



APPENDIX E

Noise Memorandum

9 September 2019

Mitchell Daysh
PO Box 1307
Hamilton 3240

Attention: Abbie Fowler

Dear Abbie

**BUILTSMART PROPERTY PARTNERSHIP - PROPOSED PLAN CHANGE 22
ACOUSTIC MEMORANDUM**

Marshall Day Acoustics MDA have been engaged to provide a technical memorandum on the potential noise effects of proposed plan change 22 and reasoning for the proposed setback in terms of its ability to manage noise.

BACKGROUND

Builtsmart Property Partnership (Builtsmart) wish to expand their operations onto land adjoining their existing facility at 496 Great South Road. Under proposed plan change 22, Builtsmart are seeking to rezone Living zone (residential) land to light industrial.

The proposed zone change would apply to the following properties:

- 492 Great South Road (Lot 10 DP 875 and Lot 1 SP South Auckland 39041)
- 486 Great South Road (Lot 9 DP 875);
- 4 Jackson Road (Lot 1 Deposited Plan 33424);
- 478 Great South Road (Lot 7-8 Deposited Plan 875); and
- 2 B Great South Road / Jackson Road (Section 1 Survey Office Plan 53946).

These properties are highlighted in figure 1 overleaf. Figure 1 is a reproduction of the Operative Waikato District Plan (OWDP) zoning maps. It can be seen from figure one that the proposed plan change effectively seeks to move an existing Light Industrial/Living zone interface north.

The proposed plan change includes a 25 metre building setback from the boundary of the Living zone properties (the new Light Industrial/Living zone interface) to any light industrial buildings on the rezoned area.

Mitchell Daysh has asked us to provide:

- Input on the effects associated with the proposed change to industrial zoning are appropriate.
- Commentary on the proposed 25-meter setback in terms of its ability to manage noise.

Figure 1: properties proposed to be re zoned light industrial



POTENTIAL EFFECTS FROM CHANGE IN ZONING

We note that our review is based upon the permitted activity noise performance standards in the Waikato District Plan. We have not established the existing ambient noise environment, however, given its proximity to State Highway 1 we would expect the existing ambient noise environment to be relatively high.

The OWDP provides permitted activity noise levels in Rule 24.18.1 b. These limits apply to noise emissions from a Light Industrial Zone, received in the Living zone. In short, the rules are:

- 55 dB L_{A10} , 7am to 10pm
- 40 dB L_{A10} , 10pm to 7am the following day
- 70 dB L_{Amax} , 10pm to 7am the following day.

The intra Living zone noise limits are contained in Rule 21.18.1. In short, the rules are:

- 50 dB L_{A10} 7am to 7pm, Monday to Saturday, and
- 45 dB L_{A10} 7pm to 10pm, Monday to Saturday, and
- 40 dB L_{A10} and 65 dB L_{Amax} all other times and public holidays.

The primary difference between the above are:

- Between 7am to 10pm, the limits at the Light Industrial/Living zone interface are 5 to 10 dB higher than the intra Living zone limits. This is an appreciable to significant difference
- Between 10pm to 7am the limits at the Industrial/residential interface are 5 dB higher than the intra Living zone limits. This is an appreciable difference.

We note that the Waikato District Plan is presently under review. The Proposed Waikato District Plan (PWDP) is in the further submissions stage. It has no legal weight at this point. Regardless, we understand that there are no submissions pertaining to the numerical limits and it is plausible that the PDP noise limits could come

into effect. For reference the intra Residential zone limits and Industrial/Residential zone interface under the PWDP are:

- 50 dB L_{Aeq} 7am to 7pm, every day;
- 45 dB L_{Aeq} 7pm to 10pm, every day; and
- 40 dB L_{Aeq} and 65 dB L_{Amax} 10pm to 7am the following day.

The primary differences between PWDP intra Residential zone limits and the OWDP are the same as those identified above, and, the change in nomenclature from L_{A10} to L_{Aeq} .

The change in nomenclature is considered appropriate as it reflects the adoption of the latest standards New Zealand Standard NZS 6801:2008 "Acoustics – Measurement of environmental sound" and New Zealand Standard NZS 6802:2008 "Acoustics - Environmental Noise". Whilst there is typically a small difference between the L_{A10} and the L_{Aeq} levels of a sound source, MDA have observed that many District Plan have changed to the nomenclature but kept the numerical limits without major consequence.

Given the differences between the OWDP industrial /living zone limits, intra living zone limits and PWDP intra Living zone limits identified above, we consider that there are potential for noise effects, albeit for a period between the plan change taking effect (should it be granted) and the PWDP noise rules being given legal weight. To address this, we offer two options:

1. Propose a change to 24.18.1 to include c:
"Notwithstanding clause b) of this rule Any activity in the Builtsmart expansion area is a permitted activity if it is designed and conducted so that noise from the activity measured in the Living Zone does not exceed
 - i. 55 dB L_{A10} , 7am to 10pm
 - ii. 40 dB L_{A10} , 10pm to 7am the following day
 - iii. 70 dB L_{Amax} , 10pm to 7am the following day.", or
2. Monitor the existing ambient environment at the new Light Industrial /Living zone interface and justify why the higher limit of 24.18.1 b is acceptable.

COMMENT ON SETBACK RULE

In our opinion the proposed setback rule is an appropriate means to practicably manage noise from the Light Industrial site received by Living zone. In addition to selecting suitable equipment, providing acoustic screening and setting appropriate limits, increasing the distance between a noise sensitive receiver and a noisy activity reduces the potential level of sound received. In this instance, the setback would be a good practicable option.

We trust this information is satisfactory. If you have any further questions, please do not hesitate to contact us.

Yours faithfully

MARSHALL DAY ACOUSTICS LTD



James Bell-Booth

Consultant