Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

Shun Man House (South) (OM1a) Noise Levels
0700-2300

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	5	6	6	7	12	15	20	24	70	110	131	5	5	6	6	12	15	19	23	34	65	130
	Angle End	6	6	7	8	15	20	24	70	110	131	146	5	6	6	7	15	19	23	34	65	130	147
B1 (Slope)	Barrier Height, m								18.7	18.7	18.7	18.7								18.7	18.7	18.7	18.7
	Barrier to Source Distance, m								22.0	22.0	22.0	21.0								18.0	18.0	18.0	17.0
B2	Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
(Parapet/Tunnel)	Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	0.2	131.2	(0.0)	0.3	136.8	2.2	1.1					1.1	132.5	0.3	1.5	138.4	4.4	2.7				
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Hori Dist, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Slant Dist, m	44.4	43.3	42.2	40.8	46.3	45.2	44.7	44.7	44.7	44.7	44.7	41.8	40.6	39.5	38.0	43.0	41.8	41.3	41.3	41.3	41.3	41.3
	Angle of View, θ^o	0.5	0.5	0.5	1.0	3.0	5.0	4.0	46.0	40.0	21.0	15.0	0.5	0.5	0.5	1.0	3.0	4.5	4.0	11.0	31.0	65.0	17.0
	Angle of Orientation of the Segment, α^o	5.3	5.8	6.3	7.0	13.5	17.5	22.0	47.0	90.0	59.5	41.5	4.8	5.3	5.8	6.5	13.0	16.8	21.0	28.5	49.5	82.5	41.5
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(2.5)	(2.4)	(2.3)	(2.1)	(2.7)	(2.6)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.2)	(2.1)	(2.0)	(1.8)	(2.4)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)
	Angle of View Correction, dB(A)	(43.3)	(42.6)	(41.8)	(37.8)	(27.4)	(23.0)	(22.1)	(5.7)	(3.7)	(7.7)	(11.4)	(44.2)	(43.3)	(42.6)	(38.5)	(27.7)	(23.8)	(22.5)	(15.6)	(7.1)	(2.0)	(10.8)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(12.3)	(21.0)	(2.7)	(14.4)	(21.0)	(20.6)	(18.3)	(21.0)	(21.0)	(21.0)	(21.0)	(18.3)	(21.0)	(13.6)	(19.2)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	26.3	18.6	37.7	30.1	33.4	35.9	39.1	59.8	56.3	59.3	50.7	19.7	18.0	26.4	25.0	33.4	34.9	36.4	43.3	60.3	58.4	51.6
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	63.7											62.8										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(2.2)	(2.1)	(2.0)	(1.9)	(2.5)	(2.4)	(2.3)	(2.3)	(2.3)	(2.3)	(2.3)	(1.9)	(1.8)	(1.7)	(1.5)	(2.1)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
	Angle of View Correction, dB(A)	(43.3)	(42.6)	(41.8)	(37.8)	(27.4)	(23.0)	(22.1)	(5.7)	(3.7)	(7.7)	(11.4)	(44.2)	(43.3)	(42.6)	(38.5)	(27.7)	(23.8)	(22.5)	(15.6)	(7.1)	(2.0)	(10.8)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	22.3	23.2	24.0	28.1	37.9	42.5	43.4	59.8	61.8	57.8	53.1	21.7	22.7	23.6	27.9	38.0	42.0	43.4	50.3	58.8	63.9	54.0
	SEL of Single PassBy (A/C Noise), dB(A)	65.2											65.6										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	67.6											67.4										
	Train Frequency, No. of Train per 30min	15.0											15.0										
	SEL of the Track (Multiple PassBy), dB(A)	79.3											79.2										
	Leq,30min of the Track, dB(A)	46.8											46.7										
	Leq,30min, dB(A)	**49.7**																					
	+ 5 Floors, + 14 m																						
	Receiver Height, m	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.0)	107.6	(0.4)	0.0	115.6	0.8	0.2					0.4	107.9	0.0	0.5	116.2	2.5	1.2				
	Slant Dist, m	55.5	54.3	53.0	51.4	55.3	53.9	53.2	53.2	53.2	53.2	53.2	53.5	52.2	50.9	49.2	52.6	51.1	50.4	50.4	50.4	50.4	50.4
Wheel/Rail Noise	Distance Correction, dB(A)	(3.5)	(3.4)	(3.3)	(3.1)	(3.4)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.2)	(3.1)	(2.9)	(3.2)	(3.1)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)
	Screening Correction, dB(A)	(4.2)	(21.0)	(0.1)	(5.6)	(21.0)	(17.2)	(12.7)	(21.0)	(21.0)	(21.0)	(21.0)	(15.1)	(21.0)	(6.9)	(15.9)	(21.0)	(21.0)	(18.6)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	33.5	17.6	39.3	37.9	32.6	38.5	43.9	59.0	55.5	58.6	49.9	21.9	17.0	32.0	27.2	32.5	34.1	37.9	42.4	59.4	57.5	50.7
	SEL of Single PassBy, dB(A)	63.1											62.0										
A/C Noise	Distance Correction, dB(A)	(3.2)	(3.1)	(3.0)	(2.9)	(3.2)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.0)	(2.9)	(2.8)	(2.7)	(3.0)	(2.9)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
	SEL of the Segment, dB(A)	21.3	22.2	23.0	27.1	37.2	41.7	42.7	59.1	61.1	57.1	52.4	20.6	21.6	22.5	26.7	37.1	41.2	42.6	49.5	58.0	63.1	53.2
	SEL of Single PassBy, dB(A)	64.5											64.8										
Total	Total SEL of Single PassBy, dB(A)	66.8											66.6										
	Leq,30min of the Track,dB(A), dB(A)	46.0											45.8										
	Leq,30min, dB(A)	**48.9**																					
	+ 10 Floors, + 28.0 m																						
	Receiver Height, m	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.1)	83.5	(0.8)	(0.1)	93.3	0.2	0.0					0.1	83.0	(0.0)	0.2	93.2	1.4	0.5				
	Slant Dist, m	67.8	66.4	65.1	63.3	66.1	64.5	63.7	63.7	63.7	63.7	63.7	66.1	64.7	63.3	61.5	63.9	62.2	61.4	61.4	61.4	61.4	61.4
Wheel/Rail Noise	Distance Correction, dB(A)	(4.3)	(4.2)	(4.2)	(4.0)	(4.2)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.2)	(4.1)	(4.0)	(3.9)	(4.1)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)
	Screening Correction, dB(A)	(1.1)	(21.0)	0.0	(1.3)	(21.0)	(13.2)	(5.6)	(21.0)	(21.0)	(21.0)	(21.0)	(12.0)	(21.0)	(2.9)	(12.6)	(21.0)	(19.1)	(16.0)	(20.5)	(20.5)	(20.5)	(20.5)
	SEL of the Segment, dB(A)	35.8	16.7	38.5	41.3	31.9	41.7	50.3	58.3	54.7	57.8	49.1	24.0	16.0	35.0	29.5	31.7	35.1	39.7	42.0	59.0	57.1	50.3
	SEL of Single PassBy, dB(A)	62.5											61.6										
A/C Noise	Distance Correction, dB(A)	(4.1)	(4.0)	(3.9)	(3.8)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(4.0)	(3.9)	(3.8)	(3.7)	(3.9)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)
	SEL of the Segment, dB(A)	20.4	21.3	22.1	26.2	36.4	40.9	41.9	58.3	60.3	56.3	51.6	19.6	20.6	21.5	25.7	36.3	40.3	41.7	48.6	57.1	62.2	52.3
	SEL of Single PassBy, dB(A)	63.7											63.9										
Total	Total SEL of Single PassBy, dB(A)	66.2											65.9										
	Leq,30min of the Track,dB(A), dB(A)	45.4											45.1										
	Leq,30min, dB(A)	**48.3**																					
	+ 15 Floors, + 42.0 m																						
	Receiver Height, m	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.3)	60.2	(1.1)	(0.3)	71.4	0.0	(0.1)					0.0	58.8	(0.1)	0.1	70.4	0.9	0.2				
	Slant Dist, m	80.6	79.2	77.8	75.9	77.9	76.2	75.3	75.3	75.3	75.3	75.3	79.2	77.7	76.3	74.5	76.0	74.2	73.4	73.4	73.4	73.4	73.4
Wheel/Rail Noise	Distance Correction, dB(A)	(5.1)	(5.0)	(4.9)	(4.8)	(4.9)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(5.0)	(4.9)	(4.8)	(4.7)	(4.8)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)
	Screening Correction, dB(A)	(0.3)	(21.0)	0.0	(0.3)	(21.0)	(8.4)	(1.6)	(21.0)	(20.6)	(20.6)	(20.6)	(9.1)	(21.0)	(1.5)	(9.6)	(21.0)	(17.5)	(13.3)	(19.3)	(19.3)	(19.3)	(19.3)
	SEL of the Segment, dB(A)	35.8	15.9	37.7	41.5	31.2	45.8	53.6	57.5	54.4	57.4	48.8	26.2	15.2	35.6	31.7	30.9	35.9	41.6	42.5	59.5	57.6	50.8
	SEL of Single PassBy, dB(A)	62.4											62.1										
A/C Noise	Distance Correction, dB(A)	(4.9)	(4.8)	(4.7)	(4.6)	(4.8)	(4.7)	(4.6)	(4.6)	(4.6)	(4.6)	(4.6)	(4.8)	(4.7)	(4.6)	(4.5)	(4.6)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)
	SEL of the Segment, dB(A)	19.6	20.5	21.3	25.4	35.7	40.2	41.2	57.6	59.5	55.6	50.8	18.8	19.8	20.6	24.8	35.5	39.5	40.9	47.8	56.3	61.4	51.5
	SEL of Single PassBy, dB(A)	63.0											63.1										
Total	Total SEL of Single PassBy, dB(A)	65.7											65.6										
	Leq,30min of the Track,dB(A), dB(A)	44.9											44.8										
	Leq,30min, dB(A)	**47.9**																					
	+ 21 Floors, + 58.8 m																						
	Receiver Height, m	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.5)	35.6	(1.5)	(0.5)	47.5	(0.0)	(0.2)					0.0	33.1	(0.2)	0.0	45.5	0.5	0.1				
	Slant Dist, m	96.4	94.9	93.5	91.6	92.9	91.1	90.2	90.2	90.2	90.2	90.2	95.2	93.7	92.3	90.4	91.3	89.5	88.6	88.6	88.6	88.6	88.6
Wheel/Rail Noise	Distance Correction, dB(A)	(5.9)	(5.8)	(5.7)	(5.6)	(5.7)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.8)	(5.7)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)
	Screening Correction, dB(A)	0.0	(21.0)	0.0	0.0	(21.0)	(4.3)	(0.4)	(21.0)	(19.8)	(19.8)	(19.8)	(6.3)	(21.0)	(0.8)	(6.5)	(21.0)	(15.8)	(10.2)	(18.0)	(18.0)	(18.0)	(18.0)
	SEL of the Segment, dB(A)	35.3	15.2	36.9	41.0	30.4	49.1	54.0	56.7	54.4	57.5	48.9	28.1	14.4	35.5	33.9	30.1	36.8	43.9	42.9	59.9	58.0	51.2
	SEL of Single PassBy, dB(A)	62.4											62.6										
A/C Noise	Distance Correction, dB(A)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.6)	(5.6)	(5.5)	(5.4)	(5.5)	(5.4)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)
	SEL of the Segment, dB(A)	18.8	19.7	20.4	24.5	34.9	39.4	40.4	56.7	58.7	54.8	50.0	18.0	18.9	19.8	24.0	34.6	38.7	40.1	47.0	55.5	60.6	50.7
	SEL of Single PassBy, dB(A)	62.1											62.2										
Total	Total SEL of Single PassBy, dB(A)	65.3											65.4										
	Leq,30min of the Track,dB(A), dB(A)	44.5											44.6										
	Leq,30min, dB(A)	**47.6**																					

***Remark**

[a] Barrier Correction Based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier Correction Based on the dimension of Cross Section B shown in Appendix 6.14

