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# 531 COBBITTY ROAD, COBBITTY

## Road traffic noise investigation

1 February 2022

Mirvac Homes (NSW)

TM504-01F02 Road traffic noise investigation (r2)

35 1982-2017 ACOUSTIC ENGINEERING EXCELLENCE

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# 1 Introduction

Renzo Tonin & Associates was engaged by Mirvac Homes to conduct an acoustic assessment of the road traffic noise impact onto the proposed residential subdivision at 531 Cobbitty Road, Cobbitty. The proposed overall subdivision will consist of 950 allotments, in addition to the construction of a series of east/west and north/south aligned local roads to service the residential lots.

It is understood that the road traffic noise assessment is to support the Development Application (DA) for the site and address comments raised by Camden Council's (Council) Request for Information (RFI) dated 3 September 2021.

Detailed lot layout plans for 282 allotments on the southern portion of the site towards Cobbitty Road were received by email on 23 December 2021 (document reference: 21-0258-01-SK-010-011 REV 01). Further plans for the proposed future allotments across the entire site were received as a CAD file via email on 24 January 2022 (document reference: Cobbity Subdivisions-Rev3b).

The main sources of noise affecting the proposed development is road traffic along Cobbitty Road and the future extension of Charles McIntosh Parkway. Camden Airport is located 3.8km to the south-west of the proposed site. However, as Council's RFI is specific to road traffic noise, no assessment of aircraft noise is deemed necessary for this assessment.

APPENDIX A contains a glossary of acoustic terms used in this report.

# 2 Site description

Land zoning for the State Environmental Planning Policy South West Growth Centre (2006) (SEPP) indicates that the land within the proposed site is zoned as R1 General Residential and C4 Environmental Living. This is presented in Figure 1.

It Is anticipated that a total of 282 residential lots will be created within the southern portion of the site. 252 planned subdivided lots are located on the eastern portion of the site bound by Cobbitty Road and the future planned extension of Charles McIntosh Parkway. The remaining 30 residential subdivisions are located west of the planned road extension along Cobbitty Road.

Nearby existing roads to the site include Cobbitty Road to the south, Charles McIntosh Parkway to the north in addition to The Northern Road arterial road to the far east.

A layout of the proposed subdivision as received by email on 24 January 2022 is shown in Figure 2 below.

