

# MEMORANDUM



220146 - 28-32 Somerset Street, Kingswood - Response to Council RFIs - R1

**TO:** Mason Armoni **DATE:** 27 September 2022  
**COMPANY:** Boston Global  
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**FROM:** Matthew Furlong  
**SUBJECT:** 28-32 Somerset Street, Kingswood – Response to Council RFI's

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Pulse White Noise Acoustics Pty Ltd (PWNA) have been requested to review, amend and respond to the Request for Information (RFI) in relation to the Development Application (DA) at 28-32 Somerset Street, Kingswood.

This letter has been drafted in response to the queries below and should be read in conjunction with the amended acoustic report dated 27<sup>th</sup> September 2022, reference *220146 - 28-32 Somerset Street, Kingswood - New DA Acoustic Assessment – R2* prepared by PWNA.

Penrith City Council Query:

### **Noise impact**

*To address the noise impacts associated with the development, the '28–32 Somerset Street, Kingswood - New DA Acoustic Assessment' was prepared by Pulse White Noise Acoustics (dated 1 April 2022). This assessment gave consideration to the potential noise intrusion from traffic and helicopter noise, the noise emissions associated with mechanical plant, the dining and bar spaces, as well as the use of the loading dock and driveway, establishing appropriate noise criteria for the development. Acoustic separation requirements were also addressed.*

*The report made a number of recommendations, including identifying construction elements to address noise intrusion, as well as restricting the use of music, operational hours, patron numbers, and outlining requirements for a continuous glazed/solid balustrade around the entire perimeter of the outdoor dining area to a minimum height of 1.8 metres (as shown in Figure 8).*

*Subject to the recommendations included in the report, the assessment found that:*

- noise intrusion could be effectively addressed by construction elements,*
- that the use of the licenced areas could comply with the day (with a 1db exceedance, which is considered negligible), evening and early night criteria,*
- that there was no significant increase to traffic noise as a result of the movements associated with the development,*

- *and that noise associated with the use of the loading dock driveway could also comply.*

*However, there a number of aspects that need to be addressed by the acoustic consultant before the Environment Team can support the application:*

- 1. Table 1 of the report identifies that the measured LA90 for the daytime period was 40 dB(A), whereas Table 10 states that the measured LA90 for this period was 45 dB(A). This has meant that the intrusive criteria (and project trigger level) for the daytime period has been set at 50 dB(A) rather than 45 dB(A). This has implications for the noise extrusion assessment, particularly in relation to the loading dock and driveway noise assessment, where the levels produced would not comply (Table 21 and Table 22). Clarification is needed regarding this aspect, with various sections of the report potentially requiring amendment. Additional mitigation may be required to ensure that the development can actually comply with this criteria, as there are predicted exceedances of up to 4dB.*
- 2. Though identified as potential source of noise emissions in Section 3.3, noise produced by the basement was not considered in the assessment. The laundry, workshop and carparking for the development are located in the basement levels. The report is to address this potential noise source.*
- 3. Whilst Section 5.3.1 references the Wellness Retail and Wellness Centre spaces and provides a figure for the maximum number of people permitted in each space, the report does not provide the predicted noise levels that will be produced by these areas (with Tables 17-20 addressing only the 'Licensed Areas'). The report is to demonstrate that noise produced by activities carried out in the wellness spaces (including the outdoor area) will not impact on adjacent hotel rooms and other neighbouring sensitive receivers.*
- 4. Section 5.3.1 provides an assessment of the food and beverage areas located on the rooftop of the proposed development and makes a number of recommendations, particularly relating to internal and external spaces and their use at the different times of day. However, it is noted that the predicted noise levels shown in Table 17 and Table 18 differ significantly though the operation of these spaces does not differ during these time periods. There is a note on Table 18 that mentions that the northern and southern areas are not in use, however these areas are not delineated in the body of the report, and the report does not make any recommendations regarding these spaces (as was the case in the report submitted to support DA20/0767). Though it is evident that the spaces will comply with the relevant criteria (using the noise levels in Table 17 and comparing against the appropriate criteria), the noise levels produced would not be different. Further consideration is needed regarding this aspect, and Table 18 is to be amended to reflect the operations occurring*
- 5. The loading dock is now located on the ground floor, rather than within the basement. No comment has been made in the assessment of the noise impacts associated with the loading dock in Section 5.5 as to whether it will impact on the adjacent wellness retail space. Though future developments have been identified in Section 1.3, and it is mentioned briefly in Section 5.5, it is not clear whether the assessment has considered the height of A5:A25 receivers when assessing compliance with the criteria, given the buildings approved for future residential use to the east of the site are significantly taller than the current residences. Comment needs to be made in this regard, as it needs to be ensured that future residents are not impacted, particularly by the use of the rooftop facilities.*

Each of the numbered items identified above are addressed below.

