975545242	Noise Highly noise affected Sleep disturbation Noise affected Highly noise affected Day Evening Night Sleep disturbation 58 75 53 51 46 46 59 75 54 52 42 42	

As part of planning for out of hours works, standard mitigation measures, as described in the CNVMP, are implemented where reasonable and feasible. However, after these measures have been applied, noise and vibration levels may continue to exceed the NMLs.

In this case, additional mitigation measures outlined in the CNVS, which largely focus on engagement with affected sensitive receivers, should be implemented where reasonable and feasible, unless other agreements are in place with the impacted receiver.

Triggers and additional mitigation measures for airborne noise are taken from the Project's OOHW Protocol and summarised in Table 6. Further details of specific additional mitigation measures are described in the CNVS.





Construction	hours	Class	dB above NML	Additional management measures	
Approved ho	urs	N	0 to 10	-	
Monday – Friday: 7am – 6pm		CA	10 to 20	LB	
Saturday: 8ar	n to 6pm	MI	20 to 30	LB, M, SN	
		ні	>30	LB, M, SN	
Evening		N	0 to 10	LB	
Monday – Friday: 6pm – 10pm		CA	10 to 20	LB, M	
Saturday: 7am – 8am, 6pm – 10pm		MI	20 to 30	LB, M, SN, RO	
Sunday / PH: 8am – 6pm		HI	> 30	LB, M, SN, IB, PC, RO	
Night		N	0 to 10	LB	
Monday – Sat	turday: 10am – 7am	CA	10 to 20	LB, M, SN, RO	
Saturday: 10p	om –8am)	MI	20 to 30	LB, M, SN, IB, PC, RO, AA	
Sunday / PH:	6pm –7am	HI	> 30	LB, M, SN, IB, PC, RO, AA	
Notes: P	C = Phone Calls and emails		SN = Specific notification		
M = Monitoring		LB = Letterbox drops			
IB = Individual briefings		RO = Project specific respite offer			
AA = Alternative accommodation					
N	I = Noticeable CA = Clearly aud	ible	MI Moderately intr	usive HI = Highly intrusive	

Table 6 Triggers for additional mitigation measures – Airborne noise (Sydney Metro 2020)

2.4 Vibration management

2.4.1 Human comfort

When assessing human exposure to construction-related vibration, the CNVS requires vibration goals to be established using *Environmental Noise Management Assessing Vibration: A Technical Guideline* (DECC 2006), which provides criteria for the assessment of vibration impacts on humans.

Construction activities typically generate vibration of an intermittent nature, which is assessed using a Vibration Dose Value (VDV). Acceptable values of vibration doses are presented in Table 7 for sensitive receivers.

Receiver type	Low probability of adverse comment (m/s ^{1.75})	Adverse comment possible (m/s ^{1.75})	Adverse comment probable (m/s ^{1.75})
Residential buildings – 16 hour day (7am to 11pm) ¹	0.2 to 0.4	0.4 to 0.8	0.8 to 1.6
Residential buildings – 8 hour night (11pm to 7am) ¹	0.13	0.26	0.51

Table 7 VDV Vibration criteria

Note 1: Day time and night time as described in BS6472:1992 (as referenced in the CNVS), i.e. a daytime period of 16 h or a night time period of 8 h, for example 23.00 h to 07.00 h.

2.4.2 Buildings

Potential building damage from construction vibration requires the application of values in BS 7385 Part 2-1993 *Evaluation and measurement for vibration in buildings* Part 2. These values are presented in Table 8 and relate to transient vibration which does not give rise to resonant responses in structures, and to low-rise buildings.



Table 8 Guideline values for vibration velocity for the effects of short-term vibration on structures (BS 7385).

Line	Type of building	Peak component particle velocity in frequency range of predominant pulse		
		4 Hz to 15 Hz	15 Hz and above	
1	Reinforced or framed structures Industrial and heavy commercial buildings	50		
2	Unreinforced or light framed structures	15 at 4 Hz increasing to	20 mm/s at 15 Hz to 50 mm/s at	
2	Residential or light commercial type buildings	20 mm/s at 15 Hz	40 Hz and above	

Where vibration may give rise to magnification due to resonance, especially at lower frequencies where lower guide values apply, the guide values may be reduced by 50%. The CNVS describes rock breaking/hammering and sheet piling activities as having potential to cause dynamic loading in some structures (e.g. residences).

For activity involving rock breakers, piling rigs, vibratory rollers, excavators, vibration predominantly occurs at frequencies in the 10 Hz to 100 Hz range. On this basis, a conservative vibration damage screening level is:

- Reinforced or framed structures: 25.0 mm/s
- Unreinforced or light framed structures: 7.5 mm/s

2.4.3 Heritage

Heritage buildings and structures would be assessed under a conservative cosmetic damage objectives of 2.5 mm/s peak component particle velocity (from DIN 4150). Where vibration levels at heritage items are identified as exceeding this screening level, structural assessment would be completed by the Project team to confirm the structure's sensitivity to vibration. If a heritage building or structure is found to be structurally unsound (following inspection) the conservative criterion would stand. Where the structure is suitably sound, the guideline values from Table 8 would be applicable.

2.4.4 Additional mitigation measures

The CNVS recommends additional mitigation measures where all standard mitigation measures to minimise vibration at the nearest receivers have been implemented and vibration is still predicted to exceed the maximum guideline values. The Additional Mitigation Measures Matrix (AMMM) for vibration from the CNVS is presented in Table 9.

Table 9 Additional	Vibration	Mitigation	Moasuros	(CNIVC)
Table 9 Adultional	vibration	wiitigation	weasures	(CINV3)

Construction hours	Mitigation measures where predicted vibration levels exceed maximum levels
Approved hours Monday – Friday: 7am – 6pm, Saturday: 8am to 6pm	LB, M, RO
Evening Monday – Friday: 6pm – 10pm; Saturday: 7am – 8am, 6pm – 10pm; Sunday / PH: 8am – 6pm	LB, M, IB, PC, RO, SN
Night Monday – Saturday: 10am – 7am Saturday: 10pm –8am); Sunday / PH: 6pm –7am	LB, M, IB, PC, RO, SN, AA





3 Impact assessment

3.1 Modelling method

Predictions of noise impacts were performed using KNOWnoise[™], a project-specific noise assessment tool developed by Hutchison Weller for the WTP Project. KNOWnoise calculates the maximum L_{Aeq,15minute} noise level for each identified receiver for each proposed activity using predictions from SoundPlan noise modelling software. Predictions include geometric spreading, air and ground absorptions as well as topographical and structural screening and reflection.

The following components were incorporated in the model:

- Topography Based on terrain data of 1 m resolution.
- Individual sensitive receivers Worst-affected façade of each building to 700 metres from the works
- Construction noise sources –Activities and equipment provided by GLC were included in the noise model as individual sources across the nominated work areas for each activity. The maximum predicted LAeq noise level within each work area was identified for each receiver.
- Cumulative impacts all activities with overlapping time periods are included in cumulative results
- Source height construction noise sources assumed to be at 1.5 metres above ground level.
- Ground Absorption Ground assumed to be mixed hard and soft with absorption factor of 0.5
- Meteorology –worst-case meteorological conditions (gentle breeze from source to receiver and stable conditions).
- Residential building structures are included in the model, meaning screening provided by neighboring houses is considered.
- Results are shown for all floors of assessed buildings with the worst-case façade result assumed for the whole floor.

Equipment proposed to be used for OOHW activities together with estimated sound power levels for each item are summarised in Appendix A.

The sound power levels and ultimate predicted noise levels will depend on the number of plant items operating at any one time and their precise location relative to a sensitive receiver. In practice, the predicted levels will vary due to plant moving around the site and not operating intensively or concurrently for a 15 minute assessment period. Shielding and reflection provided by buildings will also vary as plant moves around the site. Therefore, predicted noise levels are conservative.





