Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan BCP Site Formation Works area (m^2) = 152935

From: Day 1 of Month 1	To:	Day 30 of Month 10	Durat	tion (months):	10		
Stage 1 - Site Clearance							
Stage 1 - Group 1							
Plant/Activity	% of	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Fiant/Activity	usage No. of Plant/ Activity	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Breaker, excavator mounted (hydraulic), 52kW	80%	1	13.0	13.0	10.4		
	Total:						
		Percentage of	f Usage Area to	Works Area:	0.0068		

S	age 1 - Group 2					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	· · · · · · · · · · · · · · · · · · ·		,	(m²)	Area (m²)	Usage (m²)
	Excavator (45kW)	80%	4	13.0	52.0	41.6
		Total:	41.6			
I			Percentage of	f Usage Area to	Works Area:	0.0272

Stage 1 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Bulldozer (239kW)	70%	1	30.0	30.0	21.0
Lorry with crane/grab	70%	1	24.0	24.0	16.8
Dump truck (50t)	70%	3	35.0	105.0	73.5
	111.3				
		Percentage o	f Usage Area to	Works Area:	0.0728

From: Day 1 of Month 7	To:	Day 30 of Month 34	Duration (months): 28		28
Stage 2 - Site Formation Works					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Excavator (45kW)	80%	3	13.0	39.0	31.2
	Total:				
	Percentage of Usage Area to Works Area:				0.0204

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Piling, diaphragm wall, bentonite filtering plant	80%	1	36.0	36.0	28.8
Piling, diaphragm wall, hydraulic extractor	80%	1	36.0	36.0	28.8
Mobile crane	80%	1	36.0	36.0	28.8
	86.4				
		Percentage o	f Usage Area to	Works Area:	0.0565

Stage 2 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Bulldozer (239kW)	70%	1	30.0	30.0	21.0
Compactor, vibratory	70%	1	12.0	12.0	8.4
Dump truck (50t)	70%	4	35.0	140.0	98.0
	127.4				
		Percentage of	f Usage Area to	Works Area:	0.0833

From: Day 1 ofMonth 25	To:	Day 30 of Month 39	30 of Month 39 Duration (months):		15
Stage 3 - Building Formation Works					
Stage 3 - Group 1					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Breaker, hand-held breaker, 35kg	50%	2	1.0	2.0	1.0
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
			4.9		
	Percentage of Usage Area to Works Area:				0.0032

Stage 3 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
1 idite Activity	usage	No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, grab and chisel	100%	1	36.0	36.0	36.0
Piling, large diameter bored, reverse circulation drill	70%	1	36.0	36.0	25.2
	61.2				
		Percentage of	f Usage Area to	Works Area:	0.0400

Stage 3 - Group 3	

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan BCP Site Formation $\,$

Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m²)	
Mobile crane	80%	1	36.0	36.0	28.8	
Concrete lorry mixer (5m3)	70%	4	24.0	96.0	67.2	
Breaker, hand-held breaker, 35kg	50%	2	1.0	2.0	1.0	
	97.0					
	Percentage of Usage Area to Works Area:					

From: Day 1 of Month 31		To: Day 30 of Month 48		Duration (months): 18	
Stage 4 - Building Structures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	40%	2	1.0	2.0	0.8
Concrete lorry mixer (5m3)	70%	3	24.0	72.0	50.4
Mobile crane	80%	1	36.0	36.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
	Total:				104.0
		Percentage of	f Usage Area to	Works Area:	0.0680

From: Day 1 of Month 49	To:	Day 30 of Month 60	Durat	tion (months):	12
Stage 5 - Building E&M System					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	30%	2	24.0	48.0	14.4
Mobile crane	50%	1	36.0	36.0	18.0
Lorry with crane/grab	50%	2	24.0	48.0	24.0
			56.4		
		Percentage of	f Usage Area to	Works Area:	0.0369

From: Day 1 of Month 25	To:	Day 30 of Month 39	Dura	tion (months):	15
Stage 6 - Cross Boundary Bridges - Substructures					
Stage 6 - Group 1					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Breaker, hand-held breaker, 35kg	50%	2	1.0	2.0	1.0
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
Excavator (45kW)	80%	2	13.0	26.0	20.8
Dump truck (50t)	70%	3	35.0	105.0	73.5
				Total:	99.2
		Percentage of	f Usage Area to	Works Area:	0.0649

Stage 6 - Group 2							
Plant/Activity	% of No. of Plant/ Activity Plan	Plan Area	Total Plan	Area in terms of Time of			
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Piling, large diameter bored, grab and chisel	100%	1	36.0	36.0	36.0		
Piling, large diameter bored, reverse circulation drill	70%	1	36.0	36.0	25.2		
	Total:						
		Percentage of	f Usage Area to	Works Area:	0.0400		

Stage 6 - Group 3						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Concrete lorry mixer (5m3)	70%	4	24.0	96.0	67.2	
Breaker, hand-held breaker, 35kg	50%	2	24.0	48.0	24.0	
Mobile crane	70%	1	36.0	36.0	25.2	
	Total:					
		Percentage of	f Usage Area to	Works Area:	0.0761	

From: Day 1 of Month 31		To: Day 30 of Month 48 Duration (months):			18
Stage 7 - Cross Boundary Bridges - Bridges Deck					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	40%	2	1.0	2.0	0.8
Concrete lorry mixer (5m3)	70%	6	24.0	144.0	100.8
Mobile crane	40%	2	36.0	72.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
	Total: Percentage of Usage Area to Works Area:				

From: Day 1 of Month 47	To:	Day 30 of Month 50	Duration (months): 4	
Stage 8 - Cross Boundary Bridges - Road Works & Facilit	ies			
Stage 8 - Group 1				

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan BCP Site Formation

Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Dump truck (50t)	50%	2	35.0	70.0	35.0
	Total:				
		Percentage of	f Usage Area to	Works Area:	0.0229

Stage 8 - Group 2							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Flant/Activity	usage No. 01 Fla	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Roller, vibratory	30%	1	12.0	12.0	3.6		
Asphalt paver	40%	1	12.0	12.0	4.8		
Concrete lorry mixer	30%	1	24.0	24.0	7.2		
	Total:						
		Percentage of	f Usage Area to	Works Area:	0.0102		

From: Day 1 of Month 50	From: Day 1 of Month 50 To: Day 30 of Month 53 Duration (months)		tion (months):	4	
Stage 9 - Cross Boundary Bridges - E&M System					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
TuneActivity	usage No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)	
Breaker, hand-held, mass >= 20kg and <= 35kg	40%	2	0.5	1.0	0.4
Lorry with crane/grab	50%	1	24.0	24.0	12.0
	Total:				12.4
		Percentage of	Usage Area to	Works Area:	0.0081

From: Day 1 of Month 33		Day 30 of Month 41	Dura	tion (months):	9	
Stage 10 - General Civil Works and Utilities						
Stage 10 - Group 1						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Tiulit/Activity	usage	No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)	
Compactor, vibratory	70%	1	12.0	12.0	8.4	
Dump truck (50t)	70%	2	35.0	70.0	49.0	
Excavator (45kW)	70%	1	13.0	13.0	9.1	
	Total:					
		Percentage o	f Usage Area to	Works Area:	0.0435	

Stage 10 - Group 2						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Concrete lorry mixer (5m3)	75%	2	24.0	48.0	36.0	
Lorry with crane/grab	50%	1	24.0	24.0	12.0	
	Total:					
		Percentage o	f Usage Area to	Works Area:	0.0314	

tage 10 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Roller, vibratory	30%	1	12.0	12.0	3.6
Dump truck (50t)	50%	2	35.0	70.0	35.0
Asphalt paver	40%	1	12.0	12.0	4.8
Concrete lorry mixer	30%	1	24.0	24.0	7.2
				Total:	50.6
		Percentage of	f Usage Area to	Works Area:	0.0331

From: Day 1 of Month 42	To:	Day 30 of Month 47	Duration (months): 6			
Stage 11 - Road Works						
Stage 11 - Group 1						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Dump truck (50t)	50%	2	35.0	70.0	35.0	
	Total:					
		Percentage of	Usage Area to	Works Area:	0.0229	

Stage 11 - Group 2					
Plant/Activity	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity		usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Roller, vibratory	30%	1	12.0	12.0	3.6
Asphalt paver	40%	1	12.0	12.0	4.8
Concrete lorry mixer	30%	1	24.0	24.0	7.2
	15.6				
		Percentage of	f Usage Area to	Works Area:	0.0102

From: Day 1 of Month 42	To:	Day 30 of Month 47	Duration (months): 6
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Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan BCP Site Formation

DOI SILE I GIIIIALIGII					
stage 12 - Lighting/E&M/TCSS					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
	usaye		(111-)	Alea (III-)	Usage (m.)
Breaker, hand-held breaker, 35kg	40%	2	1.0	2.0	0.8
Concrete lorry mixer	30%	2	24.0	48.0	14.4
Mobile crane	50%	1	36.0	36.0	18.0
Lorry with crane/grab	50%	2	24.0	48.0	24.0
	57.2				
	Percentage of Usage Area to Works Area:				

From: Day 1 of Month 31	To:	Day 30 of Month 40	Durat	tion (months):	10
Stage 13 Sewage Treatment Plant					
Stage 13a Foundation Works					
Stage 13a - Group 1					
Dlant/Astivity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	50%	2	1.0	2.0	1.0
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
	4.9				
		Percentage of	f Usage Area to	Works Area:	0.0032

Stage 13a - Group 2							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Piling, large diameter bored, grab and chisel	100%	1	36.0	36.0	36.0		
Piling, large diameter bored, reverse circulation drill	70%	1	36.0	36.0	25.2		
	Total:						
	Percentage of Usage Area to Works Area:						

Stage 13a - Group 3						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage No. of Plant/	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	80%	1	36.0	36.0	28.8	
Concrete lorry mixer (5m3)	70%	4	24.0	96.0	67.2	
	Total:					
	Percentage of Usage Area to Works Area:					

