

Noise assessment addendum

Introduction

- 1.0 Following discussion with the Environmental Health Officer at HBC, the request below was received in relation to the submitted noise assessment prepared by Peter Brett Associates (PBA):

'Whilst fixed plant to be installed on this particular site has been taken cognizance of, there is no indication of impulse / tonal etc noise, created by articulated vehicles reversing, loading and off-loading of goods, use of forklifts and so forth being considered, as this site will be operated 24/7.'

- 1.1 This addendum to the aforementioned assessment provides detail on the impact of impulse / tonal noise from reversing vehicles etc in the service yard of Plot 2.

Design update

- 2.0 Since the application was submitted, one key revision is the addition of a 3m solid acoustic fence on the eastern, southern and western boundaries of the site. This is in part to prevent noise and light spillage into the bat foraging corridor in the adjacent woodland, however will also has a positive impact on general noise emitted from the plot.

Consideration of impulse / tonal noise

- 3.0 During the traffic operation on site, there is a possibility that impulse/ tonal noise would be created by articulated vehicles reversing, loading/ unloading of goods, use of forklifts, etc. In order to account for these sound characteristics, the predicted sound levels at the noise sensitive receivers could be adjusted in relation to the given operational data by 6 dB as a worst case scenario, resulting in predicted levels of 61 dB (A) for the daytime period and 56 dB (A) for the night time period. The additional reduction of 9 dB from the newly proposed 3m acoustic fence would result in levels of 52 dB (A) for the daytime period and 47 dB (A) for the night time period at the nearest noise sensitive receiver. The sound level change between the existing (measured) sound levels and the predicted sound levels when the effect of tonality and the acoustic fence are taken into account is 0-1 dB, which, according to **Table 6.1** (in Section 6 of the PBA report), is classified as negligible. These calculations are summarised in **Table A.1**, overleaf:

Table A.1 – Predicted daytime and night time sound levels for the future year 2020 at the noise sensitive receptors facades accounting for tonality of sounds and acoustic fence effect.

Time period	Predicted sound levels dB(A)			Measured Sound Levels dB(A)	Sound Level Change dB
	Initially	Tonality Effect (+ 6dB)	Acoustic Fence Effect (-9dB)		
Daytime (07:00 – 23:00 hours)	55	61	52	51	+ 1
Night time (23:00 – 07:00 hours)	50	56	47	47	0

Summary

- 4.0 The impact of impulse / tonal noise from within the service yard, and addition of the acoustic fence, results in negligible changes to measured sound levels at the nearest sensitive receptors during the day, and no change during night time. As such, the original conclusions of the noise assessment remain sound.