3.2 Predicted noise and vibration levels

3.2.1 Predicted noise levels - Stage 1

Predicted impact classes for the night and evening periods are illustrated graphically in Appendix B-1. Each identified receiver in the study area has been coloured to highlight the predicted level of impact.

Detailed predicted noise levels for each potentially affected receiver are presented Appendix C-1.

Table 10 presents the worst-case predicted noise level of 75 dB(A) during the works, resulting in 0 receivers classed as highly noise affected.

Table 10 Summary of maximum predicted noise level and highly affected receivers for the night period.

Maximum cumulative predicted $L_{Aeq, 15 minute}$ noise level	78 dB(A)
Number of highly noise affected receivers (>75 dB)	2

With reference to the CNVS, the number of sensitve receivers classified in each impact class for each assessment period are summarised in the following tables.

Table 12 Summary of NML exceedance ranges for outside standard hours - weekend.

Impact class	Predicted noise level	Predicted number of receivers
Noticable	0 <= 10 dB above NML	26
Clearly Audible	10 <= 20 dB above NML	8
Moderately Intrusive	20 <= 30 dB above NML	2
Highly Intrusive	> 30 dB above NML	0

Table 13 Summary of NML exceedance ranges for outside standard hours - evenings.

Impact class	Predicted noise level	Predicted number of receivers
Noticable	0 <= 10 dB above NML	35
Clearly Audible	10 <= 20 dB above NML	7
Moderately Intrusive	20 <= 30 dB above NML	4
Highly Intrusive	> 30 dB above NML	0



Table 14 Summary of NML exceedance ranges for outside standard hours - nights.

Impact class	Predicted noise level	Predicted number of receivers
Noticable	0 <= 10 dB above NML	53
Clearly Audible	10 <= 20 dB above NML	18
Moderately Intrusive	20 <= 30 dB above NML	7
Highly Intrusive	> 30 dB above NML	4

In the event works are planned for more than two consecutive nights, sleep disturbance has been considered. Table 15 summarises the number of residents predicted to exceed the sleep disturbance screening criterion. Further analysis is also provided to indicate the number of receivers expected to be woken, at LAmax noise levels greater than 65 dBA.

Where exceedances of the awakening criteria are predicted, additional care should be taken, and mitigation measures implemented in line with the CNVS.

Table 15 Summary of predicted exceedances of sleep disturbance screening criterion and awakening criterion.

Criterion	Predicted number of receivers
Potentially Sleep Disturbed (exceed RBL + 15 screening criterion)	0
Exceed 65 dBA awakening criterion	0





3.2.2 Predicted noise levels - Stage 2

Predicted impact classes for the evening and night periods are illustrated graphically in Appendix B-2. Each identified receiver in the study area has been coloured to highlight the predicted level of impact.

Detailed predicted noise levels for each potentially affected receiver are presented Appendix C-2.

Table 16 presents the worst-case predicted noise level of 72 dB(A) during the works, resulting in 0 receivers classed as highly noise affected.

Table 16 Summary of maximum predicted noise level and highly affected receivers for the Night period.

Maximum cumulative predicted $L_{Aeq, 15 minute}$ noise level	72 dB(A)
Number of highly noise affected receivers (>75 dB)	0

With reference to the CNVS, the number of sensitve receivers classified in each impact class for each assessment period are summarised in the following tables.

Table 17 Summary of NML exceedance ranges for outside standard hours - weekend.

Impact class	Predicted noise level	Predicted number of receivers
Noticable	0 <= 10 dB above NML	6
Clearly Audible	10 <= 20 dB above NML	4
Moderately Intrusive	20 <= 30 dB above NML	0
Highly Intrusive	> 30 dB above NML	0

Table 18 Summary of NML exceedance ranges for outside standard hours - evenings.

Impact class	Predicted noise level	Predicted number of receivers
Noticable	0 <= 10 dB above NML	11
Clearly Audible	10 <= 20 dB above NML	5
Moderately Intrusive	20 <= 30 dB above NML	0
Highly Intrusive	> 30 dB a ove NML	0



Table 19 Summary of NML exceedance ranges for outside standard hours - nights.

Impact class	Predicted noise level	Predicted number of receivers
Noticable	0 <= 10 dB above NML	74
Clearly Audible	10 <= 20 dB above NML	9
Moderately Intrusive	20 <= 30 dB above NML	5
Highly Intrusive	> 30 dB above NML	0

In the event works are planned for more than two consecutive nights, sleep disturbance has been considered. Table 20 summarises the number of residents predicted to exceed the sleep disturbance screening criterion. Further analysis is also provided to indicate the number of receivers expected to be woken, at LAmax noise levels greater than 65 dBA.

Where exceedances of the awakening criteria are predicted, additional care should be taken, and mitigation measures implemented in line with the CNVS.

Table 20 Summary of predicted exceedances of sleep disturbance screening criterion and awakening criterion.

Criterion	Predicted number of receivers
Potentially Sleep Disturbed (exceed RBL + 15 screening criterion)	0
Exceed 65 dBA awakening criterion	0



3.2.3 Vibration - Stage 1

The CNVS requires attended vibration measurements at commencement of vibration generating activities to confirm vibration levels satisfy the criteria for that activity.

Where there is potential for exceedances of the criteria further vibration site law investigations would be undertaken to determine the site-specific safe working distances for that vibration generating activity. Continuous vibration monitoring with audible and visible alarms would be conducted at the nearest sensitive receivers whenever vibration generating activities need to take place inside the calculated safe-working distances.

Based on the proposed work locations and selected equipment, indicative exceedances of the vibration criteria are summarised in Table 21. The exceedances are based on recommended minimum working distances from vibration intensive plant given in Appendix D of the Construction Noise and Vibration Strategy (Transport for NSW 2019). Vibration impacts for each sensitive receiver are listed in Appendix C-1.

Table 21 Predicted exceedances of vibration criteria

Impact classification	Number of potentially affected receivers
Human comfort	0
Cosmetic damage	0
Heritage structure	0





3.3.4 Vibration - Stage 2

The CNVS requires attended vibration measurements at commencement of vibration generating activities to confirm vibration levels satisfy the criteria for that activity.

Where there is potential for exceedances of the criteria further vibration site law investigations would be undertaken to determine the site-specific safe working distances for that vibration generating activity. Continuous vibration monitoring with audible and visible alarms would be conducted at the nearest sensitive receivers whenever vibration generating activities need to take place inside the calculated safe-working distances.

Based on the proposed work locations and selected equipment, indicative exceedances of the vibration criteria are summarised in Table 22. The exceedances are based on recommended minimum working distances from vibration intensive plant given in Appendix D of the Construction Noise and Vibration Strategy (Transport for NSW 2019). Vibration impacts for each sensitive receiver are listed in Appendix C-2.

Table 22 Predicted exceedances of vibration criteria

Impact classification	Number of potentially affected receivers
Human comfort	0
Cosmetic damage	0
Heritage structure	0





Controls and safeguards 4

The Project represents a risk of adverse impacts on sensitive receivers, particularly when working close to the project boundary and outside approved hours.

Where short term noise impacts are unavoidable, mitigation measures described in the project construction environment management plan should be implemented together with the recommendations in in Table 14.

Table 17 and additional mitigation measures for each receiver identified in Appendix B and summarised in Table 14.