Shun Man House (North) (OM1b) Noise Levels
0700-2300

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	3	4	4	5	10	12	15	18	40	64	90	3	3	4	4	10	12	15	16	28	36	82
	Angle End	4	4	5	5	12	15	18	40	64	90	115	3	4	4	5	12	15	16	28	36	82	116
B1 (Slope)	Barrier Height, m								18.7	18.7	18.7	18.7								18.7	18.7	18.7	18.7
	Barrier to Source Distance, m								22.0	22.0	22.0	21.0								18.0	18.0	18.0	17.0
B2	Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
(Parapet/Tunnel)	Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	0.2	131.2	(0.0)	0.3	136.8	2.2	1.1					1.1	132.5	0.3	1.5	138.4	4.4	2.7				
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Hori Dist, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Slant Dist, m	44.4	43.3	42.2	40.8	46.3	45.2	44.7	44.7	44.7	44.7	44.7	41.8	40.6	39.5	38.0	43.0	41.8	41.3	41.3	41.3	41.3	41.3
	Angle of View, θ^o	0.5	0.5	0.5	0.5	2.0	3.0	3.0	22.0	24.0	26.0	25.0	0.5	0.5	0.5	0.5	2.0	3.0	1.5	12.0	8.0	46.0	34.0
	Angle of Orientation of the Segment, α^o	3.3	3.8	4.3	4.8	11.0	13.5	16.5	29.0	52.0	77.0	77.5	2.8	3.3	3.8	4.3	10.5	13.0	15.3	22.0	32.0	59.0	81.0
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(2.5)	(2.4)	(2.3)	(2.1)	(2.7)	(2.6)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.2)	(2.1)	(2.0)	(1.8)	(2.4)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)
	Angle of View Correction, dB(A)	(47.5)	(46.3)	(45.2)	(44.2)	(30.9)	(27.4)	(25.7)	(12.3)	(7.9)	(5.7)	(5.9)	(48.9)	(47.5)	(46.3)	(45.2)	(31.3)	(27.7)	(29.4)	(17.2)	(16.0)	(4.4)	(4.5)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(12.3)	(21.0)	(2.7)	(14.4)	(21.0)	(20.6)	(18.3)	(21.0)	(21.0)	(21.0)	(21.0)	(18.3)	(21.0)	(13.6)	(19.2)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	22.2	14.9	34.3	23.7	29.9	31.5	35.5	53.2	52.1	61.3	56.2	15.0	13.9	22.7	18.3	29.8	31.0	29.4	41.6	51.3	55.9	57.9
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	63.3											60.6										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(2.2)	(2.1)	(2.0)	(1.9)	(2.5)	(2.4)	(2.3)	(2.3)	(2.3)	(2.3)	(2.3)	(1.9)	(1.8)	(1.7)	(1.5)	(2.1)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
	Angle of View Correction, dB(A)	(47.5)	(46.3)	(45.2)	(44.2)	(30.9)	(27.4)	(25.7)	(12.3)	(7.9)	(5.7)	(5.9)	(48.9)	(47.5)	(46.3)	(45.2)	(31.3)	(27.7)	(29.4)	(17.2)	(16.0)	(4.4)	(4.5)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	18.1	19.5	20.7	21.8	34.4	38.0	39.8	53.2	57.6	59.8	58.6	17.0	18.5	19.9	21.2	34.4	38.1	36.5	48.7	49.8	61.4	60.4
	SEL of Single PassBy (A/C Noise), dB(A)	64.0											64.3										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	66.6											65.8										
	Train Frequency, No. of Train per 30min	15.0											15.0										
	SEL of the Track (Multiple PassBy), dB(A)	78.4											77.6										
	Leq,30min of the Track, dB(A)	45.9											45.0										
	Leq,30min, dB(A)	**48.5**																					
	+ 5 Floors, + 14 m																						
	Receiver Height, m	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.0)	107.6	(0.4)	0.0	115.6	0.8	0.2					0.4	107.9	0.0	0.5	116.2	2.5	1.2				
	Slant Dist, m	55.5	54.3	53.0	51.4	55.3	53.9	53.2	53.2	53.2	53.2	53.2	53.5	52.2	50.9	49.2	52.6	51.1	50.4	50.4	50.4	50.4	50.4
Wheel/Rail Noise	Distance Correction, dB(A)	(3.5)	(3.4)	(3.3)	(3.1)	(3.4)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.2)	(3.1)	(2.9)	(3.2)	(3.1)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)
	Screening Correction, dB(A)	(4.2)	(21.0)	(0.1)	(5.6)	(21.0)	(17.2)	(12.7)	(21.0)	(21.0)	(21.0)	(21.0)	(15.1)	(21.0)	(6.9)	(15.9)	(21.0)	(21.0)	(18.6)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	29.4	13.9	36.0	31.5	29.1	34.1	40.3	52.4	51.4	60.5	55.4	17.2	12.8	28.3	20.5	28.9	30.2	30.9	40.7	50.4	55.0	57.1
	SEL of Single PassBy, dB(A)	62.6											59.8										
A/C Noise	Distance Correction, dB(A)	(3.2)	(3.1)	(3.0)	(2.9)	(3.2)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.0)	(2.9)	(2.8)	(2.7)	(3.0)	(2.9)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
	SEL of the Segment, dB(A)	17.1	18.5	19.7	20.8	33.7	37.3	39.1	52.5	56.9	59.1	57.9	15.9	17.4	18.8	20.0	33.5	37.2	35.6	47.8	49.0	60.6	59.5
	SEL of Single PassBy, dB(A)	63.2											63.4										
Total	Total SEL of Single PassBy, dB(A)	65.9											65.0										
	Leq,30min of the Track,dB(A), dB(A)	45.1											44.2										
	Leq,30min, dB(A)	**47.7**																					
	+ 10 Floors, + 28.0 m																						
	Receiver Height, m	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.1)	83.5	(0.8)	(0.1)	93.3	0.2	0.0					0.1	83.0	(0.0)	0.2	93.2	1.4	0.5				
	Slant Dist, m	67.8	66.4	65.1	63.3	66.1	64.5	63.7	63.7	63.7	63.7	63.7	66.1	64.7	63.3	61.5	63.9	62.2	61.4	61.4	61.4	61.4	61.4
Wheel/Rail Noise	Distance Correction, dB(A)	(4.3)	(4.2)	(4.2)	(4.0)	(4.2)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.2)	(4.1)	(4.0)	(3.9)	(4.1)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)
	Screening Correction, dB(A)	(1.1)	(21.0)	0.0	(1.3)	(21.0)	(13.2)	(5.6)	(21.0)	(21.0)	(21.0)	(21.0)	(12.0)	(21.0)	(2.9)	(12.6)	(21.0)	(19.1)	(16.0)	(20.5)	(20.5)	(20.5)	(20.5)
	SEL of the Segment, dB(A)	31.6	13.0	35.2	34.9	28.3	37.3	46.6	51.6	50.6	59.7	54.7	19.3	11.9	31.3	22.8	28.1	31.2	32.8	40.3	50.0	54.6	56.7
	SEL of Single PassBy, dB(A)	61.9											59.4										
A/C Noise	Distance Correction, dB(A)	(4.1)	(4.0)	(3.9)	(3.8)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(4.0)	(3.9)	(3.8)	(3.7)	(3.9)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)
	SEL of the Segment, dB(A)	16.2	17.6	18.7	19.8	32.9	36.5	38.3	51.7	56.1	58.3	57.1	14.9	16.4	17.8	19.0	32.7	36.4	34.8	46.9	48.1	59.7	58.6
	SEL of Single PassBy, dB(A)	62.4											62.5										
Total	Total SEL of Single PassBy, dB(A)	65.2											64.3										
	Leq,30min of the Track,dB(A), dB(A)	44.4											43.5										
	Leq,30min, dB(A)	**47.0**																					
	+ 15 Floors, + 42.0 m																						
	Receiver Height, m	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.3)	60.2	(1.1)	(0.3)	71.4	0.0	(0.1)					0.0	58.8	(0.1)	0.1	70.4	0.9	0.2				
	Slant Dist, m	80.6	79.2	77.8	75.9	77.9	76.2	75.3	75.3	75.3	75.3	75.3	79.2	77.7	76.3	74.5	76.0	74.2	73.4	73.4	73.4	73.4	73.4
Wheel/Rail Noise	Distance Correction, dB(A)	(5.1)	(5.0)	(4.9)	(4.8)	(4.9)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(5.0)	(4.9)	(4.8)	(4.7)	(4.8)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)
	Screening Correction, dB(A)	(0.3)	(21.0)	0.0	(0.3)	(21.0)	(8.4)	(1.6)	(21.0)	(20.6)	(20.6)	(20.6)	(9.1)	(21.0)	(1.5)	(9.6)	(21.0)	(17.5)	(13.3)	(19.3)	(19.3)	(19.3)	(19.3)
	SEL of the Segment, dB(A)	31.7	12.2	34.4	35.1	27.6	41.3	49.9	50.9	50.2	59.4	54.3	21.5	11.1	31.9	25.0	27.3	32.0	34.6	40.8	50.5	55.1	57.1
	SEL of Single PassBy, dB(A)	61.7											59.9										
A/C Noise	Distance Correction, dB(A)	(4.9)	(4.8)	(4.7)	(4.6)	(4.8)	(4.7)	(4.6)	(4.6)	(4.6)	(4.6)	(4.6)	(4.8)	(4.7)	(4.6)	(4.5)	(4.6)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)
	SEL of the Segment, dB(A)	15.5	16.8	17.9	19.0	32.2	35.8	37.5	50.9	55.4	57.5	56.3	14.1	15.6	16.9	18.1	31.9	35.6	34.0	46.1	47.3	58.9	57.8
	SEL of Single PassBy, dB(A)	61.7											61.7										
Total	Total SEL of Single PassBy, dB(A)	64.7											63.9										
	Leq,30min of the Track,dB(A), dB(A)	43.9											43.1										
	Leq,30min, dB(A)	**46.6**																					
	+ 21 Floors, + 58.8 m																						
	Receiver Height, m	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.5)	35.6	(1.5)	(0.5)	47.5	(0.0)	(0.2)					0.0	33.1	(0.2)	0.0	45.5	0.5	0.1				
	Slant Dist, m	96.4	94.9	93.5	91.6	92.9	91.1	90.2	90.2	90.2	90.2	90.2	95.2	93.7	92.3	90.4	91.3	89.5	88.6	88.6	88.6	88.6	88.6
Wheel/Rail Noise	Distance Correction, dB(A)	(5.9)	(5.8)	(5.7)	(5.6)	(5.7)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.8)	(5.7)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)
	Screening Correction, dB(A)	0.0	(21.0)	0.0	0.0	(21.0)	(4.3)	(0.4)	(21.0)	(19.8)	(19.8)	(19.8)	(6.3)	(21.0)	(0.8)	(6.5)	(21.0)	(15.8)	(10.2)	(18.0)	(18.0)	(18.0)	(18.0)
	SEL of the Segment, dB(A)	31.1	11.5	33.6	34.7	26.9	44.6	50.3	50.1	50.3	59.4	54.4	23.4	10.3	31.7	27.2	26.5	32.9	36.9	41.3	51.0	55.6	57.6
	SEL of Single PassBy, dB(A)	61.8											60.3										
A/C Noise	Distance Correction, dB(A)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.6)	(5.6)	(5.5)	(5.4)	(5.5)	(5.4)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)
	SEL of the Segment, dB(A)	14.6	16.0	17.1	18.2	31.4	35.0	36.7	50.1	54.6	56.7	55.5	13.3	14.8	16.1	17.3	31.1	34.7	33.1	45.3	46.5	58.1	57.0
	SEL of Single PassBy, dB(A)	60.9											60.9										
Total	Total SEL of Single PassBy, dB(A)	64.4											63.6										
	Leq,30min of the Track,dB(A), dB(A)	43.6											42.8										
	Leq,30min, dB(A)	**46.2**																					

***Remark**

[a] Barrier Correction Based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier Correction Based on the dimension of Cross Section B shown in Appendix 6.14

