

REVERB ACOUSTICS

Noise and Vibration Consultants

Our Ref: 17-2092-L2

31 August 2017

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NOISE IMPACTS - HOURS OF OPERATION ONLINE DISTRIBUTION OUTLET – 114 OLD PITTWATER ROAD, BROOKVALE

INTRODUCTION/SITUATION

This report has been prepared in response to further information requested from Northern Beach Council (NBC) regarding reverse alarms from vans at the Brookvale Online Distribution Outlet. This letter is to be read in conjunction with Reverb Acoustics Reports 17-2092-R1 (referred to as RA-R1 in this letter) and 17-2092-L2 (referred to as RA-L2 in this letter)

The RA-L2 letter confirmed that only smaller vans and trucks under 10 tonne TARE will visit the site during the morning shoulder period (5am-7am). Based on this assumption, the following Tables show calculations to predict the noise impact at nearest residential boundaries west of the site (R1):

**Table 1: Received Noise - Site Activities dB(A),Leq (Peak)
Propagated West to nearest Residential Boundaries (R1)**

Item/Activity	Lw dB(A)	Dist to Rec (m)	Duration (sec)	No. of Events	Barrier Loss/Dir	Received dB(A)
Refrig van on ramp	90	140	5	6	6	18
Refrig van reverse *	96	140	10	6	8	25
Refrig Unit	84	140	600	6	8	31
Load refrig van	76	140	600	6	10	21
Cars on ramp	86	140	5	150	6	28
Cars reverse	76	100	10	80	8	19
Plant in plant room	96	140	900	1	16	29
Combined						35
Criteria (Night)						40
Impact						0

* Includes reverse alarm.

Building Acoustics - Council/EPA Submissions - Modelling - Compliance - Certification

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**Table 2: Received Noise – Short-Term Events dB(A),L1 (1 minute)
Propagated West to nearest Residential Boundaries (R1)**


Item/Activity	Lw dB(A)	Dist to Rec (m)	Barrier Loss/Dir	Received dB(A),L1	Criterion dB(A),L1	Impact
Refrig van on ramp	90	140	6	33	45	0
Refrig van reverse	92	140	8	37	45	0
Refrig Unit	84	140	8	25	45	0
Load refrig van	76	140	10	15	45	0
Cars on ramp	86	140	6	29	45	0
Cars reverse	76	100	8	20	45	0
Plant in plant room	96	140	16	29	45	0

As can be seen by the results in the above Tables, noise emissions from early morning deliveries are predicted to be compliant with the adopted night criterion of 40dB(A),Leq and also the Sleep Arousal Criterion of 45dB(A),L1 at nearest residential boundaries. Note that noise emissions are also predicted to be below the lowest possible criterion of 35dB(A),Leq, in accordance with the requirements of the NSW Environment Protection Authority's (EPA's) Industrial Noise Policy (INP). We therefore see no acoustic reason why early morning van deliveries should not occur.

We assume this concludes our involvement in the project thus far. However, should you require further assistance, please contact the undersigned.

Prepared By:

REVERB ACOUSTICS



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Principal Consultant