Plot 1 Construction and Demolition Noise and Vibration Levels

Baseline Noise Levels

Table 1: Summary of Predicted Construction Noise Levels at Ecological Receptors

Sensitive Receptor	Daytime Noise Level
ESR A	54 dB L_{Aeq}
ESR B	54 dB L_{Aeq}
ESR C	46 to 54 dB L_{Aeq}
ESR D	46 to 47 dB L_{Aeq}

Demolition and Construction Noise

The noise levels predicted at the ecological receptors (ESR) are detailed in Table 2, although the significances of any effects are assumed to be detailed in the Ecology Impact Assessment.

Table 2: Summary of Predicted Construction Noise Levels at Ecological Receptors

Sensitive Receptor	Assessment Parameter	Development Stage			
		Site Preparation	Substructure	Super Structure	Landscaping
ESR A	Predicted Noise Level	47 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	37 dB $L_{Aeq,10hr}$
ESR B	Predicted Noise Level	47 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	37 dB $L_{Aeq,10hr}$
ESR C	Predicted Noise Level	83 dB $L_{Aeq,10hr}$	84 dB $L_{Aeq,10hr}$	84 dB $L_{Aeq,10hr}$	87 dB $L_{Aeq,10hr}$
ESR D	Predicted Noise Level	83 dB $L_{Aeq,10hr}$	84 dB $L_{Aeq,10hr}$	84 dB $L_{Aeq,10hr}$	87 dB $L_{Aeq,10hr}$

The mitigated noise levels predicted at the ecological receptors are detailed in Table 3, although the significances of any residual effects are assumed to be detailed in the Ecology Impact Assessment.

Table 3: Summary of Predicted Mitigated Construction Noise Levels at Ecological Receptors

Sensitive Receptor	Assessment Parameter	Development Stage			
		Site Preparation	Substructure	Super Structure	Landscaping
ESR A	Predicted Noise Level	47 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	37 dB $L_{Aeq,10hr}$
ESR B	Predicted Noise Level	47 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	48 dB $L_{Aeq,10hr}$	37 dB $L_{Aeq,10hr}$
ESR C	Predicted Noise Level	75 dB $L_{Aeq,10hr}$	74 dB $L_{Aeq,10hr}$	74 dB $L_{Aeq,10hr}$	75 dB $L_{Aeq,10hr}$
ESR D	Predicted Noise Level	75 dB $L_{Aeq,10hr}$	74 dB $L_{Aeq,10hr}$	74 dB $L_{Aeq,10hr}$	75 dB $L_{Aeq,10hr}$

Demolition and Construction Vibration

The vibration levels predicted at the ecological receptors are detailed in Table 4, although the significances of any effects are assumed to be detailed in the Ecology Impact Assessment. The unmitigated vibration levels are based on an assumption that percussive piling methods shall be used, such as impact bored piling.

Table 4: Summary of Predicted Construction Vibration Levels at Ecological Receptors

	Assessment Parameter	Development Stage

Sensitive Receptor		Substructure
ESR A	Predicted Vibration Level	0.00 mm/s
ESR B	Predicted Vibration Level	0.00 mm/s
ESR C	Predicted Vibration Level	9.52 mm/s
ESR D	Predicted Vibration Level	9.52 mm/s

The mitigated vibration levels predicted at the ecological receptors are detailed in Table 5, although the significances of any residual effects are assumed to be detailed in the Ecology Impact Assessment. The mitigated vibration levels are based on piling methods that can be adopted with lower vibration emissions, including driven cast in-situ piling and continuous flight auger piling methods.

Table 5: Summary of Predicted Mitigated Construction Vibration Levels at Ecological Receptors

Sensitive Receptor	Assessment Parameter	Development Stage
		Substructure
ESR A	Predicted Vibration Level	0.00 mm/s
ESR B	Predicted Vibration Level	0.00 mm/s
ESR C	Predicted Vibration Level	7.00 mm/s
ESR D	Predicted Vibration Level	7.00 mm/s

Picture 1: sensitive ecological receptors included within construction and demolition noise and vibration levels assessment.