

Annex C

Construction Noise Calculations

- Phase 1 Construction Works (C1-C8)
- Phase 2 Construction Works (C9-C28)
- Road Junction Improvement Works (C29-C32)

Predicted Noise Levels during Construction Phase 1 in Tuen Mun Area 54

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)	NSR16 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)
Site Formation-Roadworks										
	Formation	118	82.1	67.7	69.0	59.7	35	185	158	464
		(1)Max. PNL	82	68	69	60				
Roadworks										
	Excavation	118	82.1	67.7	69.0	59.7	35	185	158	464
	Placement of Road Base	115	79.1	64.7	66.0	56.7	35	185	158	464
	Kerbing	114	78.1	63.7	65.0	55.7	35	185	158	464
	Leveling of New Road	117	81.1	66.7	68.0	58.7	35	185	158	464
	Road Paving	116	80.1	65.7	67.0	57.7	35	185	158	464
		(2)Max. PNL	82.1	67.7	69.0	59.7				
Drainage / Utility Works										
	Trench Excavation	115	79.1	64.7	66.0	56.7	35	185	158	464
	Preparation of Formation	114	78.1	63.7	65.0	55.7	35	185	158	464
	Pipe/utility Installation	112	76.1	61.7	63.0	53.7	35	185	158	464
	Construction of Manhole	114	78.1	63.7	65.0	55.7	35	185	158	464
	Backfilling	113	77.1	62.7	64.0	54.7	35	185	158	464
		(3)Max. PNL	79.1	64.7	66.0	56.7				
	Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	84	69	71	61				
Site Formation-Building works										
	Formation	118	61.4	58.6	58.5	57.3	383	524	530	608
		(5)Max. PNL	61	59	59	57				
Superstructure Construction										
	Bored Piling	100	43.4	40.6	40.5	39.3	383	524	530	608
	Concreting Works	114	57.4	54.6	54.5	53.3	383	524	530	608
	Formwork &Reinforcement	115	58.4	55.6	55.5	54.3	383	524	530	608
	Material Handling	112	55.4	52.6	52.5	51.3	383	524	530	608
		(6)Max. PNL	58	56	56	54				
	Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
	Site Form.(Rd works + Bldg works)	Cum. PNL	82	68	69	62				
	Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL		84	70	71	62				
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18 (31)	NSR7 (3)	NSR11 (28)	NSR27	NSR18 (31)	NSR7 (3)	NSR11 (28)	NSR27
Site Formation-Roadworks										
	Formation	118	62.3	81.2	58.0	62.4	344	39	563	340
		(1)Max. PNL	62	81	58	62				
Roadworks										
	Excavation	118	62.3	81.2	58.0	62.4	344	39	563	340
	Placement of Road Base	115	59.3	78.2	55.0	59.4	344	39	563	340
	Kerbing	114	58.3	77.2	54.0	58.4	344	39	563	340
	Leveling of New Road	117	61.3	80.2	57.0	61.4	344	39	563	340
	Road Paving	116	60.3	79.2	56.0	60.4	344	39	563	340
		(2)Max. PNL	62	81	58	62				
Drainage / Utility Works										
	Trench Excavation	115	59.3	78.2	55.0	59.4	344	39	563	340
	Preparation of Formation	114	58.3	77.2	54.0	58.4	344	39	563	340
	Pipe/utility Installation	112	56.3	75.2	52.0	56.4	344	39	563	340
	Construction of Manhole	114	58.3	77.2	54.0	58.4	344	39	563	340
	Backfilling	113	57.3	76.2	53.0	57.4	344	39	563	340
		(3)Max. PNL	59	78	55	59				
	Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	64	83	60	64				
Site Formation-Building works										
	Formation	118	56.3	66.9	58.3	60.4	686	203	542	426
		(5)Max. PNL	56	67	58	60				
Superstructure Construction										
	Bored Piling	100	38.3	48.9	40.3	42.4	686	203	542	426
	Concreting Works	114	52.3	62.9	54.3	56.4	686	203	542	426
	Formwork &Reinforcement	115	53.3	63.9	55.3	57.4	686	203	542	426
	Material Handling	112	50.3	60.9	52.3	54.4	686	203	542	426
		(6)Max. PNL	53	64	55	57				
	Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
	Site Form.(Rd works + Bldg works)	Cum. PNL	63	81	61	65				
	Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL		64	83	61	65				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR21 (32)	NSR22 (30)	NSR23 (29)	NSR4 (A)	NSR21 (32)	NSR22 (30)	NSR23 (29)	NSR4 (A)
Site Formation-Roadworks										
	Formation	118	54.0	54.3	54.0	75.2	896	860	897	78
		(1)Max. PNL	54	54	54	75				
Roadworks										
	Excavation	118	54.0	54.3	54.0	75.2	896	860	897	78
	Placement of Road Base	115	51.0	51.3	51.0	72.2	896	860	897	78
	Kerbing	114	50.0	50.3	50.0	71.2	896	860	897	78
	Leveling of New Road	117	53.0	53.3	53.0	74.2	896	860	897	78
	Road Paving	116	52.0	52.3	52.0	73.2	896	860	897	78
		(2)Max. PNL	54	54	54	75				
Drainage / Utility Works										
	Trench Excavation	115	51.0	51.3	51.0	72.2	896	860	897	78
	Preparation of Formation	114	50.0	50.3	50.0	71.2	896	860	897	78
	Pipe/Utility Installation	112	48.0	48.3	48.0	69.2	896	860	897	78
	Construction of Manhole	114	50.0	50.3	50.0	71.2	896	860	897	78
	Backfilling	113	49.0	49.3	49.0	70.2	896	860	897	78
		(3)Max. PNL	51	51	51	72				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	56	56	56	77				
Site Formation-Building works										
	Formation	118	53.4	55.4	54.9	80.6	954	764	803	42
		(5)Max. PNL	53	55	55	81				
Superstructure Construction										
	Bored Piling	100	35.4	37.4	36.9	62.6	954	764	803	42
	Concreting Works	114	49.4	51.4	50.9	76.6	954	764	803	42
	Formwork & Reinforcement	115	50.4	52.4	51.9	77.6	954	764	803	42
	Material Handling	112	47.4	49.4	48.9	74.6	954	764	803	42
		(6)Max. PNL	50	52	52	78				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+(5)								
		Cum. PNL	57	58	57	82				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	57	58	57	80				
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)	NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)
Site Formation-Roadworks										
	Formation	118	56.5	60.0	53.0	53.4	669	450	1000	954
		(1)Max. PNL	57	60	53	53				
Roadworks										
	Excavation	118	56.5	60.0	53.0	53.4	669	450	1000	954
	Placement of Road Base	115	53.5	57.0	50.0	50.4	669	450	1000	954
	Kerbing	114	52.5	56.0	49.0	49.4	669	450	1000	954
	Leveling of New Road	117	55.5	59.0	52.0	52.4	669	450	1000	954
	Road Paving	116	54.5	58.0	51.0	51.4	669	450	1000	954
		(2)Max. PNL	57	60	53	53				
Drainage / Utility Works										
	Trench Excavation	115	53.5	57.0	50.0	50.4	669	450	1000	954
	Preparation of Formation	114	52.5	56.0	49.0	49.4	669	450	1000	954
	Pipe/Utility Installation	112	50.5	54.0	47.0	47.4	669	450	1000	954
	Construction of Manhole	114	52.5	56.0	49.0	49.4	669	450	1000	954
	Backfilling	113	51.5	55.0	48.0	48.4	669	450	1000	954
		(3)Max. PNL	54	57	50	50				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	58	62	55	55				
Site Formation-Building works										
	Formation	118	55.9	60.0	52.6	53.5	714	447	1044	945
		(5)Max. PNL	56	60	53	54				
Superstructure Construction										
	Bored Piling	100	37.9	42.0	34.6	35.5	714	447	1044	945
	Concreting Works	114	51.9	56.0	48.6	49.5	714	447	1044	945
	Formwork & Reinforcement	115	52.9	57.0	49.6	50.5	714	447	1044	945
	Material Handling	112	49.9	54.0	46.6	47.5	714	447	1044	945
		(6)Max. PNL	53	57	50	51				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+(5)								
		Cum. PNL	59	63	56	56				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	59	63	56	56				

Predicted Noise Levels during Construction Phase 1 in Tuen Mun Area 54 - Use of Quiet Plant										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR16 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)	NSR16 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)
Site Formation-Roadworks										
	Formation	112	76.1	61.7	63.0	53.7	35	185	158	464
		(1)Max. PNL	76	62	63	54				
Roadworks										
	Excavation	112	76.1	61.7	63.0	53.7	35	185	158	464
	Placement of Road Base	110	74.1	59.7	61.0	51.7	35	185	158	464
	Kerbing	103	67.1	52.7	54.0	44.7	35	185	158	464
	Leveling of New Road	114	78.1	63.7	65.0	55.7	35	185	158	464
	Road Paving	112	76.1	61.7	63.0	53.7	35	185	158	464
		(2)Max. PNL	78	64	65	56				
Drainage / Utility Works										
	Trench Excavation	108	72.1	57.7	59.0	49.7	35	185	158	464
	Preparation of Formation	110	74.1	59.7	61.0	51.7	35	185	158	464
	Pipe/utility Installation	106	70.1	55.7	57.0	47.7	35	185	158	464
	Construction of Manhole	103	67.1	52.7	54.0	44.7	35	185	158	464
	Backfilling	107	71.1	56.7	58.0	48.7	35	185	158	464
		(3)Max. PNL	74	60	61	52				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	80	65	67	57				
Site Formation-Building works										
	Formation	112	55.4	52.6	52.5	51.3	383	524	530	608
		(5)Max. PNL	55	53	53	51				
Superstructure Construction										
	Bored Piling	100	43.4	40.6	40.5	39.3	383	524	530	608
	Concreting Works	103	46.4	43.6	43.5	42.3	383	524	530	608
	Formwork & Reinforcement	113	56.4	53.6	53.5	52.3	383	524	530	608
	Material Handling	107	50.4	47.6	47.5	46.3	383	524	530	608
		(6)Max. PNL	56	54	54	52				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+(5)								
		Cum. PNL	76	62	63	56				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	80	65	67	58				
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18(31)	NSR7 (3)	NSR11 (28)	NSR 27	NSR18 (31)	NSR7 (3)	NSR11 (28)	NSR27
Site Formation-Roadworks										
	Formation	112	56.3	75.2	52.0	56.4	344	39	563	340
		(1)Max. PNL	56	75	52	56				
Roadworks										
	Excavation	112	56.3	75.2	52.0	56.4	344	39	563	340
	Placement of Road Base	110	54.3	73.2	50.0	54.4	344	39	563	340
	Kerbing	103	47.3	66.2	43.0	47.4	344	39	563	340
	Leveling of New Road	114	58.3	77.2	54.0	58.4	344	39	563	340
	Road Paving	112	56.3	75.2	52.0	56.4	344	39	563	340
		(2)Max. PNL	58	77	54	58				
Drainage / Utility Works										
	Trench Excavation	108	52.3	71.2	48.0	52.4	344	39	563	340
	Preparation of Formation	110	54.3	73.2	50.0	54.4	344	39	563	340
	Pipe/utility Installation	106	50.3	69.2	46.0	50.4	344	39	563	340
	Construction of Manhole	103	47.3	66.2	43.0	47.4	344	39	563	340
	Backfilling	107	51.3	70.2	47.0	51.4	344	39	563	340
		(3)Max. PNL	54	73	50	54				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	60	79	55	60				
Site Formation-Building works										
	Formation	112	50.3	60.9	52.3	54.4	686	203	542	426
		(5)Max. PNL	50	61	52	54				
Superstructure Construction										
	Bored Piling	100	38.3	48.9	40.3	42.4	686	203	542	426
	Concreting Works	103	41.3	51.9	43.3	45.4	686	203	542	426
	Formwork & Reinforcement	113	51.3	61.9	53.3	55.4	686	203	542	426
	Material Handling	107	45.3	55.9	47.3	49.4	686	203	542	426
		(6)Max. PNL	51	62	53	55				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+(5)								
		Cum. PNL	57	75	55	59				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	60	79	58	61				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR21(32)	NSR22 (30)	NSR23 (29)	NSR4 (A)	NSR21 (32)	NSR22 (30)	NSR23 (29)	NSR4 (A)
Site Formation-Roadworks										
	Formation	112	48.0	48.3	48.0	69.2	896	860	897	78
		(1)Max. PNL	48	48	48	69				
Roadworks										
	Excavation	112	48.0	48.3	48.0	69.2	896	860	897	78
	Placement of Road Base	110	46.0	46.3	46.0	67.2	896	860	897	78
	Kerbing	103	39.0	39.3	39.0	60.2	896	860	897	78
	Leveling of New Road	114	50.0	50.3	50.0	71.2	896	860	897	78
	Road Paving	112	48.0	48.3	48.0	69.2	896	860	897	78
		(2)Max. PNL	50	50	50	71				
Drainage / Utility Works										
	Trench Excavation	108	44.0	44.3	44.0	65.2	896	860	897	78
	Preparation of Formation	110	46.0	46.3	46.0	67.2	896	860	897	78
	Pipe/Utility Installation	106	42.0	42.3	42.0	63.2	896	860	897	78
	Construction of Manhole	103	39.0	39.3	39.0	60.2	896	860	897	78
	Backfilling	107	43.0	43.3	43.0	64.2	896	860	897	78
		(3)Max. PNL	46	46	46	67				
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	51	52	51	73			
Site Formation-Building works										
	Formation	112	47.4	49.4	48.9	74.6	954	764	803	42
		(5)Max. PNL	47	49	49	75				
Superstructure Construction										
	Bored Piling	100	35.4	37.4	36.9	62.6	954	764	803	42
	Concreting Works	103	38.4	40.4	39.9	65.6	954	764	803	42
	Formwork &Reinforcement	113	48.4	50.4	49.9	75.6	954	764	803	42
	Material Handling	107	42.4	44.4	43.9	69.6	954	764	803	42
		(6)Max. PNL	48	50	50	76				
Cumulative Impacts (Rd works + Bldg works)			(1)+(5)	51	52	51	76			
Site Form.(Rd works + Bldg works)			Cum. PNL	51	52	51	76			
Roadworks + Drainage + Super.			(4) + (6)	53	54	54	77			
Cum. PNL			53	54	54	77				
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)	NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)
Site Formation-Roadworks										
	Formation	112	50.5	54.0	47.0	47.4	669	450	1000	954
		(1)Max. PNL	51	54	47	47				
Roadworks										
	Excavation	112	50.5	54.0	47.0	47.4	669	450	1000	954
	Placement of Road Base	110	48.5	52.0	45.0	45.4	669	450	1000	954
	Kerbing	103	41.5	45.0	38.0	38.4	669	450	1000	954
	Leveling of New Road	114	52.5	56.0	49.0	49.4	669	450	1000	954
	Road Paving	112	50.5	54.0	47.0	47.4	669	450	1000	954
		(2)Max. PNL	53	56	49	49				
Drainage / Utility Works										
	Trench Excavation	108	46.5	50.0	43.0	43.4	669	450	1000	954
	Preparation of Formation	110	48.5	52.0	45.0	45.4	669	450	1000	954
	Pipe/Utility Installation	106	44.5	48.0	41.0	41.4	669	450	1000	954
	Construction of Manhole	103	41.5	45.0	38.0	38.4	669	450	1000	954
	Backfilling	107	45.5	49.0	42.0	42.4	669	450	1000	954
		(3)Max. PNL	49	52	45	45				
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	54	57	50	51			
Site Formation-Building works										
	Formation	112	49.9	54.0	46.6	47.5	714	447	1044	945
		(5)Max. PNL	50	54	47	48				
Superstructure Construction										
	Bored Piling	100	37.9	42.0	34.6	35.5	714	447	1044	945
	Concreting Works	103	40.9	45.0	37.6	38.5	714	447	1044	945
	Formwork &Reinforcement	113	50.9	55.0	47.6	48.5	714	447	1044	945
	Material Handling	107	44.9	49.0	41.6	42.5	714	447	1044	945
		(6)Max. PNL	51	55	48	49				
Cumulative Impacts (Rd works + Bldg works)			(1)+(5)	53	57	50	50			
Site Form.(Rd works + Bldg works)			Cum. PNL	53	57	50	50			
Roadworks + Drainage + Super.			(4) + (6)	56	59	52	53			
Cum. PNL			56	59	52	53				

