

Appendix 5-6
Sample Calculations at 5 Assessment Points
Operational Phase Traffic Noise Impact Assessment

Input Parameters for the Traffic Noise Model under "With Fill Bank" Scenario in 2004 during Fill Bank Peak Hour

Road segments	Surface Type	Width, m	Veh/hr	% of HV	Speed, kph	Gradient	Speed Correction
A	IMPERVIOUS	10	1540	59	50	N	N
A&B1	IMPERVIOUS	22	3535	57	70	Y	N
A&B2	IMPERVIOUS	22	3535	57	50	N	N
AA	PERVIOUS	6	380	41	50	Y	N
B	IMPERVIOUS	8	1995	56	50	Y	N
C1	IMPERVIOUS	8	580	36	50	N	N
C2	IMPERVIOUS	9	580	36	50	Y	N
CD1	IMPERVIOUS	20	1325	40	70	Y	N
CD2	IMPERVIOUS	20	1325	40	50	Y	N
D1	IMPERVIOUS	8	745	43	50	Y	N
D2	IMPERVIOUS	9	745	43	50	N	N
E1	IMPERVIOUS	8	1000	65	50	Y	N
E2	PERVIOUS	9	1000	65	70	Y	N
E3	PERVIOUS	9	1000	65	70	N	N
EF1	IMPERVIOUS	20	1710	70	50	Y	N
EF2	PERVIOUS	20	1710	70	70	Y	N
F1	IMPERVIOUS	8	710	77	50	Y	N
F2	PERVIOUS	9	710	77	70	N	N
F3	PERVIOUS	9	710	77	70	Y	N
GH minus K	PERVIOUS	25	1310	52	70	Y	N
GH1	IMPERVIOUS	23	1525	53	70	Y	N
GH2	IMPERVIOUS	26	1525	53	50	Y	N
IJ	IMPERVIOUS	19	1800	40	70	Y	N
IM	IMPERVIOUS	19	1280	40	70	Y	N
K	IMPERVIOUS	7	215	54	50	Y	N
LM1	PERVIOUS	17	1105	37	70	Y	N
LM2	IMPERVIOUS	17	1105	37	70	Y	N
NO	PERVIOUS	9	1190	80	70	Y	N
PQ	IMPERVIOUS	19	1335	54	50	Y	N
R1	PERVIOUS	20	1145	73	70	N	N
R2	PERVIOUS	20	1145	73	70	N	N
R3	PERVIOUS	18	1145	73	70	Y	N
R4	PERVIOUS	20	1145	73	70	Y	N
R5	PERVIOUS	18	1145	73	70	Y	N
S1	PERVIOUS	20	1130	75	70	Y	N
S2	PERVIOUS	20	1130	75	70	Y	N
S3	PERVIOUS	18	1130	75	70	N	N
S4	PERVIOUS	20	1130	75	70	N	N
S5	PERVIOUS	18	1130	75	70	N	N
TU	IMPERVIOUS	17	1605	53	50	Y	N
VW	PERVIOUS	18	565	96	70	Y	N
X	IMPERVIOUS	9	525	65	50	N	N
Y	IMPERVIOUS	9	560	72	50	Y	N
Z	PERVIOUS	6	140	62	50	N	N

Barrier	Height above road, m
Barrier of E2_E3	0.8
Barrier of EF2	4.0
Barrier of F2_F3	4.0
Barrier F1	4.0
Barrier_NO-SB	4.0
Barrier_PQ	5.0
Barrier_Z	4.0
Parapet Wall_NO-NB	0.8
Parapet Wall_NO-SB	0.8

Noise breakdown for N4 at 25/F under "with fill bank scenario"

