

4 March 2024

SLR Ref No.: 880.V16170-L01-v1.0-20240301.docx

Tahua Properties Limited

Burton Partners, Level 3
10 Viaduct Harbour Avenue
Auckland, 1010

SLR Project No.: 880.000010.00001

RE: 69a Main Road

Acoustic Response to the Request for Further Information

Introduction

SLR prepared an acoustic assessment (**SLR Report**, 880.000010-R01-v1.0, dated 8 January 2024) to support the resource consent application for the proposed development containing two quick service restaurants 69a Main Road in Tirau.

South Waikato District Council (**Council**) has requested further information (the **Council Request**), relating to the SLR Report via a letter dated 16 February 2024 (RMA240001).

This letter serves as an addendum to the SLR Report in order to provide the information requested in the Council Request.

Council Request – Item 4b

It is unclear how the source data (Table 7 of SLR noise report) has been used to calculate the predicted noise levels provided in Table 8. In particular, how source levels of 98 dB LAmax (light vehicles) and 113 dB LAmax (delivery truck) equates to a predicted noise level of 53 dB LAmax at R4 (the nearest residential property at 7B Okoroire Street) whose site boundary is less than 10 m away. Assuming effective screening provides a 10 dB reduction, an additional 25 dB reduction is still required after distance correction. Please can the following be provided:

- *a breakdown of contributions at R1, R6 and R4;*
- *what the LAmax reference distance is;*
- *distance between source and assessment locations;*
- *confirm if the LAeq predicted values are based on peak traffic volumes; and*
- *the modelled location of the sources*

SLR Response

SLR can confirm:

- a breakdown of contributions at R1, R6 and R4 is provided in **Table 1**.
- the LAmax source sound power levels do not have a reference distance, as they are sound power levels. However, they are derived from measured levels at distances of approximately 10 m from sources (70 dB LAmax at a distance of 10 m for car door slams and 80-85 dB at a distance of 10 m for events associated with delivery trucks).
- distances between source and assessment locations vary depending on the source and receiver – however, to provide additional context to the source locations

discussed below – the delivery location closest to R4 is approximately 35 m from the nearest receiver boundary and afforded acoustic screening and intervening buildings.

- L_{Aeq} predicted values are based rating levels in accordance NZS 6802:2008 that factor in the peak expected volumes, with a duration adjustment of 2 dB during the daytime based on available traffic information.
- the modelled location of the sources is shown in **Figure 1**.

