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Siew Kiang 35 Church Street Randwick NSW 2031

15 May, 2024 Refer: 7812-1.1L Rev A

Attention:Mr Lambert KiangContact:Siew@kiang.info

33 - 35 CHURCH STREET, RANDWICK, NSW SECTION 4.56 MODIFICATION APPLICATION

Mr Siew Kiang has engaged Day Design to provide acoustic advice pertaining to the proposed Section 4.56 Modification Application (s4.56) to amend the location of the ground floor entrance to Church Street of the approved (Randwick City Council, *DA/617/2021/B*, approved 30 April 2024) residential flat building at 33-35 Church Street, Randwick, NSW.

The s4.56 includes the following changes to the approved design that could potentially affect the acoustic amenity of neighbouring residential receiver:

- Move the ground floor entry to Church Street from the front of the building to the northern side of the building, adjacent to the shared boundary with 31 Church Street;
- An acoustic barrier/awning is proposed to be located for a length of approximately 6 metres along the northern side of the entry path, as shown in the attached ground floor plan note, the recommended height and construction material(s) of the acoustic barrier is specified in this letter.

Day Design has been advised that the use of ground floor entry is for residential purposes, ie entry and exit to the building.

The approved and amended layouts are shown in the architectural ground floor plans provided by Couvaras Architects for Project No 21004, attached in Appendix A (dated 1 July 2022) and Appendix B (dated 11 March 2024), respectively.

Generally the acoustic impact from the use of a building entry is considered to be negligible as it is not used for prolonged periods or for noisy activities. In addition, there are no guidelines or policies that specify noise criteria for the use of building entries.





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The purpose of this acoustic assessment is to compare the noise impact at the potentially most affected point of the nearest residential receiver for the approved and amended locations of the ground floor entry.

The ground floor south-western window of 31 Church Street (as marked up on Appendix B) has been nominated as the potentially most affected point on or within the neighbouring property.

The calculated noise level from two people talking normally (total sound power level of 66 dBA) in the approved and amended locations of the ground floor entry are as follows:

•	Approved location	40 dBA;
•	Amended location – no barrier	43 dBA;
•	Amended location – 1.6 metre barrier	40 dBA; and
•	Amended location – 1.8 metre barrier	38 dBA.

The calculations above include a reduction for distance attenuation and, where applicable, acoustic screening provided by the proposed acoustic barrier, only.

The calculations above show that based on the amended location of the ground floor entry, the difference in noise impact at the potentially most affected point on the neighbouring property between the approved and amended locations is considered to be marginal and can be improved through the use of an acoustic barrier.

A 1.6 metre high acoustic barrier will reduce the noise impact at the potentially most affected point on the neighbouring property to the same level as the approved location, with a 1.8 metre high acoustic barrier reducing the noise impact at the potentially most affected point on the neighbouring property to 2 dB (approx 63% reduction in noise impact) below the level as the approved location.

The acoustic barrier may be constructed from 3 rail 'solid capped and lapped' timber, 10 mm thick solid polycarbonate (not hollow), 6.38 mm thick laminated glass, masonry or concrete (eg core filled concrete block, Hebel Powerpanel, etc). The construction must be free of visible air gaps to provide an impervious sound barrier.



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Considering the above, we are of the opinion that provided an acoustic barrier/awning is constructed to a minimum height of 1.6 metres for a length of approximately 6 metres along the northern side of the entry path, the Section 4.56 Modification Application to amend the location of the ground floor entrance to Church Street of the approved residential flat building at 33-35 Church Street, Randwick, NSW, will not adversely impact on the acoustic amenity of the neighbourhood, and should be considered acceptable from an acoustic perspective.

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Adam Shearer, BCT (Audio), MDesSc (Audio and Acoustics), MAAS Senior Acoustical Consultant for and on behalf of Day Design Pty Ltd

AAAC MEMBERSHIP

Day Design Pty Ltd is a member company of the Association of Australasian Acoustical Consultants, and the work herein reported has been performed in accordance with the terms of membership.

Appendices:

- Appendix A Approved Ground Floor Plan Sheet 03, Issue 0, 1 July 2022
- Appendix B Proposed Amended Ground Floor Plan Sheet 03, Issue AD, 11 March 2024



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