**Figure 1: South West Growth Centre SEPP (2006) land zoning**

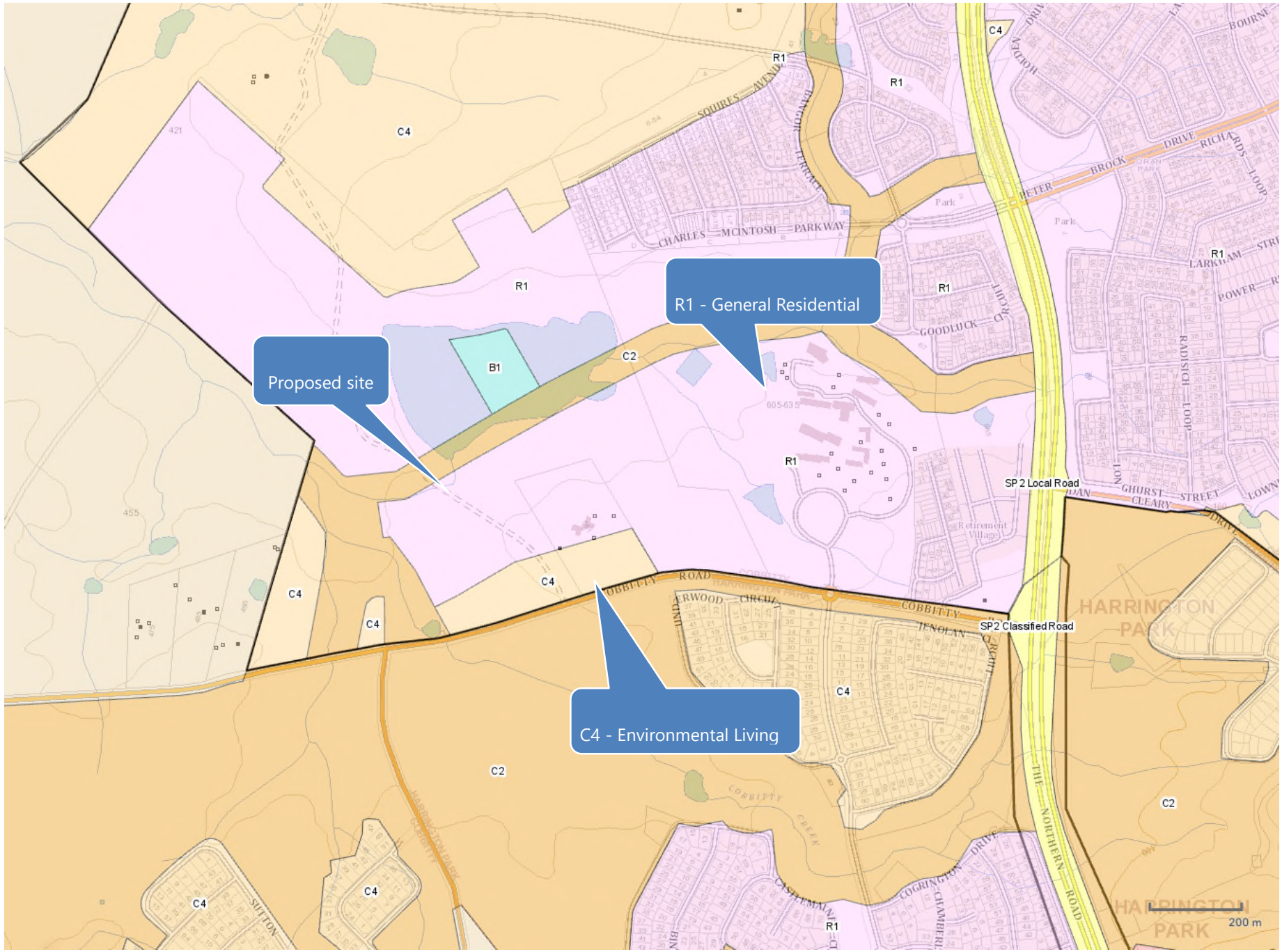
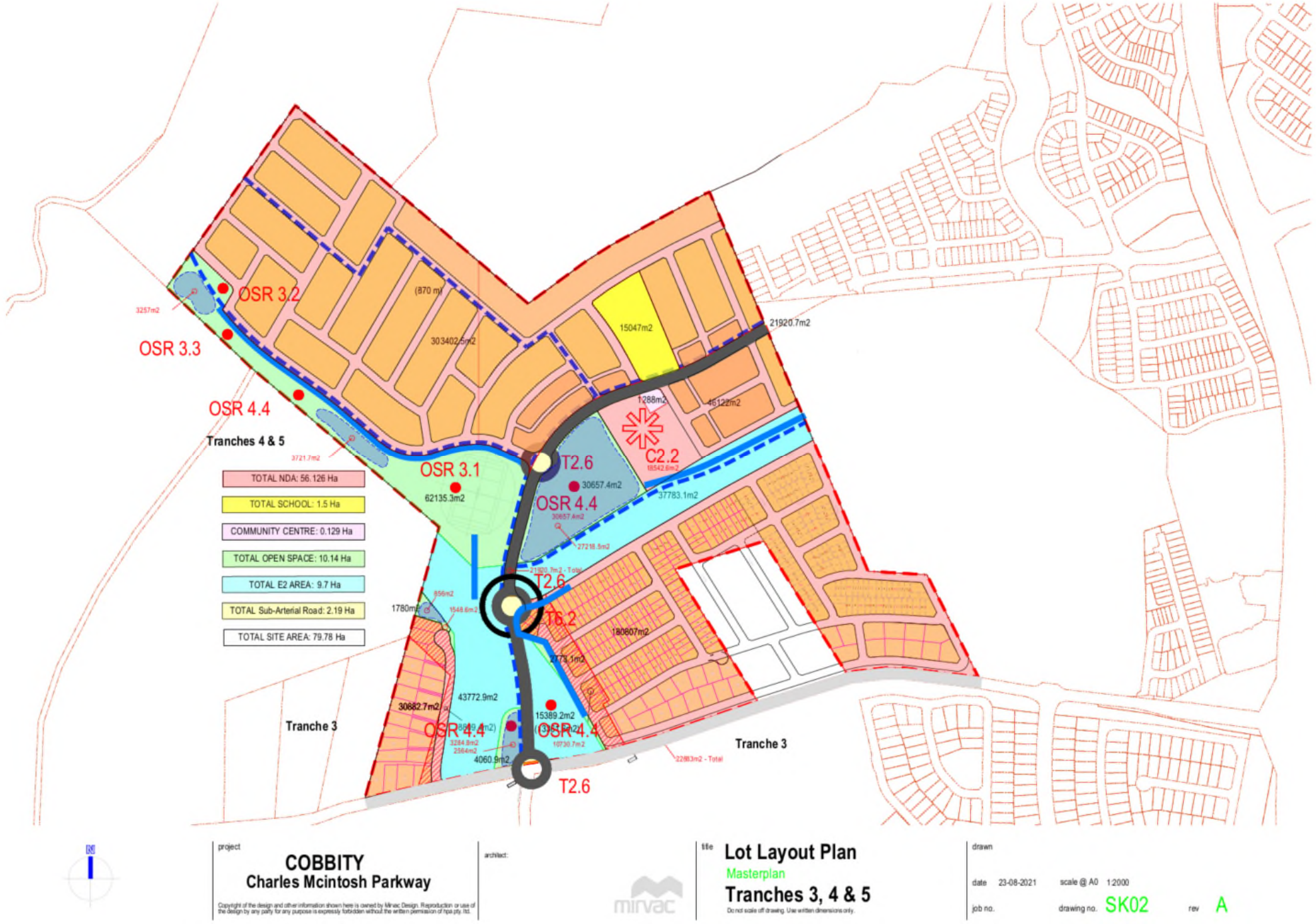


**Figure 2: Proposed subdivision layout**



# 3 Noise Criteria

## 3.1 Camden Council Request for Information

In their RFI, Council raised the following comments regarding the proposed site.

*"An acoustic assessment of road traffic noise impact on future residential dwellings is to be undertaken in accordance with Council's Environmental Noise Policy. Recommendations for noise mitigation for each affected future residential dwelling or other sensitive land use will be required as part of the reporting."*

As such, to best respond to the RFI, this assessment is concerned with impacts on proposed and future residential allotments. Given that most of the planned future lots are at an early design stage, sensitive land uses will be designed based on the predicted noise levels once further detailed design of the future lots are known.

## 3.2 Oran Park Precinct Development Control Plan 2007

The proposed residential subdivision is within the Oran Park South West Growth Area. The SEPP refers to the Oran Park Precinct Development Control Plan 2007.

The Oran Park Precinct Development Control Plan 2007 (DCP 2007) aims to reduce potential noise and vibration impacts by identifying the conditions where an acoustic assessment may be required. It also details which policies and guidelines should be used to inform the assessment.

Control 1 in Section 6.9 of DCP 2007 addresses road traffic noise and states:

1. *Residential development shall be designed to comply with Council's Environmental Noise Policy that incorporates DECC's Environmental Criteria for Road Traffic Noise. However, for residential development adjoining sub-arterial and collector roads, where external traffic noise level limits will be exceeded at the façade of the residential premises nearest to the noise source, the development will be deemed to comply with Council's Environmental Noise Policy if:*

    - *the principal private open space area of the residential premises complies with the relevant noise limit, and*

    - *the internal noise levels identified in sub-clause (2) are achieved.*

It Is noted that the internal levels in sub-clause (2) identified in Control 1 of DCP 2007, correspond to the DECC NSW Road Noise policy (RNP), which does not offer noise criteria for new residences to be built near existing or upgraded roads.