Predicted Noise Levels during Construction Phase 1 in Tuen Mun Area 54 - Use of Quiet Plant with Barrier										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR16 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)	NSR16 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)
Site Formation-Roadworks										
	Formation	112	76.1	61.7	63.0	53.7	35	185	158	464
		(1)Max. PNL	76	62	63	54				
Roadworks										
	Excavation	112	76.1	61.7	63.0	53.7	35	185	158	464
	Placement of Road Base	110	74.1	59.7	61.0	51.7	35	185	158	464
	Kerbing	96	60.1	45.7	47.0	37.7	35	185	158	464
	Leveling of New Road	111	75.1	60.7	62.0	52.7	35	185	158	464
	Road Paving	111	75.1	60.7	62.0	52.7	35	185	158	464
		(2)Max. PNL	76	62	63	54				
Drainage / Utility Works										
	Trench Excavation	106	70.1	55.7	57.0	47.7	35	185	158	464
	Preparation of Formation	110	74.1	59.7	61.0	51.7	35	185	158	464
	Pipe/utility Installation	101	65.1	50.7	52.0	42.7	35	185	158	464
	Construction of Manhole	96	60.1	45.7	47.0	37.7	35	185	158	464
	Backfilling	106	70.1	55.7	57.0	47.7	35	185	158	464
		(3)Max. PNL	74	60	61	52				
	Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	78	64	65	56				
Site Formation-Building works										
	Formation	112	55.4	52.6	52.5	51.3	383	524	530	608
		(5)Max. PNL	55	53	53	51				
Superstructure Construction										
	Bored Piling	100	43.4	40.6	40.5	39.3	383	524	530	608
	Concreting Works	96	39.4	36.6	36.5	35.3	383	524	530	608
	Formwork &Reinforcement	112	55.4	52.6	52.5	51.3	383	524	530	608
	Material Handling	103	46.4	43.6	43.5	42.3	383	524	530	608
		(6)Max. PNL	55	53	53	51				
	Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
	Site Form.(Rd works + Bldg works)	Cum. PNL	76	62	63	56				
	Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL	78	64	65	57					
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18(31)	NSR7 (3)	NSR11 (28)	NSR 27	NSR18 (31)	NSR7 (3)	NSR11 (28)	NSR27
Site Formation-Roadworks										
	Formation	112	56.3	75.2	52.0	56.4	344	39	563	340
		(1)Max. PNL	56	75	52	56				
Roadworks										
	Excavation	112	56.3	75.2	52.0	56.4	344	39	563	340
	Placement of Road Base	110	54.3	73.2	50.0	54.4	344	39	563	340
	Kerbing	96	40.3	59.2	36.0	40.4	344	39	563	340
	Leveling of New Road	111	55.3	74.2	51.0	55.4	344	39	563	340
	Road Paving	111	55.3	74.2	51.0	55.4	344	39	563	340
		(2)Max. PNL	56	75	52	56				
Drainage / Utility Works										
	Trench Excavation	106	50.3	69.2	46.0	50.4	344	39	563	340
	Preparation of Formation	110	54.3	73.2	50.0	54.4	344	39	563	340
	Pipe/utility Installation	101	45.3	64.2	41.0	45.4	344	39	563	340
	Construction of Manhole	96	40.3	59.2	36.0	40.4	344	39	563	340
	Backfilling	106	50.3	69.2	46.0	50.4	344	39	563	340
		(3)Max. PNL	54	73	50	54				
	Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	58	77	54	59				
Site Formation-Building works										
	Formation	112	50.3	60.9	52.3	54.4	686	203	542	426
		(5)Max. PNL	50	61	52	54				
Superstructure Construction										
	Bored Piling	100	38.3	48.9	40.3	42.4	686	203	542	426
	Concreting Works	96	34.3	44.9	36.3	38.4	686	203	542	426
	Formwork &Reinforcement	112	50.3	60.9	52.3	54.4	686	203	542	426
	Material Handling	103	41.3	51.9	43.3	45.4	686	203	542	426
		(6)Max. PNL	50	61	52	54				
	Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
	Site Form.(Rd works + Bldg works)	Cum. PNL	57	75	55	59				
	Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL	59	77	56	60					

Predicted Noise Levels during Phase 1 Construction with Quiet Plant and Barriers

Site Identity Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
		NSR21(32)	NSR22 (30)	NSR23 (29)	NSR4 (A)	NSR21 (32)	NSR22 (30)	NSR23 (29)	NSR4 (A)
Site Formation-Roadworks									
Formation	112	48.0	48.3	48.0	69.2	896	860	897	78
	(1)Max. PNL	48	48	48	69				
Roadworks									
Excavation	112	48.0	48.3	48.0	69.2	896	860	897	78
Placement of Road Base	110	46.0	46.3	46.0	67.2	896	860	897	78
Kerbing	96	32.0	32.3	32.0	53.2	896	860	897	78
Leveling of New Road	111	47.0	47.3	47.0	68.2	896	860	897	78
Road Paving	111	47.0	47.3	47.0	68.2	896	860	897	78
	(2)Max. PNL	48	48	48	69				
Drainage / Utility Works									
Trench Excavation	106	42.0	42.3	42.0	63.2	896	860	897	78
Preparation of Formation	110	46.0	46.3	46.0	67.2	896	860	897	78
Pipe/utility Installation	101	37.0	37.3	37.0	58.2	896	860	897	78
Construction of Manhole	96	32.0	32.3	32.0	53.2	896	860	897	78
Backfilling	106	42.0	42.3	42.0	63.2	896	860	897	78
	(3)Max. PNL	46	46	46	67				
Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	50	50	50	71				
Site Formation-Building works									
Formation	112	47.4	49.4	48.9	74.6	954	764	803	42
	(5)Max. PNL	47	49	49	75				
Superstructure Construction									
Bored Piling	100	35.4	37.4	36.9	62.6	954	764	803	42
Concreting Works	96	31.4	33.4	32.9	58.6	954	764	803	42
Formwork &Reinforcement	112	47.4	49.4	48.9	74.6	954	764	803	42
Material Handling	103	38.4	40.4	39.9	65.6	954	764	803	42
	(6)Max. PNL	47	49	49	75				
Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
Site Form.(Rd works + Bldg works)	Cum. PNL	51	52	51	76				
Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL	52	53	53	76				
Site Identity		Predicted Noise Level (PNL)				Distance (m)			
Activity	SWL	NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)	NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)
Site Formation-Roadworks									
Formation	112	50.5	54.0	47.0	47.4	669	450	1000	954
	(1)Max. PNL	51	54	47	47				
Roadworks									
Excavation	112	50.5	54.0	47.0	47.4	669	450	1000	954
Placement of Road Base	110	48.5	52.0	45.0	45.4	669	450	1000	954
Kerbing	96	34.5	38.0	31.0	31.4	669	450	1000	954
Leveling of New Road	111	49.5	53.0	46.0	46.4	669	450	1000	954
Road Paving	111	49.5	53.0	46.0	46.4	669	450	1000	954
	(2)Max. PNL	51	54	47	47				
Drainage / Utility Works									
Trench Excavation	106	44.5	48.0	41.0	41.4	669	450	1000	954
Preparation of Formation	110	48.5	52.0	45.0	45.4	669	450	1000	954
Pipe/utility Installation	101	39.5	43.0	36.0	36.4	669	450	1000	954
Construction of Manhole	96	34.5	38.0	31.0	31.4	669	450	1000	954
Backfilling	106	44.5	48.0	41.0	41.4	669	450	1000	954
	(3)Max. PNL	49	52	45	45				
Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	53	56	49	50				
Site Formation-Building works									
Formation	112	49.9	54.0	46.6	47.5	714	447	1044	945
	(5)Max. PNL	50	54	47	48				
Superstructure Construction									
Bored Piling	100	37.9	42.0	34.6	35.5	714	447	1044	945
Concreting Works	96	33.9	38.0	30.6	31.5	714	447	1044	945
Formwork &Reinforcement	112	49.9	54.0	46.6	47.5	714	447	1044	945
Material Handling	103	40.9	45.0	37.6	38.5	714	447	1044	945
	(6)Max. PNL	50	54	47	48				
Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
Site Form.(Rd works + Bldg works)	Cum. PNL	53	57	50	50				
Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL	55	58	51	52				

**Predicted Noise Levels during Construction Phase 1 in Tuen Mun Area 54 -
Use of Quiet Plant with Barrier and limiting the usage of operating PME**