Parc Palais, Block 6 (OM2) Noise Levels
0700-2300

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	7	8	9	10	6	8	10	11	19	26	39	8	9	10	11	7	9	11	13	18	21	39
	Angle End	8	9	10	11	8	10	11	19	26	39	47	9	10	11	12	9	11	13	18	21	39	48
B1 (Slope)	Barrier Height, m								18.4	13.0	12.0	11.0								18.4	13.0	12.0	11.0
	Barrier to Source Distance, m								35.2	18.9	11.3	9.4								39.2	22.9	15.3	13.4
B2	Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
(Parapet/Tunnel)	Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	2.1	107.1	0.5	0.7	117.6							0.6	106.8	0.0	0.0	116.8						
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8
	Hori Dist, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Slant Dist, m	70.4	69.5	68.5	67.3	52.9	51.5	50.8	50.8	50.8	50.8	50.8	73.5	72.6	71.7	70.5	55.7	54.4	53.7	53.7	53.7	53.7	53.7
	Angle of View, θ^o	1.0	1.0	1.0	1.0	2.0	2.0	1.0	8.0	7.0	13.0	8.0	1.0	1.0	1.0	1.0	2.0	2.0	2.5	5.0	3.0	18.0	9.0
	Angle of Orientation of the Segment, α^o	7.5	8.5	9.5	10.5	7.0	9.0	10.5	15.0	22.5	32.5	43.0	8.0	9.0	10.0	11.0	7.5	9.5	11.8	15.5	19.5	30.0	43.5
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(4.5)	(4.4)	(4.4)	(4.3)	(3.3)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(4.7)	(4.6)	(4.6)	(4.5)	(3.5)	(3.4)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)
	Angle of View Correction, dB(A)	(37.3)	(36.2)	(35.2)	(34.4)	(34.8)	(32.7)	(34.4)	(22.2)	(19.4)	(13.8)	(13.9)	(36.7)	(35.7)	(34.8)	(34.0)	(34.2)	(32.2)	(29.4)	(24.0)	(24.3)	(13.0)	(13.3)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(20.4)	(21.0)	(15.7)	(16.9)	(21.0)	0.0	0.0	(19.7)	(21.0)	(21.0)	(21.0)	(16.4)	(21.0)	(6.9)	(7.4)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	22.4	22.9	29.2	28.9	25.4	46.2	44.6	44.1	40.0	52.6	47.6	26.7	23.2	38.3	38.7	25.8	46.4	49.3	33.7	41.9	46.2	48.0
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	55.4											54.3										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(4.3)	(4.3)	(4.2)	(4.2)	(3.0)	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)	(4.5)	(4.5)	(4.4)	(4.4)	(3.3)	(3.2)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)
	Angle of View Correction, dB(A)	(37.3)	(36.2)	(35.2)	(34.4)	(34.8)	(32.7)	(34.4)	(22.2)	(19.4)	(13.8)	(13.9)	(36.7)	(35.7)	(34.8)	(34.0)	(34.2)	(32.2)	(29.4)	(24.0)	(24.3)	(13.0)	(13.3)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	26.2	27.4	28.4	29.3	30.0	32.3	30.6	42.8	45.6	51.2	50.1	26.6	27.7	28.6	29.5	30.3	32.5	35.3	40.7	40.4	51.8	50.4
	SEL of Single PassBy (A/C Noise), dB(A)	54.7											54.7										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	58.1											57.5										
	Train Frequency, No. of Train per 30min	15.0											15.0										
	SEL of the Track (Multiple PassBy), dB(A)	69.9											69.2										
	Leq,30min of the Track, dB(A)	37.3											36.7										
	Leq,30min, dB(A)	**40.0**																					
	+ 5 Floors, + 14 m																						
	Receiver Height, m	59.8	58.3	56.8	54.8	52.8	50.8	49.8	49.8	49.8	49.8	49.8	59.8	58.3	56.8	54.8	52.8	50.8	49.8	49.8	49.8	49.8	49.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	1.3	87.9	0.2	0.4	94.9							0.2	88.3	(0.1)	(0.0)	95.0						
	Slant Dist, m	80.2	79.1	78.0	76.6	63.9	62.3	61.4	61.4	61.4	61.4	61.4	83.0	81.9	80.8	79.4	66.2	64.7	63.9	63.9	63.9	63.9	63.9
Wheel/Rail Noise	Distance Correction, dB(A)	(5.1)	(5.0)	(4.9)	(4.9)	(4.1)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(5.2)	(5.2)	(5.1)	(5.0)	(4.2)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)
	Screening Correction, dB(A)	(18.8)	(21.0)	(12.3)	(14.7)	(21.0)	0.0	0.0	(17.9)	(19.5)	(19.5)	(19.5)	(12.9)	(21.0)	(1.8)	(2.4)	(21.0)	0.0	0.0	(19.9)	(20.0)	(20.0)	(20.0)
	SEL of the Segment, dB(A)	23.4	22.3	32.0	30.6	24.6	45.4	43.7	45.0	40.6	53.3	48.3	29.7	22.7	42.8	43.2	25.1	45.7	48.5	34.0	42.2	46.5	48.3
	SEL of Single PassBy, dB(A)	55.9											54.5										
A/C Noise	Distance Correction, dB(A)	(4.9)	(4.9)	(4.8)	(4.7)	(3.9)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(5.1)	(5.0)	(5.0)	(4.9)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)
	SEL of the Segment, dB(A)	25.7	26.8	27.8	28.8	29.2	31.4	29.8	42.0	44.7	50.4	49.3	26.1	27.2	28.1	29.0	29.6	31.7	34.6	40.0	39.6	51.0	49.7
	SEL of Single PassBy, dB(A)	53.9											53.9										
Total	Total SEL of Single PassBy, dB(A)	58.0											57.2										
	Leq,30min of the Track,dB(A), dB(A)	37.2											36.4										
	Leq,30min, dB(A)	**39.8**																					
	+ 10 Floors, + 28.0 m																						
	Receiver Height, m	73.8	72.3	70.8	68.8	66.8	64.8	63.8	63.8	63.8	63.8	63.8	73.8	72.3	70.8	68.8	66.8	64.8	63.8	63.8	63.8	63.8	63.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	0.8	69.4	0.0	0.2	72.4							0.0	70.6	(0.2)	(0.2)	73.4						
	Slant Dist, m	91.2	89.9	88.7	87.2	75.9	74.1	73.3	73.3	73.3	73.3	73.3	93.6	92.4	91.2	89.7	77.9	76.2	75.3	75.3	75.3	75.3	75.3
Wheel/Rail Noise	Distance Correction, dB(A)	(5.6)	(5.6)	(5.5)	(5.4)	(4.8)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(5.7)	(5.7)	(5.6)	(5.5)	(4.9)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)
	Screening Correction, dB(A)	(17.2)	(21.0)	(8.3)	(12.3)	(21.0)	0.0	0.0	(16.8)	(18.0)	(18.0)	(18.0)	(8.3)	(21.0)	(0.4)	(0.8)	(21.0)	0.0	0.0	(18.8)	(18.8)	(18.8)	(18.8)
	SEL of the Segment, dB(A)	24.4	21.8	35.5	32.4	23.9	44.6	43.0	45.3	41.4	54.0	49.0	33.8	22.2	43.7	44.2	24.4	45.0	47.8	34.4	42.6	47.0	48.7
	SEL of Single PassBy, dB(A)	56.4											54.6										
A/C Noise	Distance Correction, dB(A)	(5.5)	(5.4)	(5.4)	(5.3)	(4.6)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(5.6)	(5.5)	(5.5)	(5.4)	(4.8)	(4.7)	(4.6)	(4.6)	(4.6)	(4.6)	(4.6)
	SEL of the Segment, dB(A)	25.1	26.3	27.3	28.2	28.4	30.7	29.0	41.2	43.9	49.6	48.5	25.6	26.6	27.6	28.5	28.9	31.0	33.8	39.2	38.9	50.3	48.9
	SEL of Single PassBy, dB(A)	53.1											53.2										
Total	Total SEL of Single PassBy, dB(A)	58.0											57.0										
	Leq,30min of the Track,dB(A), dB(A)	37.2											36.2										
	Leq,30min, dB(A)	**39.8**																					
	+ 15 Floors, + 42.0 m																						
	Receiver Height, m	87.8	86.3	84.8	82.8	80.8	78.8	77.8	77.8	77.8	77.8	77.8	87.8	86.3	84.8	82.8	80.8	78.8	77.8	77.8	77.8	77.8	77.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	0.5	52.7	0.0	0.1	51.5							(0.0)	54.4	(0.5)	(0.4)	53.3						
	Slant Dist, m	102.8	101.5	100.3	98.6	88.5	86.6	85.7	85.7	85.7	85.7	85.7	105.0	103.7	102.5	100.8	90.2	88.4	87.5	87.5	87.5	87.5	87.5
Wheel/Rail Noise	Distance Correction, dB(A)	(6.1)	(6.1)	(6.0)	(6.0)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(6.2)	(6.2)	(6.1)	(6.1)	(5.6)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)
	Screening Correction, dB(A)	(15.7)	(21.0)	(5.6)	(9.9)	(21.0)	0.0	0.0	(16.4)	(16.8)	(16.8)	(16.8)	(5.0)	(21.0)	0.0	(0.1)	(21.0)	0.0	0.0	(17.7)	(17.8)	(17.8)	(17.8)
	SEL of the Segment, dB(A)	25.4	21.2	37.7	34.3	23.2	44.0	42.3	45.1	41.9	54.5	49.6	36.5	21.6	43.6	44.4	23.7	44.3	47.2	34.8	43.0	47.3	49.1
	SEL of Single PassBy, dB(A)	56.8											54.7										
A/C Noise	Distance Correction, dB(A)	(6.0)	(5.9)	(5.9)	(5.8)	(5.3)	(5.2)	(5.2)	(5.2)	(5.2)	(5.2)	(5.2)	(6.1)	(6.0)	(6.0)	(5.9)	(5.4)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)
	SEL of the Segment, dB(A)	24.6	25.7	26.7	27.7	27.7	30.0	28.3	40.5	43.2	48.9	47.8	25.1	26.1	27.1	28.0	28.2	30.3	33.2	38.6	38.3	49.6	48.3
	SEL of Single PassBy, dB(A)	52.4											52.5										
Total	Total SEL of Single PassBy, dB(A)	58.1											56.7										
	Leq,30min of the Track,dB(A), dB(A)	37.3											35.9										
	Leq,30min, dB(A)	**39.7**																					
	+ 22 Floors, + 61.6 m																						
	Receiver Height, m	107.4	105.9	104.4	102.4	100.4	98.4	97.4	97.4	97.4	97.4	97.4	107.4	105.9	104.4	102.4	100.4	98.4	97.4	97.4	97.4	97.4	97.4
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	0.3	34.2	(0.0)	0.0	28.3							(0.1)	36.3	(0.8)	(0.6)	30.9						
	Slant Dist, m	120.0	118.6	117.3	115.5	106.7	104.8	103.8	103.8	103.8	103.8	103.8	121.8	120.5	119.2	117.4	108.1	106.2	105.3	105.3	105.3	105.3	105.3
Wheel/Rail Noise	Distance Correction, dB(A)	(6.8)	(6.8)	(6.7)	(6.6)	(6.3)	(6.2)	(6.2)	(6.2)	(6.2)	(6.2)	(6.2)	(6.9)	(6.8)	(6.8)	(6.7)	(6.4)	(6.3)	(6.2)	(6.2)	(6.2)	(6.2)	(6.2)
	Screening Correction, dB(A)	(13.6)	(21.0)	(2.3)	(6.6)	(21.0)	0.0	0.0	(16.3)	(15.5)	(15.5)	(15.5)	(1.7)	(21.0)	0.0	0.0	(21.0)	0.0	0.0	(16.5)	(16.6)	(16.6)	(16.6)
	SEL of the Segment, dB(A)	26.8	20.6	40.3	36.9	22.4	43.1	41.5	44.3	42.4	55.0	50.1	39.2	21.0	43.0	43.8	22.9	43.5	46.4	35.2	43.4	47.7	49.5
	SEL of Single PassBy, dB(A)	57.1											54.7										
A/C Noise	Distance Correction, dB(A)	(6.7)	(6.6)	(6.6)	(6.5)	(6.2)	(6.1)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.8)	(6.7)	(6.7)	(6.6)	(6.2)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)
	SEL of the Segment, dB(A)	23.9	25.0	26.0	27.0	26.9	29.1	27.5	39.6	42.4	48.0	46.9	24.4	25.5	26.4	27.3	27.4	29.5	32.3	37.7	37.4	48.8	47.4
	SEL of Single PassBy, dB(A)	51.5											51.7										
Total	Total SEL of Single PassBy, dB(A)	58.2											56.4										
	Leq,30min of the Track,dB(A), dB(A)	37.4											35.6										
	Leq,30min, dB(A)	**39.6**																					

***Remark**

[a] Barrier Correction Based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier Correction Based on the dimension of Cross Section B shown in Appendix 6.14

Carmel Secondary School (OM4b) Noise Levels
0700-2300

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	11	12	14	17	24	37	60	81	138	148	154	10	12	14	16	23	36	59	80	128	138	154
	Angle End	12	14	17	20	37	60	81	138	148	154	157	12	14	16	19	36	59	80	128	138	154	158
B1 (Slope)	Barrier Height, m						48.9	48.9	18.7	18.7	18.7	18.7						48.9	48.9	18.7	18.7	18.7	18.7
	Barrier to Source Distance, m						54.0	54.0	23.0	23.0	23.0	22.0						50.0	50.0	19.0	19.0	19.0	18.0
B2	Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
(Parapet/Tunnel)	Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	59.2	57.7	56.2	54.2	52.2	50.2	49.2	49.2	49.2	49.2	49.2	59.2	57.7	56.2	54.2	52.2	50.2	49.2	49.2	49.2	49.2	49.2
	Receiver to Source Distance, m	56.0	56.0	56.0	56.0	64.6	64.6	64.6	64.6	64.6	64.6	64.6	52.0	52.0	52.0	52.0	60.6	60.6	60.6	60.6	60.6	60.6	60.6
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	45.0	48.4					9.4	100.0	6.7	9.0	100.0	43.2	47.9				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	22.0	36.0					2.3	1.0	3.5	2.3	1.0	3.9	13.6				
	Path Length Difference, m	0.2	89.0	(0.0)	0.2	96.5	11.2	7.7					1.2	88.6	0.3	1.4	96.4	21.9	18.7				
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	59.2	57.7	56.2	54.2	52.2	50.2	49.2	49.2	49.2	49.2	49.2	59.2	57.7	56.2	54.2	52.2	50.2	49.2	49.2	49.2	49.2	49.2
	Hori Dist, m	56.0	56.0	56.0	56.0	64.6	64.6	64.6	64.6	64.6	64.6	64.6	52.0	52.0	52.0	52.0	60.6	60.6	60.6	60.6	60.6	60.6	60.6
	Slant Dist, m	81.5	80.4	79.3	77.9	83.1	81.8	81.2	81.2	81.2	81.2	81.2	78.8	77.7	76.6	75.1	80.0	78.7	78.1	78.1	78.1	78.1	78.1
	Angle of View, θ^o	1.5	2.0	2.5	3.5	13.0	23.0	21.0	56.5	10.5	5.5	3.5	1.5	2.0	2.5	3.0	13.0	23.0	21.0	48.0	10.0	16.0	3.5
	Angle of Orientation of the Segment, α^o	11.3	13.0	15.3	18.3	30.5	48.5	70.5	70.8	37.3	29.3	24.8	10.8	12.5	14.8	17.5	29.5	47.5	69.5	76.0	47.0	34.0	24.3
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(5.1)	(5.1)	(5.0)	(4.9)	(5.2)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.0)	(4.9)	(4.9)	(4.8)	(5.1)	(5.0)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)
	Angle of View Correction, dB(A)	(32.0)	(29.5)	(27.2)	(24.2)	(14.3)	(8.5)	(6.9)	(2.9)	(13.7)	(18.4)	(21.7)	(32.4)	(29.8)	(27.5)	(25.2)	(14.5)	(8.6)	(7.0)	(3.3)	(12.3)	(12.5)	(21.9)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(12.6)	(21.0)	(2.7)	(13.3)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(18.7)	(21.0)	(14.0)	(19.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	34.8	28.9	49.6	42.0	44.0	47.4	49.0	60.0	43.7	46.0	37.8	28.5	28.7	38.2	35.5	43.9	47.4	49.1	52.8	52.3	45.0	37.8
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	61.3											57.6										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(5.0)	(4.9)	(4.9)	(4.8)	(5.1)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(4.8)	(4.8)	(4.7)	(4.6)	(4.9)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)
	Angle of View Correction, dB(A)	(32.0)	(29.5)	(27.2)	(24.2)	(14.3)	(8.5)	(6.9)	(2.9)	(13.7)	(18.4)	(21.7)	(32.4)	(29.8)	(27.5)	(25.2)	(14.5)	(8.6)	(7.0)	(3.3)	(12.3)	(12.5)	(21.9)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	30.9	33.4	35.8	38.8	48.5	54.3	55.9	60.0	49.1	44.5	40.1	30.6	33.2	35.7	38.0	48.4	54.4	56.1	59.8	50.7	50.5	40.1
	SEL of Single PassBy (A/C Noise), dB(A)	62.7											62.9										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	65.1											64.0										
	Train Frequency, No. of Train per 30min	15.0											15.0										
	SEL of the Track (Multiple PassBy), dB(A)	76.8											75.8										
	Leq,30min of the Track, dB(A)	44.3											43.2										
	Leq,30min, dB(A)	**46.8**																					
	+ 3 Floors, + 8.4 m																						
	Receiver Height, m	67.6	66.1	64.6	62.6	60.6	58.6	57.6	57.6	57.6	57.6	57.6	67.6	66.1	64.6	62.6	60.6	58.6	57.6	57.6	57.6	57.6	57.6
	Receiver to Source Distance, m	56.0	56.0	56.0	56.0	64.6	64.6	64.6	64.6	64.6	64.6	64.6	52.0	52.0	52.0	52.0	60.6	60.6	60.6	60.6	60.6	60.6	60.6
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	11.8					9.4	100.0	6.7	9.0	100.0	10.0	10.3				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	8.8					2.3	1.0	3.5	2.3	1.0	0.9	2.9				
	Path Length Difference, m	0.1	78.0	(0.1)	0.1	86.2	0.9	0.4					0.9	77.1	0.2	1.0	85.7	2.7	1.7				
	Slant Dist, m	87.8	86.6	85.5	84.0	88.6	87.2	86.6	86.6	86.6	86.6	86.6	85.3	84.1	82.9	81.4	85.7	84.3	83.6	83.6	83.6	83.6	83.6
Wheel/Rail Noise	Distance Correction, dB(A)	(5.5)	(5.4)	(5.3)	(5.3)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.3)	(5.3)	(5.2)	(5.1)	(5.4)	(5.3)	(5.2)	(5.2)	(5.2)	(5.2)	(5.2)
	Screening Correction, dB(A)	(9.9)	(21.0)	(1.3)	(10.6)	(21.0)	(17.6)	(14.7)	(21.0)	(21.0)	(21.0)	(21.0)	(17.7)	(21.0)	(12.2)	(18.0)	(21.0)	(21.0)	(19.7)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	37.2	28.6	50.7	44.4	43.7	50.5	55.0	59.8	43.4	45.7	37.5	29.1	28.4	39.6	36.2	43.6	47.1	50.1	52.5	52.0	44.7	37.5
	SEL of Single PassBy, dB(A)	62.1											57.5										
A/C Noise	Distance Correction, dB(A)	(5.3)	(5.3)	(5.2)	(5.1)	(5.4)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)	(5.2)	(5.1)	(5.1)	(5.0)	(5.2)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)	(5.1)
	SEL of the Segment, dB(A)	30.5	33.1	35.5	38.5	48.2	54.1	55.7	59.7	48.9	44.2	39.9	30.3	32.9	35.3	37.6	48.1	54.1	55.8	59.5	50.4	50.2	39.8
	SEL of Single PassBy, dB(A)	62.4											62.6										
Total	Total SEL of Single PassBy, dB(A)	65.3											63.8										
	Leq,30min of the Track,dB(A), dB(A)	44.5											43.0										
	Leq,30min, dB(A)	**46.8**																					

***Remark**

[a] Barrier Correction Based on the dimension of Cross Section A shown in Appendix 6.14
[b] Barrier Correction Based on the dimension of Cross Section B shown in Appendix 6.14

Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

Wylie Court, Block C (HH1) Noise Levels
0700-2300

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	38	45	53	61	69	90	108	116	135	140	143	39	46	53	61	70	90	108	115	130	134	141
	Angle End	45	53	61	73	90	108	116	135	140	143	145	46	53	61	74	90	108	115	130	134	141	144
B1 (Slope)	Barrier Height, m								18.4	13.0	12.0	11.0								18.4	13.0	12.0	11.0
	Barrier to Source Distance, m								35.2	18.9	11.3	9.4								39.2	22.9	15.3	13.4
B2	Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
(Parapet/Tunnel)	Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	5.6	110.0	2.6	2.5	113.5							3.4	109.7	1.3	1.0	113.1						
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9
	Hori Dist, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Slant Dist, m	156.8	156.5	156.2	155.8	153.5	153.1	153.0	153.0	153.0	153.0	153.0	160.7	160.4	160.1	159.7	157.4	157.1	156.9	156.9	156.9	156.9	156.9
	Angle of View, θ°	7.0	7.5	8.0	12.5	21.0	17.6	7.6	19.0	5.0	2.5	2.5	7.0	7.0	8.0	12.5	20.5	17.5	7.5	15.0	4.0	7.0	3.0
	Angle of Orientation of the Segment, α°	41.5	48.8	56.5	66.8	79.5	80.8	68.2	54.5	42.5	38.8	36.3	42.5	49.5	57.0	67.3	79.8	81.3	68.8	57.5	48.0	42.5	37.5
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(8.0)	(8.0)	(8.0)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(8.1)	(8.1)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)
	Angle of View Correction, dB(A)	(14.7)	(13.3)	(12.1)	(9.4)	(6.5)	(7.3)	(11.4)	(8.6)	(16.0)	(19.7)	(20.2)	(14.5)	(13.5)	(12.1)	(9.3)	(6.6)	(7.3)	(11.4)	(9.3)	(16.1)	(14.5)	(19.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(21.0)	(21.0)	(21.0)	(20.9)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(18.9)	(18.1)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.8	42.2	43.4	46.3	49.1	66.9	62.7	51.6	38.7	42.0	36.6	40.9	41.9	45.5	49.0	48.9	66.8	62.6	43.7	45.4	40.0	37.5
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	68.5											68.4										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(8.0)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)
	Angle of View Correction, dB(A)	(14.7)	(13.3)	(12.1)	(9.4)	(6.5)	(7.3)	(11.4)	(8.6)	(16.0)	(19.7)	(20.2)	(14.5)	(13.5)	(12.1)	(9.3)	(6.6)	(7.3)	(11.4)	(9.3)	(16.1)	(14.5)	(19.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	45.2	46.6	47.8	50.6	53.4	52.7	48.6	51.4	44.0	40.3	38.8	45.3	46.3	47.7	50.5	53.2	52.6	48.4	50.6	43.8	45.4	39.7
	SEL of Single PassBy (A/C Noise), dB(A)	59.6											59.5										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	69.0											68.9										
	Train Frequency, No. of Train per 30min	15.0											15.0										
	SEL of the Track (Multiple PassBy), dB(A)	80.8											80.6										
	Leq,30min of the Track, dB(A)	48.2											48.1										
	Leq,30min, dB(A)	**51.2**																					
	+ 5 Floors, + 15.0 m																						
	Receiver Height, m	48.9	47.4	45.9	43.9	41.9	39.9	38.9	38.9	38.9	38.9	38.9	48.9	47.4	45.9	43.9	41.9	39.9	38.9	38.9	38.9	38.9	38.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	4.8	100.7	2.0	2.0	104.2							2.7	100.6	0.9	0.7	104.0						
	Slant Dist, m	160.7	160.3	159.8	159.3	156.8	156.3	156.0	156.0	156.0	156.0	156.0	164.5	164.1	163.7	163.1	160.7	160.1	159.9	159.9	159.9	159.9	159.9
Wheel/Rail Noise	Distance Correction, dB(A)	(8.1)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)
	Screening Correction, dB(A)	(21.0)	(21.0)	(20.3)	(20.3)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(17.6)	(16.8)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.7	42.1	44.0	46.8	49.0	66.8	62.6	51.5	38.6	41.9	36.5	40.8	41.8	46.7	50.2	48.8	66.7	62.5	43.6	45.3	39.9	37.4
	SEL of Single PassBy, dB(A)	68.4											68.3										
A/C Noise	Distance Correction, dB(A)	(8.1)	(8.0)	(8.0)	(8.0)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)
	SEL of the Segment, dB(A)	45.1	46.5	47.7	50.5	53.4	52.7	48.5	51.3	43.9	40.3	38.7	45.2	46.2	47.6	50.4	53.2	52.5	48.4	50.5	43.7	45.3	39.7
	SEL of Single PassBy, dB(A)	59.5											59.4										
Total	Total SEL of Single PassBy, dB(A)	69.0											68.8										
	Leq,30min of the Track,dB(A), dB(A)	48.2											48.0										
	Leq,30min, dB(A)	**51.1**																					
	+ 10 Floors, + 30.0 m																						
	Receiver Height, m	63.9	62.4	60.9	58.9	56.9	54.9	53.9	53.9	53.9	53.9	53.9	63.9	62.4	60.9	58.9	56.9	54.9	53.9	53.9	53.9	53.9	53.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	4.1	91.4	1.6	1.7	94.7							2.1	91.5	0.6	0.4	94.8						
	Slant Dist, m	165.9	165.3	164.8	164.0	161.5	160.8	160.4	160.4	160.4	160.4	160.4	169.6	169.0	168.5	167.8	165.2	164.5	164.2	164.2	164.2	164.2	164.2
Wheel/Rail Noise	Distance Correction, dB(A)	(8.2)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.3)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)
	Screening Correction, dB(A)	(21.0)	(21.0)	(19.5)	(19.7)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(20.4)	(21.0)	(16.1)	(15.3)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.6	42.0	44.7	47.3	48.9	66.7	62.5	51.3	38.4	41.8	36.4	41.3	41.7	48.1	51.6	48.7	66.5	62.4	43.5	45.2	39.8	37.3
	SEL of Single PassBy, dB(A)	68.3											68.2										
A/C Noise	Distance Correction, dB(A)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)
	SEL of the Segment, dB(A)	45.0	46.4	47.6	50.4	53.2	52.5	48.4	51.2	43.8	40.1	38.6	45.0	46.1	47.5	50.3	53.0	52.4	48.3	50.4	43.6	45.2	39.6
	SEL of Single PassBy, dB(A)	59.4											59.3										
Total	Total SEL of Single PassBy, dB(A)	68.8											68.7										
	Leq,30min of the Track,dB(A), dB(A)	48.0											48.0										
	Leq,30min, dB(A)	**51.0**																					
	+ 15 Floors, + 45.0 m																						
	Receiver Height, m	78.9	77.4	75.9	73.9	71.9	69.9	68.9	68.9	68.9	68.9	68.9	78.9	77.4	75.9	73.9	71.9	69.9	68.9	68.9	68.9	68.9	68.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	3.5	82.2	1.2	1.3	85.4							1.6	82.6	0.3	0.2	85.7						
	Slant Dist, m	172.2	171.6	170.9	170.0	167.3	166.5	166.1	166.1	166.1	166.1	166.1	175.8	175.1	174.5	173.6	171.0	170.1	169.7	169.7	169.7	169.7	169.7
Wheel/Rail Noise	Distance Correction, dB(A)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.5)	(8.5)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)
	Screening Correction, dB(A)	(21.0)	(21.0)	(18.6)	(18.9)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(19.4)	(21.0)	(14.2)	(13.5)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.4	41.8	45.4	47.9	48.7	66.5	62.4	51.2	38.3	41.6	36.2	42.1	41.6	49.8	53.3	48.5	66.4	62.3	43.4	45.1	39.7	37.2
	SEL of Single PassBy, dB(A)	68.2											68.1										
A/C Noise	Distance Correction, dB(A)	(8.3)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.4)	(8.4)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)
	SEL of the Segment, dB(A)	44.8	46.2	47.4	50.2	53.1	52.4	48.2	51.1	43.7	40.0	38.5	44.9	45.9	47.4	50.1	52.9	52.3	48.1	50.3	43.4	45.0	39.4
	SEL of Single PassBy, dB(A)	59.3											59.2										
Total	Total SEL of Single PassBy, dB(A)	68.7											68.7										
	Leq,30min of the Track,dB(A), dB(A)	47.9											47.9										
	Leq,30min, dB(A)	**50.9**																					
	+ 18 Floors, + 54.0 m																						
	Receiver Height, m	87.9	86.4	84.9	82.9	80.9	78.9	77.9	77.9	77.9	77.9	77.9	87.9	86.4	84.9	82.9	80.9	78.9	77.9	77.9	77.9	77.9	77.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	3.1	76.9	1.0	1.2	79.9							1.3	77.4	0.2	0.2	80.4						
	Slant Dist, m	176.5	175.8	175.1	174.1	171.4	170.5	170.0	170.0	170.0	170.0	170.0	180.0	179.3	178.6	177.6	174.9	174.0	173.6	173.6	173.6	173.6	173.6
Wheel/Rail Noise	Distance Correction, dB(A)	(8.5)	(8.5)	(8.5)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.6)	(8.6)	(8.5)	(8.5)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)
	Screening Correction, dB(A)	(21.0)	(21.0)	(18.1)	(18.5)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(18.8)	(21.0)	(12.9)	(12.2)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.3	41.7	45.9	48.2	48.6	66.4	62.3	51.1	38.2	41.5	36.1	42.6	41.5	51.0	54.4	48.4	66.3	62.2	43.3	45.0	39.6	37.1
	SEL of Single PassBy, dB(A)	68.1											68.1										
A/C Noise	Distance Correction, dB(A)	(8.4)	(8.4)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.5)	(8.5)	(8.5)	(8.5)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)
	SEL of the Segment, dB(A)	44.7	46.1	47.3	50.1	53.0	52.3	48.2	51.0	43.6	39.9	38.4	44.8	45.8	47.3	50.1	52.8	52.2	48.0	50.2	43.3	44.9	39.3
	SEL of Single PassBy, dB(A)	59.2											59.1										
Total	Total SEL of Single PassBy, dB(A)	68.6											68.6										
	Leq,30min of the Track,dB(A), dB(A)	47.8											47.8										
	Leq,30min, dB(A)	**50.8**																					

***Remark**

[a] Barrier Correction Based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier Correction Based on the dimension of Cross Section B shown in Appendix 6.14

Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

Wing Fung Mansion (HH2) Noise Levels
0700-2300

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	20	14	12	10	4	4	3	3	2	2	1	19	13	11	9	4	3	3	2	2	1	1
	Angle End	32	20	14	12	6	4	4	3	3	2	2	31	19	13	11	6	4	3	3	2	2	1
B1 (Slope)	Barrier Height, m																						
	Barrier to Source Distance, m																						
B2	Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0						9.4	100.0	6.7	9.0	100.0	10.0					
(Parapet/Tunnel)	Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9						2.3	1.0	3.5	2.3	1.0	0.9					
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7
	Receiver to Source Distance, m	31.5	31.5	31.5	31.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	27.5	27.5	27.5	27.5	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0						9.4	100.0	6.7	9.0	100.0	10.0					
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9						2.3	1.0	3.5	2.3	1.0	0.9					
	Path Length Difference, m	3.0	161.7	1.5	4.1	177.4	7.8						5.1	164.3	2.8	6.3	180.6	10.7					
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7
	Hori Dist, m	31.5	31.5	31.5	31.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	27.5	27.5	27.5	27.5	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	Slant Dist, m	33.6	33.1	32.7	32.2	19.6	19.2	19.1	19.1	19.1	19.1	19.1	29.9	29.3	28.8	28.3	15.7	15.2	15.1	15.1	15.1	15.1	15.1
	Angle of View, θ^o	12.0	6.0	2.0	2.5	2.0	0.5	0.5	0.5	0.5	0.5	0.5	12.0	6.0	2.0	2.0	2.0	0.5	0.5	0.5	0.5	0.5	0.5
	Angle of Orientation of the Segment, α^o	26.0	17.0	13.0	10.8	5.0	3.8	3.3	2.8	2.3	1.8	1.3	25.0	16.0	12.0	10.0	4.5	3.3	2.8	2.3	1.8	1.3	0.8
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(1.3)	(1.2)	(1.2)	(1.1)	1.1	1.1	1.2	1.2	1.2	1.2	1.2	(0.8)	(0.7)	(0.6)	(0.5)	2.0	2.1	2.2	2.2	2.2	2.2	2.2
	Angle of View Correction, dB(A)	(15.9)	(22.4)	(29.5)	(30.2)	(37.7)	(46.3)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(16.2)	(22.9)	(30.2)	(31.8)	(38.6)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(60.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(21.0)	(21.0)	(19.2)	(21.0)	(21.0)	(21.0)	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	46.3	39.9	34.6	32.2	26.9	15.9	35.7	20.2	13.0	17.8	10.0	46.5	39.9	32.7	31.2	26.9	15.7	35.3	12.5	18.8	9.0	6.7
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	47.9											47.9										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(1.1)	(1.1)	(1.1)	(1.0)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	(0.6)	(0.5)	(0.5)	(0.4)	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	Angle of View Correction, dB(A)	(15.9)	(22.4)	(29.5)	(30.2)	(37.7)	(46.3)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(16.2)	(22.9)	(30.2)	(31.8)	(38.6)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(60.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	50.8	44.3	37.3	36.7	31.3	22.8	21.5	20.1	18.3	16.2	12.2	51.1	44.4	37.2	35.7	31.5	22.6	21.1	19.3	17.2	14.3	8.9
	SEL of Single PassBy (A/C Noise), dB(A)	52.0											52.2										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	53.4											53.6										
	Train Frequency, No. of Train per 30min	15.0											15.0										
	SEL of the Track (Multiple PassBy), dB(A)	65.2											65.3										
	Leq,30min of the Track, dB(A)	32.7											32.8										
	Leq,30min, dB(A)	**35.7**																					
	+ 6 Floors, + 16.8 m																						
	Receiver Height, m	28.5	27.0	25.5	23.5	21.5	19.5	18.5	18.5	18.5	18.5	18.5	28.5	27.0	25.5	23.5	21.5	19.5	18.5	18.5	18.5	18.5	18.5
	Receiver to Source Distance, m	31.5	31.5	31.5	31.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	27.5	27.5	27.5	27.5	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0						9.4	100.0	6.7	9.0	100.0	10.0					
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9						2.3	1.0	3.5	2.3	1.0	0.9					
	Path Length Difference, m	0.5	137.6	0.0	0.8	151.8	0.9						1.7	139.1	0.5	2.2	153.5	2.4					
	Slant Dist, m	42.5	41.5	40.5	39.3	28.7	27.2	26.5	26.5	26.5	26.5	26.5	39.6	38.5	37.5	36.2	26.2	24.6	23.8	23.8	23.8	23.8	23.8
Wheel/Rail Noise	Distance Correction, dB(A)	(2.3)	(2.2)	(2.1)	(2.0)	(0.6)	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(2.0)	(1.9)	(1.8)	(1.6)	(0.2)	0.1	0.2	0.2	0.2	0.2	0.2
	Screening Correction, dB(A)	(15.4)	(21.0)	(7.2)	(17.1)	(21.0)	(17.7)	0.0	(20.3)	(21.0)	(21.0)	(21.0)	(19.7)	(21.0)	(16.0)	(20.6)	(21.0)	(20.9)	0.0	(20.6)	(20.6)	(20.6)	(20.6)
	SEL of the Segment, dB(A)	50.9	38.9	45.7	35.3	25.2	17.7	34.2	19.5	11.6	16.4	8.6	46.6	38.7	36.6	30.6	24.7	13.7	33.3	11.0	17.3	7.4	5.1
	SEL of Single PassBy, dB(A)	52.4											47.9										
A/C Noise	Distance Correction, dB(A)	(2.0)	(1.9)	(1.9)	(1.7)	(0.2)	0.1	0.2	0.2	0.2	0.2	0.2	(1.7)	(1.6)	(1.5)	(1.3)	0.3	0.6	0.7	0.7	0.7	0.7	0.7
	SEL of the Segment, dB(A)	49.9	43.5	36.5	36.0	30.0	21.6	20.5	19.1	17.3	15.2	11.2	49.9	43.3	36.2	34.8	29.6	20.9	19.6	17.9	15.7	12.8	7.5
	SEL of Single PassBy, dB(A)	51.1											51.1										
Total	Total SEL of Single PassBy, dB(A)	54.8											52.8										
	Leq,30min of the Track,dB(A), dB(A)	34.0											32.0										
	Leq,30min, dB(A)	**36.1**																					