## 3.3 Department of Planning 'Development near rail corridors and busy roads – interim guideline'

The Infrastructure SEPP (ISEPP) has been used to set appropriate road traffic noise criteria for the proposed subdivision.

To support the ISEPP, the NSW Department of Planning released the *Development near Rail Corridors and Busy Roads – Interim Guideline* (December 2008). The Guideline assists in the planning, design and assessment of developments in, or adjacent to, major transport corridors in terms of noise, vibration and air quality. While the ISEPP applies only to roads with an annual average daily traffic (AADT) greater than 40,000 vehicles, the guideline is also recommended for other road traffic noise affected sites.

## 3.4 Clarification of ISEPP noise limits

The Guideline clarifies the time period of measurement and assessment. Section 3.4 '*What Noise and Vibration Concepts are Relevant*' and Table 3.1 of Section 3.6.1 confirms that noise assessment is based over the following time periods:

- Daytime 7:00am - 10:00pm $L_{Aeq(15hr)}$
- Night-time 10:00pm - 7:00am $L_{Aeq(9hr)}$

The noise criteria nominated in the ISEPP apply to internal noise levels with windows and doors closed. However, as the preliminary noise assessment is based on predictions at external locations, equivalent external noise criteria has been established. The equivalent external noise criterion is used to determine which areas of the development may require acoustic treatment in order to meet the internal noise requirements of the ISEPP. The equivalent external goals have been determined on the following basis:

- The ISEPP states: "*If internal noise levels with windows or doors open exceed the criteria by more than 10dBA, the design of the ventilation for these rooms should be such that occupants can leave windows closed, if they so desire, and also to meet the ventilation requirements of the Building Code of Australia*." The internal criteria with windows open is therefore 10dB(A) above the criteria explicitly outlined in the ISEPP.
- The generally accepted noise reduction through an open window from a free-field external position is 10dB(A). Windows/doors are assumed to be open no more than 5% of room floor area, in accordance with the Building Code of Australia (BCA) ventilation requirements.

Table 1 presents the ISEPP internal noise criteria along with the equivalent external noise criteria for residential premises.

**Table 1: ISEPP noise criteria for new residential development**

| Room | Location | $L_{Aeq,\ 15hr}$ Day 7am – 10pm | $L_{Aeq\ 9hr}$ Night 10pm – 7am |
|---|---|---|---|
| Living rooms* | Internal, windows closed | 40 | 40 |
| | Internal, windows open | 50 | 50 |
| | External free-field (allowing windows to remain open)^ | 60 | 60 |
| Bedrooms* | Internal, windows closed | 40 | 35 |
| | Internal, windows open | 50 | 45 |
| | External free-field (allowing windows to remain open)^ | 60 | 55 |

Notes: * Requisite for 40,000 AADT roads only under ISEPP 2007.

^ ISEPP Guideline states that where internal noise criteria are exceeded by more than 10dB(A) with windows open mechanical ventilation is required. External goals have been calculated on the basis of nominal 10dB(A) reduction through an open window to a free-field position. Windows open to 5% of floor area in accordance with the NCC 2019 requirements.

# 4 Road traffic noise assessment

## 4.1 Traffic flow and composition

To conduct an acoustic assessment for the site, traffic flows along Cobbitty Road and the future extension of Charles McIntosh Parkway are required.

Peak hour traffic flows along Cobbitty Road were obtained from the response to Council's RFI by SCT Consulting (SCT). SCT based on a future 2036 forecast that Cobbitty Road could carry up to 600 vehicles per hour in each direction during the peak hours.

Worst case peak hour traffic volumes along Charles McIntosh Parkway were obtained from the traffic and transport assessment provided by email on 31 January 2022 (document reference: northern-road-ref-appendix-j-3). The traffic assessment predicted that Charles McIntosh parkway could carry 853 vehicles travelling southbound towards Cobbitty Road and 594 Vehicles travelling northbound from Cobbitty Road to The Northern Road.

The following assumptions were used consistent with previous assessments conducted by Renzo Tonin & Associates for the Oran Park Precinct:

- Peak hour traffic volumes are 10% of the 24hr volume;
- The 15hr daytime volume is 85% of the 24hr volume;
- Percentage of heavy vehicles in traffic mix is assumed to be 5%.

The traffic volumes used for the acoustic assessment are presented in Table 2. It is noted that variations in the actual traffic volumes, in particular heavy vehicle percentages, will affect the traffic noise exposure. A sensitivity assessment could be undertaken during the detail design phase of the development.

**Table 2: Traffic volumes and compositions**

| Road | Direction | Day (7am to 10pm) | | Night (10pm to 7am) | | |
|---|---|---|---|---|---|---|
| | | Peak vehicles/hr | % Heavy vehicles[2] | Peak vehicles/hr | % Heavy vehicles[2] | Speed, km/h[1] |
| Cobbitty Road | Eastbound | 600 | 5 | 90 | 5 | 80 |
| | Westbound | 600 | 5 | 90 | 5 | 80 |
| Charles McIntosh Parkway | Northbound | 594 | 5 | 89 | 5 | 60[3] |
| | Southbound | 853 | 5 | 128 | 5 | 60[3] |

Notes:
1. Posted speed
2. Assumed heavy vehicle percentage
3. Assumed vehicle speed

While both 'day' and 'night' traffic noise goals are to be satisfied, the daytime traffic goals are more likely to be exceeded in a developed residential area. This corresponds with the assumed traffic distribution. Night-time road traffic noise levels are likely to create greater impact only where the night-time percentage of heavy vehicles is significantly higher than the daytime period.