Table 17 Standard	mitigation	measures
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Community consultation	 Potentially affected receivers will be notified of OOH works in accordance with project requirements
	 Where practicable, works will be scheduled to not conflict with major student examination periods, church congregation times, and other sensitive periods identified through community consultation.
Site induction	• All workers will be inducted to the project prior to commencing work and will be cognisant of their noise and vibration obligations under the CNVMP.
Behavioural practices	 Avoid swearing and unnecessary shouting or loud radios onsite. Avoid dropping materials from height.
Equipment selection	 Priority given to the use of quieter and less vibration emitting construction methods and plant alternatives where feasible and reasonable. The noise levels of plant and equipment would meet the maximum noise requirements of the CNVS.
Use and siting of plant	 Locate compounds away from sensitive receivers and discourage access from local roads. Plant used intermittently to be throttled down or shut down. Noise-emitting plant to be directed away from sensitive receivers where possible. Stationary plant should be located behind a structure or enclosed if practicable. Deliveries should be made as far as practical from sensitive receivers. Dedicated loading/unloading sites should be shielded where possible, if close to receivers. Plan traffic flow, parking and loading/unloading areas to minimise reversing. Avoid compression breaking on approach to the site. Where additional activities or plant may result in marginal noise increases and speed works up, consider concentrating activities at one location and complete works as quickly as possible.
Non-tonal reversing alarms.	 Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work.
Noise monitoring	 Monitoring should be completed to verify the assumptions of this CNVIS regarding estimated equipment noise emissions and to ensure compliance with the CNVS.
Vibration monitoring	 Attended vibration measurements should be completed at commencement of vibration generating activities predicted to occur within safe working distances for cosmetic damage. Where monitoring demonstrates maximum levels exceeded, consider alternative methodologies/equipment
Implement any project speci	fic mitigation measures

In accordance with MCoA, any specific mitigation measures identified through consultation will be implemented.
 In line with the EPL 21676 L5.8, where the same receivers are affected by OOHW, works will not be conducted more than:

a. 2 consecutive evenings and/or nights at any time; and b. 3 evenings and/or nights per week; and

c. 10 evenings and/or nights per month

3. Noise blankets will be placed around highly noise intensive activities if practical and feasible

The use of battery and/or solar-powered lighting plants and generators will be prioritised over diesel-powered equipment
 In compliance with EPL L5.8 f) any high noise impact works will be undertaken before midnight where reasonable and feasible.
 Quieter plant and equipment to be use if practical and feasible



Table 18 Additional mitigation measures

Code	Measure	Description
AA	Alternative accommodation	Alternative accommodation options may be provided for residents living in close proximity to construction works that are likely to incur unreasonably high impacts over an extended period of time. Alternative accommodation will be determined on a case-by-case basis.
м	Monitoring	Where it has been identified that specific construction activities are likely to exceed the relevant noise or vibration goals, noise or vibration monitoring may be conducted at the affected receiver(s) or a nominated representative location (typically the nearest receiver where more than one receiver have been identified). Monitoring can be in the form of either unattended logging or operator attended surveys. The purpose of monitoring is to inform the relevant personnel when the noise or vibration goal has been exceeded so that additional management measures may be implemented.
IB	Individual briefings	Individual briefings are used to inform stakeholders about the impacts of high noise activities and mitigation measures that will be implemented. Communications representatives from the contractor would visit identified stakeholders at least 48 hours ahead of potentially disturbing construction activities. Individual briefings provide affected stakeholders with personalised contact and tailored advice, with the opportunity to comment on the project.
LB	Letterbox drops	For each Sydney Metro project, a newsletter is produced and distributed to the local community via letterbox drop and the project mailing list. These newsletters provide an overview of current and upcoming works across the project and other topics of interest. The objective is to engage and inform and provide project-specific messages. Advanced warning of potential disruptions (e.g. traffic changes or noisy works) can assist in reducing the impact on the community. Content and newsletter length is determined on a project-by-project basis. Most projects distribute notifications on a monthly basis. Each newsletter is graphically designed within a branded template.
RO	Respite offer	The purpose of a project specific respite offer is to provide residents subjected to lengthy periods of noise or vibration respite from an ongoing impact.
PC	Phone calls	Phone calls and/or emails detailing relevant information would be made to identified/affected stakeholders within 7 days of proposed work. Phone calls and/or emails provide affected stakeholders with personalised contact and tailored advice, with the opportunity to provide comments on the proposed work and specific needs etc.
SN	Specific notifications	Specific notifications would be letterbox dropped or hand distributed to identified stakeholders no later than 7 days ahead of construction activities that are likely to exceed the noise objectives. This form of communication is used to support periodic notifications, or to advertise unscheduled works.

Consultation summary

Door knock date - 11 October 2023 and 1 November 2023

The following properties were door knocked and advised of the work activities. Where residents were not home, "Sorry We Missed You Cards" were left advising of forthcoming night work activities and stating a notification would be provided by letterbox drop closer to the date of works.

- 1 Bailey St Units 1-11 •
- 2-8 Bailey St Units 7-12
- 13-17 Bailey St Units 1-24
- 9-11 Bailey St Units 1-8 •
- 3 Alexandra Ave - Units 1-8
- 4 Alexandra Ave Units 1 8 6 Alexandra Ave Units 1-4 •
- •
- . 7 Alexandra Ave - Townhouses 1 and 2 •
- 1-3 Park Pde Units 1-9 • 1-2 Railway Pde - Units 1-6
- 4 Railway Pde Units 1-6
- 8-12 Alexandra - Units 1-16
- 4 Alfred St - Units 1-6

Residents were appreciative of the advance notice. No issues were raised. 7 days notice to residents for respite will be offered when work dates are finalised

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Appendix A-1 Proposed activities and associated sound power levels

Sewer Relining Residential connection

Residential connection required for portion of sewer relining works from Alexandra Ave to Bailey St

Equipment	Quantity	Usage	Reduction	SWL
Excavator (1.5 tonne)	1	10 %	0	79
Generator (100 kVA)	1	100 %	0	93
Light vehicle	1	25 %	0	79
Compressor	1	80 %	0	92
Support Vehicle	1	80 %	0	99
High Pressure Water Blaster / Gurney ¹	1	20 %	0	103

Activity Sound Power Level: 105

* includes 5 dB penalty for potentially annoying characteristics in line with the ICNG



Appendix A-2 Proposed activities and associated sound power levels

Stage 2: Alexandra Ave set up

1 x 1.5T excavator, jetter, generator, air compressor.

Equipment	Quantity	Usage	Reduction	SWL
Compressor	1	80 %	0	92
Excavator (1.5 tonne)	1	10 %	0	79
Generator (100 kVA)	1	100 %	0	93
Light vehicle	1	25 %	0	79
High Pressure Water blaster / gurney ¹	1	20 %	0	103

Activity Sound Power Level: 104

* includes 5 dB penalty for potentially annoying characteristics in line with the ICNG

Stage 2: CCTV Vehicle in Park

CCTV vehicle to be parked in park during stage 1 works

Equipment	Quantity	Usage	Reduction	SWL
Support Vehicle	1	100 %	0	100

Activity Sound Power Level: 100

* includes 5 dB penalty for potentially annoying characteristics in line with the ICNG



Appendix B-1 Map showing predicted noise impacts at evening and night time by impact class



Figure: Evening impact

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Figure: Night impact



Appendix B-2 Map showing predicted noise impacts by at evening and night time impact class