***Remark**

[a] Barrier Correction Based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier Correction Based on the dimension of Cross Section B shown in Appendix 6.14

Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

Shun Man House (South) (OM1a) Noise Levels
2300-0700

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	5	6	6	7	12	15	20	24	70	110	131	5	5	6	6	12	15	19	23	34	65	130
	Angle End	6	6	7	8	15	20	24	70	110	131	146	5	6	6	7	15	19	23	34	65	130	147
B1 (Slope)	Barrier Height, m								18.7	18.7	18.7	18.7								18.7	18.7	18.7	18.7
	Barrier to Source Distance, m								22.0	22.0	22.0	21.0								18.0	18.0	18.0	17.0
B2	Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
(Parapet/Tunnel)	Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	0.2	131.2	(0.0)	0.3	136.8	2.2	1.1					1.1	132.5	0.3	1.5	138.4	4.4	2.7				
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Hori Dist, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Slant Dist, m	44.4	43.3	42.2	40.8	46.3	45.2	44.7	44.7	44.7	44.7	44.7	41.8	40.6	39.5	38.0	43.0	41.8	41.3	41.3	41.3	41.3	41.3
	Angle of View, θ^o	0.5	0.5	0.5	1.0	3.0	5.0	4.0	46.0	40.0	21.0	15.0	0.5	0.5	0.5	1.0	3.0	4.5	4.0	11.0	31.0	65.0	17.0
	Angle of Orientation of the Segment, α^o	5.3	5.8	6.3	7.0	13.5	17.5	22.0	47.0	90.0	59.5	41.5	4.8	5.3	5.8	6.5	13.0	16.8	21.0	28.5	49.5	82.5	41.5
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(2.5)	(2.4)	(2.3)	(2.1)	(2.7)	(2.6)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.2)	(2.1)	(2.0)	(1.8)	(2.4)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)
	Angle of View Correction, dB(A)	(43.3)	(42.6)	(41.8)	(37.8)	(27.4)	(23.0)	(22.1)	(5.7)	(3.7)	(7.7)	(11.4)	(44.2)	(43.3)	(42.6)	(38.5)	(27.7)	(23.8)	(22.5)	(15.6)	(7.1)	(2.0)	(10.8)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(12.3)	(21.0)	(2.7)	(14.4)	(21.0)	(20.6)	(18.3)	(21.0)	(21.0)	(21.0)	(21.0)	(18.3)	(21.0)	(13.6)	(19.2)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	26.3	18.6	37.7	30.1	33.4	35.9	39.1	59.8	56.3	59.3	50.7	19.7	18.0	26.4	25.0	33.4	34.9	36.4	43.3	60.3	58.4	51.6
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	63.7											62.8										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(2.2)	(2.1)	(2.0)	(1.9)	(2.5)	(2.4)	(2.3)	(2.3)	(2.3)	(2.3)	(2.3)	(1.9)	(1.8)	(1.7)	(1.5)	(2.1)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
	Angle of View Correction, dB(A)	(43.3)	(42.6)	(41.8)	(37.8)	(27.4)	(23.0)	(22.1)	(5.7)	(3.7)	(7.7)	(11.4)	(44.2)	(43.3)	(42.6)	(38.5)	(27.7)	(23.8)	(22.5)	(15.6)	(7.1)	(2.0)	(10.8)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	22.3	23.2	24.0	28.1	37.9	42.5	43.4	59.8	61.8	57.8	53.1	21.7	22.7	23.6	27.9	38.0	42.0	43.4	50.3	58.8	63.9	54.0
	SEL of Single PassBy (A/C Noise), dB(A)	65.2											65.6										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	67.6											67.4										
	Train Frequency, No. of Train per 30min	12.0											11.0										
	SEL of the Track (Multiple PassBy), dB(A)	78.3											77.9										
	Leq,30min of the Track, dB(A)	45.8											45.3										
	Leq,30min, dB(A)	**48.6**																					
	+ 5 Floors, + 14 m																						
	Receiver Height, m	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.0)	107.6	(0.4)	0.0	115.6	0.8	0.2					0.4	107.9	0.0	0.5	116.2	2.5	1.2				
	Slant Dist, m	55.5	54.3	53.0	51.4	55.3	53.9	53.2	53.2	53.2	53.2	53.2	53.5	52.2	50.9	49.2	52.6	51.1	50.4	50.4	50.4	50.4	50.4
Wheel/Rail Noise	Distance Correction, dB(A)	(3.5)	(3.4)	(3.3)	(3.1)	(3.4)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.2)	(3.1)	(2.9)	(3.2)	(3.1)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)
	Screening Correction, dB(A)	(4.2)	(21.0)	(0.1)	(5.6)	(21.0)	(17.2)	(12.7)	(21.0)	(21.0)	(21.0)	(21.0)	(15.1)	(21.0)	(6.9)	(15.9)	(21.0)	(21.0)	(18.6)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	33.5	17.6	39.3	37.9	32.6	38.5	43.9	59.0	55.5	58.6	49.9	21.9	17.0	32.0	27.2	32.5	34.1	37.9	42.4	59.4	57.5	50.7
	SEL of Single PassBy, dB(A)	63.1											62.0										
A/C Noise	Distance Correction, dB(A)	(3.2)	(3.1)	(3.0)	(2.9)	(3.2)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.0)	(2.9)	(2.8)	(2.7)	(3.0)	(2.9)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
	SEL of the Segment, dB(A)	21.3	22.2	23.0	27.1	37.2	41.7	42.7	59.1	61.1	57.1	52.4	20.6	21.6	22.5	26.7	37.1	41.2	42.6	49.5	58.0	63.1	53.2
	SEL of Single PassBy, dB(A)	64.5											64.8										
Total	Total SEL of Single PassBy, dB(A)	66.8											66.6										
	Leq,30min of the Track,dB(A), dB(A)	45.1											44.5										
	Leq,30min, dB(A)	**47.8**																					
	+ 10 Floors, + 28.0 m																						
	Receiver Height, m	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.1)	83.5	(0.8)	(0.1)	93.3	0.2	0.0					0.1	83.0	(0.0)	0.2	93.2	1.4	0.5				
	Slant Dist, m	67.8	66.4	65.1	63.3	66.1	64.5	63.7	63.7	63.7	63.7	63.7	66.1	64.7	63.3	61.5	63.9	62.2	61.4	61.4	61.4	61.4	61.4
Wheel/Rail Noise	Distance Correction, dB(A)	(4.3)	(4.2)	(4.2)	(4.0)	(4.2)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.2)	(4.1)	(4.0)	(3.9)	(4.1)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)
	Screening Correction, dB(A)	(1.1)	(21.0)	0.0	(1.3)	(21.0)	(13.2)	(5.6)	(21.0)	(21.0)	(21.0)	(21.0)	(12.0)	(21.0)	(2.9)	(12.6)	(21.0)	(19.1)	(16.0)	(20.5)	(20.5)	(20.5)	(20.5)
	SEL of the Segment, dB(A)	35.8	16.7	38.5	41.3	31.9	41.7	50.3	58.3	54.7	57.8	49.1	24.0	16.0	35.0	29.5	31.7	35.1	39.7	42.0	59.0	57.1	50.3
	SEL of Single PassBy, dB(A)	62.5											61.6										
A/C Noise	Distance Correction, dB(A)	(4.1)	(4.0)	(3.9)	(3.8)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(4.0)	(3.9)	(3.8)	(3.7)	(3.9)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)
	SEL of the Segment, dB(A)	20.4	21.3	22.1	26.2	36.4	40.9	41.9	58.3	60.3	56.3	51.6	19.6	20.6	21.5	25.7	36.3	40.3	41.7	48.6	57.1	62.2	52.3
	SEL of Single PassBy, dB(A)	63.7											63.9										
Total	Total SEL of Single PassBy, dB(A)	66.2											65.9										
	Leq,30min of the Track,dB(A), dB(A)	44.4											43.8										
	Leq,30min, dB(A)	**47.1**																					
	+ 15 Floors, + 42.0 m																						
	Receiver Height, m	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.3)	60.2	(1.1)	(0.3)	71.4	0.0	(0.1)					0.0	58.8	(0.1)	0.1	70.4	0.9	0.2				
	Slant Dist, m	80.6	79.2	77.8	75.9	77.9	76.2	75.3	75.3	75.3	75.3	75.3	79.2	77.7	76.3	74.5	76.0	74.2	73.4	73.4	73.4	73.4	73.4
Wheel/Rail Noise	Distance Correction, dB(A)	(5.1)	(5.0)	(4.9)	(4.8)	(4.9)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(5.0)	(4.9)	(4.8)	(4.7)	(4.8)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)
	Screening Correction, dB(A)	(0.3)	(21.0)	0.0	(0.3)	(21.0)	(8.4)	(1.6)	(21.0)	(20.6)	(20.6)	(20.6)	(9.1)	(21.0)	(1.5)	(9.6)	(21.0)	(17.5)	(13.3)	(19.3)	(19.3)	(19.3)	(19.3)
	SEL of the Segment, dB(A)	35.8	15.9	37.7	41.5	31.2	45.8	53.6	57.5	54.4	57.4	48.8	26.2	15.2	35.6	31.7	30.9	35.9	41.6	42.5	59.5	57.6	50.8
	SEL of Single PassBy, dB(A)	62.4											62.1										
A/C Noise	Distance Correction, dB(A)	(4.9)	(4.8)	(4.7)	(4.6)	(4.8)	(4.7)	(4.6)	(4.6)	(4.6)	(4.6)	(4.6)	(4.8)	(4.7)	(4.6)	(4.5)	(4.6)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)
	SEL of the Segment, dB(A)	19.6	20.5	21.3	25.4	35.7	40.2	41.2	57.6	59.5	55.6	50.8	18.8	19.8	20.6	24.8	35.5	39.5	40.9	47.8	56.3	61.4	51.5
	SEL of Single PassBy, dB(A)	63.0											63.1										
Total	Total SEL of Single PassBy, dB(A)	65.7											65.6										
	Leq,30min of the Track,dB(A), dB(A)	44.0											43.5										
	Leq,30min, dB(A)	**46.7**																					
	+ 21 Floors, + 58.8 m																						
	Receiver Height, m	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.5)	35.6	(1.5)	(0.5)	47.5	(0.0)	(0.2)					0.0	33.1	(0.2)	0.0	45.5	0.5	0.1				
	Slant Dist, m	96.4	94.9	93.5	91.6	92.9	91.1	90.2	90.2	90.2	90.2	90.2	95.2	93.7	92.3	90.4	91.3	89.5	88.6	88.6	88.6	88.6	88.6
Wheel/Rail Noise	Distance Correction, dB(A)	(5.9)	(5.8)	(5.7)	(5.6)	(5.7)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.8)	(5.7)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)
	Screening Correction, dB(A)	0.0	(21.0)	0.0	0.0	(21.0)	(4.3)	(0.4)	(21.0)	(19.8)	(19.8)	(19.8)	(6.3)	(21.0)	(0.8)	(6.5)	(21.0)	(15.8)	(10.2)	(18.0)	(18.0)	(18.0)	(18.0)
	SEL of the Segment, dB(A)	35.3	15.2	36.9	41.0	30.4	49.1	54.0	56.7	54.4	57.5	48.9	28.1	14.4	35.5	33.9	30.1	36.8	43.9	42.9	59.9	58.0	51.2
	SEL of Single PassBy, dB(A)	62.4											62.6										
A/C Noise	Distance Correction, dB(A)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.6)	(5.6)	(5.5)	(5.4)	(5.5)	(5.4)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)
	SEL of the Segment, dB(A)	18.8	19.7	20.4	24.5	34.9	39.4	40.4	56.7	58.7	54.8	50.0	18.0	18.9	19.8	24.0	34.6	38.7	40.1	47.0	55.5	60.6	50.7
	SEL of Single PassBy, dB(A)	62.1											62.2										
Total	Total SEL of Single PassBy, dB(A)	65.3											65.4										
	Leq,30min of the Track,dB(A), dB(A)	43.5											43.3										
	Leq,30min, dB(A)	**46.4**																					

***Remark**

[a] Barrier correction based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier correction based on the dimension of Cross Section B shown in Appendix 6.14