Site Identity Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
		NSR16 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)	NSR16 (1)	NSR19 (22)	NSR17 (23)	NSR20 (26)
Site Formation-Roadworks									
Formation	109	73.1	58.7	60.0	50.7	35	185	158	464
	(1)Max. PNL	73	59	60	51				
Roadworks									
Excavation	109	73.1	58.7	60.0	50.7	35	185	158	464
Placement of Road Base	107	71.1	56.7	58.0	48.7	35	185	158	464
Kerbing	93	57.1	42.7	44.0	34.7	35	185	158	464
Leveling of New Road	108	72.1	57.7	59.0	49.7	35	185	158	464
Road Paving	108	72.1	57.7	59.0	49.7	35	185	158	464
	(2)Max. PNL	73	59	60	51				
Drainage / Utility Works									
Trench Excavation	103	67.1	52.7	54.0	44.7	35	185	158	464
Preparation of Formation	107	71.1	56.7	58.0	48.7	35	185	158	464
Pipe/utility Installation	98	62.1	47.7	49.0	39.7	35	185	158	464
Construction of Manhole	93	57.1	42.7	44.0	34.7	35	185	158	464
Backfilling	103	67.1	52.7	54.0	44.7	35	185	158	464
	(3)Max. PNL	71	57	58	49				
Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	75	61	62	53				
Site Formation-Building works									
Formation	109	52.4	49.6	49.5	48.3	383	524	530	608
	(5)Max. PNL	52	50	50	48				
Superstructure Construction									
Bored Piling	97	40.4	37.6	37.5	36.3	383	524	530	608
Concreting Works	93	36.4	33.6	33.5	32.3	383	524	530	608
Formwork & Reinforcement	109	52.4	49.6	49.5	48.3	383	524	530	608
Material Handling	100	43.4	40.6	40.5	39.3	383	524	530	608
	(6)Max. PNL	52	50	50	48				
Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
Site Form.(Rd works + Bldg works)	Cum. PNL	73	59	60	53				
Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL	75	61	62	54				
Site Identity									
Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
		NSR18(31)	NSR7 (3)	NSR11 (28)	NSR 27	NSR18 (3)	NSR7 (3)	NSR11 (28)	NSR27
Site Formation-Roadworks									
Formation	109	53.3	72.2	49.0	53.4	344	39	563	340
	(1)Max. PNL	53	72	49	53				
Roadworks									
Excavation	109	53.3	72.2	49.0	53.4	344	39	563	340
Placement of Road Base	107	51.3	70.2	47.0	51.4	344	39	563	340
Kerbing	93	37.3	56.2	33.0	37.4	344	39	563	340
Leveling of New Road	108	52.3	71.2	48.0	52.4	344	39	563	340
Road Paving	108	52.3	71.2	48.0	52.4	344	39	563	340
	(2)Max. PNL	53	72	49	53				
Drainage / Utility Works									
Trench Excavation	103	47.3	66.2	43.0	47.4	344	39	563	340
Preparation of Formation	107	51.3	70.2	47.0	51.4	344	39	563	340
Pipe/utility Installation	98	42.3	61.2	38.0	42.4	344	39	563	340
Construction of Manhole	93	37.3	56.2	33.0	37.4	344	39	563	340
Backfilling	103	47.3	66.2	43.0	47.4	344	39	563	340
	(3)Max. PNL	51	70	47	51				
Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	55	74	51	56				
Site Formation-Building works									
Formation	109	47.3	57.9	49.3	51.4	686	203	542	426
	(5)Max. PNL	47	58	49	51				
Superstructure Construction									
Bored Piling	97	35.3	45.9	37.3	39.4	686	203	542	426
Concreting Works	93	31.3	41.9	33.3	35.4	686	203	542	426
Formwork & Reinforcement	109	47.3	57.9	49.3	51.4	686	203	542	426
Material Handling	100	38.3	48.9	40.3	42.4	686	203	542	426
	(6)Max. PNL	47	58	49	51				
Cumulative Impacts (Rd works + Bldg works)	(1)+(5)								
Site Form.(Rd works + Bldg works)	Cum. PNL	54	72	52	56				
Roadworks + Drainage + Super.	(4) + (6)								
	Cum. PNL	56	74	53	57				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR21(32)	NSR22 (30)	NSR23 (29)	NSR4 (A)	NSR21 (3)	NSR22 (30)	NSR23 (29)	NSR4 (A)
Site Formation-Roadworks										
	Formation	109	45.0	45.3	45.0	66.2	896	860	897	78
		(1)Max. PNL	45	45	45	66				
Roadworks										
	Excavation	109	45.0	45.3	45.0	66.2	896	860	897	78
	Placement of Road Base	107	43.0	43.3	43.0	64.2	896	860	897	78
	Kerbing	93	29.0	29.3	29.0	50.2	896	860	897	78
	Leveling of New Road	108	44.0	44.3	44.0	65.2	896	860	897	78
	Road Paving	108	44.0	44.3	44.0	65.2	896	860	897	78
		(2)Max. PNL	45	45	45	66				
Drainage / Utility Works										
	Trench Excavation	103	39.0	39.3	39.0	60.2	896	860	897	78
	Preparation of Formation	107	43.0	43.3	43.0	64.2	896	860	897	78
	Pipe/utility Installation	98	34.0	34.3	34.0	55.2	896	860	897	78
	Construction of Manhole	93	29.0	29.3	29.0	50.2	896	860	897	78
	Backfilling	103	39.0	39.3	39.0	60.2	896	860	897	78
		(3)Max. PNL	43	43	43	64				
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	47	47	47	68			
Site Formation-Building works										
	Formation	109	44.4	46.4	45.9	71.6	954	764	803	42
		(5)Max. PNL	44	46	46	72				
Superstructure Construction										
	Bored Piling	97	32.4	34.4	33.9	59.6	954	764	803	42
	Concreting Works	93	28.4	30.4	29.9	55.6	954	764	803	42
	Formwork &Reinforcement	109	44.4	46.4	45.9	71.6	954	764	803	42
	Material Handling	100	35.4	37.4	36.9	62.6	954	764	803	42
		(6)Max. PNL	44	46	46	72				
Cumulative Impacts (Rd works + Bldg works)			(1)+ (5)							
Site Form.(Rd works + Bldg works)			Cum. PNL	48	49	48	73			
Roadworks + Drainage + Super.			(4) + (6)							
			Cum. PNL	49	50	50	73			
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)	NSR5 (B)	NSR6 (C)	NSR24 (20)	NSR24A(H)
Site Formation-Roadworks										
	Formation	109	47.5	51.0	44.0	44.4	669	450	1000	954
		(1)Max. PNL	48	51	44	44				
Roadworks										
	Excavation	109	47.5	51.0	44.0	44.4	669	450	1000	954
	Placement of Road Base	107	45.5	49.0	42	42.4	669	450	1000	954
	Kerbing	93	31.5	35.0	28.0	28.4	669	450	1000	954
	Leveling of New Road	108	46.5	50.0	43.0	43.4	669	450	1000	954
	Road Paving	108	46.5	50.0	43.0	43.4	669	450	1000	954
		(2)Max. PNL	48	51	44	44				
Drainage / Utility Works										
	Trench Excavation	103	41.5	45.0	38.0	38.4	669	450	1000	954
	Preparation of Formation	107	45.5	49.0	42.0	42.4	669	450	1000	954
	Pipe/utility Installation	98	36.5	40.0	33.0	33.4	669	450	1000	954
	Construction of Manhole	93	31.5	35.0	28.0	28.4	669	450	1000	954
	Backfilling	103	41.5	45.0	38.0	38.4	669	450	1000	954
		(3)Max. PNL	46	49	42	42				
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	50	53	46	47			
Site Formation-Building works										
	Formation	109	46.9	51.0	43.6	44.5	714	447	1044	945
		(5)Max. PNL	47	51	44	45				
Superstructure Construction										
	Bored Piling	97	34.9	39.0	31.6	32.5	714	447	1044	945
	Concreting Works	93	30.9	35.0	27.6	28.5	714	447	1044	945
	Formwork &Reinforcement	109	46.9	51.0	43.6	44.5	714	447	1044	945
	Material Handling	100	37.9	42.0	34.6	35.5	714	447	1044	945
		(6)Max. PNL	47	51	44	45				
Cumulative Impacts (Rd works + Bldg works)			(1)+ (5)							
Site Form.(Rd works + Bldg works)			Cum. PNL	50	54	47	47			
Roadworks + Drainage + Super.			(4) + (6)							
			Cum. PNL	52	55	48	49			

Predicted Noise Levels during Construction Phase 2 in Tuen Mun Area 54

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR16 (1)	NSR19(22)	NSR17(23)	NSR20(26)	NSR16(1)	NSR19(22)	NSR17(23)	NSR20(26)
Site Formation-Roadworks										
	Formation	118	54.8	53.5	53.2	54.0	813	948	981	891
		(1)Max. PNL	55	53	53	54				
Roadworks										
	Excavation	118	54.8	53.5	53.2	54.0	813	948	981	891
	Placement of Road Base	115	51.8	50.5	50.2	51.0	813	948	981	891
	Kerbing	114	50.8	49.5	49.2	50.0	813	948	981	891
	Leveling of New Road	117	53.8	52.5	52.2	53.0	813	948	981	891
	Road Paving	116	52.8	51.5	51.2	52.0	813	948	981	891
		(2)Max. PNL	55	53	53	54				
Drainage / Utility Works										
	Trench Excavation	115	51.8	50.5	50.2	51.0	813	948	981	891
	Preparation of Formation	114	50.8	49.5	49.2	50.0	813	948	981	891
	Pipe/utility Installation	112	48.8	47.5	47.2	48.0	813	948	981	891
	Construction of Manhole	114	50.8	49.5	49.2	50.0	813	948	981	891
	Backfilling	113	49.8	48.5	48.2	49.0	813	948	981	891
		(3)Max. PNL	52	50	50	51				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	57	55	55	56				
Site Formation-Building works at Site 2										
	Formation	118	53.9	54.1	53.2	58.2	905	881	977	548
		(a)Max. PNL	54	54	53	58				
Site Formation-Building works at Site 3										
	Formation	118	71.1	67.9	65.1	65.3	125	180	248	242
		(b)Max. PNL	71	68	65	65				
Site Formation-Building works at Site 4										
	Formation	118	61.0	62.8	60.2	72.7	401	326	437	104
		(c)Max. PNL	61	63	60	73				
Site Form. (Sites 2 + 3 + 4)										
	(a) + (b) + (C)	(5) Cum. PNL	72	69	67	74				
Superstructure Construction at Site 2										
	Bored Piling	100	35.9	36.1	35.2	40.2	905	881	977	548
	Concreting Works	114	49.9	50.1	49.2	54.2	905	881	977	548
	Formwork &Reinforcement	115	50.9	51.1	50.2	55.2	905	881	977	548
	Material Handling	112	47.9	48.1	47.2	52.2	905	881	977	548
		(d)Max. PNL	51	51	50	55				
Superstructure Construction at Site 3										
	Bored Piling	100	53.1	49.9	47.1	47.3	125	180	248	242
	Concreting Works	114	67.1	63.9	61.1	61.3	125	180	248	242
	Formwork &Reinforcement	115	68.1	64.9	62.1	62.3	125	180	248	242
	Material Handling	112	65.1	61.9	59.1	59.3	125	180	248	242
		(e)Max. PNL	68	65	62	62				
Superstructure Construction at Site 4										
	Bored Piling	100	43.0	44.8	42.2	54.7	401	326	437	104
	Concreting Works	114	57.0	58.8	56.2	68.7	401	326	437	104
	Formwork &Reinforcement	115	58.0	59.8	57.2	69.7	401	326	437	104
	Material Handling	112	55.0	56.8	54.2	66.7	401	326	437	104
		(f)Max. PNL	58	60	57	70				
Super. (Sites 2 + 3 + 4)										
	(d) + (e) + (f)	(6) Cum. PNL	69	66	64	71				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.										
		(1)+ (6)								
		Cum. PNL	69	66	64	71				
Roadworks + Drainage + Super.										
		(4) + (6)								
		Cum. PNL	69	67	64	71				

Predicted Noise Levels during Phase 2 Construction without mitigation measures

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18(31): Site 1(F)	Site 1A(G)	NSR7(24)		NSR18(31)	Site 1(F)	Site 1A(G)	NSR7(24)
Site Formation-Roadworks										
	Formation	118	52.2	63.4	64.5	62.4	1095	302	267	339
		(1)Max. PNL	52	63	64	62				
Roadworks										
	Excavation	118	52.2	63.4	64.5	62.4	1095	302	267	339
	Placement of Road Base	115	49.2	60.4	61.5	59.4	1095	302	267	339
	Kerbing	114	48.2	59.4	60.5	58.4	1095	302	267	339
	Leveling of New Road	117	51.2	62.4	63.5	61.4	1095	302	267	339
	Road Paving	116	50.2	61.4	62.5	60.4	1095	302	267	339
		(2)Max. PNL	52	63	64	62				
Drainage / Utility Works										
	Trench Excavation	115	49.2	60.4	61.5	59.4	1095	302	267	339
	Preparation of Formation	114	48.2	59.4	60.5	58.4	1095	302	267	339
	Pipe/utility Installation	112	46.2	57.4	58.5	56.4	1095	302	267	339
	Construction of Manhole	114	48.2	59.4	60.5	58.4	1095	302	267	339
	Backfilling	113	47.2	58.4	59.5	57.4	1095	302	267	339
		(3)Max. PNL	49	60	61	59				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	54	65	66	64				
Site Formation-Building works at Site 2										
	Formation	118	53.6	56.1	56.5	60.5	938	704	671	425
		(a)Max. PNL	54	56	56	60				
Site Formation-Building works at Site 3										
	Formation	118	63.1	59.4	59.2	66.2	312	479	489	218
		(b)Max. PNL	63	59	59	66				
Site Formation-Building works at Site 4										
	Formation	118	62.1	59.4	59.6	72.4	350	479	467	107
		(c)Max. PNL	62	59	60	72				
Site Form. (Sites 2 + 3 + 4)										
	(a) + (b) + (C)	(5) Cum. PNL	66	63	63	74				
Superstructure Construction at Site 2										
	Bored Piling	100	35.6	38.1	38.5	42.5	938	704	671	425
	Concreting Works	114	49.6	52.1	52.5	56.5	938	704	671	425
	Formwork & Reinforcement	115	50.6	53.1	53.5	57.5	938	704	671	425
	Material Handling	112	47.6	50.1	50.5	54.5	938	704	671	425
		(d)Max. PNL	51	53	53	57				
Superstructure Construction at Site 3										
	Bored Piling	100	45.1	41.4	41.2	48.2	312	479	489	218
	Concreting Works	114	59.1	55.4	55.2	62.2	312	479	489	218
	Formwork & Reinforcement	115	60.1	56.4	56.2	63.2	312	479	489	218
	Material Handling	112	57.1	53.4	53.2	60.2	312	479	489	218
		(e)Max. PNL	60	56	56	63				
Superstructure Construction at Site 4										
	Bored Piling	100	44.1	41.4	41.6	54.4	350	479	467	107
	Concreting Works	114	58.1	55.4	55.6	68.4	350	479	467	107
	Formwork & Reinforcement	115	59.1	56.4	56.6	69.4	350	479	467	107
	Material Handling	112	56.1	53.4	53.6	66.4	350	479	467	107
		(f)Max. PNL	59	56	57	69				
Super. (Sites 2 + 3 + 4)										
	(d) + (e) + (f)	(6) Cum. PNL	63	60	60	71				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.										
		(1)+(6)								
		Cum. PNL	63	65	66	71				
Roadworks + Drainage + Super.										
		(4) + (6)								
		Cum. PNL	63	66	67	71				

