

Annex A

Construction Plant Team Noise Levels

Table A1 Envisaged Construction Programme

Project Duration	2001				2002				2003			
Activity	1	2	3	4	1	2	3	4	1	2	3	4
(A) Sai Sha Road Alignment	Plant Team											
Mobilisation and Establishment	1											
Site Clearance	1											
Sai Kung Bound Carriageway												
Earthworks	1											
Utilities Services	7											
Stormwater Drainage	7											
Road Pavement	6											
Road Furniture	8											
Sha Tin Bound Carriageway												
Earthworks	1											
Utilities Services	7											
Stormwater Drainage	7											
Road Pavement	6											
Road Furniture	8											
(B) Footbridge Construction												
Bored Piling	2											
Pile Capping	3											
Ramps/Staircase	5											
Erection of Main Span	4											
Finishes	n/a											
(C) Subway Construction												
Excavation	1											
Concreting	5											
Backfilling	9											
(carried out in stages to suit traffic arrangements)												
(D) MOS Rail Elevated Section												
Pile Capping	3											
Erection of Columns	4											
Erection of Precast Units	4											
Parapet Lighting	n/a											
(E) MOS Rail Underground Section												
In Situ Concreting	6											
Backfilling	9											
(F) LEO Rail Station												
Bored Piling	2											
Pile Capping	3											
Superstructure	5											
Finishes	n/a											

Table A2 - Plant Inventory (No mitigation measures)

1. Site Clearance					
	Noise Source	Ref. No ⁽¹⁾	No.	SWL/unit	sub-SWL
	Bulldozer/Ripper	CNP 030	2	115	118
	Excavator	CNP 081	1	112	112
	Generator	CNP 101	1	108	108
	Compressor	CNP 002	2	102	105
	Loader	CNP 081	1	112	112
	Lorry	CNP 141	2	112	115
	Scraper	CNP 204	1	119	119
	Motor Grader	CNP 104	1	113	113
				Area Total SWL	124
2. Equipment for Bored Piling					
	Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
<i>Boring</i>	Bored piling rig	CNP164	1	115	115
<i>Concreting</i>	Concrete mixer truck	CNP044	1	109	109
	Concrete pump	CNP047	1	109	109
	Water pump	CNP281	1	88	88
				Area Total SWL	117
3. Equipment for Piling Capping					
	Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
<i>Ground</i>	Excavator	CNP081	1	112	112
	Backhoe	CNP081	1	112	112
	Earth-moving trucks	CNP067	1	117	117
				Sub-total	119
<i>Reinforcement</i>	Crane	CNP048	1	112	112
	Compressor	CNP002	1	102	102
	Bar bender	CNP021	1	90	90
				Sub-total	112
<i>Concreting</i>	Concrete mixer truck	CNP044	1	109	109
	Vibratory poker	CNP170	2	113	116
				Sub-total	117
<i>Backfilling</i>	Roller	CNP185	1	108	108
				Sub-total	108
				Area Total SWL	122
4. Equipment for Precast Superstructure Construction					
	Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
	Launching girder ⁽²⁾	CNP 262	1	95	95
	Truck-based generator	CNP102	1	100	100
	Track-mounted crane	CNP048	1	112	112
	Compressor for prestres	CNP002	1	102	102
				Area Total SWL	113
5. Equipment for In-Situ Superstructure Construction					
	Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
<i>Formwork and Reinforcement</i>	Crane	CNP048	2	112	115
	Compressor	CNP002	2	102	105
	Winch	CNP261	2	110	113
				Sub-total	117
<i>Concreting</i>	Concrete mixer truck	CNP044	2	109	112
	Concrete pump truck	CNP047	1	109	109
	Vibratory pokers	CNP170	2	113	116
				Sub-total	118
				Area Total SWL	121

6. Equipment for Paving		Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
		Asphalt paver	CNP004	1	109	109
		Road roller	CNP185	1	108	108
					Area Total SWL	112
7. Equipment for Drainage		Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
<i>Excavation of trench</i>		Excavator	CNP081	1	112	112
		Dumptruck	CNP067	1	117	117
					Sub-total	118
<i>Placement of pipe</i>		Mobile diesel crane	CNP048	1	112	112
					Sub-total	112
					Area Total SWL	119
8. Equipment for Road Construction		Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
<i>Levelling of new road</i>		Grader	CNP104	1	113	113
		Bulldozer	CNP030	1	115	115
					Sub-total	117
<i>Laying base and sub-base</i>		Dumptruck	CNP067	1	117	117
		Compactor	CNP050	1	105	105
		Roller	CNP185	1	108	108
					Sub-total	118
<i>Kerbing</i>		Concrete mixer truck	CNP044	1	109	109
		Vibratory pokers	CNP170	1	113	113
					Sub-total	114
<i>Laying new surface</i>		Asphalt paver	CNP004	1	109	109
		Road roller	CNP185	1	108	108
					Sub-total	112
					Area Total SWL	122
9. Equipment for Backfilling		Noise Source	Ref. No.	No.	SWL/unit	sub-SWL
		Excavator/Loader	CNP081	1	112	112
		Lorry	CNP141	1	115	115
					Area Total SWL	117

Notes:

(1) References provided are from the Technical Memorandum on Noise from Construction Sites (CNP) or from BS5228: Noise control on construction and open sites (Table/Ref no).

(2) The Launching Girder is used to lift and manoeuvre large precast structures into place. The launching girder is operated by hydraulics and, due to its slow operational speed is not likely to be a major source of noise. For the purpose of this assessment its noise level has been compared to that of an electric winch (CNP262).