Shun Man House (North) (OM1b) Noise Levels
2300-0700

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	3	4	4	5	10	12	15	18	40	64	90	3	3	4	4	10	12	15	16	28	36	82
	Angle End	4	4	5	5	12	15	18	40	64	90	115	3	4	4	5	12	15	16	28	36	82	116
B1 (Slope)	Barrier Height, m								18.7	18.7	18.7	18.7								18.7	18.7	18.7	18.7
	Barrier to Source Distance, m								22.0	22.0	22.0	21.0								18.0	18.0	18.0	17.0
B2 (Parapet/Tunnel)	Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
B3 (Noise Barrier)	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
	Barrier to Source Distance, m																						
	Receiver Height, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	0.2	131.2	(0.0)	0.3	136.8	2.2	1.1					1.1	132.5	0.3	1.5	138.4	4.4	2.7				
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8	32.8	31.3	29.8	27.8	25.8	23.8	22.8	22.8	22.8	22.8	22.8
	Hori Dist, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Slant Dist, m	44.4	43.3	42.2	40.8	46.3	45.2	44.7	44.7	44.7	44.7	44.7	41.8	40.6	39.5	38.0	43.0	41.8	41.3	41.3	41.3	41.3	41.3
	Angle of View, θ^o	0.5	0.5	0.5	0.5	2.0	3.0	3.0	22.0	24.0	26.0	25.0	0.5	0.5	0.5	0.5	2.0	3.0	1.5	12.0	8.0	46.0	34.0
	Angle of Orientation of the Segment, α^o	3.3	3.8	4.3	4.8	11.0	13.5	16.5	29.0	52.0	77.0	77.5	2.8	3.3	3.8	4.3	10.5	13.0	15.3	22.0	32.0	59.0	81.0
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(2.5)	(2.4)	(2.3)	(2.1)	(2.7)	(2.6)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.2)	(2.1)	(2.0)	(1.8)	(2.4)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)
	Angle of View Correction, dB(A)	(47.5)	(46.3)	(45.2)	(44.2)	(30.9)	(27.4)	(25.7)	(12.3)	(7.9)	(5.7)	(5.9)	(48.9)	(47.5)	(46.3)	(45.2)	(31.3)	(27.7)	(29.4)	(17.2)	(16.0)	(4.4)	(4.5)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(12.3)	(21.0)	(2.7)	(14.4)	(21.0)	(20.6)	(18.3)	(21.0)	(21.0)	(21.0)	(21.0)	(18.3)	(21.0)	(13.6)	(19.2)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	22.2	14.9	34.3	23.7	29.9	31.5	35.5	53.2	52.1	61.3	56.2	15.0	13.9	22.7	18.3	29.8	31.0	29.4	41.6	51.3	55.9	57.9
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	63.3											60.6										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(2.2)	(2.1)	(2.0)	(1.9)	(2.5)	(2.4)	(2.3)	(2.3)	(2.3)	(2.3)	(2.3)	(1.9)	(1.8)	(1.7)	(1.5)	(2.1)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
	Angle of View Correction, dB(A)	(47.5)	(46.3)	(45.2)	(44.2)	(30.9)	(27.4)	(25.7)	(12.3)	(7.9)	(5.7)	(5.9)	(48.9)	(47.5)	(46.3)	(45.2)	(31.3)	(27.7)	(29.4)	(17.2)	(16.0)	(4.4)	(4.5)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	18.1	19.5	20.7	21.8	34.4	38.0	39.8	53.2	57.6	59.8	58.6	17.0	18.5	19.9	21.2	34.4	38.1	36.5	48.7	49.8	61.4	60.4
	SEL of Single PassBy (A/C Noise), dB(A)	64.0											64.3										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	66.6											65.8										
	Train Frequency, No. of Train per 30min	12.0											11.0										
	SEL of the Track (Multiple PassBy), dB(A)	77.4											76.2										
	Leq,30min of the Track, dB(A)	44.9											43.7										
	Leq,30min, dB(A)	**47.3**																					
	+ 5 Floors, + 14 m																						
	Receiver Height, m	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8	46.8	45.3	43.8	41.8	39.8	37.8	36.8	36.8	36.8	36.8	36.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.5					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.0)	107.6	(0.4)	0.0	115.6	0.8	0.2					0.4	107.9	0.0	0.5	116.2	2.5	1.2				
	Slant Dist, m	55.5	54.3	53.0	51.4	55.3	53.9	53.2	53.2	53.2	53.2	53.2	53.5	52.2	50.9	49.2	52.6	51.1	50.4	50.4	50.4	50.4	50.4
Wheel/Rail Noise	Distance Correction, dB(A)	(3.5)	(3.4)	(3.3)	(3.1)	(3.4)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.2)	(3.1)	(2.9)	(3.2)	(3.1)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)
	Screening Correction, dB(A)	(4.2)	(21.0)	(0.1)	(5.6)	(21.0)	(17.2)	(12.7)	(21.0)	(21.0)	(21.0)	(21.0)	(15.1)	(21.0)	(6.9)	(15.9)	(21.0)	(21.0)	(18.6)	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	29.4	13.9	36.0	31.5	29.1	34.1	40.3	52.4	51.4	60.5	55.4	17.2	12.8	28.3	20.5	28.9	30.2	30.9	40.7	50.4	55.0	57.1
	SEL of Single PassBy, dB(A)	62.6											59.8										
A/C Noise	Distance Correction, dB(A)	(3.2)	(3.1)	(3.0)	(2.9)	(3.2)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.0)	(2.9)	(2.8)	(2.7)	(3.0)	(2.9)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
	SEL of the Segment, dB(A)	17.1	18.5	19.7	20.8	33.7	37.3	39.1	52.5	56.9	59.1	57.9	15.9	17.4	18.8	20.0	33.5	37.2	35.6	47.8	49.0	60.6	59.5
	SEL of Single PassBy, dB(A)	63.2											63.4										
Total	Total SEL of Single PassBy, dB(A)	65.9											65.0										
	Leq,30min of the Track,dB(A), dB(A)	44.2											42.8										
	Leq,30min, dB(A)	**46.6**																					
	+ 10 Floors, + 28.0 m																						
	Receiver Height, m	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8	60.8	59.3	57.8	55.8	53.8	51.8	50.8	50.8	50.8	50.8	50.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.1)	83.5	(0.8)	(0.1)	93.3	0.2	0.0					0.1	83.0	(0.0)	0.2	93.2	1.4	0.5				
	Slant Dist, m	67.8	66.4	65.1	63.3	66.1	64.5	63.7	63.7	63.7	63.7	63.7	66.1	64.7	63.3	61.5	63.9	62.2	61.4	61.4	61.4	61.4	61.4
Wheel/Rail Noise	Distance Correction, dB(A)	(4.3)	(4.2)	(4.2)	(4.0)	(4.2)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.2)	(4.1)	(4.0)	(3.9)	(4.1)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)
	Screening Correction, dB(A)	(1.1)	(21.0)	0.0	(1.3)	(21.0)	(13.2)	(5.6)	(21.0)	(21.0)	(21.0)	(21.0)	(12.0)	(21.0)	(2.9)	(12.6)	(21.0)	(19.1)	(16.0)	(20.5)	(20.5)	(20.5)	(20.5)
	SEL of the Segment, dB(A)	31.6	13.0	35.2	34.9	28.3	37.3	46.6	51.6	50.6	59.7	54.7	19.3	11.9	31.3	22.8	28.1	31.2	32.8	40.3	50.0	54.6	56.7
	SEL of Single PassBy, dB(A)	61.9											59.4										
A/C Noise	Distance Correction, dB(A)	(4.1)	(4.0)	(3.9)	(3.8)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(4.0)	(3.9)	(3.8)	(3.7)	(3.9)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)
	SEL of the Segment, dB(A)	16.2	17.6	18.7	19.8	32.9	36.5	38.3	51.7	56.1	58.3	57.1	14.9	16.4	17.8	19.0	32.7	36.4	34.8	46.9	48.1	59.7	58.6
	SEL of Single PassBy, dB(A)	62.4											62.5										
Total	Total SEL of Single PassBy, dB(A)	65.2											64.3										
	Leq,30min of the Track,dB(A), dB(A)	43.4											42.1										
	Leq,30min, dB(A)	**45.8**																					
	+ 15 Floors, + 42.0 m																						
	Receiver Height, m	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8	74.8	73.3	71.8	69.8	67.8	65.8	64.8	64.8	64.8	64.8	64.8
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.3)	60.2	(1.1)	(0.3)	71.4	0.0	(0.1)					0.0	58.8	(0.1)	0.1	70.4	0.9	0.2				
	Slant Dist, m	80.6	79.2	77.8	75.9	77.9	76.2	75.3	75.3	75.3	75.3	75.3	79.2	77.7	76.3	74.5	76.0	74.2	73.4	73.4	73.4	73.4	73.4
Wheel/Rail Noise	Distance Correction, dB(A)	(5.1)	(5.0)	(4.9)	(4.8)	(4.9)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(5.0)	(4.9)	(4.8)	(4.7)	(4.8)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)
	Screening Correction, dB(A)	(0.3)	(21.0)	0.0	(0.3)	(21.0)	(8.4)	(1.6)	(21.0)	(20.6)	(20.6)	(20.6)	(9.1)	(21.0)	(1.5)	(9.6)	(21.0)	(17.5)	(13.3)	(19.3)	(19.3)	(19.3)	(19.3)
	SEL of the Segment, dB(A)	31.7	12.2	34.4	35.1	27.6	41.3	49.9	50.9	50.2	59.4	54.3	21.5	11.1	31.9	25.0	27.3	32.0	34.6	40.8	50.5	55.1	57.1
	SEL of Single PassBy, dB(A)	61.7											59.9										
A/C Noise	Distance Correction, dB(A)	(4.9)	(4.8)	(4.7)	(4.6)	(4.8)	(4.7)	(4.6)	(4.6)	(4.6)	(4.6)	(4.6)	(4.8)	(4.7)	(4.6)	(4.5)	(4.6)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)
	SEL of the Segment, dB(A)	15.5	16.8	17.9	19.0	32.2	35.8	37.5	50.9	55.4	57.5	56.3	14.1	15.6	16.9	18.1	31.9	35.6	34.0	46.1	47.3	58.9	57.8
	SEL of Single PassBy, dB(A)	61.7											61.7										
Total	Total SEL of Single PassBy, dB(A)	64.7											63.9										
	Leq,30min of the Track,dB(A), dB(A)	42.9											41.8										
	Leq,30min, dB(A)	**45.4**																					
	+ 21 Floors, + 58.8 m																						
	Receiver Height, m	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6	91.6	90.1	88.6	86.6	84.6	82.6	81.6	81.6	81.6	81.6	81.6
	Receiver to Source Distance, m	29.9	29.9	29.9	29.9	38.4	38.4	38.4	38.4	38.4	38.4	38.4	25.9	25.9	25.9	25.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0	8.8					9.4	100.0	6.7	9.0	100.0	10.0	8.8				
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9	6.6					2.3	1.0	3.5	2.3	1.0	0.9	2.5				
	Path Length Difference, m	(0.5)	35.6	(1.5)	(0.5)	47.5	(0.0)	(0.2)					0.0	33.1	(0.2)	0.0	45.5	0.5	0.1				
	Slant Dist, m	96.4	94.9	93.5	91.6	92.9	91.1	90.2	90.2	90.2	90.2	90.2	95.2	93.7	92.3	90.4	91.3	89.5	88.6	88.6	88.6	88.6	88.6
Wheel/Rail Noise	Distance Correction, dB(A)	(5.9)	(5.8)	(5.7)	(5.6)	(5.7)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.6)	(5.8)	(5.7)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)
	Screening Correction, dB(A)	0.0	(21.0)	0.0	0.0	(21.0)	(4.3)	(0.4)	(21.0)	(19.8)	(19.8)	(19.8)	(6.3)	(21.0)	(0.8)	(6.5)	(21.0)	(15.8)	(10.2)	(18.0)	(18.0)	(18.0)	(18.0)
	SEL of the Segment, dB(A)	31.1	11.5	33.6	34.7	26.9	44.6	50.3	50.1	50.3	59.4	54.4	23.4	10.3	31.7	27.2	26.5	32.9	36.9	41.3	51.0	55.6	57.6
	SEL of Single PassBy, dB(A)	61.8											60.3										
A/C Noise	Distance Correction, dB(A)	(5.7)	(5.6)	(5.6)	(5.5)	(5.5)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.6)	(5.6)	(5.5)	(5.4)	(5.5)	(5.4)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)
	SEL of the Segment, dB(A)	14.6	16.0	17.1	18.2	31.4	35.0	36.7	50.1	54.6	56.7	55.5	13.3	14.8	16.1	17.3	31.1	34.7	33.1	45.3	46.5	58.1	57.0
	SEL of Single PassBy, dB(A)	60.9											60.9										
Total	Total SEL of Single PassBy, dB(A)	64.4											63.6										
	Leq,30min of the Track,dB(A), dB(A)	42.6											41.5										
	Leq,30min, dB(A)	**45.1**																					

***Remark**

[a] Barrier correction based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier correction based on the dimension of Cross Section B shown in Appendix 6.14

Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

Parc Palais, Block 6 (OM2)Noise Levels
2300-0700

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	7	8	9	10	6	8	10	11	19	26	39	8	9	10	11	7	9	11	13	18	21	39
	Angle End	8	9	10	11	8	10	11	19	26	39	47	9	10	11	12	9	11	13	18	21	39	48
B1 (Slope)	Barrier Height, m								18.4	13.0	12.0	11.0								18.4	13.0	12.0	11.0
	Barrier to Source Distance, m								35.2	18.9	11.3	9.4								39.2	22.9	15.3	13.4
B2	Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
(Parapet/Tunnel)	Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	2.1	107.1	0.5	0.7	117.6							0.6	106.8	0.0	0.0	116.8						
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8	45.8	44.3	42.8	40.8	38.8	36.8	35.8	35.8	35.8	35.8	35.8
	Hori Dist, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Slant Dist, m	70.4	69.5	68.5	67.3	52.9	51.5	50.8	50.8	50.8	50.8	50.8	73.5	72.6	71.7	70.5	55.7	54.4	53.7	53.7	53.7	53.7	53.7
	Angle of View, θ^o	1.0	1.0	1.0	1.0	2.0	2.0	1.0	8.0	7.0	13.0	8.0	1.0	1.0	1.0	1.0	2.0	2.0	2.5	5.0	3.0	18.0	9.0
	Angle of Orientation of the Segment, α^o	7.5	8.5	9.5	10.5	7.0	9.0	10.5	15.0	22.5	32.5	43.0	8.0	9.0	10.0	11.0	7.5	9.5	11.8	15.5	19.5	30.0	43.5
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(4.5)	(4.4)	(4.4)	(4.3)	(3.3)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(4.7)	(4.6)	(4.6)	(4.5)	(3.5)	(3.4)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)
	Angle of View Correction, dB(A)	(37.3)	(36.2)	(35.2)	(34.4)	(34.8)	(32.7)	(34.4)	(22.2)	(19.4)	(13.8)	(13.9)	(36.7)	(35.7)	(34.8)	(34.0)	(34.2)	(32.2)	(29.4)	(24.0)	(24.3)	(13.0)	(13.3)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(20.4)	(21.0)	(15.7)	(16.9)	(21.0)	0.0	0.0	(19.7)	(21.0)	(21.0)	(21.0)	(16.4)	(21.0)	(6.9)	(7.4)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	22.4	22.9	29.2	28.9	25.4	46.2	44.6	44.1	40.0	52.6	47.6	26.7	23.2	38.3	38.7	25.8	46.4	49.3	33.7	41.9	46.2	48.0
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	55.4											54.3										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(4.3)	(4.3)	(4.2)	(4.2)	(3.0)	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)	(4.5)	(4.5)	(4.4)	(4.4)	(3.3)	(3.2)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)
	Angle of View Correction, dB(A)	(37.3)	(36.2)	(35.2)	(34.4)	(34.8)	(32.7)	(34.4)	(22.2)	(19.4)	(13.8)	(13.9)	(36.7)	(35.7)	(34.8)	(34.0)	(34.2)	(32.2)	(29.4)	(24.0)	(24.3)	(13.0)	(13.3)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	26.2	27.4	28.4	29.3	30.0	32.3	30.6	42.8	45.6	51.2	50.1	26.6	27.7	28.6	29.5	30.3	32.5	35.3	40.7	40.4	51.8	50.4
	SEL of Single PassBy (A/C Noise), dB(A)	54.7											54.7										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	58.1											57.5										
	Train Frequency, No. of Train per 30min	12.0											11.0										
	SEL of the Track (Multiple PassBy), dB(A)	68.9											67.9										
	Leq,30min of the Track, dB(A)	36.3											35.3										
	Leq,30min, dB(A)	**38.9**																					
	+ 5 Floors, + 14 m																						
	Receiver Height, m	59.8	58.3	56.8	54.8	52.8	50.8	49.8	49.8	49.8	49.8	49.8	59.8	58.3	56.8	54.8	52.8	50.8	49.8	49.8	49.8	49.8	49.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	1.3	87.9	0.2	0.4	94.9							0.2	88.3	(0.1)	(0.0)	95.0						
	Slant Dist, m	80.2	79.1	78.0	76.6	63.9	62.3	61.4	61.4	61.4	61.4	61.4	83.0	81.9	80.8	79.4	66.2	64.7	63.9	63.9	63.9	63.9	63.9
Wheel/Rail Noise	Distance Correction, dB(A)	(5.1)	(5.0)	(4.9)	(4.9)	(4.1)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(5.2)	(5.2)	(5.1)	(5.0)	(4.2)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)
	Screening Correction, dB(A)	(18.8)	(21.0)	(12.3)	(14.7)	(21.0)	0.0	0.0	(17.9)	(19.5)	(19.5)	(19.5)	(12.9)	(21.0)	(1.8)	(2.4)	(21.0)	0.0	0.0	(19.9)	(20.0)	(20.0)	(20.0)
	SEL of the Segment, dB(A)	23.4	22.3	32.0	30.6	24.6	45.4	43.7	45.0	40.6	53.3	48.3	29.7	22.7	42.8	43.2	25.1	45.7	48.5	34.0	42.2	46.5	48.3
	SEL of Single PassBy, dB(A)	55.9											54.5										
A/C Noise	Distance Correction, dB(A)	(4.9)	(4.9)	(4.8)	(4.7)	(3.9)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(5.1)	(5.0)	(5.0)	(4.9)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)
	SEL of the Segment, dB(A)	25.7	26.8	27.8	28.8	29.2	31.4	29.8	42.0	44.7	50.4	49.3	26.1	27.2	28.1	29.0	29.6	31.7	34.6	40.0	39.6	51.0	49.7
	SEL of Single PassBy, dB(A)	53.9											53.9										
Total	Total SEL of Single PassBy, dB(A)	58.0											57.2										
	Leq,30min of the Track,dB(A), dB(A)	36.2											35.1										
	Leq,30min, dB(A)	**38.7**																					
	+ 10 Floors, + 28.0 m																						
	Receiver Height, m	73.8	72.3	70.8	68.8	66.8	64.8	63.8	63.8	63.8	63.8	63.8	73.8	72.3	70.8	68.8	66.8	64.8	63.8	63.8	63.8	63.8	63.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	0.8	69.4	0.0	0.2	72.4							0.0	70.6	(0.2)	(0.2)	73.4						
	Slant Dist, m	91.2	89.9	88.7	87.2	75.9	74.1	73.3	73.3	73.3	73.3	73.3	93.6	92.4	91.2	89.7	77.9	76.2	75.3	75.3	75.3	75.3	75.3
Wheel/Rail Noise	Distance Correction, dB(A)	(5.6)	(5.6)	(5.5)	(5.4)	(4.8)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(5.7)	(5.7)	(5.6)	(5.5)	(4.9)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)	(4.8)
	Screening Correction, dB(A)	(17.2)	(21.0)	(8.3)	(12.3)	(21.0)	0.0	0.0	(16.8)	(18.0)	(18.0)	(18.0)	(8.3)	(21.0)	(0.4)	(0.8)	(21.0)	0.0	0.0	(18.8)	(18.8)	(18.8)	(18.8)
	SEL of the Segment, dB(A)	24.4	21.8	35.5	32.4	23.9	44.6	43.0	45.3	41.4	54.0	49.0	33.8	22.2	43.7	44.2	24.4	45.0	47.8	34.4	42.6	47.0	48.7
	SEL of Single PassBy, dB(A)	56.4											54.6										
A/C Noise	Distance Correction, dB(A)	(5.5)	(5.4)	(5.4)	(5.3)	(4.6)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(5.6)	(5.5)	(5.5)	(5.4)	(4.8)	(4.7)	(4.6)	(4.6)	(4.6)	(4.6)	(4.6)
	SEL of the Segment, dB(A)	25.1	26.3	27.3	28.2	28.4	30.7	29.0	41.2	43.9	49.6	48.5	25.6	26.6	27.6	28.5	28.9	31.0	33.8	39.2	38.9	50.3	48.9
	SEL of Single PassBy, dB(A)	53.1											53.2										
Total	Total SEL of Single PassBy, dB(A)	58.0											57.0										
	Leq,30min of the Track,dB(A), dB(A)	36.3											34.8										
	Leq,30min, dB(A)	**38.6**																					
	+ 15 Floors, + 42.0 m																						
	Receiver Height, m	87.8	86.3	84.8	82.8	80.8	78.8	77.8	77.8	77.8	77.8	77.8	87.8	86.3	84.8	82.8	80.8	78.8	77.8	77.8	77.8	77.8	77.8
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	0.5	52.7	0.0	0.1	51.5							(0.0)	54.4	(0.5)	(0.4)	53.3						
	Slant Dist, m	102.8	101.5	100.3	98.6	88.5	86.6	85.7	85.7	85.7	85.7	85.7	105.0	103.7	102.5	100.8	90.2	88.4	87.5	87.5	87.5	87.5	87.5
Wheel/Rail Noise	Distance Correction, dB(A)	(6.1)	(6.1)	(6.0)	(6.0)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(6.2)	(6.2)	(6.1)	(6.1)	(5.6)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)
	Screening Correction, dB(A)	(15.7)	(21.0)	(5.6)	(9.9)	(21.0)	0.0	0.0	(16.4)	(16.8)	(16.8)	(16.8)	(5.0)	(21.0)	0.0	(0.1)	(21.0)	0.0	0.0	(17.7)	(17.8)	(17.8)	(17.8)
	SEL of the Segment, dB(A)	25.4	21.2	37.7	34.3	23.2	44.0	42.3	45.1	41.9	54.5	49.6	36.5	21.6	43.6	44.4	23.7	44.3	47.2	34.8	43.0	47.3	49.1
	SEL of Single PassBy, dB(A)	56.8											54.7										
A/C Noise	Distance Correction, dB(A)	(6.0)	(5.9)	(5.9)	(5.8)	(5.3)	(5.2)	(5.2)	(5.2)	(5.2)	(5.2)	(5.2)	(6.1)	(6.0)	(6.0)	(5.9)	(5.4)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)	(5.3)
	SEL of the Segment, dB(A)	24.6	25.7	26.7	27.7	27.7	30.0	28.3	40.5	43.2	48.9	47.8	25.1	26.1	27.1	28.0	28.2	30.3	33.2	38.6	38.3	49.6	48.3
	SEL of Single PassBy, dB(A)	52.4											52.5										
Total	Total SEL of Single PassBy, dB(A)	58.1											56.7										
	Leq,30min of the Track,dB(A), dB(A)	36.3											34.6										
	Leq,30min, dB(A)	**38.6**																					
	+ 22 Floors, + 61.6 m																						
	Receiver Height, m	107.4	105.9	104.4	102.4	100.4	98.4	97.4	97.4	97.4	97.4	97.4	107.4	105.9	104.4	102.4	100.4	98.4	97.4	97.4	97.4	97.4	97.4
	Receiver to Source Distance, m	53.5	53.5	53.5	53.5	36.0	36.0	36.0	36.0	36.0	36.0	36.0	57.5	57.5	57.5	57.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	0.3	34.2	(0.0)	0.0	28.3							(0.1)	36.3	(0.8)	(0.6)	30.9						
	Slant Dist, m	120.0	118.6	117.3	115.5	106.7	104.8	103.8	103.8	103.8	103.8	103.8	121.8	120.5	119.2	117.4	108.1	106.2	105.3	105.3	105.3	105.3	105.3
Wheel/Rail Noise	Distance Correction, dB(A)	(6.8)	(6.8)	(6.7)	(6.6)	(6.3)	(6.2)	(6.2)	(6.2)	(6.2)	(6.2)	(6.2)	(6.9)	(6.8)	(6.8)	(6.7)	(6.4)	(6.3)	(6.2)	(6.2)	(6.2)	(6.2)	(6.2)
	Screening Correction, dB(A)	(13.6)	(21.0)	(2.3)	(6.6)	(21.0)	0.0	0.0	(16.3)	(15.5)	(15.5)	(15.5)	(1.7)	(21.0)	0.0	0.0	(21.0)	0.0	0.0	(16.5)	(16.6)	(16.6)	(16.6)
	SEL of the Segment, dB(A)	26.8	20.6	40.3	36.9	22.4	43.1	41.5	44.3	42.4	55.0	50.1	39.2	21.0	43.0	43.8	22.9	43.5	46.4	35.2	43.4	47.7	49.5
	SEL of Single PassBy, dB(A)	57.1											54.7										
A/C Noise	Distance Correction, dB(A)	(6.7)	(6.6)	(6.6)	(6.5)	(6.2)	(6.1)	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)	(6.8)	(6.7)	(6.7)	(6.6)	(6.2)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)
	SEL of the Segment, dB(A)	23.9	25.0	26.0	27.0	26.9	29.1	27.5	39.6	42.4	48.0	46.9	24.4	25.5	26.4	27.3	27.4	29.5	32.3	37.7	37.4	48.8	47.4
	SEL of Single PassBy, dB(A)	51.5											51.7										
Total	Total SEL of Single PassBy, dB(A)	58.2											56.4										
	Leq,30min of the Track,dB(A), dB(A)	36.4											34.3										
	Leq,30min, dB(A)	**38.5**																					

***Remark**

[a] Barrier correction based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier correction based on the dimension of Cross Section B shown in Appendix 6.14

Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

Wylie Court, Block C (HH1) Noise Levels
2300-0700

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	38	45	53	61	69	90	108	116	135	140	143	39	46	53	61	70	90	108	115	130	134	141
	Angle End	45	53	61	73	90	108	116	135	140	143	145	46	53	61	74	90	108	115	130	134	141	144
B1 (Slope)	Barrier Height, m								18.4	13.0	12.0	11.0								18.4	13.0	12.0	11.0
	Barrier to Source Distance, m								35.2	18.9	11.3	9.4								39.2	22.9	15.3	13.4
B2	Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
(Parapet/Tunnel)	Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	5.6	110.0	2.6	2.5	113.5							3.4	109.7	1.3	1.0	113.1						
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9	33.9	32.4	30.9	28.9	26.9	24.9	23.9	23.9	23.9	23.9	23.9
	Hori Dist, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Slant Dist, m	156.8	156.5	156.2	155.8	153.5	153.1	153.0	153.0	153.0	153.0	153.0	160.7	160.4	160.1	159.7	157.4	157.1	156.9	156.9	156.9	156.9	156.9
	Angle of View, θ°	7.0	7.5	8.0	12.5	21.0	17.6	7.6	19.0	5.0	2.5	2.5	7.0	7.0	8.0	12.5	20.5	17.5	7.5	15.0	4.0	7.0	3.0
	Angle of Orientation of the Segment, α°	41.5	48.8	56.5	66.8	79.5	80.8	68.2	54.5	42.5	38.8	36.3	42.5	49.5	57.0	67.3	79.8	81.3	68.8	57.5	48.0	42.5	37.5
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(8.0)	(8.0)	(8.0)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(8.1)	(8.1)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)
	Angle of View Correction, dB(A)	(14.7)	(13.3)	(12.1)	(9.4)	(6.5)	(7.3)	(11.4)	(8.6)	(16.0)	(19.7)	(20.2)	(14.5)	(13.5)	(12.1)	(9.3)	(6.6)	(7.3)	(11.4)	(9.3)	(16.1)	(14.5)	(19.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(21.0)	(21.0)	(21.0)	(20.9)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(18.9)	(18.1)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.8	42.2	43.4	46.3	49.1	66.9	62.7	51.6	38.7	42.0	36.6	40.9	41.9	45.5	49.0	48.9	66.8	62.6	43.7	45.4	40.0	37.5
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	68.5											68.4										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(8.0)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)
	Angle of View Correction, dB(A)	(14.7)	(13.3)	(12.1)	(9.4)	(6.5)	(7.3)	(11.4)	(8.6)	(16.0)	(19.7)	(20.2)	(14.5)	(13.5)	(12.1)	(9.3)	(6.6)	(7.3)	(11.4)	(9.3)	(16.1)	(14.5)	(19.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	45.2	46.6	47.8	50.6	53.4	52.7	48.6	51.4	44.0	40.3	38.8	45.3	46.3	47.7	50.5	53.2	52.6	48.4	50.6	43.8	45.4	39.7
	SEL of Single PassBy (A/C Noise), dB(A)	59.6											59.5										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	69.0											68.9										
	Train Frequency, No. of Train per 30min	12.0											11.0										
	SEL of the Track (Multiple PassBy), dB(A)	79.8											79.3										
	Leq,30min of the Track, dB(A)	47.3											46.7										
	Leq,30min, dB(A)	**50.0**																					
	+ 5 Floors, + 15.0 m																						
	Receiver Height, m	48.9	47.4	45.9	43.9	41.9	39.9	38.9	38.9	38.9	38.9	38.9	48.9	47.4	45.9	43.9	41.9	39.9	38.9	38.9	38.9	38.9	38.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	4.8	100.7	2.0	2.0	104.2							2.7	100.6	0.9	0.7	104.0						
	Slant Dist, m	160.7	160.3	159.8	159.3	156.8	156.3	156.0	156.0	156.0	156.0	156.0	164.5	164.1	163.7	163.1	160.7	160.1	159.9	159.9	159.9	159.9	159.9
Wheel/Rail Noise	Distance Correction, dB(A)	(8.1)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)
	Screening Correction, dB(A)	(21.0)	(21.0)	(20.3)	(20.3)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(17.6)	(16.8)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.7	42.1	44.0	46.8	49.0	66.8	62.6	51.5	38.6	41.9	36.5	40.8	41.8	46.7	50.2	48.8	66.7	62.5	43.6	45.3	39.9	37.4
	SEL of Single PassBy, dB(A)	68.4											68.3										
A/C Noise	Distance Correction, dB(A)	(8.1)	(8.0)	(8.0)	(8.0)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(7.9)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)
	SEL of the Segment, dB(A)	45.1	46.5	47.7	50.5	53.4	52.7	48.5	51.3	43.9	40.3	38.7	45.2	46.2	47.6	50.4	53.2	52.5	48.4	50.5	43.7	45.3	39.7
	SEL of Single PassBy, dB(A)	59.5											59.4										
Total	Total SEL of Single PassBy, dB(A)	69.0											68.8										
	Leq,30min of the Track,dB(A), dB(A)	47.2											46.7										
	Leq,30min, dB(A)	**50.0**																					
	+ 10 Floors, + 30.0 m																						
	Receiver Height, m	63.9	62.4	60.9	58.9	56.9	54.9	53.9	53.9	53.9	53.9	53.9	63.9	62.4	60.9	58.9	56.9	54.9	53.9	53.9	53.9	53.9	53.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	4.1	91.4	1.6	1.7	94.7							2.1	91.5	0.6	0.4	94.8						
	Slant Dist, m	165.9	165.3	164.8	164.0	161.5	160.8	160.4	160.4	160.4	160.4	160.4	169.6	169.0	168.5	167.8	165.2	164.5	164.2	164.2	164.2	164.2	164.2
Wheel/Rail Noise	Distance Correction, dB(A)	(8.2)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)	(8.3)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)
	Screening Correction, dB(A)	(21.0)	(21.0)	(19.5)	(19.7)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(20.4)	(21.0)	(16.1)	(15.3)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.6	42.0	44.7	47.3	48.9	66.7	62.5	51.3	38.4	41.8	36.4	41.3	41.7	48.1	51.6	48.7	66.5	62.4	43.5	45.2	39.8	37.3
	SEL of Single PassBy, dB(A)	68.3											68.2										
A/C Noise	Distance Correction, dB(A)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.1)	(8.1)	(8.1)
	SEL of the Segment, dB(A)	45.0	46.4	47.6	50.4	53.2	52.5	48.4	51.2	43.8	40.1	38.6	45.0	46.1	47.5	50.3	53.0	52.4	48.3	50.4	43.6	45.2	39.6
	SEL of Single PassBy, dB(A)	59.4											59.3										
Total	Total SEL of Single PassBy, dB(A)	68.8											68.7										
	Leq,30min of the Track,dB(A), dB(A)	47.1											46.6										
	Leq,30min, dB(A)	**49.9**																					
	+ 15 Floors, + 45.0 m																						
	Receiver Height, m	78.9	77.4	75.9	73.9	71.9	69.9	68.9	68.9	68.9	68.9	68.9	78.9	77.4	75.9	73.9	71.9	69.9	68.9	68.9	68.9	68.9	68.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	3.5	82.2	1.2	1.3	85.4							1.6	82.6	0.3	0.2	85.7						
	Slant Dist, m	172.2	171.6	170.9	170.0	167.3	166.5	166.1	166.1	166.1	166.1	166.1	175.8	175.1	174.5	173.6	171.0	170.1	169.7	169.7	169.7	169.7	169.7
Wheel/Rail Noise	Distance Correction, dB(A)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.5)	(8.5)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)
	Screening Correction, dB(A)	(21.0)	(21.0)	(18.6)	(18.9)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(19.4)	(21.0)	(14.2)	(13.5)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.4	41.8	45.4	47.9	48.7	66.5	62.4	51.2	38.3	41.6	36.2	42.1	41.6	49.8	53.3	48.5	66.4	62.3	43.4	45.1	39.7	37.2
	SEL of Single PassBy, dB(A)	68.2											68.1										
A/C Noise	Distance Correction, dB(A)	(8.3)	(8.3)	(8.3)	(8.3)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.2)	(8.4)	(8.4)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)
	SEL of the Segment, dB(A)	44.8	46.2	47.4	50.2	53.1	52.4	48.2	51.1	43.7	40.0	38.5	44.9	45.9	47.4	50.1	52.9	52.3	48.1	50.3	43.4	45.0	39.4
	SEL of Single PassBy, dB(A)	59.3											59.2										
Total	Total SEL of Single PassBy, dB(A)	68.7											68.7										
	Leq,30min of the Track,dB(A), dB(A)	46.9											46.5										
	Leq,30min, dB(A)	**49.7**																					
	+ 18 Floors, + 54.0 m																						
	Receiver Height, m	87.9	86.4	84.9	82.9	80.9	78.9	77.9	77.9	77.9	77.9	77.9	87.9	86.4	84.9	82.9	80.9	78.9	77.9	77.9	77.9	77.9	77.9
	Receiver to Source Distance, m	153.1	153.1	153.1	153.1	151.1	151.1	151.1	151.1	151.1	151.1	151.1	157.1	157.1	157.1	157.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
	Equivalent Barrier Height, m	9.4	100.0	6.7	5.1	100.0							9.4	100.0	6.7	5.1	100.0						
	Equivalent Barrier to Source Distance, m	2.3	1.0	4.2	2.3	1.0							6.3	1.0	8.2	6.3	1.0						
	Path Length Difference, m	3.1	76.9	1.0	1.2	79.9							1.3	77.4	0.2	0.2	80.4						
	Slant Dist, m	176.5	175.8	175.1	174.1	171.4	170.5	170.0	170.0	170.0	170.0	170.0	180.0	179.3	178.6	177.6	174.9	174.0	173.6	173.6	173.6	173.6	173.6
Wheel/Rail Noise	Distance Correction, dB(A)	(8.5)	(8.5)	(8.5)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.6)	(8.6)	(8.5)	(8.5)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)
	Screening Correction, dB(A)	(21.0)	(21.0)	(18.1)	(18.5)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(18.8)	(21.0)	(12.9)	(12.2)	(21.0)	0.0	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	40.3	41.7	45.9	48.2	48.6	66.4	62.3	51.1	38.2	41.5	36.1	42.6	41.5	51.0	54.4	48.4	66.3	62.2	43.3	45.0	39.6	37.1
	SEL of Single PassBy, dB(A)	68.1											68.1										
A/C Noise	Distance Correction, dB(A)	(8.4)	(8.4)	(8.4)	(8.4)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.5)	(8.5)	(8.5)	(8.5)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)	(8.4)
	SEL of the Segment, dB(A)	44.7	46.1	47.3	50.1	53.0	52.3	48.2	51.0	43.6	39.9	38.4	44.8	45.8	47.3	50.1	52.8	52.2	48.0	50.2	43.3	44.9	39.3
	SEL of Single PassBy, dB(A)	59.2											59.1										
Total	Total SEL of Single PassBy, dB(A)	68.6											68.6										
	Leq,30min of the Track,dB(A), dB(A)	46.8											46.5										
	Leq,30min, dB(A)	**49.7**																					