Road Name	Start Point	End Point	BNL	CMTS	HVC	GC	LTC	STC	AVC	DC	RC	BC	Contribution	Sub-Total
E1	844890.86, 819603.47, 9.10	844894.07, 819602.29, 9.20	72.2	0.0	5.9	0.9	0.0	-1.0	-40.0	-7.2	0.0	-0.1	30.7	
	844894.68, 819603.08, 9.20	844895.92, 819602.36, 9.20	72.2	0.0	5.9	0.1	0.0	-1.0	-36.3	-8.3	0.0	0.0	32.6	
	844895.92, 819602.36, 9.20	844977.26, 819555.09, 8.94	72.2	0.0	5.9	0.1	0.0	-1.0	-16.6	-8.3	0.0	0.0	52.3	
	844977.26, 819555.09, 8.94	844988.21, 819548.73, 8.90	72.2	0.0	5.9	0.1	0.0	-1.0	-23.3	-8.3	0.0	0.0	45.6	53.2
E2	844987.81, 819548.57, 8.60	845010.10, 819533.48, 8.45	72.2	0.0	7.0	0.2	0.0	-3.5	-18.0	-8.7	0.0	0.0	49.1	
	845010.10, 819533.48, 8.45	845011.23, 819532.71, 8.44	72.2	0.0	7.0	0.2	0.0	-3.5	-30.3	-8.7	0.0	0.0	36.9	
	845011.23, 819532.71, 8.44	845017.06, 819528.76, 8.40	72.2	0.0	7.0	0.2	0.0	-3.5	-23.0	-8.7	0.0	0.0	44.2	
	845017.06, 819528.76, 8.40	845071.28, 819491.65, 7.94	72.2	0.0	7.0	0.2	0.0	-3.5	-11.0	-8.7	0.0	0.0	56.2	
E3	845071.28, 819491.65, 7.94	845075.37, 819488.85, 7.90	72.2	0.0	7.0	0.2	0.0	-3.5	-20.1	-8.7	0.0	0.0	47.1	
	845075.37, 819488.85, 7.90	845096.12, 819474.66, 7.74	72.2	0.0	7.0	0.2	0.0	-3.5	-12.0	-8.7	0.4	0.0	55.6	
	845096.12, 819474.66, 7.74	845112.08, 819463.74, 7.61	72.2	0.0	7.0	0.2	0.0	-3.5	-11.5	-8.7	0.8	0.0	56.5	61.5
	845112.08, 819463.74, 7.61	845113.43, 819462.82, 7.60	72.2	0.0	7.0	0.2	0.0	-3.5	-21.5	-8.7	0.0	0.0	45.6	
F1	845113.46, 819462.80, 7.60	845129.29, 819450.80, 7.85	72.2	0.0	7.0	0.0	0.0	-3.5	-10.2	-8.7	0.4	0.0	57.2	
	845129.29, 819450.80, 7.85	845167.20, 819422.05, 8.45	72.2	0.0	7.0	0.0	0.0	-3.5	-6.5	-8.7	1.2	0.0	61.7	
	845167.20, 819422.05, 8.45	844915.53, 819622.31, 9.40	70.7	0.0	6.6	0.2	0.0	-1.0	-19.7	-11.2	0.0	0.0	45.6	
	844915.53, 819622.31, 9.40	844934.14, 819605.43, 9.54	70.7	0.0	6.6	0.2	0.0	-1.0	-20.8	-9.1	0.0	0.0	46.6	
F2	844934.14, 819605.43, 9.54	844942.69, 819597.66, 9.60	70.7	0.0	6.6	0.2	0.0	-1.0	-23.6	-9.1	0.0	-1.5	42.2	
	844942.69, 819597.66, 9.60	844984.03, 819568.00, 9.05	70.7	0.0	6.6	0.3	0.0	-1.0	-18.0	-8.5	0.0	-0.7	49.4	
	844984.03, 819568.00, 9.05	844984.51, 819567.65, 9.05	70.7	0.0	6.6	0.3	0.0	-1.0	-36.3	-8.5	0.0	-0.8	31.0	
	844984.51, 819567.65, 9.05	844995.70, 819559.62, 8.90	70.7	0.0	6.6	0.3	0.0	-1.0	-22.4	-8.5	0.0	-0.6	45.2	53.4
F3	844995.70, 819559.62, 8.90	845044.57, 819524.77, 8.31	70.7	0.0	7.6	0.0	0.0	-3.5	-14.1	-8.5	0.0	-0.7	51.5	
	845044.57, 819524.77, 8.31	845053.41, 819518.42, 8.20	70.7	0.0	7.6	0.0	0.0	-3.5	-19.6	-8.5	0.0	-0.8	46.0	
	845053.41, 819518.42, 8.20	845109.33, 819478.23, 7.91	70.7	0.0	7.6	0.0	0.0	-3.5	-8.5	-8.4	0.0	-0.8	57.1	
	845109.33, 819478.23, 7.91	845111.58, 819476.62, 7.90	70.7	0.0	7.6	0.0	0.0	-3.5	-19.6	-8.4	0.0	-0.8	45.9	58.6
LM1	845111.60, 819476.61, 7.90	845136.22, 819458.19, 8.30	70.7	0.0	7.6	0.4	0.0	-3.5	-7.9	-8.4	0.0	-0.9	58.0	
	845136.22, 819458.19, 8.30	845167.77, 819434.59, 8.80	70.7	0.0	7.6	0.4	0.0	-3.5	-6.5	-8.4	0.0	-0.9	59.4	
	845167.77, 819434.59, 8.80	844942.64, 819306.69, 5.90	72.6	0.0	5.1	0.4	0.0	-3.5	-13.5	-13.6	0.0	0.0	47.6	
	844942.64, 819306.69, 5.90	844967.71, 819278.22, 6.08	72.6	0.0	5.1	0.2	0.0	-3.5	-13.9	-13.6	0.9	0.0	47.8	
	844967.71, 819278.22, 6.08	844983.81, 819259.92, 6.20	72.6	0.0	5.1	0.2	0.0	-3.5	-15.9	-13.6	1.5	0.0	46.4	52.1

