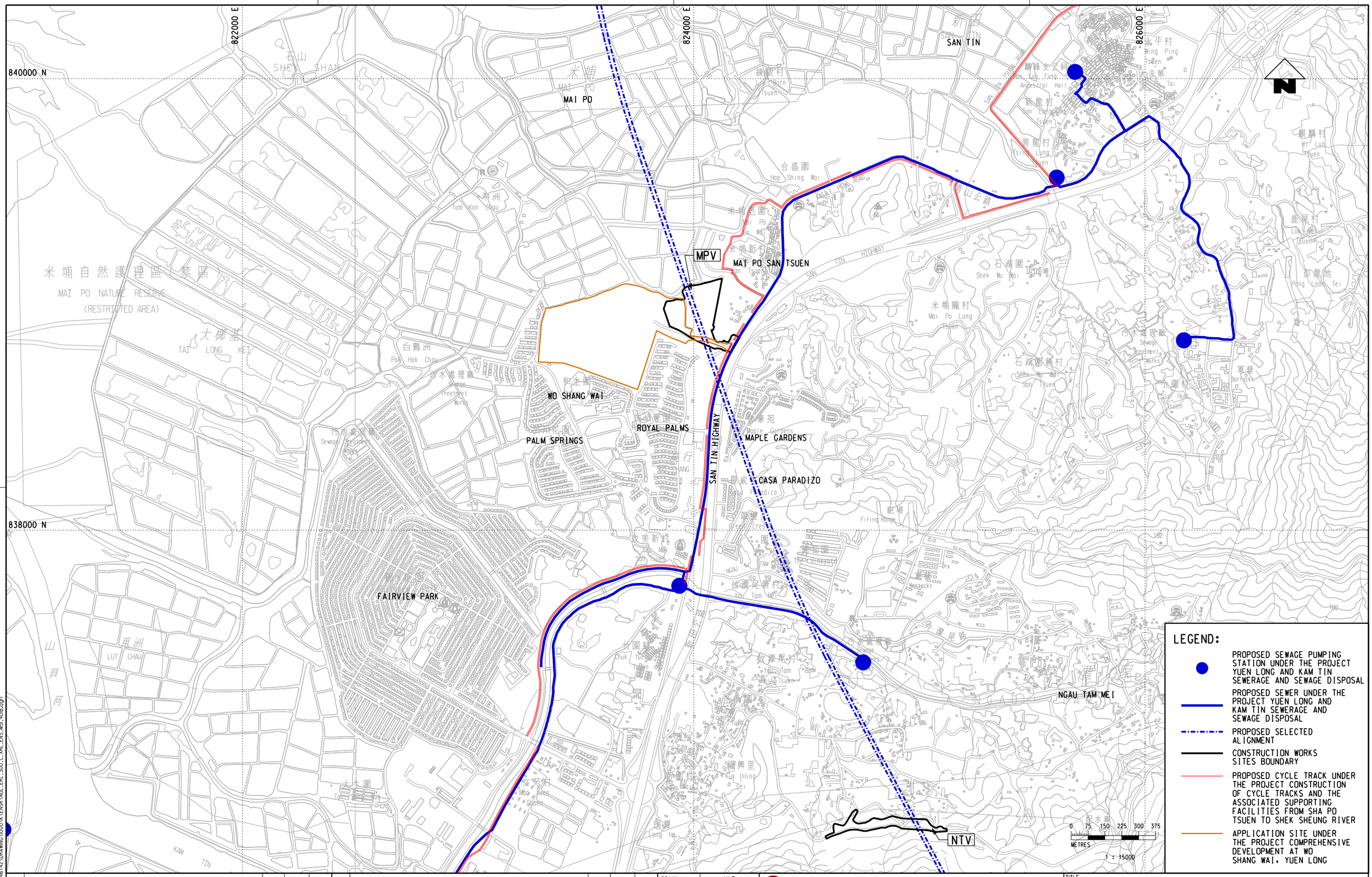


REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	YJP
DESIGNED	TWF
CHECKED	KCC
APPROVED	PL
DATE	20/FEB./2009

DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED ON SITE.
© MTR CORPORATION LIMITED 2008 COPYRIGHT IN RESPECT OF THIS DRAWING / DOCUMENT IS OWNED BY THE MTR CORPORATION LIMITED OF HONG KONG. NO REPRODUCTION OF THE DRAWING / DOCUMENT OR ANY PART BY WHATEVER MEANS IS PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE MTR CORPORATION LIMITED.

MTR

EXPRESS RAIL LINK

ORIGINATOR

ENSR | AECOM

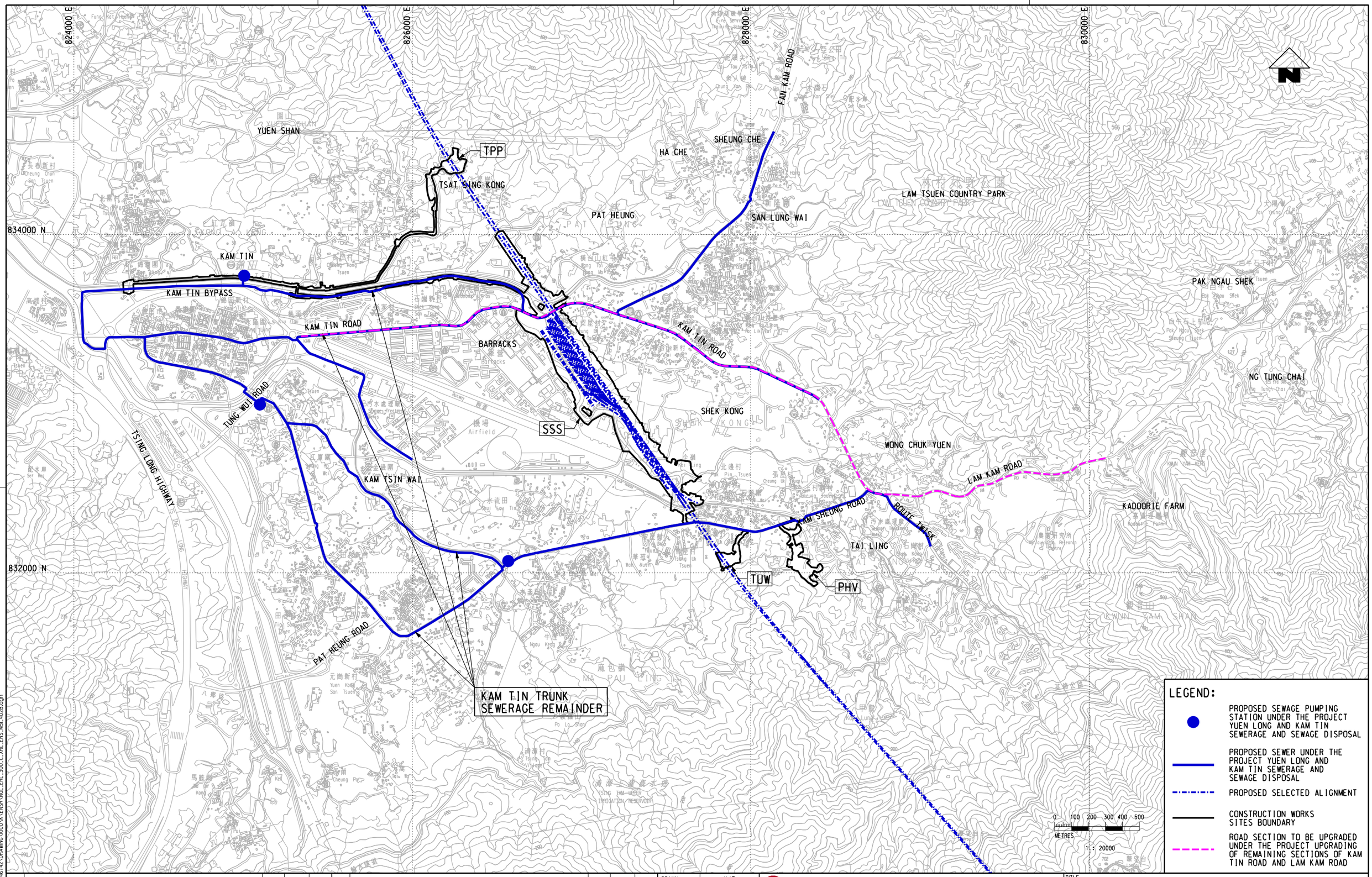
CADD REF. NOL_ERL_300_C_XRL_ENS_M51_401B.dgn

TITLE

NOL / ERL-300
ENVIRONMENTAL IMPACT ASSESSMENT
MAJOR CONCURRENT PROJECTS
(SHEET 1 OF 2)

SCALE	FIGURE NO.	REV.
1 : 15000 (A3)	NOL/ERL/300/C/XRL/ENS/M51/401	B

PLOT DRV: R:\ustnset\MTR\PLOTDRVER\WINDOWS\A3 COLOUR.pH
MODELNAME: DEFAULT PRINTED BY: youjq 2009-4-20 17:02:23
FILENAME: p:\projects\600462\DRAWING\DOD\XRL\ENSR\NOL_ERL_300_C_XRL_ENS_M51_401B.dgn



REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	YJP
DESIGNED	TWF
CHECKED	KCC
APPROVED	PL
DATE	20/FEB./2009

DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED ON SITE.
© MTR CORPORATION LIMITED 2008 COPYRIGHT IN RESPECT OF THIS DRAWING / DOCUMENT IS OWNED BY THE MTR CORPORATION LIMITED OF HONG KONG. NO REPRODUCTION OF THE DRAWING / DOCUMENT OR ANY PART BY WHATEVER MEANS IS PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE MTR CORPORATION LIMITED.

MTR

EXPRESS RAIL LINK

ORIGINATOR

ENSR | AECOM

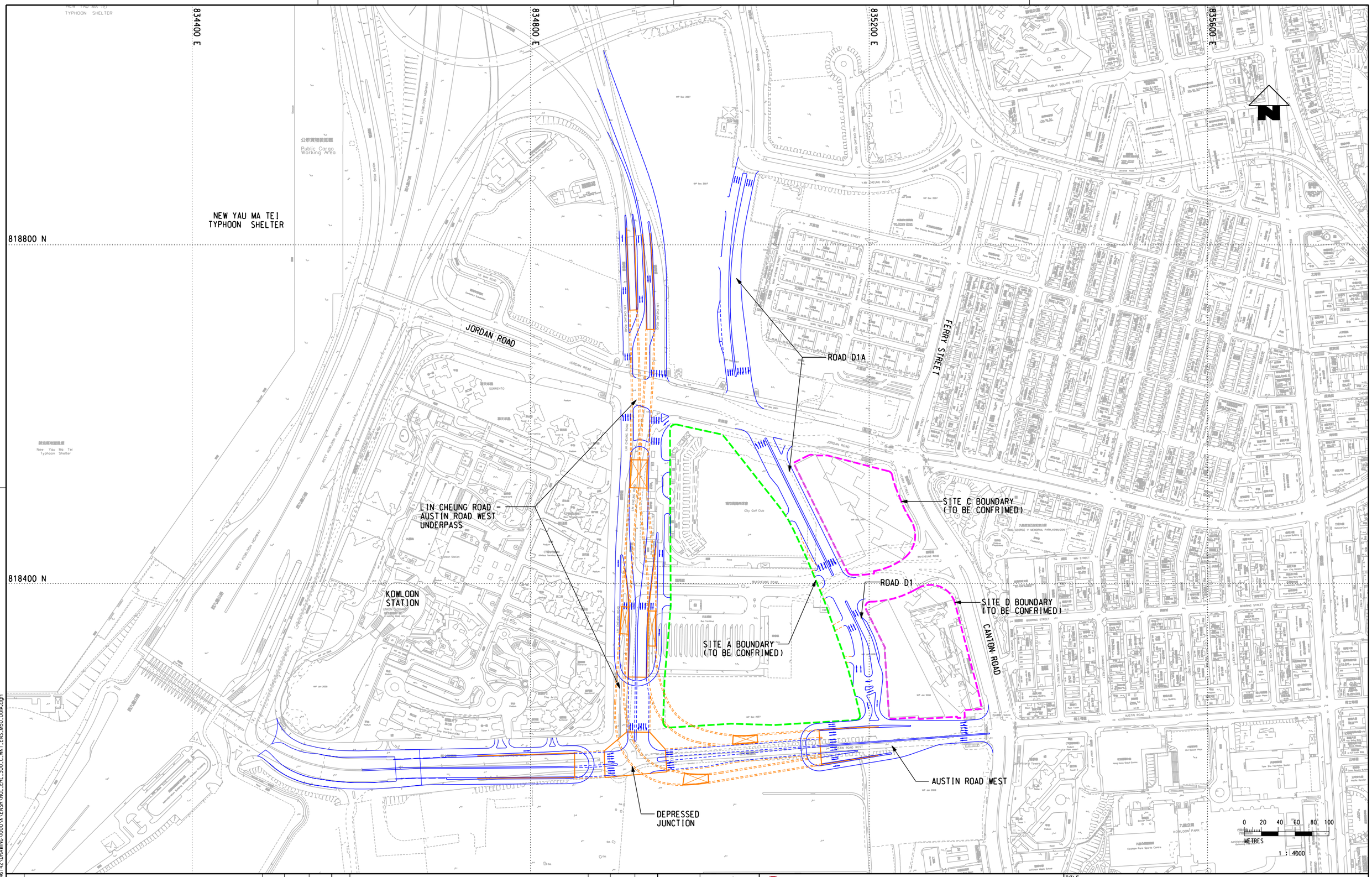
CADD REF. NOL_ERL_300_C_XRL_ENS_M51_402B.dgn

TITLE

NOL / ERL-300
ENVIRONMENTAL IMPACT ASSESSMENT
MAJOR CONCURRENT PROJECTS
(SHEET 2 OF 2)

SCALE	FIGURE NO.	REV.
1 : 20000 (A3)	NOL/ERL/300/C/XRL/ENS/M51/402	B

PLOT DRV: R:\ustnse1\MTR\PLOTDRVER\WINDOWS\A3 COLOUR.pltr
MODELNAME: DEFAULT PRINTED BY: YANGP 2009-4-17 9:46:32
FILENAME: P:\Projects\60046142\DRAWING\000\A\ENSR\NOL_ERL_300_C_XRL_ENS_M51_402B.dgn



PLOT DRV: R:\ustrset\MTR\PLOTDRIVER\WINDOWS\A3 COLOUR.pltH
MODELNAME: Default PRINTED BY: TANZR 2009-4-29 10:53:47
FILENAME: P:\PROJECTS\60046742\DRAWING\000\A\ENSR\NOL_ERL_300_C_WKT_ENS_M50_001A.dgn

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	YJP
DESIGNED	TWF
CHECKED	KCC
APPROVED	PL
DATE	11/MAR./2009

DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED ON SITE.
© MTR CORPORATION LIMITED 2008 COPYRIGHT IN RESPECT OF THIS DRAWING / DOCUMENT IS OWNED BY THE MTR CORPORATION LIMITED OF HONG KONG. NO REPRODUCTION OF THE DRAWING / DOCUMENT OR ANY PART BY WHATEVER MEANS IS PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE MTR CORPORATION LIMITED.