Figure 1 Location of L_{Amax} noise sources

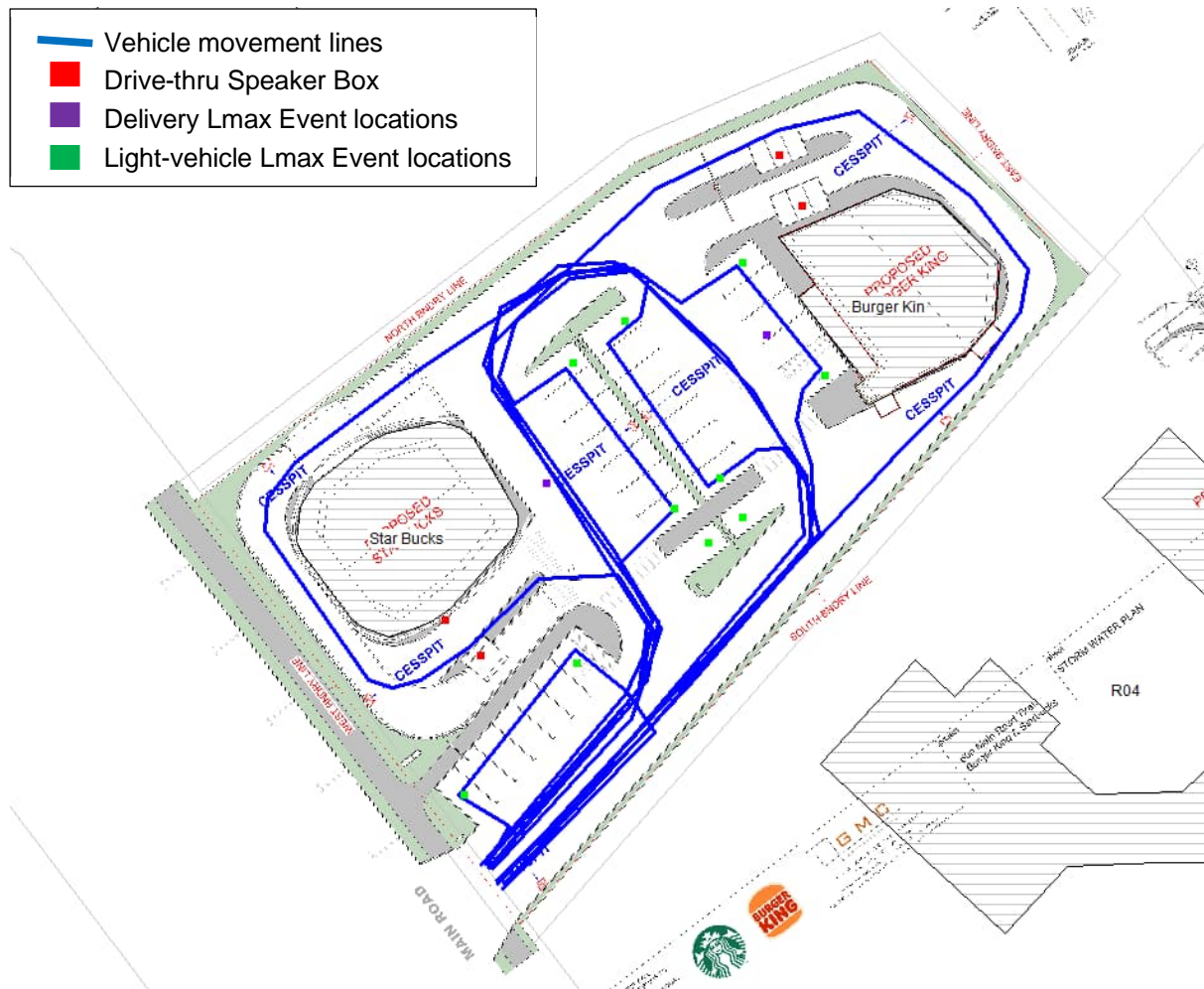


Table 1 Summary of source contributions and separation distance

Receiver	Source	Predicted Noise Rating Level (dB LAeq,T)				Predicted Maximum Event Noise Level	
		Daytime	Criteria	Night- time	Criteria	LAm _{ax}	Criteria
R1 (Tirau Primary School)	Parking	39	-	33	-	-	-
	Drive-Thru	42	-	39	-	-	-
	Speaker	32	-	37	-	-	-
Total at R1		44	50	42	40	69	70
R4 (7B Okoroire Street)	Parking	31	-	25	-	-	-
	Drive-Thru	37	-	35	-	-	-
	Speaker	29	-	34	-	-	-
Total at R4		39	50	38	40	53	70
R6 (Tirau Community Church)	Parking	40	-	35	-	-	-
	Drive-Thru	43	-	39	-	-	-
	Speaker	34	-	38	-	-	-
Total at R6		45	50	42	40	69	70

Council Request – Item 4c

Please provide a condition which limits the volume of the external speakers when used at night (10pm to 7am), i.e. a maximum sound level at a specified distance and how this maximum will be set. Reason to manage potential disturbance at residential properties at night.

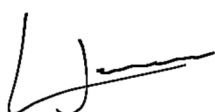
SLR Response

Based on our assessment and typical noise levels associated with external speakers in drive-thru's we do not consider such a condition necessary. However, if such a condition is deemed, SLR recommend the following wording for consideration whereby a noise limit is set irrespective of the time of day:

Speaker box noise levels shall not exceed a sound pressure level of 61 dB LAeq(30secs) at 2 m, at all times. The set up of the speakers shall include calibration of the noise levels to ensure this limit is met.

We trust the above serves to supply the information required, should you have any queries please do not hesitate to contact us.

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