## 4.2 Road noise prediction model

Noise predictions are based on a method developed by the United Kingdom Department of Environment titled "Calculation of Road Traffic Noise (1988)" known as the CoRTN (1988) method. This method has been adapted to Australian conditions and extensively tested by the Australian Road Research Board and as a result it is recognised and accepted by the Environment Protection Authority. The model predicts noise levels for steady flowing traffic and noise from high truck exhausts is also considered.

The CoRTN algorithms are contained within the CadnaA noise modelling software which has been used to calculate traffic noise levels at receivers. The noise prediction model accounts for the following:

**Table 3: Summary of modelling inputs**

| Input parameters | Data acquired from |
|---|---|
| Traffic volumes and mix | Day and night volumes as detailed in Table 2 |
| Vehicle speed | Posted speed limit as detailed in Table 2 |
| Gradient of roadways | Based upon 3D topographic data obtained from NSW Land and Property Information |
| Source height | 0.5 metre as per standard CoRTN algorithms |
| Ground topography | 3D topographic data obtained from Land and Property Information |
| Ground absorption | 0.5 (to represent part hardstand road/footpath and part landscaped area |
| Receiver heights | 1.5 m above ground level for ground floor,<br>4.5 m above ground level for first floor |
| Facade correction | N/A |
| Acoustic properties of road surfaces | Dense graded asphalt, +0 dB correction |

## 4.3 Noise modelling assumptions

The following assumptions were adopted for noise modelling:

- Indicative building envelopes on each lot as per the subdivision layout in Figure 2. Front and rear property setbacks for each building envelope are generally in accordance with Section 7.6.1 of the Oran Park Precinct Development Control Plan (2007).
- Each building is assumed a two-storey dwelling with a total height of 6m above ground level.

- Residential floor areas and window sizes are assumed to not exceed those outlined in Appendix B of the Department of Planning "Development near Rail Corridors and Busy Roads - Interim Guideline".
- Proposed future primary school and community centre were assumed to be buildings with a height of three metres as indicated in Figure 2. More detailed modelling of these sites can occur once detailed plans are available.

## 4.4 Noise modelling results

Noise modelling was conducted for both ground and first floor receivers for the daytime period. The generated road traffic noise contours from Cobbitty Road and Charles McIntosh Parkway are presented in Figure 3.

Building treatment recommendations for the site are derived from the noise model results and are presented in Figure 5 and Figure 6. Each category and its required facade sound reduction performance and construction details are summarised in APPENDIX B.

The noise model results show that for allotments on the southern section of the site near Cobbitty Road, 42 future dwellings will require facade treatment of at least Category 1. Of those, 30 dwellings will require treatment of at least Category 2, with future residential lots facing Cobbitty Road requiring facade treatment of Category 4. Of the lots presently proposed under the current stage of the subdivision, Lots 68, 88 and 89 will require Category 1 treatments as presented in Figure 5 and Figure 6.

For allotments on the northern section of the site near Charles McIntosh Parkway, the noise model results indicate that dwellings facing towards the road will require facade treatment of Category 4 or Category 5. 14 future residential lots will require facade treatment of at least Category 1. Of those, nine dwellings will require treatment of at least Category 2.

To achieve the ISEPP ventilation requirements, any room on a facade with treatment Category 2 or higher would require ventilation that allows windows and doors to remain closed.

