

Annex C

Calculation of Road Traffic Noise

Road Noise Calculation
HK Island

Flyover ID	H5		H8		H9		H16		H22		H23
Receiver	Robinson Garden Apartment		Shue Fuk Building		Kennedy Heights		Wing Cheung Building		Wan King House		Private Res
Noise Source	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover
	Robinson Road	Robinson Road	Upper Albert Rd.	Glenealy Road	Cotton Tree Drive	Kennedy Road	Canal Road	Morrison Hill Road	Gloucester Road	Causeway Road	Gloucester Road
INPUTS											
Hourly Flow	854	1688	1636	1187	3128	1441	1519	6041	707	2770	707
Av Speed (km/hr)	50	50	50	50	50	50	50	50	50	50	50
%HV	32.7	32.7	22.2	22.2	22.2	22.2	22.2	22.2	18.6	18.6	18.6
Gradient %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Receiver-Carriageway Distance (m)	35.00	35.00	20.00	1.00	30.00	7.00	45.00	3.00	30.00	10.00	45.00
Height of Carriageway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Angle of View (deg.)	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
surface type (imprevious/pervious)	i	i	i	i	i	i	i	i	i	i	i
Barrier (Y/N)	N	N	N	N	N	N	N	N	N	N	N
Height of Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier-carriageway Distance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Receiver Height (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OUTPUTS											
Basic Hourly Noise Level dB(A) (Includes speed and %HV correction, also gradient and road surface correction of 1 for imp/bit and speed <75km/hr)	74.02	76.98	75.62	74.22	78.43	75.07	75.29	81.29	71.46	77.39	71.46
<i>Distance Correction:</i>											
Slant Distance (m)	38.50	38.50	23.51	4.53	33.50	10.51	48.50	16.32	33.30	13.51	48.50
Distance Correction dB(A)	-4.55	-4.55	-2.41	4.74	-3.95	1.09	-5.55	3.16	-3.95	0.00	-5.55
<i>Surface correction</i>											
Surface correction	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
<i>Calculation of Path Difference:</i>											
Possible Path Difference	0.03	0.03	0.03	0.01	0.03	0.02	0.03	0.02	0.03	0.03	0.03
Path Difference Only if Barrier Exists	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Working out whether receiver is in the illuminated or shadow zone:</i>											
Source Receiver gradient	-0.01	-0.01	-0.02	-0.11	-0.01	-0.05	-0.01	-0.08	-0.01	-0.04	-0.01
Height of Line at Barrier Position	0.45	0.45	0.43	0.11	0.45	0.33	0.46	0.23	0.45	0.37	0.46
Illuminated / Shadow?	I	I	I	I	I	I	I	I	I	I	I
<i>Calculation of barrier attenuation:</i>											
Barrier Atten Illuminated	-2.26	-2.26	-2.33	-3.67	-2.28	-2.60	-2.24	-2.98	-2.28	-2.48	-2.24
Barrier Atten Shadow	-7.65	-7.65	-7.57	-6.19	-7.63	-7.29	-7.67	-6.90	-7.63	-7.41	-7.67
Possible Barrier Attenuation	-2.26	-2.26	-2.33	-3.67	-2.28	-2.60	-2.24	-2.98	-2.28	-2.48	-2.24
Actual Barrier Attenuation based on whether there is a barrier or not	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Angle of View and Facade Corrections:</i>											
View Ange Correction dB(A)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Facade correction	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Hourly L10, dB(A)	71.97	74.93	75.71	81.47	76.98	78.65	72.24	86.95	70.01	79.89	68.40
Detail Assessment required?	no		no		no		no		no		no

