

APPENDIX 4C
**Construction Noise Calculation for Unmitigated
Scenario**

Construction Plant Inventory (Unmitigated Scenario)

Works ID	Activities	Plant	TM Ref. / Other Ref.	Unit SWL, dB(A)	No. of PME	On-time %	SWL, dB(A)	Total SWL, dB(A)
	General							
1-1	Site Mobilization - Excavation	Air compressor, air flow > 10m ³ /min and ≤ 30m ³ /min	CNP 002	102	1	60%	100	120
		Breaker, excavator mounted (hydraulic)	CNP 028	122	1	50%	119	
		Excavator/loader, wheeled/tracked	CNP 081	112	1	70%	110	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	50%	97	
	Site Mobilization - Formation of works site	Concrete lorry mixer	CNP 044	109	1	40%	105	111
		Poker, vibratory, hand-held	CNP 170	113	1	40%	109	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	70%	98	
	Site Mobilization - Mobilization of construction plants and materials	Crane, mobile/berge mounted (diesel)	CNP 048	112	1	45%	109	115
		Dump truck	CNP 067	117	1	50%	114	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	50%	97	

Works ID	Activities	Plant	TM Ref. / Other Ref.	Unit SWL, dB(A)	No. of PME	On-time %	SWL, dB(A)	Total SWL, dB(A)
	Cavern and Tunnel Construction							
2-1	Open-cut Construction of Tunnel and Tunnel Portal	Excavator/loader, wheeled/tracked	CNP 081	112	1	70%	110	118
		Dump truck	CNP 067	117	1	70%	115	
		Piling, vibrating hammer	[2]	115	1	40%	111	
2-2	Excavation of Access Tunnel	Rock drill, crawler mounted (hydraulic)	CNP 182	123	1	75%	122	125
		Breaker, excavator mounted (hydraulic)	CNP 028	122	1	80%	121	
		Water pump (electric)	CNP 281	88	2	80%	90	
		Concrete pump, stationary/lorry mounted	CNP 047	109	1	60%	107	
		Concrete lorry mixer	CNP 044	109	1	60%	107	
		Dump truck	CNP 067	117	1	70%	115	
		Ventilation fan	CNP 241	108	2	100%	111	
		Conveyor Belt	CNP 041	90	1	100%	90	
2-3	Excavation of Cavern	Rock drill, crawler mounted (hydraulic)	CNP 182	123	1	75%	122	125
		Breaker, excavator mounted (hydraulic)	CNP 028	122	1	80%	121	
		Water pump (electric)	CNP 281	88	2	80%	90	
		Concrete pump, stationary/lorry mounted	CNP 047	109	1	60%	107	
		Concrete lorry mixer	CNP 044	109	1	60%	107	
		Dump truck	CNP 067	117	1	70%	115	
		Ventilation fan	CNP 241	108	2	100%	111	
		Conveyor Belt	CNP 041	90	1	100%	90	
2-4	Stone Crushing	Stone Crusher	[3]	115	1	50%	112	112

Appendix 4C Construction Noise Calculation for Unmitigated Scenario

Works ID	Activities	Plant	TM Ref. / Other Ref.	Unit SWL, dB(A)	No. of PME	On-time %	SWL, dB(A)	Total SWL, dB(A)
	Structural Works							
3-1	Anciliary Buildings at Tunnel Portal - Excavation	Air compressor, air flow > 10m ³ /min and <= 30m ³ /min	CNP 002	102	1	60%	100	116
		Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	1	50%	108	
		Excavator/loader, wheeled/tracked	CNP 081	112	1	70%	110	
		Dump truck	CNP 067	117	1	50%	114	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	50%	97	
	Anciliary Buildings at Tunnel Portal - Foundation	Concrete lorry mixer	CNP 044	109	1	40%	105	116
		Piling, earth auger, auger	CNP 167	114	1	50%	111	
		Dump truck	CNP 067	117	1	50%	114	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	70%	98	
	Anciliary Buildings at Tunnel Portal - Structural Works	Crane, mobile/barge mounted (diesel)	CNP 048	112	1	45%	109	115
		Concrete lorry mixer	CNP 044	109	1	80%	108	
		Poker, vibratory, hand-held	CNP 170	113	1	80%	112	
		Saw, circular, wood	CNP 201	108	1	60%	106	
Bar bender and cutter (electric)		CNP 021	90	1	70%	88		
Generator, silenced, 75 dB(A) at 7 m		CNP 102	100	1	50%	97		
3-2	Structural Works for Relocated DHSRs and Pumping Stations	Crane, mobile/barge mounted (diesel)	CNP 048	112	1	70%	110	116
		Concrete lorry mixer	CNP 044	109	1	80%	108	
		Poker, vibratory, hand-held	CNP 170	113	1	80%	112	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	100%	100	
		Saw, circular, wood	CNP 201	108	1	70%	106	
		Bar bender and cutter (electric)	CNP 021	90	1	70%	88	

Works ID	Activities	Plant	TM Ref. / Other Ref.	Unit SWL, dB(A)	No. of PME	On-time %	SWL, dB(A)	Total SWL, dB(A)
	Mainlaying							
4-1	Fresh Water / Salt Water Mainlaying - Surface Breaking	Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	108	1	30%	103	103
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	30%	95	
	Fresh Water / Salt Water Mainlaying - Excavation & Pipe laying	Excavator/loader, wheeled/tracked	CNP 081	112	1	30%	107	107
	Fresh Water / Salt Water Mainlaying - Reinstatement	Concrete lorry mixer	CNP 044	109	1	30%	104	109
		Poker, vibratory, hand-held	CNP 170	113	1	30%	108	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	30%	95	