Figure: Evening impact





Figure: Night mpact





Assessment: Se	wer Relini	ing		NML, LAeq, 15 minute					Sleep, LAmax Predicted noise level, dBA E			Exceedance summary											
				_							Cumulative				Exceed NM	1L by (dB):	1	Exceed sleep by (e	disturbance dB):		Impact classification		
NCA	Rec	Address	Fir	Land use	Day	O/day	Eve	Night	Screen	Awake	LAeq, 15 minute	LMax	Highly Affected?	Day	O/day	Eve	Night	Awake	Screen	Day	O/day	Eve	Night
NCA01	7439 59	"6-10 RAILWAY PDE. WESTMEAD"	3	RES	58	53	51	46			53	61		0	0	2	7	-	2	None	Noticable	Noticable	Noticable
NCA01	7439 58	"6-10 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46			52	60		0	0	1	6	-	1	None	None	Noticable	Noticable
NCA01	7439 57	"6-10 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			52	60		0	0	1	6		1	None	None	Noticable	Noticable
NCA01	7439 25		3	RES	58	53	51	46			57	65		0	Λ	6	11	_	6	None	Noticable	Noticable	Clearly Audible
NCA01	7439 24	"4 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46			56	64		0	3	5	10	-	5	None	Noticable	Noticable	Noticable
NCA01	7439 23	"4 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			53	61		0	0	2	7	-	2	None	None	Noticable	Noticable
NCA01	7439		2	DEC	EQ	E2	E1	16			60	69		2	7	0	14		0	Noticable	Noticable	Noticable	Clearly Audible
NCAUI	7439	2 RAILWAT PDE, WESTMEAD	3	KES	20	55	51	40			60	00		2	/	9	14	-	9	NOLICADIE	NOLICADIE	NULICADIE	
NCA01	12 7439	"2 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46			58	66		0	5	7	12	-	7	None	Noticable	Noticable	Clearly Audible
NCA01	11 7438	"2 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			56	64		0	3	5	10	-	5	None	Noticable	Noticable	Clearly Audible
NCA01	85	"1 ALFRED ST, WESTMEAD"	3	RES	58	53	51	46			53	61		0	0	2	7	-	2	None	None	Noticable	Noticable
NCA01	7438 84	"1 ALFRED ST, WESTMEAD"	2	RES	58	53	51	46			53	61		0	0	2	7	-	2	None	None	Noticable	Noticable
NCA01	7438 83	"1 ALFRED ST, WESTMEAD"	1	RES	58	53	51	46			52	60		0	0	1	6	-	1	None	None	Noticable	Noticable
NCA01	7438 45	"1-3 PARK AV. WESTMEAD"	3	RES	58	53	51	46			60	68		2	7	9	14	-	9	Noticable	Noticable	Noticable	Clearly Audible
NCA01	7438 44	"1-3 PARK AV, WESTMEAD"	2	RES	58	53	51	46			58	66		0	5	7	12	-	7	Noticable	Noticable	Noticable	Clearly Audible
NCA01	7438 43	"1-3 PARK AV, WESTMEAD"	1	RES	58	53	51	46			53	61		0	0	2	7	-	2	None	Noticable	Noticable	Noticable
Νζα01	7437 52	"14 RAILWAY PDF WESTMEAD"	2	RES	58	53	51	46			52	60		0	0	1	6		1	None	None	Noticable	Noticable
NCA01	7437 51	"14 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			51	59		0	0	0	5	-	0	None	None	Noticable	Noticable
NCA01	7436 71	"3 RAILWAY PDE, WESTMEAD"	3	RES	58	53	51	46			59	67		1	6	8	13	_	8	Noticable	Noticable	Noticable	Clearly Audible
NCA01	7436		2	DEC	59	52	51	46			57	65		0	Δ	6	11		6	None	Noticable	Noticable	Clearly Audible
NCA01	7436 69	"3 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	40			56	64		0	3	5	10		5	None	Noticable	Noticable	Noticable
NCA01	7436		2	DEC	59	52	51	46			55	62		0	2	Δ	٩		Δ	None	Noticable	Noticable	Noticable
NCAUI	7436		5	NL3	50	55	51	40			55	03		0	2	4	5		4	None	Noticable	Noticable	Noticable
NCA01	10 7436	"6-10 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46			54	62		0	1	3	8	-	3	None	Noticable	Noticable	Noticable
NCA01	09 7435	"6-10 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			53	61		0	0	2	7	-	2	None	None	Noticable	Noticable
NCA01	70	"5 RAILWAY PDE, WESTMEAD"	3	RES	58	53	51	46			56	64		0	3	5	10	-	5	None	Noticable	Noticable	Noticable
NCA01	69	"5 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46			55	63		0	2	4	9	-	4	None	Noticable	Noticable	Noticable
NCA02	7429 76	"8-12 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42			56	64		0	2	4	14	-	4	None	Noticable	Noticable	Clearly Audible
NCA02	7429 75	"8-12 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42			55	63		0	1	3	13	-	3	None	Noticable	Noticable	Clearly Audible
NCA02	7428 70	"13-17 BAILEY ST, WESTMEAD"	3	RES	59	54	52	42			53	61		0	0	1	11	-	1	None	None	Noticable	Clearly Audible
NCA02	7427 43	"9-11 BAILEY ST, WESTMEAD"	2	RES	59	54	52	42			56	64		0	2	4	14	-	4	None	Noticable	Noticable	Clearly Audible
NCA02	7426 66	"1 BAILEY ST, WESTMEAD"	3	RES	59	54	52	42			67	75		8	13	15	25	-	15	Noticable	Clearly Audible	Clearly Audible	Moderately Intrusive
NCA02	7426 65	"1 BAILEY ST, WESTMEAD"	2	RES	59	54	52	42			68	76		9	14	16	26	_	16	Noticable	Clearly Audible	Clearly Audible	Moderately Intrusive
NCA02	7426 64	"1 BAILEY ST, WESTMEAD"	1	RES	59	54	52	42			67	75		8	13	15	25	-	15	Noticable	Clearly Audible	Clearly Audible	Moderately Intrusive
NCA02	7426 33	"8-12 ALEXANDRA AV, WESTMEAD"	3	RES	59	54	52	42			61	69		2	7	9	19	-	9	Noticable	Noticable	Noticable	Clearly Audible





Construction noise impact statement

	7426																					
NCA02	32	"8-12 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42		60	68		1	6	8	18	-	8	Noticable	Noticable	Noticable	Clearly Audible
	7426																					
NCA02	31	"8-12 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42		59	67		0	5	7	17	-	7	None	Noticable	Noticable	Clearly Audible
	7426																					
NCA02	26	"2-8 BAILEY ST, WESTMEAD"	3	RES	59	54	52	42		56	64		0	2	4	14	-	4	None	Noticable	Noticable	Clearly Audible
	7426																					
NCA02	25	"2-8 BAILEY ST, WESTMEAD"	2	RES	59	54	52	42		55	63		0	1	3	13	-	3	None	Noticable	Noticable	Clearly Audible
	7426																					
NCA02	24	"2-8 BAILEY ST, WESTMEAD"	1	RES	59	54	52	42		54	62		0	0	2	12	-	2	None	Noticable	Noticable	Clearly Audible
	7425																					Moderately
NCA02	31	"6 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42		70	78		11	16	18	28	-	18	Clearly Audible	Clearly Audible	Clearly Audible	Intrusive
	7425																					Moderately
NCA02	30	"6 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42		70	78		11	16	18	28	-	18	Clearly Audible	Clearly Audible	Clearly Audible	Intrusive
	7424																					Moderately
NCA02	04	"7 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42		66	74		7	12	14	24	-	14	Noticable	Clearly Audible	Clearly Audible	Intrusive
	7424																					Moderately
NCA02	03	"7 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42		64	72		5	10	12	22	-	12	Noticable	Noticable	Clearly Audible	Intrusive
	7422																			Moderately	Moderately	
NCA02	23	"4 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42		77	85	Y	18	23	25	35	-	25	Clearly Audible	Intrusive	Intrusive	Highly Intrusive
	7422																			Moderately	Moderately	
NCA02	22	"4 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42		78	86	Y	19	24	26	36	-	26	Clearly Audible	Intrusive	Intrusive	Highly Intrusive
	7420																				Moderately	
NCA02	84	"3 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42		73	81		14	19	21	31	-	21	Clearly Audible	Clearly Audible	Intrusive	Highly Intrusive
	7420																				Moderately	
NCA02	83	"3 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42		74	82		15	20	22	32	-	22	Clearly Audible	Clearly Audible	Intrusive	Highly Intrusive