**Figure 3: Predicted road traffic noise levels at first floor facades, Day**

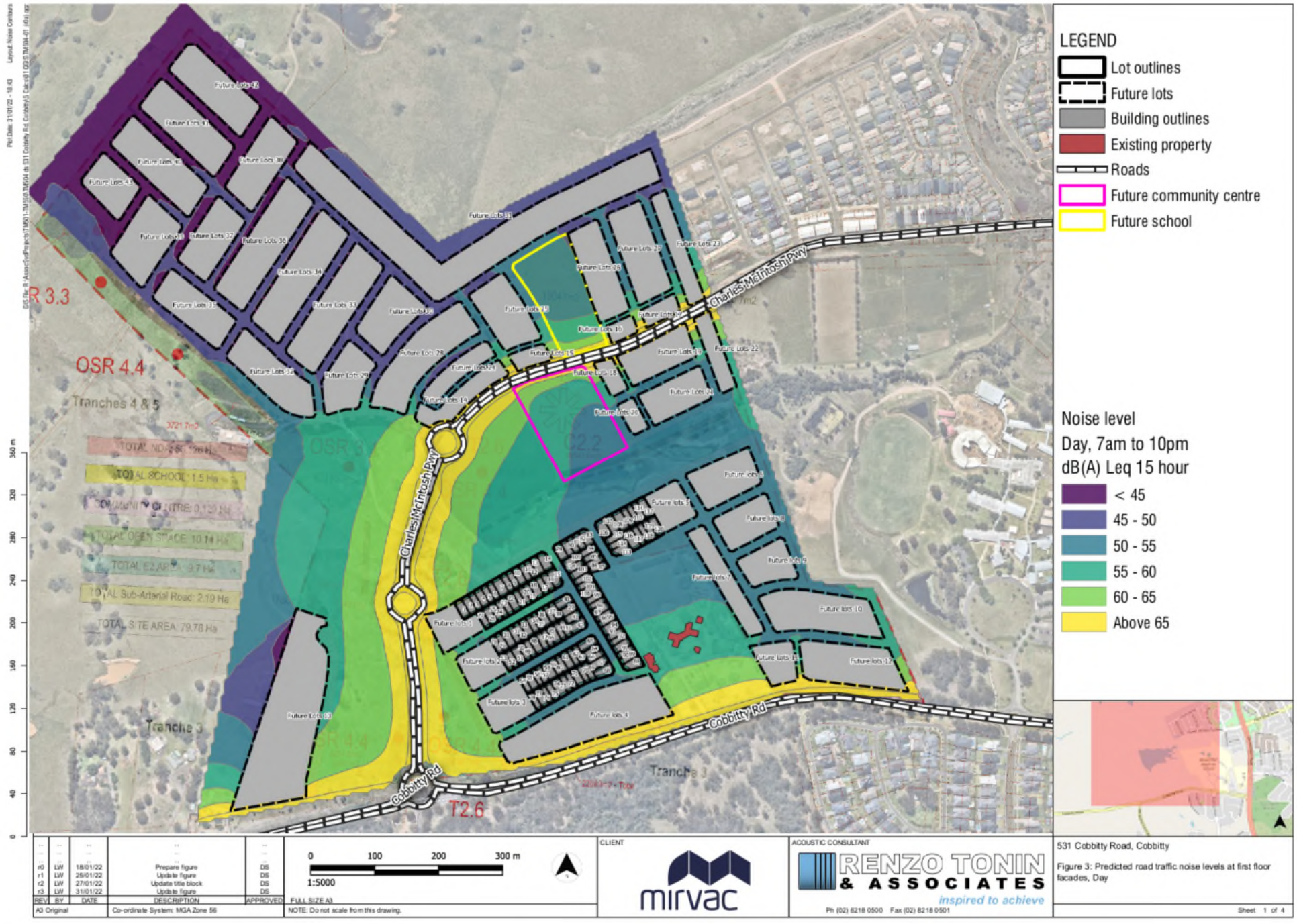


**Figure 4: Predicted road traffic noise levels at ground floor facades, Day**