Predicted Noise Levels during Phase 2 Construction without mitigation measures

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR11(28)	NSR21(32)	NSR22(30)	NSR27	NSR11(28)	NSR21(32)	NSR22(30)	NSR27
Site Formation-Roadworks										
	Formation	118	57.9	55.2	63.4	79.4	570	774	302	48
		(1)Max. PNL	58	55	63	79				
Roadworks										
	Excavation	118	57.9	55.2	63.4	79.4	570	774	302	48
	Placement of Road Base	115	54.9	52.2	60.4	76.4	570	774	302	48
	Kerbing	114	53.9	51.2	59.4	75.4	570	774	302	48
	Leveling of New Road	117	56.9	54.2	62.4	78.4	570	774	302	48
	Road Paving	116	55.9	53.2	61.4	77.4	570	774	302	48
		(2)Max. PNL	58	55	63	79				
Drainage / Utility Works										
	Trench Excavation	115	54.9	52.2	60.4	76.4	570	774	302	48
	Preparation of Formation	114	53.9	51.2	59.4	75.4	570	774	302	48
	Pipe/Utility Installation	112	51.9	49.2	57.4	73.4	570	774	302	48
	Construction of Manhole	114	53.9	51.2	59.4	75.4	570	774	302	48
	Backfilling	113	52.9	50.2	58.4	74.4	570	774	302	48
		(3)Max. PNL	55	52	60	76				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	60	57	65	81				
Site Formation-Building works at Site 2										
	Formation	118	65.3	59.7	73.4	59.0	242	464	96	500
		(a)Max. PNL	65	60	73	59				
Site Formation-Building works at Site 3										
	Formation	118	60.5	55.9	55.3	55.3	422	716	773	772
		(b)Max. PNL	61	56	55	55				
Site Formation-Building works at Site 4										
	Formation	118	66.9	59.2	58.0	56.9	203	491	566	640
		(c)Max. PNL	67	59	58	57				
Site Form. (Sites 2 + 3 + 4)										
	(a) + (b) + (c)	(5) Cum. PNL	70	63	74	62				
Superstructure Construction at Site 2										
	Bored Piling	100	47.3	41.7	55.4	41.0	242	464	96	500
	Concreting Works	114	61.3	55.7	69.4	55.0	242	464	96	500
	Formwork & Reinforcement	115	62.3	56.7	70.4	56.0	242	464	96	500
	Material Handling	112	59.3	53.7	67.4	53.0	242	464	96	500
		(d)Max. PNL	62	57	70	56				
Superstructure Construction at Site 3										
	Bored Piling	100	42.5	37.9	37.3	37.3	422	716	773	772
	Concreting Works	114	56.5	51.9	51.3	51.3	422	716	773	772
	Formwork & Reinforcement	115	57.5	52.9	52.3	52.3	422	716	773	772
	Material Handling	112	54.5	49.9	49.3	49.3	422	716	773	772
		(e)Max. PNL	58	53	52	52				
Superstructure Construction at Site 4										
	Bored Piling	100	48.9	41.2	40.0	38.9	203	491	566	640
	Concreting Works	114	62.9	55.2	54.0	52.9	203	491	566	640
	Formwork & Reinforcement	115	63.9	56.2	55.0	53.9	203	491	566	640
	Material Handling	112	60.9	53.2	52.0	50.9	203	491	566	640
		(f)Max. PNL	64	56	55	54				
Super. (Sites 2 + 3 + 4)										
	(d) + (e) + (f)	(6) Cum. PNL	67	60	71	59				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.										
		(1)+(6)								
		Cum. PNL	67	62	71	79				
Roadworks + Drainage + Super.										
		(4) + (6)								
		Cum. PNL	68	62	72	81				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR23(29)	NSR4(A)	NSR5(B)	NSR6 (D)	NSR23 (29)	NSR4 (A)	NSR5 (B)	NSR6 (D)
Site Formation-Roadworks	Formation	118	67.3	71.1	78.9	70.8	194	125	51	129
		(1)Max. PNL	67	71	79	71				
Roadworks	Excavation	118	67.3	71.1	78.9	70.8	194	125	51	129
	Placement of Road Base	115	64.3	68.1	75.9	67.8	194	125	51	129
	Kerbing	114	63.3	67.1	74.9	66.8	194	125	51	129
	Leveling of New Road	117	66.3	70.1	77.9	69.8	194	125	51	129
	Road Paving	116	65.3	69.1	76.9	68.8	194	125	51	129
		(2)Max. PNL	67	71	79	71				
Drainage / Utility Works	Trench Excavation	115	64.3	68.1	75.9	67.8	194	125	51	129
	Preparation of Formation	114	63.3	67.1	74.9	66.8	194	125	51	129
	Pipe/utility Installation	112	61.3	65.1	72.9	64.8	194	125	51	129
	Construction of Manhole	114	63.3	67.1	74.9	66.8	194	125	51	129
	Backfilling	113	62.3	66.1	73.9	65.8	194	125	51	129
		(3)Max. PNL	64	68	76	68				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	69	73	81	73				
Site Formation-Building works at Site 2	Formation	118	71.4	58.1	65.2	70.0	120	560	245	141
		(a)Max. PNL	71	58	65	70				
Site Formation-Building works at Site 3	Formation	118	54.3	57.5	54.5	54.8	866	599	845	812
		(b)Max. PNL	54	57	54	55				
Site Formation-Building works at Site 4	Formation	118	56.6	59.0	56.1	56.8	665	500	699	645
		(c)Max. PNL	57	59	56	57				
Site Form. (Sites 2 + 3 + 4)	(a) + (b) + (C)	(5) Cum. PNL	72	63	66	70				
Superstructure Construction at Site 2	Bored Piling	100	53.4	40.1	47.2	52.0	120	560	245	141
	Concreting Works	114	67.4	54.1	61.2	66.0	120	560	245	141
	Formwork &Reinforcement	115	68.4	55.1	62.2	67.0	120	560	245	141
	Material Handling	112	65.4	52.1	59.2	64.0	120	560	245	141
		(d)Max. PNL	68	55	62	67				
Superstructure Construction at Site 3	Bored Piling	100	36.3	39.5	36.5	36.8	866	599	845	812
	Concreting Works	114	50.3	53.5	50.5	50.8	866	599	845	812
	Formwork &Reinforcement	115	51.3	54.5	51.5	51.8	866	599	845	812
	Material Handling	112	48.3	51.5	48.5	48.8	866	599	845	812
		(e)Max. PNL	51	54	51	52				
Superstructure Construction at Site 4	Bored Piling	100	38.6	41.0	38.1	38.8	665	500	699	645
	Concreting Works	114	52.6	55.0	52.1	52.8	665	500	699	645
	Formwork &Reinforcement	115	53.6	56.0	53.1	53.8	665	500	699	645
	Material Handling	112	50.6	53.0	50.1	50.8	665	500	699	645
		(f)Max. PNL	54	56	53	54				
Super. (Sites 2 + 3 + 4)	(d) + (e) + (f)	(6) Cum. PNL	69	60	63	67				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.		(1)+ (6)								
		Cum. PNL	71	71	79	72				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	72	73	81	74				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)			Distance (m)		
			NSR24 (20)	NSR 24A (H)	NSR25 (I)	NSR24 (20)	NSR 24A (H)	NSR 25 (I)
Site Formation-Roadworks								
	Formation	118	65.2	73.6	69.9	245	93	144
		(1)Max. PNL	65	74	70			
Roadworks								
	Excavation	118	65.2	73.6	69.9	245	93	144
	Placement of Road Base	115	62.2	70.6	66.9	245	93	144
	Kerbing	114	61.2	69.6	65.9	245	93	144
	Leveling of New Road	117	64.2	72.6	68.9	245	93	144
	Road Paving	116	63.2	71.6	67.9	245	93	144
		(2)Max. PNL	65	74	70			
Drainage / Utility Works								
	Trench Excavation	115	62.2	70.6	66.9	245	93	144
	Preparation of Formation	114	61.2	69.6	65.9	245	93	144
	Pipe/Utility Installation	112	59.2	67.6	63.9	245	93	144
	Construction of Manhole	114	61.2	69.6	65.9	245	93	144
	Backfilling	113	60.2	68.6	64.9	245	93	144
		(3)Max. PNL	62	71	67			
	Cumulative of roadworks and drainage (2)+(3)	(4) Cum. PNL	67	75	72			
Site Formation-Building works at Site 2								
	Formation	118	61.8	67.0	57.9	365	200	570
		(a)Max. PNL	62	67	58			
Site Formation-Building works at Site 3								
	Formation	118	51.6	52.8	52.9	1184	1028	1017
		(b)Max. PNL	52	53	53			
Site Formation-Building works at Site 4								
	Formation	118	52.9	54.4	54.2	1011	852	874
		(c)Max. PNL	53	54	54			
Site Form. (Sites 2 + 3 + 4)	(a) + (b) + (C)	(5) Cum. PNL	63	67	60			
Superstructure Construction at Site 2								
	Bored Piling	100	43.8	49.0	39.9	365	200	570
	Concreting Works	114	57.8	63.0	53.9	365	200	570
	Formwork & Reinforcement	115	58.8	64.0	54.9	365	200	570
	Material Handling	112	55.8	61.0	51.9	365	200	570
		(d)Max. PNL	59	64	55			
Superstructure Construction at Site 3								
	Bored Piling	100	33.6	34.8	34.9	1184	1028	1017
	Concreting Works	114	47.6	48.8	48.9	1184	1028	1017
	Formwork & Reinforcement	115	48.6	49.8	49.9	1184	1028	1017
	Material Handling	112	45.6	46.8	46.9	1184	1028	1017
		(e)Max. PNL	49	50	50			
Superstructure Construction at Site 4								
	Bored Piling	100	34.9	36.4	36.2	1011	852	874
	Concreting Works	114	48.9	50.4	50.2	1011	852	874
	Formwork & Reinforcement	115	49.9	51.4	51.2	1011	852	874
	Material Handling	112	46.9	48.4	48.2	1011	852	874
		(f)Max. PNL	50	51	51			
Super. (Sites 2 + 3 + 4)	(d) + (e) + (f)	(6) Cum. PNL	60	64	57			
Cumulative Impacts (Rd works + Bldg works)								
Site Form Rd works + Super.	(1)+ (6)	Cum. PNL	66	74	70			
Roadworks + Drainage + Super.	(4) + (6)	Cum. PNL	68	76	72			

Predicted Noise Levels during Phase 2 Construction with Quiet Plant

Predicted Noise Levels during Construction Phase 2 in Tuen Mun Area 54 - Use of Quiet Plant										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR16(1)	NSR19(22)	NSR17(23)	NSR20(26)	NSR16(1)	NSR19(22)	NSR17(23)	NSR20(26)
Site Formation-Roadworks										
	Formation	112	48.8	47.5	47.2	48.0	813	948	981	891
		(1)Max. PNL	49	47	47	48				
Roadworks										
	Excavation	112	48.8	47.5	47.2	48.0	813	948	981	891
	Placement of Road Base	110	46.8	45.5	45.2	46.0	813	948	981	891
	Kerbing	103	39.8	38.5	38.2	39.0	813	948	981	891
	Leveling of New Road	114	50.8	49.5	49.2	50.0	813	948	981	891
	Road Paving	112	48.8	47.5	47.2	48.0	813	948	981	891
		(2)Max. PNL	51	49	49	50				
Drainage / Utility Works										
	Trench Excavation	108	44.8	43.5	43.2	44.0	813	948	981	891
	Preparation of Formation	110	46.8	45.5	45.2	46.0	813	948	981	891
	Pipe/Utility Installation	106	42.8	41.5	41.2	42.0	813	948	981	891
	Construction of Manhole	103	39.8	38.5	38.2	39.0	813	948	981	891
	Backfilling	107	43.8	42.5	42.2	43.0	813	948	981	891
		(3)Max. PNL	47	45	45	46				
		(4) Cum. PNL	52	51	51	51				
Site Formation-Building works at Site 2										
	Formation	112	47.9	48.1	47.2	52.2	905	881	977	548
		(a)Max. PNL	48	48	47	52				
Site Formation-Building works at Site 3										
	Formation	112	65.1	61.9	59.1	59.3	125	180	248	242
		(b)Max. PNL	65	62	59	59				
Site Formation-Building works at Site 4										
	Formation	112	55.0	56.8	54.2	66.7	401	326	437	104
		(c)Max. PNL	55	57	54	67				
		(5) Cum. PNL	66	63	61	68				
Superstructure Construction at Site 2										
	Bored Piling	100	35.9	36.1	35.2	40.2	905	881	977	548
	Concreting Works	103	38.9	39.1	38.2	43.2	905	881	977	548
	Formwork & Reinforcement	113	48.9	49.1	48.2	53.2	905	881	977	548
	Material Handling	107	42.9	43.1	42.2	47.2	905	881	977	548
		(d)Max. PNL	49	49	48	53				
Superstructure Construction at Site 3										
	Bored Piling	100	53.1	49.9	47.1	47.3	125	180	248	242
	Concreting Works	103	56.1	52.9	50.1	50.3	125	180	248	242
	Formwork & Reinforcement	113	66.1	62.9	60.1	60.3	125	180	248	242
	Material Handling	107	60.1	56.9	54.1	54.3	125	180	248	242
		(e)Max. PNL	66	63	60	60				
Superstructure Construction at Site 4										
	Bored Piling	100	43.0	44.8	42.2	54.7	401	326	437	104
	Concreting Works	103	46.0	47.8	45.2	57.7	401	326	437	104
	Formwork & Reinforcement	113	56.0	57.8	55.2	67.7	401	326	437	104
	Material Handling	107	50.0	51.8	49.2	61.7	401	326	437	104
		(f)Max. PNL	56	58	55	68				
		(6) Cum. PNL	67	64	62	69				
Cumulative Impacts (Rd works + Bldg works)										
	Site Form Rd works + Super.									
		(1)+ (6)								
		Cum. PNL	67	64	62	69				
Roadworks + Drainage + Super.										
		(4) + (6)								
		Cum. PNL	67	64	62	69				