From: Day 1 of Month 41	To:	Day 30 of Month 58	Dura	tion (months):	18
Stage 13b Superstructures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Flame Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	40%	2	1.0	2.0	0.8
Concrete lorry mixer	70%	3	24.0	72.0	50.4
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	50%	2	36.0	72.0	36.0
		·	<u> </u>	Total:	101.6
		Percentage of	Usage Area to	Works Area:	0.0664

From: Day 1 of Month 56	To:	Day 30 of Month 60	th 60 Duration (months): 5		
Stage 13c Road Works /Pipe Works					
Stage 13c - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Compactor, vibratory	70%	1	12.0	12.0	8.4
Dump truck	70%	2	35.0	70.0	49.0
	57.4				
		Percentage of	Usage Area to	Works Area:	0.0375

tage 13c - Group 2					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Roller, vibratory	30%	1	12.0	12.0	3.6
Dump truck	50%	2	35.0	70.0	35.0
Asphalt paver	40%	1	12.0	12.0	4.8
Concrete lorry mixer	30%	1	24.0	24.0	7.2
				Total:	50.6
		Percentage of	f Usage Area to	Works Area:	0.0331

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan BCP Site Formation

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Chuk Yuen Village Access Road (at grade) Works area $(m^2) = 2705$

From: Day 1 of Mont	h 9 To:	Day 30 of Month 10	Dura	tion (months):	2
Stage 1 - Site Clearance					
Stage 1 - Group 1					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Breaker, hand-held breaker, 35kg	70%	1	1.0	1.0	0.7
Dump truck (50t)	80%	1	24.0	24.0	19.2
Excavator (45kW)	80%	1	13.0	13.0	10.4
	30.3				
		Percentage of	f Usage Area to	Works Area:	1.1

Stage 1 - Group 2						
Plant/Activity	% of	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	40%	1	36.0	36.0	14.4	
Lorry with crane/grab	70%	1	24.0	24.0	16.8	
	Total:					
		Percentage o	f Usage Area to	Works Area:	1.2	

From: Day 1 of Month 22	From: Day 1 of Month 22 To: Day 30 of Month 30 Duration (months):			9	
Stage 2 - Road Works					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Asphalt paver	70%	1	12.0		
Road roller	70%	1	12.0	12.0	8.4
	8.4				
		Percentage o	f Usage Area to	Works Area:	0.3

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Flyover Crossing over Ng Chow Road (viaduct) Works area $(m^2) = 2705$

From: Day 15 of Month 29	To:	Day 30 of Month 29	Durat	tion (months):	0.5	
Stage 1 - Site Clearance & Haul Road	tage 1 - Site Clearance & Haul Road					
Stage 1 - Group 1						
Plant/Activity	% of	INo. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage		(m²)	Area (m²)	Usage (m²)	
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6	
				Total:	0.6	
	0.0222					

S	tage 1 - Group 2					
	Plant/Activity	INo of Plant/ Activity	Total Plan	Area in terms of Time of		
	Fiant/Activity		NO. OI PIAITE ACTIVIT	y (m²)	Area (m²)	Usage (m²)
	Excavator (45kW)	80%	2	13.0	26.0	20.8
	Bulldozer (239kW)	40%	1	30.0	30.0	12.0
					Total:	32.8
ĺ			Percentage	of Usage Area to	Works Area:	1.2126

1	Stage 1 - Group 3					
Ī	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
L		usage		(m²)	Area (m²)	Usage (m²)
Ī	Dump truck (50t)	80%	4	36.0	144.0	115.2
			Total:	115.2		
ı			Percentage o	f Usage Area to	Works Area:	4.2588

	From:	Day 15 of Month 29	To:	Day 15 of Month 35	Dura	tion (months):	6
S	tage 2 - Piling						
S	Stage 2 - Group 1						
	Plant/Activity		% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Plant/Activity		usage	sage	(m²)	Area (m²)	Usage (m²)
Г	Excavator (45kW)		50%	2	13.0	26.0	13.0
	Lorry (35 t)		50%	4	24.0	96.0	48.0
						Total:	61.0
	Percentage of U				f Usage Area to	Works Area:	2.2551

Stage 2 - Group 2					
Plant/Activity		% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	age	(m²)	Area (m²)	Usage (m ²)
Piling, large diameter bored, reverse circulation drill	50%	4	36.0	144.0	72.0
Piling, large diameter bored, oscillator	50%	4	36.0	144.0	72.0
				Total:	144.0
		Percentage of	f Usage Area to	Works Area:	5.3235

S	age 2 - Group 3					
	Plant/Activity		I No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
				(m²)	Area (m²)	Usage (m²)
	Mobile crane	50%	4	36.0	144.0	72.0
	Concrete lorry mixer (5m3)	20%	4	24.0	96.0	19.2
					Total:	91.2
			Percentage of	f Usage Area to	Works Area:	3.3715

From: Day 1 of Month 31	To:	Day 15 of Month 31	Durat	tion (months):	0.5
From: Day 15 of Month 32	To:	Day 30 of Month 32	Durat	tion (months):	0.5
From: Day 1 of Month 34	To:	Day 15 of Month 34	Durat	tion (months):	0.5
From: Day 15 of Month 35	To:	Day 15 of Month 36	Durat	tion (months):	1
Stage 3 - PileCaps					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	4	24.0	96.0	48.0
			•	Total:	61.0
		Percentage of	f Usage Area to	Works Area:	2.2551

Stage 3 - Group 2					
Plant/Activity	% of No. of Plant/ Activity	Total Plan	Area in terms of Time of		
Tidilitactivity	usage	NO. OF FIAIR ACTIVITY	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	4	24.0	96.0	19.2
Mobile crane	100%	4	36.0	144.0	144.0
Total:					163.2
		Percentage of	f Usage Area to	Works Area:	6.0333

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan

Flyover Crossing over Ng Chow Road (viaduct)

To:	Day 30 of Month 31	Dura	tion (months):	0.5
To:	Day 15 of Month 33	Dura	tion (months):	0.5
To:	Day 30 of Month 34	Dura	tion (months):	0.5
To:	Day 30 of Month 36	Dura	tion (months):	0.5
% of	No. of Bloot/ Activity	Plan Area	Total Plan	Area in terms of Time of
usage	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
20%	4	24.0	96.0	19.2
50%	2	36.0	72.0	36.0
		•	Total:	55.2
Percentage of Usage Area to Works Area:				
	To: To: To: % of usage 20%	To: Day 15 of Month 33 To: Day 30 of Month 34 To: Day 30 of Month 36 % of usage 20% 4 50% 2	To: Day 15 of Month 33 Durai To: Day 30 of Month 34 Durai To: Day 30 of Month 36 Durai % of usage No. of Plant/ Activity Plan Area (m²) 20%	To:

	From: Day 1 of Month 32	To:	Day 30 of Month 42	Dura	tion (months):	11
S	tage 5 - Bridge Decks					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
		usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
	Mobile crane	50%	2	36.0	72.0	36.0
	Lorry (35 t)	60%	4	24.0	96.0	57.6
					Total:	93.6
			Percentage of	f Usage Area to	Works Area:	3.4603

ſ	From: Day 1 of Month 42	To:	Day 15 of Month 43	Dura	tion (months):	1.5
,	Stage 6 - Parapet & Surfacing					
,	Stage 6 - Group 1 (Parapet)					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Plant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
ſ	Mobile crane	30%	2	36.0	72.0	21.6
	Lorry (35 t)	50%	2	24.0	48.0	24.0
					Total:	45.6
			Percentage of	f Usage Area to	Works Area:	1.6858

S	tage 6 - Group 2 (Surfacing)					
Г	Plant/Activity	% of	INo. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
L	Fiant/Activity	usage		(m²)	Area (m²)	Usage (m²)
	Asphalt paver	70%	1	12.0	12.0	8.4
	Road roller	70%	3	12.0	36.0	25.2
					Total:	33.6
			Percentage of	f Usage Area to	Works Area:	1.2421

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Flyover Crossing Wo Keng Shan Road (viaduct) Works area $(m^2) = 14868$

From: Day 15 of Month 40	To:	Day 30 of Month 40	Durat	tion (months):	0.5	
Stage 1 - Site Clearance & Haul Road	age 1 - Site Clearance & Haul Road					
Stage 1 - Group 1						
Plant/Activity	% of	INo. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity	usage		(m²)	Area (m²)	Usage (m²)	
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6	
	0.6					
	Percentage of Usage Area to Works Area:					

Stage 1 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	no or hand hourty	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	80%	2	13.0	26.0	20.8
Bulldozer (239kW)	40%	1	30.0	30.0	12.0
				Total:	32.8
		Percentage of	f Usage Area to	Works Area:	0.2206

	Stage 1 - Group 3					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
L		usage		(m²)	Area (m²)	Usage (m²)
I	Dump truck (50t)	80%	4	36.0	144.0	115.2
ı					Total:	115.2
			Percentage o	f Usage Area to	Works Area:	0.7748

	From: Day 1 of Month 41	To:	Day 30 of Month 46	Dura	tion (months):	6
S	tage 2 - Piling					
S	tage 2 - Group 1					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Plant/Activity		usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
	Excavator (45kW)	50%	2	13.0	26.0	13.0
	Lorry (35 t)	50%	4	24.0	96.0	48.0
					Total:	61.0
		Percentage of Usage Area to Works Area:			Works Area:	0.4103

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
Piling, large diameter bored, reverse circulation drill	50%	4	36.0	144.0	72.0
Piling, large diameter bored, oscillator	50%	4	36.0	144.0	72.0
				Total:	144.0
		Percentage of	f Usage Area to	Works Area:	0.9685

Stage 2 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
TianoActivity	usage No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	50%	4	36.0	144.0	72.0
Concrete lorry mixer (5m3)	20%	4	24.0	96.0	19.2
				Total:	91.2
		Percentage of	f Usage Area to	Works Area:	0.6134