Total without façade correction 67.9
 Façade correction 2.5
 Total 70

Contribution from all roads is 64.09 dB(A) L10(1-hour)

Remarks:

- BNL - Basic Noise Level
- CMTS - Change in Mean Traffic Speed
- HVC - Heavy Vehicles Correction
- GC - Gradient Correction
- LTC - Low Traffic Flow Correction
- STC - Surface Type Correction
- AVC - Angle View Correction
- DC - Distance Correction
- BC - Barrier Correction
- RC - Reflecting Wall Correction

Noise breakdown for N11 at 5/F under "with fill bank scenario"

Road Name	Start Point		End Point		BNL	CMTS	HVC	GC	LTFC	STC	AVC	DC	RC	BC	Contribution	Sub-Total	
NO	845461.59,	819090.99,	16.19	845483.88,	819038.95,	15.61	73.0	0.0	7.7	0.3	0.0	-3.5	-19.8	-5.7	0.0	-0.2	51.8
	845483.88,	819038.95,	15.61	845491.70,	819020.67,	15.40	73.0	0.0	7.7	0.3	0.0	-3.5	-23.1	-5.7	1.5	0.0	50.2
	845486.76,	819018.63,	15.40	845505.13,	818974.38,	16.40	72.8	0.0	7.4	0.0	0.0	-3.5	-18.8	-4.7	1.5	0.0	54.7
	845506.02,	818972.86,	16.40	845539.15,	818930.59,	17.11	72.8	0.0	7.4	0.0	0.0	-3.5	-12.2	-7.8	1.5	0.0	58.1
R1	845539.15,	818930.59,	17.11	845543.41,	818925.16,	17.20	72.8	0.0	7.4	0.0	0.0	-3.5	-19.6	-7.8	1.5	0.0	50.7
	845543.81,	818924.70,	17.20	845604.48,	818860.67,	17.50	72.8	0.0	7.4	0.0	0.0	-3.5	-6.0	-8.3	0.0	0.0	62.5
	845603.87,	818861.42,	17.50	845640.96,	818808.26,	18.40	72.8	0.0	7.4	0.0	0.0	-3.5	-6.6	-8.2	0.0	0.0	61.8
	845640.16,	818809.84,	18.40	845646.17,	818792.59,	19.11	72.8	0.0	7.4	0.0	0.0	-3.5	-12.8	-8.7	0.0	0.0	55.2
R2	845646.17,	818792.59,	19.11	845674.97,	818710.00,	22.50	72.8	0.0	7.4	0.0	0.0	-3.5	-7.9	-8.7	0.0	0.0	60.1
	845675.29,	818709.24,	22.50	845688.05,	818683.59,	24.40	72.8	0.0	7.4	0.0	0.0	-3.5	-16.3	-8.0	0.0	0.0	52.4
	845688.69,	818682.57,	24.40	845714.53,	818648.42,	26.60	72.8	0.0	7.4	0.0	0.0	-3.5	-18.4	-6.0	0.0	0.0	52.3