C.2 Vibration

NCA Receiver Address	Land use Vibrat
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tion Impact



Appendix C-2 Detailed predictions - Stage 2

C-2.1 Noise





Assessment: Se	wer Relin	ing			NML, LAeq, 15 minute					Sleep, LAmax Predicted noise level, dBA E			Exceedance summary										
											Cumulative				Exceed NM	L by (dB):	1	Exceed sleep by (c	disturbance IB):		Impact cla	assification	
NCA	Rec	Address	Flr	Land use	Day	O/day	Eve	Night	Screen	Awake	LAeq, 15 minute	LMax	Affected?	Day	O/day	Eve	Night	Awake	Screen	Day	O/day	Eve	Night
NCA01	7439 59	"6-10 RAILWAY PDE, WESTMEAD"	3	RES	58	53	51	46	Y		48	57		0	0	0	2	-	2	None	None	None	Noticable
NCA01	7439 58	"6-10 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46	Y		48	57		0	0	0	2	-	2	None	None	None	Noticable
NCA01	7439 57	"6-10 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			47	56		0	0	0	1	-	1	None	None	None	Noticable
NCA01	7439 25		3	RES	58	53	51	46	v		49	58		0	0	0	3	_	3	None	None	None	Noticable
NCA01	7439 24	"4 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46	Y		48	57		0	0	0	2	-	2	None	None	None	Noticable
NCA01	7439 13	"2 RAILWAY PDE. WESTMEAD"	3	RES	58	53	51	46	Y		51	60		0	0	0	5	-	5	None	None	None	Noticable
NGADI	7439		2	DEC	50	52	F.1	46	Y		F1	60		0	0	0	-			Neza	News	News	Netischis
NCAUI	7439	2 RAILWAY PDE, WESTMEAD	2	KES	58	53	51	46	Y		51	60		U	0	U	5	-	5	None	None	None	Noticable
NCA01	11 7438	"2 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			47	56		0	0	0	1	-	1	None	None	None	Noticable
NCA01	45	"1-3 PARK AV, WESTMEAD"	3	RES	58	53	51	46	Y		55	64		0	2	4	9	-	9	None	Noticable	Noticable	Noticable
NCA01	7438 44	"1-3 PARK AV, WESTMEAD"	2	RES	58	53	51	46	Y		52	61		0	0	1	6	-	6	None	None	Noticable	Noticable
NCA01	7438 43	"1-3 PARK AV, WESTMEAD"	1	RES	58	53	51	46	Y		48	57		0	0	0	2	-	2	None	None	None	Noticable
NCA01	7436		2	DEC	59	52	51	46	v		50	50		0	0	0	4	_	Λ	None	None	None	Noticable
NCAUI	7436	S KALWAT FDL, WLSTWLAD	3	NE5	38	55	51	40			50	55		0	0	0	4		4	None	None	None	Noticable
NCA01	70 7436	"3 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46	Y		49	59		0	0	0	3	-	3	None	None	None	Noticable
NCA01	69 7426	"3 RAILWAY PDE, WESTMEAD"	1	RES	58	53	51	46			46	56		0	0	0	0	-	0	None	None	None	Noticable
NCA01	11	"6-10 RAILWAY PDE, WESTMEAD"	3	RES	58	53	51	46			47	56		0	0	0	1	-	1	None	None	None	Noticable
NCA01	7436 10	"6-10 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46			47	56		0	0	0	1	-	1	None	None	None	Noticable
NCA01	7435 70	"5 RAILWAY PDE, WESTMEAD"	3	RES	58	53	51	46	Y		48	58		0	0	0	2	-	2	None	None	None	Noticable
NCA01	7435 69	"5 RAILWAY PDE, WESTMEAD"	2	RES	58	53	51	46	Y		47	57		0	0	0	1	-	1	None	None	None	Noticable
NCA01	7435 08	"4 PARK AV, WESTMEAD"	4	RES	58	53	51	46	Y		51	60		0	0	0	5	-	5	None	None	None	Noticable
NCA01	7435 07	"4 PARK AV, WESTMEAD"	3	RES	58	53	51	46	Y		50	59		0	0	0	4	-	4	None	None	None	Noticable
NCA01	7435 06	"A PARK AV, WESTMEAD"	2	RES	58	53	51	46	v		47	57		0	0	0	1	-	1	None	None	None	Noticable
	7429		-		50	55	51	-10				57		0			-			None		None	Noticubic
NCA02	76 7429	"8-12 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42	Y		48	58		0	0	0	6	-	6	None	None	None	Noticable
NCA02	75 7429	"8-12 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42	Y		48	57		0	0	0	6	-	6	None	None	None	Noticable
NCA02	58	"18 BAILEY ST, WESTMEAD"	3	RES	59	54	52	42	Y		51	60		0	0	0	9	-	9	None	None	None	Noticable
NCA02	7429 57	"18 BAILEY ST, WESTMEAD"	2	RES	59	54	52	42	Y		50	59		0	0	0	8	-	8	None	None	None	Noticable
NCA02	7429 56	"18 BAILEY ST, WESTMEAD"	1	RES	59	54	52	42	Y		49	58		0	0	0	7	-	7	None	None	None	Noticable
NCA02	7429 05	"2-8 BAILEY ST, WESTMEAD"	3	RES	59	54	52	42	Y		51	60		0	0	0	9	-	9	None	None	None	Noticable
NCA02	7429 04	"2-8 BAILEY ST WESTMEAD"	2	RFS	59	54	52	42	Y		51	60		0	0	0	9	-	9	None	None	None	Noticable
NCA02	7429 03	"2-8 BAILEY ST, WESTMEAD"	1	RES	59	54	52	42	Y		50	60		0	0	0	8	-	8	None	None	None	Noticable
NCA02	7428 71		1	BEC	50	54	50	12	v		16	55		0	n	0	Δ	-	Δ	None	None	None	Noticable
INCAU2	7428	IS IT DAILET ST, WESTWIEAD	-	NLJ	55	J4	52	42	-		40			U	U	0		-	4	inone	NULLE	NUTE	NULLANE
NCA02	70 7428	"13-17 BAILEY ST, WESTMEAD"	3	RES	59	54	52	42	Y		47	56		0	0	0	5	-	5	None	None	None	Noticable
NCA02	69 7429	"13-17 BAILEY ST, WESTMEAD"	2	RES	59	54	52	42	Y		46	56		0	0	0	4	-	4	None	None	None	Noticable
NCA02	45	"3-5 OAKES ST, WESTMEAD"	2	RES	59	54	52	42	Y		44	53		0	0	0	2	-	2	None	None	None	Noticable