From: Day 1 of Month 43	From: Day 1 of Month 43 To: Day 15 of Month 43 Duration (months)				
From: Day 1 of Month 45	To:	Day 15 of Month 45	Dura	tion (months):	0.5
From: Day 1 of Month 47	' To:	Day 15 of Month 47	Dura	tion (months):	1
Stage 3 - PileCaps					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	4	24.0	96.0	48.0
		·	<u> </u>	Total:	61.0
		Percentage of	Usage Area to	Works Area:	0.4103

Stage 3 - Group 2					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Concrete lorry mixer (5m3)	20%	4	24.0	96.0	
Mobile crane	100%	4	36.0	144.0	144.0
				Total:	163.2
		Percentage o	f Usage Area to	Works Area:	1.0977

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Flyover Crossing Wo Keng Shan Road (viaduct)

rijere: erecemig tre rieng enam rieuw (riuwaeri)					
From: Day 15 of Month 43	To:	Day 30 of Month 43	Dura	tion (months):	0.5
From: Day 15 of Month 45	To:	Day 30 of Month 45	Dura	tion (months):	0.5
From: Day 1 of Month 48	To:	Day 15 of Month 48	Duration (months): 0.5		
Stage 4 - Piers					
Diamet (A akindan		% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	4	24.0	96.0	19.2
Mobile crane	50%	2	36.0	72.0	36.0
	•	•	Total:	55.2	
	Percentage of Usage Area to Works Area:				

From: Day 1 of Month 44	To:	Day 15 of Month 51	Dura	tion (months):	7.5
Stage 5 - Bridge Decks					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage No. of Flam	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	50%	2	36.0	72.0	36.0
Lorry (35 t)	60%	4	24.0	96.0	57.6
				Total:	93.6
		Percentage of	f Usage Area to	Works Area:	0.6295

From: Day 15 of Month 51	From: Day 15 of Month 51 To: Day 15 of Month 52 Duration (months):			1	
Stage 6 - Parapet & Surfacing					
Stage 6 - Group 1 (Parapet)					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	30%	2	36.0	72.0	21.6
Lorry (35 t)	50%	2	24.0	48.0	24.0
				Total:	45.6
		Percentage of	f Usage Area to	Works Area:	0.3067

S	tage 6 - Group 2 (Surfacing)					
Г	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
L	Flant/Activity	usage	NO. OI FIAIIL ACTIVITY	(m²)	Area (m²)	Usage (m²)
	Asphalt paver	70%	1	12.0	12.0	8.4
	Road roller	70%	3	12.0	36.0	25.2
					Total:	33.6
			Percentage o	f Usage Area to	Works Area:	0.2260

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Flyover from BCP to WKS (viaduct) Works area $(m^2) = 72958$

From: Day 1 of Month 7	To:	Day 15 of Month 7	Dura	tion (months):	0.5				
Stage 1 - Site Clearance & Haul Road									
Stage 1 - Group 1									
Dlant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of				
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)				
Excavator (45kW)	30%	2	13.0	26.0	7.8				
	7.8								
		Percentage of	Percentage of Usage Area to Works Area:						

Stage 1 - Group 2						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage	ito: of Flame Activity	(m²)	Area (m²)	Usage (m²)	
Excavator (45kW)	80%	2	13.0	26.0	20.8	
Bulldozer (239kW)	40%	1	30.0	30.0	12.0	
	Total:					
		Percentage o	f Usage Area to	Works Area	0.0450	

Stage 1 - Group 3							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
T land Activity	usage	NO. OF FIGHT ACTIVITY	(m²)	Area (m²)	Usage (m²)		
Dump truck (50t)	80%	4	36.0	144.0	115.2		
	Total:						
		Percentage of	f Usage Area to	Works Area:	0.1579		

From: Day 15 of Month 7	To:	Day 30 of Month 20	Dura	tion (months):	13.5
Stage 2 - Piling					
Stage 2 - Group 1					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. 01	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	40%	6	13.0	78.0	31.2
Lorry (35 t)	30%	13	24.0	312.0	93.6
			124.8		
		0.1711			

Stage 2 - Group 2					
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage	NO. OF PIANT ACTIVITY	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, reverse circulation drill	40%	6	36.0	216.0	86.4
Piling, large diameter bored, oscillator	40%	7	36.0	252.0	100.8
				Total:	187.2
		Percentage of	f Usage Area to	Works Area:	0.2566

Sta	age 2 - Group 3					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
		usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
	Mobile crane	50%	13	36.0	468.0	234.0
	Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
ΙI		262.8				
			Percentage o	f Usage Area to	Works Area:	0.3602

To:	Day 15 of Month 9	Durat	tion (months):	0.5
To:	Day 30 of Month 10	Durat	tion (months):	0.5
To:	Day 15 of Month 12	Durat	tion (months):	0.5
To:	Day 30 of Month 13	Durat	tion (months):	0.5
To:	Day 15 of Month 15	Durat	tion (months):	0.5
To:	Day 30 of Month 16	Durat	tion (months):	0.5
To:	Day 15 of Month 18	Durat	tion (months):	0.5
To:	Day 30 of Month 19	Duration (months): 0.5		
To:	Day 30 of Month 21	Durat	tion (months):	1
% of	No. of Diant/ Activity	Plan Area	Total Plan	Area in terms of Time of
usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
50%	4	13.0	52.0	26.0
50%	13	24.0	312.0	156.0
			Total:	182.0
	Percentage of	f Usage Area to	Works Area:	0.2495
	To: To: To: To: To: To: To: To: W of usage	To: Day 30 of Month 10 To: Day 15 of Month 12 To: Day 30 of Month 13 To: Day 15 of Month 15 To: Day 30 of Month 16 To: Day 30 of Month 16 To: Day 15 of Month 18 To: Day 30 of Month 19 To: Day 30 of Month 21 % of usage No. of Plant/ Activity 50% 4 50% 13	To: Day 30 of Month 10 Durat To: Day 15 of Month 12 Durat To: Day 30 of Month 13 Durat To: Day 30 of Month 15 Durat To: Day 30 of Month 16 Durat To: Day 30 of Month 16 Durat To: Day 15 of Month 18 Durat To: Day 30 of Month 19 Durat To: Day 30 of Month 21 Durat % of usage No. of Plant/ Activity Plan Area (m²)	To:

ĺ	Stage 3 - Group 2					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
ľ	Concrete lorry mixer (5m3)	20%	13	24.0	312.0	62.4

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan

Flyover from BCP to WKS (viaduct)

Mobile crane	100%	13	36.0	468.0	468.0
				Total:	530.4
	0.7270				

From: Day 15 of Month 9	To:	Day 30 of Month 9	Dura	tion (months):	0.5
From: Day 1 of Month 11	To:	Day 15 of Month 11	Dura	tion (months):	0.5
From: Day 15 of Month 12	To:	Day 30 of Month 12	Dura	tion (months):	0.5
From: Day 1 of Month 14	To:	Day 15 of Month 14	Dura	tion (months):	0.5
From: Day 15 of Month 15	To:	Day 30 of Month 15	Dura	tion (months):	0.5
From: Day 1 of Month 17	To:	Day 15 of Month 17	Dura	tion (months):	0.5
From: Day 15 of Month 18	To:	Day 30 of Month 18	Dura	0.5	
From: Day 1 of Month 20	To:	Day 15 of Month 20	Duration (months): 0.5		
From: Day 15 of Month 21	To:	Day 15 of Month 22	Duration (months): 1		
Stage 4 - Piers					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Figure	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	13	24.0	312.0	62.4
Mobile crane	50%	6	36.0	216.0	108.0
			•	Total:	170.4
		Percentage of	f Usage Area to	Works Area:	0.2336

From: Day 15 of Month 10		Day 15 of Month 46	Dura	tion (months):	36
Stage 5 - Bridge Decks					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Pidil/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	50%	4	36.0	144.0	72.0
Lorry (35 t)	60%	8	24.0	192.0	115.2
Total:					187.2
	Percentage of Usage Area to Works Area:				0.2566

From: Day 15 of Month 46	To:	To: Day 30 of Month 48 Duration (months): 2.5				
Stage 6 - Parapet & Surfacing						
Stage 6 - Group 1 (Parapet)						
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Mobile crane	30%	2	36.0	72.0	21.6	
Lorry (35 t)	50%	2	24.0	48.0	24.0	
		•		Total:	45.6	
Percentage of Usage Area to Works Area:					0.0625	

S	tage 6 - Group 2 (Surfacing)					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
		usage	NO. OF FIAITU ACTIVITY	(m²)	Area (m²)	Usage (m²)
Г	Asphalt paver	70%	1	12.0	12.0	8.4
	Road roller	70%	3	12.0	36.0	25.2
		33.6				
l			Percentage o	f Usage Area to	Works Area:	0.0461

Note

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Lin Ma Hang Road Impro Work (at grade) Works area (m^2) = 10030

From: Day 1 of Month	1 To:	Day 30 of Month 2	Dura	tion (months):	2
Stage 1 - Site Clearance					
Stage 1 - Group 1					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Breaker, hand-held breaker, 35kg	70%	1	1.0	1.0	0.7
Dump truck (50t)	80%	1	24.0	24.0	19.2
Excavator (45kW)	80%	1	13.0	13.0	10.4
				Total:	30.3
	·	Percentage of	Usage Area to	Works Area:	0.3021

Stage 1 - Group 2					
Plant/Activity	% of New Astronomy Plan Area	Total Plan	Area in terms of Time of		
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	1	24.0	24.0	16.8
				Total:	31.2
		Percentage of	of Usage Area to	Works Area:	0.3111

From: Day 1 of Month 3	To:	Day 30 of Month 4	Duration (months):		2
From: Day 1 of Month 9	To:	Day 30 of Month 11	Dura	tion (months):	3
Stage 2 - Temporary Bridge - Piling					
Stage 2 - Group 1					
Dlant/Activity	% of	of No of Diametric Activities	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator/ loader, wheeled/ tracked	50%	1	13.0	13.0	6.5
Lorry	50%	2	24.0	48.0	24.0
				Total:	30.5
	Percentage of Usage Area to Works Area:				0.3041