Road Noise Calculation
HK Island

	H26		H27		H34		H37		H38		H41		H43	
Receptor	City Garden Po Shek House				Heng Fa Chuen		Residential Buildings		Wong Chuk Hang San Wai		Residential Buildings		Nicholson	
At grade	Flyover	Flyover	At grade	Flyover	Flyover	Flyover	At grade	Flyover	Flyover	At grade	Flyover	At grade	Flyover	At grade
Causeway Road	IEC	IEC	King's Road	IEC	Aberdeen Main Rd	Aberdeen Main Road	Wong Chuk Hang Rd.	Ap Lei Chau Bridge	Ap Lei Chau Bridge	Chau Bridge Road	Stubbs Rd	Wong Nai Chung Road		
	2770	3667	673	1766	3555	1045	2308	1069	2250	2250	1037	1432		
	50	70	50	50	70	50	50	50	50	50	50	50		
	18.6	14.5	22.2	22.2	10	22.2	22.2	22.2	22.2	22.2	22.2	22.2		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	5.00	15.00	12.00	5.00	15.00	10.00	5.00	100.00	30.00	35.00	30.00	25.00		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00		
	i	p	i	i	p	i	i	i	i	i	i	i		
	N	N	N	N	N	N	N	N	N	N	N	N		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	77.39	79.40	71.76	75.95	78.52	73.67	77.11	73.77	77.00	77.00	73.64	75.04		
	8.51	18.51	15.51	8.51	18.51	13.51	8.51	103.50	33.50	38.50	33.50	28.50		
	2.00	-1.37	-0.60	2.00	-1.37	0.00	2.00	-8.85	-3.95	-4.55	-3.95	-3.25		
	-1	-3.5	-1	-1	-3.5	-1	-1	-1	-1	-1	-1	-1		
	0.02	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	-0.06	-0.03	-0.03	-0.06	-0.03	-0.04	-0.06	0.00	-0.01	-0.01	-0.01	-0.02		
	0.29	0.41	0.39	0.29	0.41	0.37	0.29	0.48	0.45	0.45	0.45	0.44		
	i	i	i	i	i	i	i	i	i	i	i	i		
	-2.73	-2.39	-2.43	-2.73	-2.39	-2.48	-2.73	-2.20	-2.28	-2.26	-2.28	-2.30		
	-7.15	-7.51	-7.46	-7.15	-7.51	-7.41	-7.15	-7.72	-7.63	-7.65	-7.63	-7.61		
	-2.73	-2.39	-2.43	-2.73	-2.39	-2.48	-2.73	-2.20	-2.28	-2.26	-2.28	-2.30		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
	81.89	80.53	73.66	80.45	79.65	76.17	81.61	67.42	75.55	74.95	72.19	74.29		
		yes	no		yes	no		no	yes		no			

Road Noise Calculation
HK Island

H45		H46a		H46b	
Residential Buildings		Chi Fu Fa Yuen		Chi Fu Fa Yuen	
Flyover	At grade	Flyover	Flyover	Flyover	Flyover
Repluse Bay Rd.	Repluse Bay Road	Chi Fu Road	Chi Fu Road	Chi Fu Road	Chi Fu Road
2056	2056	381		70	
50	50	50		50	
22.2	22.2	22.2		22.2	
0.00	0.00	0.00		0.00	
40.00	40.00	25.00		25.00	
0.00	0.00	0.00		0.00	
180.00	180.00	180.00		180.00	
i	i	i		i	
N	N	N		N	
0.00	0.00	0.00		0.00	
0.00	0.00	0.00		0.00	
0.00	0.00	0.00		0.00	
76.61	76.61	69.29		61.93	
43.50	43.50	28.50		28.50	
-5.08	-5.08	-3.25		-3.25	
-1	-1	-1		-1	
0.03	0.03	0.03		0.03	
0.00	0.00	0.00		0.00	
-0.01	-0.01	-0.02		-0.02	
0.46	0.46	0.44		0.44	
l	l	l		l	
-2.25	-2.25	-2.30		-2.30	
-7.66	-7.66	-7.61		-7.61	
-2.25	-2.25	-2.30		-2.30	
0.00	0.00	0.00		0.00	
0.00	0.00	0.00		0.00	
2.50	2.50	2.50		2.50	
74.03	74.03	68.54		61.18	
no		no		no	