Table A3 - Plant Inventory (Quiet plant and Movable Barriers)

1. Site Clearance	Noise Source	Ref. No. ⁽¹⁾	No.	SWL/unit	Barrier Correction	sub-SWL
	Bulldozer/Ripper (QP)	Tab 12/2	2	104	-5	102
	Excavator (QP)	Tab7 / 97	1	105	-5	100
	Generator (QP)	Tab10 / 62	1	100	-10	90
	Compressor (QP)	Tab10 / 26	2	100	-10	93
	Loader (QP)	Tab7 / 97	1	105	-5	100
	Lorry (QP)	Tab12 / 27	2	105	-5	103
	Scraper (QP)	Tab12 / 16	1	108	-5	103
	Motor grader (QP) ⁽³⁾	Tab 15	1	108	-5	103
					Area Total SWL	110
* British Standard BS5228. Table 12 - ref no 16						
2. Equipment for Bored Piling	Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
<i>Boring</i>	Bored piling rig (QP)	Tab8 / 41	1	112	-10	102
<i>Concreting</i>	Concrete mixer truck (QP)	Tab9/ 35	1	100	-5	95
	Concrete pump (QP)	Tab9/ 22	1	106	-10	96
	Water pump	CNP281	1	88	-10	78
					Area Total SWL	104
3. Equipment for Piling Capping	Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
<i>Ground</i>	Excavator (QP)	Tab7 / 97	1	105	-5	100
	Backhoe (QP)	Tab7 / 97	1	105	-5	100
	Earth-moving trucks (QP)	Tab 12/ 28	1	108	-5	101
					Sub-total	105
<i>Reinforcement</i>	Crane (QP)	Tab10 / 110	1	106	-10	96
	Compressor (QP)	Tab10 / 26	1	100	-10	90
	Bar bender	CNP021	1	90	-10	80
					Sub-total	97
<i>Concreting</i>	Concrete mixer truck (QP)	Tab9/ 35	1	100	-5	95
	Vibratory poker (QP)	Tab9/ 32	2	100	-10	93
					Sub-total	97
<i>Backfilling</i>	Roller	CNP185	1	108	-5	103
					Sub-total	103
					Area Total SWL	108
4. Equipment for Precast Superstructure Construction	Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
	Launching girder ⁽²⁾	CNP 262	1	95	-5	90
	Truck-based generator (QP)	Tab10 / 62	1	100	-5	95
	Track-mounted crane (QP)	Tab10/110	1	106	-5	101
	Compressor for prestressing	CNP002	1	102	-10	92
					Area Total SWL	103
5. Equipment for In-Situ Superstructure Construction	Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
<i>Formwork and Reinforcement</i>	Crane (QP)	Tab 10/110	2	106	-10	99
	Compressor (QP)	Tab10 / 26	2	100	-10	93
	Winch	CNP261	2	110	-10	103
					Sub-total	105
<i>Concreting</i>	Concrete mixer truck (QP)	Tab9/ 35	2	100	-5	98
	Concrete pump truck (QP)	Tab9/ 22	1	106	-5	101
	Vibratory pokers (QP)	Tab9/ 32	2	100	-10	93
					Sub-total	103
					Area Total SWL	107

6. Equipment for Paving		Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
		Asphalt paver	Tab 11/26	1	108	-5	103
		Road roller	Tab 12/29	1	109	-5	104
						Area Total SWL	107
7. Equipment for Drainage		Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
<i>Excavation of trench</i>		Excavator (QP)	Tab7 / 97	1	105	-5	100
		Dumptruck (QP)	Tab 12/ 28	1	106	-5	101
<i>Placement of pipe</i>		Mobile diesel crane (QP)	Tab 10/110	1	106	-5	101
						Area Total SWL	105
8. Equipment for Road Construction		Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
<i>Levelling of new road</i>		Grader (QP)	Tab12/ 11	1	110	-5	105
		Bulldozer (QP)	Tab12 / 2	1	104	-5	99
						Sub-total	106
<i>Laying base and sub-base</i>		Dumptruck (QP)	Tab 12/ 28	1	106	-5	101
		Compactor	CNP050	1	105	-10	95
		Roller	Tab 11/29	1	105	-5	100
						Sub-total	104
<i>Kerbing</i>		Concrete mixer truck (QP)	Tab9/35	1	100	-5	95
		Vibratory pokers (QP)	Tab9/ 32	1	100	-10	90
						Sub-total	96
<i>Laying new surface</i>		Asphalt paver	Tab 11/26	1	108	-5	103
		Road roller	Tab 11/29	1	105	-5	100
						Sub-total	105
						Area Total SWL	110
9. Equipment for Backfilling		Noise Source	Ref. No.	No.	SWL/unit	Barrier Correction	sub-SWL
		Excavator (QP)	Tab7/ 97	1	105	-5	100
		Lorry (QP)	Tab12/ 27	1	105	-5	100
						Area Total SWL	103

Notes:

(1) References provided are from the Technical Memorandum on Noise from Construction Sites (CNP) or from BS5228: Noise control on construction and open sites (Table/Ref no).

(2) The Launching Girder is used to lift and manoeuvre large precast structures into place. The launching girder is operated by hydraulics and, due to its slow operational speed is not likely to be a major source of noise. For the purpose of this assessment its noise level has been compared to that of an electric winch (CNP262).

(3) Noise level of the Motor grader can be reduced by 5-10 dB(A) by fitting a more efficient exhaust sound reduction equipment and ensuring all Manufacturers' enclosure panels are kept closed (ref BS5228 Table 15).

Table A4 - Plant Inventory (Quiet plant, Movable Barriers and Operating Restrictions)

1. Equipment for Site Clearance	Noise Source	Ref. No. ⁽¹⁾	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
	Generator (QP)	Tab10 / 62	1	100	100	-10	90
	Compressor (QP)	Tab10 / 26	1	100	100	-10	90
	Loader (QP)	Tab7 / 97	1	105	100	-5	100
	Lorry (QP)	Tab12 / 27	1	105	100	-5	100
	Excavator (QP)	Tab7 / 97	1	105	100	-5	100
	Bulldozer/Ripper (QP)	Tab 12/2	1	104	100	-5	99
Only one to operate a any given time (motor grader and bulldozer/ripper to operate separately from loader and lorry)	Scraper (QP)	Tab12 / 16	1	108	100	-5	103
	Motor grader (QP) ⁽²⁾	Tab15	1	108	100	-5	103
						Area Total SWL (max)	103
2. Equipment for Bored Piling	Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
Boring	Bored piling rig (QP)	Tab8 / 41	1	112	100	-10	102
Concreting	Concrete mixer truck (QP)	Tab9/ 35	1	100	100	-5	95
	Concrete pump (QP)	Tab9/ 22	1	106	100	-10	96
	Water pump	CNP281	1	88	100	-10	78
						Area Total SWL	104
3. Equipment for Piling Capping	Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
Ground (separate backhoe and excavator)	Excavator (QP)	Tab7 / 97	1	105	100	-5	100
	Backhoe (QP)	Tab7 / 97	1	105	100	-5	100
	Earth-moving trucks (QP)	Tab 12/28	1	106	100	-5	101
						Sub-total (max)	104
Reinforcement	Crane (QP)	Tab10 / 110	1	106	100	-10	96
	Compressor (QP)	Tab10 / 26	1	100	100	-10	90
	Bar bender	CNP021	1	90	100	-10	80
						Sub-total	97
Concreting	Concrete mixer truck (QP)	Tab9/ 35	1	100	100	-5	95
	Vibratory poker (QP)	Tab9/ 32	2	100	100	-10	93
						Sub-total	97
Backfilling	Roller	CNP185	1	108	100	-5	103
						Sub-total	103
Separate tasks (SWL=SWL.max)						Area Total SWL	104
4. Equipment for Precast Superstructure Construction	Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
	Launching girder ⁽²⁾	CNP 262	1	95	100	-5	90
	Truck-based generator (QP)	Tab10 / 62	1	100	100	-5	95
	Track-mounted crane (QP)	Tab10/110	1	106	100	-5	101
	Compressor for prestressing	CNP002	1	102	100	-10	92
						Area Total SWL	103
5. Equipment for In-Situ Superstructure Construction	Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
Formwork and Reinforcement	Crane (QP)	Tab 10/110	2	106	100	-10	99
	Compressor (QP)	Tab10 / 26	2	100	100	-10	93
	Winch	CNP261	2	110	100	-10	103
						Sub-total	105
Concreting	Concrete mixer truck (QP)	Tab9/ 35	2	100	100	-5	98
	Concrete pump truck (QP)	Tab9/ 22	1	106	100	-5	101
	Vibratory poker (QP)	Tab9/ 32	2	100	100	-10	93
						Sub-total	103
Separate two tasks - Area Total = Max SWL						Area Total SWL	105