MTR

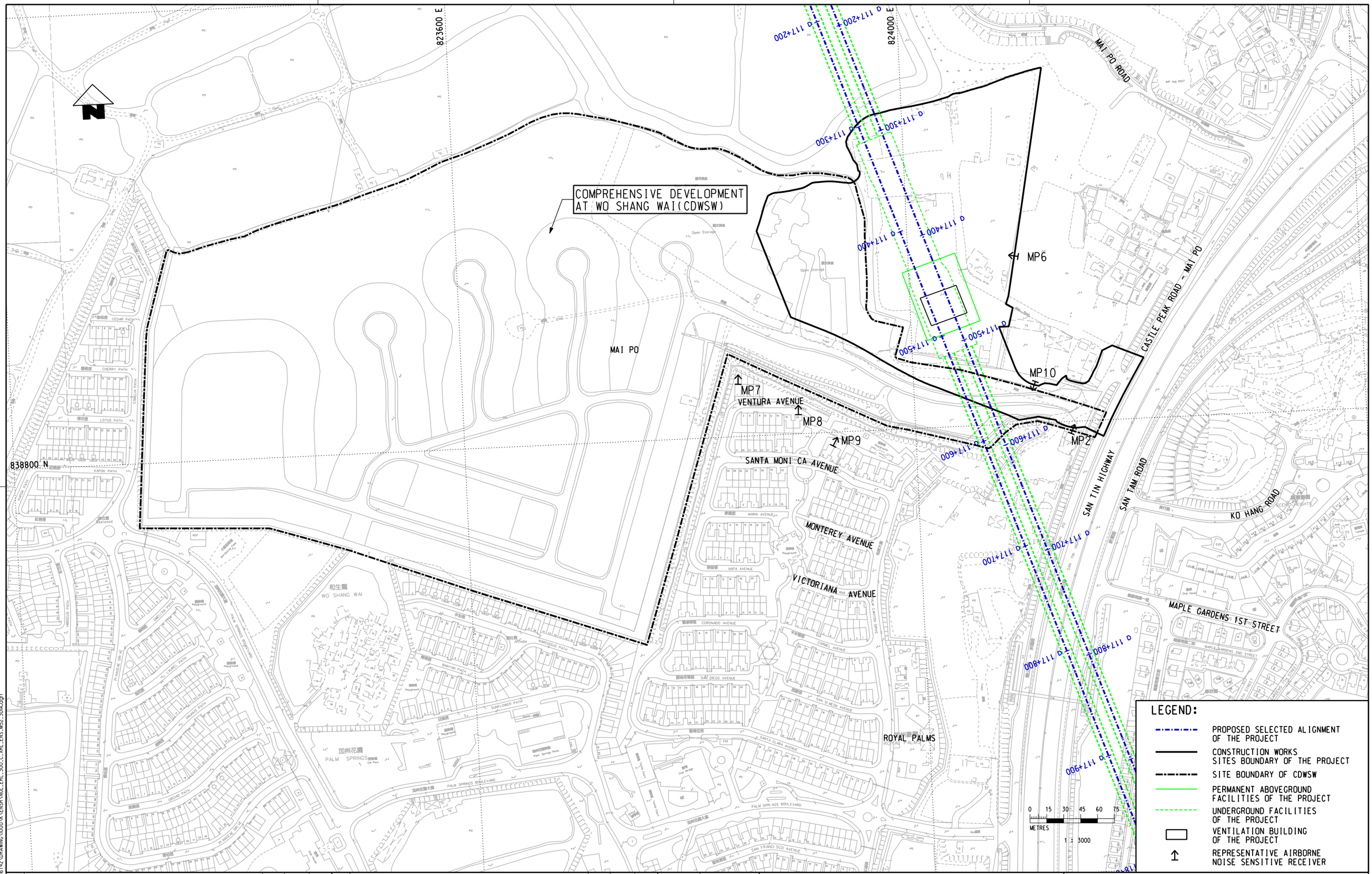
ROAD WORKS AT WEST KOWLOON

ORIGINATOR
ENSR | AECOM

CADD REF.
NOL_ERL_300_C_WKT_ENS_M50_001A.dgn

TITLE
NOL / ERL-300
ENVIRONMENTAL IMPACT ASSESSMENT
PROPOSED ROAD WORKS AT WEST KOWLOON

SCALE	FIGURE NO.	REV.
1 : 4000 (A3)	NOL/ERL/300/C/WKT/ENS/M50/001	A



REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	GXH
DESIGNED	TWF
CHECKED	KCC
APPROVED	PL
DATE	19/AUG./2008

DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED ON SITE.
© MTR CORPORATION LIMITED 2008 COPYRIGHT IN RESPECT OF THIS DRAWING / DOCUMENT IS OWNED BY THE MTR CORPORATION LIMITED OF HONG KONG. NO REPRODUCTION OF THE DRAWING / DOCUMENT OR ANY PART BY WHATEVER MEANS IS PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE MTR CORPORATION LIMITED.

MTR

EXPRESS RAIL LINK

ORIGINATOR

ENSR | AECOM

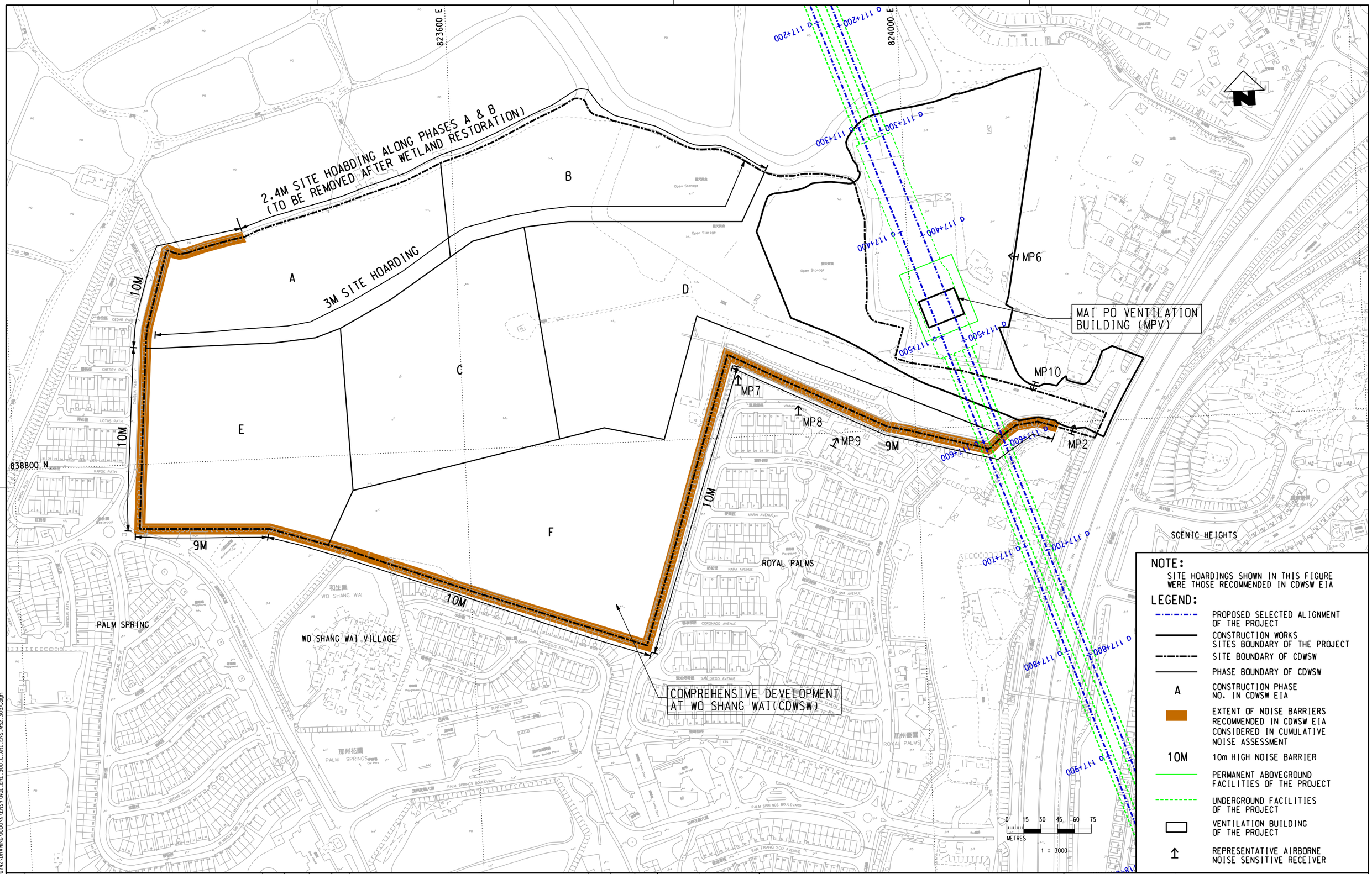
CADD REF. NOL_ERL_300_C_XRL_ENS_M52_301A.dgn

TITLE

NOL / ERL-300
ENVIRONMENTAL IMPACT ASSESSMENT
LOCATIONS OF AIRBORNE NOISE SENSITIVE RECEIVERS CONSIDERED IN CUMULATIVE NOISE IMPACT ASSESSMENT

SCALE 1 : 3000 (A3) | FIGURE NO. NOL/ERL/300/C/XRL/ENS/M52/301 | REV. A

PLOT DRV: R:\ustnset\MIFRVPLOTDRIVER\WINDOWS\A3 COLOUR.pltd
MODELNAME: Default DATE: 2009-4-16 2:46:42
PRINTED BY:
FILENAME: p:\projects\600467\DRAWING\000\XRL\ENSR\NOL_ERL_300_C_XRL_ENS_M52_301A.dgn



NOTE:
SITE HOARDINGS SHOWN IN THIS FIGURE WERE THOSE RECOMMENDED IN CDWSW EIA

LEGEND:

- PROPOSED SELECTED ALIGNMENT OF THE PROJECT
- CONSTRUCTION WORKS SITES BOUNDARY OF THE PROJECT
- SITE BOUNDARY OF CDWSW
- PHASE BOUNDARY OF CDWSW
- A — CONSTRUCTION PHASE NO. IN CDWSW EIA
- EXTENT OF NOISE BARRIERS RECOMMENDED IN CDWSW EIA CONSIDERED IN CUMULATIVE NOISE ASSESSMENT
- 10M — 10m HIGH NOISE BARRIER
- PERMANENT ABOVEGROUND FACILITIES OF THE PROJECT
- UNDERGROUND FACILITIES OF THE PROJECT
- VENTILATION BUILDING OF THE PROJECT
- REPRESENTATIVE AIRBORNE NOISE SENSITIVE RECEIVER

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	YJP
DESIGNED	TWF
CHECKED	KCC
APPROVED	PL
DATE	14/APR./2008

DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED ON SITE.
© MTR CORPORATION LIMITED 2008 COPYRIGHT IN RESPECT OF THIS DRAWING / DOCUMENT IS OWNED BY THE MTR CORPORATION LIMITED OF HONG KONG. NO REPRODUCTION OF THE DRAWING / DOCUMENT OR ANY PART BY WHATEVER MEANS IS PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE MTR CORPORATION LIMITED.