Stage 2 - Group 2					
Plant/Activity	% of No. of Plant/ Activity Plan Area T	Total Plan	Area in terms of Time of		
	usage	,	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, reverse circulation drill	30%	2	36.0	72.0	21.6
Piling, large diameter bored, oscillator	70%	2	36.0	72.0	50.4
	72.0				
		Percentage of	f Usage Area to	Works Area:	0.7178

Stage 2 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	ea Total Plan	Area in terms of Time of
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Crane, mobile/ barge mounted (diesel)	50%	2	24.0	48.0	24.0
Concrete lorry mixer	20%	2	24.0	48.0	9.6
				Total:	33.6
		Percentage of	f Usage Area to	Works Area:	0.3350

From: Day 1 ofMonth 5	To:	To: Day 30 of Month 6 Duration (months):			2
From: Day 1 ofMonth 12	From: Day 1 ofMonth 12 To: Day 30 of Month 14 Duration (months			tion (months):	3
Stage 3 - Temporary Bridge - PileCaps					
Stage 3 - Group 1					
Diamat/Anticity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	1	13.0	13.0	6.5
Lorry (35 t)	50%	2	24.0	48.0	24.0
		•	•	Total:	30.5
	Percentage of Usage Area to Works Area:				0.3041

Stage 3 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	rea Total Plan	Area in terms of Time of
TidilitActivity	usage	No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	2	24.0	48.0	9.6
Mobile crane	100%	2	36.0	72.0	72.0
				Total:	81.6
		Percentage o	f Usage Area to	Works Area:	0.8136

From: Day 1 of Month 7	To:	Day 30 of Month 8	Dura	Duration (months): 2	
From: Day 1 of Month 15	To:	Day 30 of Month 17	Dura	tion (months):	3
Stage 4 - Temporary Bridge - Piers					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity		No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer	20%	2	24.0	48.0	9.6

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan

Lin Ma Hang Road Impro Work (at grade)

Ī	Crane, mobile/ barge mounted (diesel)	50%	1	36.0	36.0	18.0
		27.6				
l			Percentage o	of Usage Area to	Works Area:	0.2752

From: Day 1 of Month 9	To:	Day 30 of Month 10	Dura	2	
From: Day 1 of Month 18	To:	Day 30 of Month 21	Dura	tion (months):	4
Stage 5 - Temporary Bridge - Bridge Decks					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Crane, mobile/ barge mounted (diesel)	50%	1	36.0	36.0	18.0
Lorry	70%	1	24.0	24.0	16.8
		•	•	Total:	34.8
	Percentage of Usage Area to Works Area:				0.3470

From: Day 1 of Month 22	To:	Day 30 of Month 30	Dura	tion (months):	9
Stage 6 - Road Works					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Asphalt paver	70%	1	12.0	12.0	8.4
Road roller	70%	1	12.0	12.0	8.4
				Total:	16.8
	Percentage of Usage Area to Works Area:				0.1675

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan LMH Road next to BCP (at grade)

Works area (m2) = 3538

From: Day 1 of Month 1	To:	Day 30 of Month 2	Dura	tion (months):	2
Stage 1 - Site Clearance					
Stage 1 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
1 idilitactivity	usage	No. of Flatti/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	70%	1	1.0	1.0	0.7
Dump truck (50t)	80%	1	24.0	24.0	19.2
Excavator (45kW)	80%	1	13.0	13.0	10.4
	30.3				
		Percentage o	f Usage Area to	Works Area:	0.8564

Stage 1 - Group 2					
Plant/Activity	% of No. (Plant / Astistic Plan	Plan Area	Total Plan	Area in terms of Time of	
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	1	24.0	24.0	16.8
	31.2				
		Percentage o	f Usage Area to	Works Area:	0.8819

From: Day 1 of Month 3	To:	Day 30 of Month 30	Dura	tion (months):	28
Stage 2 - Site Formation and Road Works					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity ((m²)	Area (m²)	Usage (m²)	
Bulldozer (239kW)	70%	1	30.0	30.0	21.0
Asphalt paver	70%	1	12.0	12.0	8.4
Road roller	70%	1	12.0	12.0	8.4
	37.8				
		Percentage o	f Usage Area to	Works Area:	1.0684

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Ng Chow Road (at grade) Works area $(m^2) = 9808$

From: Day 1 of Month 6	To:	Day 30 of Month 8	Dura	tion (months):	3
Stage 1 - Site Clearance					
Stage 1 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tiunt/Activity	usage	No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	70%	3	1.0	3.0	2.1
Dump truck (50t)	60%	5	35.0	175.0	105.0
Excavator (45kW)	80%	5	13.0	65.0	52.0
				Total:	159.1
		Percentage of	f Usage Area to	Works Area:	1.6221

Stage 1 - Group 2						
Plant/Activity	INo of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
		No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	40%	1	36.0	36.0	14.4	
Lorry with crane/grab	70%	4	24.0	96.0	67.2	
	81.6					
	Percentage of Usage Area to Works Area:					

From: Day 1 of Month 9	To:	Day 30 of Month 20	Dura	12	
Stage 2 - Site Formation					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	80%	5	13.0	65.0	52.0
Lorry with crane/grab	70%	4	24.0	96.0	67.2
	119.2				
		Percentage of	Usage Area to	Works Area:	1.2153

Sta	ige 2 - Group 2					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Tiant/Activity	usage No. of Flatti Activity	(m²)	Area (m²)	Usage (m²)	
E	Bulldozer (239kW)	70%	1	30.0	30.0	21.0
[Dump truck (50t)	80%	5	35.0	175.0	140.0
		161.0				
			Percentage of	f Usage Area to	Works Area:	1.6415

Stage 2 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Concrete lorry mixer (5m3)	40%	2	24.0	48.0	19.2
Mobile crane	100%	1	36.0	36.0	36.0
Compactor, vibratory	50%	3	12.0	36.0	18.0
Vibratory roller (9kW)	70%	3	12.0	36.0	25.2
	98.4				
		Percentage o	f Usage Area to	Works Area:	1.0033

From: Day 1 of Month 9	To: Day 30 of Month 20 Duration (months): 12				12
Stage 3 - Slope Stabilisation					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held, mass >= 20kg and <= 35kg	20%	2	0.5	1.0	0.2
Breaker, excavator mounted (hydraulic), 52kW	80%	1	13.0	13.0	10.4
Lorry with crane/grab	50%	2	24.0	48.0	24.0
	34.6				
	Percentage of Usage Area to Works Area:				

Stage 3 - Group 2							
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)		
Drill rig, rotary type (diesel)	70%	2	13.8	27.6	3 - \		
	Total:						
		Percentage of	f Usage Area to	Works Area:	0.1970		

Stage 3 - Group 3							
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of		
				(/	Usage (m²)		
Mobile crane	70%	1	36.0	36.0	25.2		
Grout mixer	40%	1	6.0	6.0	2.4		
	Total:						
	Percentage of Usage Area to Works Area:						

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Ng Chow Road (at grade)

From: Day 1 of Month 39	To:	Day 30 of Month 47	Duration (months): 9		
Stage 4 - Road Works					
Stage 4 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity		(m²)	Area (m²)	Usage (m²)
Crane, mobile/ barge mounted (diesel)	30%	2	36.0	72.0	21.6
Lorry	50%	2	24.0	48.0	24.0
				Total:	45.6
		Percentage of	f Usage Area to	Works Area:	0.4649

Stage 4 - Group 2							
Plant/Activity	I No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
		NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Asphalt paver	70%	1	12.0	12.0	8.4		
Road roller	70%	3	12.0	36.0	25.2		
	Total:						
		Percentage o	f Usage Area to	Works Area:	0.3426		

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan North Portal of North Tunnel and Ventilation Building (at grade) Works area $(m^2) = 14656$

From: Day 1 of Month 8	To:	Day 30 of Month 10	Durat	tion (months):	3
Stage 1 - Site Clearance					
Stage 1 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
T land Activity	usage	NO. OF FIGHT ACTIVITY	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	70%	3	1.0	3.0	2.1
Dump truck (50t)	60%	4	35.0	140.0	84.0
Excavator (45kW)	80%	4	13.0	52.0	41.6
	127.7				
		Percentage of	Usage Area to	Works Area:	0.8713

Stage 1 - Group 2					
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	4	24.0	96.0	67.2
	81.6				
	0.5568				

From: Day 1 of Month 23	To:	Day 30 of Month 31	Durat	9		
Stage 2 - Portal Formation						
Stage 2 - Group 1						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Excavator (45kW)	80%	4	13.0	52.0	41.6	
Lorry with crane/grab	70%	4	24.0	96.0	67.2	
	Total:					
		Percentage of	Usage Area to	Works Area:	0.7424	

Stage 2 - Group 2						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
·	usage	-	(m²)	Area (m²)	Usage (m²)	
Bulldozer (239kW)	70%	1	30.0	30.0	21.0	
Dump truck (50t)	60%	4	35.0	140.0	84.0	
	Total:					
		Percentage of	Usage Area to	Works Area:	0.7164	

Stage 2 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	_	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	40%	1	24.0	24.0	9.6
Mobile crane	100%	1	36.0	36.0	36.0
Compactor, vibratory	60%	3	12.0	36.0	21.6
Vibratory roller (9kW)	60%	3	12.0	36.0	21.6
	88.8				
		Percentage of	Usage Area to	Works Area:	0.6059

From: Day 1 of Month 25	To:	Day 30 of Month 30	Durat	ion (months):	6		
Stage 3 - Bored Pile Wall							
Stage 3 - Group 1							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Drill rig, rotary type (diesel)	40%	2	13.0	26.0	10.4		
	Total:						
		Percentage of	Usage Area to	Works Area:	0.0710		