Appendix 4C Construction Noise Calculation for Unmitigated Scenario

Works ID	Activities	Plant	TM Ref. / Other Ref.	Unit SWL, dB(A)	No. of PME	On-time %	SWL, dB(A)	Total SWL, dB(A)
	E&M Installation							
5-1	E&M Installation for Ancillary Buildings	Lorry, with crane/grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	[2]	105	1	100%	105	115
		Dump truck	CNP 067	117	1	50%	114	
5-2	E&M Installation for Relocated DHSRs and Pumping Stations	Lorry, with crane/grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	[2]	105	1	100%	105	109
		Ventilation fan	CNP 241	108	1	70%	106	
		Generator, silenced, 75 dB(A) at 7 m	CNP 102	100	1	70%	98	

Works ID	Activities	Plant	TM Ref. / Other Ref.	Unit SWL, dB(A)	No. of PME	On-time %	SWL, dB(A)	Total SWL, dB(A)
	Other Associated Works							
6-1	Slope, Landscaping Works and Reinstatement for Access Tunnel Portal	Lorry, with crane/grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	[2]	105	1	70%	103	103


Notes:


- [1] As only one group of PME would be operated simultaneously under same Works ID, only the activity with the highest total SWL under the same Works ID will be used for the construction noise assessment for each NSR
- [2] Reference: Sound power levels of other commonly used PME (http://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
- [3] Reference: EIA Report of "Fill Bank at Tseung Kwan O Area 137" (AEIAR-060/2002)

Appendix 4C Construction Noise Calculation for Unmitigated Scenario

Summary of Predicted Noise Levels from Construction (Unmitigated)

NSR	Description	EIAO-TM Noise Criteria, dB(A)	Max. Predicted CNL, db(A)			
			Low Level	Mid Level	High Level	Overall
NSR 1	Block B, Peninsula Heights	75	83	83	81	83
NSR 2	Block 1, Meridian Hill	75	83	83	83	83
NSR 3	Chun Sing House, Tin Ma Court	75	80	80	78	80
NSR 4	Chun Wai House, Tin Ma Court	75	81	80	79	81
NSR 5	Grace Methodist Church Kindergarten	70/65	84	N/A	N/A	84
NSR 6	Wang King House, Tin Wang Court	75	83	77	75	83
NSR 7	Block 6, Tsui Chuk Garden	75	79	79	74	79
NSR 8	Baptist Rainbow Primary School	70/65	74	74	74	74
NSR 9	Pang Ching Court	75	76	72	70	76
NSR 10	Chung Yuen House, Chuk Yuen North Estate	75	79	72	69	79
NSR 11	Wah Yuen House, Chuk Yuen South Estate	75	80	77	72	80
NSR 12	Mui Yuen House, Chuk Yuen North Estate	75	76	70	67	76
NSR 13	Our Lady of Maryknoll Hospital	75	91	83	78	91
NSR 14	Our Lady's College	70/65	89	87	81	89
NSR 15	Evangel Children's Home	75	85	82	79	85
NSR 16	Wing Shing House	75	86	82	78	86
NSR 17	Ying Fuk Court	75	70	69	67	70
NSR 18	Diamond Hill Kwong Yum Home for the Aged	75	81	80	78	81
NSR 19	St. Bonaventure College and High School	70/65	88	81	77	88
NSR 20	Wu York Yu Health Centre	75	87	85	83	87
NSR 21	Twghs Wong Tai Sin Hospital	75	74	74	74	74
NSR 22	Ho Lap Primary School	70/65	77	76	74	77
NSR 23	Lok Shing House, Tsz Lok Estate	75	77	69	65	77
NSR 24	Fat Chong Temple	75	70	70	70	70
NSR 25	Wo Tin House	75	82	70	67	82
NSR 26	CCC Kei Tsz Primary School	70/65	75	74	73	75
NSR P1	Proposed Departmental Quarters for Customs & Excise Department	75	86	73	68	86

 Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 db(A) for residential / 70 db(A) for school during normal school days

 Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 65db(A) for school during examination period

Construction Noise Assessment (Unmitigated)

NSR 4 Chun Wai House, Tin Ma Court
Representative Floor: 1

Table with columns: Activity, Works ID, Works Area, Hor. Dist. m, mPD Level, SWL dB(A), Distance m, Corr. for Distance dB(A) [1][2], Corr. for Topo, Corr. for façade dB(A), and 120 columns for years 2022-2027 (5 columns per year).

Representative Floor: 19

Table with columns: Activity, Works ID, Works Area, Hor. Dist. m, mPD Level, SWL dB(A), Distance m, Corr. for Distance dB(A) [1][2], Corr. for Topo, Corr. for façade dB(A), and 120 columns for years 2022-2027 (5 columns per year).

Representative Floor: 37

Table with columns: Activity, Works ID, Works Area, Hor. Dist. m, mPD Level, SWL dB(A), Distance m, Corr. for Distance dB(A) [1][2], Corr. for Topo, Corr. for façade dB(A), and 120 columns for years 2022-2027 (5 columns per year).