MTR
EXPRESS RAIL LINK
ORIGINATOR
ENSR | AECOM
CADD REF. NOL_ERL_300_C_XRL_ENS_M52_303A.dgn

TITLE
NOL / ERL-300
ENVIRONMENTAL IMPACT ASSESSMENT
LOCATIONS OF PROPOSED NOISE BARRIERS AND SITE HOARDINGS

SCALE 1 : 3000 (A3) | FIGURE NO. NOL/ERL/300/C/XRL/ENS/M52/303 | REV. A

PLOT DRV: R:\ustnset\MTRVPLOTDRIVER.WINDOWS\A3 COLOUR.pH
MODELNAME: Default PRINTED BY: XUCF 2009-5-13 19:04:52
FILENAME: p:\projects\600467\42\DRAWING\000\XRL\ENSR\NOL_ERL_300_C_XRL_ENS_M52_303A.dgn

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Construction Noise from Comprehensive Development of Wo Shang Wai, Yuen Long

NSR: MP2 - Mai Po San Tsuen Village House

Construction Element	Dist	Bar	2009	2010												2011												2012												2013												2014											
			Dec 1	Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25	Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Total SWL of each month in Phase A						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase A	666		0	0	0	55	55	55	55	55	55	55	55	55	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase B	478		0	0	0	57	57	57	57	57	57	57	57	57	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C				119	119	119	119	119	117	117	117	122	122	122	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119																															
Construction activities in Phase C	502		0	60	60	60	60	60	58	58	58	63	63	63	62	62	62	55	55	55	55	61	60	60	60	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D				119	119	119	119	119	119	119	119	117	117	117	122	122	121	121	121	121	121	121	120	120	120	119	119	119	119	119	119																															
Construction activities in Phase D	262	10	0	55	55	55	55	55	55	55	55	54	54	54	59	59	57	58	58	58	58	58	57	57	57	56	56	56	56	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												119	119	119	119	119	117	117	122	122	121	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119	119																									
Construction activities in Phase E	682		0	0	0	0	0	0	0	0	0	57	57	57	57	57	56	56	61	61	59	59	59	60	52	52	52	52	59	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												119	119	119	119	119	119	119	122	122	122	122	121	121	121	121	121	114	120	120	120	120	119	119	119	119	119	119	119	119																							
Construction activities in Phase F	386		0	0	0	0	0	0	0	0	0	62	62	62	62	62	62	62	66	66	66	66	64	65	65	65	65	57	64	64	64	64	63	63	63	63	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	24		0	63	63	63	63	63	63	63	63	63	63	63	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Total SPL, dB(A)			-	65	65	66	66	66	66	66	66	69	69	69	68	67	67	66	68	68	67	68	67	67	67	67	67	63	67	66	66	65	64	64	64	64	64	64	63	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NSR: MP3 - No. 166 Mai Po San Tsuen

Construction Element	Dist	Bar	2009	2010												2011												2012												2013												2014											
			Dec 1	Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25	Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Total SWL of each month in Phase A						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase A	652		0	0	0	55	55	55	55	55	55	55	55	55	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase B	394		0	0	0	59	59	59	59	59	59	59	59	59	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C				119	119	119	119	119	117	117	117	122	122	122	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119																															
Construction activities in Phase C	548		0	59	59	59	59	59	57	57	57	62	62	62	61	61	62	54	54	54	54	61	59	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D				119	119	119	119	119	119	119	119	117	117	117	122	122	121	121	121	121	121	121	120	120	120	119	119	119	119	119	119																															
Construction activities in Phase D	268		0	65	65	65	65	65	65	65	65	64	64	64	69	69	67	68	68	68	68	68	67	67	67	66	66	66	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												119	119	119	119	119	117	117	122	122	121	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119	119																							
Construction activities in Phase E	740		0	0	0	0	0	0	0	0	0	56	56	56	56	56	55	55	60	60	58	58	58	59	52	52	52	52	58	57	57	57	57	57	57	57	57	57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												119	119	119	119	119	119	119	122	122	122	122	121	121	121	121	121	114	120	120	120	120	119	119	119	119	119	119	119	119																							
Construction activities in Phase F	452		0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	64	64	64	64	62	63	63	63	63	56	62	62	62	62	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	118		0	56	56	56	56	56	56	56	56	56	56	56	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)			-	66	66	67	67	67	67	67	67	69	69	69	71	70	69	69	70	70	70	70	69	69	69	68	68	67	68	68	68	63	63	63	63	63	63	63	61	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix 5.12 Cumulative Construction Noise Calculation

NSR: MP6 - Planned Village House at Village Zone

Construction Element	Dist	Bar	2009	2010												2011												2012												2013												2014											
			Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Total SWL of each month in Phase A						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase A	558		0	0	0	56	56	56	56	56	56	56	56	56	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase B	290		0	0	0	62	62	62	62	62	62	62	62	62	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C				119	119	119	119	119	117	117	117	122	122	122	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119																																	
Construction activities in Phase C	458		0	60	60	60	60	60	59	59	59	64	64	64	62	62	63	56	56	56	56	62	61	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D				119	119	119	119	119	119	119	119	117	117	117	122	122	121	121	121	121	121	121	120	120	120	119	119	119	119	119	119																																	
Construction activities in Phase D	178		0	69	69	69	69	69	69	69	69	67	67	67	72	72	71	71	71	71	71	71	70	70	70	69	69	69	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												119	119	119	119	119	117	117	122	122	121	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119																											
Construction activities in Phase E	682		0	0	0	0	0	0	0	0	0	57	57	57	57	57	56	56	61	61	59	59	59	60	52	52	52	52	59	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												119	119	119	119	119	119	119	122	122	122	122	121	121	121	121	121	114	120	120	120	120	119	119	119	119	119	119	119	119																									
Construction activities in Phase F	246		0	0	0	0	0	0	0	0	0	66	66	66	66	66	66	66	69	69	69	69	68	69	69	69	69	61	68	68	68	68	66	66	66	66	66	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	116		0	56	56	56	56	56	56	56	56	56	56	56	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)			-	69	69	70	70	70	70	70	70	72	72	72	74	74	73	73	74	74	74	74	73	73	73	72	72	70	72	72	72	68	67	67	67	67	67	67	66	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NSR: MP7 - House No. 1 Ventura Avenue, Royal Palms

Construction Element	Dist	Bar	2009	2010												2011												2012												2013												2014											
			Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Total SWL of each month in Phase A						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase A	370		0	0	0	60	60	60	60	60	60	60	60	60	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase B	208		0	0	0	65	65	65	65	65	65	65	65	65	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C				119	119	119	119	119	117	117	117	122	122	122	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119																																	
Construction activities in Phase C	224		0	67	67	67	67	67	65	65	65	70	70	70	69	69	69	62	62	62	62	68	67	67	67	67	67	67	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D				119	119	119	119	119	119	119	119	117	117	117	122	122	121	121	121	121	121	121	120	120	120	119	119	119	119	119	119																																	
Construction activities in Phase D	84	10	0	65	65	65	65	65	65	65	65	64	64	64	69	69	67	68	68	68	68	68	67	67	67	66	66	66	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												119	119	119	119	119	117	117	122	122	121	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119																											
Construction activities in Phase E	408		0	0	0	0	0	0	0	0	0	61	61	61	61	61	60	60	65	65	63	63	63	64	57	57	57	57	63	62	62	62	62	62	62	62	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												119	119	119	119	119	119	119	122	122	122	122	121	121	121	121	121	114	120	120	120	120	119	119	119	119	119	119	119	119																									
Construction activities in Phase F	110	10	0	0	0	0	0	0	0	0	0	63	63	63	63	63	63	63	66	66	66	66	65	66	66	66	66	58	65	65	65	65	63	63	63	63	63	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	48		0	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)			-	69	69	71	71	71	71	71	71	73	73	73	73	73	72	71	72	72	72	73	72	72	72	71	71	70	71	71	71	67	66	66	66	66	66	66	63	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NSR: MP8 - House 20 Ventura Avenue, Royal Palms

Construction Element	Dist	Bar	2009	2010												2011												2012												2013												2014											
			Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Total SWL of each month in Phase A						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase A	442		0	0	0	58	58	58	58	58	58	58	58	58	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B						116	116	116	116	116	116	116	116	116	114																																															
Construction activites in Phase B	264		0	0	0	63	63	63	63	63	63	63	63	63	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C				119	119	119	119	119	117	117	117	122	122	122	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119																																	
Construction activities in Phase C	282		0	65	65	65	65	65	63	63	63	68	68	68	67	67	67	60	60	60	60	66	65	65	65	65	65	65	65	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D				119	119	119	119	119	119	119	119	117	117	117	122	122	121	121	121	121	121	121	120	120	120	119	119	119	119	119	119																																	
Construction activities in Phase D	120	10	0	62	62	62	62	62	62	62	62	61	61	61	66	66	64	65	65	65	65	65	64	64	64	63	63	63	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												119	119	119	119	119	117	117	122	122	121	121	121	121	114	114	114	114	120	119	119	119	119	119	119	119	119	119																											
Construction activities in Phase E	478		0	0	0	0	0	0	0	0	0	60	60	60	60	60	59	59	64	64	62	62	62	63	55	55	55	55	62	61	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												119	119	119	119	119	119	119	122	122	122	122	121	121	121	121	121	114	120	120	120	120	119	119	119	119	119	119	119	119																									
Construction activities in Phase F	142	10	0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	64	64	64	64	62	63	63	63	63	56	62	62	62	62	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	96		0	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)			-	67	67	69	69	69	68	68	68	71	71	71	71	70	70	68	70	70	69	71	70	70	69	69	69	68	69	69	69	65	64	64	64	64	64	64	61	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix 5.12 Cumulative Construction Noise Calculation

NSR: MP9 - House 15 Santa Monica Avenue, Royal Palms

Construction Element	Dist	Bar	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13
Total SWL of each month in Phase A						116	116	116	116	116	116	116	116	116	114
Construction activites in Phase A	482		0	0	0	57	57	57	57	57	57	57	57	57	55
Total SWL of each month in Phase B						116	116	116	116	116	116	116	116	116	114
Construction activites in Phase B	284		0	0	0	62	62	62	62	62	62	62	62	62	60
Total SWL of each month in Phase C				119	119	119	119	119	117	117	117	122	122	122	121
Construction activities in Phase C	310		0	64	64	64	64	64	62	62	62	67	67	67	66
Total SWL of each month in Phase D				119	119	119	119	119	119	119	119	117	117	117	122
Construction activities in Phase D	160	10	0	59	59	59	59	59	59	59	59	58	58	58	63
Total SWL of each month in Phase E												119	119	119	119
Construction activities in Phase E	506		0	0	0	0	0	0	0	0	0	59	59	59	59
Total SWL of each month in Phase F												119	119	119	119
Construction activities in Phase F	178	10	0	0	0	0	0	0	0	0	0	59	59	59	59
Operation of haul road	96		0	57	57	57	57	57	57	57	57	57	57	57	57
Total SPL, dB(A)			-	66	66	68	68	68	67	67	67	70	70	70	70

Construction Element	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C	121	121	114	114	114	114	120	119	119	119	119	119
Construction activities in Phase C	66	67	59	59	59	59	66	64	64	64	64	64
Total SWL of each month in Phase D	122	121	121	121	121	121	121	120	120	120	119	119
Construction activities in Phase D	63	61	62	62	62	62	62	61	61	61	60	60
Total SWL of each month in Phase E	119	117	117	122	122	121	121	121	121	114	114	114
Construction activities in Phase E	59	58	58	63	63	61	61	61	62	55	55	55
Total SWL of each month in Phase F	119	119	119	122	122	122	122	121	121	121	121	121
Construction activities in Phase F	59	59	59	62	62	62	62	61	61	61	61	61
Operation of haul road	57	57	57	57	57	0	0	0	0	0	0	0
Total SPL, dB(A)	69	69	66	68	68	67	69	68	69	68	67	67

Construction Element	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C	119	119	119	119								
Construction activities in Phase C	64	64	64	64	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D	119	119	119	119								
Construction activities in Phase D	60	60	60	60	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E	114	120	119	119	119	119	119	119	119	119	119	
Construction activities in Phase E	55	61	60	60	60	60	60	60	60	60	60	0
Total SWL of each month in Phase F	114	120	120	120	120	119	119	119	119	119	119	119
Construction activities in Phase F	54	60	60	60	60	59	59	59	59	59	59	59
Operation of haul road	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)	66	68	68	68	63	63	63	63	63	63	63	59

Construction Element	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C												
Construction activities in Phase C	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D												
Construction activities in Phase D	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												
Construction activities in Phase E	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												
Construction activities in Phase F	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)	59	-	-	-	-	-	-	-	-	-	-	-

Construction Element	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C												
Construction activities in Phase C	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D												
Construction activities in Phase D	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												
Construction activities in Phase E	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												
Construction activities in Phase F	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)	-	-	-	-	-	-	-	-	-	-	-	-

NSR: MP10 - Planned Receiver at Village Zone

Construction Element	Dist	Bar	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13
Total SWL of each month in Phase A						116	116	116	116	116	116	116	116	116	114
Construction activites in Phase A	622		0	0	0	55	55	55	55	55	55	55	55	55	53
Total SWL of each month in Phase B						116	116	116	116	116	116	116	116	116	114
Construction activites in Phase B	404		0	0	0	59	59	59	59	59	59	59	59	59	57
Total SWL of each month in Phase C				119	119	119	119	119	117	117	117	122	122	122	121
Construction activities in Phase C	482		0	60	60	60	60	60	59	59	59	64	64	64	62
Total SWL of each month in Phase D				119	119	119	119	119	119	119	119	117	117	117	122
Construction activities in Phase D	350		0	63	63	63	63	63	63	63	63	61	61	61	66
Total SWL of each month in Phase E												119	119	119	119
Construction activities in Phase E	682		0	0	0	0	0	0	0	0	0	57	57	57	57
Total SWL of each month in Phase F												119	119	119	119
Construction activities in Phase F	338		0	0	0	0	0	0	0	0	0	63	63	63	63
Operation of haul road	20		0	64	64	64	64	64	64	64	64	64	64	64	64
Total SPL, dB(A)			-	67	67	68	68	68	68	68	68	70	70	70	71

Construction Element	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C	121	121	114	114	114	114	120	119	119	119	119	119
Construction activities in Phase C	62	63	55	55	55	55	62	61	61	61	61	61
Total SWL of each month in Phase D	122	121	121	121	121	121	121	120	120	120	119	119
Construction activities in Phase D	66	65	66	66	66	66	66	65	65	65	63	63
Total SWL of each month in Phase E	119	117	117	122	122	121	121	121	121	114	114	114
Construction activities in Phase E	57	56	56	61	61	59	59	59	60	52	52	52
Total SWL of each month in Phase F	119	119	119	122	122	122	122	121	121	121	121	121
Construction activities in Phase F	63	63	63	67	67	67	67	65	66	66	66	66
Operation of haul road	64	64	64	64	64	0	0	0	0	0	0	0
Total SPL, dB(A)	70	70	69	71	71	70	70	69	69	69	69	69

Construction Element	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C	119	119	119	119								
Construction activities in Phase C	61	61	61	61	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D	119	119	119	119								
Construction activities in Phase D	63	63	63	63	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E	114	120	119	119	119	119	119	119	119	119	119	
Construction activities in Phase E	52	59	58	58	58	58	58	58	58	58	58	0
Total SWL of each month in Phase F	121	120	120	120	120	119	119	119	119	119	119	119
Construction activities in Phase F	58	65	65	65	65	64	64	64	64	64	64	64
Operation of haul road	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)	69	69	68	68	66	65	65	65	65	65	65	64

Construction Element	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C												
Construction activities in Phase C	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D												
Construction activities in Phase D	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												
Construction activities in Phase E	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												
Construction activities in Phase F	64	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)	64	-	-	-	-	-	-	-	-	-	-	-

