

29 March 2019

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City of Yarra PO Box 168 RICHMOND VIC 3121

Attention: Amy Hodgen

Dear Amy

626 Heidelberg Road, Alphington, Lot 2B Development Application Acoustic Review PLN 17/0703

SLR Consulting Pty Ltd (SLR) has been retained by the City of Yarra to provide a review of the revised acoustic assessment report for the mixed use development proposed for 626 Heidelberg Road, Alphington, Lot 2B.

Details of the report are as follows:

- Title: The Village Alphington Mixed Use Development
- Reference: MC300-01F02
- Date: 21 November 2018
- Prepared for: Alpha APM
- Prepared by: Norman Disney Young Pty Ltd

The report was submitted to address Condition 11 of the Yarra City Council planning permit for the project, which pertains to acoustics. Condition 11 is reproduced below.

Acoustic Report

- 11. Before the development commences, an amended Acoustic Report to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Acoustic Report will be endorsed and will form part of this permit. The amended Acoustic Report must be generally in accordance with the Acoustic Report prepared by Norman Disney Young Pty Ltd and dated 21 February 2018, but modified to include (or show, or address):
 - (a) Apartments in close proximity to the netball court to achieve the following targets:
 (i) 35dBA Leq and 50dBA Lmax in habitable rooms during the day and evening and
 (ii) 30dBA Leq and 45 dBA Lmax in bedrooms at night.
 - (b) Noise from ball bouncing within the sport courts and measure to address potential impacts on nearby residential uses and the community space below the court;
 - (c) Consider structure borne sound from the indoor recreational facility on surrounding commercial premises;
 - (d) Lmax targets met for apartments above the loading bay entrances in the event of evening and night time deliveries and/or recommendations for restricted delivery and collection times;
 - (e) Targets of 40dBA, Leq16h in living rooms and 35dBA Leq8hr in bedrooms met for traffic noise along Heidelberg Road; and
 - (f) Provide adequate acoustic treatment to the community spaces to enable live music/performance and protect the abutting residences.

SLR were also provided with a copy of the NDY letter 'RFI 6 Acoustics – Roller Shutter Material', dated 14 January 2019.

SLR reviewed an earlier version of the report. Subsequent to that review there have been changes to the development plans, which include:

- The relocation and full enclosure of the basketball court. An open air basketball court was previously located on the Level 1 roof of the community centre, and was overlooked by apartments on the Levels 2 and above.
- Inclusion of a large outdoor area for students, on Level 4 of the school buildng. The outdoor area will be overlooked by apartments on the upper levels of the 'Sculptural Building' (this building has apartments on Levels 3 to 7). This outdoor area is closer to the apartments than the one shown in the previous drawings.
- Inclusion of an additional external mechanical plant area on Level 6 of the 'Machinery Hall'.

The above changes can be expected to have implications for acoustics on the project and potential implications for the planning permit conditions, which were prepared to address the previous design.

We note that the acoustic report does not include specific reference to the planning permit.

The extent to which the report addresses the planning permit conditions and the current plans is considered below.

1 Condition 11(a) – Internal noise targets for apartments near netball court

(Sections 5.4 and 6.0 of the report)

NDY Report: Design targets nominated for noise from the multipurpose court are 35 dBA Leq and 50 dBA Lmax in the acoustic report, in accordance with the Condition 11(a).

Noise from whistles and crowds is considered in Section 5.4.

Airborne noise from basketballs being bounced is not explicitly considered in the report.

Glazing to the apartments potentially most exposed to noise from the multi-purpose court is proposed to be 10.76 mm thick laminated glass / 16 mm air cavity / 12 mm thick glass.

SLR Comments: The current netball court design is understood to include full enclosure of the multipurpose space and cladding comprising 'external glazing with expanded metal layer'. The type or thickness of the glass is not provided. Given that the space is proposed to be enclosed, it would be appropriate to design the external walls such that noise from the use does not impact the overlooking dwellings. This would eliminate the need for administrative controls on the use of the multipurpose space, and would provide apartment occupants with a good level of amenity outdoors and/or with windows open during the periods that the school outdoor area is not in use. In summary, we recommend that an acoustic specification is provided for the external walls of the multipurpose space in order to achieve reasonable external noise levels on apartment balconies when the space is in use.

The school outdoor area has been increased in size and moved closer to the apartments. The façade upgrade treatments shown in the current acoustic report will control children's voice noise from the school outdoor area to these overlooking apartments.



2 Condition 11(b) – Noise from ball bouncing to residents and commercial uses below

(Section 6.0 of the report)

NDY Report: Advice is provided in the report for controlling structureborne noise from ball bouncing by adding a resilient floor finish to the multi-purpose court.

SLR Comments: The floor surface may be unsuitable for basketball if a resilient finish is added to it. Structureborne noise from use of the multipurpose space should ideally be considered to the commercial use below, to the offices on Level 2 and to the school building. Both ball bouncing and people movement noise (e.g. running and jumping) have potential to cause nuisance.

3 Condition 11(c) – Structureborne noise from indoor recreational facility to commercial spaces

SLR Comments: This condition is understood to refer to the commercial gym proposed for Level 1 of the development. Stuctureborne noise from this premises is not addressed in the report. Noise from the gym to the offices should be considered, taking into consideration the likely use of the gym.

