Attachment-7-1-3-2-Noise Emission Compliance Report

1. Sensitive Receptors

One-off housing in the locality is situated south-east, south, west and north-west of the subject site. Agricultural land surrounds the subject site on all sides except on the north-east where the proposed site is bordered by the existing site. Four Noise Sensitive Locations have been considered as part of this assessment. These NSL's are shown in Figure 1 in combination with the application site boundary.

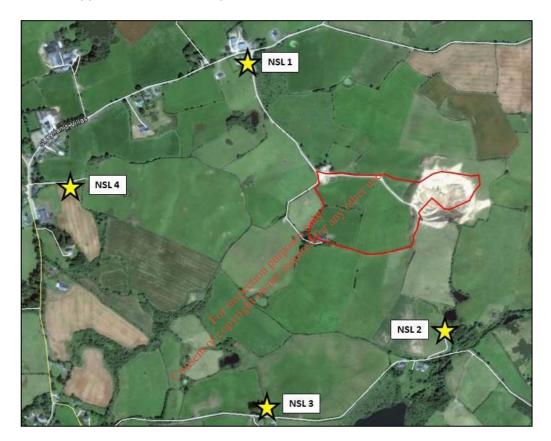


Figure 1: Map showing application site boundary

2. Noise Monitoring Locations

In determining the potential noise impacts of the proposed development on the surrounding environment it was necessary to identify NSL's. Four NSL were identified during a desktop survey of the site. NSL's were selected based on their proximity to the proposed development and their positions at various cardinal points north-west, south-east, south and west of the proposed development. Details on NSL's are shown in Table 2.

Noise Monitori ng Location	Description	Coordinates	Nature of intervening ground
NSL1	Residential property north- west of the site	52°24'58.9"N 6°23'53.3"W	Soft ground
NSL2	Residential property south- east of site	52°24'29.9"N 6°23'21.1"W	Soft ground
NSL3	Residential property south of Site	52°24'20.4"N 6°23'49.4"W	Soft ground
NSL4	Residential property west of the site	52°24'44.4"N 6°24'24.0"W	Soft ground

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Table	2:	NSL	Details

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Quarry Development Phase	NSL	Plant operatin g	Description	Development noise level at NSL (dB)	Background noise (dB)	Development noise level + Background (dB)
	1	All	Residential House	50.4	40.5	50.8
	2	All	Residential house	50.3	40.5	50.7
	3	All	Residential house	45.7	40.5	46.8
	4	All	Residential house	45.3	40.5	46.5
	1	All	Residential House	49.4 at 156	40.5	49.9
	2	All	Residential house	51.7 June office	40.5	52.0
	3	All	Residential house	47.21 of all	40.5	48.0
	4	All	Residential house	्र45्र	40.5	46.6
	1	All	Residential House	A7.5	40.5	48.3
	2	All	Residential house	pectonne 53.9	40.5	54.1
	3	All	Residential house	A 11 19 47.4	40.5	48.2
	4	All	Residential house	45.1	40.5	46.4

Table 1: Noise Prediction Results

3. Discussion of Results

Predicted overall ambient noise levels (operational phase Development Noise and Background Noise) are in all instances compliant with the EPA day-time noise limit value of 55 dB. These noise results are representative of worst-case scenario results as it is assumed all processes associated with the operational phase are running at the same time and that all noise sources are situated at along the site boundary closest to each NSL, relevant to each phase of the development

The increase in overall ambient noise levels when combining operational phase Development Noise with Background Noise is considered to be insignificant. In no instance, with reference to Table 4 below, is there a 'noticeable' increase in noise levels of (i.e. >3 dB).

Decibel change	Energy difference	Human Perception
-3dB	Half the energy	Clearly noticeable
+1dB	1.25 times the energy	Barely noticeable
+3dB	Twice the energy	Noticeable
+5dB	Triple the energy	Easily noticeable
+10dB	Ten times the energy	Twice as loud
+20dB	100 times	Four times as loud
+30dB	1000 times	Eight times as loud

Table 2: Difference in Decibel Noise Levels

As such the impact of Development Noise, associated with operational phase noise sources, on overall ambient noise is considered to be negligible. Additional mitigation measures are therefore considered unnecessary.

4.

Details of the baseline dust assessment, receiving environment and dust emissions impact assessment are provided within Attachment-7-3-1-3 Noise Emissions Impact Assessment.

Consent