Construction Element	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Total SWL of each month in Phase A												
Construction activites in Phase A	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase B												
Construction activites in Phase B	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase C												
Construction activities in Phase C	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase D												
Construction activities in Phase D	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase E												
Construction activities in Phase E	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL of each month in Phase F												
Construction activities in Phase F	0	0	0	0	0	0	0	0	0	0	0	0
Operation of haul road	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Mitigated Scenario)

Works Type 1 - Construction of Cycle Tracks, Fill Slopes, Retaining Wall and Structures

Stage 1 - Site Clearence

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Sub-group A Total SWL dB(A)	Sub-group B Total SWL dB(A)	Sub-group C Total SWL dB(A)	Sub-group D Total SWL dB(A)
Mini excavator	[Note 1]	1	94	100%	Movable Barrier*	5	89			
Mobrile crane	BS C7/114	1	99	100%	Movable Barrier*	5		94		
Dump truck	BS C9/39	1	103	50%	Movable Barrier*	5			95	
Handheld breaker	BS C7/75	1	105	100%	Movable Barrier*	10				95
						Total	**89**	**94**	**95**	**95**
						Max	**95**			

Stage 2 - Levelling/Excavation works

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Sub-group A Total SWL dB(A)	Sub-group B Total SWL dB(A)	Sub-group C Total SWL dB(A)
Road ripper, excavator mounted	[Note 1]	1	105	100%	Movable Barrier*	10	95		
Dump truck	BS C9/39	1	103	50%	Movable Barrier*	5		95	
Mini excavator	[Note 1]	1	94	100%	Movable Barrier*	5			89
						Total	**95**	**95**	**89**
						Max	**95**		

Stage 3 - Construction / Paving works

Group 2 - paving works

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Sub-group A Total SWL dB(A)	Sub-group B Total SWL dB(A)	Sub-group C Total SWL dB(A)	Sub-group D Total SWL dB(A)	Sub-group E Total SWL dB(A)
Asphalt paver	BS C8/24	1	101	100%	Movable Barrier*	5	96				
Mini excavator	[Note 1]	1	94	50%	Movable Barrier*	5		86			
Lorry	BS C8/25	1	101	100%	Movable Barrier*	5			96		
Road roller	BS C8/30	1	101	100%	Movable Barrier*	5				96	
Air compressor, air flow>10m3 and <= 30	CNP 002	1	102	50%	Movable Barrier*	10					89
Compactor, vibratory	CNP 050	1	105	50%	Movable Barrier*	10					92
						Total	**96**	**86**	**96**	**96**	**94**
						Max	**96**				

Remark:

Note 1 - SWL refer to the other PME documented by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

* With reference to paragraph 4.5 of EIAO Guidance Note No. 9/2004, movable noise barrier would achieve a noise reduction of 5dB(A) and 10 dB(A) for movable plant and stationary plant respectively, while the use of

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Construction Noise from Cycle Tracks and the Associated Supporting Facilitiesfrom Sha Po Tsuen to Shek Sheung River

NSR: MP2 - Mai Po San Tsuen Village House

Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
				Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River																																																																		
Stage 1 - Site Clearance^	95	12	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stage 2 - Levelling / Excavation works^	95	12	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stage 3 - Construction / Paving works^	96	12	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)				69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NSR: MP3 - No. 166 Mai Po San Tsuen

Construction Element	SWL	Dist[1]	SPL	2009	2010												2011												2012												2013												2014											
				Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River																																																																		
Stage 1 - Site Clearance^	95	40	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stage 2 - Levelling / Excavation works^	95	40	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stage 3 - Construction / Paving works^	96	40	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)				59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^ The various stages involved for each work type will not be undertaken concurrently.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project, Comprehensive Development of Wo Shang Wai, Yuen Long and Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River

NSR: MP2 - Mai Po San Tsuen Village House

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area A: Mai Po Ventilation Building (MPV)																																																																					
1	Possession of site	107	65	66	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall	114	114	68	0	0	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft	111	188	60	0	0	0	0	0	0	0	0	60	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	188	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	103	188	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	111	188	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	103	160	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54	54	54	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	15	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	30	56	0	0	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)				-	66	68	68	68	68	68	68	69	61	61	61	61	61	63	59	59	60	58	58	63	63	62	62	62	62	62	62	62	62	62	63	63	63	63	63	63	63	58	58	70	70	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo Shang Wai, Yuen Long																																																																					
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	65	65	66	66	66	66	66	66	69	69	69	68	67	67	66	68	68	67	68	67	67	67	67	67	63	67	66	66	65	64	64	64	64	64	64	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)				-	69	70	70	70	70	70	70	71	69	69	69	69	68	68	67	69	69	68	68	68	69	68	68	68	66	68	68	68	67	66	66	66	66	66	66	66	66	58	58	70	70	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River																																																																					
	Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River*	-	-	-	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CTSF, dB(A)				69	71	72	72	72	72	72	72	72	70	70	70	70	70	70	69	69	70	69	69	70	70	70	70	70	70	70	70	70	62	62	63	63	63	63	63	63	63	58	58	70	70	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total SPL of MPV, CDWSW and CTSF, dB(A)				69	72	73	73	73	73	73	73	73	72	72	72	72	72	72	71	72	72	71	72	72	72	72	72	72	71	71	71	71	67	66	66	66	66	66	66	66	66	58	58	70	70	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.

2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project, Comprehensive Development of Wo Shang Wai, Yuen Long and Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River

NSR: MP3 - No. 166 Mai Po San Tsuen

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area A: Mai Po Ventilation Building (MPV)																																																																			
1	Possession of site	107	126	60	0	60	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall	114	132	67	0	0	67	67	67	67	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft	111	170	61	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	170	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	57	57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	103	170	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	111	170	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	103	145	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	55	55	55	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	123	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	51	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	105	51	0	0	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)				-	60	67	67	67	67	67	67	68	61	61	61	61	61	63	58	58	59	56	56	63	63	62	62	62	62	62	62	62	62	62	63	63	63	63	63	63	63	56	56	54	54	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo Shang Wai, Yuen Long																																																																		
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	66	66	67	67	67	67	67	67	69	69	69	71	70	69	69	70	70	70	70	69	69	69	68	68	67	68	68	68	63	63	63	63	63	63	63	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)				-	67	70	70	70	70	70	70	71	70	70	70	71	71	70	69	70	70	70	70	70	70	70	69	69	68	69	69	69	66	66	66	66	66	66	66	65	65	56	56	54	54	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River																																																																		
	Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River*	-	-	-	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CTSF, dB(A)				59	63	68	68	68	68	68	68	69	63	63	63	63	63	64	61	61	62	61	61	64	64	64	64	64	64	64	64	64	62	62	63	63	63	63	63	63	63	56	56	54	54	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total SPL of MPV, CDWSW and CTSF, dB(A)				59	68	70	70	70	70	70	70	71	70	70	70	72	71	70	70	71	71	70	70	70	70	70	69	69	69	69	69	69	66	66	66	66	66	66	66	65	65	56	56	54	54	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Comprehensive Development of Wo Shang Wai, Yuen Long

NSR: MP6 - Planned Village House at Village Zone

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area A: Mai Po Ventilation Building (MPV)																																																																					
1	Possession of site	107	33	72	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	114	58	74	0	0	74	74	74	74	74	74	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	111	83	68	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	83	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	103	83	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	111	83	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	103	86	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	46	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	16	59	0	0	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)				-	72	74	74	74	74	74	74	74	68	68	68	68	68	70	64	64	66	62	62	69	69	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	62	62	62	62	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo Shang Wai, Yuen Long																																																																					
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	69	69	70	70	70	70	70	70	72	72	72	74	74	73	73	74	74	74	74	73	73	73	72	72	70	72	72	72	68	67	67	67	67	67	67	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)				-	74	75	**76**	**76**	**76**	**76**	**76**	**76**	74	74	74	75	75	75	74	74	75	74	74	74	74	74	74	74	72	74	74	74	71	71	71	71	71	71	71	71	71	62	62	62	62	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	**1**	**1**	**1**	**1**	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.

2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^Construction activities would not be conducted simultaneously, therefore the max SPL among these activities would be used for the calculation of construction noise of that particular month. These actvities include: activity no. 2 and 3 in month 9.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Comprehensive Development of Wo Shang Wai, Yuen Long

NSR: MP7 - House No. 1 Ventura Avenue, Royal Palms

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area A: Mai Po Ventilation Building (MPV)																																																																			
1	Possession of site	107	145	59	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	114	173	64	0	0	64	64	64	64	64	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	111	194	60	0	0	0	0	0	0	0	0	60	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	194	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	103	194	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	52	52	52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	111	194	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	103	182	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	53	53	53	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	225	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	46	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	96	51	0	0	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)				-	59	64	64	64	64	64	64	64	61	61	61	61	61	62	56	56	58	55	55	62	62	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	55	55	52	52	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo																																																																			
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	69	69	71	71	71	71	71	71	73	73	73	73	73	72	71	72	72	72	73	72	72	72	71	71	70	71	71	71	67	66	66	66	66	66	66	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)				-	69	70	72	72	72	72	72	72	73	73	73	73	73	72	71	72	72	72	73	72	72	72	71	71	71	71	71	71	68	67	67	67	67	67	67	66	66	55	55	52	52	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.

2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^Construction activities would not be conducted simultaneously, therefore the max SPL among these activities would be used for the calculation of construction noise of that particular month. These actvities include: activity no. 2 and 3 in month 9.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Comprehensive Development of Wo Shang Wai, Yuen Long

NSR: MP8 - House 20 Ventura Avenue, Royal Palms

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25
Works Area A: Mai Po Ventilation Building (MPV)																													
1	Possession of site	107	134	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	114	140	66	0	0	66	66	66	66	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	111	177	61	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	177	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	56	56	0	0	0	0	0	0	0
5	TBM Erection	103	177	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	0	0	0
6	TBM Driving	111	177	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61
7	Ventilation building construction	103	152	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	174	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	87	51	0	0	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
	Total SPL of MPV , dB(A)				-	60	66	66	66	66	66	66	66	61	61	61	61	61	63	57	57	59	55	55	62	62	61	61	61
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo																													
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	67	67	69	69	69	68	68	68	71	71	71	71	70	70	68	70	70	69	71	70	70	69	69	69
	Total SPL of MPV and CDWSW, dB(A)				-	68	70	71	71	71	70	70	70	71	71	71	71	71	71	68	70	70	69	71	71	71	70	70	70
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area A: Mai Po Ventilation Building (MPV)																																					
1	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	61	61	61	61	61	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	0	0	0	0	0	0	54	54	54	54	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	48	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)	61	61	61	61	61	61	62	62	62	62	62	62	62	56	56	53	53	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo																																					
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	68	69	69	69	65	64	64	64	64	64	64	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)	69	70	70	70	67	66	66	66	66	66	66	65	65	56	56	53	53	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.

2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^Construction activities would not be conducted simultaneously, therefore the max SPL among these activities would be used for the calculation of construction noise of that particular month. These actvities include: activity no. 2 and 3 in month 9.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Comprehensive Development of Wo Shang Wai, Yuen Long

NSR: MP9 - House 15 Santa Monica Avenue, Royal Palms

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25
Works Area A: Mai Po Ventilation Building (MPV)																													
1	Possession of site	107	137	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	114	124	67	0	0	67	67	67	67	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	111	183	61	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	183	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	56	56	0	0	0	0	0	0	0
5	TBM Erection	103	183	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	0	0	0
6	TBM Driving	111	183	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61
7	Ventilation building construction	103	149	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	158	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	90	51	0	0	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
	Total SPL of MPV , dB(A)				-	60	67	67	67	67	67	67	67	61	61	61	61	61	63	57	57	59	55	55	62	62	61	61	61
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo Shang Wai, Yuen Long																													
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	66	66	68	68	68	67	67	67	70	70	70	70	69	69	66	68	68	67	69	68	69	68	67	67
	Total SPL of MPV and CDWSW, dB(A)				-	67	70	71	71	71	70	70	70	71	71	71	71	70	70	67	68	68	67	69	69	70	69	68	68
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area A: Mai Po Ventilation Building (MPV)																																					
1	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	61	61	61	61	61	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	0	0	0	0	0	0	55	55	55	55	55	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)	61	61	61	61	61	61	62	62	62	62	62	62	62	57	57	53	53	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo Shang Wai, Yuen Long																																					
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	66	68	68	68	63	63	63	63	63	63	63	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)	67	69	69	69	65	65	66	66	66	66	66	64	64	57	57	53	53	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.

2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^Construction activities would not be conducted simultaneously, therefore the max SPL among these activities would be used for the calculation of construction noise of that particular month. These actvities include: activity no. 2 and 3 in month 9.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Comprehensive Development of Wo Shang Wai, Yuen Long

NSR: MP10 - Planned Receiver at Village Zone

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area A: Mai Po Ventilation Building (MPV)																																																																			
1	Possession of site	107	78	65	0	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	114	65	73	0	0	73	73	73	73	73	73	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	111	133	63	0	0	0	0	0	0	0	0	63	63	63	63	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	133	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	103	133	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	56	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	111	133	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	103	96	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	8	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	75	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	8	62	0	0	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)				-	65	73	73	73	73	73	73	73	65	65	65	65	65	66	64	64	64	63	63	66	66	66	66	66	66	66	66	66	66	66	67	67	67	67	67	67	67	63	63	75	75	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo Shang Wai, Yuen Long																																																																			
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	67	67	68	68	68	68	68	68	70	70	70	71	70	70	69	71	71	70	70	69	69	69	69	69	66	69	68	68	66	65	65	65	65	65	65	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)				-	69	74	74	74	74	74	74	74	71	71	71	72	71	72	70	72	72	71	71	71	71	71	71	71	69	71	70	70	69	69	69	69	69	69	69	69	69	63	63	75	75	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.