	845714.53,	818648.42,	26.60	845742.34,	818611.67,	28.80	72.8	0.0	7.4	0.0	0.0	-3.5	-19.7	-5.9	0.0	0.0	51.0
S1	845751.65,	818620.61,	28.80	845768.19,	818607.02,	29.65	72.8	0.0	7.4	0.0	0.0	-3.5	-33.9	-2.4	0.0	0.0	40.3
	84586.76,	819018.63,	15.40	845505.13,	818974.38,	16.40	72.7	0.0	7.5	0.4	0.0	-3.5	-18.8	-4.7	1.5	0.0	55.4
	845506.02,	818972.86,	16.40	845539.15,	818930.59,	17.11	72.7	0.0	7.5	0.4	0.0	-3.5	-12.2	-7.8	1.5	0.0	58.6
	845539.15,	818930.59,	17.11	845543.41,	818925.16,	17.20	72.7	0.0	7.5	0.4	0.0	-3.5	-19.6	-7.8	1.5	0.0	51.2
S2	845543.81,	818924.70,	17.20	845604.48,	818860.67,	17.50	72.7	0.0	7.5	0.1	0.0	-3.5	-6.0	-8.3	0.0	0.0	62.6
	845603.87,	818861.42,	17.50	845640.96,	818808.26,	18.40	72.7	0.0	7.5	0.4	0.0	-3.5	-6.6	-8.2	0.0	0.0	62.3
	845640.16,	818809.84,	18.40	845646.17,	818792.59,	19.11	72.7	0.0	7.5	1.2	0.0	-3.5	-12.8	-8.7	0.0	0.0	56.4
	845646.17,	818792.59,	19.11	845674.97,	818710.00,	22.50	72.7	0.0	7.5	1.2	0.0	-3.5	-7.9	-8.7	0.0	0.0	61.3
X	845675.29,	818709.24,	22.50	845688.05,	818683.59,	24.40	72.7	0.0	7.5	2.0	0.0	-3.5	-16.3	-8.0	0.0	0.0	54.5
	845688.69,	818682.57,	24.40	845714.53,	818648.42,	26.60	72.7	0.0	7.5	1.5	0.0	-3.5	-18.4	-6.0	0.0	0.0	53.9
	845714.53,	818648.42,	26.60	845742.34,	818611.67,	28.80	72.7	0.0	7.5	1.4	0.0	-3.5	-19.7	-5.9	0.0	0.0	52.5
	845751.65,	818620.61,	28.80	845768.19,	818607.02,	29.65	72.7	0.0	7.5	1.2	0.0	-3.5	-33.9	-2.4	0.0	0.0	41.6
Y	845478.76,	819015.03,	15.40	845447.71,	819086.89,	12.07	69.4	0.0	5.9	0.0	0.0	-1.0	-19.7	-3.8	1.5	0.0	52.3
	845476.86,	819094.68,	13.10	845479.75,	819086.31,	13.60	69.7	0.0	6.3	1.7	0.0	-1.0	-29.3	-4.5	0.0	-0.6	42.3
	845479.76,	819086.28,	13.60	845489.91,	819060.06,	14.38	69.7	0.0	6.3	0.8	0.0	-1.0	-22.6	-5.7	0.0	-0.4	47.1
	845489.91,	819060.06,	14.38	845503.21,	819025.70,	15.40	69.7	0.0	6.3	0.8	0.0	-1.0	-20.4	-5.7	1.5	0.0	51.2