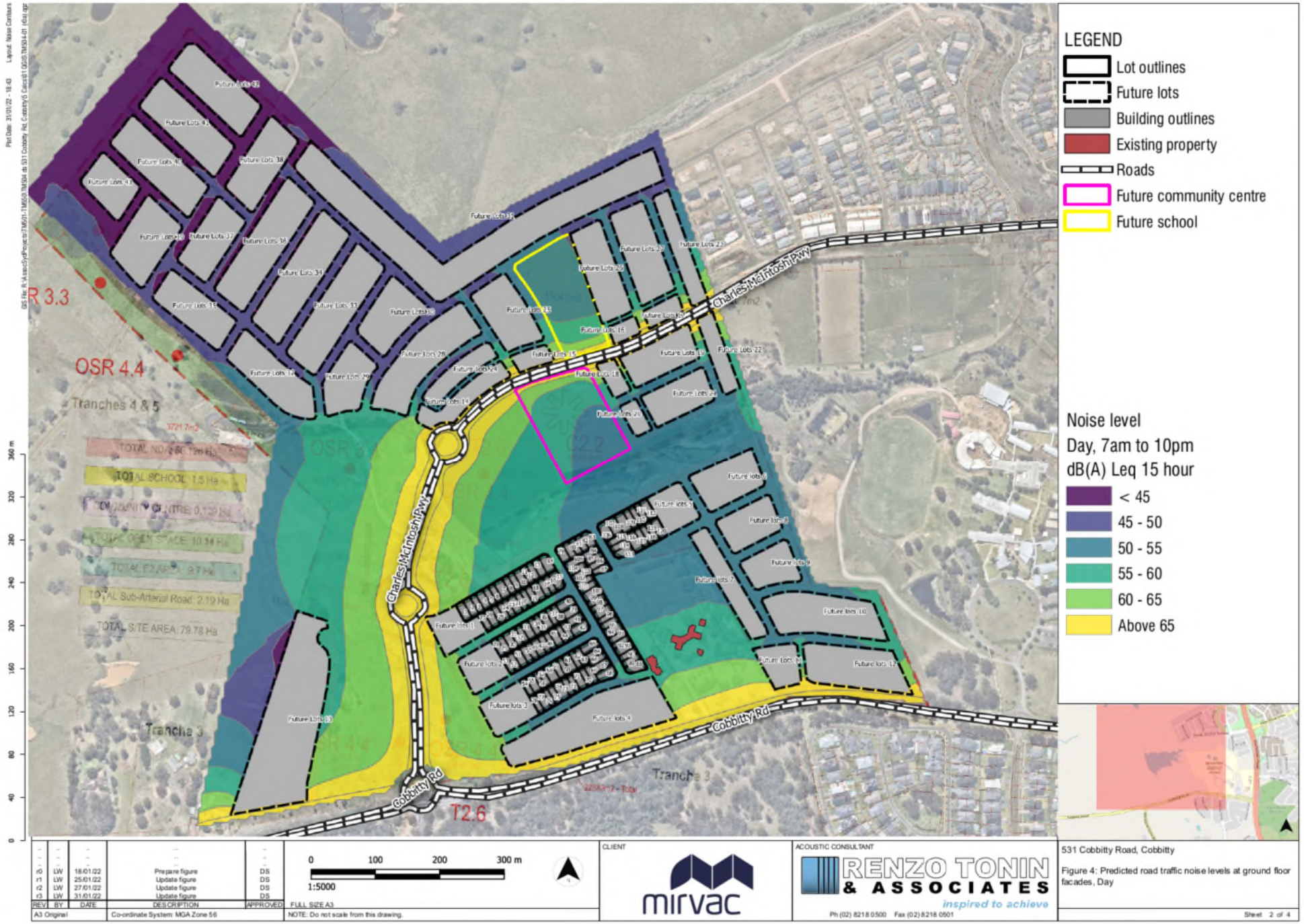


**Figure 5: Treatment categories at ground floor facades**

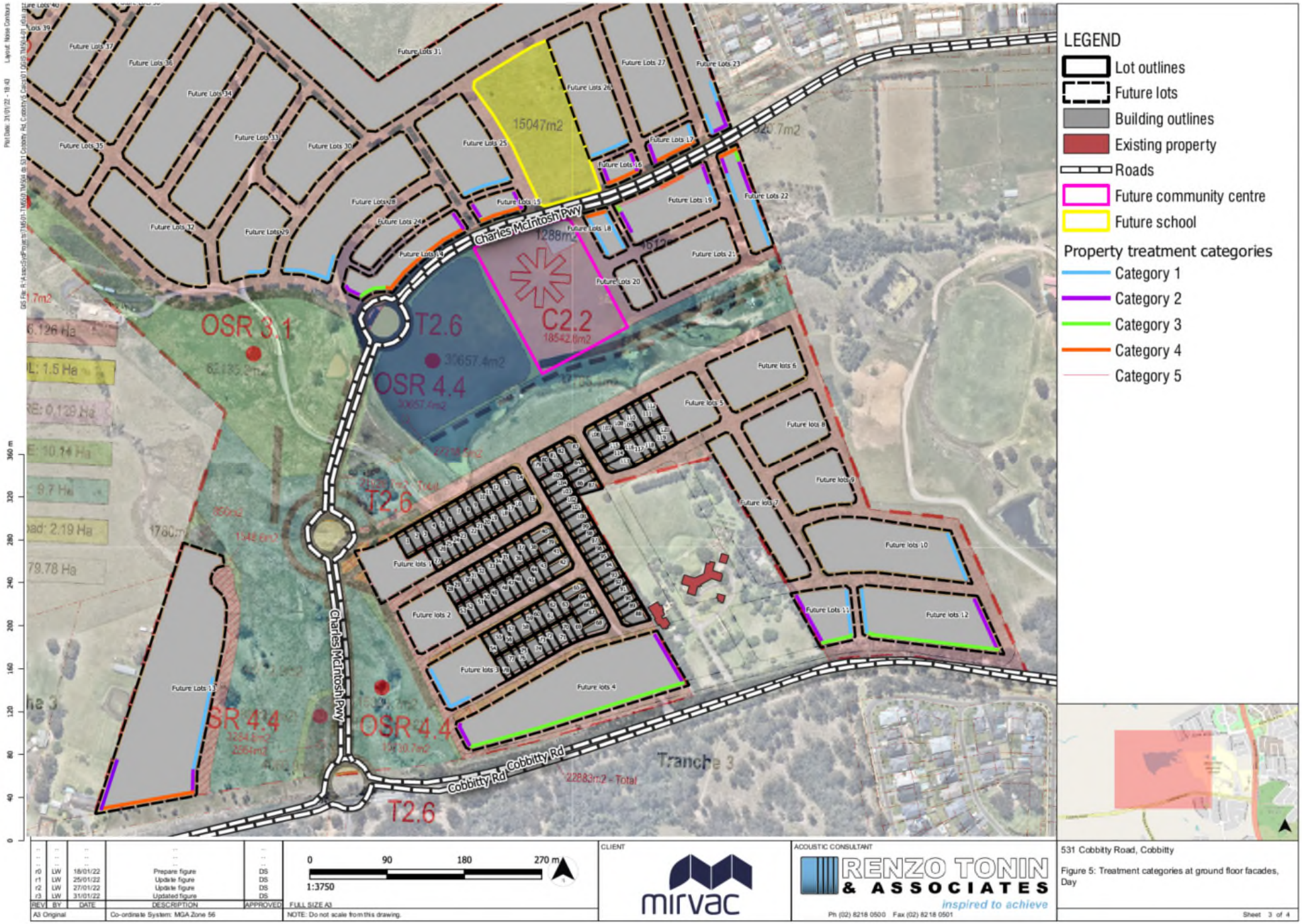
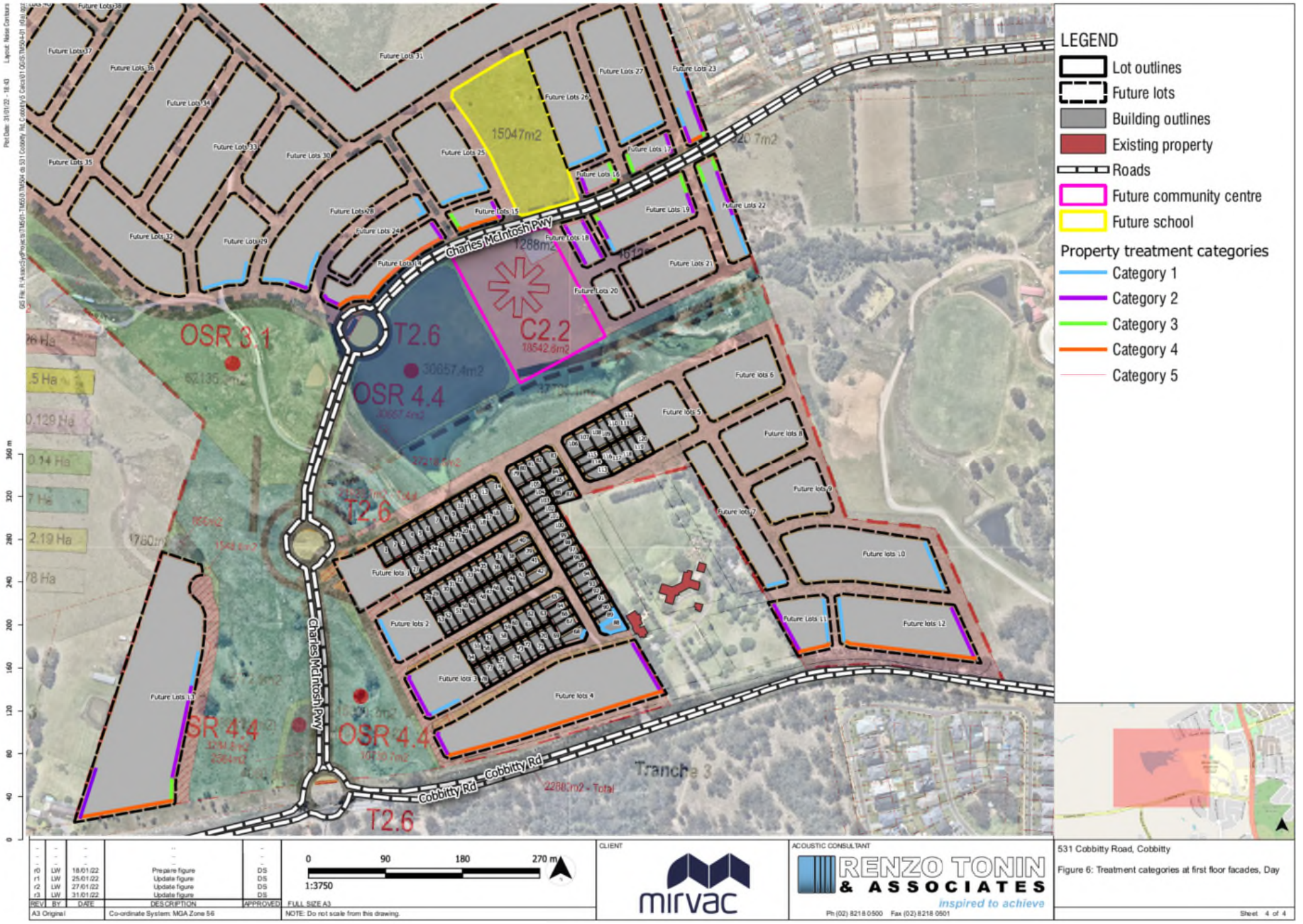


