Annex B4

Construction Noise Impact Assessment (Unmitigated)

NSR: HK1 Tsung Yuen Ha

		CT IT	D	Corr. for	Corr. for																				
T		SWL	Distance	distance	3	2012			2013		00	01	2014		0.0	~	2015		0.0	~	2016		0.0		2017
0.	Activity Description	dB(A) ^[2]	m	dB(A) ^{[1][2]}	dB(A)	Q2	Q3	Q4	QI	Q2	Q3	Q4	QI	Q2	Q3	Q4	QI	Q2	Q3	Q4	QI	Q2	Q3	Q4	QI
ESIGNA	TED PROJECT																								
egulatior	1 of Shenzhen River Stage IV																								
ē	Site Preparation																								
	-	111	175	-53	3						61														
		116	175	-53	3						66														
I	Works Area I																								
3	River Excavation (Sediment)	119	175	-53	3							69	69												
		116	175	-53	3							66	66	66	66	66	66	66	66						
		115	175	-53	3							65	65	65	65	65	65	65							
	1 0	117	175	-53	3											67	67	67	67						
	Works Area II																								
7	River Excavation (Sediment)	119	265	-56	3							65													
		116	265	-56	3							62	62		62	62			62						
9		115	265	-56	3							61	61	61	61		61								
	1 0	117	265	-56	3											64	64	64	64						
	Works Area III	110	720	(F	2											- /	F <								
	River Excavation (Sediment) Haul Road	119 116	720 720	-65 -65	3												56 54	54	54	54	54	54	54	54	
		115	720 720	-65 -65	3																		54 53		
		115	720	-65 -65	3											55	55	55	55	55			55 55		
	Works Area IV	117	720	00	5																55	00	55	55	
	River Excavation (Sediment)	119	1300	-70	3											51	51								
		115	1300	-70	3											48		48	48	48	48	48	48	48	
		115	1300	-70	3											48	48		48	48			48		
		117	1300	-70	3																		50		
	Others																								
	Reprovisioning Works	114	175	-53	3																				65
/11	Advanced Works																								
20	Backfilling	112	175	-53	3	62	62	62	62																
	Road Construction	112	175	-53	3					62															
22	Fence Installation	107	175	-53	3				57	57	57	57	57												
23	Drainage / Sinage Works	115	175	-53	3							65	65	65	65										
CONCUR	RENT PROJECTS																								
	ion of a Secondary Boundary Fence and New Sections of Primary Boundary Fence																								
	lary Patrol Road (AEIAR-136/2009)																								
24			1917	-74	3		33																		
25	Construction Activities (Section 3 - Pak Fu Shan to Lin Ma Hang Road)	104	1042	-68	3	39	39	39	39	39	39	39													
1 ~~~~~~~~~~	t No. CE 45/2008 (CE) Lighten al Ianua Yuan Mai Baundamu Cuassina Daint and																								
<u>Igreemen</u>	t No. CE 45/2008 (CE) Liantang/Heung Yuen Wai Boundary Crossing Point and Works ^[3]																								
																< -	(-			< -				< -	< -
	BCP Site Formation Lin Ma Hang Road next to BCP																		67 66		67	67	67	67	67
	Chuk Yuen Village Access Road										66	66	66	66	66	66	66	66	66	66					
	Lin Ma Hang Road Improvement Work																								
	Viaduct Section from BCP to Wo Keng Shan																								
50	Auder Section from Der to tro Keng onder																								
	Predicted	Noise Le	evels during	Davtime Per	riod. $dB(A)$	62	62	65	66	64	68	74	74	71	71	73	73	73	73	57	60	60	60	60	65
			0																						
	Predicted Cumulative		•													74	74	/4	/4	70	68	68	68	68	69
	Predicted Nois	e Level d	ue to Advan	ced Works d	only, dB(A)	62	62	65	66	64	57	66	66	65	65										

Notes:

[1] Distance Correction for PMEs = $10*\log(2*PI*r^2)$

The figures are rounded-up to a whole number.

[2] [3] The maximum predicted noise levels due to Activities 26 to 30 were extracted from the Environmental Impact Assessment Report for Liantang/Heung Yuen Wai Boundary Crossing Point and Associatd Works (LT/HYW EIA Report) dated August 2010.