6. Equipment for Paving		Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
Plant to operate separately	—	Asphalt paver	Tab 11/26	1	108	100	-5	103
	—	Road roller	Tab 11/29	1	105	100	-5	100
		Separate Tasks					Area Total SWL (max)	103
7. Equipment for Drainage		Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
Excavation of trench	—	Excavator (QP)	Tab 7 / 97	1	105	100	-5	100
	—	Dumptruck (QP)	Tab 12/ 28	1	106	100	-5	101
Placement of pipe		Mobile diesel crane (QP)	Tab 10/110	1	106	100	-5	101
Separate Tasks							sub-total	101
							Area Sub-total (max)	104
8. Equipment for Road Construction		Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
Leveling of new road (Only one to operate at a time)	—	Grader (QP)	Tab 12/11	1	110	100	-5	105
	—	Bulldozer (QP)	Tab 12/2	1	104	100	-5	99
Laying base and sub-base (Only one to operate at a time)	—	Dumptruck (QP)	Tab 12/ 28	1	106	100	-5	101
	—	Compactor	CNP050	1	105	100	-5	100
	—	Roller	Tab 11/29	1	105	100	-5	100
Kerbing		Concrete mixer truck (QP)	Tab 9/35	1	100	100	-5	95
		Vibratory pokers (QP)	Tab 9/ 32	1	100	100	-10	90
Laying new surface (Only one to operate at a time)	—	Asphalt paver	Tab 11/26	1	108	100	-5	103
	—	Road roller	Tab 11/29	1	105	100	-5	100
Separate Tasks							Sub-total	103
							Area Total SWL	105
9. Equipment for Backfilling		Noise Source	Ref. No.	No.	SWL/unit	%on-time	Barrier Correction	sub-SWL
		Excavator (QP)	Tab 7/ 97	1	105	100	-5	100
		Lorry (QP)	Tab 12/ 27	1	105	100	-5	100
							Area Total SWL	103

Notes:

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(2) The Launching Girder is used to lift and manoeuvre large precast structures into place. The launching girder is operated by hydraulics and, due to its slow operational speed is not likely to be a major source of noise. For the purpose of this assessment its noise level has been compared to that of an electric winch (CNP262).

(3) Noise level of the Motor grader can be reduced by 5-10 dB(A) by fitting a more efficient exhaust sound reduction equipment and ensuring all Manufacturers' enclosure panels are kept closed (ref BS5228 Table 15).