Stage 3 - Group 2							
Plant/Activity	% of	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Fiant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)			
Mobile crane	100%	1	36.0	36.0	36.0		
Piling, large diameter bored, grab and chisel	70%	2	36.0	72.0	50.4		
	Total:						
		Percentage of	Usage Area to	Works Area:	0.5895		

Stage 3 - Group 3								
Plant/Activity	% of	No. of Dlant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)				
Concrete lorry mixer (5m3)	50%	1	24.0	24.0	12.0			
	Total:							
		Percentage of	Usage Area to	Works Area:	0.0819			

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan

North Fortal of North Tulline and Ventilation Building	(at grade	7				
From: Day 1 of Month 29	To:	Day 30 of Month 31	Duration (months): 3			
Stage 4 - Road Works						
Stage 4 - Group 1						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	30%	2	36.0	72.0	21.6	
Lorry (35 t)	50%	2	24.0	48.0	24.0	
				Total:	45.6	
		Percentage of	Usage Area to	Works Area:	0.3111	

Stage 4 - Group 2					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Asphalt paver	70%	1	12.0	12.0	<u> </u>
Road roller	70%	3	12.0	36.0	25.2
	33.6				
		Percentage of	Usage Area to	Works Area:	0.2293

From: Day 1 of Month 32	To: Day 30 of Month 33 Duration (months): 2			2	
Stage 5 - Building Foundation Works					
Stage 5 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	sage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held, mass >= 20kg and <= 35kg	30%	2	0.5	1.0	0.3
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
Crane, mobile/ barge mounted (diesel)	70%	1	36.0	36.0	25.2
				Total:	29.4
		Percentage of	Usage Area to	Works Area:	0.2006

S	tage 5 - Group 2					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
H	Investigation of the second			/	(/	
	Piling, large diameter bored, grab and chisel	90%	1	36.0	36.0	32.4
	Piling, large diameter bored, reverse circulation drill	40%	1	36.0	36.0	14.4
l					Total:	46.8
		·	Percentage o	f Usage Area to	Works Area:	0.3193

Stage 5 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Mobile crane	80%	1	36.0	36.0	28.8
Concrete lorry mixer	50%	4	24.0	96.0	48.0
				Total:	76.8
		Percentage of	Usage Area to	Works Area:	0.5240

From: Day 1 of Month 34	To:	Day 30 of Month 36	Durat	tion (months):	3
Stage 6 - Building Structures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage No. of Plant/ Acti	No. of Flame Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held, mass >= 20kg and <= 35kg	40%	2	0.5	1.0	0.4
Concrete lorry mixer	50%	3	24.0	72.0	36.0
Mobile crane	80%	1	36.0	36.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
				Total:	89.2
		Percentage of	Usage Area to	Works Area:	0.6086

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Ping Yeung Interchange Road Section (at grade) Works area $(m^2) = 3056$

From: Day 1 of Month	6 To:	Day 30 of Month 8	Dura	tion (months):	3
Stage 1 - Site Clearance					
Stage 1 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tiant/Activity	usage	NO. OF FIAITE ACTIVITY	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	70%	3	1.0	3.0	2.1
Dump truck (50t)	60%	5	35.0	175.0	105.0
Excavator (45kW)	80%	5	13.0	65.0	52.0
				Total:	159.1
		Percentage of	f Usage Area to	Works Area:	5.2062

Stage 1 - Group 2					
Plant/Activity	% of No. of Plant/ Activity Plan Are	Plan Area	Total Plan	Area in terms of Time of	
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	4	24.0	96.0	67.2
				Total:	81.6
		Percentage of	of Usage Area to	Works Area:	2.6702

From: Day 1 of Month 9	m: Day 1 of Month 9 To: Day 30 of Month 20 Duration (months):			12	
Stage 2 - Site Formation					
Stage 2 - Group 1					
Plant/Activity	I No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity		No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	80%	5	13.0	65.0	52.0
Lorry with crane/grab	70%	4	24.0	96.0	67.2
			•	Total:	119.2
	Percentage of Usage Area to Works Area:				3.9005

S	itage 2 - Group 2					
	Plant/Activity	% of No. of Plant/ Activity Plan	Plan Area	Total Plan	Area in terms of Time of	
		usage	No. of Flame Activity	(m²)	Area (m²)	Usage (m²)
	Bulldozer (239kW)	70%	1	30.0	30.0	21.0
	Dump truck (50t)	80%	5	35.0	175.0	140.0
					Total:	161.0
			Percentage of	f Usage Area to	Works Area:	5.2683

Stage 2 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Concrete lorry mixer (5m3)	40%	2	24.0	48.0	19.2
Mobile crane	100%	1	36.0	36.0	36.0
Compactor, vibratory	50%	3	12.0	36.0	18.0
Vibratory roller (9kW)	70%	3	12.0	36.0	25.2
				Total:	98.4
		Percentage of	f Usage Area to	Works Area:	3.2199

From: Day 1 of Month 39	To:	Day 30 of Month 47	Dura	tion (months):	9
Stage 3 - Road Works					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flail/Activity	usage INO.	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	30%	2	36.0	72.0	21.6
Lorry (35 t)	50%	2	24.0	48.0	24.0
				Total:	45.6
		Percentage of	Usage Area to	Works Area:	1.4921

Stage 3 - Group 2					
Plant/Activity	% of No. of Plant/ Activity Plan Area	Total Plan	Area in terms of Time of		
Plant/Activity		NO. OF FIAITU ACTIVITY	(m²)	Area (m²)	Usage (m²)
Asphalt paver	70%	1	12.0	12.0	8.4
Road roller	70%	3	12.0	36.0	25.2
				Total:	33.6
		Percentage o	f Usage Area to	Works Area:	1.0995

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Ping Yeung Interchange Road Section (at grade)

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan Wo Keng Shan Road Section (at grade) Works area $(m^2) = 3056$

From: Day 1 of Month 6	To:	Day 30 of Month 8	Dura	tion (months):	3			
Stage 1 - Site Clearance	age 1 - Site Clearance							
Stage 1 - Group 1								
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)			
Breaker, hand-held breaker, 35kg	70%	3	1.0	3.0	2.1			
Dump truck (50t)	60%	5	35.0	175.0	105.0			
Excavator (45kW)	80%	5	13.0	65.0	52.0			
				Total:	159.1			
		Percentage of	f Usage Area to	Works Area:	5.2062			

Stage 1 - Group 2					
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Flatit/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	4	24.0	96.0	67.2
				Total:	81.6
		Percentage of	f Usage Area to	Works Area:	2.6702

	From: Day 1 of Month 9	To:	Day 30 of Month 20	Dura	tion (months):	12
S	Stage 2 - Site Formation					
S	tage 2 - Group 1					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Plant/Activity	usage No. 01 P	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
	Excavator (45kW)	80%	5	13.0	65.0	52.0
	Lorry with crane/grab	70%	4	24.0	96.0	67.2
					Total:	119.2
			Percentage of	f Usage Area to	Works Area:	3.9005

Stage 2 - Group 2					
Plant/Activity	% of No. of Plant/ Activity Plan A	Plan Area	Total Plan	Area in terms of Time of	
	usage	INO. OF FIAITU ACTIVITY	(m²)	Area (m²)	Usage (m²)
Bulldozer (239kW)	70%	1	30.0	30.0	21.0
Dump truck (50t)	80%	5	35.0	175.0	140.0
				Total:	161.0
		Percentage o	f Usage Area to	Works Area:	5.2683

Stage 2 - Group 3						
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)	
Concrete lorry mixer (5m3)	40%	2	24.0	48.0	19.2	
Mobile crane	100%	1	36.0	36.0	36.0	
Compactor, vibratory	50%	3	12.0	36.0	18.0	
Vibratory roller (9kW)	70%	3	12.0	36.0	25.2	
	Total:					
		Percentage o	f Usage Area to	Works Area:	3.2199	

From: Day 1 of Month 12	To:	Day 30 of Month 17	of Month 17 Duration (months):		6
Stage 3 - Bored Pile Wall					
Stage 3 - Group 1					
Dlama/A astirutare	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity		age No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Drill rig, rotary type (diesel)	40%	2	13.8	27.6	11.0
		Total:	11.0		
		0.3613			

Stage 3 - Group 2					
Plant/Activity	% of No. of Plant/ Activity Plan A	Plan Area	Total Plan	Area in terms of Time of	
	usage	NO. OF PIAITE ACTIVITY	(m²)	Area (m²)	Usage (m²)
Mobile crane	100%	1	36.0	36.0	36.0
Piling, large diameter bored, grab and chisel	70%	2	36.0	72.0	50.4
	86.4				
		Percentage o	f Usage Area to	Works Area:	2.8272

S	tage 3 - Group 3					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
r	Concrete lorry mixer (5m3)	50%	1	24.0	24.0	
		12.0				
Ī		0.3927				

Near the BCP, Lin Ma Hang to Frontier Closed Area and Ping Yeung to Wo Keng Shan

Wo Keng Shan Road Section (at grade)

From: Day 1 of Month 39	To:	Day 30 of Month 47	Dura	tion (months):	9
Stage 4 - Road Works					
Stage 4 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity		(m²)	Area (m²)	Usage (m²)
Crane, mobile/ barge mounted (diesel)	30%	2	36.0	72.0	21.6
Lorry	50%	2	24.0	48.0	24.0
				Total:	45.6
		Percentage of	f Usage Area to	Works Area:	1.4921

Stage 4 - Group 2					
Plant/Activity	% of No. of Plant/ Activity Plan	Plan Area	Total Plan	Area in terms of Time of	
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Asphalt paver	70%	1	12.0	12.0	8.4
Road roller	70%	3	12.0	36.0	25.2
				Total:	33.6
		Percentage o	f Usage Area to	Works Area:	1.0995

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Sha Tau Kok Administration Building (at grade) Works area (m²) = 10500