- HK1 refers to TYH in the LT/HYW EIA Report

- HK2 refers to Chuen Yuen, which should be moved up on the commencement of LT/HYW.

- HK3 refers to KL1 in the LT/HYW EIA Report

- HK4 does not have relevant NSRs in the LT/HYW EIA Report

- HK5 refers to TKL1 in the LT/HYW EIA Report

NSR: HK2 Chuk Yuen Village

				Corr. for	Corr. for																	
		SWL	Distance	distance	façade	2012			2013	3			2014			2015	;		2016			2017
No.	Activity Description	dB(A) ^[2]		dB(A) ^{[1][2]}	dB(A)			Q4	Q1	Q2	Q3	Q4	Q1	Q2 (Q3 Q			Q3 Q		Q2 Q	23 Q4	
	<u>TED PROJECT</u>																					
0	of Shenzhen River Stage IV																					
I	Site Preparation																					
1		111	120	-50	3																	
		116	120	-50	3																	
	Works Area I																					
		119	520	-62	3																	
	Haul Road	116	520	-62	3																	
			520	-62	3																	
		117	520	-62	3																	
	Works Area II																					
	River Excavation (Sediment)	119	120	-50	3																	
		116	120	-50	3																	
		115	120	-50	3																	
		117	120	-50	3																	
	Works Area III	110	200																			
	River Excavation (Sediment)	119	300	-58	3																	
	Haul Road	116	300	-58	3																	
		115	300	-58	3																	
	Landscaping Works Area IV	117	300	-58	3																	
					_																	
	River Excavation (Sediment)	119	890	-67	3																	
			890	-67	3																	
		115	890	-67	3																	
	1 0	117	890	-67	3																	
VI	Others				_																	
19 VII	Reprovisioning Works Advanced Works	114	120	-50	3																	
20	Backfilling	112	120	-50	3	66	66	66	66													
21	Road Construction	112	120	-50	3			66	66	66												
	Fence Installation	107	120	-50	3					60												
	Drainage / Sinage Works	115	120	-50	3																	
CONCUR	RENT PROJECTS																					
	ion of a Secondary Boundary Fence and New Sections of Primary Boundary Fence																					
	lary Patrol Road (AEIAR-136/2009)																					
24	Construction Activities (Section 3 - Ng Tung River to Ping Yuen River)	104		-70	3	37																
25	Construction Activities (Section 3 - Pak Fu Shan to Lin Ma Hang Road)	104	1685	-73	3	34	34	34	34	34												
	t No. CE 45/2008 (CE) Liantang/Heung Yuen Wai Boundary Crossing Point and																					
Associated																						
	BCP Site Formation																					
	Lin Ma Hang Road next to BCP																					
	Chuk Yuen Village Access Road																					
	Lin Ma Hang Road Improvement Work																					
30	Viaduct Section from BCP to Wo Keng Shan																					
	Producted	Noise L	evels during	L Davtime Per	iod.dB(A)	66	66	69	69	67												
	Predicted Cumulative		Ű																			
l	Predicted Cumulative		0																			
Notes:	r redicted Nois	e Levei u	ue to Auvan	ceu works 0	uny, un(A)	00	00	07	07	07												

Notes:

[1] Distance Correction for PMEs = $10*\log(2*PI*r^2)$

The figures are rounded-up to a whole number.

[2] [3] The maximum predicted noise levels due to Activities 26 to 30 were extracted from the Environmental Impact Assessment Report for Liantang/Heung Yuen Wai Boundary Crossing Point and Associatd Works (LT/HYW EIA Report) dated August 2010.