Table A5 Construction Noise at NSRs, dB(A)⁽¹⁾ Unmitigated

Project Duration	Activity	Unmitigated											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
Construction Site		Total Sound Power Level											
(A) Sai Sha Road Alignment		124	124	125	124	122	124	125	124	122	0	0	0
(B) Footbridge Construction		0	117	122	122	0	121	0	0	0	0	0	0
(C) Subway Construction		0	124	124	124	124	124	124	124	124	0	0	0
(D) MOS Rail Elevated Section		0	0	122	122	113	113	113	0	0	0	0	0
(E) MOS Rail Underground Section		121	121	0	117	117	0	0	0	0	0	0	0
(F) LEO Rail Station		117	117	123	122	124	121	121	121	121	121	0	0
Noise Sensitive Receiver	Distance, m	L_{Aeq}(30 mins), dB											
Wu Kwai Sha New Village (1)													
(A) Sai Sha Road Alignment	30	89	89	91	89	87	89	91	89	87	0	0	0
(B) Footbridge Construction	135	0	69	74	74	0	74	0	0	0	0	0	0
(C) Subway Construction	40	0	87	87	87	87	87	87	87	87	0	0	0
(D) MOS Rail Elevated Section	190	0	0	71	71	62	62	62	0	0	0	0	0
(E) MOS Rail Underground Section	70	79	79	0	75	75	0	0	0	0	0	0	0
(F) LEO Rail Station	550	57	57	63	62	65	61	61	61	61	61	0	0
Overall Noise Level, dB(A)		90	91	92	92	90	91	92	91	90	61	0	0
Wu Kwai Sha New Village (2)													
(A) Sai Sha Road Alignment	55	84	84	85	84	82	84	85	84	82	0	0	0
(B) Footbridge Construction	100	0	72	77	77	0	76	0	0	0	0	0	0
(C) Subway Construction	130	0	76	76	76	76	76	76	76	76	0	0	0
(D) MOS Rail Elevated Section	115	0	0	76	76	67	67	67	0	0	0	0	0
(E) MOS Rail Underground Section	75	78	78	0	74	74	0	0	0	0	0	0	0
(F) LEO Rail Station	470	58	58	65	63	66	62	62	62	62	62	0	0
Overall Noise Level, dB(A)		85	86	87	86	84	85	86	85	83	62	0	0
Lok Wo Sha (1)													
(A) Sai Sha Road Alignment	70	82	82	83	82	80	82	83	82	80	0	0	0
(B) Footbridge Construction	60	0	76	81	81	0	81	0	0	0	0	0	0
(C) Subway Construction	170	0	74	74	74	74	74	74	74	74	0	0	0
(D) MOS Rail Elevated Section	90	0	0	78	78	69	69	69	0	0	0	0	0
(E) MOS Rail Underground Section	90	77	77	0	73	73	0	0	0	0	0	0	0
(F) LEO Rail Station	400	60	60	66	65	67	64	64	64	64	64	0	0
Overall Noise Level, dB(A)		83	84	86	86	82	85	84	83	81	64	0	0
Lok Wo Sha (2)													
(A) Sai Sha Road Alignment	60	83	83	85	83	81	83	85	83	81	0	0	0
(B) Footbridge Construction	110	0	71	76	76	0	76	0	0	0	0	0	0
(C) Subway Construction	80	0	81	81	81	81	81	81	81	81	0	0	0
(D) MOS Rail Elevated Section	100	0	0	77	77	68	68	68	0	0	0	0	0
(E) MOS Rail Underground Section	95	76	76	0	72	72	0	0	0	0	0	0	0
(F) LEO Rail Station	270	63	63	69	68	71	67	67	67	67	67	0	0
Overall Noise Level, dB(A)		84	86	87	87	85	86	86	85	84	67	0	0
Kam Lung Court (1)													
(A) Sai Sha Road Alignment	30	89	89	91	89	87	89	91	89	87	0	0	0
(B) Footbridge Construction	105	0	71	76	76	0	76	0	0	0	0	0	0
(C) Subway Construction	100	0	79	79	79	79	79	79	79	79	0	0	0
(D) MOS Rail Elevated Section	180	0	0	72	72	63	63	63	0	0	0	0	0
(E) MOS Rail Underground Section	50	82	82	0	78	78	0	0	0	0	0	0	0
(F) LEO Rail Station	520	57	57	64	63	65	61	61	61	61	61	0	0
Overall Noise Level, dB(A)		90	90	91	90	88	90	91	90	88	61	0	0
Kam Lung Court (2)													
(A) Sai Sha Road Alignment	30	89	89	91	89	87	89	91	89	87	0	0	0
(B) Footbridge Construction	50	0	78	83	83	0	82	0	0	0	0	0	0
(C) Subway Construction	125	0	77	77	77	77	77	77	77	77	0	0	0
(D) MOS Rail Elevated Section	130	0	0	75	75	65	65	65	0	0	0	0	0
(E) MOS Rail Underground Section	50	82	82	0	78	78	0	0	0	0	0	0	0
(F) LEO Rail Station	450	59	59	65	64	66	63	63	63	63	63	0	0
Overall Noise Level, dB(A)		90	90	92	91	88	90	91	90	88	63	0	0

Table A5 Construction Noise at NSRs, dB(A)⁽¹⁾ Unmitigated

Project Duration	Activity	Unmitigated											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
Lee On Estate (1)													
(A) Sai Sha Road Alignment	20	93	93	94	93	91	93	94	93	91	0	0	0
(B) Footbridge Construction	25	0	84	89	89	0	88	0	0	0	0	0	0
(C) Subway Construction	105	0	78	78	78	78	78	78	78	78	0	0	0
(D) MOS Rail Elevated Section	30	0	0	87	87	78	78	78	0	0	0	0	0
(E) MOS Rail Underground Section	30	86	86	0	82	82	0	0	0	0	0	0	0
(F) LEO Rail Station	300	62	62	68	67	70	66	66	66	66	66	0	0
Overall Noise Level, dB(A)		94	94	96	95	92	94	94	93	91	66	0	0
Lee On Estate (2)													
(A) Sai Sha Road Alignment	30	89	89	91	89	87	89	91	89	87	0	0	0
(B) Footbridge Construction	70	0	75	80	80	0	79	0	0	0	0	0	0
(C) Subway Construction	50	0	85	85	85	85	85	85	85	85	0	0	0
(D) MOS Rail Elevated Section	45	0	0	84	84	75	75	75	0	0	0	0	0
(E) MOS Rail Underground Section	45	83	83	0	79	79	0	0	0	0	0	0	0
(F) LEO Rail Station	250	64	64	70	69	71	68	68	68	68	68	0	0
Overall Noise Level, dB(A)		90	91	93	92	90	91	92	91	89	68	0	0
Residential Development STTL446													
(A) Sai Sha Road Alignment	100	79	79	80	79	77	79	80	79	77	0	0	0
(B) Footbridge Construction	100	0	72	77	77	0	76	0	0	0	0	0	0
(C) Subway Construction	100	0	79	79	79	79	79	79	79	79	0	0	0
(D) MOS Rail Elevated Section	100	0	0	77	77	68	68	68	0	0	0	0	0
(E) MOS Rail Underground Section	100	76	76	0	72	72	0	0	0	0	0	0	0
(F) LEO Rail Station	100	72	72	78	77	79	76	76	76	76	76	0	0
Overall Noise Level, dB(A)		81	83	85	85	84	84	83	83	82	76	0	0
Residential Development at Wu Kai Sha													
(A) Sai Sha Road Alignment	100	79	79	80	79	77	79	80	79	77	0	0	0
(B) Footbridge Construction	100	0	72	77	77	0	76	0	0	0	0	0	0
(C) Subway Construction	100	0	79	79	79	79	79	79	79	79	0	0	0
(D) MOS Rail Elevated Section	100	0	0	77	77	68	68	68	0	0	0	0	0
(E) MOS Rail Underground Section	100	76	76	0	72	72	0	0	0	0	0	0	0
(F) LEO Rail Station	100	72	72	78	77	79	76	76	76	76	76	0	0
Overall Noise Level, dB(A)		81	83	85	85	84	84	83	83	82	76	0	0

Notes:

- (1) Criteria exceedances (>75dB(A)) are indicated in bold type face
(2) Cumulative impacts at Lee On Estate can be prevented if simultaneous construction of the Sai Sha Alignment (close to Lee On Estate) and the footbridge is avoided.