From: Day 1 of Monti	14 To:	Day 30 of Month 6	Dura	tion (months):	3
Stage 1 - Site Clearance					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	60%	1	1.0	1.0	0.6
Dump truck (50t)	50%	1	24.0	24.0	12.0
Excavator (45kW)	50%	1	13.0	13.0	6.5
Lorry with crane/grab	50%	1	24.0	24.0	12.0
				Total:	31.1
		Percentage o	f Usage Area to	Works Area:	0.3

From: Day 1 of Month	7 To:	Day 30 of Month 10	Dura	tion (months):	4
Stage 2 - Building Foundation Works					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
			4.5		
		Percentage o	0.0		

Stage 2 - Group 2					
Plant/Activity	I No. of Plant/ Activity I	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity		(m²)	Area (m²)	Usage (m²)	
Piling, large diameter bored, grab and chisel	90%	1	36.0	36.0	32.4
Piling, large diameter bored, reverse circulation drill	40%	1	36.0	36.0	14.4
				Total:	46.8
		Percentage o	f Usage Area to	Works Area:	0.4

age 2 - Group 3								
Plant/Activity	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of				
Fiant/Activity		(m²)	Area (m²)	Usage (m²)				
Mobile crane	80%	1	36.0	36.0	28.8			
Concrete lorry mixer (5m3)	50%	4	24.0	96.0	48.0			
	Total							
	Percentage of Usage Area to Works Area:							

From: Day 1 of Month 9	To:	Day 30 of Month 14	Dura	tion (months):	6
Stage 3 - Building Structures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tidilitactivity	usage	usage No. of Plant/ Activity (I	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	40%	2	1.0	2.0	0.8
Concrete lorry mixer (5m3)	50%	3	24.0	72.0	36.0
Mobile crane	80%	1	36.0	36.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
				Total:	89.6
		Percentage of	f Usage Area to	Works Area:	0.9

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Sha Tau Kok Flyover Crossing Sha Tau Kok Road Interchange (viaduct) Works area (m²) = 11830

From: Day 1 of Month 7	To:	Day 15 of Month 7	Dura	tion (months):	0.5		
Stage 1 - Site Clearance & Haul Road							
Stage 1 - Group 1							
Plant/Activity	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
Fiant/Activity		NO. OF FIGHT ACTIVITY	(m²)	Area (m²)	Usage (m²)		
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6		
				Total:	0.6		
	Percentage of Usage Area to Works Area:						

Stage 1 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tiunit Activity	usage	No. of Flame Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	80%	2	13.0	26.0	20.8
Bulldozer (239kW)	40%	1	30.0	30.0	12.0
				Total:	32.8
		Percentage of	f Usage Area to	Works Area:	0.2773

Stage 1 - Gr	oup 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	Flant/Activity		No. of Flame Activity	(m²)	Area (m²)	Usage (m²)
Dump truc	ck (50t)	80%	4	36.0	144.0	115.2
						115.2
			Percentage o	f Usage Area to	Works Area:	0.9738

From: Day 15 of Month 7	To:	Day 15 of Month 16	Dura	tion (months):	9
Stage 2 - Piling					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	5	24.0	120.0	60.0
			Total:	73.0	
		Percentage of	Usage Area to	Works Area:	0.6171

Stage 2 - Group 2					
Plant/Activity		% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
Piling, large diameter bored, reverse circulation drill	50%	5	36.0	180.0	90.0
Piling, large diameter bored, oscillator	50%	5	36.0	180.0	90.0
				Total:	180.0
		Percentage of	f Usage Area to	Works Area:	1.5216

Stage 2 - Group 3					
Plant/Activity		% of No. of Plant/ Activity Plan	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	50%	5	36.0	180.0	90.0
Concrete lorry mixer (5m3)	20%	5	24.0	120.0	24.0
				Total:	114.0
		Percentage of	f Usage Area to	Works Area:	0.9637

From: Day 1 of Month 9	To:	Day 15 of Month 9	Durat	ion (months):	0.5
From: Day 15 of Month 10	To:	Day 30 of Month 10	Durat	ion (months):	0.5
From: Day 1 of Month 12	To:	Day 15 of Month 12	Durat	ion (months):	0.5
From: Day 15 of Month 13	To:	Day 30 of Month 13	Durat	ion (months):	0.5
From: Day 1 of Month 15	To:	Day 15 of Month 15	Durat	ion (months):	0.5
From: Day 15 of Month 16	To:	Day 15 of Month 17	Durat	ion (months):	1
Stage 3 - PileCaps					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	5	24.0	120.0	60.0
				Total:	73.0
	Percentage of	Usage Area to	Works Area:	0.6171	

Stage 3 - Group 2					
Plant/Activity		% of No. of Plant/ Activity Pla	Plan Area	Total Plan	Area in terms of Time of
		No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	5	24.0	120.0	24.0
Mobile crane	100%	5	36.0	180.0	180.0
				Total:	204.0
		Percentage of	f Usage Area to	Works Area:	1.7244

Sha Tau Kok Flyover Crossing Sha Tau Kok Road Interchange (viaduct)

From: Day 15 of Month 9	To:	Day 30 of Month 9	Durat	tion (months):	0.5
From: Day 1 of Month 11	To:	Day 15 of Month 11	Durat	tion (months):	0.5
From: Day 15 of Month 12	To:	Day 30 of Month 12	Durat	tion (months):	0.5
From: Day 1 of Month 14	To:	Day 15 of Month 14	Durat	tion (months):	0.5
From: Day 15 of Month 15	To:	Day 30 of Month 15	Durat	tion (months):	0.5
From: Day 1 of Month 17	To:	Day 30 of Month 17	Duration (months):		1
Stage 4 - Piers					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
•	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	5	24.0	120.0	24.0
Mobile crane	50%	2	36.0	72.0	36.0
				Total:	60.0
		Percentage of	Usage Area to	Works Area:	0.5072

	From: Day 15 of Month 12	To:	Day 15 of Month 30	Dura	tion (months):	28
Stag	ge 5 - Bridge Decks					
	Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
			NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
М	lobile crane	50%	2	36.0	72.0	36.0
Lo	orry (35 t)	60%	4	24.0	96.0	57.6
					Total:	93.6
			Percentage of	l Usage Area to	Works Area:	0.7912

	From: Day 15 of Month 30	To:	Day 15 of Month 31	Dura	tion (months):	1
9	Stage 6 - Parapet & Surfacing					
Ş	Stage 6 - Group 1 (Parapet)					
Г	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Plant/Activity	usage No. of Plant/ Activity		(m²)	Area (m²)	Usage (m²)
Ī	Mobile crane	30%	2	36.0	72.0	21.6
	Lorry (35 t)	50%	2	24.0	48.0	24.0
					Total:	45.6
			Percentage of	f Usage Area to	Works Area:	0.3855

S	tage 6 - Group 2 (Surfacing)					
Г	Plant/Activity	% of No. of Plant/ Activity Plan Area	Total Plan	Area in terms of Time of		
		usage	NO. OF PIAITE ACTIVITY	(m²)	Area (m²)	Usage (m²)
	Asphalt paver	70%	1	12.0	12.0	8.4
	Road roller	70%	3	12.0	36.0	25.2
		33.6				
			Percentage of	f Usage Area to	Works Area:	0.2840

Note

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Sha Tau Kok North Portal of South Tunnel and Ventilation Building (at grade) Works area $(m^2) = 15000$

From: Day 1 of Month	4 To:	Day 30 of Month 6	Dura	tion (months):	3		
Stage 1 - Site Clearance							
Stage 1 - Group 1							
Plant/Activity % of No. of Plant/ Activity Plan Area Total Plan Area							
Tiant/Activity	usage	NO. OF FIAITE ACTIVITY	(m²)	Area (m²)	Usage (m²)		
Breaker, hand-held breaker, 35kg	70%	3	1.0	3.0	2.1		
Dump truck (50t)	80%	4	35.0	140.0	112.0		
Excavator (45kW)	80%	8	13.0	104.0	83.2		
				Total:	197.3		
		Percentage of	f Usage Area to	Works Area:	1.3153		

Stage 1 - Group 2					
Plant/Activity	% of No. of Plant/ Activity	Total Plan	Area in terms of Time of		
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	2	24.0	48.0	33.6
	48.0				
	Percentage of Usage Area to Works Area:				

From: Day 1 of Month 7	To:	Day 30 of Month 20	Dura	tion (months):	14
Stage 2 - Portal Formation					
Stage 2 - Group 1					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activit	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	80%	8	13.0	104.0	83.2
Lorry with crane/grab	70%	2	24.0	48.0	33.6
		•		Total:	116.8
	Percentage of Usage Area to Works Area:				0.7787

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)
Bulldozer (239kW)	70%	1	30.0	30.0	21.0
Dump truck (50t)	80%	4	35.0	140.0	112.0
				Total:	133.0
		Percentage of	f Usage Area to	Works Area:	0.8867

Stage 2 - Group 3							
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)		
Concrete lorry mixer	40%	1	24.0	24.0			
Mobile crane	100%	1	36.0	36.0	36.0		
Compactor, vibratory	50%	1	12.0	12.0	6.0		
Roller, vibratory	40%	1	12.0	12.0	4.8		
	Total:						
		Percentage o	f Usage Area to	Works Area:	0.3760		

From: Day 1 of Month 7	To:	Day 30 of Month 16	Dura	tion (months):	10
Stage 3 - Slope Stabilisation					
Stage 3 - Group 1					
Dlaud (Antivity)		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Breaker, hand-held breaker, 35kg	20%	2	1.0	2.0	0.4
Breaker, excavator mounted (hydraulic), 52kW	80%	1	13.0	13.0	10.4
Lorry with crane/grab	50%	2	24.0	48.0	24.0
Total:					
	Percentage of Usage Area to Works Area:				

Stage 3 - Group 2						
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)	
Drill rig, rotary type (diesel)	70%	2	13.8	27.6		
	Total:					
		Percentage of	f Usage Area to	Works Area:	0.1288	

Stage 3 - Group 3						
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)	
Crane, mobile/ barge mounted (diesel)	70%	1	36.0	36.0	25.2	
Grout mixer	40%	1	6.0	6.0	2.4	
	Total:					
	Percentage of Usage Area to Works Area:					

