Appendix 4.7 - Construction Plant Inventory (Mitigated Scenario)

Area	Construction Activity	Equipment	Reference Code	No. of plant item	% usage	Type of Noise Control	Noise Reduction, dB(A)	Unit SWL, dB(A)	SWL, dB(A)	Total SWL, dB(A)
LF	Install silt curtain	**Group A [1]**								
(Landing Facility)		Derrick lighter	CNP 061	1	80%			104	103	103
		Group B [1]								
		Tug boat	CNP 221	1	20%			110	103	103
	Install pipe pile wall retain existing shore	Drill rig, rotary type (diesel)	OCUPME-012	1	100%	Noise Barrier	-10	110	100	101
		Crane, mobile/barge mounted (diesel)	EPD-05690	1	100%	Movable Noise Barrier	-5	101	96	
	Grouting behind the pipe pile wall	Grout mixer	OCUPME-014	1	100%	Noise Barrier	-10	90	80	99
		Grout pump	OCUPME-015	1	100%	Noise Barrier	-10	105	95	
		Air Compressor, air flow > 10m3/min and < 30m3/min	CNP 002	1	100%	Noise Barrier	-10	102	92	
		Crane, mobile/barge mounted (diesel)	EPD-05690	1	100%	Movable Noise Barrier	-5	101	96	
	Dredging of soil and disposal	**Group A [1]**								
		Derrick lighter	CNP 061	1	80%		0	104	103	103
		Group B [1]								
		Dredger, grab	CNP 063	1	80%		0	112	111	111
		Group C [1]								
		Tug boat	CNP 221	1	20%		0	110	103	103
	Surface rock excavation	**Group A [1]**								
		Breaker, excavator mounted (hydraulic)	Atlas-MP1000	1	55%	Movable Noise Barrier	-5	119	111	111
		Group B [1]								
		Derrick lighter	CNP 061	1	80%		0	104	103	103
		Group C [1]								
		Tug boat	CNP 221	1	20%		0	110	103	103
	Underwater rock excavation and disposal	**Group A [1]**								
		Derrick lighter	CNP 061	1	80%			104	103	103
		Group B [1]								
		Tug boat	CNP 221	1	20%			110	103	103
	Piling for the deck and breakwater	Drill rig, rotary type (diesel)	OCUPME-012	1	100%	Noise Barrier	-10	110	100	108
		Crane, mobile/barge mounted (diesel)	CNP 048	1	100%	Movable Noise Barrier	-5	112	107	
	Construction of the breakwater, deck structure, wave absorption chamber and deck furniture	**Group A [1]**								
		Derrick lighter	CNP 061	2	80%			104	106	106
		Group B [1]								
		Crane, barge mounted (diesel)	EPD-05690	1	80%	Movable Noise Barrier	-5	101	95	108
		Derrick lighter	CNP 061	2	80%			104	106	
		Tug boat	CNP 221	1	20%			110	103	
		Group C [1]								
		Tug boat	CNP 221	1	20%			110	103	103
LP1	Demolition of existing structure	Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	90
(Look Out Point 1)		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Barrier	-10	99	86	
	Concreting	**Group A [1]**								
		Poker, vibratory, hand-held (electric)	OCUPME-019	1	100%	Noise Barrier	-10	102	92	92
		Group B [1]								
		Saw, circular, wood	CNP 201	1	30%	Noise Barrier	-10	108	93	93
	Backfill	Compactor, vibratory	EPD-00054	1	80%	Noise Barrier	-10	102	91	91
	Beautification Works	Drill/grinder, hand-held (electric)	CNP 065	2	100%	Noise Barrier	-10	98	91	93
		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	
		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Barrier	-10	99	86	
LP2	Beautification Works	Drill/grinder, hand-held (electric)	CNP 065	2	100%	Noise Barrier	-10	98	91	93
(Look Out Point 2)		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	
		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Barrier	-10	99	86	
LP3	Demolition of existing structure	Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	96
(Look Out Point 3)		Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	1	50%	Noise Barrier	-10	108	95	
	Concreting	**Group A [1]**								
		Poker, vibratory, hand-held (electric)	OCUPME-019	1	100%	Noise Barrier	-10	102	92	92
		Group B [1]								
		Saw, circular, wood	CNP 201	1	30%	Noise Barrier	-10	108	93	93
	Backfill	Compactor, vibratory	CNP 050	1	80%	Noise Barrier	-10	105	94	94
	Beautification Works	Drill/grinder, hand-held (electric)	CNP 065	2	100%	Noise Barrier	-10	98	91	94
		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Enclosure	-15	100	82	
		Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	1	50%	Noise Enclosure	-15	108	90	
LP4	Demolition of existing structure	Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	90
(Look Out Point 4)		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Barrier	-10	99	86	
	Concreting	**Group A [1]**								
		Poker, vibratory, hand-held (electric)	OCUPME-019	1	100%	Noise Barrier	-10	102	92	92
		Group B [1]								
		Saw, circular, wood	CNP 201	1	30%	Noise Barrier	-10	108	93	93
	Backfill	Compactor, vibratory	CNP 050	1	80%	Noise Barrier	-10	105	94	94

Appendix 4.7 - Construction Plant Inventory (Mitigated Scenario)