Table A6 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 1

Project Duration	Activity	Mitigation Option 1											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
Construction Site		Total Sound Power Level											
(A) Sai Sha Road Alignment		110	110	113	113	110	110	113	113	110	0	0	0
(B) Footbridge Construction		0	104	108	108	0	108	0	0	0	0	0	0
(C) Subway Construction		0	110	110	110	110	110	110	110	110	0	0	0
(D) MOS Rail Elevated Section		0	0	108	108	103	103	103	0	0	0	0	0
(E) MOS Rail Underground Section		107	107	0	103	103	0	0	0	0	0	0	0
(F) LEO Rail Station		104	104	109	108	111	107	107	107	107	107	0	0
Noise Sensitive Receiver	Distance, m	L_{Aeq(30 mins)}, dB											
Wu Kwai Sha New Village (1)													
(A) Sai Sha Road Alignment	30	75	75	78	78	75	75	78	78	75	0	0	0
(B) Footbridge Construction	135	0	56	60	60	0	61	0	0	0	0	0	0
(C) Subway Construction	40	0	73	73	73	73	73	73	73	73	0	0	0
(D) MOS Rail Elevated Section	190	0	0	57	57	52	52	52	0	0	0	0	0
(E) MOS Rail Underground Section	70	65	65	0	61	61	0	0	0	0	0	0	0
(F) LEO Rail Station	550	44	44	50	48	51	47	47	47	47	47	0	0
Overall Noise Level, dB(A)		76	78	79	79	77	77	79	79	77	-	-	-
Wu Kwai Sha New Village (2)													
(A) Sai Sha Road Alignment	55	70	70	73	73	70	70	73	73	70	0	0	0
(B) Footbridge Construction	100	0	59	63	63	0	63	0	0	0	0	0	0
(C) Subway Construction	130	0	63	63	63	63	63	63	63	63	0	0	0
(D) MOS Rail Elevated Section	115	0	0	62	62	56	56	56	0	0	0	0	0
(E) MOS Rail Underground Section	75	65	65	0	60	60	0	0	0	0	0	0	0
(F) LEO Rail Station	470	45	45	51	50	52	49	49	49	49	49	0	0
Overall Noise Level, dB(A)		71	72	74	74	71	72	73	73	71	-	-	-
Lok Wo Sha (1)													
(A) Sai Sha Road Alignment	70	68	68	71	71	68	68	71	71	68	0	0	0
(B) Footbridge Construction	60	0	63	67	67	0	68	0	0	0	0	0	0
(C) Subway Construction	170	0	60	60	60	60	60	60	60	60	0	0	0
(D) MOS Rail Elevated Section	90	0	0	64	64	59	59	59	0	0	0	0	0
(E) MOS Rail Underground Section	90	63	63	0	59	59	0	0	0	0	0	0	0
(F) LEO Rail Station	400	47	47	52	51	54	50	50	50	50	50	0	0
Overall Noise Level, dB(A)		69	71	73	73	70	72	71	71	69	-	-	-
Lok Wo Sha (2)													
(A) Sai Sha Road Alignment	60	69	69	72	72	69	69	72	72	69	0	0	0
(B) Footbridge Construction	110	0	58	62	62	0	63	0	0	0	0	0	0
(C) Subway Construction	80	0	67	67	67	67	67	67	67	67	0	0	0
(D) MOS Rail Elevated Section	100	0	0	63	63	58	58	58	0	0	0	0	0
(E) MOS Rail Underground Section	95	63	63	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	270	50	50	56	54	57	53	53	53	53	53	0	0
Overall Noise Level, dB(A)		70	72	74	74	72	72	73	73	71	-	-	-
Kam Lung Court (1)													
(A) Sai Sha Road Alignment	30	75	75	78	78	75	75	78	78	75	0	0	0
(B) Footbridge Construction	105	0	58	63	63	0	63	0	0	0	0	0	0
(C) Subway Construction	100	0	65	65	65	65	65	65	65	65	0	0	0
(D) MOS Rail Elevated Section	180	0	0	58	58	53	53	53	0	0	0	0	0
(E) MOS Rail Underground Section	50	68	68	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	520	44	44	50	49	51	48	48	48	48	48	0	0
Overall Noise Level, dB(A)		76	77	78	79	76	76	78	78	76	-	-	-
Kam Lung Court (2)													
(A) Sai Sha Road Alignment	30	75	75	78	78	75	75	78	78	75	0	0	0
(B) Footbridge Construction	50	0	65	69	69	0	69	0	0	0	0	0	0
(C) Subway Construction	125	0	63	63	63	63	63	63	63	63	0	0	0
(D) MOS Rail Elevated Section	130	0	0	61	61	55	55	55	0	0	0	0	0
(E) MOS Rail Underground Section	50	68	68	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	450	46	46	51	50	52	49	49	49	49	49	0	0
Overall Noise Level, dB(A)		76	77	79	79	76	77	78	78	76	-	-	-

Table A6 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 1

Project Duration	Activity	Mitigation Option 1												
		2001				2002				2003				
		1	2	3	4	1	2	3	4	1	2	3	4	
<i>Lee On Estate (1)</i>														
	(A) Sai Sha Road Alignment	20	79	79	82	82	79	79	82	82	79	0	0	0
	(B) Footbridge Construction	25	0	71	75	75	0	75	0	0	0	0	0	
	(C) Subway Construction	105	0	65	65	65	65	65	65	65	0	0	0	
	(D) MOS Rail Elevated Section	30	0	0	73	73	68	68	68	0	0	0	0	
	(E) MOS Rail Underground Section	30	73	73	0	68	68	0	0	0	0	0	0	
	(F) LEO Rail Station	300	49	49	55	53	58	53	53	53	53	53	0	
	Overall Noise Level, dB(A)		80	80	83	83	80	81	82	82	79	-	-	-
<i>Lee On Estate (2)</i>														
	(A) Sai Sha Road Alignment	30	75	75	78	78	75	75	78	78	75	0	0	0
	(B) Footbridge Construction	70	0	62	66	66	0	66	0	0	0	0	0	
	(C) Subway Construction	50	0	71	71	71	71	71	71	71	0	0	0	
	(D) MOS Rail Elevated Section	45	0	0	70	70	65	65	65	0	0	0	0	
	(E) MOS Rail Underground Section	45	69	69	0	65	65	0	0	0	0	0	0	
	(F) LEO Rail Station	250	51	51	56	55	58	54	54	54	54	54	0	
	Overall Noise Level, dB(A)		76	78	80	80	77	77	79	79	77	-	-	-
<i>Residential Development STTL446</i>														
	(A) Sai Sha Road Alignment	100	65	65	68	68	65	65	68	68	65	0	0	0
	(B) Footbridge Construction	100	0	59	63	63	0	63	0	0	0	0	0	
	(C) Subway Construction	100	0	65	65	65	65	65	65	65	0	0	0	
	(D) MOS Rail Elevated Section	100	0	0	63	63	58	58	58	0	0	0	0	
	(E) MOS Rail Underground Section	100	62	62	0	58	58	0	0	0	0	0	0	
	(F) LEO Rail Station	100	59	59	64	63	66	62	62	62	62	62	0	
	Overall Noise Level, dB(A)		67	70	72	72	70	70	70	70	69	62	-	-
<i>Residential Development at Wu Kai Sha</i>														
	(A) Sai Sha Road Alignment	100	65	65	68	68	65	65	68	68	65	0	0	0
	(B) Footbridge Construction	100	0	59	63	63	0	63	0	0	0	0	0	
	(C) Subway Construction	100	0	65	65	65	65	65	65	65	0	0	0	
	(D) MOS Rail Elevated Section	100	0	0	63	63	58	58	58	0	0	0	0	
	(E) MOS Rail Underground Section	100	62	62	0	58	58	0	0	0	0	0	0	
	(F) LEO Rail Station	100	59	59	64	63	66	62	62	62	62	62	0	
	Overall Noise Level, dB(A)		67	70	72	72	70	70	70	70	69	62	-	-