2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^Construction activities would not be conducted simultaneously, therefore the max SPL among these activities would be used for the calculation of construction noise of that particular month. These actvities include: activity no. 2 and 3 in month 9.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Further Mitigated Scenario - With Noise Enclosure for Bentonite Plant)

Works Area A: Mai Po Ventilation Building

1 **Possession of site**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time MP	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Excavator	BS C3/97	1	105	75%			104			
Breaker, mini-robot mounted	BS C2/10	1	110	30%			105			
Mobile Crane	BS C7/114	1	101	30%				96		
Dump Truck	BS C9/39	4	103	30%				104		
Concrete Lorry Mixer	BS C6/23	2	100	30%					98	
Vibratory Poker	OCNP 024	2	94	50%					94	
Air compressor, air flow >30mm3/min	CNP 003	2	104	50%	Enclosure/Shed*	15			89	
Handheld breaker	CNP 024	2	108	30%					106	
Generator, silenced	CNP 102	1	100	75%					99	
Roller compactor	BS C8/30	1	101	50%						98
						Total	**107**	**104**	**107**	**98**
						Max	**107**			

2 **Diaphragm Wall**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Hydraulic extractor	CNP 163	2	90	75%			92				
Tracked cranes with Grab	BS C7, 105	10	108	30%			113				
Bentonite Plant	CNP 162	2	105	75%	Enclosure/Shed*	10	97				
Pump, submersible	CNP 283	4	85	100%			91	91	91	91	
Air compressor, air flow >30mm3/min	CNP 003	2	104	75%	Enclosure/Shed*	15		91			
Dump Truck	BS C9/39	6	103	30%					106		
Concrete Lorry Mixer	BS C6/23	6	100	30%						103	
Drilling Rigs	OCNP 014	2	110	75%	Fabric#	10					102
Desilting Plant	CNP 283	1	85	75%							84
						Total	**113**	**94**	**106**	**103**	**102**
						Max	**113**				

3 **Bulk Excavation/Fill - Soft**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Tracked cranes	BS C7, 105	4	108	30%				109	
Excavator	BS C3/97	6	105	75%	Underground Plant	5		107	
Ventilation fans	CNP 241	2	108	100%	Silencer	15	96	96	96
Mobile generator	CNP 103	2	95	75%			97		
Dump Truck	BS C9/39	12	103	30%					109
Air compressor, air flow >30mm3/min	CNP 003	2	104	50%	Enclosure/Shed*	15	89		
Mobile crane	BS C7/114	4	101	30%			102		
						Total	**104**	**111**	**109**
						Max	**111**		

4 **Concrete Works**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Tracked cranes	BS C7, 105	2	108	30%				106	
Concrete Lorry Mixer	BS C6/23	6	100	30%			103		
Vibratory poker	OCNP 024	8	94	50%	Underground Plant	5			95
Air compressor, air flow >30mm3/min	CNP 003	2	104	50%	Enclosure/Shed*	15	89		
Concrete pump	OCNP 007	2	109	75%	Enclosure/Shed*	15	96		
Ventilation fans	CNP 241	2	108	100%	Silencer	15	96	96	96
Alimak hoist	BS C7, 97	2	101	20%	Underground Plant	5			92
Mobile generator	CNP 103	1	95	75%			94		94
						Total	**105**	**106**	**100**
						Max	**106**		

Appendix 5.12 Cumulative Construction Noise Calculation

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Further Mitigated Scenario - With Noise Enclosure for Bentonite Plant)

Works Area A: Mai Po Ventilation Building

5 **TBM Erection**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Tracked cranes	BS C7, 105	1	108	20%				101	
Mobile Crane	BS C7/114	2	101	50%			101		
Air compressor, air flow >30mm3/min	CNP 003	2	104	30%	Enclosure/Shed*	15	87	87	87
Ventilation fans	CNP 241	2	108	100%	Silencer	15	96	96	96
Alimak hoist	BS C7, 97	2	101	20%	Underground Plant	10	87	87	87
Welding plant	EIA ref. 1	2	78	75%	Underground Plant	10			70
Articulated truck & flat bed	BS C11, 49	1	102	20%			95		
Mobile generator	CNP 103	1	95	75%	Underground Plant	10			84
						Total	**103**	**102**	**97**
						Max	**103**		

6 **TBM Driving**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)
Ventilation fan	CNP 241	4	108	100%	Silencer	15	99	99
Tower crane	CNP 049	4	95	30%				96
Bentonite Plant	CNP 162	2	105	100%				108
Pump, submersible	CNP 283	6	85	100%			93	93
Excavator	BS C3/97	4	105	50%			108	
Fork lift truck	BS C7, 93	2	104	10%				97
Air compressor, air flow >30mm3/min	CNP 003	2	104	100%	Enclosure/Shed*	15	92	92
Alimak hoist	BS C7, 97	2	101	20%	Underground Plant	10	87	87
Narrow gauge trains	EIA ref. 2	4	105	10%	Underground Plant	10		91
Dump Truck	BS C9/39	10	103	30%			108	
Desilting Plant	CNP 283	1	85	100%			85	85
						Total	**111**	**109**
						Max	**111**	

7 **Ventilation building construction**

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Tower crane	CNP 049	1	95	50%			92			
Mobile crane	BS C7/114	1	101	20%				94		
Concrete pump	OCNP 007	2	109	75%	Enclosure/Shed*	15			96	
Vibratory poker	OCNP 024	4	94	50%						97
Generator, silenced	CNP 102	2	100	50%					100	100
Concrete Lorry Mixer	BS C6/23	2	100	30%					98	
						Total	**92**	**94**	**103**	**102**
						Max	**103**			

8 **Access road construction**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Barrier Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Mini Backhoe	OCNP 015	1	94	75%	Movable Barrier*	5			88		
Breaker, mini-robot mounted	BS C2/10	1	110	30%	Movable Barrier*	10				95	
Dump Truck	BS C9/39	1	103	30%					98		
Concrete Lorry Mixer	BS C6/23	1	100	30%				95			
Vibratory Poker	OCNP 024	1	94	50%	Movable Barrier*	5					86
Air compressor, air flow <=10m3/min	CNP 001	1	100	75%	Enclosure/Shed*	15	84				
Handheld breaker	CNP 024	1	108	30%	Movable Barrier*	5	98				
Generator, silenced	CNP 102	1	100	75%							99
						Total	**98**	**95**	**98**	**95**	**95**
						Max	**98**				

9 **Operation of access road**

Powered Mechanical Equipment (PME)	TM Ref./ BS/ other Ref.(1)	No. of Items	SWL/Item dB(A)
Dump Truck	BS C9/39	24	103

Remark:

(1) EIA Ref. 1 - SWL of Welding Plant refer to the approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002).
EIA Ref. 2 - SWL of narrow gauge trains refer to approved EIA Report of Drainage Improvement in Northern Hong Kong Island - Hong Kong West Drainage Tunnel (AEIAR-
EIA Ref. 3 - The SWL of rock crusher refer to approved EIA Report of Planning and Engineering Feasibility Study for Development at Anderson Road (AEIAR-007/1999)
BS - British Standard BS5228:1997, Part 1 Noise and Vibration Control on Construction and Open Sites
OCNP - SWL refer to the other PME documented by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

* With reference to paragraph 4.5 of EIAO Guidance Note No. 9/2004, movable noise barrier would achieve a noise reduction of 5dB(A) and 10 dB(A) for movable plant and stationary plant respectively, while the use of enclosure/shed would achieve 15 dB(A) n

With reference to MTRC Contract C4420 Tsim Sha Tsui Modification Noise Assessment Report for Variation of Environmental Permit, July 2003, noise reduction of 10dB(A) would be achieved with the use of noise insulating fabric.

^ According to Table B.1 of BS 5228: Part 1: 1997, rock drill in portable or fixed acoustic enclosure with suitable ventilation could achieve a noise reduction of 20dB(A).

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project (with further mitigation measures - noise enclosure for bentonite plant) and Comprehensive Development of Wo Shang Wai, Yuen Long

NSR: MP6 - Planned Village House at Village Zone

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area A: Mai Po Ventilation Building (MPV)																																																																			
1	Possession of site	107	33	72	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Diaphragm Wall^	113	58	73	0	0	73	73	73	73	73	73	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bulk Excavation/Fill - Soft^	111	83	68	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Concrete Works	106	83	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TBM Erection	103	83	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TBM Driving	111	83	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Ventilation building construction	103	86	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Access road construction	98	46	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Operation of access road	103	16	59	0	0	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV , dB(A)				-	72	73	73	73	73	73	73	73	68	68	68	68	68	70	64	64	66	62	62	69	69	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	62	62	62	62	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proposed Comprehensive Development at Wo Shang Wai, Yuen Long																																																																			
	Construction of proposed comprehensive development at Wo Shang Wai, Yuen Long*	-	-	-	0	69	69	70	70	70	70	70	70	72	72	72	74	74	73	73	74	74	74	74	73	73	73	72	72	70	72	72	72	68	67	67	67	67	67	67	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of MPV and CDWSW, dB(A)				-	74	75	75	75	75	75	75	75	74	74	74	75	75	75	74	74	75	74	74	74	74	74	74	74	72	74	74	74	71	71	71	71	71	71	71	71	71	62	62	62	62	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.

2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^Construction activities would not be conducted simultaneously, therefore the max SPL among these activities would be used for the calculation of construction noise of that particular month. These actvities include: activity no. 2 and 3 in month 9.

* Calculation of total sound pressure levels at the NSR from the construction activities involved in the corresponding project is conducted separately.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Mitigated Scenario)

Works Area: Zone 2

1 Earthworks - Pipepile Wall

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Breaker, mini-robot mounted #	CNP 189	2	97	60%			98				
Piling, diaphragm wall, bentonite filter plant	CNP 162	2	105	60%	Acoustic Mat	5				101	
Dump Truck #	BS C9/39	1	103	30%			98	98	98		
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5			98		
Pump, submersible	CNP 283	1	85	60%			83	83	83	83	83
Bulldozer #	BS C9/2	1	104	60%							102
Tracked Crane #	BS C7/106	1	99	60%				97			
						Total	**101**	**100**	**101**	**101**	**102**
						Max	102				

2 Earthworks - Diaphragm Wall

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Breaker, mini-robot mounted #	CNP 189	2	97	60%			98				
Piling, diaphragm wall, bentonite filter plant	CNP 162	2	105	60%	Acoustic Mat	5			101		
Dump Truck #	BS C9/39	1	103	30%			98	98	98		
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5	98				
Air compressor	CNP 002	1	102	50%			99	99	99	99	99
Hydraulic Extractor	CNP 163	1	90	75%					89		
Pump, submersible	CNP 283	1	85	60%			83	83	83	83	83
Bulldozer #	BS C9/2	1	104	60%							102
Tracked Crane #	BS C7/106	1	99	60%				97			
Crawler Crane #	BS C7/106	1	99	60%				97			
						Total	**104**	**104**	**104**	**99**	**104**
						Max	104				

3 Concreting works

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98	
Vibratory poker #	CNP 173	1	102	60%			100		
Generator #	CNP 103	1	95	60%			93		
Pump, submersible	CNP 283	1	85	60%			83		
Chipper, hand-held (pneumatic) #	BS C6/46	1	103	60%			101		
Dump truck #	BS C9/39	1	103	30%					98
						Total	**104**	**98**	**98**
						Max	104		

4 Pavement Contruction

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)
Vibratory roller #	BS C8/30	1	101	60%			99	
Vibratory poker #	CNP 173	1	102	60%			100	
Dump truck #	BS C9/39	1	103	30%			98	
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5	98	
Asphalt paver #	BS C8/24	1	101	60%				99
Road roller	CNP 185	1	108	60%				106
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98
						Total	**105**	**107**
						Max	107	

Remark:

- Quiet PME

BS - British Standard BS5228:1997, Part 1 Noise and Vibration Control on Construction and Open Sites

Appendix 5.12 Cumulative Construction Noise Calculation

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Mitigated Scenario)

Works Area: Zone 3

5 Earthworks - Pipepile Wall

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Breaker, mini-robot mounted #	CNP 189	2	97	60%			98				
Piling, diaphragm wall, bentonite filter plant	CNP 162	2	105	60%	Acoustic Mat	5				101	
Dump Truck #	BS C9/39	1	103	30%			98	98	98		
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5			98		
Pump, submersible	CNP 283	1	85	60%			83	83	83	83	83
Bulldozer #	BS C9/2	1	104	60%							102
Tracked Crane #	BS C7/106	1	99	60%				97			
						Total	**101**	**100**	**101**	**101**	**102**
						Max	102				

6 Concreting works

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98	
Vibratory poker #	CNP 173	1	102	60%			100		
Generator #	CNP 103	1	95	60%			93		
Pump, submersible	CNP 283	1	85	60%			83		
Chipper, hand-held (pneumatic) #	BS C6/46	1	103	60%			101		
Dump truck #	BS C9/39	1	103	30%					98
						Total	**104**	**98**	**98**
						Max	104		

7 Pavement Contruction

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)
Vibratory roller #	BS C8/30	1	101	60%			99	
Vibratory poker #	CNP 173	1	102	60%			100	
Dump truck #	BS C9/39	1	103	30%			98	
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5	98	
Asphalt paver #	BS C8/24	1	101	60%				99
Road roller	CNP 185	1	108	60%				106
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98
						Total	**105**	**107**
						Max	107	

Remark:

- Quiet PME

BS - British Standard BS5228:1997, Part 1 Noise and Vibration Control on Construction and Open Sites

Appendix 5.12 Cumulative Construction Noise Calculation

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Mitigated Scenario)

Works Area: Zone 4

8 Earthworks - Pipepile Wall

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Breaker, mini-robot mounted #	CNP 189	2	97	60%			98				
Piling, diaphragm wall, bentonite filter plant	CNP 162	2	105	60%	Acoustic Mat	5				101	
Dump Truck #	BS C9/39	1	103	30%			98	98	98		
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5			98		
Pump, submersible	CNP 283	1	85	60%			83	83	83	83	83
Bulldozer #	BS C9/2	1	104	60%							102
Tracked Crane #	BS C7/106	1	99	60%				97			
						Total	**101**	**100**	**101**	**101**	**102**
						Max	102				

9 Concreting works

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98	
Vibratory poker #	CNP 173	1	102	60%			100		
Generator #	CNP 103	1	95	60%			93		
Pump, submersible	CNP 283	1	85	60%			83		
Chipper, hand-held (pneumatic) #	BS C6/46	1	103	60%			101		
Dump truck #	BS C9/39	1	103	30%					98
						Total	**104**	**98**	**98**
						Max	104		