The new design has also introduced a small gym opposite the serviced apartments on Level 2. Structureborne noise from this gym is not considered in the report. However, the gym is quite small and it is not unreasonable for noise from its use to be managed by the operators through restricted access and restricted equipment options. Given this, we have not raised the issue as an item requiring further consideration in the acoustic planning report.

4 Condition 11(d) – Lmax targets for apartments above the loading bay entrance in the event of evening and night time deliveries and/or recommendations for restricted delivery times

SLR Comments: An Lmax assessment of truck entry noise to the apartments directly above loading bay is not included in the acoustic report. We recommend an internal target (doors and windows closed) of 45 to 50 dBA Lmax be met inside apartments for trucks entering and leaving the loading bay. The acoustic report should confirm whether these targets will be met with the current façade treatments, given that deliveries are proposed to take place throughout the night.

5 Condition 11(e) – Internal noise targets of 40 dBA Leq16hr and 35 dBA Leq,8hr for traffic noise

(Sections 5.1.1, 5.7 and Appendix A of the report)

NDY Report: The planning permit targets for road traffic noise have been adopted in the report.

Advice for glazing upgrades is provided in Section 5.7 and the marked up plans included as Appendix A. Drywall elements are required to have a rating at least as good as the glazing.

SLR Comments: We do not have sufficient information to conduct a full independent assessment of traffic noise ingress to the proposed apartments, however, the advice provided in the report is representative of a substantial upgrade from standard glazing, and appears likely to achieve the internal noise targets.



6 Condition 11(f) – Provide adequate acoustic treatment to the music spaces to enable live music / performances and protect abutting residences

SLR Comments: This matter is not addressed in the acoustic report. It is also not clear from the current design which areas may be used for music.

From our understanding of the spaces, there appears to be potential for the 'community acitivty space' and the 'community pavillion' on Level 1 to be used for music. There are apartments abutting the community activity space, and serviced apartments above it. These areas are also connected to the Level 1 multipurpose space, which may have open sides (resulting in further potential noise leakage from music events).

As a minimum, some commentary in the acoustic report regarding noise from music performances would be required to address planning permit Condition 5f.

7 Other Matters

7.1 Mechanical Plant Deck

The current design shows roof top plant decks on Level 6, in close proximity to some apartments in the Structural Building. The deck may be overlooked by apartments on Level 7.

The acoustic report does not specifically refer to this new roof plant deck, and given its closer proximity to apartments there is a greater risk of SEPP N-1 non-compliance. Given this change in design, we recommend that post construction testing is provided demonstrating compliance with SEPP N-1 at potentially impacted apartments.

7.2 Loading Bay Entrance Door

The memo provided by NDY dated 14 January 2019 clarifies that their assessment of loading bay noise assumed that the carpark entrance door was pervious. NDY refer to loading bay absorptive treatments, to be installed in accordance with the Coles brief, to control noise from the loading bay. While we agree that it may be possible to adequately control noise from this loading bay without requiring an impervious entrance door to be installed, there is insufficient information provided in the report to satisfy us that SEPP N-1 limits will be met. For this reason we recommend post construction testing to demonstrate compliance with SEPP N-1 for noise from the loading bay.

8 Summary

A summary of our review of the revised acoustic report for 626 Heidelberg Road, Alphington, Lot 2B, with specific reference to items we are of the opinion require further attention, is provided below.

Condition 11(a)

• It is recommended that an acoustic specification be provided for the walls of the multipurpose space and for any ventilation pathways, in order to ensure that noise from this area is controlled to overlooking apartment balconies and windows.



 Façade upgrade treatments are provided for apartments overlooking the multipurpose space and the school outdoor area (which is located above the multipurpose space). These treatments may not be required to control noise from the multipurpose space given that is it fully enclosed, however they will address noise from the school outdoor area.

Condition 11(b)

 The acoustic report provides advice for a resilient surface to control noise from basketball bouncing. If control of structureborne noise is required, a full isolated concrete floor is likely to be necessary. We recommend that structureborne noise from use of the multipurpose space be considered to the commercial use below, to the offices on Level 2 and to the school building, taking into consideration both ball bouncing and people movement noise (e.g. running and jumping).

Condition 11(c)

• This condition is understood to refer to the commercial gym proposed for Level 1 of the development. Stuctureborne noise from this premises is not addressed in the report. Noise from the gym to the offices should be considered, taking into consideration the likely use of the gym.

Condition 11(d)

• An Lmax assessment of noise from the trucks entering the loading bay has not been provided in the report. We recommend that this be included to address condition 11(d).

Condition 11(e) – no further information required to address permit condition

Condition 11(f)

• Music noise from performance spaces is not addressed in the report. Some further commentary regarding which spaces may be used for music, details of the level of music assumed in the design, and details of the treatments required to address it, should be provided to address this condition.

Other matters

There are a number of changes to the design which have implications for both acoustics and for the potential relevance of the planning permit conditions (which took the original design into consideration). In our opinion the current design presents a greater risk of nuisance from mechanical plant noise. For this reason we recommend that post construction acoustic testing be required to demonstrate compliance with SEPP N-1 at all sensitive receiver locations in this or adjacent residential developments.

Post construction testing of loading bay noise is also recommended to demonstrate compliance with SEPP N-1, given that the entrance to the loading bay is proposed to be pervious, and a detailed assessment is not provided in the report.

Yours faithfully,

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Dianne Williams Associate – Acoustics

Checked/ Authorised by: JA