Table A7 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 2

Project Duration	Activity	Mitigation Option 2											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
Construction Site		Total Sound Power Level											
(A) Sai Sha Road Alignment		103	103	106	103	105	103	106	106	105	0	0	0
(B) Footbridge Construction		0	104	104	104	0	107	0	0	0	0	0	0
(C) Subway Construction		0	103	103	103	103	103	103	103	103	0	0	0
(D) MOS Rail Elevated Section		0	0	104	104	103	103	103	0	0	0	0	0
(E) MOS Rail Underground Section		105	105	0	103	103	0	0	0	0	0	0	0
(F) LEO Rail Station		104	104	107	104	107	105	105	105	105	105	0	0
Noise Sensitive Receiver	Distance, m	L_{Aeq(30 mins)}, dB											
Wu Kwai Sha New Village (1)													
(A) Sai Sha Road Alignment	30	68	68	72	68	70	68	72	72	70	0	0	0
(B) Footbridge Construction	135	0	56	56	56	0	59	0	0	0	0	0	0
(C) Subway Construction	40	0	66	66	66	66	66	66	66	66	0	0	0
(D) MOS Rail Elevated Section	190	0	0	53	53	52	52	52	0	0	0	0	0
(E) MOS Rail Underground Section	70	63	63	0	61	61	0	0	0	0	0	0	0
(F) LEO Rail Station	550	44	44	47	44	47	45	45	45	45	45	0	0
Overall Noise Level, dB(A)		70	71	73	71	72	71	73	73	72	-	-	-
Wu Kwai Sha New Village (2)													
(A) Sai Sha Road Alignment	55	63	63	66	63	65	63	66	66	65	0	0	0
(B) Footbridge Construction	100	0	59	59	59	0	62	0	0	0	0	0	0
(C) Subway Construction	130	0	56	56	56	56	56	56	56	56	0	0	0
(D) MOS Rail Elevated Section	115	0	0	57	57	56	56	56	0	0	0	0	0
(E) MOS Rail Underground Section	75	62	62	0	60	60	0	0	0	0	0	0	0
(F) LEO Rail Station	470	45	45	48	45	49	46	46	46	46	46	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Lok Wo Sha (1)													
(A) Sai Sha Road Alignment	70	61	61	64	61	63	61	64	64	63	0	0	0
(B) Footbridge Construction	60	0	63	63	63	0	66	0	0	0	0	0	0
(C) Subway Construction	170	0	53	53	53	53	53	53	53	53	0	0	0
(D) MOS Rail Elevated Section	90	0	0	59	59	59	59	59	0	0	0	0	0
(E) MOS Rail Underground Section	90	61	61	0	59	59	0	0	0	0	0	0	0
(F) LEO Rail Station	400	47	47	50	46	50	48	48	48	48	48	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Lok Wo Sha (2)													
(A) Sai Sha Road Alignment	60	62	62	66	62	64	62	66	66	64	0	0	0
(B) Footbridge Construction	110	0	58	58	58	0	61	0	0	0	0	0	0
(C) Subway Construction	80	0	60	60	60	60	60	60	60	60	0	0	0
(D) MOS Rail Elevated Section	100	0	0	59	59	58	58	58	0	0	0	0	0
(E) MOS Rail Underground Section	95	60	60	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	270	50	50	53	50	54	51	51	51	51	51	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Kam Lung Court (1)													
(A) Sai Sha Road Alignment	30	68	68	72	68	70	68	72	72	70	0	0	0
(B) Footbridge Construction	105	0	58	58	58	0	61	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	180	0	0	53	53	53	53	53	0	0	0	0	0
(E) MOS Rail Underground Section	50	66	66	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	520	44	44	47	44	48	45	45	45	45	45	0	0
Overall Noise Level, dB(A)		70	71	72	70	72	70	72	72	71	-	-	-
Kam Lung Court (2)													
(A) Sai Sha Road Alignment	30	68	68	72	68	70	68	72	72	70	0	0	0
(B) Footbridge Construction	50	0	65	65	65	0	68	0	0	0	0	0	0
(C) Subway Construction	125	0	56	56	56	56	56	56	56	56	0	0	0
(D) MOS Rail Elevated Section	130	0	0	56	56	55	55	55	0	0	0	0	0
(E) MOS Rail Underground Section	50	66	66	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	450	46	46	49	45	49	47	47	47	47	47	0	0
Overall Noise Level, dB(A)		70	72	73	71	72	71	72	72	71	-	-	-

