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Reference PKA12382 R02v2

Project Gertrude Street (182-186), North Gosford

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File PKA12382 R02v2 Addendum to DA Acoustic Report R01v1 dated 11th October 2022.docm



Dear Andy,

Re: Addendum to DA Acoustic Report R01v1 dated 11th October 2022

Introduction

PKA Acoustic Consulting (PKA) previously prepared an acoustic report ref. PKA12382 R02v1 dated 11th October 2022 (hereby referred to as the DA Acoustic Report) pertaining to the acoustic interaction of the proposed multi-residential development at 182-186 Gertrude Street, North Gosford. As part of the application process, a letter for request for information (RFI) was provided by the Department of Planning (ref. DA23/3021) dated 19th July 2023. This letter has been prepared to serve as an addendum to the DA Acoustic Report and to address the acoustic issues of the RFI.

PKA Response to “e. Acoustic privacy”

RFI: *The bedrooms of apartments 601 and 602 directly adjoin the rooftop communal open space and the bedrooms of apartments 205 and 207 and POS of apartment 205 are located above the driveway to the basement carpark. Provide an updated Acoustic Report which considers noise impacts to bedrooms and POS and if required, recommendations for noise mitigation.*

PKA Response:

Communal Area Noise to Level 6 Bedrooms:

Based on the review of the current layout of the architectural plans, the Master Bedroom of Apartments apartment 602 and 603 are directly adjacent to the proposed communal open space and Apartment 601 is now acoustically isolated from this area.

The bedrooms and living rooms of Apartment 601 are located away and significantly shielded from the Communal areas with sensitive areas leading to their own private open spaces and therefore, acoustic impact is readily mitigated.

The wall of Master Bedroom of Apartment 603 comprises of a glazed doors leading to their POS. To mitigate any noise impact from the communal area, PKA recommends that this door be upgraded to minimum R_w32 acoustic system (typically 6mm lam glass with perimeter silicon acoustic seals) in addition to the 1.8m proposed solid acoustic privacy screen in the P.O.S. It is recommended that this screen is built using a material that achieves a minimum $R_w 20$ (readily achieved with standard fibre-cement sheeting or Colorbond fencing), is of solid construction with no gaps or penetrations within the fence or at the structural bases.

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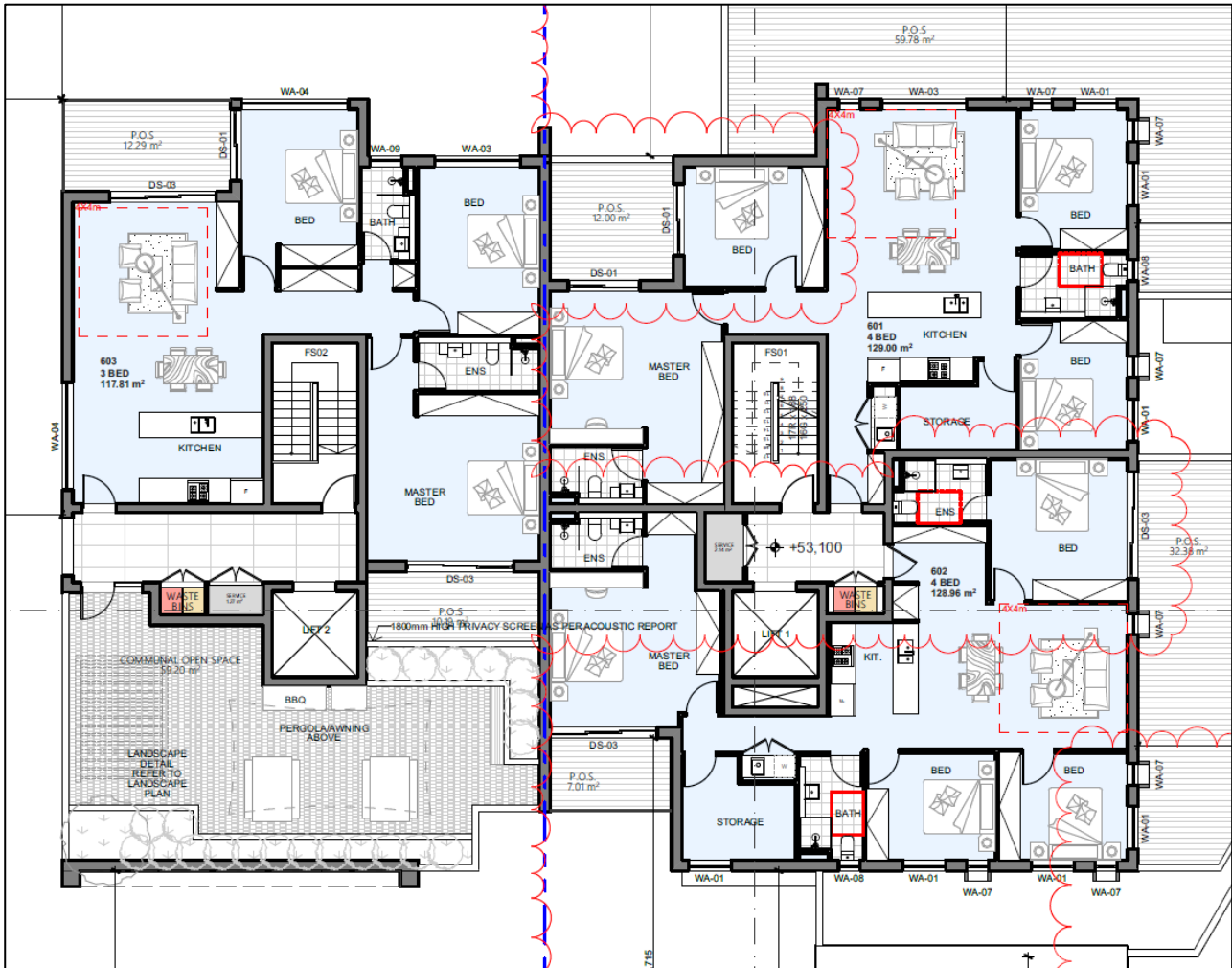
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Although the private open space of the balcony is located adjacently to the communal area, it is separated by a solid masonry wall that will significantly shield the noise impact from the use of the common spaces.

