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COMPLEX PROBLEMS
RESOLVED SIMPLY

10 August 2021

MR BARRY SWORDS
5/13 SYDNEY ROAD
MUDGEE NSW 2850

46 Market St
Mudgee NSW 2850
triaxial.com.au
1300 874 294

Dear Barry,

Re: Industrial Development – Wilkins Crescent, Mudgee, NSW 2850
Acoustic Statement – Updated Information
Reference: *TX14938.00-03.rpt.JD*

Triaxial have been engaged to provide an updated assessment of the anticipated acoustic impact of the proposed industrial units to be constructed at Wilkins Crescent, Mudgee. Reference is made to council correspondence dated 08 July 2021 requesting further information on the performance of the proposed UPVC fence sheeting as compared to the original timber fence.

Noise Limits

The development standard noise limits adopted for the purposes of this report are as per the table below, which lists standard day and night noise limits.

Table 1: Noise limits

Period	Day of week	Time period	Noise limit, L_{eff} dB
Day	Monday-Friday	0700-1800hrs	54
	Saturday	0700-1300hrs	
Evening	Monday-Friday	1800-2200hrs	48
	Saturday	1300-2200hrs	
	Sunday	0700-2200hrs	
Night	Monday-Sunday	2200-0700hrs	-

The noise limits have been taken at the closest point of existing buildings adjacent to the development, being 10m away from the lot boundary as shown on the image below. The noise source has been assessed as the centre of the path of travel along the rear boundary of the property, an offset of 3m from the boundary.

Noise Generation

Noise generation will be predominantly from vehicles being loaded and unloaded near the rear of the property. Noise generation levels are as per the original report and are shown below:

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Description	SWL
General purpose deliveries 1- 5 tonne	93
Loading bay activity with forklifts	95
Loading bay with scissor lift/hand trolley	80

Using the online sound propagation level calculator with the assumptions below, the results indicate that at a distance of 13m from the source of the noise the resulting sound pressure level had reduced to 53.1 decibels.

Assumptions used in the modelling include:

- 20°C Temperature
- 70% Humidity
- Barrier consisting of a 2.1m high PVC cladding. No allowance for ground absorption was used.

In order to accommodate the requirement to keep noise at the adjacent site to 54dB at any time, we recommend that a noise barrier consisting of a 2.1m PVC clad fence be constructed along the boundary of the development, as shown in the figure 2 below the noise limit at 10m from the boundary will be 53.1dB, which is under the required limit.

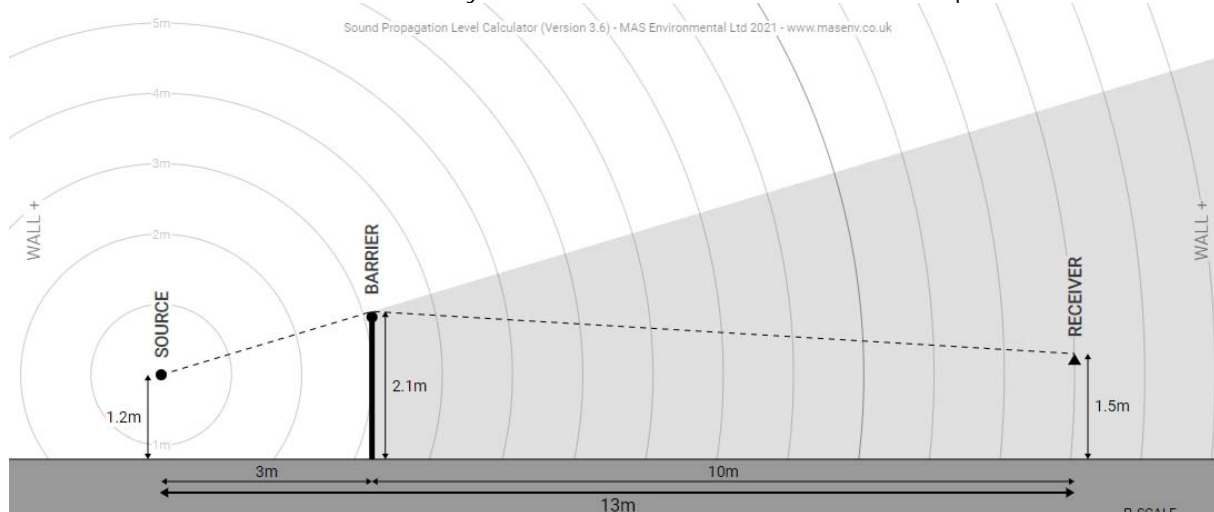


Figure 2: Source 95dB with effect of PVC clad barrier fence and limit at receiver (53.1dB).

Whilst slightly higher than the original proposed timber fence, the result at the receiver is still under the required limit and so the PVC cladding will be suitable to use. Should you have any queries regarding the information presented in this report please do not hesitate to contact us.

Yours faithfully

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JIM DISHER

B.E. (Civil), M.E. (Civil & Structural), MIE Aust

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