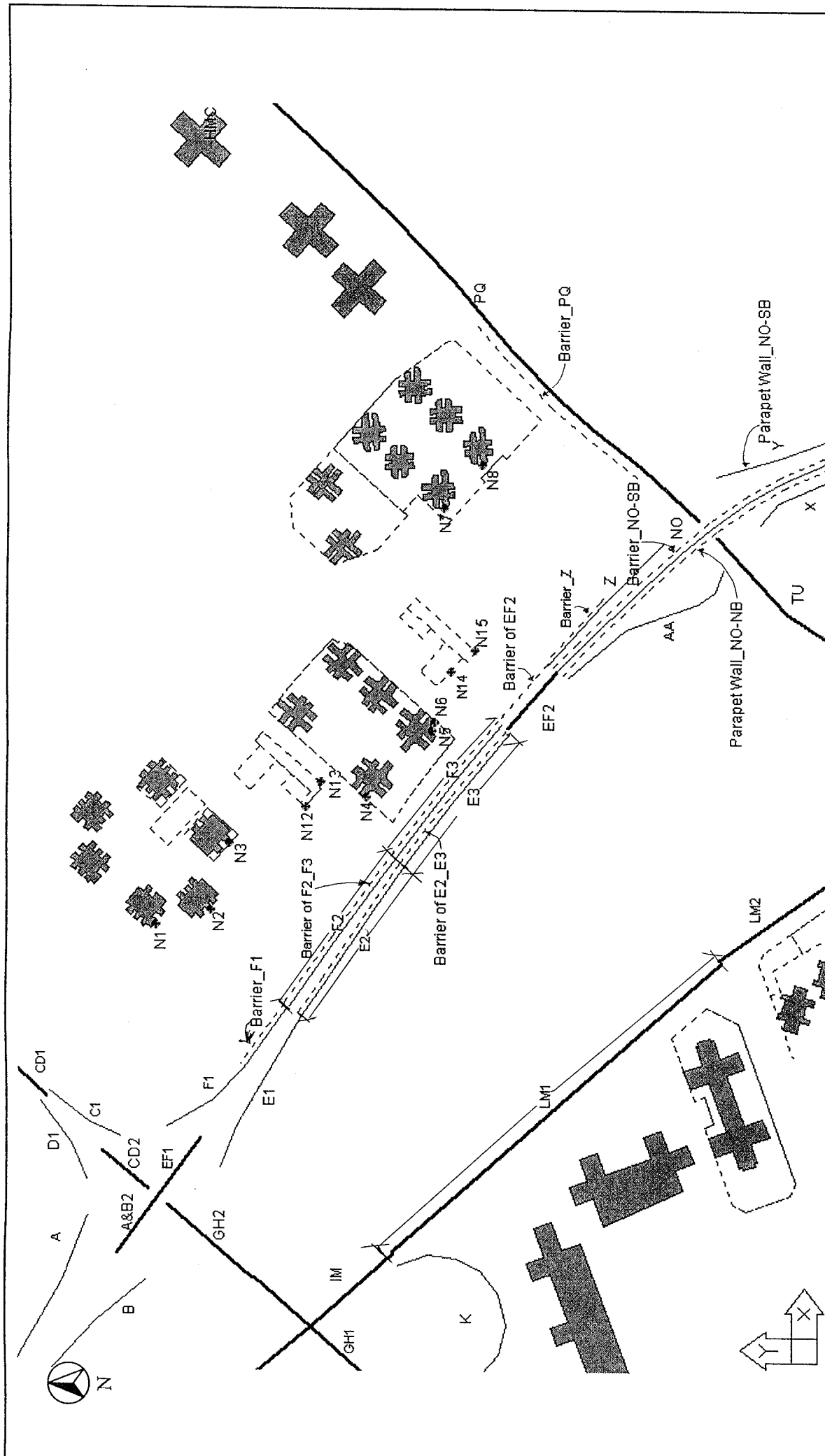
Total without façade correction 71.5


Façade correction 2.5

Total 74

Remarks:

- BNL - Basic Noise Level
- CMTS - Change in Mean Traffic Speed
- HVC - Heavy Vehicles Correction
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 土木工程署 Civil Engineering Department		SCALE	DATE	REV
DESIGNED	DATE	1:3180 on A3 (approx.)	Mar 2002	0
DRAWN	DATE	A/W	BH	
FIGURE NO.		CRTN-1		