Predicted Noise Levels during Phase 2 Construction with Quiet Plant

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18(31)	Site 1(F)	Site 1A(G)	NSR7(24)	NSR18(31)	Site 1(F)	Site 1A(G)	NSR7(24)
Site Formation-Roadworks										
	Formation	112	46.2	57.4	58.5	56.4	1095	302	267	339
		(1)Max. PNL	46	57	58	56				
Roadworks										
	Excavation	112	46.2	57.4	58.5	56.4	1095	302	267	339
	Placement of Road Base	110	44.2	55.4	56.5	54.4	1095	302	267	339
	Kerbing	103	37.2	48.4	49.5	47.4	1095	302	267	339
	Leveling of New Road	114	48.2	59.4	60.5	58.4	1095	302	267	339
	Road Paving	112	46.2	57.4	58.5	56.4	1095	302	267	339
		(2)Max. PNL	48	59	60	58				
Drainage / Utility Works										
	Trench Excavation	108	42.2	53.4	54.5	52.4	1095	302	267	339
	Preparation of Formation	110	44.2	55.4	56.5	54.4	1095	302	267	339
	Pipe/utility Installation	106	40.2	51.4	52.5	50.4	1095	302	267	339
	Construction of Manhole	103	37.2	48.4	49.5	47.4	1095	302	267	339
	Backfilling	107	41.2	52.4	53.5	51.4	1095	302	267	339
		(3)Max. PNL	44	55	56	54				
Cumulative of roadworks and drainage (2)+(3) (4) Cum. PNL			50	61	62	60				
Site Formation-Building works at Site 2										
	Formation	112	47.6	50.1	50.5	54.5	938	704	671	425
		(a)Max. PNL	48	50	50	54				
Site Formation-Building works at Site 3										
	Formation	112	57.1	53.4	53.2	60.2	312	479	489	218
		(b)Max. PNL	57	53	53	60				
Site Formation-Building works at Site 4										
	Formation	112	56.1	53.4	53.6	66.4	350	479	467	107
		(c)Max. PNL	56	53	54	66				
Site Form. (Sites 2 + 3 (a) + (b) + (C) (5) Cum. PNL			60	57	57	68				
Superstructure Construction at Site 2										
	Bored Piling	100	35.6	38.1	38.5	42.5	938	704	671	425
	Concreting Works	103	38.6	41.1	41.5	45.5	938	704	671	425
	Formwork &Reinforcemen	113	48.6	51.1	51.5	55.5	938	704	671	425
	Material Handling	107	42.6	45.1	45.5	49.5	938	704	671	425
		(d)Max. PNL	49	51	51	55				
Superstructure Construction at Site 3										
	Bored Piling	100	45.1	41.4	41.2	48.2	312	479	489	218
	Concreting Works	103	48.1	44.4	44.2	51.2	312	479	489	218
	Formwork &Reinforcemen	113	58.1	54.4	54.2	61.2	312	479	489	218
	Material Handling	107	52.1	48.4	48.2	55.2	312	479	489	218
		(e)Max. PNL	58	54	54	61				
Superstructure Construction at Site 4										
	Bored Piling	100	44.1	41.4	41.6	54.4	350	479	467	107
	Concreting Works	103	47.1	44.4	44.6	57.4	350	479	467	107
	Formwork &Reinforcemen	113	57.1	54.4	54.6	67.4	350	479	467	107
	Material Handling	107	51.1	48.4	48.6	61.4	350	479	467	107
		(f)Max. PNL	57	54	55	67				
Super. (Sites 2 + 3 + 4 (d) + (e) + (f) (6) Cum. PNL			61	58	58	69				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super. (1)+(6) Cum. PNL			61	61	61	69				
Roadworks + Drainage + Super. (4) + (6) Cum. PNL			61	63	64	69				

Predicted Noise Levels during Phase 2 Construction with Quiet Plant

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR11(28)	NSR21(32)	NSR22(30)	NSR 27	NSR11(28)	NSR21(32)	NSR22(30)	NSR27
Site Formation-Roadworks										
	Formation	112	51.9	49.2	57.4	73.4	570	774	302	48
		(1)Max. PNL	52	49	57	73				
Roadworks										
	Excavation	112	51.9	49.2	57.4	73.4	570	774	302	48
	Placement of Road Base	110	49.9	47.2	55.4	71.4	570	774	302	48
	Kerbing	103	42.9	40.2	48.4	64.4	570	774	302	48
	Leveling of New Road	114	53.9	51.2	59.4	75.4	570	774	302	48
	Road Paving	112	51.9	49.2	57.4	73.4	570	774	302	48
		(2)Max. PNL	54	51	59	75				
Drainage / Utility Works										
	Trench Excavation	108	47.9	45.2	53.4	69.4	570	774	302	48
	Preparation of Formation	110	49.9	47.2	55.4	71.4	570	774	302	48
	Pipe/utility Installation	106	45.9	43.2	51.4	67.4	570	774	302	48
	Construction of Manhole	103	42.9	40.2	48.4	64.4	570	774	302	48
	Backfilling	107	46.9	44.2	52.4	68.4	570	774	302	48
		(3)Max. PNL	50	47	55	71				
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	55	53	61	77			
Site Formation-Building works at Site 2										
	Formation	112	59.3	53.7	67.4	53.0	242	464	96	500
		(a)Max. PNL	59	54	67	53				
Site Formation-Building works at Site 3										
	Formation	112	54.5	49.9	49.3	49.3	422	716	773	772
		(b)Max. PNL	55	50	49	49				
Site Formation-Building works at Site 4										
	Formation	112	60.9	53.2	52.0	50.9	203	491	566	640
		(c)Max. PNL	61	53	52	51				
Site Form. (Sites 2 + 3 (a) + (b) + (c))			(5) Cum. PNL	64	57	68	56			
Superstructure Construction at Site 2										
	Bored Piling	100	47.3	41.7	55.4	41.0	242	464	96	500
	Concreting Works	103	50.3	44.7	58.4	44.0	242	464	96	500
	Formwork & Reinforcement	113	60.3	54.7	68.4	54.0	242	464	96	500
	Material Handling	107	54.3	48.7	62.4	48.0	242	464	96	500
		(d)Max. PNL	60	55	68	54				
Superstructure Construction at Site 3										
	Bored Piling	100	42.5	37.9	37.3	37.3	422	716	773	772
	Concreting Works	103	45.5	40.9	40.3	40.3	422	716	773	772
	Formwork & Reinforcement	113	55.5	50.9	50.3	50.3	422	716	773	772
	Material Handling	107	49.5	44.9	44.3	44.3	422	716	773	772
		(e)Max. PNL	56	51	50	50				
Superstructure Construction at Site 4										
	Bored Piling	100	48.9	41.2	40.0	38.9	203	491	566	640
	Concreting Works	103	51.9	44.2	43.0	41.9	203	491	566	640
	Formwork & Reinforcement	113	61.9	54.2	53.0	51.9	203	491	566	640
	Material Handling	107	55.9	48.2	47.0	45.9	203	491	566	640
		(f)Max. PNL	62	54	53	52				
Super. (Sites 2 + 3 + 4 (d) + (e) + (f))			(6) Cum. PNL	65	58	69	57			
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.			(1)+(6)							
			Cum. PNL	65	59	69	73			
Roadworks + Drainage + Super.			(4) + (6)							
			Cum. PNL	65	59	69	77			

Predicted Noise Levels during Phase 2 Construction with Quiet Plant

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR23(29)	NSR4(A)	NSR5(B)	NSR6 (D)	NSR23 (29)	NSR4 (A)	NSR5 (B)	NSR6 (D)
Site Formation-Roadworks										
	Formation	112	61.3	65.1	72.9	64.8	194	125	51	129
		(1)Max. PNL	61	65	73	65				
Roadworks										
	Excavation	112	61.3	65.1	72.9	64.8	194	125	51	129
	Placement of Road Base	110	59.3	63.1	70.9	62.8	194	125	51	129
	Kerbing	103	52.3	56.1	63.9	55.8	194	125	51	129
	Leveling of New Road	114	63.3	67.1	74.9	66.8	194	125	51	129
	Road Paving	112	61.3	65.1	72.9	64.8	194	125	51	129
		(2)Max. PNL	63	67	75	67				
Drainage / Utility Works										
	Trench Excavation	108	57.3	61.1	68.9	60.8	194	125	51	129
	Preparation of Formation	110	59.3	63.1	70.9	62.8	194	125	51	129
	Pipe/utility Installation	106	55.3	59.1	66.9	58.8	194	125	51	129
	Construction of Manhole	103	52.3	56.1	63.9	55.8	194	125	51	129
	Backfilling	107	56.3	60.1	67.9	59.8	194	125	51	129
		(3)Max. PNL	59	63	71	63				
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	65	69	76	68			
Site Formation-Building works at Site 2										
	Formation	112	65.4	52.1	59.2	64.0	120	560	245	141
		(a)Max. PNL	65	52	59	64				
Site Formation-Building works at Site 3										
	Formation	112	48.3	51.5	48.5	48.8	866	599	845	812
		(b)Max. PNL	48	51	48	49				
Site Formation-Building works at Site 4										
	Formation	112	50.6	53.0	50.1	50.8	665	500	699	645
		(c)Max. PNL	51	53	50	51				
Site Form. (Sites 2 + 3 (a) + (b) + (C))			(5) Cum. PNL	66	57	60	64			
Superstructure Construction at Site 2										
	Bored Piling	100	53.4	40.1	47.2	52.0	120	560	245	141
	Concreting Works	103	56.4	43.1	50.2	55.0	120	560	245	141
	Formwork & Reinforcement	113	66.4	53.1	60.2	65.0	120	560	245	141
	Material Handling	107	60.4	47.1	54.2	59.0	120	560	245	141
		(d)Max. PNL	66	53	60	65				
Superstructure Construction at Site 3										
	Bored Piling	100	36.3	39.5	36.5	36.8	866	599	845	812
	Concreting Works	103	39.3	42.5	39.5	39.8	866	599	845	812
	Formwork & Reinforcement	113	49.3	52.5	49.5	49.8	866	599	845	812
	Material Handling	107	43.3	46.5	43.5	43.8	866	599	845	812
		(e)Max. PNL	49	52	49	50				
Superstructure Construction at Site 4										
	Bored Piling	100	38.6	41.0	38.1	38.8	665	500	699	645
	Concreting Works	103	41.6	44.0	41.1	41.8	665	500	699	645
	Formwork & Reinforcement	113	51.6	54.0	51.1	51.8	665	500	699	645
	Material Handling	107	45.6	48.0	45.1	45.8	665	500	699	645
		(f)Max. PNL	52	54	51	52				
Super. (Sites 2 + 3 + 4 (d) + (e) + (f))			(6) Cum. PNL	67	58	61	65			
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.			(1)+ (6) Cum. PNL	68	66	73	68			
Roadworks + Drainage + Super.			(4) + (6) Cum. PNL	69	69	76	70			

Predicted Noise Levels during Phase 2 Construction with Quiet Plant

Site Identity	Activity	SWL	Predicted Noise Level (PNL)			Distance (m)		
			NSR24 (20)	NSR 24A (H)	NSR 25 (I)	NSR24 (20)	NSR 24A (H)	NSR 25 (I)
Site Formation-Roadworks								
	Formation	112	59.2	67.6	63.9	245	93	144
		(1)Max. PNL	59	68	64			
Roadworks								
	Excavation	112	59.2	67.6	63.9	245	93	144
	Placement of Road Base	110	57.2	65.6	61.9	245	93	144
	Kerbing	103	50.2	58.6	54.9	245	93	144
	Leveling of New Road	114	61.2	69.6	65.9	245	93	144
	Road Paving	112	59.2	67.6	63.9	245	93	144
		(2)Max. PNL	61	70	66			
Drainage / Utility Works								
	Trench Excavation	108	55.2	63.6	59.9	245	93	144
	Preparation of Formation	110	57.2	65.6	61.9	245	93	144
	Pipe/utility Installation	106	53.2	61.6	57.9	245	93	144
	Construction of Manhole	103	50.2	58.6	54.9	245	93	144
	Backfilling	107	54.2	62.6	58.9	245	93	144
		(3)Max. PNL	57	66	62			
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	63	71	67		
Site Formation-Building works at Site 2								
	Formation	112	55.8	61.0	51.9	365	200	570
		(a)Max. PNL	56	61	52			
Site Formation-Building works at Site 3								
	Formation	112	45.6	46.8	46.9	1184	1028	1017
		(b)Max. PNL	46	47	47			
Site Formation-Building works at Site 4								
	Formation	112	46.9	48.4	48.2	1011	852	874
		(c)Max. PNL	47	48	48			
Site Form. (Sites 2 + 3 (a) + (b) + (C))			(5) Cum. PNL	57	61	54		
Superstructure Construction at Site 2								
	Bored Piling	100	43.8	49.0	39.9	365	200	570
	Concreting Works	103	46.8	52.0	42.9	365	200	570
	Formwork &Reinforcemen	113	56.8	62.0	52.9	365	200	570
	Material Handling	107	50.8	56.0	46.9	365	200	570
		(d)Max. PNL	57	62	53			
Superstructure Construction at Site 3								
	Bored Piling	100	33.6	34.8	34.9	1184	1028	1017
	Concreting Works	103	36.6	37.8	37.9	1184	1028	1017
	Formwork &Reinforcemen	113	46.6	47.8	47.9	1184	1028	1017
	Material Handling	107	40.6	41.8	41.9	1184	1028	1017
		(e)Max. PNL	47	48	48			
Superstructure Construction at Site 4								
	Bored Piling	100	34.9	36.4	36.2	1011	852	874
	Concreting Works	103	37.9	39.4	39.2	1011	852	874
	Formwork &Reinforcemen	113	47.9	49.4	49.2	1011	852	874
	Material Handling	107	41.9	43.4	43.2	1011	852	874
		(f)Max. PNL	48	49	49			
Super. (Sites 2 + 3 + 4 (d) + (e) + (f))			(6) Max. PNL	58	62	55		
Cumulative Impacts (Rd works + Bldg works)								
Site Form Rd works + Super.			(1)+(6)					
			Cum. PNL	62	69	64		
Roadworks + Drainage + Super.			(4) + (6)					
			Cum. PNL	64	72	68		