Note: Predicted noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
[1] Distance Correction for PMS = 10*log(2^PI/r^2) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 5 Grace Methodist Church Kindergarten

Representative Floor:		mPD Level:									(Low Level)																																																																						
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
General													Site Mobilization																																																																				
Cavern and Tunnel Construction													Excavation at Access Tunnel Portal																																																																				
													Construction of Access Tunnel																																																																				
													Construction of Cavern																																																																				
													Stone Crushing (within Noise Enclosure)																																																																				
Structural Works													Ancillary Buildings at Tunnel Portal																																																																				
													Structural Works for Relocated DHSRs and Pumping Stations																																																																				
Mainlaying Works													Fresh Water / Salt Water Mainlaying																																																																				
E&M Installation													E&M Installation for Ancillary Buildings																																																																				
													E&M Installation for Relocated DHSRs and Pumping Stations																																																																				
Other Associated Works													Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																				
													Predicted Noise Level during Daytime Period, dB(A)																																																																				

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 70 dB(A) during school days

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 65db(A) during examination period

Note:

[1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]

[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 8 Baptist Rainbow Primary School

Representative Floor: 1 mPD Level: 49 (Low Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																																																							
										2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
General													Site Mobilization																																																																				
Cavern and Tunnel Construction													Excavation at Access Tunnel Portal																																																																				
													Construction of Access Tunnel																																																																				
													Construction of Cavern																																																																				
													Stone Crushing (within Noise Enclosure)																																																																				
Structural Works													Ancillary Buildings at Tunnel Portal																																																																				
													Structural Works for Relocated DHSRs and Pumping Stations																																																																				
Mainlaying Works													Fresh Water / Salt Water Mainlaying																																																																				
E&M Installation													E&M Installation for Ancillary Buildings																																																																				
													E&M Installation for Relocated DHSRs and Pumping Stations																																																																				
Other Associated Works													Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																				
													Predicted Noise Level during Daytime Period, dB(A)																																																																				

Representative Floor: 3 mPD Level: 55 (Mid Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																																																							
										2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
General													Site Mobilization																																																																				
Cavern and Tunnel Construction													Excavation at Access Tunnel Portal																																																																				
													Construction of Access Tunnel																																																																				
													Construction of Cavern																																																																				
													Stone Crushing (within Noise Enclosure)																																																																				
Structural Works													Ancillary Buildings at Tunnel Portal																																																																				
													Structural Works for Relocated DHSRs and Pumping Stations																																																																				
Mainlaying Works													Fresh Water / Salt Water Mainlaying																																																																				
E&M Installation													E&M Installation for Ancillary Buildings																																																																				
													E&M Installation for Relocated DHSRs and Pumping Stations																																																																				
Other Associated Works													Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																				
													Predicted Noise Level during Daytime Period, dB(A)																																																																				

Representative Floor: 6 mPD Level: 66 (High Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																																																							
										2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
General													Site Mobilization																																																																				
Cavern and Tunnel Construction													Excavation at Access Tunnel Portal																																																																				
													Construction of Access Tunnel																																																																				
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													Stone Crushing (within Noise Enclosure)																																																																				
Structural Works													Ancillary Buildings at Tunnel Portal																																																																				
													Structural Works for Relocated DHSRs and Pumping Stations																																																																				
Mainlaying Works													Fresh Water / Salt Water Mainlaying																																																																				
E&M Installation													E&M Installation for Ancillary Buildings																																																																				
													E&M Installation for Relocated DHSRs and Pumping Stations																																																																				
Other Associated Works													Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																				
													Predicted Noise Level during Daytime Period, dB(A)																																																																				

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 70 dB(A) during school days
 Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 65dB(A) during examination period

Note:
 [1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 9 Pang Ching Court
Representative Floor: 1

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	mPD Level: 73 (Low Level)																																				
										2022				2023				2024				2025				2026				2027																
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	
General											Site Mobilization																																			
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																			
											Construction of Access Tunnel																																			
											Construction of Cavern																																			
											Stone Crushing (within Noise Enclosure)																																			
Structural Works											Ancillary Buildings at Tunnel Portal																																			
											Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																			
E&M Installation											E&M Installation for Ancillary Buildings																																			
											E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
											Predicted Noise Level during Daytime Period, dB(A)																																			

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	mPD Level: 118 (Mid Level)																																				
										2022				2023				2024				2025				2026				2027																
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	
General											Site Mobilization																																			
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																			
											Construction of Access Tunnel																																			
											Construction of Cavern																																			
											Stone Crushing (within Noise Enclosure)																																			
Structural Works											Ancillary Buildings at Tunnel Portal																																			
											Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																			
E&M Installation											E&M Installation for Ancillary Buildings																																			
											E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
											Predicted Noise Level during Daytime Period, dB(A)																																			

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	mPD Level: 166 (High Level)																																				
										2022				2023				2024				2025				2026				2027																
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	
General											Site Mobilization																																			
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																			
											Construction of Access Tunnel																																			
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Structural Works											Ancillary Buildings at Tunnel Portal																																			
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Mainlaying Works											Fresh Water / Salt Water Mainlaying																																			
E&M Installation											E&M Installation for Ancillary Buildings																																			
											E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
											Predicted Noise Level during Daytime Period, dB(A)																																			

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
[1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 10 Chung Yuen House, Chuk Yuen North Estate