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- HK5 refers to TKL1 in the LT/HYW EIA Report

Annex B4-c

Construction Airborne Noise Impact Assessment (Unmitigated)

NSR: HK3 Kaw Liu Village

				Corr. for	Corr. for																					
			Distance	distance		2012			2013				2014				20)16				2017
No.	Activity Description	dB(A) ^[2]	m	dB(A) ^{[1][2]}	dB(A)	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	2 Q3	3 Q	4 Q	1 Q	2 Ç	Q3 Q	94 Q	Q1 Q	Q2 Q	Q3 Q	<u>)</u> 4 (Q1
DESIGN	ATED PROJECT																									
	on of Shenzhen River Stage IV																									
I	Site Preparation																									
	1 Site Clearance	111	36	-39	3						75															
	2 Haul Road	116	36	-39	3						80															
II	Works Area I																									
	3 River Excavation (Sediment)	119	1500	-72	3								50													
		116	1500	-72	3							47	47	47					74							
	5 Excavation and River Training	115	1500	-72	3							46	46	46	46				64							
	6 Landscaping	117	1500	-72	3											48	3 4	8 4	8 4	8						
III	Works Area II 7 River Excavation (Sediment)	119	800	-66	2							==	55													
	8 Haul Road		800 800	-66	3							55 53	55 53	53	53	53	2 5	3 5	3 5	3						
			800 800	-66	3								55 52													
1	0 Landscaping	117	800 800	-00 -66	3							54	54	52	. 52		1 5		4 5							
IV	Works Area III		000	00	0											0.				-						
1	1 River Excavation (Sediment)	119	210	-54	3											67	7 6	7								
	2 Haul Road		210	-54	3											64			4 6	4 6	4 6	4 6	54 6	64 6	54	
	3 Excavation and River Training	115	210	-54	3											63	6	36	3 6	3 6	36	3 6	53 E	63 6	53	
1	4 Landscaping	117	210	-54	3																6	6 6	6 6	66 6	6	
V	Works Area IV																									
	5 River Excavation (Sediment)	119	36	-39	3											82	2 8	2								
	6 Haul Road	116	36	-39	3											80				0 8				80 8		
	7 Excavation and River Training	115	36	-39	3											79	7	97	97	97				79 7		
	8 Landscaping	117	36	-39	3																8	1 8	81 8	81 8	51	
VI	Others																									
	9 Reprovisioning Works	114	36	-39	3																				7	78
VII	Advanced Works																									
	0 Backfilling	112	36	-39	3	76	76			= (
	1 Road Construction	112	36	-39	3			76	76																	
	2 Fence Installation	107 115	36 36	-39 -39	3				71	71	71		71 79	70	70											
2	3 Drainage / Sinage Works	115	30	-39	3							79	79	79	75	,										
	I 																									
CONCU	<u>RRENT PROJECTS</u>																									
Construe	tion of a Secondary Boundary Fence and New Sections of Primary Boundary Fence																									
	idary Patrol Road (AEIAR-136/2009)																									
2	Construction Activities (Section 3 - Ng Tung River to Ping Yuen River)	104	718	-65	3	42	42	42	42																	
2	5 Construction Activities (Section 3 - Pak Fu Shan to Lin Ma Hang Road)	104	2340	-75	3						32	32														
	nt No. CE 45/2008 (CE) Liantang/Heung Yuen Wai Boundary Crossing Point and																									
Associate	ed Works ^[3]																									
	6 BCP Site Formation																									
	7 Lin Ma Hang Road next to BCP																									
	8 Chuk Yuen Village Access Road																									
	9 Lin Ma Hang Road Improvement Work																									
3	0 Viaduct Section from BCP to Wo Keng Shan																									
	ו איו ת	Nai I	l	Desetion - P	deal JD(A)	77	77	70	00		01	70	70	70		0.0		E 0	n (n 0	n 0			0 = () <u> </u>	70
			evels during	•																						
	Predicted Cumulative		Ũ	5													b 8	5 8	28	28	28	5 8	5 8	35 8	.5 7	/8
	Predicted Nois	e Level d	ue to Advan	ced Works o	only, dB(A)	76	76	79	80	77	71	79	79	79	79)										
Notes:														-												

Notes:

[1] Distance Correction for PMEs = $10*\log(2*PI*r^2)$

The figures are rounded-up to a whole number.

[2] [3] The maximum predicted noise levels due to Activities 26 to 30 were extracted from the Environmental Impact Assessment Report for Liantang/Heung Yuen Wai Boundary Crossing Point and Associatd Works (LT/HYW EIA Report) dated August 2010.

