

**BEFORE THE COMMISSIONERS APPOINTED BY
THE DUNEDIN CITY COUNCIL**

LUC-2020-293

IN THE MATTER

of 20 Bay Road, Warrington

BETWEEN

**NEW ZEALAND MOTOR
CARAVAN ASSOCIATION**

Applicant

**SUPPLEMENTARY EVIDENCE OF JEREMY TREVATHAN (NOISE) FOR
NEW ZEALAND MOTOR CARAVAN ASSOCIATION**

**GALLAWAY COOK ALLAN
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SUPPLEMENTARY EVIDENCE OF JEREMY TREVATHAN

1. The report titled *20 Bay Road, Warrington, Proposed Land Rezoning, A Noise Survey*, as prepared by Industrial Hearing Testing (Otago) (IHTO), and dated June 2021 was submitted as part of the submission for the 24 Bay Road property. I have reviewed this report and have outlined my comments below.

AMBIENT NOISE LEVELS

2. Ambient measurements were undertaken by IHTO during the night-time period on the southern veranda of the 28 Bay Road property. The 9 hour average level over the night-time period (2200 to 0700 hours) was measured to be 46 dB L_{Aeq} (9 hours). The dominant noise during the night-time period was noted as being constant ocean noise, and noise from the nearby State Highway. The District Plan night-time noise limit during this time is 40 dB L_{Aeq} (15 minutes); therefore, the measurements undertaken at 28 Bay Road indicate that an elevated noise environment is already experienced during this period which will partially mask noise from other sources. I had not considered this in my evidence, but can confirm that elevated ambient noise would further reduce the effect of the noise sources described in my evidence.

VEHICLE MEASUREMENTS

3. Noise measurements were also undertaken at 24 Bay Road when SUV vehicles were driven along the site accessway. IHTO concluded that with four vehicles travelling up and down the accessway, a noise level of 62 dB L_{Aeq} (5 minutes) was recorded at the southwest deck of 20 Bay Road. On reviewing the logging data graph included in the report, this measurement level would be representative of 8 vehicles movements occurring on the gravel accessway within a 5-minute period. IHTO concluded that the dominant noise during these drive-bys was mainly tyre noise on gravel, with engine noise most evident when the vehicles were close to the noise monitoring position.
4. I note that the driveway is proposed to be sealed along the length, and therefore the noise generated by tyre noise on the existing gravel

would not be representative of what is proposed. The scenario measured by IHTO (8 vehicle movements in a 5-minute period) would also be representative of 96 vehicle movements within an hour period, which is significantly above the traffic engineers' prediction of up to 15 vehicle movements within a worst-case hour during peak season.

5. There is limited information within the IHTO report as to the specific measurement point, the type of vehicles measured, and the speed of the vehicles during the measurement period. However, when adjusting the measurements to be representative of what is actually proposed (i.e. reduced vehicle numbers and sealed driveway), the measured results are of a similar order to those outlined in my evidence and do not change my views or conclusions.
6. The IHTO report implies that their measurement work was undertaken in accordance with NZS6801:2008 and NZS6802:2008. It is difficult to understand if that is the case, because the measurement exercise is not documented in accordance with section 9 of NZS6801:2008 and section 9 of NZS6802:2008. In particular:
 - (a) The measurement location is not fully documented, making the results difficult to interpret. It is recorded that the measurements were "8 metres from the centre of the current car track", and that vehicles on the access "will pass within 8 metres of their (24 Bay Road) lounge room"; however, the edge of the upper level deck appears to be 7 metres from the common site boundary, and a further 8 metres to the centre of the current car track. The façade of the dwelling is at least 17 metres from the centre of the current car track. It is therefore unclear where the measurements were actually undertaken.
 - (b) As above, the noise source is either not documented (type of vehicle and speed) or is not representative of the proposed activity (noise levels representative of 96 vehicles per hour are presented, when only 15 vehicles per hour are actually anticipated).

- (c) The measurements appear likely to have been undertaken within 3.5 metres of a reflecting surface (the dwelling façade) but this is not mentioned, and no adjustment applied in accordance with section 6.1.3 of NZS6801:2008. Similarly, if the scenario presented was intended to be representative of typical daytime activity, a duration adjustment is appropriate in accordance with section 6.4 of NZS6802:2008. Both of these omissions have the effect of increasing the noise levels presented.

CONSTRUCTION NOISE

7. IHTO states in their executive summary that construction noise from earth moving vehicles will affect the immediate neighbours during the establishment phase. No further evidence is provided. They also state that construction noise should be assessed in accordance with NZS6803:1999 *Acoustics – Construction Noise*. I agree and note that construction noise is excluded from the residential noise limits within the 2GP, with construction noise being required to be measured and assessed in line with NZS6803:1999 under rule 4.5.4.1. This is in line with good practice and should adequately control the effects from any construction noise.

OTHER ITEMS

8. IHTO also provides comments on the following areas, which I have not commented on, as they are outside my area of expertise:
- That the raised seating position of the buses and motorhomes will impinge on the privacy of 24 Bay Road.
 - That the campers are likely to traverse the driveway and Bay Road more frequently to obtain food due to the lack of local shops.
 - That if no alternative access can be found that the owners of 24 Bay Road should be adequately compensated.

CONCLUSIONS

9. I have reviewed the noise monitoring and reporting carried out by IHTO at 24 and 28 Bay Road. Overall, there is nothing within this report that alters the conclusions in my evidence.

Jeremy William Trevathan

8 September 2021