***Remark**

[a] Barrier correction based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier correction based on the dimension of Cross Section B shown in Appendix 6.14

Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

Wing Fung Mansion (HH2) Noise Levels
2300-0700

	Track	Uptrack											Downtrack										
	Segment	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
	Chainage start	100737	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	100737	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150
	Chainage end	100781	100819	100855	100890	100950	100998	101025	101104	101135	101155	101174	100781	100819	100855	100890	100950	100998	101025	101081	101101	101150	101174
	Segment length	44	38	36	35	60	48	27	79	31	20	19	44	38	36	35	60	48	27	56	20	49	24
	Angle Start	20	14	12	10	4	4	3	3	2	2	1	19	13	11	9	4	3	3	2	2	1	1
	Angle End	32	20	14	12	6	4	4	3	3	2	2	31	19	13	11	6	4	3	3	2	2	1
B1 (Slope)	Barrier Height, m																						
	Barrier to Source Distance, m																						
B2	Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0						9.4	100.0	6.7	9.0	100.0	10.0					
(Parapet/Tunnel)	Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9						2.3	1.0	3.5	2.3	1.0	0.9					
B3	Barrier Height, m								[b]	[a]	[a]	[a]								[b]	[b]	[a]	[a]
(Noise Barrier)	Barrier to Source Distance, m																						
	Receiver Height, m	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7
	Receiver to Source Distance, m	31.5	31.5	31.5	31.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	27.5	27.5	27.5	27.5	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0						9.4	100.0	6.7	9.0	100.0	10.0					
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9						2.3	1.0	3.5	2.3	1.0	0.9					
	Path Length Difference, m	3.0	161.7	1.5	4.1	177.4	7.8						5.1	164.3	2.8	6.3	180.6	10.7					
	Speed, kph	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	80.0
	Vert Dist, m	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7	11.7	10.2	8.7	6.7	4.7	2.7	1.7	1.7	1.7	1.7	1.7
	Hori Dist, m	31.5	31.5	31.5	31.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	27.5	27.5	27.5	27.5	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	Slant Dist, m	33.6	33.1	32.7	32.2	19.6	19.2	19.1	19.1	19.1	19.1	19.1	29.9	29.3	28.8	28.3	15.7	15.2	15.1	15.1	15.1	15.1	15.1
	Angle of View, θ^o	12.0	6.0	2.0	2.5	2.0	0.5	0.5	0.5	0.5	0.5	0.5	12.0	6.0	2.0	2.0	2.0	0.5	0.5	0.5	0.5	0.5	0.5
	Angle of Orientation of the Segment, α^o	26.0	17.0	13.0	10.8	5.0	3.8	3.3	2.8	2.3	1.8	1.3	25.0	16.0	12.0	10.0	4.5	3.3	2.8	2.3	1.8	1.3	0.8
	Wheel/Rail Noise Contribution																						
	Reference Lmax (25m Setback&130kph), dB(A)	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
	Reference SEL (25m Setback&130kph), dB(A)	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
	Speed Correction, dB(A)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(6.3)	(4.2)
	Distance Correction, dB(A)	(1.3)	(1.2)	(1.2)	(1.1)	1.1	1.1	1.2	1.2	1.2	1.2	1.2	(0.8)	(0.7)	(0.6)	(0.5)	2.0	2.1	2.2	2.2	2.2	2.2	2.2
	Angle of View Correction, dB(A)	(15.9)	(22.4)	(29.5)	(30.2)	(37.7)	(46.3)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(16.2)	(22.9)	(30.2)	(31.8)	(38.6)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(60.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Track Wear Correction, dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Turnout Correction, dB(A)								7.0		7.0										7.0		
	Slab Track Correction, dB(A)	2.5	2.5	2.5	2.5	2.5							2.5	2.5	2.5	2.5	2.5						
	Reflection Correction, dB(A)									1.5	1.5	1.5									1.5	1.5	1.5
	Screening Correction, dB(A)	(21.0)	(21.0)	(19.2)	(21.0)	(21.0)	(21.0)	0.0	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	(21.0)	0.0	(21.0)	(21.0)	(21.0)	(21.0)
	SEL of the Segment, dB(A)	46.3	39.9	34.6	32.2	26.9	15.9	35.7	20.2	13.0	17.8	10.0	46.5	39.9	32.7	31.2	26.9	15.7	35.3	12.5	18.8	9.0	6.7
	SEL of Single PassBy (Wheel/Rail Noise), dB(A)	47.9											47.9										
	AC Noise Contribution																						
	Reference Lmax (15m Setback&130kph), dB(A)	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
	Reference SEL (25m Setback&130kph), dB(A)	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
	Duration Correction, dB(A)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1
	Distance Correction, dB(A)	(1.1)	(1.1)	(1.1)	(1.0)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	(0.6)	(0.5)	(0.5)	(0.4)	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	Angle of View Correction, dB(A)	(15.9)	(22.4)	(29.5)	(30.2)	(37.7)	(46.3)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(16.2)	(22.9)	(30.2)	(31.8)	(38.6)	(47.5)	(48.9)	(50.7)	(52.9)	(55.7)	(60.1)
	Façade Correction, dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Screening Correction, dB(A)																						
	SEL of the Segment, dB(A)	50.8	44.3	37.3	36.7	31.3	22.8	21.5	20.1	18.3	16.2	12.2	51.1	44.4	37.2	35.7	31.5	22.6	21.1	19.3	17.2	14.3	8.9
	SEL of Single PassBy (A/C Noise), dB(A)	52.0											52.2										
	Total Noise Contribution																						
	Total SEL of Single PassBy, dB(A)	53.4											53.6										
	Train Frequency, No. of Train per 30min	12.0											11.0										
	SEL of the Track (Multiple PassBy), dB(A)	64.2											64.0										
	Leq,30min of the Track, dB(A)	31.7											31.4										
	Leq,30min, dB(A)	**34.6**																					
	+ 6 Floors, + 16.8 m																						
	Receiver Height, m	28.5	27.0	25.5	23.5	21.5	19.5	18.5	18.5	18.5	18.5	18.5	28.5	27.0	25.5	23.5	21.5	19.5	18.5	18.5	18.5	18.5	18.5
	Receiver to Source Distance, m	31.5	31.5	31.5	31.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	27.5	27.5	27.5	27.5	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	Equivalent Barrier Height, m	9.4	100.0	6.7	9.0	100.0	10.0						9.4	100.0	6.7	9.0	100.0	10.0					
	Equivalent Barrier to Source Distance, m	6.3	1.0	7.5	6.3	1.0	4.9						2.3	1.0	3.5	2.3	1.0	0.9					
	Path Length Difference, m	0.5	137.6	0.0	0.8	151.8	0.9						1.7	139.1	0.5	2.2	153.5	2.4					
	Slant Dist, m	42.5	41.5	40.5	39.3	28.7	27.2	26.5	26.5	26.5	26.5	26.5	39.6	38.5	37.5	36.2	26.2	24.6	23.8	23.8	23.8	23.8	23.8
Wheel/Rail Noise	Distance Correction, dB(A)	(2.3)	(2.2)	(2.1)	(2.0)	(0.6)	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(2.0)	(1.9)	(1.8)	(1.6)	(0.2)	0.1	0.2	0.2	0.2	0.2	0.2
	Screening Correction, dB(A)	(15.4)	(21.0)	(7.2)	(17.1)	(21.0)	(17.7)	0.0	(20.3)	(21.0)	(21.0)	(21.0)	(19.7)	(21.0)	(16.0)	(20.6)	(21.0)	(20.9)	0.0	(20.6)	(20.6)	(20.6)	(20.6)
	SEL of the Segment, dB(A)	50.9	38.9	45.7	35.3	25.2	17.7	34.2	19.5	11.6	16.4	8.6	46.6	38.7	36.6	30.6	24.7	13.7	33.3	11.0	17.3	7.4	5.1
	SEL of Single PassBy, dB(A)	52.4											47.9										
A/C Noise	Distance Correction, dB(A)	(2.0)	(1.9)	(1.9)	(1.7)	(0.2)	0.1	0.2	0.2	0.2	0.2	0.2	(1.7)	(1.6)	(1.5)	(1.3)	0.3	0.6	0.7	0.7	0.7	0.7	0.7
	SEL of the Segment, dB(A)	49.9	43.5	36.5	36.0	30.0	21.6	20.5	19.1	17.3	15.2	11.2	49.9	43.3	36.2	34.8	29.6	20.9	19.6	17.9	15.7	12.8	7.5
	SEL of Single PassBy, dB(A)	51.1											51.1										
Total	Total SEL of Single PassBy, dB(A)	54.8											52.8										
	Leq,30min of the Track,dB(A), dB(A)	33.1											30.6										
	Leq,30min, dB(A)	**35.0**																					

***Remark**

[a] Barrier correction based on the dimension of Cross Section A shown in Appendix 6.14

[b] Barrier correction based on the dimension of Cross Section B shown in Appendix 6.14

Appendix 6.15 Calculation for Airborne Rail Noise Assessment for SCL (MKK - HUH) - Mitigated Scenario

NSR	Floor	Leq,30 min		Lmax	Leq,24hr
		0700-2300	2300-0700		
				Criteria - 85 dB(A)	Criteria - 65 dB(A)
Shun Man House (South Blcok) (OM1a)	2	50	49	57	47
	7	49	48	56	47
	12	48	47	55	46
	17	48	47	55	46
	23	48	46	54	45
Shun Man House (North Block) (OM1b)	2	48	47	56	47
	7	48	47	55	46
	12	47	46	54	45
	17	47	45	54	45
	23	46	45	53	44
Parc Palais, Block 6 (OM2)	2	40	39	47	38
	7	40	39	47	38
	12	40	39	47	38
	17	40	39	47	38
	24	40	38	47	38
Carmel Secondary School (OM4b)	2	47	-	54	45
	5	47	-	54	45
Wylie Court, Block C (HH1)	2	51	50	57	49
	7	51	50	57	49
	12	51	50	56	49
	17	51	50	56	49
	20	51	50	56	49
Wing Fung Mansion (HH2)	2	36	35	43	33
	8	36	35	44	35

Remarks:

1. Leq,24hr is based on total 850 trains per day.