**Figure 6: Treatment categories at first floor facades**



# 5 Conclusion

Potential noise impacts have been identified and assessed for the proposed residential subdivision at 531 Cobbitty Road, Cobbitty. Road traffic noise from Cobbitty Road and Charles McIntosh Parkway has been considered.

Based on the noise modelling and indicative building envelopes, future dwellings will require facade treatment to control road traffic noise ingress in accordance with the ISEPP and the Department of Planning "*Development in Rail Corridors and Busy Roads – Interim Guideline*". Facade treatments have been considered for both future planned lots and present proposed residential subdivisions.

The recommended treatments can be achieved using standard building materials and techniques.

# APPENDIX A Glossary of terminology

The following is a brief description of the technical terms used to describe noise to assist in understanding the technical issues presented.

| | |
|---|---|
| Adverse weather | Weather effects that enhance noise (that is, wind and temperature inversions) that occur at a site for a significant period of time (that is, wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of the nights in winter). |
| Ambient noise | The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far. |
| Assessment period | The period in a day over which assessments are made. |
| Assessment Point | A point at which noise measurements are taken or estimated. A point at which noise measurements are taken or estimated. |
| Background noise | Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level (see below). |
| Decibel [dB] | The units that sound is measured in. The following are examples of the decibel readings of common sounds in our daytime environment: |

| | | |
|---|---|---|
| threshold of hearing | 0 dB | The faintest sound we can hear |
| | 10 dB | Human breathing |
| almost silent | 20 dB | |
| | 30 dB | Quiet bedroom or in a quiet national park location |
| generally quiet | 40 dB | Library |
| | 50 dB | Typical office space or ambience in the city at night |
| moderately loud | 60 dB | CBD mall at lunch time |
| | 70 dB | The sound of a car passing on the street |
| loud | 80 dB | Loud music played at home |
| | 90 dB | The sound of a truck passing on the street |
| very loud | 100 dB | Indoor rock band concert |
| | 110 dB | Operating a chainsaw or jackhammer |
| extremely loud | 120 dB | Jet plane take-off at 100m away |
| threshold of pain | 130 dB | |
| | 140 dB | Military jet take-off at 25m away |

| | |
|---|---|
| dB(A) | A-weighted decibels. The A- weighting noise filter simulates the response of the human ear at relatively low levels, where the ear is not as effective in hearing low frequency sounds as it is in hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. |
| dB(C) | C-weighted decibels. The C-weighting noise filter simulates the response of the human ear at relatively high levels, where the human ear is nearly equally effective at hearing from mid-low frequency (63Hz) to mid-high frequency (4kHz), but is less effective outside these frequencies. |

| | |
|---|---|
| Frequency | Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz. |
| Impulsive noise | Having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise. |
| Intermittent noise | The level suddenly drops to that of the background noise several times during the period of observation. The time during which the noise remains at levels different from that of the ambient is one second or more. |
| $L_{Max}$ | The maximum sound pressure level measured over a given period. |
| $L_{Min}$ | The minimum sound pressure level measured over a given period. |
| $L_1$ | The sound pressure level that is exceeded for 1% of the time for which the given sound is measured. |
| $L_{10}$ | The sound pressure level that is exceeded for 10% of the time for which the given sound is measured. |
| $L_{90}$ | The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A). |
| $L_{eq}$ | The "equivalent noise level" is the summation of noise events and integrated over a selected period of time. |
| Reflection | Sound wave changed in direction of propagation due to a solid object obscuring its path. |
| SEL | Sound Exposure Level (SEL) is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations. |
| Sound | A fluctuation of air pressure which is propagated as a wave through air. |
| Sound absorption | The ability of a material to absorb sound energy through its conversion into thermal energy. |
| Sound level meter | An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels. |
| Sound pressure level | The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone. |
| Sound power level | Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power. |
| Tonal noise | Containing a prominent frequency and characterised by a definite pitch. |

# APPENDIX B Building Treatment Categories

The dwellings in the proposed development will require facade treatment to achieve suitable internal noise levels. The facade treatment recommendations are shown in Figure 5 and Figure 6. The recommendations are for both ground and first floor and are applicable to bedrooms and living rooms.

Table 4 details the facade treatment categories and recommended constructions. The facade recommendations assume room volumes and areas as per Table B1 of the ISEPP Guideline.