Representative Floor: 1 mPD Level: 67 (Low Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027												
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12						
General											Site Mobilization																																																																							
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																																																							
											Construction of Access Tunnel																																																																							
											Construction of Cavern																																																																							
											Stone Crushing (within Noise Enclosure)																																																																							
Structural Works											Ancillary Buildings at Tunnel Portal																																																																							
											Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation											E&M Installation for Ancillary Buildings																																																																							
											E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
											Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor: 17 mPD Level: 112 (Mid Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027												
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12						
General											Site Mobilization																																																																							
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																																																							
											Construction of Access Tunnel																																																																							
											Construction of Cavern																																																																							
											Stone Crushing (within Noise Enclosure)																																																																							
Structural Works											Ancillary Buildings at Tunnel Portal																																																																							
											Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation											E&M Installation for Ancillary Buildings																																																																							
											E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
											Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor: 34 mPD Level: 159 (High Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027												
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12						
General											Site Mobilization																																																																							
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																																																							
											Construction of Access Tunnel																																																																							
											Construction of Cavern																																																																							
											Stone Crushing (within Noise Enclosure)																																																																							
Structural Works											Ancillary Buildings at Tunnel Portal																																																																							
											Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation											E&M Installation for Ancillary Buildings																																																																							
											E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
											Predicted Noise Level during Daytime Period, dB(A)																																																																							

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
 [1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 11

Wah Yuen House, Chuk Yuen South Estate

Representative Floor:		1							mPD Level:	54	(Low Level)	2022												2023												2024												2025												2026												2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12							
General											Site Mobilization																																																																								
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal												Construction of Access Tunnel												Construction of Cavern												Stone Crushing (within Noise Enclosure)																																				
Structural Works											Ancillary Buildings at Tunnel Portal												Structural Works for Relocated DHSRs and Pumping Stations																																																												
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																								
E&M Installation											E&M Installation for Ancillary Buildings												E&M Installation for Relocated DHSRs and Pumping Stations																																																												
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal												Predicted Noise Level during Daytime Period, dB(A)																																																												

Representative Floor:		9							mPD Level:	76	(Mid Level)	2022												2023												2024												2025												2026												2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12							
General											Site Mobilization																																																																								
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal												Construction of Access Tunnel												Construction of Cavern												Stone Crushing (within Noise Enclosure)																																				
Structural Works											Ancillary Buildings at Tunnel Portal												Structural Works for Relocated DHSRs and Pumping Stations																																																												
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																								
E&M Installation											E&M Installation for Ancillary Buildings												E&M Installation for Relocated DHSRs and Pumping Stations																																																												
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal												Predicted Noise Level during Daytime Period, dB(A)																																																												

Representative Floor:		17							mPD Level:	99	(High Level)	2022												2023												2024												2025												2026												2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12							
General											Site Mobilization																																																																								
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal												Construction of Access Tunnel												Construction of Cavern												Stone Crushing (within Noise Enclosure)																																				
Structural Works											Ancillary Buildings at Tunnel Portal												Structural Works for Relocated DHSRs and Pumping Stations																																																												
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																								
E&M Installation											E&M Installation for Ancillary Buildings												E&M Installation for Relocated DHSRs and Pumping Stations																																																												
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal												Predicted Noise Level during Daytime Period, dB(A)																																																												

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
 [1] Distance Correction for PMEs = 10*log(2^PI/r^2) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 12

Mui Yuen House, Chuk Yuen North Estate

Representative Floor:		1		mPD Level:		58		(Low Level)																																																																									
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																	
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor:		17		mPD Level:		103		(Mid Level)																																																																									
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																	
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor:		34		mPD Level:		151		(High Level)																																																																									
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																	
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:

[1] Distance Correction for PMEs = 10*log(2/PI+r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]

[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 13 Our Lady of Maryknoll Hospital

Representative Floor:		G							mPD Level: 46 (Low Level)																																													
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022			2023						2024						2025						2026						2027																	
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
General										Site Mobilization																																												
Cavern and Tunnel Construction																																																						
Excavation at Access Tunnel Portal																																																						
Construction of Access Tunnel																																																						
Construction of Cavern																																																						
Stone Crushing (within Noise Enclosure)																																																						
Structural Works																																																						
Ancillary Buildings at Tunnel Portal																																																						
Structural Works for Relocated DHSRs and Pumping Stations																																																						
Mainlaying Works																																																						
Fresh Water / Salt Water Mainlaying																																																						
E&M Installation																																																						
E&M Installation for Ancillary Buildings																																																						
E&M Installation for Relocated DHSRs and Pumping Stations																																																						
Other Associated Works																																																						
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																						
Predicted Noise Level during Daytime Period, dB(A)																																																						

Representative Floor:		3							mPD Level: 55 (Mid Level)																																													
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022			2023						2024						2025						2026						2027																	
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
General										Site Mobilization																																												
Cavern and Tunnel Construction																																																						
Excavation at Access Tunnel Portal																																																						
Construction of Access Tunnel																																																						
Construction of Cavern																																																						
Stone Crushing (within Noise Enclosure)																																																						
Structural Works																																																						
Ancillary Buildings at Tunnel Portal																																																						
Structural Works for Relocated DHSRs and Pumping Stations																																																						
Mainlaying Works																																																						
Fresh Water / Salt Water Mainlaying																																																						
E&M Installation																																																						
E&M Installation for Ancillary Buildings																																																						
E&M Installation for Relocated DHSRs and Pumping Stations																																																						
Other Associated Works																																																						
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																						
Predicted Noise Level during Daytime Period, dB(A)																																																						

Representative Floor:		6							mPD Level: 64 (High Level)																																													
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022			2023						2024						2025						2026						2027																	
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
General										Site Mobilization																																												
Cavern and Tunnel Construction																																																						
Excavation at Access Tunnel Portal																																																						
Construction of Access Tunnel																																																						
Construction of Cavern																																																						
Stone Crushing (within Noise Enclosure)																																																						
Structural Works																																																						
Ancillary Buildings at Tunnel Portal																																																						
Structural Works for Relocated DHSRs and Pumping Stations																																																						
Mainlaying Works																																																						
Fresh Water / Salt Water Mainlaying																																																						
E&M Installation																																																						
E&M Installation for Ancillary Buildings																																																						
E&M Installation for Relocated DHSRs and Pumping Stations																																																						
Other Associated Works																																																						
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																						
Predicted Noise Level during Daytime Period, dB(A)																																																						