Table A7 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 2

Project Duration	Activity	Mitigation Option 2												
		2001				2002				2003				
		1	2	3	4	1	2	3	4	1	2	3	4	
Lee On Estate (1)														
(A) Sai Sha Road Alignment	20	72	72	75	72	74	72	75	75	74	0	0	0	0
(B) Footbridge Construction	25	0	71	71	71	0	74	0	0	0	0	0	0	0
(C) Subway Construction	105	0	58	58	58	58	58	58	58	58	0	0	0	0
(D) MOS Rail Elevated Section	30	0	0	69	69	68	68	68	0	0	0	0	0	0
(E) MOS Rail Underground Section	30	70	70	0	68	68	0	0	0	0	0	0	0	0
(F) LEO Rail Station	300	49	49	52	49	53	50	50	50	50	50	0	0	0
Overall Noise Level, dB(A)		74	76	77	76	76	76	76	75	74	-	-	-	-
Lee On Estate (2)														
(A) Sai Sha Road Alignment	30	68	68	72	68	70	68	72	72	70	0	0	0	0
(B) Footbridge Construction	70	0	62	62	62	0	65	0	0	0	0	0	0	0
(C) Subway Construction	50	0	64	64	64	64	64	64	64	64	0	0	0	0
(D) MOS Rail Elevated Section	45	0	0	65	65	65	65	65	0	0	0	0	0	0
(E) MOS Rail Underground Section	45	67	67	0	65	65	0	0	0	0	0	0	0	0
(F) LEO Rail Station	250	51	51	54	51	54	52	52	52	52	52	0	0	0
Overall Noise Level, dB(A)		71	72	74	72	73	72	73	72	71	-	-	-	-
Residential Development STTL446														
(A) Sai Sha Road Alignment	100	58	58	61	58	60	58	61	61	60	0	0	0	0
(B) Footbridge Construction	100	0	59	59	59	0	62	0	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0	0
(D) MOS Rail Elevated Section	100	0	0	59	59	58	58	58	0	0	0	0	0	0
(E) MOS Rail Underground Section	100	60	60	0	58	58	0	0	0	0	0	0	0	0
(F) LEO Rail Station	100	59	59	62	59	62	60	60	60	60	60	0	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-	-
Residential Development at Wu Kai Sha														
(A) Sai Sha Road Alignment	100	58	58	61	58	60	58	61	61	60	0	0	0	0
(B) Footbridge Construction	100	0	59	59	59	0	62	0	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0	0
(D) MOS Rail Elevated Section	100	0	0	59	59	58	58	58	0	0	0	0	0	0
(E) MOS Rail Underground Section	100	60	60	0	58	58	0	0	0	0	0	0	0	0
(F) LEO Rail Station	100	59	59	62	59	62	60	60	60	60	60	0	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-	-

Table A8 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 3a

Project Duration	Activity	Mitigation Option 3											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
Construction Site		Total Sound Power Level											
(A) Sai Sha Road Alignment		0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction		0	104	104	104	0	107	0	0	0	0	0	0
(C) Subway Construction		0	103	103	103	103	103	103	103	103	0	0	0
(D) MOS Rail Elevated Section		0	0	104	104	103	103	103	0	0	0	0	0
(E) MOS Rail Underground Section		105	105	0	103	103	0	0	0	0	0	0	0
(F) LEO Rail Station		104	104	107	104	107	105	105	105	105	105	0	0
Noise Sensitive Receiver	Distance, m	L_{Aeq}(30 mins), dB											
Wu Kwai Sha New Village (1)													
(A) Sai Sha Road Alignment	30	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	135	0	56	56	56	0	59	0	0	0	0	0	0
(C) Subway Construction	40	0	66	66	66	66	66	66	66	66	0	0	0
(D) MOS Rail Elevated Section	190	0	0	53	53	52	52	52	0	0	0	0	0
(E) MOS Rail Underground Section	70	63	63	0	61	61	0	0	0	0	0	0	0
(F) LEO Rail Station	550	44	44	47	44	47	45	45	45	45	45	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Wu Kwai Sha New Village (2)													
(A) Sai Sha Road Alignment	55	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	100	0	59	59	59	0	62	0	0	0	0	0	0
(C) Subway Construction	130	0	56	56	56	56	56	56	56	56	0	0	0
(D) MOS Rail Elevated Section	115	0	0	57	57	56	56	56	0	0	0	0	0
(E) MOS Rail Underground Section	75	62	62	0	60	60	0	0	0	0	0	0	0
(F) LEO Rail Station	470	45	45	48	45	49	46	46	46	46	46	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Lok Wo Sha (1)													
(A) Sai Sha Road Alignment	70	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	60	0	63	63	63	0	66	0	0	0	0	0	0
(C) Subway Construction	170	0	53	53	53	53	53	53	53	53	0	0	0
(D) MOS Rail Elevated Section	90	0	0	59	59	59	59	59	0	0	0	0	0
(E) MOS Rail Underground Section	90	61	61	0	59	59	0	0	0	0	0	0	0
(F) LEO Rail Station	400	47	47	50	46	50	48	48	48	48	48	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Lok Wo Sha (2)													
(A) Sai Sha Road Alignment	60	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	110	0	58	58	58	0	61	0	0	0	0	0	0
(C) Subway Construction	80	0	60	60	60	60	60	60	60	60	0	0	0
(D) MOS Rail Elevated Section	100	0	0	59	59	58	58	58	0	0	0	0	0
(E) MOS Rail Underground Section	95	60	60	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	270	50	50	53	50	54	51	51	51	51	51	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Kam Lung Court (1)													
(A) Sai Sha Road Alignment	30	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	105	0	58	58	58	0	61	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	180	0	0	53	53	53	53	53	0	0	0	0	0
(E) MOS Rail Underground Section	50	66	66	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	520	44	44	47	44	48	45	45	45	45	45	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Kam Lung Court (2)													
(A) Sai Sha Road Alignment	30	0	70	68	0	68	72	0	0	0	0	0	0
(B) Footbridge Construction	50	0	66	64	65	0	68	0	0	0	0	0	0
(C) Subway Construction	125	0	58	56	56	56	56	56	56	56	0	0	0
(D) MOS Rail Elevated Section	130	0	0	56	56	55	55	55	0	0	0	0	0
(E) MOS Rail Underground Section	50	66	66	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	450	46	46	45	45	49	47	47	47	47	47	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-