Sha Tau Kok North Portal of South Tunnel and Ventilation Building (at grade)

From: Day 1 of Month 9	From: Day 1 of Month 9 To: Day 30 of Month 14 Duration (months):			6	
Stage 4 - Bored Pile Wall					
Stage 4 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Drill rig, rotary type (diesel)	40%	2	13.8	27.6	11.0
Total:					11.0
	Percentage of Usage Area to Works Area:				0.0736

Stage 4 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	NO. OF FIAITE ACTIVITY	(m²)	Area (m²)	Usage (m²)
Mobile crane	100%	1	36.0	36.0	36.0
Piling, large diameter bored, grab and chisel	70%	2	36.0	72.0	50.4
	Total:				
		Percentage of	of Usage Area to	Works Area:	0.5760

S	age 4 - Group 3					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Plant/Activity		usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
	Concrete lorry mixer (5m3)	50%	1	24.0	24.0	12.0
					Total:	12.0
I		Works Area:	0.0800			

From: Day 1 of Month 16	To: Day 30 of Month 17 Duration (months):			2	
Stage 5 - Building Foundation Works					
Stage 5 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
			4.5		
	Percentage of Usage Area to Works Area:				

Stage 5 - Group 2					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
,		_	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, grab and chisel	90%	1	36.0	36.0	32.4
Piling, large diameter bored, reverse circulation drill	40%	1	36.0	36.0	14.4
				Total:	46.8
		Percentage o	f Usage Area to	Works Area:	0.3120

Stage 5 - Group 3							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
	usage	No. of Flant Activity	(m²)	Area (m²)	Usage (m²)		
Mobile crane	80%	1	36.0	36.0	28.8		
Concrete lorry mixer (5m3)	50%	4	24.0	96.0	48.0		
				Total:	76.8		
	Percentage of Usage Area to Works Area:						

From: Day 1 of Month 18		B To: Day 30 of Month 20		tion (months):	3
Stage 6 - Building Structures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tiant/Activity	usage	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held, mass >= 20kg and <= 35kg	40%	2	0.5	1.0	0.4
Concrete lorry mixer	50%	3	24.0	72.0	36.0
Crane, mobile/ barge mounted (diesel)	80%	1	36.0	36.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
				Total:	89.2
		Percentage of	Usage Area to	Works Area:	0.5947

Sha Tau Kok

North Portal of South Tunnel and Ventilation Building (at grade)

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Sha Tau Kok Sha Tau Kok Road Section (at grade) Works area (m²) = 46612

From: Day 1 of Month 4	To:	Day 30 of Month 6	Dura	tion (months):	3			
itage 1 - Site Clearance								
Stage 1 - Group 1								
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)			
Breaker, hand-held breaker, 35kg	70%	4	1.0	4.0	2.8			
Dump truck (50t)	80%	2	35.0	70.0	56.0			
Excavator (45kW)	80%	3	13.0	39.0	31.2			
				Total:	90.0			
		Percentage of	Usage Area to	Works Area:	0.1931			

Stage 1 - Group 2									
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of					
Flail/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)				
Mobile crane	40%	1	36.0	36.0	14.4				
Lorry with crane/grab	70%	3	24.0	72.0	50.4				
				Total:	64.8				
		Percentage of	f Usage Area to	Percentage of Usage Area to Works Area:					

	From: Day 1 of Month 7	From: Day 1 of Month 7 To: Day 30 of Month 18 Duration (months): 1				12
S	tage 2 - Site Formation					
S	tage 2 - Group 1					
Г	Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Plant/Activity	usage No. of P	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Г	Excavator (45kW)	80%	3	13.0	39.0	31.2
	Lorry with crane/grab	70%	3	24.0	72.0	50.4
		81.6				
			Percentage of	f Usage Area to	Works Area:	0.1751

Stage 2 - Group 2						
Plant/Activity	% of	I No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
	usage		(m²)	Area (m²)	Usage (m²)	
Bulldozer (239kW)	60%	2	30.0	60.0	36.0	
Dump truck (50t)	80%	3	35.0	105.0	84.0	
				Total:	120.0	
	Percentage of Usage Area to Works Area:					

Stage 2 - Group 3						
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)	
Concrete lorry mixer (5m3)	40%	1	24.0	24.0	9.6	
Mobile crane	100%	2	36.0	72.0	72.0	
Compactor, vibratory	60%	2	12.0	24.0	14.4	
Vibratory roller (9kW)	60%	3	12.0	36.0	21.6	
		•	•	Total:	117.6	
	Percentage of Usage Area to Works Area:					

From: Day 1 of Month 10	To:	To: Day 30 of Month 15 Duration (months):			6		
Stage 3 - Bored Pile Wall							
Stage 3 - Group 1							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Plant/Activity	usage	isage	(m²)	Area (m²)	Usage (m²)		
Drill rig, rotary type (diesel)	40%	2	0.5	1.0	0.4		
	Total:						
		Percentage of	f Usage Area to	Works Area:	0.0009		

Stage 3 - Group 2							
Plant/Activity	% of No. of Plant/ Activity Plan	Plan Area	Total Plan	Area in terms of Time of			
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Mobile crane	100%	1	36.0	36.0	36.0		
Piling, large diameter bored, grab and chisel	70%	2	36.0	72.0	50.4		
				Total:	86.4		
	Percentage of Usage Area to Works Area:						

S	age 3 - Group 3					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
┕		usaye		` '	(/	
	Concrete lorry mixer (5m3)	50%	1	36.0	36.0	18.0
		18.0				
		0.0386				

Sha Tau Kok

Sha Tau Kok Road Section (at grade)

From: Day 1 of Month 17	To:	Day 30 of Month 20	Dura	tion (months):	4
Stage 4 - Road Works					
Stage 4 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
1 lane Activity	usage	NO. OF FIAITE ACTIVITY	(m²)	Area (m²)	Usage (m²)
Mobile crane	30%	2	36.0	72.0	21.6
Lorry (35 t)	50%	2	24.0	48.0	24.0
				Total:	45.6
	•	Percentage of	Usage Area to	Works Area:	0.0978

,	Stage 4 - Group 2					
ſ	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
L	Fidili/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Γ	Asphalt paver	70%	1	12.0	12.0	8.4
ı	Road roller	70%	2	12.0	24.0	16.8
ı					Total:	25.2
ı			Percentage of	f Usage Area to	Works Area:	0.0541

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Sha Tau Kok South Portal of North Tunnel and Ventilation Building (at grade) Works area (m²) = 15952

From: Day 1 of Month	4 To:	Day 30 of Month 6	Dura	tion (months):	3
Stage 1 -Site Clearance					
Stage 1 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tiant/Activity	usage	No. of Flatti Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	70%	3	1.0	3.0	2.1
Dump truck (50t)	60%	4	35.0	140.0	84.0
Excavator (45kW)	80%	8	13.0	104.0	83.2
				Total:	169.3
		Percentage of	f Usage Area to	Works Area:	1.0613

Stage 1 - Group 2					
Plant/Activity	INo of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Flail/Activity		No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	4	24.0	96.0	67.2
				Total:	81.6
		Percentage of	f Usage Area to	Works Area:	0.5115

	From: Day 1 of Month 7	To:	Day 30 of Month 15	Dura	tion (months):	9
S	tage 2 - Portal Formation					
S	itage 2 - Group 1					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Flant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
	Excavator (45kW)	80%	3	13.0	39.0	31.2
	Lorry with crane/grab	70%	3	24.0	72.0	50.4
			81.6			
			Percentage of	f Usage Area to	Works Area:	0.5115

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tidill/Activity	usage	NO. OF FIAITU ACTIVITY	(m²)	Area (m²)	Usage (m²)
Bulldozer (239kW)	70%	1	30.0	30.0	21.0
Dump truck (50t)	80%	4	35.0	140.0	112.0
				Total:	133.0
		Percentage o	f Usage Area to	Works Area:	0.8338

Stage 2 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Concrete lorry mixer	40%	1	24.0	24.0	~
Mobile crane	100%	2	36.0	72.0	72.0
Compactor, vibratory	50%	1	12.0	12.0	6.0
				Total:	87.6
		Percentage o	f Usage Area to	Works Area:	0.5491

From: Day 1 of Month 7	To:	Day 30 of Month 15	Dura	tion (months):	9	
Stage 3 - Slope Stabilisation						
Stage 3 - Group 1						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Breaker, hand-held breaker, 35kg	20%	2	1.0	2.0	0.4	
Breaker, excavator mounted (hydraulic), 52kW	80%	1	13.0	13.0	10.4	
Lorry with crane/grab	50%	2	24.0	48.0	24.0	
	Total:					
		Percentage of	f Usage Area to	Works Area:	0.2182	

Stage 3 - Group 2					
Plant/Activity	I No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity		NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Drill rig, rotary type (diesel)	70%	3	13.8	41.4	29.0
				Total:	29.0
	•	Percentage o	f Usage Area to	Works Area:	0.1817

Stage 3 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
,	usage	rior or riame riominity	(m²)	Area (m²)	Usage (m²)
Mobile crane	70%	1	36.0	36.0	25.2
Grout mixer	60%	1	6.0	6.0	3.6
				Total:	28.8
		Percentage o	f Usage Area to	Works Area:	0.1805

Sha Tau Kok South Portal of North Tunnel and Ventilation Building (at grade)

From: Day 1 of Month 9	To:	Day 30 of Month 14	Durat	6	
Stage 4 - Bored Pile Wall					
Stage 4 - Group 1					
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Flant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Drill rig, rotary type (diesel)	40%	2	13.8	27.6	11.0
	11.0				
		Percentage of	Usage Area to	Works Area:	0.0692

Stage 4 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
<u>, </u>	usage	•	(m²)	Area (m²)	Usage (m²)
Mobile crane	100%	1	36.0	36.0	36.0
Piling, large diameter bored, grab and chisel	70%	2	36.0	72.0	50.4
				Total:	86.4
		Percentage of	f Usage Area to	Works Area:	0.5416