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
 [1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 15 Evangel Children's Home

Representative Floor: G										mPD Level: 58 (Low Level)										2022										2023										2024										2025										2026										2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor: 3										mPD Level: 69 (Mid Level)										2022										2023										2024										2025										2026										2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor: 5										mPD Level: 76 (High Level)										2022										2023										2024										2025										2026										2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
 [1] Distance Correction for PMEs = 10*log(2^PI/r^2) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 16

Wing Shing House

Representative Floor:

1

mPD Level:

48

(Low Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Representative Floor:

3

mPD Level:

55

(Mid Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Representative Floor:

5

mPD Level:

63

(High Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:

[1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]

[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 17

Ying Fuk Court

Representative Floor:

1

mPD Level:

58

(Low Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Representative Floor: 19

mPD Level:

107

(Mid Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Representative Floor: 37

mPD Level:

155

(High Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
 [1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 18

Diamond Hill Kwong Yum Home for the Aged

Representative Floor:		G										mPD Level:										63 (Low Level)																																																											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor:		3										mPD Level:										71 (Mid Level)																																																											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor:		6										mPD Level:										79 (High Level)																																																											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
 [1] Distance Correction for PMEs = 10*log(2*PI*r^2) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 20

Wu York Yu Health Centre

Representative Floor:		G							mPD Level:	55	(Low Level)	2022												2023												2024												2025												2026												2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027													
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12							
General											Site Mobilization																																																																								
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																																																								
											Construction of Access Tunnel																																																																								
											Construction of Cavern																																																																								
											Stone Crushing (within Noise Enclosure)																																																																								
Structural Works											Ancillary Buildings at Tunnel Portal																																																																								
											Structural Works for Relocated DHSRs and Pumping Stations																																																																								
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																								
E&M Installation											E&M Installation for Ancillary Buildings																																																																								
											E&M Installation for Relocated DHSRs and Pumping Stations																																																																								
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																								
											Predicted Noise Level during Daytime Period, dB(A)																																																																								

Representative Floor:		2							mPD Level:	62	(Mid Level)	2022												2023												2024												2025												2026												2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027													
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12							
General											Site Mobilization																																																																								
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																																																								
											Construction of Access Tunnel																																																																								
											Construction of Cavern																																																																								
											Stone Crushing (within Noise Enclosure)																																																																								
Structural Works											Ancillary Buildings at Tunnel Portal																																																																								
											Structural Works for Relocated DHSRs and Pumping Stations																																																																								
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																								
E&M Installation											E&M Installation for Ancillary Buildings																																																																								
											E&M Installation for Relocated DHSRs and Pumping Stations																																																																								
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																								
											Predicted Noise Level during Daytime Period, dB(A)																																																																								

Representative Floor:		3							mPD Level:	65	(High Level)	2022												2023												2024												2025												2026												2027											
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027													
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12							
General											Site Mobilization																																																																								
Cavern and Tunnel Construction											Excavation at Access Tunnel Portal																																																																								
											Construction of Access Tunnel																																																																								
											Construction of Cavern																																																																								
											Stone Crushing (within Noise Enclosure)																																																																								
Structural Works											Ancillary Buildings at Tunnel Portal																																																																								
											Structural Works for Relocated DHSRs and Pumping Stations																																																																								
Mainlaying Works											Fresh Water / Salt Water Mainlaying																																																																								
E&M Installation											E&M Installation for Ancillary Buildings																																																																								
											E&M Installation for Relocated DHSRs and Pumping Stations																																																																								
Other Associated Works											Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																								
											Predicted Noise Level during Daytime Period, dB(A)																																																																								

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:

[1] Distance Correction for PMEs = 10*log(2*PI/r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]

[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 22

Ho Lap Primary School

Representative Floor: 1

1

mPD Level: 64

(Low Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	Year																																			
										2022				2023				2024				2025				2026				2027															
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General																																													
Site Mobilization	1-1	C	1349	77	120	1349	-71	0	3	52	52	52																																	
Cavern and Tunnel Construction																																													
Excavation at Access Tunnel Portal	2-1	C	1349	77	118	1349	-71	0	3			50	50	50	50	50	50																												
Construction of Access Tunnel	2-2	B	1167	78	125	1167	-69	0	3							59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59						
Construction of Cavern	2-3	A	959	80	125	959	-68	0	3																																				
Stone Crushing (within Noise Enclosure)	2-4	F	1369	77	112	1369	-71	0	3																																				
Structural Works																																													
Ancillary Buildings at Tunnel Portal	3-1	C	1349	77	116	1349	-71	0	3																																				
Structural Works for Relocated DHSRs and Pumping Stations	3-2	A	959	80	116	959	-68	0	3																																				
Maintaining Works																																													
Fresh Water / Salt Water Mainlaying	4-1	D	24	61	109	25	-36	0	3							77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77							
E&M Installation																																													
E&M Installation for Ancillary Buildings	5-1	E	1362	77	115	1362	-71	0	3																																				
E&M Installation for Relocated DHSRs and Pumping Stations	5-2	A	959	80	109	959	-68	0	3																																				
Other Associated Works																																													
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal	6-1	C	1349	77	103	1349	-71	0	3																																				
Predicted Noise Level during Daytime Period, dB(A)																																													