10 Pavement Contruction

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)
Vibratory roller #	BS C8/30	1	101	60%			99	
Vibratory poker #	CNP 173	1	102	60%			100	
Dump truck #	BS C9/39	1	103	30%			98	
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5	98	
Asphalt paver #	BS C8/24	1	101	60%				99
Road roller	CNP 185	1	108	60%				106
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98
						Total	**105**	**107**
						Max	107	

Remark:

- Quiet PME

BS - British Standard BS5228:1997, Part 1 Noise and Vibration Control on Construction and Open Sites

Appendix 5.12 Cumulative Construction Noise Calculation

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Mitigated Scenario)

Works Area: Zone 5

11 Concreting works

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)	Total SWL dB(A)
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98	
Vibratory poker #	CNP 173	1	102	60%			100		
Generator #	CNP 103	1	95	60%			93		
Pump, submersible	CNP 283	1	85	60%			83		
Chipper, hand-held (pneumatic) #	BS C6/46	1	103	60%			101		
Dump truck #	BS C9/39	1	103	30%					98
						Total	**104**	**98**	**98**
						Max	104		

12 Pavement Contruction

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. of Items	SWL/Item dB(A)	On-time %	Noise Mitigation Measure	Noise Reduction	Total SWL dB(A)	Total SWL dB(A)
Vibratory roller #	BS C8/30	1	101	60%			99	
Vibratory poker #	CNP 173	1	102	60%			100	
Dump truck #	BS C9/39	1	103	30%			98	
Excavator #	BS C3/97	1	105	60%	Movable Barrier	5	98	
Asphalt paver #	BS C8/24	1	101	60%				99
Road roller	CNP 185	1	108	60%				106
Concrete Lorry Mixer #	BS C6/23	1	100	60%				98
						Total	**105**	**107**
						Max	107	

Remark:

- Quiet PME

BS - British Standard BS5228:1997, Part 1 Noise and Vibration Control on Construction and Open Sites

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Construction Noise from Road Works at West Kowloon

NSR : WK 3 - Man King Building

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area: Zone 2																																																																			
1	Earthworks - Pipepile Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 3																																																																			
5	Earthworks - Pipepile Wall	102	187	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	51	51	51	51	51	51	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Concreting works	104	118	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	0	0	0	0	0	0	0	0
7	Pavement Contruction	107	118	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	61	61	61	61	61	61	0	0	0
Works Area: Zone 4																																																																			
8	Earthworks - Pipepile Wall	102	175	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	52	52	52	52	52	52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	104	32	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	0	0	0
10	Pavement Contruction	107	32	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	72	72	72	72	72	72	72	72	72	72	72	72	0	0	0
Works Area: Zone 5																																																																			
11	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Total SPL, dB(A)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	55	55	55	55	55	55	55	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	74	74	74	74	74	74	74	72	72	72	72	72	-	-	-
				Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR.
The NSR is considered to be totally screened.
According to GW-TM, a noise reduction of 10

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Construction Noise from Road Works at West Kowloon

NSR : WK4 - Sorrento

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	Dec 2009 (1)	Jan 2010 (2)	Feb 2010 (3)	Mar 2010 (4)	Apr 2010 (5)	May 2010 (6)	Jun 2010 (7)	Jul 2010 (8)	Aug 2010 (9)	Sep 2010 (10)	Oct 2010 (11)	Nov 2010 (12)	Dec 2010 (13)	Jan 2011 (14)	Feb 2011 (15)	Mar 2011 (16)	Apr 2011 (17)	May 2011 (18)	Jun 2011 (19)	Jul 2011 (20)
Works Area: Zone 2																								
1	Earthworks - Pipepile Wall	102	171	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	104	224	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Concreting works	104	224	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Pavement Contruction	107	224	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 3																								
5	Earthworks - Pipepile Wall	102	34	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Concreting works	104	67	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Pavement Contruction	107	67	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 4																								
8	Earthworks - Pipepile Wall	102	54	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	104	103	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Pavement Contruction	107	103	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 5																								
11	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL, dB(A)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	Aug 2011 (21)	Sep 2011 (22)	Oct 2011 (23)	Nov 2011 (24)	Dec 2011 (25)	Jan 2012 (26)	Feb 2012 (27)	Mar 2012 (28)	Apr 2012 (29)	May 2012 (30)	Jun 2012 (31)	Jul 2012 (32)	Aug 2012 (33)	Sep 2012 (34)	Oct 2012 (35)	Nov 2012 (36)	Dec 2012 (37)	Jan 2013 (38)	Feb 2013 (39)	Mar 2013 (40)
Works Area: Zone 2																					
1	Earthworks - Pipepile Wall	52	52	52	52	52	52	52	52	0	0	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	52	52	52	52	52	52	52	52	0	0	0	0	0	0	0	0	0	0	0	0
3	Concreting works	0	0	0	0	0	0	0	0	52	52	52	52	52	52	52	52	52	52	52	52
4	Pavement Contruction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 3																					
5	Earthworks - Pipepile Wall	66	66	66	66	66	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0
6	Concreting works	0	0	0	0	0	0	0	0	62	62	62	62	62	62	62	62	62	62	62	62
7	Pavement Contruction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 4																					
8	Earthworks - Pipepile Wall	62	62	62	62	62	62	62	62	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	0	0	0	0	0	0	0	0	58	58	58	58	58	58	58	58	58	58	58	58
10	Pavement Contruction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 5																					
11	Concreting works	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL, dB(A)	68	68	68	68	68	68	68	68	64	64	64	64	64	64	64	64	64	64	64	64
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	Apr 2013 (41)	May 2013 (42)	Jun 2013 (43)	Jul 2013 (44)	Aug 2013 (45)	Sep 2013 (46)	Oct 2013 (47)	Nov 2013 (48)	Dec 2013 (49)	Jan 2014 (50)	Feb 2014 (51)	Mar 2014 (52)	Apr 2014 (53)	May 2014 (54)	Jun 2014 (55)	Jul 2014 (56)	Aug 2014 (57)	Sep 2014 (58)	Oct 2014 (59)	Nov 2014 (60)	Dec 2014 (61)
Works Area: Zone 2																						
1	Earthworks - Pipepile Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Concreting works	52	52	52	52	52	52	52	52	52	52	52	52	52	0	0	0	0	0	0	0	0
4	Pavement Contruction	0	0	0	0	0	0	55	55	55	55	55	55	55	55	55	55	55	55	0	0	0
Works Area: Zone 3																						
5	Earthworks - Pipepile Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Concreting works	62	62	62	62	62	62	62	62	62	62	62	62	62	0	0	0	0	0	0	0	0
7	Pavement Contruction	0	0	0	0	0	0	66	66	66	66	66	66	66	66	66	66	66	66	0	0	0
Works Area: Zone 4																						
8	Earthworks - Pipepile Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	58	58	58	58	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0
10	Pavement Contruction	0	0	0	0	0	0	62	62	62	62	62	62	62	62	62	62	62	62	0	0	0
Works Area: Zone 5																						
11	Concreting works	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL, dB(A)	64	64	64	64	64	64	69	69	69	69	69	69	69	68	68	68	68	68	-	-	-
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Construction Noise from Road Works at West Kowloon

NSR : WK7a - Tsim Sha Tsui Fire Station

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25
Works Area: Zone 2																													
1	Earthworks - Pipepile Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Concreting works	104	151	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Pavement Contruction	107	151	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 3																													
5	Earthworks - Pipepile Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 4																													
8	Earthworks - Pipepile Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 5																													
11	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL, dB(A)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area: Zone 2																																				
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	59	59	59	59	59	59	59	59	59	59	59	0	0	0
Works Area: Zone 3																																				
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 4																																				
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 5																																				
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL, dB(A)	-	-	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	60	60	60	60	60	60	60	59	59	59	59	59	-	-	-
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Construction Noise from Road Works at West Kowloon

NSR : WK8 - Waterfront

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Works Area: Zone 2																																									
1	Earthworks - Pipepile Wall	102	26	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	104	189	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54	54	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0
3	Concreting works	104	51	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65	65	65	65	65	65	65	65
4	Pavement Contruction	107	51	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 3																																									
5	Earthworks - Pipepile Wall	102	44	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	64	64	64	64	64	64	64	64	0	0	0	0	0	0	0	0	0
6	Concreting works	104	107	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	58	58	58	58
7	Pavement Contruction	107	107	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 4																																									
8	Earthworks - Pipepile Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 5																																									
11	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL, dB(A)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	70	70	70	70	70	70	70	66	66	66	66	66	66	66	66	66
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	2013												2014											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area: Zone 2																									
1	Earthworks - Pipepile Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Concreting works	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	0	0	0	0	0	0	0	0
4	Pavement Contruction	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	68	68	68	68	68	0	0	0
Works Area: Zone 3																									
5	Earthworks - Pipepile Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Concreting works	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0
7	Pavement Contruction	0	0	0	0	0	0	0	0	0	62	62	62	62	62	62	62	62	62	62	62	62	0	0	0
Works Area: Zone 4																									
8	Earthworks - Pipepile Wall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Pavement Contruction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 5																									
11	Concreting works	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL, dB(A)	66	66	66	66	66	66	66	66	66	71	71	71	71	71	71	71	69	69	69	69	69	-	-	-
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Construction Noise from Road Works at West Kowloon

NSR : WK14 - Moon Tower, The Arch

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area: Zone 2																																																																			
1	Earthworks - Pipepile Wall	102	37	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65	65	65	65	65	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Earthworks - Diaphragm Wall	104	101	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	59	59	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Concreting works	104	54	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	0	0	0	0	0	0	0
4	Pavement Contruction	107	54	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	68	68	68	68	68	68	0	0
Works Area: Zone 3																																																																		
5	Earthworks - Pipepile Wall	102	142	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54	54	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Concreting works	104	194	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	0	0	0	0	0	0	0
7	Pavement Contruction	107	194	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	56	56	56	56	56	56	56	56	56	56	56	0	0
Works Area: Zone 4																																																																		
8	Earthworks - Pipepile Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area: Zone 5																																																																		
11	Concreting works	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Pavement Contruction	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL, dB(A)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	66	66	66	66	66	66	66	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	70	70	70	70	70	70	68	68	68	68	68	-	-	-
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Road Works at West Kowloon

NSR: WK3 - Man King Building, 46-48 Man Ying Street

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010												2011												2012												2013												2014											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area U: Hoi Ting Road Works Area																																																																	
130	Possession of site	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	101	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area																																																																	
132	Possession of site	111	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	112	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1																																																																	
139	Possession of site	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	Foundation Works	113	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	Bulk Excavation - soft	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	Bulk Excavation - hard	113	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Concrete Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Top Down Excavation - Hard	117	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	108	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	Concrete Batching Plant - Demolition	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2																																																																	
152	Possession of site	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	109	297	55	0	0	0	55	55	55	55	55	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	Foundation Works	115	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	Bulk Excavation - soft	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	Concrete Works	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	Top Down Excavation - Soft	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	103	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	Top Down Excavation - Hard	113	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	ABWF Works for WKT building	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT-Zone 3																																																																	
162	Possession of site	110	158	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	109	92	65	0	0	0	65	65	65	65	65	65	65	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	114	161	64	0	0	0	64	64	64	64	64	64	64	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	108	161	58	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	114	161	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65	65	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	109	161	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	113	161	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	0	64	0	64	0	64	0	64	64	0	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	103	161	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	0	54	0	54	0	54	0	0	54	0	54	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	114	161	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	109	161	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	60	60	60
172	ABWF Works for WKT building	106	164	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	0
Works Area V: C&C Tunnel Zone 4																																																																	
173	Diaphragm Wall	110	55	70	0	0	0	0	0	0	0	0	70	70	70	70	70	70	70	70	0	0	70	70	70	70	70	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	112	92	67	0	0	0	0	0	0	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	109	92	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	114	92	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	105	92	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	0	0	0
178	ABWF Works for PTI and CLP substation	106	74	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	0	0	0
179	Backfilling Works	109	92	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65	65	65	65	65	65	65	65	65	65	65	65	0	0	0
Works Area V: C&C Tunnel Zone 5																																																																	
180	Diaphragm Wall	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	103	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling																																																																	
184	Barging and Stockpiling	116	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of the Project, dB(A)				61	61	61	68	68	68	70	70	73	73	73	73	72	72	72	72	68	68	72	73	73	73	73	73	72	72	72	72	67	67	67	68	67	68	67	68	67	71	71	71	71	71	68	66	68	68	68	68	68	68	68	68	68	69	69	69	69	69	61	61	60
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon																																																																	
	Construction of Road Works at West Kowloon	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	55	55	55	55	55	55	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	74	74	74	74	74	74	74	72	72	72	72	72	0	0	0
	Total SPL of the Project and Road Works, dB(A)				61	61	61	68	68	68	70	70	73	73	73	73	72	72	72	72	68	68	72	73	73	73	73	73	72	72	72	72	71	71	71	72	71	72	71	72	71	73	73	73	73	73	72	71	72	72	75	75	75	75	75	75	75	74	74	74	74	74	61	61	60
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the ‘Technical Memorandum on Noise from Construction Work other than Percussive Piling’ by EPD.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Road Works at West Kowloon