Table A8 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 3a

Project Duration	Activity	Mitigation Option 3											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
<i>Lee On Estate (1)</i>													
(A) Sai Sha Road Alignment	20	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	25	0	71	71	71	0	74	0	0	0	0	0	0
(C) Subway Construction	105	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	30	0	0	69	69	68	68	68	0	0	0	0	0
(E) MOS Rail Underground Section	30	70	70	0	68	68	0	0	0	0	0	0	0
(F) LEO Rail Station	300	49	49	52	49	53	50	50	50	50	50	0	0
Overall Noise Level, dB(A)		-	74	73	74	71	75	69	-	-	-	-	-
<i>Lee On Estate (2)</i>													
(A) Sai Sha Road Alignment	30	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	70	0	62	62	62	0	65	0	0	0	0	0	0
(C) Subway Construction	50	0	64	64	64	64	64	64	64	64	0	0	0
(D) MOS Rail Elevated Section	45	0	0	65	65	65	65	65	0	0	0	0	0
(E) MOS Rail Underground Section	45	67	67	0	65	65	0	0	0	0	0	0	0
(F) LEO Rail Station	250	51	51	54	51	54	52	52	52	52	52	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
<i>Residential Development STTL446</i>													
(A) Sai Sha Road Alignment	100	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	100	0	59	59	59	0	62	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	100	0	0	59	59	58	58	58	0	0	0	0	0
(E) MOS Rail Underground Section	100	60	60	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	100	59	59	62	59	62	60	60	60	60	60	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
<i>Residential Development at Wu Kai Sha</i>													
(A) Sai Sha Road Alignment	100	0	0	0	0	0	0	0	0	0	0	0	0
(B) Footbridge Construction	100	0	59	59	59	0	62	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	100	0	0	59	59	58	58	58	0	0	0	0	0
(E) MOS Rail Underground Section	100	60	60	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	100	59	59	62	59	62	60	60	60	60	60	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-

Table A9 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 3b

Project Duration	Activity	Mitigation Option 3											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
Construction Site		Total Sound Power Level											
(A) Sai Sha Road Alignment		103	103	106	103	105	103	106	106	105	0	0	0
(B) Footbridge Construction		0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction		0	103	103	103	103	103	103	103	103	0	0	0
(D) MOS Rail Elevated Section		0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section		105	105	0	103	103	0	0	0	0	0	0	0
(F) LEO Rail Station		104	104	107	104	107	105	105	105	105	105	0	0
Noise Sensitive Receiver	Distance, m	L_{Aeq(30 mins)}, dB											
Wu Kwai Sha New Village (1)													
(A) Sai Sha Road Alignment	30	68	68	72	68	70	68	72	72	70	0	0	0
(B) Footbridge Construction	135	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	40	0	66	66	66	66	66	66	66	66	0	0	0
(D) MOS Rail Elevated Section	190	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	70	63	63	0	61	61	0	0	0	0	0	0	0
(F) LEO Rail Station	550	44	44	47	44	47	45	45	45	45	45	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Wu Kwai Sha New Village (2)													
(A) Sai Sha Road Alignment	55	63	63	66	63	65	63	66	66	65	0	0	0
(B) Footbridge Construction	100	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	130	0	56	56	56	56	56	56	56	56	0	0	0
(D) MOS Rail Elevated Section	115	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	75	62	62	0	60	60	0	0	0	0	0	0	0
(F) LEO Rail Station	470	45	45	48	45	49	46	46	46	46	46	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Lok Wo Sha (1)													
(A) Sai Sha Road Alignment	70	61	61	64	61	63	61	64	64	63	0	0	0
(B) Footbridge Construction	60	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	170	0	53	53	53	53	53	53	53	53	0	0	0
(D) MOS Rail Elevated Section	90	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	90	61	61	0	59	59	0	0	0	0	0	0	0
(F) LEO Rail Station	400	47	47	50	46	50	48	48	48	48	48	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Lok Wo Sha (2)													
(A) Sai Sha Road Alignment	60	62	62	66	62	64	62	66	66	64	0	0	0
(B) Footbridge Construction	110	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	80	0	60	60	60	60	60	60	60	60	0	0	0
(D) MOS Rail Elevated Section	100	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	95	60	60	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	270	50	50	53	50	54	51	51	51	51	51	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Kam Lung Court (1)													
(A) Sai Sha Road Alignment	30	68	68	72	68	70	68	72	72	70	0	0	0
(B) Footbridge Construction	105	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	180	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	50	66	66	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	520	44	44	47	44	48	45	45	45	45	45	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
Kam Lung Court (2)													
(A) Sai Sha Road Alignment	30	68	0	72	68	70	68	72	72	70	0	0	0
(B) Footbridge Construction	50	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	125	0	56	56	56	56	56	56	56	56	0	0	0
(D) MOS Rail Elevated Section	130	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	50	66	66	0	64	64	0	0	0	0	0	0	0
(F) LEO Rail Station	450	46	46	49	45	49	47	47	47	47	47	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-

Table A9 Construction Noise at NSRs, dB(A)⁽¹⁾ Mitigation Option 3b

Project Duration Activity		Mitigation Option 3											
		2001				2002				2003			
		1	2	3	4	1	2	3	4	1	2	3	4
<i>Lee On Estate (1)</i>													
(A) Sai Sha Road Alignment	20	72	72	75	72	74	72	75	75	74	0	0	0
(B) Footbridge Construction	25	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	105	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	30	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	30	70	70	0	68	68	0	0	0	0	0	0	0
(F) LEO Rail Station	300	49	49	52	49	53	50	50	50	50	50	0	0
Overall Noise Level, dB(A)		-	74	75	74	75	72	-	-	-	-	-	-
<i>Lee On Estate (2)</i>													
(A) Sai Sha Road Alignment	30	68	68	72	68	70	68	72	72	70	0	0	0
(B) Footbridge Construction	70	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	50	0	64	64	64	64	64	64	64	64	0	0	0
(D) MOS Rail Elevated Section	45	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	45	67	67	0	65	65	0	0	0	0	0	0	0
(F) LEO Rail Station	250	51	51	54	51	54	52	52	52	52	52	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
<i>Residential Development STTL446</i>													
(A) Sai Sha Road Alignment	100	58	58	61	58	60	58	61	61	60	0	0	0
(B) Footbridge Construction	100	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	100	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	100	60	60	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	100	59	59	62	59	62	60	60	60	60	60	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-
<i>Residential Development at Wu Kai Sha</i>													
(A) Sai Sha Road Alignment	100	58	58	61	58	60	58	61	61	60	0	0	0
(B) Footbridge Construction	100	0	0	0	0	0	0	0	0	0	0	0	0
(C) Subway Construction	100	0	58	58	58	58	58	58	58	58	0	0	0
(D) MOS Rail Elevated Section	100	0	0	0	0	0	0	0	0	0	0	0	0
(E) MOS Rail Underground Section	100	60	60	0	58	58	0	0	0	0	0	0	0
(F) LEO Rail Station	100	59	59	62	59	62	60	60	60	60	60	0	0
Overall Noise Level, dB(A)		-	-	-	-	-	-	-	-	-	-	-	-