### **Query 1 – Assumed RBL’s and Loading Dock/Driveway Predictions**

#### Penrith Council Query

*Table 1 of the report identifies that the measured LA90 for the daytime period was 40 dB(A), whereas Table 10 states that the measured LA90 for this period was 45 dB(A). This has meant that the intrusive criteria (and project trigger level) for the daytime period has been set at 50 dB(A) rather than 45 dB(A). This has implications for the noise extrusion assessment, particularly in relation to the loading dock and driveway noise assessment, where the levels produced would not comply (Table 21 and Table 22). Clarification is needed regarding this aspect, with various sections of the report potentially requiring amendment. Additional mitigation may be required to ensure that the development can actually comply with this criteria, as there are predicted exceedances of up to 4dB.*

#### PWNA Response

- Council is correct, the background noise level in several tables was incorrect due to a typographical error. This has been amended now in R2 of the report.
- Review of the predicted noise levels from the use of the loading dock in particular showed modelling had not accounted for the benefits of the acoustic screen of the driveway arbour. This resulted in compliance with the correct model.
- This DA has incorporated a greater acoustic screening above the driveway in lieu of the previous design due to the revised location of the driveway.
- Based on this, a marginal non-compliance is predicted for both the use of the loading dock during the evening time (6:00pm-10:00pm) and during the peak traffic movement during the day period as advised by the traffic engineer. However, in both cases the minor exceedances are within tolerable levels as per the NSW EPA NPI 2017.
- Therefore, the future worst-case use of the loading dock and driveway would be compliant and therefore acoustically acceptable.

### **Query 2 – Basement Noise**

#### Penrith Council Query

*Though identified as potential source of noise emissions in Section 3.3, noise produced by the basement was not considered in the assessment. The laundry, workshop and carparking for the development are located in the basement levels. The report is to address this potential noise source.*

#### PWNA Response

- PWNA acknowledges council comment and has provided a new section and assessment of noise within the basement in accordance with above. Please refer to section 5.7 of the amended report (R2).
- As outlined in section 5.7 full compliance with the NSW EPA NPI 2017 is achieved from the use of the basement.

## Query 4 – Wellness Centre Noise

### Penrith Council Query

Whilst Section 5.3.1 references the Wellness Retail and Wellness Centre spaces and provides a figure for the maximum number of people permitted in each space, the report does not provide the predicted noise levels that will be produced by these areas (with Tables 17-20 addressing only the 'Licensed Areas'). The report is to demonstrate that noise produced by activities carried out in the wellness spaces (including the outdoor area) will not impact on adjacent hotel rooms and other neighbouring sensitive receivers.

### PWNA Response

- Noise associated with the Wellness Centre is already outlined.
- However, we do note upon review section 5.3.1 of the report we acknowledge it this section does not clearly identify this. This is amended in R2 report. See below.

**Figure 1 Amended Report Extract (R2)**

**5.3.1 Assessment of Wellness Retail, Wellness Centre, and Hotel Food & Beverage Area**

For the purpose of this assessment, we have assumed the following noise levels:

- Single person talking – 72dBA  $L_{Aeq}$ .
- Background music (for internal areas only) – 75dBA  $L_{Aeq}$  within the space.

Predicted noise levels associated with the licensed areas is addressed in the table below. The predictions below have been determined based on the following assumptions:

- Use of the **internal** ground level wellness retail and **centre** area is between 12:00am-12:00am (midnight) Monday to Sunday and Public Holidays (24-hours).
- Use of the **internal** rooftop Hotel Food & Beverage Area is between 12:00am-12:00am (midnight) Monday to Sunday and Public Holidays (24-hours).
- Use of the **external** rooftop Hotel Food & Beverage Area is between 7:00am-10:00pm Monday to Saturdays and 8:00am to 10:00pm Sundays and Public Holidays.
- Use of the **external** ground Wellness Centre is between 7:00am-10:00pm Monday to Saturdays and 8:00am to 10:00pm Sundays and Public Holidays.
- All internal façade elements of the wellness areas and food and beverage areas are to have a glazing construction of 10.38mm Laminate with a  $R_w(C;Ctr): 35(0;-3)$ .
- All windows and doors of any internal areas of the ground level and roof top area are to be closed after 10:00pm and not open before 7:00am.
- Background music is only used within internal areas and does not exceed 75dBA within the space (i.e. SPL).

## Query 5 – Additional Queries

### Penrith Council Query

The loading dock is now located on the ground floor, rather than within the basement. No comment has been made in the assessment of the noise impacts associated with the loading dock in Section 5.5 as to whether it will impact on the adjacent wellness retail space. Though future developments have been identified in Section 1.3, and it is mentioned briefly in Section 5.5, it is not clear whether the assessment has considered the height of A5:A25 receivers when assessing compliance with the criteria, given the buildings approved for future residential use to the east of the site are significantly taller than the current residences. Comment needs to be

*made in this regard, as it needs to be ensured that future residents are not impacted, particularly by the use of the rooftop facilities.*

#### PWNA Response

- In response to the wall between the Loading Dock and Wellness Retail, the amended report (R2) has provided commentary to address council's query. In short minimum wall constructions as required by Part F5 of the National Construction Code (NCC/BCA) will ensure acoustically acceptable levels of amenity in the adjacent space.
- In response to the query around the assessment locations and what has been assumed. We can confirm all our assessments (Section 5.1 to 5.8) have assumed that all surrounding properties are either in their current state (typically single dwelling) or a multi-storey building and assessed to the worst-case location above ground if they are either approved, under construction or an existing structure.

Based on the information contained above, we believe all comments are addressed. For any additional information please do not hesitate to contact the person below.

Regards,



Matthew Furlong  
Principal Acoustic Engineer  
PULSE WHITE NOISE ACOUSTICS PTY LTD