AGREEMENT NO. CE 57/2001

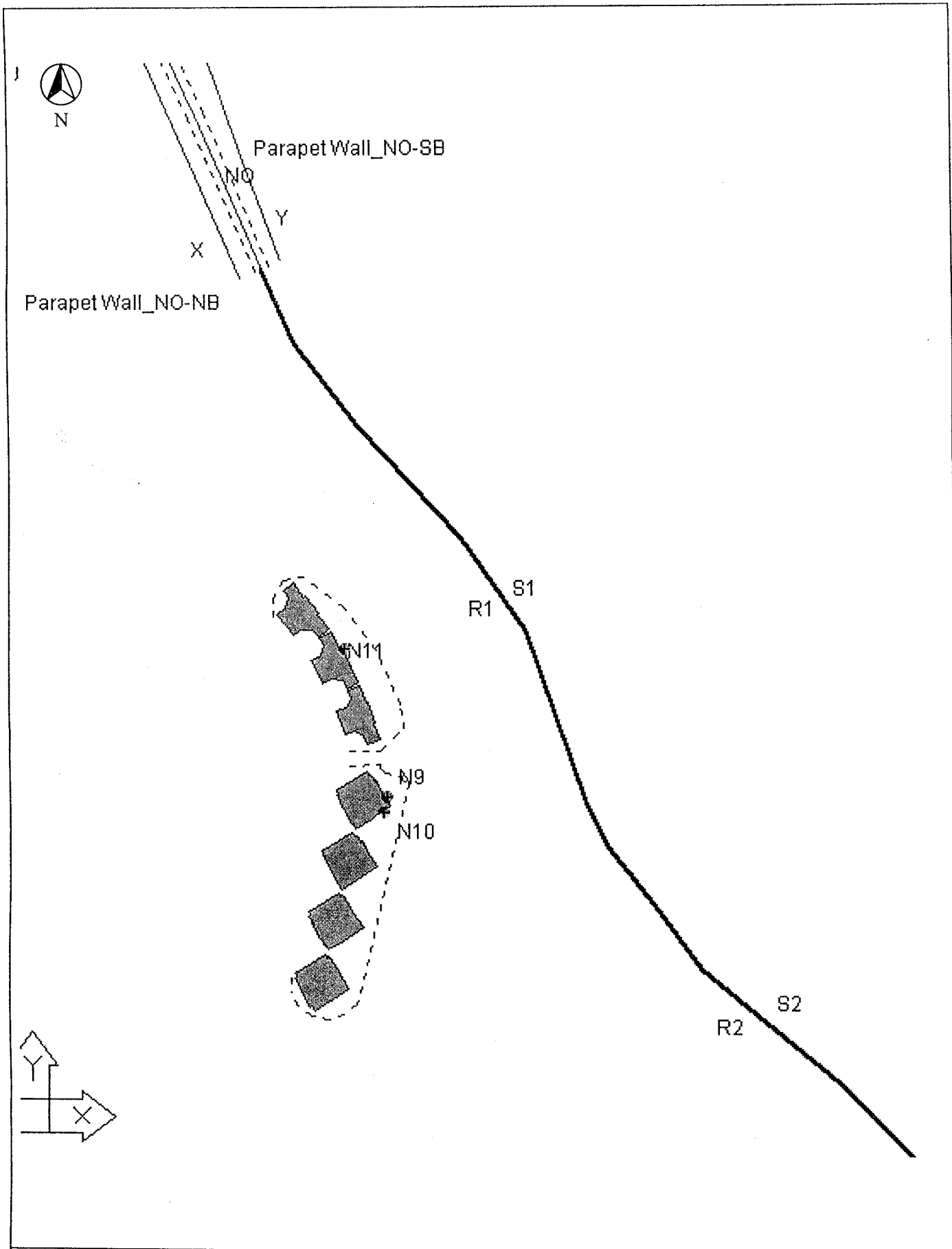
ENVIRONMENTAL AND TRAFFIC IMPACT ASSESSMENT STUDY FOR FILL BANK AT TSEUNG KWAN O AREA 137 - INVESTIGATION

The Drawing showing the Road Segments and Topographic Barriers Input into the Traffic Noise Model for and the Assessment points N1 to N8 and N12 to N15

CH2M HILL (China) Limited

in association with

MVA Hong Kong Limited
ACL Asia Limited



CH2M HILL (China) Limited

in association with
MVA Hong Kong Limited
ACL Asia Limited

AGREEMENT NO. CE 57/2001
**ENVIRONMENTAL AND TRAFFIC IMPACT
 ASSESSMENT STUDY FOR FILL BANK AT
 TSEUNG KWAN O AREA 137 - INVESTIGATION**



土木工程署
**Civil Engineering
 Department**

**The Drawing showing the Road Segments and
 Topographic Barriers Input into the Traffic Noise Model for
 and the Assessment points N9 to N11**

SCALE	1:2125 on A3 (approx)	DATE	Mar 2002
DESIGNED	AW	DRAWN	BH

FIGURE NO. **CRTN-2** REV 0