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- HK3 refers to KL1 in the LT/HYW EIA Report

- HK4 does not have relevant NSRs in the LT/HYW EIA Report

- HK5 refers to TKL1 in the LT/HYW EIA Report

NSR: HK4 Kan Tau Wai

				Corr. for	Corr. for																				
			Distance	distance	façade	2012			2013				2014				2015				2016				2017
No.	Activity Description	dB(A) ^[2]	m	dB(A) ^{[1][2]}	dB(A)	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
DESIGNA	ATED PROJECT																								
Regulation	1 of Shenzhen River Stage IV																								
r I	Site Preparation																								
1	Site Clearance	111	240	-56	2						59														
	Haul Road	111	240 240	-56 -56	3						63														
[] []	Works Area I	110	240	-50	5						05														
	River Excavation (Sediment)	119	1700	-73	3							49	49												
	Haul Road	116	1700	-73	3									46	46	46	46	46	46						
	Excavation and River Training	115	1700	-73	3												45								
	Landscaping	117	1700	-73	3												47								
II	Works Area II																								
7	River Excavation (Sediment)	119	1080	-69	3							53	53												
	Haul Road	116	1080	-69	3							50	50	50	50	50	50	50	50						
9	Excavation and River Training	115	1080	-69	3							49	49	49	49	49	49	49	49						
10	Landscaping	117	1080	-69	3											51	51	51	51						
V	Works Area III																								
	River Excavation (Sediment)	119	480	-62	3											60									
	Haul Road	116	480	-62	3														57			57	57		
	Excavation and River Training	115	480	-62	3											56	56	56	56	56			56		
	Landscaping	117	480	-62	3																58	58	58	58	
T	Works Area IV																								
	River Excavation (Sediment)	119	240	-56	3												66								
	Haul Road	116	240	-56	3											63							63		
	Excavation and River Training	115	240	-56	3											62	62	62	62	62			62		
	Landscaping	117	240	-56	3																64	64	64	64	
/I	Others																								
	Reprovisioning Works	114	240	-56	3																				62
/II	Advanced Works	110	210	= <		(0)	60	60	60																
	Backfilling	112	240	-56	3	60	60	60		(0															
	Road Construction Fence Installation	112 107	240 240	-56 -56	3			60	60 54	60 54	54	54	54												
	Drainage / Sinage Works	107	240 240	-56 -56	3				54	54	54		54 62	62	62										
23	Diamage / Smage Works	115	240	-50	5							02	02	02	02										
CONCUR	RENT PROJECTS																								
Construct	ion of a Secondary Boundary Fence and New Sections of Primary Boundary Fence																								
	lary Patrol Road (AEIAR-136/2009)																								
	Construction Activities (Section 3 - Ng Tung River to Ping Yuen River)	104	772	-66	3	41	41	41	41																
25	Construction Activities (Section 3 - Pak Fu Shan to Lin Ma Hang Road)		2636		3					31	31	31													
20	construction relivinces (occupito - ruk ru orani to Entrivia rang roud)	101	2000	,,,	0	01	01	01	01	01	01	01													
lgreemen	t No. CE 45/2008 (CE) Liantang/Heung Yuen Wai Boundary Crossing Point and																								
	! Works ^[3]																								
	BCP Site Formation																								
	Lin Ma Hang Road next to BCP																								
28	Chuk Yuen Village Access Road																								
	Lin Ma Hang Road Improvement Work																								
30	Viaduct Section from BCP to Wo Keng Shan																								
	-																								
	Predicted	l Noise Le	evels during	Daytime Per	riod, dB(A)	60	60	63	63	61	65	64	64	63	63	70	70	67	67	67	69	69	69	69	62
	Predicted Cumulative		÷																						
			0	· ·														57	57	57	57	57		<i></i>	
	Predicted Nois	se Level d	ue to Advan	ced Works c	only, $dB(A)$	60	60	63	63	61	54	63	63	62	62										

Notes:

[1] Distance Correction for PMEs = $10*\log(2*PI*r^2)$

The figures are rounded-up to a whole number.

[2] [3] The maximum predicted noise levels due to Activities 26 to 30 were extracted from the Environmental Impact Assessment Report for Liantang/Heung Yuen Wai Boundary Crossing Point and Associatd Works (LT/HYW EIA Report) dated August 2010.