ΝCΔ02	7428 02 "10-12 BAILEY ST WESTMEAD"	3	RES	59	54	52	42	v		51	60	0	0	0	9	-	q	None	None	None	Noticable
110/102	7428		neo							51		-						Hone	None	None	
NCA02	01 "10-12 BAILEY ST, WESTMEAD" 7428	2	RES	59	54	52	42	Y		50	59	0	0	0	8	-	8	None	None	None	Noticable
NCA02	00 "10-12 BAILEY ST, WESTMEAD"	1	RES	59	54	52	42	Y		49	58	0	0	0	7	-	7	None	None	None	Noticable
NCA02	63 "3-5 OAKES ST, WESTMEAD"	3	RES	59	54	52	42	Y		45	55	0	0	0	3	-	3	None	None	None	Noticable
NCA02	7427 62 "3-5 OAKES ST, WESTMEAD"	2	RES	59	54	52	42	Y		45	54	0	0	0	3	-	3	None	None	None	Noticable
ΝCΔ02	7427 61 "3-5 OAKES ST. WESTMEAD"	1	RES	59	54	52	42	v		44	54	0	0	0	2	-	2	None	None	None	Noticable
	7427	-																			
NCA02	43 "9-11 BAILEY ST, WESTMEAD" 7427	2	RES	59	54	52	42	Y		48	5/	0	0	0	6	-	6	None	None	None	Noticable
NCA02	42 "9-11 BAILEY ST, WESTMEAD"	1	RES	59	54	52	42	Y		47	56	0	0	0	5	-	5	None	None	None	Noticable
NCA02	28 "59-61 GOOD ST, WESTMEAD"	3	RES	59	54	52	42			42	51	0	0	0	0	-	0	None	None	None	Noticable
NCA02	03 "2-6 PRIDDLE ST, WESTMEAD"	3	RES	59	54	52	42	Y		48	57	0	0	0	6	-	6	None	None	None	Noticable
NCA02	7427 02 "2-6 PRIDDLE ST. WESTMEAD"	2	RES	59	54	52	42	Y		48	57	0	0	0	6	-	6	None	None	None	Noticable
	7427			50		50															
NCAUZ	7427	1	RES	59	54	52	42	Ŷ		48	5/	U	0	0	ь	-	6	None	None	None	NOTICADIE
NCA02	00 "3-4 BERYL ST, WESTMEAD" 7426	3	RES	59	54	52	42	Y		44	53	0	0	0	2	-	2	None	None	None	Noticable
NCA02	99 "3-4 BERYL ST, WESTMEAD"	2	RES	59	54	52	42	Y		44	53	0	0	0	2	-	2	None	None	None	Noticable
NCA02	98 "3-4 BERYL ST, WESTMEAD"	1	RES	59	54	52	42	Y		44	53	0	0	0	2	-	2	None	None	None	Noticable
NCA02	7426 66 "1 BAILEY ST. WESTMEAD"	3	RES	59	54	52	42	Y	Y	71	80	12	17	19	29	15	29	Clearly Audible	Clearly Audible	Clearly Audible	Moderately Intrusive
NCA02	7426	2	DEC	50	54	52	42	v	Y	71	00	12	17	10	20	45	20	Clearly Audible	Classify Availate	Classific Available	Moderately
NCAUZ	7426	2	RES	59	54	52	42	Ŷ	Y	/1	80	12	17	19	29	15	29	Clearly Audible	Clearly Audible	Clearly Audible	Moderately
NCA02	64 "1 BAILEY ST, WESTMEAD" 7426	1	RES	59	54	52	42	Y	Y	72	81	13	18	20	30	16	30	Clearly Audible	Clearly Audible	Clearly Audible	Intrusive
NCA02	33 "8-12 ALEXANDRA AV, WESTMEAD"	3	RES	59	54	52	42	Y		52	61	0	0	0	10	-	10	None	None	None	Noticable
NCA02	32 "8-12 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42	Y		51	61	 0	0	0	9	-	9	None	None	None	Noticable
NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426	2	RES RES	59 59	54 54	52 52	42 42	Y Y		51 52	61	0	0	0	9	-	9 10	None	None	None Noticable	Noticable Clearly Audible
NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2.8 BALLEY ST. WESTMEAD"	2	RES RES	59 59	54 54	52 52	42	Y Y		51	61 61	0	0	0	9	-	9 10	None None	None None	None Noticable	Noticable Clearly Audible
NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426	2 1 3	RES RES RES	59 59 59	54 54 54	52 52 52	42 42 42	Y Y Y		51 52 54	61 61 63	0 0 0	0	0	9 10 12	- - -	9 10 12	None None None	None None None	None Noticable Noticable	Noticable Clearly Audible Clearly Audible
NCA02 NCA02 NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD"	2 1 3 2	RES RES RES RES	59 59 59 59 59	54 54 54 54	52 52 52 52	42 42 42 42 42	Y Y Y Y		51 52 54 53	61 61 63 62	0 0 0 0 0	0	0	9 10 12 11	-	9 10 12 11	None None None None	None None None None	None Noticable Noticable Noticable	Noticable Clearly Audible Clearly Audible Clearly Audible
NCA02 NCA02 NCA02 NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD"	2 1 3 2 1	RES RES RES RES RES	59 59 59 59 59 59	54 54 54 54 54 54	52 52 52 52 52 52	42 42 42 42 42 42 42	Y Y Y Y Y		51 52 54 53 52	61 61 63 62 62	0 0 0 0	0 0 0 0	0 0 2 1 0	9 10 12 11 10	-	9 10 12 11 10	None None None None None None	None None None None None	None Noticable Noticable Noticable Noticable	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD" 7426 "2-9 OAKES ST, WESTMEAD"	2 1 3 2 1 3	RES RES RES RES RES	59 59 59 59 59 59 59	54 54 54 54 54 54 54	52 52 52 52 52 52 52 52	42 42 42 42 42 42 42 42	Y Y Y Y		51 52 54 53 52 42	61 61 63 62 62 52	0 0 0 0 0	0 0 0 0 0	0 0 2 1 0 0	9 10 12 11 10 0	- - - -	9 10 12 11 10 0	None None None None None None None	None None None None None None None	None Noticable Noticable Noticable Noticable Noticable Noticable	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD" 7426 "2-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD"	2 1 3 2 1 3 3 2	RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52	42 42 42 42 42 42 42 42 42 42	Y Y Y Y Y Y	Y	51 52 54 53 52 42 66	61 61 63 62 62 52 75	0 0 0 0 0 0 7	0 0 0 0 0 0 12	0 0 2 1 0 0	9 10 12 11 10 0 24	- - - - - 10	9 10 12 11 10 0 24	None None None None None None None None	None None None None Clearly Audible	None Noticable Noticable Noticable Noticable Noticable Clearly Audible	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Moderately Intrusive
NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD" 7426 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD"	2 1 3 2 1 3 2 1 3 2 1	RES RES RES RES RES RES	59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52	42 42 42 42 42 42 42 42 42 42 42 42	Y Y Y Y Y Y	Y	51 52 54 53 52 42 66 60	61 61 63 62 62 52 75 69	0 0 0 0 0 7 1	0 0 0 0 0 0 12 6	0 0 2 1 0 0 14 8	9 10 12 11 10 0 24 18	- - - - - 10	9 10 12 11 10 0 24 18	None None None None None None None Noticable	None None None None Clearly Audible Noticable	None Noticable Noticable Noticable Noticable Clearly Audible Noticable	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Moderately Intrusive
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD" 7426 "1-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD"	2 1 3 2 1 3 2 1 2 1	RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52	42 42 42 42 42 42 42 42 42 42 42	Y Y Y Y Y Y	Y	51 52 54 53 52 42 66 60	61 61 63 62 62 52 75 69	0 0 0 0 0 0 7 1	0 0 0 0 0 12 6	0 0 2 1 0 0 14 8	9 10 12 11 10 0 24 18	- - - - - - 10 4	9 10 12 11 10 0 24 18	None None None None None None Noticable	None None None None Clearly Audible Noticable	None Noticable Noticable Noticable Noticable Clearly Audible Noticable	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Moderately Intrusive Clearly Audible
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD" 7426 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD"	2 1 3 2 1 3 2 1 2 1 4	RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52 52 52	42 42 42 42 42 42 42 42 42 42 42 42	Y Y Y Y Y Y	Y Y	51 52 54 53 52 42 66 60 42	61 61 63 62 62 52 75 69 51	0 0 0 0 0 7 1 0	0 0 0 0 0 0 12 6 0	0 0 2 1 0 0 14 8 0	9 10 12 11 10 0 24 18 0	- - - - - 10 4 -	9 10 12 11 10 0 24 18 0	None None None None None None None None	None None None None Clearly Audible Noticable None	None Noticable Noticable Noticable Noticable Clearly Audible Noticable Noticable	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Moderately Intrusive Clearly Audible Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2-8 BAILEY ST, WESTMEAD" 7426 25 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 26 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD"	2 1 3 2 1 3 2 1 3 2 1 4 3	RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52 52 52	42 42 42 42 42 42 42 42 42 42 42 42 42	Y Y Y Y Y Y Y	Y	51 52 54 53 52 42 66 60 42 42 42	61 61 63 62 62 52 75 69 51 52	0 0 0 0 0 0 7 1 1 0 0	0 0 0 0 0 0 12 6 0 0	0 0 2 1 0 0 14 8 0 0	9 10 12 11 10 0 24 18 0 0	- - - - - - - - - - - - - - - - - - -	9 10 12 11 10 0 24 18 0 0	None None None None None None Noticable Noticable None None None None	None None None None Clearly Audible Noticable None None None	None Noticable Noticable Noticable Noticable Noticable Clearly Audible Noticable None None None None	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Clearly Audible Clearly Audible Noticable Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "8-12 ALEXANDRA AV, WESTMEAD" 7426 "2-8 BAILEY ST, WESTMEAD" 7426 "7426 06 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD"	2 1 3 2 1 3 2 1 3 2 1 4 3 2 2 2	RES RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52 52 52 52	42 42 42 42 42 42 42 42 42 42 42 42 42 4	Y Y Y Y Y Y Y Y	Y Y	51 52 54 53 52 42 66 60 42 42 42 42 52	61 61 63 62 62 52 75 69 51 52 52 62	0 0 0 0 0 0 7 1 1 0 0 0	0 0 0 0 0 0 12 6 0 0 0 0	0 0 2 1 0 0 14 8 0 0 0 0	9 10 12 11 10 0 24 18 0 0 0 10	- - - - - - 10 4 - -	9 10 12 11 10 0 24 18 0 0 0 10	None None None None None None None Noticable Noticable Noticable None None None None None	None None None None Clearly Audible Noticable None None None None None None	None Noticable Noticable Noticable Noticable Clearly Audible Noticable Noticable None None None None None	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Clearly Audible Clearly Audible Noticable Clearly Audible
