

Appendix 4.10c Construction Noise Assessment with Implementation of Further Noise Mitigation Measures for STTNV5

NAP: STTNV5

Period	Construction Activities	Work Zone	Location	Reduction of number of PME	Mitigated SWL, dB(A)	Distance from Notional Source Position, m	Distance Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Predicted Noise Level, dB(A)
Oct 2030 - Nov 2030	Foundation of Noise Barrier	1	Outside 45m Buffer Zone	N/A	107	45	-41.1	0	3	68.9
	Pile Cap, L-retaining Wall and Formation of new road ^(a)	1	Within 45m Buffer Zone		107	34	-38.6	0	3	71.4
	Utilities Diversion	1	Outside 45m Buffer Zone		104	45	-41.1	0	3	65.9
	Erection of structural steel post for noise barrier	1	Outside 45m Buffer Zone		100	45	-41.1	0	3	61.9
	Maximum noise contribution from construction activities in Zone 2 during this period:									
Overall Predicted Noise Level, dB(A)										74
Daytime Noise Criteria, dB(A)										75
Compliance										Yes

Period	Construction Activities	Work Zone	Location	Reduction of number of PME	Mitigated SWL, dB(A)	Distance from Notional Source Position, m	Distance Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Predicted Noise Level, dB(A)
Apr 2032 - May 2032	Slope Formation / Upgrading Works ^(a)	1	Within 45m Buffer Zone	N/A	108	34	-38.6	0	3	72.4
	Foundation of Noise Barrier	1	Outside 45m Buffer Zone		107	45	-41.1	0	3	68.9
	Pile Cap and Formation of new road	1	Outside 45m Buffer Zone		107	45	-41.1	0	3	68.9
	Maximum noise contribution from construction activities in Zone 2 during this period:									
Overall Predicted Noise Level, dB(A)										75
Daytime Noise Criteria, dB(A)										75
Compliance										Yes

Period	Construction Activities	Work Zone	Location	Reduction of number of PME	Mitigated SWL, dB(A)	Distance from Notional Source Position, m	Distance Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Predicted Noise Level, dB(A)
Aug 2032	Foundation of Noise Barrier	1	Outside 45m Buffer Zone	N/A	107	45	-41.1	0	3	68.9
	Pile Cap and Formation of new road ^(a)	1	Within 45m Buffer Zone		107	34	-38.6	0	3	71.4
	Utilities Diversion	1	Outside 45m Buffer Zone		104	45	-41.1	0	3	65.9
	Erection of structural steel post for noise barrier	1	Outside 45m Buffer Zone		100	45	-41.1	0	3	61.9
	Maximum noise contribution from construction activities in Zone 2 during this period:									
Overall Predicted Noise Level, dB(A)										74
Daytime Noise Criteria, dB(A)										75
Compliance										Yes

Period	Construction Activities	Work Zone	Location	Reduction of number of PME	Mitigated SWL, dB(A)	Distance from Notional Source Position, m	Distance Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Predicted Noise Level, dB(A)	
Aug 2033	Erection of steel member and noise barrier panel at north bound	1	Outside 45m Buffer Zone	N/A	100	45	-41.1	0	3	61.9	
	Erection of steel member and noise barrier panel at south bound	1	Outside 45m Buffer Zone		100	45	-41.1	0	3	61.9	
	Road Drainage	1	Outside 45m Buffer Zone		103	45	-41.1	0	3	64.9	
	Road Surfacing ^(a)	1	Within 45m Buffer Zone		109	34	-38.6	0	3	73.4	
	Roadlighting and EM&A works	1	Outside 45m Buffer Zone		96	45	-41.1	0	3	57.9	
	Landscaping works at north bound	1	Outside 45m Buffer Zone		100	45	-41.1	0	3	61.9	
	Maximum noise contribution from construction activities in Zone 2 during this period:										
	Overall Predicted Noise Level, dB(A)										75
Daytime Noise Criteria, dB(A)										75	
Compliance										Yes	

Note:

(a) The construction activity with the highest SWL.

(b) Only one construction activity would be located in the buffer zone. The activity with the highest SWL located in the buffer zone represents the worst case scenario.