In addition to the above, it is recommended that the building management create procedures for the use of the communal space be limited to the hours of 7am to 9pm to prevent additional noise generation during the night-time period and provide acoustic privacy to the adjoining apartment during quiet hours.



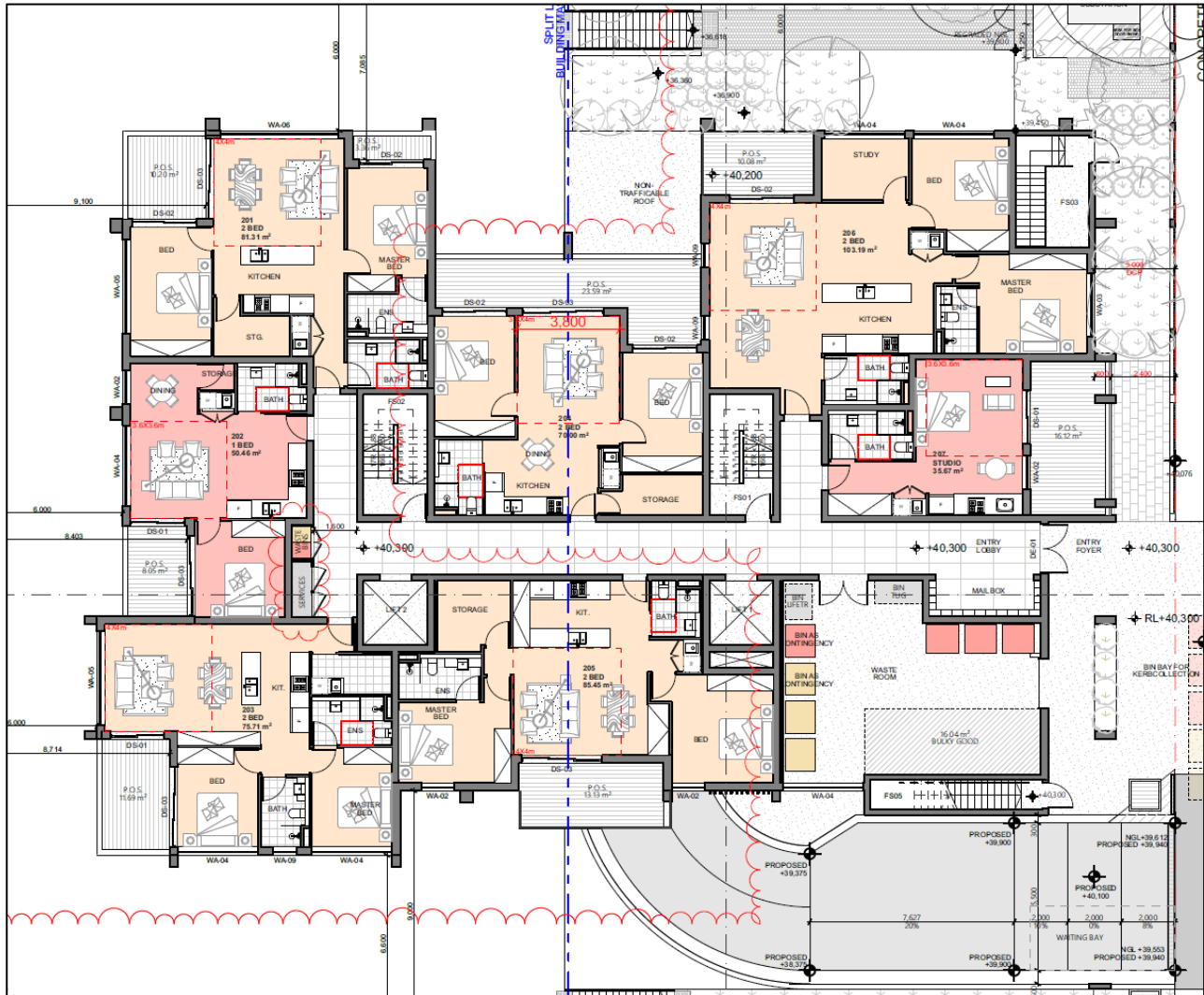
Carpark Noise to Apartments 205 and 207:

