

## **APPENDIX 13.3**

## Appendix 13.3: Construction Noise Assessment

The significance criteria for the noise assessment of the Work are based on 'The ABC Method' from BS 5228-1:2009 + A1 2014. An extract describing this method is provided below on **Table 13.3.1**.

Table 13.3.1: ABC Categories

Assessment category and threshold value period ( $L_{Aeq}$ )	Threshold Value, in decibels (dB)		
	Category A <sup>A)</sup>	Category B <sup>B)</sup>	Category C <sup>C)</sup>
Night-time (23.00-07.00)	45	50	55
Evenings and weekends <sup>D)</sup>	55	60	65
Daytime (07.00-19.00) and Saturdays (07.00-13.00)	65	70	75

NOTE 1 A potential significant effect is indicated if the  $L_{Aeq, T}$  noise level arising from the site exceeds the threshold level for the category appropriate to the ambient noise level.

NOTE 2 If the ambient noise level exceeds the threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a significant effect is deemed to occur if the total  $L_{Aeq}$  noise level for the period increases by more than 3 dB due to construction activity.

NOTE 3 Applied to residential receptors only.

<sup>A)</sup> Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

<sup>B)</sup> Category B: threshold values to use when the ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

<sup>C)</sup> Category C: threshold values to use when the ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

<sup>D)</sup> 19.00-23.00 weekdays, 13.00-23.00 Saturdays and 07.00-23.00 Sundays.

Source: BS 5228-1:2009, Page119

Predicted construction noise levels both with and without mitigation are summarised in **Table 13.3.2** to **Table 13.3.7**.

## Predicted Construction Noise Levels – With No Mitigation

Table 13.3.2: Predicted Construction Noise Levels SR A – No Mitigation

Construction Phase / Activity	Noise level at NSR (dB(A))	Period	Ambient noise level (dB(A))	Ambient noise level rounded to 5dB (dB(A))	Category	Site Noise Level (dB(A))	Threshold value (dB(A))	Value over threshold (dB(A))	Significance
Site Establishment, Enabling	70	Daytime	67	65	B	70	70	0	Minor Adverse
Substructure and Piling	75	Daytime	67	65	B	75	70	5	Moderate Adverse
Building Construction & Fit-Out	76	Daytime	67	65	B	76	70	6	Moderate Adverse
Landscaping & External Works	75	Daytime	67	65	B	75	70	5	Moderate Adverse

Table 13.3.3: Predicted Construction Noise Levels SR B – No Mitigation

Construction Phase / Activity	Noise level at NSR (dB(A))	Period	Ambient noise level (dB(A))	Ambient noise level rounded to 5dB (dB(A))	Category	Site Noise Level (dB(A))	Threshold value (dB(A))	Value over threshold (dB(A))	Significance
Site Establishment, Enabling	70	Daytime	67	65	B	70	70	0	Minor Adverse
Substructure and Piling	75	Daytime	67	65	B	75	70	5	Moderate Adverse
Building Construction & Fit-Out	76	Daytime	67	65	B	76	70	6	Moderate Adverse
Landscaping & External Works	75	Daytime	67	65	B	75	70	5	Moderate Adverse

Table 13.3.4: Predicted Construction Noise Levels SR C – No Mitigation

Construction Phase / Activity	Noise level at NSR (dB(A))	Period	Ambient noise level (dB(A))	Ambient noise level rounded to 5dB (dB(A))	Category	Site Noise Level (dB(A))	Threshold value (dB(A))	Value over threshold (dB(A))	Significance
Site Establishment, Enabling	76	Daytime	61	60	A	76	65	11	Substantial Adverse
Substructure and Piling	81	Daytime	61	60	A	81	65	17	Substantial Adverse
Building Construction & Fit-Out	82	Daytime	61	60	A	82	65	16	Substantial Adverse
Landscaping & External Works	81	Daytime	61	60	A	81	65	16	Substantial Adverse

### Predicted Construction Noise Levels – With Mitigation

Table 13.3.5: Predicted Construction Noise Levels SR A – With Mitigation

Construction Phase / Activity	Noise level at NSR (dB(A))	Period	Ambient noise level (dB(A))	Ambient noise level rounded to 5dB (dB(A))	Category	Site Noise Level (dB(A))	Threshold value (dB(A))	Value over threshold (dB(A))	Significance
Site Establishment, Enabling	60	Daytime	67	65	B	60	70	-10	Negligible
Substructure and Piling	65	Daytime	67	65	B	65	70	-5	Negligible
Building Construction & Fit-Out	66	Daytime	67	65	B	66	70	-4	Negligible
Landscaping & External Works	65	Daytime	67	65	B	65	70	-5	Negligible

Table 13.3.6: Predicted Construction Noise Levels SR B – With Mitigation

Construction Phase / Activity	Noise level at NSR (dB(A))	Period	Ambient noise level (dB(A))	Ambient noise level rounded to 5dB (dB(A))	Category	Site Noise Level (dB(A))	Threshold value (dB(A))	Value over threshold (dB(A))	Significance
Site Establishment, Enabling	60	Daytime	67	65	B	60	70	-10	Negligible
Substructure and Piling	65	Daytime	67	65	B	65	70	-5	Negligible
Building Construction & Fit-Out	66	Daytime	67	65	B	66	70	-4	Negligible
Landscaping & External Works	65	Daytime	67	65	B	65	70	-5	Negligible

Table 13.3.7: Predicted Construction Noise Levels SR C – With Mitigation

Construction Phase / Activity	Noise level at NSR (dB(A))	Period	Ambient noise level (dB(A))	Ambient noise level rounded to 5dB (dB(A))	Category	Site Noise Level (dB(A))	Threshold value (dB(A))	Value over threshold (dB(A))	Significance
Site Establishment, Enabling	66	Daytime	67	65	B	66	70	-4	Negligible
Substructure and Piling	71	Daytime	67	65	B	71	70	1	Minor Adverse
Building Construction & Fit-Out	72	Daytime	67	65	B	72	70	2	Minor Adverse
Landscaping & External Works	71	Daytime	67	65	B	71	70	1	Minor Adverse