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2-8 BAILEY ST, WESTMEAD" 7426 25 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 26 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD"	2 1 3 2 1 3 2 1 3 2 1 4 3 2 1 1	RES RES RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52 52 52 52 5	42 42 42 42 42 42 42 42 42 42 42 42 42 4	Y Y Y Y Y Y Y Y Y	Y Y	51 52 54 53 52 42 66 60 42 42 42 52 51	61 61 63 62 62 52 75 69 51 52 62 62 61	0 0 0 0 0 0 7 1 1 0 0 0 0	0 0 0 0 0 0 12 6 0 0 0 0 0	0 0 2 1 0 0 14 8 0 0 0 0 0 0	9 10 12 11 10 0 24 18 0 0 0 10 9	- - - - - - 10 4 - - - -	9 10 12 11 10 0 24 18 0 0 0 10 9	None None None None None None Noticable Noticable None None None None None None None Non	None None None None Clearly Audible Noticable None None None None None None None Non	None Noticable Noticable Noticable Noticable Noticable Clearly Audible Noticable None None None None None None	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Noticable Noticable Clearly Audible Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2-8 BAILEY ST, WESTMEAD" 7426 25 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 26 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD"	2 1 3 2 1 3 2 1 3 2 1 4 3 2 1 3 3	RES RES RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59 59 59 5	54 54 54 54 54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52 52 52 52 5	42 42 42 42 42 42 42 42 42 42 42 42 42 4	Y Y Y Y Y Y Y Y Y	Y Y	51 52 54 53 52 42 66 60 42 42 42 42 52 51 43	61 61 63 62 62 52 75 69 51 52 62 62 61 53	0 0 0 0 0 0 7 1 1 0 0 0 0 0 0	0 0 0 0 0 0 0 12 6 0 0 0 0 0 0 0	0 0 2 1 0 0 0 14 8 0 0 0 0 0 0 0 0	9 10 12 11 10 0 24 18 0 0 10 9 1	- - - - - - - - - - - -	9 10 12 11 10 0 24 18 0 0 10 9 1	None None None None None None Noticable Noticable Noticable None None None None None None None Non	None None None None Clearly Audible Noticable None None None None None None None Non	None Noticable Noticable Noticable Noticable Noticable None Clearly Audible None None None None None None None Non	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Noticable Noticable Clearly Audible Clearly Audible Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2-8 BAILEY ST, WESTMEAD" 7426 25 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 26 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD" 7424 "2 4 OAKEE ST, WESTMEAD"	2 1 3 2 1 3 2 1 4 3 2 1 4 3 2 1 1 3 3	RES RES RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59 59 59	54 54 54 54 54 54 54 54 54 54 54 54 54	52 52 52 52 52 52 52 52 52 52 52 52 52 5	42 42 42 42 42 42 42 42 42 42 42 42 42 4	Y Y Y Y Y Y Y Y Y Y	Y Y	51 52 54 53 52 42 66 60 42 42 42 52 51 43	61 61 63 62 62 52 75 69 51 52 62 62 61 53	0 0 0 0 0 0 7 1 0 0 0 0 0 0 0 0	0 0 0 0 0 0 12 6 0 0 0 0 0 0 0 0	0 0 2 1 0 0 0 14 8 0 0 0 0 0 0 0 0 0	9 10 12 11 10 0 24 18 0 0 10 9 1 5	- - - - - - - - - - - - - -	9 10 12 11 10 0 24 18 0 0 10 9 1 5 5 5 5 5 5 5 5 5 5 5 5 5	None None None None None Noticable Noticable Noticable None None None None None None None Non	None None None None Clearly Audible Noticable None None None None None None None Non	None Noticable Noticable Noticable Noticable Noticable None Clearly Audible Noticable None None None None None Noticable	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Noticable Noticable Clearly Audible Noticable Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2-8 BAILEY ST, WESTMEAD" 7426 25 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 06 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD" 7424 "2-4 OAKES ST, WESTMEAD"	2 1 3 2 1 3 2 1 3 2 1 4 3 2 1 3 3 3	RES RES RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59 59 59 5	54 54 54 54 54 54 54 54 54 54 54 54 54 5	52 52 52 52 52 52 52 52 52 52 52 52 52 5	42 42 42 42 42 42 42 42 42 42 42 42 42 4	Y Y Y Y Y Y Y Y Y Y	Y Y	51 52 54 53 52 42 66 60 42 42 42 42 52 51 43 48	61 61 63 62 62 52 75 69 51 52 69 51 52 62 61 53 53 57	0 0 0 0 0 0 7 1 1 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 12 6 0 0 0 0 0 0 0 0 0 0	0 0 2 1 0 0 0 14 8 0 0 0 0 0 0 0 0 0 0 0	9 10 12 11 10 0 24 18 0 24 18 0 0 10 9 1 6	- - - - - - - - - - - - - - - -	9 10 12 11 10 0 24 18 0 0 10 9 1 6	None None None None None Noticable Noticable None	None None None None None Clearly Audible Noticable None None None None None None None Non	None Noticable Noticable Noticable Noticable Noticable None Clearly Audible None None None None None None None Non	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Noticable Noticable Clearly Audible Clearly Audible Noticable Noticable Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2-8 BAILEY ST, WESTMEAD" 7426 25 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 26 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD" 7424 "2-4 OAKES ST, WESTMEAD" 7424 "2-4 OAKES ST, WESTMEAD" 7424 "2-4 OAKES ST, WESTMEAD"	2 1 3 2 1 3 2 1 4 3 2 1 4 3 2 1 3 3 3 2	RES RES RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59 59 59 5	54 54 54 54 54 54 54 54 54 54 54 54 54 5	52 52 52 52 52 52 52 52 52 52 52 52 52 5	42 42 42 42 42 42 42 42 42 42 42 42 42 4	Y Y Y Y Y Y Y Y Y Y Y	Υ Υ Υ	51 52 54 53 52 42 66 60 42 42 42 52 51 43 43 48 48	61 61 63 62 62 52 75 69 51 52 62 62 61 53 57 57	0 0 0 0 0 0 7 1 1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 12 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2 1 0 0 0 14 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 10 12 11 10 0 24 18 0 24 18 0 0 10 9 1 6 6 6	- - - - - - - - - - - - - - - -	9 10 12 11 10 0 24 18 0 0 10 9 10 9 1 6 6 6	None None None None None Noticable Noticable None	None None None None None Clearly Audible Noticable None None None None None None None Non	None Noticable Noticable Noticable Noticable Noticable None Clearly Audible None None None None None None None Non	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Noticable Noticable Clearly Audible Noticable Noticable Noticable Noticable Noticable
NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02 NCA02	7426 32 "8-12 ALEXANDRA AV, WESTMEAD" 7426 31 "8-12 ALEXANDRA AV, WESTMEAD" 7426 26 "2-8 BAILEY ST, WESTMEAD" 7426 25 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 24 "2-8 BAILEY ST, WESTMEAD" 7426 26 "7-9 OAKES ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "1 BAILEY ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "7-8 BERYL ST, WESTMEAD" 7425 "6 ALEXANDRA AV, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD" 7425 "5-9 MOWLE ST, WESTMEAD" 7424 "2-4 OAKES ST, WESTMEAD" 7424 "2-4 OAKES ST, WESTMEAD" 7424 "2-4 OAKES ST, WESTMEAD"	2 1 3 2 1 3 2 1 3 2 1 4 3 2 1 3 3 3 2 2 1	RES RES RES RES RES RES RES RES RES RES	59 59 59 59 59 59 59 59 59 59 59 59 59 5	54 54 54 54 54 54 54 54 54 54 54 54 54 5	52 52 52 52 52 52 52 52 52 52 52 52 52 5	42 42 42 42 42 42 42 42 42 42 42 42 42 4	Y Y Y Y Y Y Y Y Y Y Y	Y Y	51 52 54 53 52 42 66 60 42 42 42 42 52 51 43 43 48 48 48 47	61 61 63 62 62 52 75 69 51 52 62 61 53 57 57 57 57	0 0 0 0 0 0 7 1 1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 12 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2 1 0 0 0 14 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 10 12 11 10 0 24 18 0 24 18 0 0 10 9 1 6 6 5	- - - - - - - - - - - - - - - - - - -	9 10 12 11 10 0 24 18 0 0 10 9 1 6 6 5	None None None None None None Noticable Noticable None None	None None None None None Clearly Audible Noticable Noticable None None None None None None None Non	None Noticable Noticable Noticable Noticable Noticable None Clearly Audible None None None None None None None Non	Noticable Clearly Audible Clearly Audible Clearly Audible Clearly Audible Clearly Audible Noticable Noticable Clearly Audible Clearly Audible Noticable