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- HK4 does not have relevant NSRs in the LT/HYW EIA Report

- HK5 refers to TKL1 in the LT/HYW EIA Report

NSR: HK5 Ta Kwu Ling Village

			Corr. for	Corr. for																				
		Distance	distance		2012			2013				2014				2015				2016				2017
No. Activity Description	dB(A) ^[2]	m	dB(A) ^{[1][2]}	dB(A)	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
DESIGNATED PROJECT																								
Regulation of Shenzhen River Stage IV																								
I Site Preparation																								
1 Site Clearance	111	62	-44	2						70														
2 Haul Road	111	62	-44	3						75														
II Works Area I	110	02	11	0						10														
3 River Excavation (Sediment)	119	1650	-72	3							49	49												
4 Haul Road	116	1650	-72	3								46	46	46	46	46	46	46						
5 Excavation and River Training	115	1650	-72	3										45										
6 Landscaping	117	1650	-72	3							10	10	10	10		48								
III Works Area II				-																				
7 River Excavation (Sediment)	119	950	-68	3							54	54												
8 Haul Road	116	950	-68	3								51	51	51	51	51	51	51						
9 Excavation and River Training	115	950	-68	3											50	50	50	50						
10 Landscaping	117	950	-68	3											52	52	52	52						
IV Works Area III																								
11 River Excavation (Sediment)	119	360	-59	3											62	62								
12 Haul Road	116	360	-59	3											60	60	60	60	60	60	60	60	60	
13 Excavation and River Training	115	360	-59	3											59	59	59	59	59	59	59	59	59	
14 Landscaping	117	360	-59	3																61	61	61	61	
V Works Area IV																								
15 River Excavation (Sediment)	119	62	-44	3											78	78								
16 Haul Road	116	62	-44	3											75	75	75	75	75	75	75	75	75	
17 Excavation and River Training	115	62	-44	3											74	74	74	74	74	74	74	74	74	
18 Landscaping	117	62	-44	3																76	76	76	76	
VI Others																								
19 Reprovisioning Works	114	62	-44	3																				74
VII Advanced Works																								
20 Backfilling	112	62	-44	3	71	71	71	71																
21 Road Construction	112	62	-44	3			71	71	71															
22 Fence Installation	107	62	-44	3				66	66	66	66	66												
23 Drainage / Sinage Works	115	62	-44	3							74	74	74	74										
CONCURRENT PROJECTS																								
Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence	-																							
and Boundary Patrol Road (AEIAR-136/2009)																								
24 Construction Activities (Section 3 - Ng Tung River to Ping Yuen River)	104	449	-61	3		46			•	• •	•													
25 Construction Activities (Section 3 - Pak Fu Shan to Lin Ma Hang Road)	104	2758	-77	3	30	30	30	30	30	30	30													
A ground No. CF 45/2008 (CF) Lighten / Lange Very Mai Dourdam Crossing Daint and																								
Agreement No. CE 45/2008 (CE) Liantang/Heung Yuen Wai Boundary Crossing Point and Associated Works ^[3]																								
26 BCP Site Formation																								
27 Lin Ma Hang Road next to BCP													477											
28 Chuk Yuen Village Access Road										71	771	71	47	71	71	71	771	71	771					
29 Lin Ma Hang Road Improvement Work										71	71	71	71	71		71		71	71					
30 Viaduct Section from BCP to Wo Keng Shan															55	55	55			55	55	55	55	55
Dec.dist.	I Noice L	I wole durin ~	 Davitima Pa	riad dP(A)	71	71	74	75	72	77	75	75	74	74	Q1	Q1	70	70	70	80	80	80	80	74
		evels during																						
Predicted Cumulative		ů													81	81	79	78	78	80	80	80	80	74
Predicted Noi	se Level d	lue to Advan	ced Works	only, dB(A)	71	71	74	75	73	66	75	75	74	74										
lotes:																								

Notes:

[1] Distance Correction for PMEs = $10*\log(2*PI*r^2)$

The figures are rounded-up to a whole number.

[2] [3] The maximum predicted noise levels due to Activities 26 to 30 were extracted from the Environmental Impact Assessment Report for Liantang/Heung Yuen Wai Boundary Crossing Point and Associatd Works (LT/HYW EIA Report) dated August 2010.

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- HK4 does not have relevant NSRs in the LT/HYW EIA Report

- HK5 refers to TKL1 in the LT/HYW EIA Report