Road Noise Calculation
Kowloon

Flyover ID	K2		K4		K6		K7a		K7b		K8
Receiver	Mei Foo		Nam Cheong		Chak On Estate		Beacon Heights		Choi Hung Estate		Beacon Hei
Noise Source	Flyover	Flyover	Flyover	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	
	Kwai Chung Road	Cheung Sha Wan Road	West Kowloon Corridor	Lung Cheung Road	Lung Cheung Road	Lung Cheung Road	Lung Cheung Road	Lung Cheung Road	Lung Cheung Road	Lung Cheung Road	Lung Ping Road
INPUTS											
Hourly Flow	8641	3392	5275	4167	4167	5428	4888	5428	4888	2690	
Av Speed (km/hr)	70	70	70	50	50	50	50	50	50	50	
%HV	37.6	37.6	18.9	22.2	22.2	22.2	22.2	22.2	22.2	22.2	
Gradient %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Receiver-Carriageway Distance (m)	15.00	15.00	50.00	70.00	45.00	185.00	15.00	20.00	10.00	10.00	
Height of Carriageway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Angle of View (deg.)	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	
surface type (imprevious/pervious)	i	i	i	i	i	i	i	i	i	i	
Barrier (Y/N)	N	N	N	N	N	N	N	N	N	N	
Height of Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Barrier-carriageway Distance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Receiver Height (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
OUTPUTS											
Basic Hourly Noise Level dB(A) (Includes speed and %HV correction, also gradient and road surface correction of 1 for imp/bit and speed <75km/hr)	85.70	81.64	81.60	79.68	79.68	80.82	80.37	80.82	80.37	77.78	
Distance Correction:											
Slant Distance (m)	18.51	18.51	53.50	73.50	48.50	188.50	18.51	23.51	13.51	13.51	
Distance Correction dB(A)	-1.37	-1.37	-5.98	-7.36	-5.55	-11.45	-1.37	-2.41	0.00	0.00	
Surface correction											
Surface correction	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
Calculation of Path Difference:											
Possible Path Difference	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
Path Difference Only if Barrier Exists	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Working out whether receiver is in the illuminated or shadow zone:											
Source Receiver gradient	-0.03	-0.03	-0.01	-0.01	-0.01	0.00	-0.03	-0.02	-0.04	-0.04	
Height of Line at Barrier Position	0.41	0.41	0.47	0.48	0.46	0.49	0.41	0.43	0.37	0.37	
Illuminated / Shadow?	1	1	1	1	1	1	1	1	1	1	
Calculation of barrier attenuation:											
Barrier Atten Illuminated	-2.39	-2.39	-2.23	-2.21	-2.24	-2.18	-2.39	-2.33	-2.48	-2.48	
Barrier Atten Shadow	-7.51	-7.51	-7.68	-7.71	-7.67	-7.74	-7.51	-7.57	-7.41	-7.41	
Possible Barrier Attenuation	-2.39	-2.39	-2.23	-2.21	-2.24	-2.18	-2.39	-2.33	-2.48	-2.48	
Actual Barrier Attenuation based on whether there is a barrier or not	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Angle of View and Facade Corrections:											
View Angle Correction dB(A)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Facade correction	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
Hourly L10, dB(A)	86.83	82.77	78.12	74.82	76.62	71.88	81.50	80.92	82.87	80.27	
Detail Assessment required?	yes		yes	no		no		no		no	

Road Noise Calculation
Kowloon

	K10		K14		K16		K18		K26				
hts	Private Residential		Private Residential		Chun Seen Mei Chuen		Wylie Court		Bamboo Mansion				
At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	At grade	Flyover	At grade	Flyover	At grade	At grade	
Lung Cheung Road	Waterloo Road	Waterloo Road	Boundary Street	Boundary Street	Argyle Street	Argyle Street	Prince Edward Road West	Chatham Road South	Hong Chong Road	Dyer Avenue	Dyer Avenue	Hung Hom Road	
	4888	6847	6722	1840	2677	2081	2081	2956	2118	9314	126	126	1368
50	50	50	50	50	50	50	50	50	50	50	50	50	50
22.2	22.2	22.2	22.2	22.2	14.8	14.8	22.2	22.2	22.2	22.2	22.2	22.2	22.2
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	20.00	10.00	15.00	5.00	20.00	10.00	50.00	20.00	70.00	10.00	10.00	10.00	35.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
I	I	I	I	I	I	I	I	I	I	I	I	I	I
N	N	N	N	N	N	N	N	N	N	N	N	N	N
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.37	81.83	81.75	76.13	77.76	75.53	75.53	78.19	76.74	83.17	64.48	64.48	74.84	
13.51	23.51	13.51	18.51	8.51	23.51	13.51	53.50	23.51	73.50	13.51	13.51	38.50	
0.00	-2.41	0.00	-1.37	2.00	-2.41	0.00	-5.98	-2.41	-7.36	0.00	0.00	-4.55	
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.04	-0.02	-0.04	-0.03	-0.06	-0.02	-0.04	-0.01	-0.02	-0.01	-0.04	-0.04	-0.01	
0.37	0.43	0.37	0.41	0.29	0.43	0.37	0.47	0.43	0.48	0.37	0.37	0.45	
I	I	I	I	I	I	I	I	I	I	I	I	I	I
-2.48	-2.33	-2.48	-2.39	-2.73	-2.33	-2.48	-2.23	-2.33	-2.21	-2.48	-2.48	-2.26	
-7.41	-7.57	-7.41	-7.51	-7.15	-7.57	-7.41	-7.68	-7.57	-7.71	-7.41	-7.41	-7.65	
-2.48	-2.33	-2.48	-2.39	-2.73	-2.33	-2.48	-2.23	-2.33	-2.21	-2.48	-2.48	-2.26	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
82.87	81.93	84.25	77.26	82.26	75.62	78.02	74.71	76.83	78.31	66.98	66.98	72.79	
	no		no		no			no		no			

