Appendix 9.2: Operational Groundborne Noise Assessment Results

Project: SCL (HHS)

Item	NSR	Location	Floor	Horizontal Distance		Vertical Distance		Reference Borehole[1]		TCF[2]	TOC[3]		Track Type[4]		CCF	BCF	L_{max}[5]	Speed[6]	Passby Duration	SEL[7] 1UP&DN	Train Freqency	Predicted $L_{eq\ 30min}$ (dB(A))				Cumulative Noise Level (dB(A))	NCO Criteria (Nighttime)	Criteria Achieved?
				Up Track (m)	Down Track (m)	Up Track (m)	Down Track (m)	Up	Down		Up	Down	Up	Down								SCL (HHS)	SCL (TAW-HUH)	SL (MKK-HUH)	KTE			
																		kph	(sec)	(dB(A))	no./30m/dir							
1	DIH-11-1	Lung Wan House	1	80	65	25	25	D002	D002	S	0	0	0	0	N	N	26	35	20	42	6	<20	---	---	---	<20	45	Yes
2	DIH-P3-1	TBA	2	30	10	20	20	D002	D002	S	0	0	0	0	N	N	47	60	11	61	6	36	---	---	---	36	45	Yes
3	DIH-P3-2	TBA	2	30	10	20	20	D002	D002	S	0	0	0	0	N	N	47	60	11	61	6	36	---	---	---	36	45	Yes
4	KAT-P1-1	Residential premises near Kai Tak Station	2	75	90	15	17	D018	D018	S	1	0	0	0	N	N	32	35	20	48	6	23	---	---	---	23	45	Yes
5	KAT-P1-2	Residential premises near Kai Tak Station	2	75	90	15	17	D018	D018	S	0	1	0	0	N	N	35	50	14	49	6	25	---	---	---	25	45	Yes
6	KAT-P1-3	Residential premises near Kai Tak Station	2	55	70	15	17	D018	D018	C	1	0	0	0	N	N	43	70	10	56	6	31	---	---	---	31	45	Yes
7	KAT-P1-4	Residential premises near Kai Tak Station	2	80	65	15	17	D018	D018	S	0	0	0	0	N	N	30	65	11	44	6	<20	---	---	---	<20	45	Yes
8	KAT-P1-5	Residential premises near Kai Tak Station Site 1A	2	10	20	15	17	D018	D018	C	0	0	0	0	N	N	51	60	11	64	6	40	---	---	---	40	45	Yes
9	KAT-P1-6	Residential premises near Kai Tak Station Site 1B	2	180	165	15	17	D018	D018	S	1	0	0	0	N	N	36	55	12	50	6	25	---	---	---	25	45	Yes
10	HUH-1-3	Wing Fung Building	1	45	-	5	-	D018	-	B	0	-	0	-	N	N	30	25	27	47	6	22	38	20	<20	38	45	Yes

Notes:

[1] Reference boreholes are taken from the approved WIL EIA report.

[3] Daytime criteria are used for educational buildings, church and temple.

[2] TCF types : B - Bored tunnel, C - Cut and cover tunnel, S - Station

[3] TOC types : 0 - No turnouts, 1 - turnout, 2 - inclined turnout

[4] Track Type 0 = Direct Fixation, 1 = Atl 1 Baseplate, Type 2 = Egg Type Baseplate, Type 3 = 12.5Hz FST.

[5] L_{max} has incorporated a +0.5dB(A) correction to passby L_{eq} based on previous study.

[6] FDL based on 60kph data and adjusted by the correction factor of $20 \times \log(V/V_{ref})$, in line with FTA manual.

[7] Calculation based on 8-car train with 23.75m legth for each car.

[8] Nighttime train frequency is presented. For HHS, 6 trains per 30 minutes is assumed at the tunnel section under Chatham Road North for turning around.