Predicted Noise Levels during Phase 2 Construction with Quiet Plant and Barriers

Predicted Noise Levels during Construction Phase 2 in Tuen Mun Area 54 - Use of Quiet Plant with Barriers										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR16 (1)	NSR19(22)	NSR17(23)	NSR20(26)	NSR16(1)	NSR19(22)	NSR17(23)	NSR20(26)
Site Formation-Roadworks	Formation	112	48.8	47.5	47.2	48.0	813	948	981	891
		(f)Max. PNL	49	47	47	48				
Roadworks	Excavation	112	48.8	47.5	47.2	48.0	813	948	981	891
	Placement of Road Base	110	46.8	45.5	45.2	46.0	813	948	981	891
	Kerbing	96	32.8	31.5	31.2	32.0	813	948	981	891
	Leveling of New Road	111	47.8	46.5	46.2	47.0	813	948	981	891
	Road Paving	111	47.8	46.5	46.2	47.0	813	948	981	891
		(2)Max. PNL	49	47	47	48				
Drainage / Utility Works	Trench Excavation	106	42.8	41.5	41.2	42.0	813	948	981	891
	Preparation of Formation	110	46.8	45.5	45.2	46.0	813	948	981	891
	Pipe/Utility Installation	101	37.8	36.5	36.2	37.0	813	948	981	891
	Construction of Manhole	96	32.8	31.5	31.2	32.0	813	948	981	891
	Backfilling	106	42.8	41.5	41.2	42.0	813	948	981	891
		(3)Max. PNL	47	45	45	46				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	51	50	49	50				
Site Formation-Building works at Site 2	Formation	112	47.9	48.1	47.2	52.2	905	881	977	548
		(a)Max. PNL	48	48	47	52				
Site Formation-Building works at Site 3	Formation	112	65.1	61.9	59.1	59.3	125	180	248	242
		(b)Max. PNL	65	62	59	59				
Site Formation-Building works at Site 4	Formation	112	55.0	56.8	54.2	66.7	401	326	437	104
		(c)Max. PNL	55	57	54	67				
Site Form. (Sites 2 + 3 + 4)	(a) + (b) + (C)	(5) Cum. PNL	66	63	61	68				
Superstructure Construction at Site 2	Bored Piling	100	35.9	36.1	35.2	40.2	905	881	977	548
	Concreting Works	96	31.9	32.1	31.2	36.2	905	881	977	548
	Formwork &Reinforcement	112	47.9	48.1	47.2	52.2	905	881	977	548
	Material Handling	103	38.9	39.1	38.2	43.2	905	881	977	548
		(d)Max. PNL	48	48	47	52				
Superstructure Construction at Site 3	Bored Piling	100	53.1	49.9	47.1	47.3	125	180	248	242
	Concreting Works	96	49.1	45.9	43.1	43.3	125	180	248	242
	Formwork &Reinforcement	112	65.1	61.9	59.1	59.3	125	180	248	242
	Material Handling	103	56.1	52.9	50.1	50.3	125	180	248	242
		(e)Max. PNL	65	62	59	59				
Superstructure Construction at Site 4	Bored Piling	100	43.0	44.8	42.2	54.7	401	326	437	104
	Concreting Works	96	39.0	40.8	38.2	50.7	401	326	437	104
	Formwork &Reinforcement	112	55.0	56.8	54.2	66.7	401	326	437	104
	Material Handling	103	46.0	47.8	45.2	57.7	401	326	437	104
		(f)Max. PNL	55	57	54	67				
Super. (Sites 2 + 3 + 4)	(d) + (e) + (f)	(6) Cum. PNL	66	63	61	68				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.		(1)+ (6)								
		Cum. PNL	66	63	61	68				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	66	63	61	68				

Predicted Noise Levels during Phase 2 Construction with Quiet Plant and Barriers

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18(31)	Site 1(F)	Site 1A(G)	NSR7(24)	NSR18(31)	Site 1(F)	Site 1A(G)	NSR7(24)
Site Formation-Roadworks	Formation	112	46.2	57.4	58.5	56.4	1095	302	267	339
		(1)Max. PNL	46	57	58	56				
Roadworks	Excavation	112	46.2	57.4	58.5	56.4	1095	302	267	339
	Placement of Road Base	110	44.2	55.4	56.5	54.4	1095	302	267	339
	Kerbing	96	30.2	41.4	42.5	40.4	1095	302	267	339
	Leveling of New Road	111	45.2	56.4	57.5	55.4	1095	302	267	339
	Road Paving	111	45.2	56.4	57.5	55.4	1095	302	267	339
		(2)Max. PNL	46	57	58	56				
Drainage / Utility Works	Trench Excavation	106	40.2	51.4	52.5	50.4	1095	302	267	339
	Preparation of Formation	110	44.2	55.4	56.5	54.4	1095	302	267	339
	Pipe/Utility Installation	101	35.2	46.4	47.5	45.4	1095	302	267	339
	Construction of Manhole	96	30.2	41.4	42.5	40.4	1095	302	267	339
	Backfilling	106	40.2	51.4	52.5	50.4	1095	302	267	339
		(3)Max. PNL	44	55	56	54				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	48	60	61	59				
Site Formation-Building works at Site 2	Formation	112	47.6	50.1	50.5	54.5	938	704	671	425
		(a)Max. PNL	48	50	50	54				
Site Formation-Building works at Site 3	Formation	112	57.1	53.4	53.2	60.2	312	479	489	218
		(b)Max. PNL	57	53	53	60				
Site Formation-Building works at Site 4	Formation	112	56.1	53.4	53.6	66.4	350	479	467	107
		(c)Max. PNL	56	53	54	66				
Site Form. (Sites 2 + 3 + 4)	(a) + (b) + (C)	(5) Cum. PNL	60	57	57	68				
Superstructure Construction at Site 2	Bored Piling	100	35.6	38.1	38.5	42.5	938	704	671	425
	Concreting Works	96	31.6	34.1	34.5	38.5	938	704	671	425
	Formwork & Reinforcement	112	47.6	50.1	50.5	54.5	938	704	671	425
	Material Handling	103	38.6	41.1	41.5	45.5	938	704	671	425
		(d)Max. PNL	48	50	50	54				
Superstructure Construction at Site 3	Bored Piling	100	45.1	41.4	41.2	48.2	312	479	489	218
	Concreting Works	96	41.1	37.4	37.2	44.2	312	479	489	218
	Formwork & Reinforcement	112	57.1	53.4	53.2	60.2	312	479	489	218
	Material Handling	103	48.1	44.4	44.2	51.2	312	479	489	218
		(e)Max. PNL	57	53	53	60				
Superstructure Construction at Site 4	Bored Piling	100	44.1	41.4	41.6	54.4	350	479	467	107
	Concreting Works	96	40.1	37.4	37.6	50.4	350	479	467	107
	Formwork & Reinforcement	112	56.1	53.4	53.6	66.4	350	479	467	107
	Material Handling	103	47.1	44.4	44.6	57.4	350	479	467	107
		(f)Max. PNL	56	53	54	66				
Super. (Sites 2 + 3 + 4)	(d) + (e) + (f)	(6) Cum. PNL	60	57	57	68				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.		(1)+(6)								
		Cum. PNL	60	60	61	68				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	60	62	62	68				

Predicted Noise Levels during Phase 2 Construction with Quiet Plant and Barriers

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR11(28)	NSR21(32)	NSR22(30)	NSR27	NSR11(28)	NSR21(32)	NSR22(30)	NSR27
Site Formation-Roadworks										
	Formation	112	51.9	49.2	57.4	73.4	570	774	302	48
		(1)Max. PNL	52	49	57	73				
Roadworks										
	Excavation	112	51.9	49.2	57.4	73.4	570	774	302	48
	Placement of Road Base	110	49.9	47.2	55.4	71.4	570	774	302	48
	Kerbing	96	35.9	33.2	41.4	57.4	570	774	302	48
	Leveling of New Road	111	50.9	48.2	56.4	72.4	570	774	302	48
	Road Paving	111	50.9	48.2	56.4	72.4	570	774	302	48
		(2)Max. PNL	52	49	57	73				
Drainage / Utility Works										
	Trench Excavation	106	45.9	43.2	51.4	67.4	570	774	302	48
	Preparation of Formation	110	49.9	47.2	55.4	71.4	570	774	302	48
	Pipe/utility Installation	101	40.9	38.2	46.4	62.4	570	774	302	48
	Construction of Manhole	96	35.9	33.2	41.4	57.4	570	774	302	48
	Backfilling	106	45.9	43.2	51.4	67.4	570	774	302	48
		(3)Max. PNL	50	47	55	71				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	54	51	60	76				
Site Formation-Building works at Site 2										
	Formation	112	59.3	53.7	67.4	53.0	242	464	96	500
		(a)Max. PNL	59	54	67	53				
Site Formation-Building works at Site 3										
	Formation	112	54.5	49.9	49.3	49.3	422	716	773	772
		(b)Max. PNL	55	50	49	49				
Site Formation-Building works at Site 4										
	Formation	112	60.9	53.2	52.0	50.9	203	491	566	640
		(c)Max. PNL	61	53	52	51				
Site Form. (Sites 2 + 3 + 4)										
	(a) + (b) + (C)	(5) Cum. PNL	64	57	68	56				
Superstructure Construction at Site 2										
	Bored Piling	100	47.3	41.7	55.4	41.0	242	464	96	500
	Concreting Works	96	43.3	37.7	51.4	37.0	242	464	96	500
	Formwork &Reinforcement	112	59.3	53.7	67.4	53.0	242	464	96	500
	Material Handling	103	50.3	44.7	58.4	44.0	242	464	96	500
		(d)Max. PNL	59	54	67	53				
Superstructure Construction at Site 3										
	Bored Piling	100	42.5	37.9	37.3	37.3	422	716	773	772
	Concreting Works	96	38.5	33.9	33.3	33.3	422	716	773	772
	Formwork &Reinforcement	112	54.5	49.9	49.3	49.3	422	716	773	772
	Material Handling	103	45.5	40.9	40.3	40.3	422	716	773	772
		(e)Max. PNL	55	50	49	49				
Superstructure Construction at Site 4										
	Bored Piling	100	48.9	41.2	40.0	38.9	203	491	566	640
	Concreting Works	96	44.9	37.2	36.0	34.9	203	491	566	640
	Formwork &Reinforcement	112	60.9	53.2	52.0	50.9	203	491	566	640
	Material Handling	103	51.9	44.2	43.0	41.9	203	491	566	640
		(f)Max. PNL	61	53	52	51				
Super. (Sites 2 + 3 + 4)										
	(d) + (e) + (f)	(6) Cum. PNL	64	57	68	56				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.										
		(1)+ (6)								
		Cum. PNL	64	58	68	73				
Roadworks + Drainage + Super.										
		(4) + (6)								
		Cum. PNL	64	58	68	76				

Predicted Noise Levels during Phase 2 Construction with Quiet Plant and Barriers

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR23(29)	NSR4(A)	NSR5(B)	NSR6 (D)	NSR23 (29)	NSR4 (A)	NSR5 (B)	NSR6 (D)
Site Formation-Roadworks	Formation	112	61.3	65.1	72.9	64.8	194	125	51	129
		(1)Max. PNL	61	65	73	65				
Roadworks	Excavation	112	61.3	65.1	72.9	64.8	194	125	51	129
	Placement of Road Base	110	59.3	63.1	70.9	62.8	194	125	51	129
	Kerbing	96	45.3	49.1	56.9	48.8	194	125	51	129
	Leveling of New Road	111	60.3	64.1	71.9	63.8	194	125	51	129
	Road Paving	111	60.3	64.1	71.9	63.8	194	125	51	129
		(2)Max. PNL	61	65	73	65				
Drainage / Utility Works	Trench Excavation	106	55.3	59.1	66.9	58.8	194	125	51	129
	Preparation of Formation	110	59.3	63.1	70.9	62.8	194	125	51	129
	Pipe/utility Installation	101	50.3	54.1	61.9	53.8	194	125	51	129
	Construction of Manhole	96	45.3	49.1	56.9	48.8	194	125	51	129
	Backfilling	106	55.3	59.1	66.9	58.8	194	125	51	129
		(3)Max. PNL	59	63	71	63				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	63	67	75	67				
Site Formation-Building works at Site 2	Formation	112	65.4	52.1	59.2	64.0	120	560	245	141
		(a)Max. PNL	65	52	59	64				
Site Formation-Building works at Site 3	Formation	112	48.3	51.5	48.5	48.8	866	599	845	812
		(b)Max. PNL	48	51	48	49				
Site Formation-Building works at Site 4	Formation	112	50.6	53.0	50.1	50.8	665	500	699	645
		(c)Max. PNL	51	53	50	51				
Site Form. (Sites 2 + 3 + 4)	(a) + (b) + (C)	(5) Cum. PNL	66	57	60	64				
Superstructure Construction at Site 2	Bored Piling	100	53.4	40.1	47.2	52.0	120	560	245	141
	Concreting Works	96	49.4	36.1	43.2	48.0	120	560	245	141
	Formwork & Reinforcement	112	65.4	52.1	59.2	64.0	120	560	245	141
	Material Handling	103	56.4	43.1	50.2	55.0	120	560	245	141
		(d)Max. PNL	65	52	59	64				
Superstructure Construction at Site 3	Bored Piling	100	36.3	39.5	36.5	36.8	866	599	845	812
	Concreting Works	96	32.3	35.5	32.5	32.8	866	599	845	812
	Formwork & Reinforcement	112	48.3	51.5	48.5	48.8	866	599	845	812
	Material Handling	103	39.3	42.5	39.5	39.8	866	599	845	812
		(e)Max. PNL	48	51	48	49				
Superstructure Construction at Site 4	Bored Piling	100	38.6	41.0	38.1	38.8	665	500	699	645
	Concreting Works	96	34.6	37.0	34.1	34.8	665	500	699	645
	Formwork & Reinforcement	112	50.6	53.0	50.1	50.8	665	500	699	645
	Material Handling	103	41.6	44.0	41.1	41.8	665	500	699	645
		(f)Max. PNL	51	53	50	51				
Super. (Sites 2 + 3 + 4)	(d) + (e) + (f)	(6) Cum. PNL	66	57	60	64				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.		(1)+ (6)								
		Cum. PNL	67	66	73	68				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	68	68	75	69				