Representative Floor: 3

3

mPD Level: 71

(Mid Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	Year																																			
										2022				2023				2024				2025				2026				2027															
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General																																													
Site Mobilization	1-1	C	1349	77	120	1349	-71	0	3	52	52	52																																	
Cavern and Tunnel Construction																																													
Excavation at Access Tunnel Portal	2-1	C	1349	77	118	1349	-71	0	3			50	50	50	50	50	50																												
Construction of Access Tunnel	2-2	B	1167	78	125	1167	-69	0	3							59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59							
Construction of Cavern	2-3	A	959	80	125	959	-68	0	3																																				
Stone Crushing (within Noise Enclosure)	2-4	F	1369	77	112	1369	-71	0	3																																				
Structural Works																																													
Ancillary Buildings at Tunnel Portal	3-1	C	1349	77	116	1349	-71	0	3																																				
Structural Works for Relocated DHSRs and Pumping Stations	3-2	A	959	80	116	959	-68	0	3																																				
Maintaining Works																																													
Fresh Water / Salt Water Mainlaying	4-1	D	24	61	109	26	-36	0	3							76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76						
E&M Installation																																													
E&M Installation for Ancillary Buildings	5-1	E	1362	77	115	1362	-71	0	3																																				
E&M Installation for Relocated DHSRs and Pumping Stations	5-2	A	959	80	109	959	-68	0	3																																				
Other Associated Works																																													
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal	6-1	C	1349	77	103	1349	-71	0	3																																				
Predicted Noise Level during Daytime Period, dB(A)																																													

Representative Floor: 6

6

mPD Level: 82

(High Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	Year																																			
										2022				2023				2024				2025				2026				2027															
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
General																																													
Site Mobilization	1-1	C	1349	77	120	1349	-71	0	3	52	52	52																																	
Cavern and Tunnel Construction																																													
Excavation at Access Tunnel Portal	2-1	C	1349	77	118	1349	-71	0	3			50	50	50	50	50	50																												
Construction of Access Tunnel	2-2	B	1167	78	125	1167	-69	0	3							59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59							
Construction of Cavern	2-3	A	959	80	125	959	-68	0	3																																				
Stone Crushing (within Noise Enclosure)	2-4	F	1369	77	112	1369	-71	0	3																																				
Structural Works																																													
Ancillary Buildings at Tunnel Portal	3-1	C	1349	77	116	1349	-71	0	3																																				
Structural Works for Relocated DHSRs and Pumping Stations	3-2	A	959	80	116	959	-68	0	3																																				
Maintaining Works																																													
Fresh Water / Salt Water Mainlaying	4-1	D	24	61	109	32	-38	0	3							74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74							
E&M Installation																																													
E&M Installation for Ancillary Buildings	5-1	E	1362	77	115	1362	-71	0	3																																				
E&M Installation for Relocated DHSRs and Pumping Stations	5-2	A	959	80	109	959	-68	0	3																																				
Other Associated Works																																													
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal	6-1	C	1349	77	103	1349	-71	0	3																																				
Predicted Noise Level during Daytime Period, dB(A)																																													

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 70 dB(A) during school days

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 65dB(A) during examination period

Note:
 [1] Distance Correction for PMEs = 10*log(2+PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 23

Lok Shing House, Tsz Lok Estate

Representative Floor:

1

mPD Level:

70

(Low Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																																																							
										2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor:

20

mPD Level:

120

(Mid Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																																																							
										2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Representative Floor:

40

mPD Level:

173

(High Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																																																							
										2022												2023												2024												2025												2026												2027											
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
General										Site Mobilization																																																																							
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																																																							
										Construction of Access Tunnel																																																																							
										Construction of Cavern																																																																							
										Stone Crushing (within Noise Enclosure)																																																																							
Structural Works										Ancillary Buildings at Tunnel Portal																																																																							
										Structural Works for Relocated DHSRs and Pumping Stations																																																																							
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																																																							
E&M Installation										E&M Installation for Ancillary Buildings																																																																							
										E&M Installation for Relocated DHSRs and Pumping Stations																																																																							
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																																																							
										Predicted Noise Level during Daytime Period, dB(A)																																																																							

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:

[1] Distance Correction for PMEs = 10*log(2*PI*r²) [where PI = 3.1416 and r is the distance of NSR from notional noise source]

[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR 25

Wo Tin House

Representative Floor:

1

mPD Level:

129

(Low Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Representative Floor:

21

mPD Level:

181

(Mid Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Representative Floor:

41

mPD Level:

233

(High Level)

Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022-2027																																			
										2022						2023						2024						2025						2026						2027					
										6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
General										Site Mobilization																																			
Cavern and Tunnel Construction										Excavation at Access Tunnel Portal																																			
										Construction of Access Tunnel																																			
										Construction of Cavern																																			
										Stone Crushing (within Noise Enclosure)																																			
Structural Works										Ancillary Buildings at Tunnel Portal																																			
										Structural Works for Relocated DHSRs and Pumping Stations																																			
Mainlaying Works										Fresh Water / Salt Water Mainlaying																																			
E&M Installation										E&M Installation for Ancillary Buildings																																			
										E&M Installation for Relocated DHSRs and Pumping Stations																																			
Other Associated Works										Slope, Landscaping Works and Reinstatement for Access Tunnel Portal																																			
										Predicted Noise Level during Daytime Period, dB(A)																																			

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:

[1] Distance Correction for PMEs = 10*log(2^PI/r^2) [where PI = 3.1416 and r is the distance of NSR from notional noise source]

[2] The figures are rounded-up to a whole number.

