Technical Memorandum

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no: DEV2020/1124
Date: 22 December 2021
Queensland Government

Enquiries: Rodrigo Olavarria / Michael Lanchester
Project No: 45289

To: Leo Mewing – Mewing Planning Consultants Pty Ltd

From: Rodrigo Olavarria – Stantec Australia Pty Ltd

Date: 30 September 2020

Subject: 12-18 Thompson Street Material Change Use under PDA Development Permit
Acoustic Aspects

Leo,

Stantec Australia Pty. Ltd. (Stantec) have been engaged by Gansons Pty Ltd, Ganboys Pty Ltd and Ganbros Pty Ltd to provide an acoustic report in support a material change application of use for Tower 1 and PDA preliminary approval for the Masterplan pertaining a development to be located at 16 Thompson Street, Bowen Hills. Stantec prepared the acoustic report prepared to address the requirements for operational noise impacts in the Bowen Hills Priority Development Area (PDA)

Stantec assessed the noise impacts in acoustic report 45289-AC-RE-001_002 - *16 Thompson Street Tower 1 and Masterplan Noise Impact Assessment report*, dated 20 April 2020.

Economic Development Queensland (EDQ) have identified various issue after preliminary assessment of the Development Application (DA). The acoustic aspects are addressed in the sections below

1. EDQ Request for Information

Point 13 of the EDQ RFI (development application reference DEV2020/1124), dated 7 September 2020, is reproduced below:

13. Acoustic Impact Assessment Report

Due to the proposed reduction in the boundary setback for Tower 1, provide an amended Acoustic Impact Assessment detailing the potential impacts of the development on existing and future adjoining sensitive receiving environments to the south.

The amended report must provide specific recommendations regarding how the noise created by the proposal (E.g. from the childcare centre or any plant machinery to be placed along this boundary) will be ameliorated.

Ensure that any amended plans incorporate any changes resulting from the recommendations of this report, including confirmation of how the interface to the outdoor play area on the southern boundary (shown in Figure 7 below) will be treated acoustically.

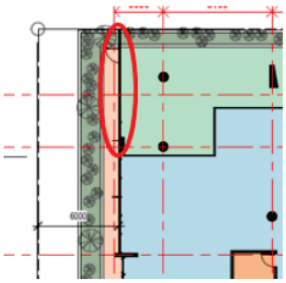

Figure 7 - Outdoor play area setback interface

2. Comments

The following comments are made in relation to the EDQ identified acoustic issues:

2.1 Potential impacts of the development on existing and future sensitive receiving environments to the South

The following is advised:

- The closest external sensitive (dwelling) receptors are located at 170m to the East of the site. At this distance, these receptors are unlikely to be impacted by noise emissions from the project.

  Any sensitive receptors that may be introduced in the future at a closer distance than the existing receptors, e.g. due to redevelopment of the existing commercial sites located immediately adjoining the project site, will have to be designed and built to protect their occupants against road traffic noise, which is the dominant noise source on site.

  The project will be designed and built to meet the applicable noise limits. Compliance with the limits will ensure that the existing road traffic remains the dominant source in the acoustic environment, therefore, since the potential future sensitive receptor buildings will have to be designed and constructed to protect its occupants against road traffic noise, protection against the project noise emissions would be achieved by default.

- Existing external commercial receptors adjoin the project site or are located across Thompson Street and Murray Street. By their nature, these receptors have a lower sensitivity to the noise that could be emitted from the project and are unlikely to be impacted by the potential noise emissions from the project, since they are already affected by road traffic noise as explained above.

  Notwithstanding the above, environmental noise criteria and limits have been provided in the acoustic report, which were obtained from noise measurements conducted on site and in combination with applicable noise Policy. These noise limits will be used as the basis for the building design and will apply to the noise emission from all noise new sources introduced.

  Whilst detailed acoustic assessment of the noise sources cannot be conducted at this early stage, the following is advised upon review of the current drawings (Revision DA-110 of September 21020):

  - **Ground floor:** The services room, water tank room, retail room and car park ventilation systems can be designed to attenuate noise by introducing attenuators, if required, or by locating the outlets facing away from sensitive receptors (currently non-existing where only commercial buildings adjoin the project site without windows facing the source rooms).

    Car parking movements would not produce adverse impacts due to the location of car parks adjoining roads, which are the dominant noise source. The adjoining commercial site has a similar car park to that proposed for the project site; therefore, they are unlikely to be impacted by this noise.

  - **Level 1:** The services room ventilation systems can be designed to attenuate noise by introducing attenuators, if required, or by locating the outlets facing away from sensitive receptors (currently non-existing).

  - **Level 2-4 car parks:** Car park noise emissions will not exceed the noise levels currently experienced on site, where road traffic is dominant; therefore, noise impacts are not expected and acoustic treatments to the façade are not envisaged to be required to attenuate these.

  - **Level 10 Terrace:** The services room is located facing west, away from future sensitive uses to the South. Acoustic design is not envisaged to be required to meet environmental noise limits at these potential future receptors.

    Noise levels from the terrace, if any, will be attenuated by the acoustic treatments that the potential future sensitive receptors will need to implement to reduce road traffic noise.

2.2 Potential noise impacts from the childcare play area

The childcare use has been removed as a proposed use for Tower 1 and has been replaced by an office tenancy. Thus, no further noise assessment is required.

3. Conclusion

Based on the noise assessments provided in the acoustic report and the further review provided in this memorandum, it is advised that Tower 1 and the Masterplan can be designed to mitigate its noise impacts onto the community; therefore, the project is considered feasible from a noise perspective.

It is noted that any future external sensitive receptors will too be subject to a Development Application; therefore, will also have to address any the relevant noise emissions, if any, from this project.

We hope this memorandum provides further clarification of the environmental noise impacts from the project. Should you have any queries, please do not hesitate to contact the undersigned on (07) 3811 4500.

Regards,

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