NSR: WK4 -Tower 6, Sorrento

					2009	2010												2011												2012												2013												2014											
Act No.	Construction Element	SWL	Dist[1]	SPL[2]	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
Works Area U: Hoi Ting Road Works Area																																																																	
130	Possession of site	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	101	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area																																																																	
132	Possession of site	111	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	112	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1																																																																	
139	Possession of site	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	Foundation Works	113	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	Bulk Excavation - soft	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	Bulk Excavation - hard	113	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Concrete Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Top Down Excavation - Hard	117	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	108	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	Concrete Batching Plant - Demolition	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2																																																																	
152	Possession of site	110	292	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	109	239	57	0	0	0	57	57	57	57	57	57	57	57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	Foundation Works	115	286	61	0	0	0	61	61	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	Bulk Excavation - soft	109	286	55	0	0	0	0	0	0	0	0	0	0	0	0	55	55	55	55	55	55	55	55	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	Concrete Works	110	286	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	56	56	56	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	Top Down Excavation - Soft	110	286	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56	0	56	0	56	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	103	286	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	0	49	0	49	0	49	0	0	49	0	49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	Top Down Excavation - Hard	113	286	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	59	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	109	286	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	55	55	55	55	55	55
161	ABWF Works for WKT building	106	249	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	0
Works Area V: WKT-Zone 3																																																																	
162	Possession of site	110	81	66	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	109	49	70	0	0	0	70	70	70	70	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	114	84	70	0	0	0	70	70	70	70	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	108	85	64	0	0	0	0	0	0	0	0	0	0	0	0	64	64	64	64	64	64	64	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	114	87	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	109	84	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65	65	65	65	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	113	84	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0	69	0	69	0	69	0	69	69	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	103	84	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	0	59	0	59	0	59	0	0	59	0	59	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	114	84	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	109	84	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	65	65	65	65	65	65	65
172	ABWF Works for WKT building	106	105	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	0
Works Area V: C&C Tunnel Zone 4																																																																	
173	Diaphragm Wall	110	48	71	0	0	0	0	0	0	0	0	71	71	71	71	71	71	71	71	0	0	71	71	71	71	71	71	71	71	71	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	112	75	69	0	0	0	0	0	0	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	109	75	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	114	75	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	71	71	71	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	105	75	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	0	0	0
178	ABWF Works for PTI and CLP substation	106	137	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	0	0	0
179	Backfilling Works	109	75	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	66	66	66	66	66	66	66	66	66	66	66	66	0	0	0
Works Area V: C&C Tunnel Zone 5																																																																	
180	Diaphragm Wall	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	103	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling																																																																	
184	Barging and Stockpiling	116	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL of the Project, dB(A)					66	66	66	73	73	73	75	75	**76**	**76**	**76**	**76**	74	74	74	74	70	70	74	75	75	75	**76**	**76**	73	73	73	73	70	70	70	72	69	72	69	72	69	73	72	73	74	72	70	67	72	69	69	69	69	69	69	69	69	70	70	70	70	70	67	67	65
Exceedance					-	-	-	-	-	-	-	-	**1**	**1**	**1**	**1**	-	-	-	-	-	-	-	-	-	-	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon																																																																	
Construction of Road Works at West Kowloon		-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	68	68	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	69	69	69	69	69	69	69	68	68	68	68	68	0	0	0
Total SPL of the Project and Road Works, dB(A)					66	66	66	73	73	73	75	75	**76**	**76**	**76**	**76**	74	74	74	74	70	70	74	75	**76**	**76**	**76**	**76**	74	74	74	74	71	71	71	72	70	72	70	72	70	74	72	74	74	73	71	69	73	70	72	72	72	72	72	72	72	72	72	72	72	72	67	67	65
Exceedance					-	-	-	-	-	-	-	-	**1**	**1**	**1**	**1**	-	-	-	-	-	-	-	-	**1**	**1**	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

^: Construction activities would not be constructed simultaneously, therefore the max SPL among these activities would be used for the calculation of construction noise of that particular motnh. These activities include: activity no. 165 and 173 in month 21 to 24.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Road Works at West Kowloon

NSR: WK7a - Tsim Sha Tsui Fire Station

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13
Works Area U: Hoi Ting Road Works Area																	
130	Possession of site	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	91	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area																	
132	Possession of site	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	94	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	94	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1																	
139	Possession of site	110	70	68	68	68	68	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	109	70	67	0	0	0	67	67	67	67	67	67	67	0	0	0
141	Foundation Works	113	127	66	0	0	0	66	66	66	66	66	66	66	66	66	0
142	Bulk Excavation - soft	109	127	62	0	0	0	0	0	0	0	0	0	0	0	0	62
143	Bulk Excavation - hard	113	127	66	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Concrete Works	109	127	62	0	0	0	0	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	109	127	62	0	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	102	127	55	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Top Down Excavation - Hard	117	127	70	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	109	127	62	0	0	0	0	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	110	80	67	67	67	67	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	108	80	65	0	0	0	65	65	65	65	65	65	65	65	65	65
151	Concrete Batching Plant - Demolition	106	80	63	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2																	
152	Possession of site	110	266	56	56	56	56	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	109	185	59	0	0	0	59	59	59	59	59	59	59	59	59	0
154	Foundation Works	115	272	62	0	0	0	62	62	62	62	62	62	62	62	62	0
155	Bulk Excavation - soft	109	272	55	0	0	0	0	0	0	0	0	0	0	0	0	55
156	Concrete Works	110	272	56	0	0	0	0	0	0	0	0	0	0	0	0	0
157	Top Down Excavation - Soft	110	272	56	0	0	0	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	103	272	49	0	0	0	0	0	0	0	0	0	0	0	0	0
159	Top Down Excavation - Hard	113	272	59	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	109	272	55	0	0	0	0	0	0	0	0	0	0	0	0	0
161	ABWF Works for WKT building	106	198	55	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT-Zone 3																	
162	Possession of site	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	114	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	108	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	114	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	113	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	103	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	114	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	ABWF Works for WKT building	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4																	
173	Diaphragm Wall	100	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	100	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	ABWF Works for PTI and CLP substation	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	Backfilling Works	101	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5																	
180	Diaphragm Wall	99	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	94	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	101	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling																	
184	Barging and Stockpiling	116	219	64	0	0	0	0	0	0	0	0	0	0	64	64	64
	Total SPL of the Project, dB(A)				71	71	71	72	72	72	72	72	72	72	71	71	69
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon																	
	Construction of Road Works at West Kowloon	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of the Project and Road Works, dB(A)				71	71	71	72	72	72	72	72	72	72	71	71	69
	Exceedance				-	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25
Works Area U: Hoi Ting Road Works Area													
130	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area													
132	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1													
139	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
141	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
142	Bulk Excavation - soft	62	62	62	62	62	62	62	62	62	62	62	0
143	Bulk Excavation - hard	0	0	0	0	0	0	0	0	0	0	66	66
144	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	62
145	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
147	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	65	65	65	65	65	65	65	65	65	65	65	65
151	Concrete Batching Plant - Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2													
152	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
154	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
155	Bulk Excavation - soft	55	55	55	55	55	55	55	55	55	55	55	0
156	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	56
157	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
159	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
161	ABWF Works for WKT building	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT-Zone 3													
162	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
172	ABWF Works for WKT building	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4													
173	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
178	ABWF Works for PTI and CLP substation	0	0	0	0	0	0	0	0	0	0	0	0
179	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5													
180	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling													
184	Barging and Stockpiling	64	64	64	64	64	64	64	64	64	64	64	64
	Total SPL of the Project, dB(A)	69	69	69	69	69	69	69	69	69	69	71	71
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon													
	Construction of Road Works at West Kowloon	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of the Project and Road Works, dB(A)	69	69	69	69	69	69	69	69	69	69	71	71
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37
Works Area U: Hoi Ting Road Works Area													
130	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area													
132	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1													
139	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
141	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
142	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
143	Bulk Excavation - hard	66	66	66	0	0	0	0	0	0	0	0	0
144	Concrete Works	62	62	62	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	0	0	0	62	62	62	62	0	62	0	62	0
146	Top Down Concrete Works	0	0	0	0	0	0	0	55	0	55	0	55
147	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	65	65	65	65	65	65	65	65	65	65	65	65
151	Concrete Batching Plant - Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2													
152	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
154	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
155	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
156	Concrete Works	56	56	56	56	56	56	0	0	0	0	0	0
157	Top Down Excavation - Soft	0	0	0	0	0	0	56	56	0	56	0	56
158	Top Down Concrete Works	0	0	0	0	0	0	0	0	49	0	49	0
159	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
161	ABWF Works for WKT building	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT-Zone 3													
162	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
172	ABWF Works for WKT building	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4													
173	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
178	ABWF Works for PTI and CLP substation	0	0	0	0	0	0	0	0	0	0	0	0
179	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5													
180	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling													
184	Barging and Stockpiling	64	64	64	64	64	64	64	64	64	64	64	64
	Total SPL of the Project, dB(A)	71	71	71	69	69	69	69	68	69	68	69	68
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon													
	Construction of Road Works at West Kowloon	0	0	0	55	55	55	55	55	55	55	55	55
	Total SPL of the Project and Road Works, dB(A)	71	71	71	69	69	69	69	68	69	68	69	68
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49
Works Area U: Hoi Ting Road Works Area													
130	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area													
132	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1													
139	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
141	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
142	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
143	Bulk Excavation - hard	0	0	0	0	0	0	0	0	0	0	0	0
144	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	0	55	0	0	55	55	0	55	55	0	0	0
147	Top Down Excavation - Hard	70	0	70	70	0	0	70	0	0	0	0	0
148	Backfilling Works	0	0	0	0	0	0	0	0	0	62	62	62
149	Concrete Batching Plant - Construction Stage	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	65	65	65	65	65	65	65	65	65	65	65	65
151	Concrete Batching Plant - Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2													
152	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
154	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
155	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
156	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
157	Top Down Excavation - Soft	0	56	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	49	0	49	0	0	49	0	49	49	0	0	0
159	Top Down Excavation - Hard	0	0	0	59	59	0	59	0	0	0	0	0
160	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
161	ABWF Works for WKT building	0	0	0	0	0	0	55	55	55	55	55	55
Works Area V: WKT-Zone 3													
162	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
172	ABWF Works for WKT building	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4													
173	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
178	ABWF Works for PTI and CLP substation	0	0	0	0	0	0	0	0	0	0	0	0
179	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5													
180	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling													
184	Barging and Stockpiling	64	64	64	64	64	64	64	64	64	64	64	64
	Total SPL of the Project, dB(A)	72	68	72	72	68	68	72	68	68	69	69	69
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon													
	Construction of Road Works at West Kowloon	55	55	55	55	55	55	55	55	55	60	60	60
	Total SPL of the Project and Road Works, dB(A)	72	68	72	72	69	68	72	68	68	69	69	69
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	Construction Element	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area U: Hoi Ting Road Works Area													
130	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area													
132	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1													
139	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
141	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
142	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
143	Bulk Excavation - hard	0	0	0	0	0	0	0	0	0	0	0	0
144	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
147	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	62	62	0	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	65	0	0	0	0	0	0	0	0	0	0	0
151	Concrete Batching Plant - Demolition	0	63	63	63	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2													
152	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
154	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
155	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
156	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
157	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
159	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	0	0	0	0	55	55	55	55	55	55	55	55
161	ABWF Works for WKT building	55	55	55	55	55	55	55	55	55	55	55	0
Works Area V: WKT-Zone 3													
162	Possession of site	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
172	ABWF Works for WKT building	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4													
173	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
178	ABWF Works for PTI and CLP substation	0	0	0	0	0	0	0	0	0	0	0	0
179	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5													
180	Diaphragm Wall	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling													
184	Barging and Stockpiling	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of the Project, dB(A)	67	66	64	64	58	58	58	58	58	58	58	55
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon													
	Construction of Road Works at West Kowloon	60	60	60	60	59	59	59	59	59	0	0	0
	Total SPL of the Project and Road Works, dB(A)	68	67	65	65	62	62	62	62	62	58	58	55
	Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Road Works at West Kowloon

NSR: WK8 - Tower 3, The Waterfront

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009	2010											
					Dec 1	Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13
Works Area U: Hoi Ting Road Works Area																	
130	Possession of site	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	101	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area																	
132	Possession of site	111	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	112	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	107	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	104	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1																	
139	Possession of site	110	262	56	56	56	56	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	109	199	58	0	0	0	58	58	58	58	58	58	58	0	0	0
141	Foundation Works	113	271	59	0	0	0	59	59	59	59	59	59	59	59	59	0
142	Bulk Excavation - soft	109	271	55	0	0	0	0	0	0	0	0	0	0	0	0	55
143	Bulk Excavation - hard	113	271	60	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Concrete Works	109	271	55	0	0	0	0	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	109	271	55	0	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	102	271	49	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Top Down Excavation - Hard	117	271	64	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	109	271	55	0	0	0	0	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	108	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	Concrete Batching Plant - Demolition	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2																	
152	Possession of site	110	114	63	63	63	63	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall	109	49	70	0	0	0	70	70	70	70	70	70	70	70	70	0
154	Foundation Works	115	96	71	0	0	0	71	71	71	71	71	71	71	71	71	0
155	Bulk Excavation - soft	109	96	64	0	0	0	0	0	0	0	0	0	0	0	0	64
156	Concrete Works	110	96	65	0	0	0	0	0	0	0	0	0	0	0	0	0
157	Top Down Excavation - Soft	110	96	65	0	0	0	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	103	96	58	0	0	0	0	0	0	0	0	0	0	0	0	0
159	Top Down Excavation - Hard	113	96	68	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	109	96	64	0	0	0	0	0	0	0	0	0	0	0	0	0
161	ABWF Works for WKT building	106	95	61	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT-Zone 3																	
162	Possession of site	110	61	69	69	69	69	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall*	109	55	69	0	0	0	69	69	69	69	69	0	0	69	69	0
		109	33	74	0	0	0	0	0	0	0	0	74	74	0	0	0
164	Foundation Works	114	67	72	0	0	0	72	72	72	72	72	72	72	72	72	0
165	Bulk Excavation - soft	108	67	66	0	0	0	0	0	0	0	0	0	0	0	0	66
166	Bulk Excavation - rock	114	67	72	0	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	109	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	113	67	71	0	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	103	67	61	0	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	114	67	73	0	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	109	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0
172	ABWF Works for WKT building	106	108	60	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4																	
173	Diaphragm Wall	110	205	59	0	0	0	0	0	0	0	0	59	59	59	59	59
174	Foundation Works	112	249	59	0	0	0	0	0	0	59	59	59	59	59	59	59
175	Bulk Excavation - soft	109	249	57	0	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	114	249	61	0	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	105	249	52	0	0	0	0	0	0	0	0	0	0	0	0	0
178	ABWF Works for PTI and CLP substation	106	318	51	0	0	0	0	0	0	0	0	0	0	0	0	0
179	Backfilling Works	109	249	56	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5																	
180	Diaphragm Wall	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	103	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling																	
Total SPL of the Project, dB(A)					70	70	70	77	77	77	77	77	78	78	77	77	69
Exceedance					-	-	-	2	2	2	2	2	3	3	2	2	-
Road Works at West Kowloon																	
Construction of Road Works at West Kowloon		-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SPL of the Project and Road Works, dB(A)					70	70	70	77	77	77	77	77	78	78	77	77	69
Exceedance					-	-	-	2	2	2	2	2	3	3	2	2	-