Road Noise Calculation
Kowloon

K30		K31			K32		K34		K41		K42a	
Tin Ma Court		Wang Tau Hom Estate			Lung Poon Court		Choi Hung Estate		Upper Ngau Tau Kok Est		Shun Lee Tsuen	
Flyover	At grade	Flyover	At grade	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade
Lung Chuk Yuen Cheung Road		Fung Mo Street		Lung Cheung Road	Po Kong Village Road	Lung Cheung Road	Prince Edward Road East	Prince Edward Road East	Ngau Tau Kok Road	Kwun Tong Road	Shun Lee Tsuen Road	New Clear Water Bay Road
1033	4462	2010	2010	4356	899	4647	7721	7721	268	5864	1863	1687
50	50	50	50	50	50	50	50	50	50	50	50	50
22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	35.2	35.2	22.2	22.2
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.00	25.00	40.00	30.00	140.00	100.00	85.00	35.00	20.00	10.00	45.00	90.00	40.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
i	i	i	i	i	i	i	i	i	i	i	i	i
N	N	N	N	N	N	N	N	N	N	N	N	N
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.62	79.97	76.51	76.51	79.87	73.02	80.15	82.36	82.36	69.23	82.63	76.18	75.75
78.50	28.50	43.50	33.50	143.50	103.50	88.50	38.50	23.51	13.51	48.50	93.50	43.50
-7.65	-3.25	-5.08	-3.95	-10.27	-8.85	-8.17	-4.55	-2.41	0.00	-5.55	-8.40	-5.08
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.01	-0.02	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.02	-0.04	-0.01	-0.01	-0.01
0.48	0.44	0.46	0.45	0.49	0.48	0.48	0.45	0.43	0.37	0.46	0.48	0.46
i	i	i	i	i	i	i	i	i	i	i	i	i
-2.21	-2.30	-2.25	-2.28	-2.19	-2.20	-2.20	-2.26	-2.33	-2.48	-2.24	-2.20	-2.25
-7.71	-7.61	-7.66	-7.63	-7.74	-7.72	-7.72	-7.65	-7.57	-7.41	-7.67	-7.72	-7.66
-2.21	-2.30	-2.25	-2.28	-2.19	-2.20	-2.20	-2.26	-2.33	-2.48	-2.24	-2.20	-2.25
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
68.47	79.23	73.93	75.06	72.10	66.67	74.48	80.30	82.45	71.73	79.58	70.28	73.17
no		no			no		no		no		no	

Road Noise Calculation
Kowloon

K43		K48		K53		K55		K56	
Lee On Road		Kai Tak Court		Laguna City		Kwun Tong Estate		Tsui Ping S	
Flyover	At grade	Flyover	At grade	Flyover	Flyover	At grade	Flyover	Flyover	Flyover
New Clear		New Clear		New Clear		New Clear		Tseung	
Lee On Road	Water Bay Road	Kwun Tong Road	Kwun Tong Road	Kwun Tong Bypass	Kwun Tong Bypass	Kwun Tong Road	Kwun Tong Road	Kwan O Road	Kwan O Road
	1095	1872	5864	9608	5765	5678	10443	5678	
50	50	50	50	70	50	50	50	50	
22.2	22.2	22.2	22.2	34.1	22.2	22.2	22.2	34.1	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
85.00	120.00	70.00	50.00	70.00	20.00	10.00	35.00		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	
i	i	i	i	i	i	i	i	i	
N	N	N	N	N	N	N	N	N	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
73.87	76.20	81.16	83.30	83.64	81.02	83.67	82.39		
88.50	23.51	73.50	53.50	73.50	23.51	13.51	38.50		
-8.17	-2.41	-7.36	-5.98	-7.36	-2.41	0.00	-4.55		
-1	-1	-1	-1	-1	-1	-1	-1		
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
-0.01	-0.02	-0.01	-0.01	-0.01	-0.02	-0.04	-0.01		
0.48	0.43	0.48	0.47	0.48	0.43	0.37	0.45		
I	I	I	I	I	I	I	I		
-2.20	-2.33	-2.21	-2.23	-2.21	-2.33	-2.48	-2.26		
-7.72	-7.57	-7.71	-7.68	-7.71	-7.57	-7.41	-7.65		
-2.20	-2.33	-2.21	-2.23	-2.21	-2.33	-2.48	-2.26		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50		
68.21	76.29	76.30	79.82	78.78	81.11	86.16	80.33		
no		no		yes		no		yes	