	7424																					
NCA02	29	"7-8 BERYL ST, WESTMEAD"	1	RES	59	54	52	42			43	52	0	0	0	1	-	1	None	None	None	Noticable
	7424																					
NCA02	04	"7 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42	Y		48	58	0	0	0	6	-	6	None	None	None	Noticable
	7424																					
NCA02	03	"7 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42	Y		47	56	0	0	0	5	-	5	None	None	None	Noticable
	7423																					
NCA02	69	"10 PRIDDLE ST, WESTMEAD"	4	RES	59	54	52	42	Y		45	55	0	0	0	3	-	3	None	None	None	Noticable
	7423																					
NCA02	68	"10 PRIDDLE ST, WESTMEAD"	3	RES	59	54	52	42	Y		44	53	0	0	0	2	-	2	None	None	None	Noticable
	7422																					
NCA02	76	"9-11 PRIDDLE ST, WESTMEAD"	3	RES	59	54	52	42	Y		45	55	0	0	0	3	-	3	None	None	None	Noticable
	7422	PARRAMATTA GOLF CLUB																				
NCA02	57	GATEHOUSE 7 PARK PD	1	RES	59	54	52	42	Y		48	57	0	0	0	6	-	6	None	None	None	Noticable
	7422																					
NCA02	23	"4 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	42	Y	Y	57	67	0	3	5	15	2	15	None	Noticable	Noticable	Clearly Audible
	7422																					
NCA02	22	"4 ALEXANDRA AV, WESTMEAD"	1	RES	59	54	52	42	Y	Y	56	66	0	2	4	14	1	14	None	Noticable	Noticable	Clearly Audible
	7421																					
NCA02	92	"8 PRIDDLE ST, WESTMEAD"	2	RES	59	54	52	42	Y		46	55	0	0	0	4	-	4	None	None	None	Noticable
	7421																					
NCA02	91	"8 PRIDDLE ST, WESTMEAD"	1	RES	59	54	52	42	Y		46	55	0	0	0	4	-	4	None	None	None	Noticable
	7421																					
NCA02	76	"12 OAKES ST, WESTMEAD"	3	RES	59	54	52	42	Y		43	53	0	0	0	1	-	1	None	None	None	Noticable
	7421																					
NCA02	/5	"12 OAKES ST, WESTMEAD"	2	RES	59	54	52	42			43	52	0	0	0	1	-	1	None	None	None	Noticable
NCAOD	/421			DEC	50	54	52	42			42	52			0	1		1	News	News	News	Netiselle
NCAUZ	74	12 OAKES ST, WESTIVIEAD	1	RES	59	54	52	42			43	52	0	U	0	1	-	1	None	None	None	Noticable
NCAOD	/420		2	DEC	50	54	52	42	v		47	50			0	-		-	News	News	News	Netiselle
NCAUZ	88	6-10 OAKES ST, WESTMEAD		RES	59	54	52	42	Ŷ		47	50	0	U	0	5	-	5	None	None	None	Noticable
NCAO2	/420		2	DEC	50	F.4	52	42	v		47	56	0	0	0	-		-	Nana	Nana	Nana	Nationalo
INCAUZ	0/ 7420	6-10 OAKES ST, WESTIVIEAD	2	RES	29	54	52	42	Ť		4/	50	0	U	U	5	-	5	None	None	inone	NOLICADIE
NCA02	7420 86	"6-10 OAKES ST WESTMEAD"	1	DEC	50	54	52	12	v		16	55	0	0	0	4		Λ	None	None	None	Noticable
INCAU2	7420	0-10 OAKES ST, WESTIVIEAD	- 1	REJ	55	54	52	42	I		40		0	U	U	4	-	4	NULLE	none	inone	Modoratoly
NCA02	7420 84	"3 ALEXANDRA AV, WESTMEAD"	2	RES	59	54	52	12	v	v	63	72	4	٩	11	21	7	21	Noticable	Noticable	Clearly Audible	Intrusive
NCAU2	7/20	S ALLANDIA AV, WESTWILAD		nLJ	35	54	52	72			05	12		5			,	~ ~ ~	Noticable	Noticable		incrusive
NCA02	83	"3 ALEXANDRA AV WESTMEAD"	1	RES	59	54	52	42	v	Y	61	71	2	7	9	19	6	19	Noticable	Noticable	Noticable	Clearly Audible
110/102	00	STREET AND WITH A STREET		1123		34	52	74			V1	/ 1	-	· ·	, , , , , , , , , , , , , , , , , , ,	1.7	v		Hoticabic	Hoticabic	Hoticubic	s.curry / uuibic

C-2.2 Vibration

NCA	Receiver	Address	Land use	Vibra

ation Impact