Act No.	2011											
	Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25
Works Area U: Hoi Ting Road Works Area												
130	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area												
132	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1												
139	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0
142	55	55	55	55	55	55	55	55	55	55	55	0
143	0	0	0	0	0	0	0	0	0	0	60	60
144	0	0	0	0	0	0	0	0	0	0	0	55
145	0	0	0	0	0	0	0	0	0	0	0	0
146	0	0	0	0	0	0	0	0	0	0	0	0
147	0	0	0	0	0	0	0	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2												
152	0	0	0	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0
155	64	64	64	64	64	64	64	64	64	64	64	0
156	0	0	0	0	0	0	0	0	0	0	0	65
157	0	0	0	0	0	0	0	0	0	0	0	0
158	0	0	0	0	0	0	0	0	0	0	0	0
159	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT-Zone 3												
162	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0
165	66	66	66	66	66	66	66	66	0	0	0	0
166	0	0	0	0	0	0	72	72	72	72	72	0
167	0	0	0	0	0	0	0	0	0	0	0	67
168	0	0	0	0	0	0	0	0	0	0	0	0
169	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
171	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4												
173	59	59	59	0	0	59	59	59	59	59	59	59
174	59	59	59	59	59	59	59	59	59	59	59	0
175	0	0	0	0	0	0	0	0	0	57	57	57
176	0	0	0	0	0	0	0	0	0	0	0	0
177	0	0	0	0	0	0	0	0	0	0	0	0
178	0	0	0	0	0	0	0	0	0	0	0	0
179	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5												
180	0	0	0	0	0	0	0	0	0	0	0	0
181	0	0	0	0	0	0	0	0	0	0	0	0
182	0	0	0	0	0	0	0	0	0	0	0	0
183	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling												
Total SPL of the Project, dB(A)	69	69	69	69	69	69	74	74	73	73	73	70
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon												
Construction of Road Works at West Kowloon	0	0	0	0	0	0	0	70	70	70	70	70
Total SPL of the Project and Road Works, dB(A)	69	69	69	69	69	69	74	75	75	75	75	73
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	2012											
	Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37
Works Area U: Hoi Ting Road Works Area												
130	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area												
132	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1												
139	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0
143	60	60	60	0	0	0	0	0	0	0	0	0
144	55	55	55	0	0	0	0	0	0	0	0	0
145	0	0	0	55	55	55	55	0	55	0	55	0
146	0	0	0	0	0	0	0	49	0	49	0	49
147	0	0	0	0	0	0	0	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2												
152	0	0	0	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0
156	65	65	65	65	65	65	0	0	0	0	0	0
157	0	0	0	0	0	0	65	65	0	65	0	65
158	0	0	0	0	0	0	0	0	58	0	58	0
159	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT-Zone 3												
162	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
166	0	0	0	0	0	0	0	0	0	0	0	0
167	67	67	67	67	67	67	0	0	0	0	0	0
168	0	0	0	0	0	0	71	0	71	0	71	0
169	0	0	0	0	0	0	0	61	0	61	0	61
170	0	0	0	0	0	0	0	0	0	0	0	0
171	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 4												
173	59	59	59	0	0	0	0	0	0	0	0	0
174	0	0	0	0	0	0	0	0	0	0	0	0
175	57	57	57	57	57	57	57	57	57	57	57	57
176	0	0	0	0	0	0	0	0	0	0	0	0
177	0	0	0	52	52	52	52	52	52	52	52	52
178	0	0	0	0	0	0	0	0	0	0	0	0
179	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5												
180	0	0	0	0	0	0	0	0	0	0	0	0
181	0	0	0	0	0	0	0	0	0	0	0	0
182	0	0	0	0	0	0	0	0	0	0	0	0
183	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling												
Total SPL of the Project, dB(A)	70	70	70	70	70	70	72	67	72	67	72	67
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon												
Construction of Road Works at West Kowloon	70	70	70	66	66	66	66	66	66	66	66	66
Total SPL of the Project and Road Works, dB(A)	73	73	73	71	71	71	73	70	73	70	73	70
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	2013											
	Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49
Works Area U: Hoi Ting Road Works Area												
130	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area												
132	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1												
139	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0
143	0	0	0	0	0	0	0	0	0	0	0	0
144	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0
146	0	49	0	0	49	49	0	49	49	0	0	0
147	64	0	64	64	0	0	64	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	55	55	55
149	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2												
152	0	0	0	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0
156	0	0	0	0	0	0	0	0	0	0	0	0
157	0	65	0	0	0	0	0	0	0	0	0	0
158	58	0	58	0	0	58	0	58	58	0	0	0
159	0	0	0	68	68	0	68	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	61	61	61	61	61	61
Works Area V: WKT-Zone 3												
162	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
166	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0
168	71	0	71	71	0	71	0	0	0	0	0	0
169	0	61	0	0	61	0	61	0	61	0	0	0
170	0	0	0	0	0	0	0	73	0	0	0	0
171	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	60	60	60	60	60	60
Works Area V: C&C Tunnel Zone 4												
173	0	0	0	0	0	0	0	0	0	0	0	0
174	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
176	61	61	61	61	61	0	0	0	0	0	0	0
177	52	52	52	52	52	52	52	52	52	52	52	52
178	0	0	0	0	0	51	51	51	51	51	51	51
179	0	0	0	0	0	0	0	0	56	56	56	56
Works Area V: C&C Tunnel Zone 5												
180	0	0	0	0	0	0	0	0	0	0	0	0
181	0	0	0	0	0	0	0	0	0	0	0	0
182	0	0	0	0	0	0	0	0	0	0	0	0
183	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling												
Total SPL of the Project, dB(A)	72	68	72	74	70	71	71	74	67	65	65	65
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon												
Construction of Road Works at West Kowloon	66	66	66	66	66	66	66	66	66	71	71	71
Total SPL of the Project and Road Works, dB(A)	73	70	73	74	71	72	72	74	69	72	72	72
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Act No.	2014											
	Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area U: Hoi Ting Road Works Area												
130	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area												
132	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1												
139	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0
143	0	0	0	0	0	0	0	0	0	0	0	0
144	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0
146	0	0	0	0	0	0	0	0	0	0	0	0
147	0	0	0	0	0	0	0	0	0	0	0	0
148	55	55	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2												
152	0	0	0	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0
156	0	0	0	0	0	0	0	0	0	0	0	0
157	0	0	0	0	0	0	0	0	0	0	0	0
158	0	0	0	0	0	0	0	0	0	0	0	0
159	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	64	64	64	64	64	64	64	64
161	61	61	61	61	61	61	61	61	61	61	61	0
Works Area V: WKT-Zone 3												
162	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
166	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0
168	0	0	0	0	0	0	0	0	0	0	0	0
169	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
171	0	0	0	0	67	67	67	67	67	67	67	67
172	60	60	60	60	60	60	60	60	60	60	60	0
Works Area V: C&C Tunnel Zone 4												
173	0	0	0	0	0	0	0	0	0	0	0	0
174	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
176	0	0	0	0	0	0	0	0	0	0	0	0
177	52	52	52	52	52	52	52	52	52	0	0	0
178	51	51	51	51	51	51	51	51	51	0	0	0
179	56	56	56	56	56	56	56	56	56	0	0	0
Works Area V: C&C Tunnel Zone 5												
180	0	0	0	0	0	0	0	0	0	0	0	0
181	0	0	0	0	0	0	0	0	0	0	0	0
182	0	0	0	0	0	0	0	0	0	0	0	0
183	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling												
Total SPL of the Project, dB(A)	65	65	65	65	70	70	70	70	70	70	70	69
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon												
Construction of Road Works at West Kowloon	71	71	71	71	69	69	69	69	69	0	0	0
Total SPL of the Project and Road Works, dB(A)	72	72	72	72	73	73	73	73	73	70	70	69
Exceedance	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

* The construction activity would be conducted at two different locations which would not be constructed simultaneously. Therefore, two different notional sources are considered in the month 4 - 8, 11-12 and 9 - 10.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.

Appendix 5.12 Cumulative Construction Noise Calculation

Calculation of Cumulative Construction Noise from the Project and Road Works at West Kowloon

NSR: WK14 - Moon Tower, The Arch

Act No.	Construction Element	SWL	Dist[1]	SPL[2]	2009 Dec 1	2010 Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	2011 Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25	2012 Jan 26	Feb 27	Mar 28	Apr 29	May 30	Jun 31	Jul 32	Aug 33	Sep 34	Oct 35	Nov 36	Dec 37	2013 Jan 38	Feb 39	Mar 40	Apr 41	May 42	Jun 43	Jul 44	Aug 45	Sep 46	Oct 47	Nov 48	Dec 49	2014 Jan 50	Feb 51	Mar 52	Apr 53	May 54	Jun 55	Jul 56	Aug 57	Sep 58	Oct 59	Nov 60	Dec 61
Works Area U: Hoi Ting Road Works Area																																																																	
130	Possession of site	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	Site storage	91	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: Hoi Ting Road Works Area																																																															
132	Possession of site	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Diaphragm Wall	102	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	Bulk Excavation/Fill - Soft	94	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Concrete Works	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	TBM Removal	94	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Ventilation building construction	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	Backfilling Works	101	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 1																																																															
139	Possession of site	110	225	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	Diaphragm Wall	109	138	61	0	0	0	61	61	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	Foundation Works	113	200	62	0	0	0	62	62	62	62	62	62	62	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	Bulk Excavation - soft	109	200	58	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	58	58	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	Bulk Excavation - hard	113	200	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Concrete Works	109	200	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	Top Down Excavation - Soft	109	200	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	0	58	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	Top Down Concrete Works	102	200	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0	51	0	51	0	51	0	0	51	51	0	51	51	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Top Down Excavation - Hard	117	200	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	0	66	66	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Backfilling Works	109	200	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	0	0	0	0	0	0	0	0	0
149	Concrete Batching Plant - Construction Stage	110	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	Concrete Batching Plant - Operation Stage	108	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	Concrete Batching Plant - Demolition	106	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: WKT- Zone 2																																																															
152	Possession of site	110	64	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	Diaphragm Wall*	109	62	68	0	0	0	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		109	276	55	0	0	0	0	0	0	0	0	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	Foundation Works	115	67	74	0	0	0	74	74	74	74	74	74	74	74	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	Bulk Excavation - soft	109	67	67	0	0	0	0	0	0	0	0	0	0	0	0	67	67	67	67	67	67	67	67	67	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	Concrete Works	110	67	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	69	69	69	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	Top Down Excavation - Soft	110	67	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	0	68	0	68	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	Top Down Concrete Works	103	67	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	0	62	0	62	0	62	0	0	62	0	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	Top Down Excavation - Hard	113	67	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	72	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Backfilling Works	109	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	67	67	67	67	67	67	67
161	ABWF Works for WKT building	106	251	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	0
Works Area V: WKT-Zone 3																																																															
162	Possession of site	100	131	53	53	53	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	Diaphragm Wall	99	84	56	0	0	0	56	56	56	56	56	56	56	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	Foundation Works	112	134	64	0	0	0	64	64	64	64	64	64	64	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	Bulk Excavation - soft	98	134	50	0	0	0	0	0	0	0	0	0	0	0	0	50	50	50	50	50	50	50	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	Bulk Excavation - rock	105	134	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	Concrete Works	100	134	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	53	53	53	53	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	Top Down Excavation - Soft	109	134	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0	61	0	61	0	61	0	61	61	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	Top Down Concrete Works	103	134	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0	55	0	55	0	55	0	0	55	0	55	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	Top Down Excavation - Hard	114	134	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	Backfilling Works	109	134	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	61
172	ABWF Works for WKT building	106	104	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	0
Works Area V: C&C Tunnel Zone 4																																																															
173	Diaphragm Wall	100	283	46	0	0	0	0	0	0	0	0	46	46	46	46	46	46	46	46	0	0	46	46	46	46	46	46	46	46	46	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	Foundation Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	Bulk Excavation - soft	100	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	Bulk Excavation - hard	105	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	Concrete Works	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	ABWF Works for PTI and CLP substation	106	134	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	0	0	0
179	Backfilling Works	101	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area V: C&C Tunnel Zone 5																																																															
180	Diaphragm Wall	99	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	Bulk Excavation - soft	94	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	Concrete Works	95	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183	Backfilling Works	109	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Works Area W: Barging and Stockpiling																																																															
184	Backfilling Works	116	156	67	0	0	0	0	0	0	0	0	0	0	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0
	Total SPL of the Project, dB(A)				69	69	69	76	76	76	76	76	75	75	75	75	68	68	68	68	68	68	68	68	68	68	68	69	70	70	70	70	69	69	69	69	68	65	68	65	68	68	68	68	73	72	66	73	69	66	64	64	64	64	64	63	63	69	69	69	69	69	69	69	68
	Exceedance				-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Works at West Kowloon																																																															
	Construction of Road Works at West Kowloon	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	66	66	66	66	66	66	66	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	70	70	70	70	70	70	70	68	68	68	68	68	0	0	0
	Total SPL of the Project and Road Works, dB(A)				69	69	69	76	76	76	76	76	75	75	75	75	70	70	70	70	70	70	70	70	71	72	72	72	73	73	73	73	72	72	72	72	72	70	72	70	72	72	72	72	75	74	71	75	72	71	72	72	72	71	71	71	71	72	72	72	72	72	69	69	68
	Exceedance				-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

1. Noise sources at more than 300m from the sensitive receiver are not considered in cumulative noise assessment due to large distance attenuation effect.
2. For the calculation of sound pressure levels (SPL), the PMEs adopted for the different construction activities are assumed to be placed at the notional source position of the corresponding construction site according to the 'Technical Memorandum on Noise from Construction Work other than Percussive Piling' by EPD.

* The construction activity would be conducted at two different locations which would not be constructed simultaneously. Therefore, two different notional sources are considered in the month 4 - 8 and 9 - 12.

Noise Exceedance

The use of PME would not be visible when viewed from the assessment facade of NSR. The NSR is considered to be totally screened. According to GW-TM, a noise reduction of 10 dB(A) would be achieved.