**Table 4: Treatment categories**

| Category No. | Building Element | Required Acoustic Rating of Building Element, Rw | Construction Recommendation | | |
|---|---|---|---|---|---|
| 1 | Windows / Sliding Doors | 24+ | Openable with minimum 4mm monolithic glass and standard weather seals | | |
| | Facade | 38+ | Cladding Construction: 9mm fibre cement sheeting or weatherboards or plank cladding externally, 90mm timber stud, R2 insulation batts in wall cavity, 10mm standard plasterboard internally. | Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonry and stud frame, R2 insulation batts in wall cavity, 10mm standard plasterboard internally. | Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap. |
| | Roof | 40+ | Pitched concrete or terracotta tile or metal sheet roof, 10mm plasterboard ceiling fixed to ceiling joists, bulk insulation in roof cavity. | | |
| | Door | 28+ | 35mm solid core timber door fitted with full perimeter acoustic seals | | |
| 2 | Windows / Sliding Doors | 27+ | Openable with minimum 6mm monolithic glass and full perimeter acoustic seals | | |
| | Facade | 45+ | Cladding Construction: 9mm fibre cement sheeting or weatherboards or plank cladding externally, 90mm timber stud, R2 insulation batts in wall cavity, 10mm standard plasterboard internally. | Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonry and stud frame, R2 insulation batts in wall cavity, 10mm standard plasterboard internally. | Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap. |
| | Roof | 43+ | Pitched concrete or terracotta tile or metal sheet roof, 10mm plasterboard ceiling fixed to ceiling joists, bulk insulation in roof cavity. | | |
| | Door | 30+ | 40mm solid core timber door fitted with full perimeter acoustic seals | | |
| 3 | Windows / Sliding Doors | 32+ | Openable with minimum 6.38mm laminated glass and full perimeter acoustic seals | | |
| | Facade | 52+ | Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonry and stud frame, R2 insulation batts in wall cavity, 10mm standard plasterboard internally. | | Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap. |

| Category No. | Building Element | Required Acoustic Rating of Building Element, Rw | Construction Recommendation |
|---|---|---|---|
| | Roof | 48+ | Pitched concrete or terracotta tile or sheet metal roof, 1 layer of 13mm sound-rated plasterboard fixed to ceiling joists, bulk insulation in roof cavity. |
| | Door | 33+ | 45mm solid core timber door fitted with full perimeter acoustic seals |
| 4 | Windows / Sliding Doors | 35+ | Openable with minimum 10.38mm laminated glass and full perimeter acoustic seals |
| | Facade | 55+ | Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonry and stud frame, R2 insulation batts in wall cavity, 10mm standard plasterboard internally. Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap. |
| | Roof | 52+ | Pitched concrete or terracotta tile or sheet metal, 2 layers of 13mm sound-rated plasterboard fixed to ceiling joists, bulk insulation in roof cavity. |
| | Door | 33+ | 45mm solid core timber door fitted with full perimeter acoustic seals |
| 5 | Windows / Sliding Doors | 43+ | Openable Double Glazing with separate panes: 5mm monolithic glass, 100mm air gap, 5mm monolithic glass with full perimeter acoustic seals. |
| | Frontage Facade | 55+ | Cavity Brick Construction:<br>2 leaves of 110mm brickwork separated by 50mm gap with cement render to the external face of the wall and cement render or 13mm plasterboard direct fixed to internal faces of the wall." |
| | Roof | 55+ | Pitched concrete or terracotta tile or sheet metal roof with sarking, 2 layers of 10mm sound-rated plasterboard fixed to ceiling joist using resilient mounts, R2 insulation batts in roof cavity. |
| | Door | 40+ | "High performance acoustic door required - Consultant an Acoustic Engineer" |
| | Floor | 50+ | Concrete slab floor on ground |

Notes:

- Where a room has different category recommendations on two or more facades, the roof recommendation for the highest category applies.
- Any wall, roof or ceiling penetrations shall be acoustically sealed so as not to reduce the acoustic performance of the element.
- The acoustic performance of glazed doors should be in accordance with the window glazing requirement of the applicable category.
- Development Near Rail Corridors and Busy Roads – Interim Guideline recommends solid core timber doors of 45mm thickness for treatment categories 3 and 4. To align with current industry construction methods, solid core door recommendations have been limited to no more than 40mm thickness.

The required acoustic rating is for the entire system. For example, for windows this includes the glass, frame and seals including the perimeter seal at the wall junction.

By way of explanation, the Sound Insulation Rating Rw is a measure of the noise reduction property of the glazing assembly, a higher rating implying a higher sound reduction performance.

Note that the Rw rating of systems measured as built on site (R'w Field Test) may be up to 5 points lower than the laboratory result.

The client is advised not to commence detailing or otherwise commit to systems which have not been tested in an approved laboratory or for which an opinion only is available. Testing of systems and assemblies is a component of the quality control of the design process and should be viewed as a priority because there is no guarantee the forecast results will be achieved. No responsibility is taken for use of or reliance upon untested systems, estimates or opinions. The advice provided here is in respect of acoustics only.

The advice provided here is in respect of acoustics only. Supplementary professional advice may need to be sought in respect of fire ratings, structural design, buildability, fitness for purpose and the like.

| Category No. | Building Element | Required Acoustic Rating of Building Element, Rw | Construction Recommendation |
|---|---|---|---|
| NOTES FOR GLAZING CONSTRUCTIONS:<br>All openable glass windows and doors shall incorporate full perimeter acoustic seals equivalent to Q-Lon, which enable the Rw rating performance of the glazing to not be reduced.<br>The above glazing thicknesses should be considered the minimum thicknesses to achieve acoustical ratings. Greater glazing thicknesses may be required for structural loading, wind loading etc. | | | |
| GENERAL<br>The sealing of all gaps in acoustic rated glazing assemblies and facades is critical in a sound rated construction. Use only sealer approved by the acoustic consultant.<br>Check design of all junction details with acoustic consultant prior to construction.<br>Check the necessity for HOLD POINTS with the acoustic consultant to ensure that all building details have been correctly interpreted and constructed.<br>The information provided in this table is subject to modification and review without notice.<br>The advice provided here is in respect of acoustics only. Supplementary professional advice may need to be sought in respect of fire ratings, structural design, buildability, fitness for purpose and the like. | | | |