Road Noise Calculation
NT

Flyover ID	NT3		NT4		NT9		NT10		NT15		NT25
Receiver	Tai Ping Estate		Venniza Garden		Wang Fuk Court		Wang Fuk Court		Chevalier Garden	Sha Tin Road	
Noise Source	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	Flyover	
	Pak Wo Road	Fanling Highway	So Kwun Po Rd Network	Fanling Highway	Tai Po Road Yuen Tolo Chau Tsai	Tai Po Road Yuen Tolo	Tai Po Road Yuen Tolo	Tai Po Road Yuen Tolo	Ma On Shan Road City One		
INPUTS											
Hourly Flow	157	5290	2913	5290	937	5709	932	5709	1848	3287	
Av Speed (km/hr)	50	50	50	50	50	50	50	50	50	50	
%HV	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	30.7	30.7	
Gradient %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	
Receiver-Carriageway Distance (m)	60.00	50.00	105.00	90.00	50.00	140.00	95.00	150.00	200.00	35.00	
Height of Carriageway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Angle of View (deg.)	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	
surface type (impervious/pervious)	i	i	i	i	i	i	i	i	i	i	
Barrier (Y/N)	N	N	N	N	N	N	N	N	N	N	
Height of Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Barrier-carriageway Distance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Receiver Height (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
OUTPUTS											
Basic Hourly Noise Level dB(A) (Includes speed and %HV correction, also gradient and road surface correction of 1 for imp/bit and speed <75km/hr)	65.44	80.71	78.12	80.71	73.20	81.04	73.17	81.04	77.16	79.96	
<i>Distance Correction:</i>											
Slant Distance (m)	63.50	53.50	108.50	93.50	53.50	143.50	98.50	153.50	203.50	38.50	
Distance Correction dB(A)	-6.72	-5.98	-9.05	-8.40	-5.98	-10.27	-8.63	-10.56	-11.78	-4.55	
<i>Surface correction</i>											
Surface correction	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
<i>Calculation of Path Difference:</i>											
Possible Path Difference	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	
Path Difference Only if Barrier Exists	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<i>Working out whether receiver is in the illuminated or shadow zone:</i>											
Source Receiver gradient	-0.01	-0.01	0.00	-0.01	-0.01	0.00	-0.01	0.00	0.00	-0.01	
Height of Line at Barrier Position	0.47	0.47	0.48	0.48	0.47	0.49	0.48	0.49	0.49	0.45	
Illuminated / Shadow?	I	I	I	I	I	I	I	I	I	I	
<i>Calculation of barrier attenuation:</i>											
Barrier Atten Illuminated	-2.22	-2.23	-2.19	-2.20	-2.23	-2.19	-2.20	-2.18	-2.18	-2.26	
Barrier Atten Shadow	-7.70	-7.68	-7.73	-7.72	-7.68	-7.74	-7.72	-7.74	-7.75	-7.65	
Possible Barrier Attenuation	-2.22	-2.23	-2.19	-2.20	-2.23	-2.19	-2.20	-2.18	-2.18	-2.26	
Actual Barrier Attenuation based on whether there is a barrier or not	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<i>Angle of View and Facade Corrections:</i>											
View Ange Correction dB(A)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Facade correction	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
Hourly L10, dB(A)	61.21	77.23	71.57	74.81	69.72	73.28	67.04	72.99	67.88	77.91	
Detail Assessment required?	no		no		no		no		no	yes	