Area	Construction Activity	Equipment	Reference Code	No. of plant item	% usage	Type of Noise Control	Noise Reduction, dB(A)	Unit SWL, dB(A)	SWL, dB(A)	Total SWL, dB(A)
	Beautification Works	Drill/grinder, hand-held (electric)	CNP 065	2	100%	Noise Enclosure	-15	98	86	88
		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Enclosure	-15	100	82	
		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Enclosure	-15	99	81	
LP5	Demolition of existing structure	Air Compressor, air flow < 10m3/min	CNP 001	1	70%	Noise Enclosure	-15	100	83	86
(Look Out Point 5)		Hand-held Percussive Breaker	EPD-04329	1	70%	Noise Enclosure	-15	99	82	
	Concreting	**Group A [1]**								
		Poker, vibratory, hand-held (electric)	OCUPME-019	1	100%	Noise Enclosure	-15	102	87	87
		Group B [1]								
		Saw, circular, wood	CNP 201	1	30%	Noise Enclosure	-15	108	88	88
	Backfill	Compactor, vibratory	EPD-00054	1	80%	Noise Enclosure	-15	102	86	86
	Beautification Works	Drill/grinder, hand-held (electric)	CNP 065	2	100%	Noise Enclosure	-15	98	86	88
		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Enclosure	-15	100	82	
		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Enclosure	-15	99	81	
VP	Demolition of existing structure	Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	96
(Viewing Platform)		Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	1	50%	Noise Barrier	-10	108	95	
	Excavation	Tug boat	CNP 221	1	20%	Movable Noise Barrier	-5	110	98	98
		Excavator/loader, wheeled/tracked	EPD-05477	1	100%	Movable Noise Barrier	-5	91	86	
	Block Construction and Concreting	**Group A [1]**								
		Poker, vibratory, hand-held (electric)	OCUPME-019	1	100%	Noise Barrier	-10	102	92	99
		Concrete lorry mixer	CNP 044	1	70%	Noise Barrier	-10	109	97	
		Group B [1]								
		Derrick lighter	CNP 061	1	80%			104	103	103
		Group C [1]								
		Tug boat	CNP 221	1	20%	Movable Noise Barrier	-5	110	98	98
		Group D [1]								
		Saw, circular, wood	CNP 201	1	100%	Noise Barrier	-10	108	98	98
	Backfill	Compactor, vibratory	CNP 050	1	100%	Noise Barrier	-10	105	95	95
	Concrete Supply	**Group A [1]**								
		Concrete lorry mixer	CNP 044	1	70%	Noise Barrier	-10	109	97	97
		Group B [1]								
		Tug boat	CNP 221	1	20%	Movable Noise Barrier	-5	110	98	98
	Construction Material/waste Delivery and Removal	Tug boat	CNP 221	1	20%	Movable Noise Barrier	-5	110	98	98
	Beautification Works	Drill/grinder, hand-held (electric)	CNP 065	2	100%	Noise Barrier	-10	98	91	97
		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	
		Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	1	50%	Noise Barrier	-10	108	95	
CP	Construction of Carp Platform	Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	95
(Carp Platform)		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Barrier	-10	99	86	
		Poker, vibratory, hand-held (electric)	OCUPME-019	1	50%	Noise Barrier	-10	102	89	
		Compactor, vibratory	CNP 050	1	50%	Noise Barrier	-10	105	92	
PA	Provision of Pavillion	Drill/grinder, hand-held (electric)	CNP 065	2	50%	Noise Barrier	-10	98	88	94
(Pavilion)		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	
		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Barrier	-10	99	86	
		Crane, mobile/barge mounted (diesel)	EPD-05690	1	30%	Movable Noise Barrier	-5	101	91	
PE	Construction of Promenade Extension	**Group A [1]**								
		Poker, vibratory, hand-held (electric)	OCUPME-019	1	100%	Noise Barrier	-10	102	92	99
		Concrete lorry mixer	CNP 044	1	70%	Noise Barrier	-10	109	97	
		Group B [1]								
		Saw, circular, wood	CNP 201	1	100%	Noise Barrier	-10	108	98	98
(Promenade Extension)		**Group C [1]**								
		Tug boat	CNP 221	1	20%			110	103	103
P	Beautification Works for Promenade	Drill/grinder, hand-held (electric)	CNP 065	2	100%	Noise Barrier	-10	98	91	97
(Promenade)		Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Barrier	-10	100	87	
		Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	1	50%	Noise Barrier	-10	108	95	
ST	Streetscape Improvement Works	Air Compressor, air flow < 10m3/min	CNP 001	1	50%	Noise Enclosure	-15	100	82	85
(Streetscape improvement)		Hand-held Percussive Breaker	EPD-04329	1	50%	Noise Enclosure	-15	99	81	
DSD	LYM Sewerage Project	**Group A [1] &[2]**								
(LYM Sewerage Project)		Hand-held breaker	EPD-04213	1	30%	Noise Enclosure	-15	99	79	79
		Generator, portable	EPD-03819	1	30%	Noise Enclosure	-15	89	69	
		Group B [1] &[2]								
		Compactor, vibratory	EPD-00085	1	30%	Noise Enclosure	-15	102	82	82

Notes:
[1] Only one group of the PME will be operated at any time.
[2] Reference is made to the Preliminary Environmental Review for Agreement No. CE 64/2013 (DS) Lei Yue Mun Village Sewerage - Investigation, Design and Construction.