Generally, there are no acoustic provisions within guidelines to address noise intrusion from the use of the apartment driveway to within the building externally. However, as a general guide, the internal levels of the *AS2107:2016 Acoustics - Recommended design sound levels and reverberation times for building interiors* may be considered which provide indoor design levels of 35-40 dB(A) for internal habitable spaces. Averaged over periods of day and night acoustic compliance with these levels will be readily achieved with standard construction with no additional mitigation measures required.

For additional comfort, at the discretion of the client, the glazing on these façades may be upgraded to R_w 32 acoustic rated systems (typically 6mm lam glass with perimeter silicon acoustic seals) This

recommendation is in line with the optional acoustic upgrades indicated in the DA Acoustic Report (Section 6.1.3).

To mitigate noise from the carpark area to the habitable areas directly above, through the slab, the Building Code of Australia requires the separating wall to achieve a sound insulation rating of R_w 50 which is readily achieved by the proposed concrete slab.



RFI: A number of bedrooms directly adjoin the eastern lift core. Provide an updated Acoustic Report which considers whether there will be any noise impact the bedrooms from operation of the lift (including at night) and if required, provides mitigation measures.

PKA Response:

As stated in Section 4.2 of the DA Acoustic Report, to address lift shaft noise (to mitigate noise from the operation of the lift) in any adjacent Sole-Occupancy Units (SOUs), the Building Code of Australia requires the separating wall to achieve a sound insulation rating of $R_w \geq 50$ and be of discontinuous construction.

Typically addressed during the Construction Certification stage, PKA recommends the following construction to be implemented along the lift shaft wall separating the SOUs.

Airborne	$R_w + C_{tr} \geq 50$
Impact	Achieves Discontinuous Construction

Core	Concrete substrate as required
Cavity	min. 84mm cavity consisting of: <ul style="list-style-type: none">- 20mm gap between substrate and studs to achieve Discontinuous Construction- 64mm steel studs min. 0.50BMT (cc 600mm)- min. 75mm glasswool insulation (min. 11kg/m³)
Lining	min. 13mm standard plasterboard (min. 8.4kg/m ²)

Notes	Linings must be acoustically sealed to the underside of the concrete slab above
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The above comments and recommendations are made to satisfy acoustic requirements only and any other non-acoustic requirements including thermal, structural etc must be checked by the relevant authority.

Please do not hesitate to contact this office if you require any further information.

Yours faithfully,



Harsha Eati

PKA Acoustic Consulting