Road Noise Calculation
NT

	NT27		NT29		NT35		NT47		NT48		NT49	
	Ravana Garden		Pictorial Garden		Worldwide Garden		Ling Nam		San Fat Estate		Kam Wah Garden	
At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade
	Tai Chung Kiu Road	Tai Chung Kiu Road	Shek Mun Interchange Slip Road	Tate's Cairn Highway	Lion Rock Tunnel Road	Lion Rock Tunnel Road	Castle Peak Road - San Hui	San Hui Road	Pui To Road	Pui To Road	Pui To Road	Tuen Fat Road
2588	3153	3153	564	3796	5894	5894	598	598	1721	1721	1397	4274
50	50	50	50	50	50	50	50	50	50	50	50	50
30.7	41.6	41.6	33	30.7	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.00	30.00	15.00	75.00	180.00	110.00	20.00	30.00	20.00	30.00	20.00	50.00	30.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
i	i	i	i	i	i	i	i	i	i	i	i	i
N	N	N	N	N	N	N	N	N	N	N	N	N
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.63	80.51	80.51	72.25	80.29	81.18	81.18	71.25	71.25	75.84	75.84	74.93	79.79
73.50	33.50	18.51	78.50	-83.50	113.50	23.51	33.50	23.51	33.50	23.51	-53.50	33.50
-7.36	-3.95	-1.37	-7.65	-7.91	-9.25	-2.41	-3.95	-2.41	-3.95	-2.41	-5.98	-3.95
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.01	-0.01	-0.03	-0.01	-0.01	0.00	-0.02	-0.01	-0.02	-0.01	-0.02	-0.01	-0.01
0.48	0.45	0.41	0.48	0.48	0.48	0.43	0.45	0.43	0.45	0.43	0.47	0.45
1	1	1	1	1	1	1	1	1	1	1	1	1
-2.21	-2.28	-2.39	-2.21	-2.21	-2.19	-2.33	-2.28	-2.33	-2.28	-2.33	-2.23	-2.28
-7.71	-7.63	-7.51	-7.71	-7.71	-7.73	-7.57	-7.63	-7.57	-7.63	-7.57	-7.68	-7.63
-2.21	-2.28	-2.39	-2.21	-2.21	-2.19	-2.33	-2.28	-2.33	-2.28	-2.33	-2.23	-2.28
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
73.77	79.07	81.64	67.10	74.88	74.44	81.27	69.80	71.34	74.39	75.93	71.45	78.34
	no		no		no		no		no		no	

Road Noise Calculation
NT

NT56		NT62		NT69		NT71		NT73			NT76		
Sun Shing		Clague Garden Estate		Kwai Fong Estate		Riviera Garden		Cheung On Estate		Lai King Terrace		Lai Yiu Estate	
Flyover	At grade	Flyover	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	Flyover	At grade	
Tuen Hing Road	Tuen Mun Road	Tsuen Wan Road	Kwai Chung Road	Kwai Chung Road	Tsing Tsuen Road	Tsuen Wan Road	Tsing Tsuen Road	Tsing King Road	Lai King Hill Rd Network	Kwai Chung Road	Wah Tai Road	Castle Peak Road	
1180	4274	7552	1036	518	3487	9624	3487	883	1007	2445	578	2416	
50	50	70	50	50	50	50	50	50	50	50	50	50	
22.2	22.2	13.2	32.3	32.3	51.2	13.2	51.2	30.3	22.2	22.2	22.2	22.2	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40.00	50.00	15.00	25.00	15.00	25.00	375.00	20.00	5.00	45.00	20.00	90.00	65.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	
i	i	i	i	i	i	i	i	i	i	i	i	i	
N	N	N	N	N	N	N	N	N	N	N	N	N	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
74.20	79.79	82.33	74.82	71.81	81.69	81.89	81.69	73.91	73.51	77.36	71.10	77.31	
43.50	53.50	18.51	28.50	18.51	28.50	378.50	23.51	8.51	48.50	23.51	93.50	68.50	
-5.08	-5.98	-1.37	-3.25	-1.37	-3.25	-14.48	-2.41	2.00	-5.55	-2.41	-8.40	-7.05	
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.02	0.03	0.03	0.03	0.03	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-0.01	-0.01	-0.03	-0.02	-0.03	-0.02	0.00	-0.02	-0.06	-0.01	-0.02	-0.01	-0.01	
0.46	0.47	0.41	0.44	0.41	0.44	0.50	0.43	0.29	0.46	0.43	0.48	0.47	
I	I	I	I	I	I	I	I	I	I	I	I	I	
-2.25	-2.23	-2.39	-2.30	-2.39	-2.30	-2.17	-2.33	-2.73	-2.24	-2.33	-2.20	-2.22	
-7.66	-7.68	-7.51	-7.61	-7.51	-7.61	-7.76	-7.57	-7.15	-7.67	-7.57	-7.72	-7.70	
-2.25	-2.23	-2.39	-2.30	-2.39	-2.30	-2.17	-2.33	-2.73	-2.24	-2.33	-2.20	-2.22	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	
71.62	76.31	83.46	74.07	72.94	80.95	69.91	81.78	178.41	70.45	77.45	65.19	72.76	
no	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	no	