Construction Noise Assessment (Unmitigated)

NSR P1

Proposed Departmental Quarters for Customs & Excise Department

Representative Floor:		1													mPD Level:													65													(Low Level)																																																					
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027																								
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																		
General		Site Mobilization																																																																																												
Cavern and Tunnel Construction																																																																																														
Excavation at Access Tunnel Portal		2-1	C	1320	77	118	1320	-70	0	3													50																																																																							
Construction of Access Tunnel		2-2	B	1134	78	125	1134	-69	0	3													59												59												59												59												59																							
Construction of Cavern		2-3	A	923	80	125	923	-67	0	3																									61												61												61												61																							
Stone Crushing (within Noise Enclosure)		2-4	F	1340	77	112	1340	-71	0	3													44												44												44												44												44																							
Structural Works																																																																																														
Ancillary Buildings at Tunnel Portal		3-1	C	1320	77	116	1320	-70	0	3																																																	49												49																							
Structural Works for Relocated DHSRs and Pumping Stations		3-2	A	923	80	116	923	-67	0	3																																																	52												52																							
Mainlaying Works																																																																																														
Fresh Water / Salt Water Mainlaying		4-1	D	8	62	109	8	-26	0	3													86												86												86												86												86																							
E&M Installation																																																																																														
E&M Installation for Ancillary Buildings		5-1	E	1333	77	115	1333	-70	0	3																																																	47												47																							
E&M Installation for Relocated DHSRs and Pumping Stations		5-2	A	923	80	109	923	-67	0	3																																																	45												45																							
Other Associated Works																																																																																														
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal		6-1	C	1320	77	103	1320	-70	0	3																																																													36												36											
Predicted Noise Level during Daytime Period, dB(A)																																																																			52													52														

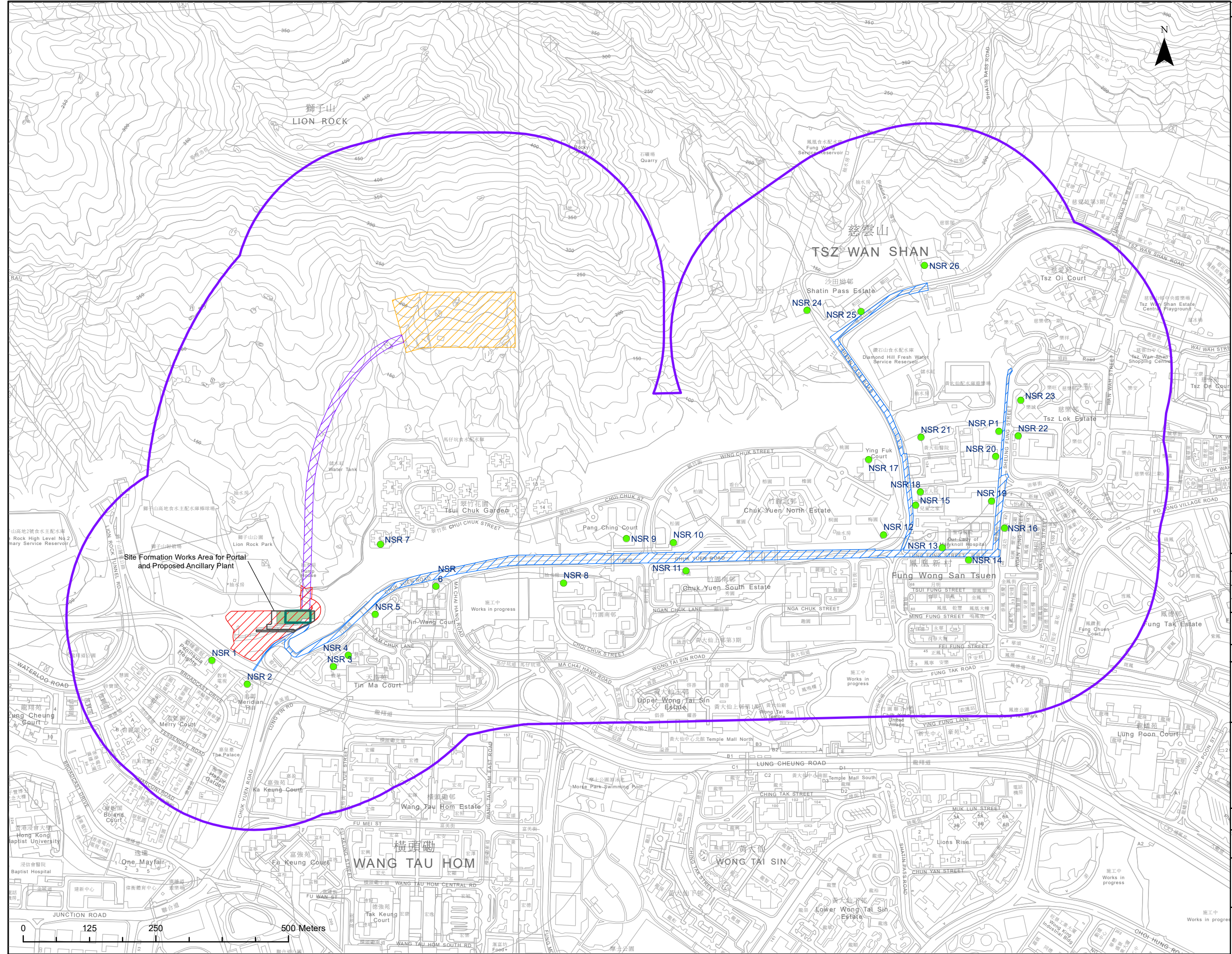
Representative Floor:		13													mPD Level:													100													(Mid Level)																																																					
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027																								
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																		
General		Site Mobilization																																																																																												
Cavern and Tunnel Construction																																																																																														
Excavation at Access Tunnel Portal		2-1	C	1320	77	118	1321	-70	0	3													50												50												50												50												50																							
Construction of Access Tunnel		2-2	B	1134	78	125	1134	-69	0	3													59												59												59												59												59																							
Construction of Cavern		2-3	A	923	80	125	923	-67	0	3																									61												61												61												61																							
Stone Crushing (within Noise Enclosure)		2-4	F	1340	77	112	1341	-71	0	3													44												44												44												44												44																							
Structural Works																																																																																														
Ancillary Buildings at Tunnel Portal		3-1	C	1320	77	116	1321	-70	0	3																																																	49												49																							
Structural Works for Relocated DHSRs and Pumping Stations		3-2	A	923	80	116	923	-67	0	3																																																	52												52																							
Mainlaying Works																																																																																														
Fresh Water / Salt Water Mainlaying		4-1	D	8	62	109	38	-40	0	3													73												73												73												73												73																							
E&M Installation																																																																																														
E&M Installation for Ancillary Buildings		5-1	E	1333	77	115	1333	-70	0	3																																																	47												47																							
E&M Installation for Relocated DHSRs and Pumping Stations		5-2	A	923	80	109	923	-67	0	3																																																	45												45																							
Other Associated Works																																																																																														
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal		6-1	C	1320	77	103	1321	-70	0	3																																																													36												36											
Predicted Noise Level during Daytime Period, dB(A)																																																																			52													52														