Predicted Noise Levels during Phase 2 Construction with Quiet Plant and Barriers

Site Identity	Activity	SWL	Predicted Noise Level (PNL)			Distance (m)		
			NSR24 (20)	NSR 24A (H)	NSR 25 (I)	NSR24 (20)	NSR 24A (H)	NSR 25 (I)
Site Formation-Roadworks								
	Formation	112	59.2	67.6	63.9	245	93	144
		(1)Max. PNL	59	68	64			
Roadworks								
	Excavation	112	59.2	67.6	63.9	245	93	144
	Placement of Road Base	110	57.2	65.6	61.9	245	93	144
	Kerbing	96	43.2	51.6	47.9	245	93	144
	Leveling of New Road	111	58.2	66.6	62.9	245	93	144
	Road Paving	111	58.2	66.6	62.9	245	93	144
		(2)Max. PNL	59	68	64			
Drainage / Utility Works								
	Trench Excavation	106	53.2	61.6	57.9	245	93	144
	Preparation of Formation	110	57.2	65.6	61.9	245	93	144
	Pipe/utility Installation	101	48.2	56.6	52.9	245	93	144
	Construction of Manhole	96	43.2	51.6	47.9	245	93	144
	Backfilling	106	53.2	61.6	57.9	245	93	144
		(3)Max. PNL	57	66	62			
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	61	70	66		
Site Formation-Building works at Site 2								
	Formation	112	55.8	61.0	51.9	365	200	570
		(a)Max. PNL	56	61	52			
Site Formation-Building works at Site 3								
	Formation	112	45.6	46.8	46.9	1184	1028	1017
		(b)Max. PNL	46	47	47			
Site Formation-Building works at Site 4								
	Formation	112	46.9	48.4	48.2	1011	852	874
		(c)Max. PNL	47	48	48			
Site Form. (Sites 2 + 3 + 4)			(5) Cum. PNL	57	61	54		
Superstructure Construction at Site 2								
	Bored Piling	100	43.8	49.0	39.9	365	200	570
	Concreting Works	96	39.8	45.0	35.9	365	200	570
	Formwork & Reinforcement	112	55.8	61.0	51.9	365	200	570
	Material Handling	103	46.8	52.0	42.9	365	200	570
		(d)Max. PNL	56	61	52			
Superstructure Construction at Site 3								
	Bored Piling	100	33.6	34.8	34.9	1184	1028	1017
	Concreting Works	96	29.6	30.8	30.9	1184	1028	1017
	Formwork & Reinforcement	112	45.6	46.8	46.9	1184	1028	1017
	Material Handling	103	36.6	37.8	37.9	1184	1028	1017
		(e)Max. PNL	46	47	47			
Superstructure Construction at Site 4								
	Bored Piling	100	34.9	36.4	36.2	1011	852	874
	Concreting Works	96	30.9	32.4	32.2	1011	852	874
	Formwork & Reinforcement	112	46.9	48.4	48.2	1011	852	874
	Material Handling	103	37.9	39.4	39.2	1011	852	874
		(f)Max. PNL	47	48	48			
Super. (Sites 2 + 3 + 4)			(6) Cum. PNL	57	61	54		
Cumulative Impacts (Rd works + Bldg works)								
Site Form Rd works + Super.			(1)+(6)	Cum. PNL	61	69	64	
Roadworks + Drainage + Super.			(4) + (6)	Cum. PNL	63	70	66	

Predicted Noise Levels during Construction Phase 2 in Tuen Mun Area 54
Use of Quiet Plant with Barriers and limiting the usage of operating PME

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR16 (1)	NSR19(22)	NSR17(23)	NSR20(26)	NSR16(1)	NSR19(22)	NSR17(23)	NSR20(26)
Site Formation-Roadworks	Formation	109	45.8	44.5	44.2	45.0	813	948	981	891
		(1)Max. PNL	46	44	44	45				
Roadworks	Excavation	109	45.8	44.5	44.2	45.0	813	948	981	891
	Placement of Road Base	107	43.8	42.5	42.2	43.0	813	948	981	891
	Kerbing	93	29.8	28.5	28.2	29.0	813	948	981	891
	Leveling of New Road	108	44.8	43.5	43.2	44.0	813	948	981	891
	Road Paving	108	44.8	43.5	43.2	44.0	813	948	981	891
		(2)Max. PNL	46	44	44	45				
Drainage / Utility Works	Trench Excavation	103	39.8	38.5	38.2	39.0	813	948	981	891
	Preparation of Formation	107	43.8	42.5	42.2	43.0	813	948	981	891
	Pipe/utility Installation	98	34.8	33.5	33.2	34.0	813	948	981	891
	Construction of Manhole	93	29.8	28.5	28.2	29.0	813	948	981	891
	Backfilling	103	39.8	38.5	38.2	39.0	813	948	981	891
		(3)Max. PNL	44	42	42	43				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	48	47	46	47				
Site Formation-Building works at Site 2	Formation	109	44.9	45.1	44.2	49.2	905	881	977	548
		(a)Max. PNL	45	45	44	49				
Site Formation-Building works at Site 3	Formation	109	62.1	58.9	56.1	56.3	125	180	248	242
		(b)Max. PNL	62	59	56	56				
Site Formation-Building works at Site 4	Formation	109	52.0	53.8	51.2	63.7	401	326	437	104
		(c)Max. PNL	52	54	51	64				
Site Form. (Sites 2 + 3 + 4)	(a) + (b) + (C)	(5) Cum. PNL	63	60	58	65				
Superstructure Construction at Site 2	Bored Piling	97	32.9	33.1	32.2	37.2	905	881	977	548
	Concreting Works	93	28.9	29.1	28.2	33.2	905	881	977	548
	Formwork &Reinforcement	109	44.9	45.1	44.2	49.2	905	881	977	548
	Material Handling	100	35.9	36.1	35.2	40.2	905	881	977	548
		(d)Max. PNL	45	45	44	49				
Superstructure Construction at Site 3	Bored Piling	97	50.1	46.9	44.1	44.3	125	180	248	242
	Concreting Works	93	46.1	42.9	40.1	40.3	125	180	248	242
	Formwork &Reinforcement	109	62.1	58.9	56.1	56.3	125	180	248	242
	Material Handling	100	53.1	49.9	47.1	47.3	125	180	248	242
		(e)Max. PNL	62	59	56	56				
Superstructure Construction at Site 4	Bored Piling	97	40.0	41.8	39.2	51.7	401	326	437	104
	Concreting Works	93	36.0	37.8	35.2	47.7	401	326	437	104
	Formwork &Reinforcement	109	52.0	53.8	51.2	63.7	401	326	437	104
	Material Handling	100	43.0	44.8	42.2	54.7	401	326	437	104
		(f)Max. PNL	52	54	51	64				
Super. (Sites 2 + 3 + 4)	(d) + (e) + (f)	(6) Cum. PNL	63	60	58	65				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.		(1)+ (6)								
		Cum. PNL	63	60	58	65				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	63	60	58	65				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR18(31)	Site 1(F)	Site 1A(G)	NSR7(24)	NSR18(31)	Site 1(F)	Site 1A(G)	NSR7(24)
Site Formation-Roadworks										
	Formation	109	43.2	54.4	55.5	53.4	1095	302	267	339
		(1)Max. PNL	43	54	55	53				
Roadworks										
	Excavation	109	43.2	54.4	55.5	53.4	1095	302	267	339
	Placement of Road Base	107	41.2	52.4	53.5	51.4	1095	302	267	339
	Kerbing	93	27.2	38.4	39.5	37.4	1095	302	267	339
	Leveling of New Road	108	42.2	53.4	54.5	52.4	1095	302	267	339
	Road Paving	108	42.2	53.4	54.5	52.4	1095	302	267	339
		(2)Max. PNL	43	54	55	53				
Drainage / Utility Works										
	Trench Excavation	103	37.2	48.4	49.5	47.4	1095	302	267	339
	Preparation of Formation	107	41.2	52.4	53.5	51.4	1095	302	267	339
	Pipe/Utility Installation	98	32.2	43.4	44.5	42.4	1095	302	267	339
	Construction of Manhole	93	27.2	38.4	39.5	37.4	1095	302	267	339
	Backfilling	103	37.2	48.4	49.5	47.4	1095	302	267	339
		(3)Max. PNL	41	52	53	51				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	45	57	58	56				
Site Formation-Building works at Site 2										
	Formation	109	44.6	47.1	47.5	51.5	938	704	671	425
		(a)Max. PNL	45	47	47	51				
Site Formation-Building works at Site 3										
	Formation	109	54.1	50.4	50.2	57.2	312	479	489	218
		(b)Max. PNL	54	50	50	57				
Site Formation-Building works at Site 4										
	Formation	109	53.1	50.4	50.6	63.4	350	479	467	107
		(c)Max. PNL	53	50	51	63				
Site Form. (Sites 2 + 3 + 4)										
	(a) + (b) + (C)	(5) Cum. PNL	57	54	54	65				
Superstructure Construction at Site 2										
	Bored Piling	97	32.6	35.1	35.5	39.5	938	704	671	425
	Concreting Works	93	28.6	31.1	31.5	35.5	938	704	671	425
	Formwork & Reinforcement	109	44.6	47.1	47.5	51.5	938	704	671	425
	Material Handling	100	35.6	38.1	38.5	42.5	938	704	671	425
		(d)Max. PNL	45	47	47	51				
Superstructure Construction at Site 3										
	Bored Piling	97	42.1	38.4	38.2	45.2	312	479	489	218
	Concreting Works	93	38.1	34.4	34.2	41.2	312	479	489	218
	Formwork & Reinforcement	109	54.1	50.4	50.2	57.2	312	479	489	218
	Material Handling	100	45.1	41.4	41.2	48.2	312	479	489	218
		(e)Max. PNL	54	50	50	57				
Superstructure Construction at Site 4										
	Bored Piling	97	41.1	38.4	38.6	51.4	350	479	467	107
	Concreting Works	93	37.1	34.4	34.6	47.4	350	479	467	107
	Formwork & Reinforcement	109	53.1	50.4	50.6	63.4	350	479	467	107
	Material Handling	100	44.1	41.4	41.6	54.4	350	479	467	107
		(f)Max. PNL	53	50	51	63				
Super. (Sites 2 + 3 + 4)										
	(d) + (e) + (f)	(6) Cum. PNL	57	54	54	65				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.										
		(1)+ (6)								
		Cum. PNL	57	57	58	65				
Roadworks + Drainage + Super.										
		(4) + (6)								
		Cum. PNL	57	59	59	65				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR11(28)	NSR21(32)	NSR22(30)	NSR27	NSR11(28)	NSR21(32)	NSR22(30)	NSR27
Site Formation-Roadworks	Formation	109	48.9	46.2	54.4	70.4	570	774	302	48
		(1)Max. PNL	49	46	54	70				
Roadworks	Excavation	109	48.9	46.2	54.4	70.4	570	774	302	48
	Placement of Road Base	107	46.9	44.2	52.4	68.4	570	774	302	48
	Kerbing	93	32.9	30.2	38.4	54.4	570	774	302	48
	Leveling of New Road	108	47.9	45.2	53.4	69.4	570	774	302	48
	Road Paving	108	47.9	45.2	53.4	69.4	570	774	302	48
		(2)Max. PNL	49	46	54	70				
Drainage / Utility Works	Trench Excavation	103	42.9	40.2	48.4	64.4	570	774	302	48
	Preparation of Formation	107	46.9	44.2	52.4	68.4	570	774	302	48
	Pipe/utility Installation	98	37.9	35.2	43.4	59.4	570	774	302	48
	Construction of Manhole	93	32.9	30.2	38.4	54.4	570	774	302	48
	Backfilling	103	42.9	40.2	48.4	64.4	570	774	302	48
		(3)Max. PNL	47	44	52	68				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	51	48	57	73				
Site Formation-Building works at Site 2	Formation	109	56.3	50.7	64.4	50.0	242	464	96	500
		(a)Max. PNL	56	51	64	50				
Site Formation-Building works at Site 3	Formation	109	51.5	46.9	46.3	46.3	422	716	773	772
		(b)Max. PNL	52	47	46	46				
Site Formation-Building works at Site 4	Formation	109	57.9	50.2	49.0	47.9	203	491	566	640
		(c)Max. PNL	58	50	49	48				
Site Form. (Sites 2 + 3 + 4)	(a) + (b) + (c)	(5) Cum. PNL	61	54	65	53				
Superstructure Construction at Site 2	Bored Piling	97	44.3	38.7	52.4	38.0	242	464	96	500
	Concreting Works	93	40.3	34.7	48.4	34.0	242	464	96	500
	Formwork &Reinforcement	109	56.3	50.7	64.4	50.0	242	464	96	500
	Material Handling	100	47.3	41.7	55.4	41.0	242	464	96	500
		(d)Max. PNL	56	51	64	50				
Superstructure Construction at Site 3	Bored Piling	97	39.5	34.9	34.3	34.3	422	716	773	772
	Concreting Works	93	35.5	30.9	30.3	30.3	422	716	773	772
	Formwork &Reinforcement	109	51.5	46.9	46.3	46.3	422	716	773	772
	Material Handling	100	42.5	37.9	37.3	37.3	422	716	773	772
		(e)Max. PNL	52	47	46	46				
Superstructure Construction at Site 4	Bored Piling	97	45.9	38.2	37.0	35.9	203	491	566	640
	Concreting Works	93	41.9	34.2	33.0	31.9	203	491	566	640
	Formwork &Reinforcement	109	57.9	50.2	49.0	47.9	203	491	566	640
	Material Handling	100	48.9	41.2	40.0	38.9	203	491	566	640
		(f)Max. PNL	58	50	49	48				
Super. (Sites 2 + 3 + 4)	(d) + (e) + (f)	(6) Cum. PNL	61	54	65	53				
Cumulative Impacts (Rd works + Bldg works)		(1)+(6)								
Site Form Rd works + Super.		Cum. PNL	61	55	65	70				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	61	55	65	73				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR23(29)	NSR4(A)	NSR5(B)	NSR6 (D)	NSR23 (29)	NSR4 (A)	NSR5 (B)	NSR6 (D)
Site Formation-Roadworks										
	Formation	109	58.3	62.1	69.9	61.8	194	125	51	129
		(1)Max. PNL	58	62	70	62				
Roadworks										
	Excavation	109	58.3	62.1	69.9	61.8	194	125	51	129
	Placement of Road Base	107	56.3	60.1	67.9	59.8	194	125	51	129
	Kerbing	93	42.3	46.1	53.9	45.8	194	125	51	129
	Leveling of New Road	108	57.3	61.1	68.9	60.8	194	125	51	129
	Road Paving	108	57.3	61.1	68.9	60.8	194	125	51	129
		(2)Max. PNL	58	62	70	62				
Drainage / Utility Works										
	Trench Excavation	103	52.3	56.1	63.9	55.8	194	125	51	129
	Preparation of Formation	107	56.3	60.1	67.9	59.8	194	125	51	129
	Pipe/utility Installation	98	47.3	51.1	58.9	50.8	194	125	51	129
	Construction of Manhole	93	42.3	46.1	53.9	45.8	194	125	51	129
	Backfilling	103	52.3	56.1	63.9	55.8	194	125	51	129
		(3)Max. PNL	56	60	68	60				
Cumulative of roadworks and drainage (2)+(3)										
		(4) Cum. PNL	60	64	72	64				
Site Formation-Building works at Site 2										
	Formation	109	62.4	49.1	56.2	61.0	120	560	245	141
		(a)Max. PNL	62	49	56	61				
Site Formation-Building works at Site 3										
	Formation	109	45.3	48.5	45.5	45.8	866	599	845	812
		(b)Max. PNL	45	48	45	46				
Site Formation-Building works at Site 4										
	Formation	109	47.6	50.0	47.1	47.8	665	500	699	645
		(c)Max. PNL	48	50	47	48				
Site Form. (Sites 2 + 3 + 4)										
	(a) + (b) + (C)	(5) Cum. PNL	63	54	57	61				
Superstructure Construction at Site 2										
	Bored Piling	97	50.4	37.1	44.2	49.0	120	560	245	141
	Concreting Works	93	46.4	33.1	40.2	45.0	120	560	245	141
	Formwork &Reinforcement	109	62.4	49.1	56.2	61.0	120	560	245	141
	Material Handling	100	53.4	40.1	47.2	52.0	120	560	245	141
		(d)Max. PNL	62	49	56	61				
Superstructure Construction at Site 3										
	Bored Piling	97	33.3	36.5	33.5	33.8	866	599	845	812
	Concreting Works	93	29.3	32.5	29.5	29.8	866	599	845	812
	Formwork &Reinforcement	109	45.3	48.5	45.5	45.8	866	599	845	812
	Material Handling	100	36.3	39.5	36.5	36.8	866	599	845	812
		(e)Max. PNL	45	48	45	46				
Superstructure Construction at Site 4										
	Bored Piling	97	35.6	38.0	35.1	35.8	665	500	699	645
	Concreting Works	93	31.6	34.0	31.1	31.8	665	500	699	645
	Formwork &Reinforcement	109	47.6	50.0	47.1	47.8	665	500	699	645
	Material Handling	100	38.6	41.0	38.1	38.8	665	500	699	645
		(f)Max. PNL	48	50	47	48				
Super. (Sites 2 + 3 + 4)										
	(d) + (e) + (f)	(6) Cum. PNL	63	54	57	61				
Cumulative Impacts (Rd works + Bldg works)										
Site Form Rd works + Super.										
		(1)+ (6) Cum. PNL	64	63	70	65				
Roadworks + Drainage + Super.										
		(4) + (6) Cum. PNL	65	65	72	66				