Representative Floor:		25													mPD Level:													134													(High Level)																																																					
Activity	Works ID	Works Area	Hor. Dist. m	mPD Level	SWL dB(A)	Distance m	Corr. for Distance dB(A) [1][2]	Corr. for Topo	Corr. for façade dB(A)	2022												2023												2024												2025												2026												2027																								
										6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																		
General		Site Mobilization																																																																																												
Cavern and Tunnel Construction																																																																																														
Excavation at Access Tunnel Portal		2-1	C	1320	77	118	1322	-70	0	3													50												50												50												50												50																							
Construction of Access Tunnel		2-2	B	1134	78	125	1135	-69	0	3													59												59												59												59												59																							
Construction of Cavern		2-3	A	923	80	125	925	-67	0	3																									61												61												61												61																							
Stone Crushing (within Noise Enclosure)		2-4	F	1340	77	112	1342	-71	0	3													44												44												44												44												44																							
Structural Works																																																																																														
Ancillary Buildings at Tunnel Portal		3-1	C	1320	77	116	1322	-70	0	3																																																	49												49																							
Structural Works for Relocated DHSRs and Pumping Stations		3-2	A	923	80	116	925	-67	0	3																																																	52												52																							
Mainlaying Works																																																																																														
Fresh Water / Salt Water Mainlaying		4-1	D	8	62	109	73	-45	0	3													67												67												67												67												67																							
E&M Installation																																																																																														
E&M Installation for Ancillary Buildings		5-1	E	1333	77	115	1334	-70	0	3																																																	47												47																							
E&M Installation for Relocated DHSRs and Pumping Stations		5-2	A	923	80	109	925	-67	0	3																																																	45												45																							
Other Associated Works																																																																																														
Slope, Landscaping Works and Reinstatement for Access Tunnel Portal		6-1	C	1320	77	103	1322	-70	0	3																																																													36												36											
Predicted Noise Level during Daytime Period, dB(A)																																																																			52													52														

Predicted Noise Level exceeded the corresponding EIAO-TM noise criteria of 75 dB(A)

Note:
 [1] Distance Correction for PMEs = 10*log(2^PI/r^2) [where PI = 3.1416 and r is the distance of NSR from notional noise source]
 [2] The figures are rounded-up to a whole number.

- Legend**
- Representative Noise Sensitive Receivers
 - ▭ Study Area (300m)
 - ▨ Works Area A
 - ▨ Works Area B
 - ▨ Works Area C
 - ▨ Works Area D
 - ▨ Works Area E
 - ▨ Works Area F



Revision	Description			
	Designed	Reviewed	Drawn	Checked
Initial	PSY	ET	PSY	ET
Date	6/21	6/21	6/21	6/21

Approved

Agreement No. **CE 15/2018 (WS)**

Project Title
Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns – Investigation, Design and Construction

Figure Title
Locations of Works Area

Drawing No. **Appendix 4C-2** Revision **-**

Scale **A3: 1:6,500**

Client **水務署 Water Supplies Department**

Consultant **binlles**



Legend

- Representative Noise Sensitive Receivers
- Proposed Ancillary Building
- Proposed Temporary Storage Area for Construction Materials
- Proposed Access
- Proposed Cavern
- Works Area for Tunnel Portal & Ancillary Building
- Works Area for Water Mainlaying
- Study Area (300m)
- Noise Enclosure

Revision	Description			
	Designed	Reviewed	Drawn	Checked
Initial	PSY	ET	PSY	ET
Date	12/20	12/20	12/20	12/20

Approved

Agreement No. **CE 15/2018 (WS)**

Project Title
Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns – Investigation, Design and Construction

Figure Title
Predicted Noise Levels at Selected Assessment Points under Unmitigated Scenario

Drawing No.	Appendix 4C-3	Revision	-
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Scale
A3: 1:6,500

Client
**水務署
Water Supplies Department**

Consultant
binlles