Site Identity	Activity	SWL	Predicted Noise Level (PNL)			Distance (m)		
			NSR24 (20)	NSR 24A (H)	NSR 25 (I)	NSR24 (20)	NSR 24A (H)	NSR 25 (I)
Site Formation-Roadworks								
	Formation	109	56.2	64.6	60.9	245	93	144
		(1)Max. PNL	56	65	61			
Roadworks								
	Excavation	109	56.2	64.6	60.9	245	93	144
	Placement of Road Base	107	54.2	62.6	58.9	245	93	144
	Kerbing	93	40.2	48.6	44.9	245	93	144
	Leveling of New Road	108	55.2	63.6	59.9	245	93	144
	Road Paving	108	55.2	63.6	59.9	245	93	144
		(2)Max. PNL	56	65	61			
Drainage / Utility Works								
	Trench Excavation	103	50.2	58.6	54.9	245	93	144
	Preparation of Formation	107	54.2	62.6	58.9	245	93	144
	Pipe/utility Installation	98	45.2	53.6	49.9	245	93	144
	Construction of Manhole	93	40.2	48.6	44.9	245	93	144
	Backfilling	103	50.2	58.6	54.9	245	93	144
		(3)Max. PNL	54	63	59			
Cumulative of roadworks and drainage (2)+(3)			(4) Cum. PNL	58	67	63		
Site Formation-Building works at Site 2								
	Formation	109	52.8	58.0	48.9	365	200	570
		(a)Max. PNL	53	58	49			
Site Formation-Building works at Site 3								
	Formation	109	42.6	43.8	43.9	1184	1028	1017
		(b)Max. PNL	43	44	44			
Site Formation-Building works at Site 4								
	Formation	109	43.9	45.4	45.2	1011	852	874
		(c)Max. PNL	44	45	45			
Site Form. (Sites 2 + 3 + 4)			(5) Cum. PNL	54	58	51		
Superstructure Construction at Site 2								
	Bored Piling	97	40.8	46.0	36.9	365	200	570
	Concreting Works	93	36.8	42.0	32.9	365	200	570
	Formwork &Reinforcement	109	52.8	58.0	48.9	365	200	570
	Material Handling	100	43.8	49.0	39.9	365	200	570
		(d)Max. PNL	53	58	49			
Superstructure Construction at Site 3								
	Bored Piling	97	30.6	31.8	31.9	1184	1028	1017
	Concreting Works	93	26.6	27.8	27.9	1184	1028	1017
	Formwork &Reinforcement	109	42.6	43.8	43.9	1184	1028	1017
	Material Handling	100	33.6	34.8	34.9	1184	1028	1017
		(e)Max. PNL	43	44	44			
Superstructure Construction at Site 4								
	Bored Piling	97	31.9	33.4	33.2	1011	852	874
	Concreting Works	93	27.9	29.4	29.2	1011	852	874
	Formwork &Reinforcement	109	43.9	45.4	45.2	1011	852	874
	Material Handling	100	34.9	36.4	36.2	1011	852	874
		(f)Max. PNL	44	45	45			
Super. (Sites 2 + 3 + 4)			(d) + (e) + (f)	(6) Cum. PNL	54	58	51	
Cumulative Impacts (Rd works + Bldg works)								
Site Form Rd works + Super.			(1)+(6)	Cum. PNL	58	66	61	
Roadworks + Drainage + Super.			(4) + (6)	Cum. PNL	60	67	63	

Predicted Noise Levels for road junction improvement during Construction Phase 1 in Tuen Mun Area 54										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)	NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)
Road Junction Improvement										
	Excavation	118	68.1	63.3	85.4	78.4	176	306	24	54
	Placement of Road Ba	115	65.1	60.3	82.4	75.4	176	306	24	54
	Kerbing	114	64.1	59.3	81.4	74.4	176	306	24	54
	Leveling of New Road	117	67.1	62.3	84.4	77.4	176	306	24	54
	Road Paving	116	66.1	61.3	83.4	76.4	176	306	24	54
		(7)Max. PNL	68.1	63.3	85.4	78.4				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	62	60	56	56				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+(5)								
		Cum. PNL	63	61	58	57				
Site Form.(Rd works + Bldg works) + Rd jcn works		(1)+(5)+(7)								
		Cum. PNL	69	65	85	78				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	63	61	58	57				
Rd works + Drainage + Super.+ Rd jcn works		(4) + (6) +(7)								
		Cum. PNL	69	65	85	78				

Predicted Noise Levels for road junction improvement during Construction Phase 1 in Tuen Mun Area 54 - Use of Quiet Plant										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)	NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)
Road Junction Improvement										
	Excavation	112	62.1	57.3	79.4	72.4	176	306	24	54
	Placement of Road Base	110	60.1	55.3	77.4	70.4	176	306	24	54
	Kerbing	103	53.1	48.3	70.4	63.4	176	306	24	54
	Leveling of New Road	114	64.1	59.3	81.4	74.4	176	306	24	54
	Road Paving	112	62.1	57.3	79.4	72.4	176	306	24	54
	(7)Max. PNL		64.1	59.3	81.4	74.4				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	57	55	52	51				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+(5)								
	Cum. PNL		57	55	52	51				
Site Form.(Rd works + Bldg works) + Rd jcn works		(1)+(5)+(7)								
	Cum. PNL		65	61	81	74				
Roadworks + Drainage + Super.		(4)+(6)								
	Cum. PNL		59	58	54	54				
Rd works + Drainage + Super.+ Rd jcn works		(4)+(6)+(7)								
	Cum. PNL		65	62	81	74				

Predicted Noise Levels for road junction improvement during Construction Phase 1 in Tuen Mun Area 54 - Use of Quiet Plant with Barrier										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)	NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)
Road Junction Improvement										
	Excavation	112	62.1	57.3	79.4	72.4	176	306	24	54
	Placement of Road Base	110	60.1	55.3	77.4	70.4	176	306	24	54
	Kerbing	96	46.1	41.3	63.4	56.4	176	306	24	54
	Leveling of New Road	111	61.1	56.3	78.4	71.4	176	306	24	54
	Road Paving	111	61.1	56.3	78.4	71.4	176	306	24	54
		(7)Max. PNL	62.1	57.3	79.4	72.4				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	56	54	50	50				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+(5)								
		Cum. PNL	57	55	52	51				
Site Form.(Rd works + Bldg works) + Rd jcn works		(1)+(5)+(7)								
		Cum. PNL	63	59	79	72				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	58	56	53	53				
Rdworks + Drainage + Super.+ Rd jcn works		(4) + (6) +(7)								
		Cum. PNL	64	60	79	72				

Predicted Noise Levels for road junction improvement during Construction Phase 1 in Tuen Mun Area 54 - Use of Quiet Plant with Barrier and limiting the usage of operating PME										
Site Identity	Activity	SWL	Predicted Noise Level (PNL)				Distance (m)			
			NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)	NSR6 (C)	NSR11 (28)	NSR22 (30)	NSR23 (29)
Road Junction Improvement										
	Excavation	109	59.1	54.3	76.4	69.4	176	306	24	54
	Placement of Road Base	107	57.1	52.3	74.4	67.4	176	306	24	54
	Kerbing	93	43.1	38.3	60.4	53.4	176	306	24	54
	Leveling of New Road	108	58.1	53.3	75.4	68.4	176	306	24	54
	Road Paving	108	58.1	53.3	75.4	68.4	176	306	24	54
		(7)Max. PNL	59.1	54.3	76.4	69.4				
Cumulative of roadworks and drainage (2)+(3)		(4) Cum. PNL	53	51	47	47				
Cumulative Impacts (Rd works + Bldg works)										
Site Form.(Rd works + Bldg works)		(1)+ (5)								
		Cum. PNL	54	52	49	48				
Site Form.(Rd works + Bldg works) + Rd jcn works		(1)+ (5) +(7)								
		Cum. PNL	60	56	76	69				
Roadworks + Drainage + Super.		(4) + (6)								
		Cum. PNL	55	53	50	50				
Rdworks + Drainage + Super.+ Rd jcn works		(4) + (6) +(7)								
		Cum. PNL	61	57	76	69				