S	age 4 - Group 3					
	Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
			1101 011 14116 7101111,	(m²)	Area (m²)	Usage (m²)
	Concrete lorry mixer (5m3)	50%	1	24.0	24.0	12.0
					Total:	12.0
I			Percentage of	f Usage Area to	Works Area:	0.0752

Γ	From: Day 1 of Month 13	To:	Day 30 of Month 15	Dura	tion (months):	3
S	age 5 - Road Works					
S	age 5 - Group 1					
Г	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Fiant/Activity	usage	usage No. of Plattit Activity	(m²)	Area (m²)	Usage (m²)
Г	Mobile crane	30%	2	36.0	72.0	21.6
	Lorry (35 t)	50%	2	24.0	48.0	24.0
			•	•	Total:	45.6
ı			Percentage of	Usage Area to	Works Area:	0.2859

Stage 5 - Group 2					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
		NO. OF PIAITE ACTIVITY	(m²)	Area (m²)	Usage (m²)
Asphalt paver	70%	1	12.0	12.0	8.4
Road roller	70%	3	12.0	36.0	25.2
				Total:	33.6
		Percentage o	f Usage Area to	Works Area:	0.2106

From: Day 1 of Month 32	To:	Day 30 of Month 33	Dura	tion (months):	2
Stage 6 - Building Foundation Works					
Stage 6 - Group 1					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	age	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
			4.5		
		Percentage of	f Usage Area to	Works Area:	0.0282

Stage 6 - Group 2					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flant/Activity	usage	NO. OF FIGHT ACTIVITY	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, grab and chisel	90%	1	36.0	36.0	32.4
Piling, large diameter bored, reverse circulation drill	40%	1	36.0	36.0	14.4
				Total:	46.8
		Percentage o	f Usage Area to	Works Area:	0.2934

Stage 6 - Group 3						
Dlout/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage	NO. OF Plant Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	80%	1	36.0	36.0	28.8	
Concrete lorry mixer (5m3)	50%	4	24.0	96.0	48.0	
				Total:	76.8	
	Percentage of Usage Area to Works Area:					

From: Day 1 of Month 34	To:	Day 30 of Month 36	Durat	3	
Stage 7 - Building Structures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of
Dranker hand hold branker Office	usage	,	` '	\ /	Usage (m²)
Breaker, hand-held breaker, 35kg	40%	2	1.0	2.0	0.8

Sha Tau Kok

South	Dortal	of North	Tunnel and	Ventilation	Building /	at aradal
South	Portai	OI NOTH	i unnei and	venillation	bullallia (ai uraue)

Concrete lorry mixer (5m3)	50%	3	24.0	72.0	36.0
Mobile crane	80%	1	36.0	36.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
	89.6				
	0.5617				

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Po Kak Tsai Mid Ventilation Building (at grade) Works area (m²) = 4725

From: Day 1 of Mont	h8 To:	Day 30 of Month 10	Day 30 of Month 10 Duration (months):		
Stage 1 - Site Clearance					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
1 Idilit Activity	usage	No: of Flant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	60%	1	1.0	1.0	0.6
Dump truck (50t)	50%	1	24.0	24.0	12.0
Excavator (45kW)	50%	1	13.0	13.0	6.5
Lorry with crane/grab	50%	1	24.0	24.0	12.0
	31.1				
		Percentage o	f Usage Area to	Works Area:	0.6582

From: Day 1 of Month 35		Day 30 of Month 42	Durat	tion (months):	8
tage 2 - Shaft Construction					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Breaker, hand-held breaker, 35kg	60%	3	1.0	3.0	1.8
Dump truck (50t)	50%	10	24.0	240.0	120.0
Excavator (45kW)	50%	2	13.0	26.0	13.0
Crane, tower (electric)	50%	1	36.0	36.0	18.0
Piling, diaphragm wall, bentonite filtering plant	100%	2	36.0	72.0	72.0
Piling, diaphragm wall, hydraulic extractor	100%	1	36.0	36.0	36.0
Drill rig, rotary type (diesel)	100%	2	13.8	27.6	27.6
			•	Total:	288.4
		Percentage o	f Usage Area to	Works Area:	6.1037

From: Day 1 of Month	43 To:	Day 30 of Month 45	Dura	3	
Stage 3 - Building Foundation Works					
Stage 3 - Group 1					
Plant/Activity		% of No. of Plant/ Activity Pla	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
			4.5		
		Percentage o	f Usage Area to	Works Area:	0.0952

Stage 3 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, grab and chisel	90%	1	36.0	36.0	32.4
Piling, large diameter bored, reverse circulation drill	40%	1	36.0	36.0	14.4
	46.8				
Percentage of Usage Area to Works Area:					0.9905

Stage 3 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage		(m²)	Area (m²)	Usage (m²)
Mobile crane	80%	1	36.0	36.0	28.8
Concrete lorry mixer (5m3)	50%	4	24.0	96.0	48.0
Total:					76.8
Percentage of Usage Area to Works Area:					1.6254

From: Day 1 of Month 46 To:		Day 30 of Month 48	Dura	tion (months):	3
tage 4 - Building Structures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage		(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	40%	2	1.0	2.0	0.8
Concrete lorry mixer (5m3)	50%	3	24.0	72.0	36.0
Mobile crane	80%	1	36.0	36.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
Total:					89.6
Percentage of Usage Area to Works Area:					1.8963

Po Kak Tsa

Mid Ventilation Building (at grade)

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Fanling
Fanling Highway Connection Flyovers - TA Bridge (viaduct)
Works area (m²) = 9945

From: Day 1 of Month 1	To:	Day 15 of Month 1	Duration (months): 0.5		
Stage 1 - Site Clearance & Haul Road					
Stage 1 - Group 1					
Plant/Activity	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity		NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6
	0.6				
Percentage of Usage Area to Works Area:					0.0060

Stage 1 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	40%	2	13.0	26.0	10.4
Bulldozer (239kW)	40%	2	30.0	60.0	24.0
	Total:	34.4			
	Works Area	0.3459			

Stage 1 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	INO. OF FRANK ACTIVITY	(m²)	Area (m²)	Usage (m²)
Dump truck (50t)	80%	4	35.0	140.0	112.0
	112.0				
Percentage of Usage Area to Works Area:					1.1262

From: Day 15 of Month 1	To:	Day 30 of Month 2	Duration (months): 1.5			
Stage 2 - Piling						
Stage 2 - Group 1						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity	usage	INO. OI FIAM! ACTIVITY	(m²)	Area (m²)	Usage (m²)	
Excavator (45kW)	40%	2	13.0	26.0	10.4	
Lorry (35 t)	30%	4	24.0	96.0	28.8	
	39.2					
Percentage of Usage Area to Works Area:					0.3942	

Stage 2 - Group 2					
Plant/Activity	% of	No. of Diant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
Piling, large diameter bored, reverse circulation drill	30%	4	36.0	144.0	43.2
	Total:	43.2			
	0.4344				

Stage 2 - Group 3						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan Area (m²)	Area in terms of Time of	
	usage		(m²)	Area (III-)	Usage (m²)	
Mobile crane	50%	4	36.0	144.0	72.0	
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8	
	Total:					
	1.0136					

From: Day 1 of Month 3	To:	Day 30 of Month 3	Dura	tion (months):	1
Stage 3 - PileCaps					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	2	24.0	48.0	24.0
	37.0				
Percentage of Usage Area to Works Area:					0.3720

Stage 3 -Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	4	24.0	96.0	19.2
Mobile crane	100%	4	36.0	144.0	144.0

Fanling Highway Connection Flyovers - TA Bridge (viaduct)

Total:	163.2
Percentage of Usage Area to Works Area:	1.6410

From: Day 1 of Month 4	To:	Day 30 of Month 4	Dura	tion (months):	1
Stage 4 - Piers					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	50%	2	36.0	72.0	36.0
Lorry (35 t)	20%	2	24.0	48.0	9.6
Total:					45.6
Percentage of Usage Area to Works Area:					0.4585

From: Day 1 of Month 5	To:	Day 15 of Month 6	Duration (months): 1.5		
Stage 5 - Bridge Decks					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	50%	2	36.0	72.0	36.0
Lorry (35 t)	60%	4	24.0	96.0	57.6
Total:					93.6
Percentage of Usage Area to Works Area:				0.9412	

From: Day 15 of Month 6	To:	Day 30 of Month 6	Duration (months): 0.5		
Stage 6 - Parapet & Surfacing					
Stage 6 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	30%	1	36.0	36.0	10.8
Lorry (35 t)	50%	2	24.0	48.0	24.0
	34.8				
Percentage of Usage Area to Works Area:					0.3499

Stage 6 - Group 2								
Plant/Activity	I No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of				
		(m²)	Area (m²)	Usage (m²)				
Asphalt paver	70%	1	6.0	6.0	4.2			
Road roller	70%	3	6.0	18.0	12.6			
	Total:							
		Percentage of	f Usage Area to	Works Area:	0.1689			

Note:

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

Works area (m²) = 98040

Fanling	Highway	y Connection	Flyovers -	Link Road 1	viaduct
ı anınıy	ingiiwa	y Commection	i iyovcis -	LIIIK IIOau I	_viauuci

- uggu,	t animing ringinitary continuous in riyovoid a Link rious i_viassor									
From: Day 1 of Month 16	To:	Day 15 of Month 16	Duration (months): 0.5							
tage 1 - Site Clearance & Haul Road										
Stage 1 - Group 1	Stage 1 - Group 1									
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of					
Flant/Activity	usage	sage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)					
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6					
	0.6									
		Percentage of	f Usage Area to	Works Area:	0.0006					

Stage 1 - Group 2							
Plant/Activity	% of	% of No. of Plant/ Activity Plan Ar	Plan Area	Total Plan	Area in terms of Time of		
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Excavator (45kW)	40%	2	13.0	26.0	10.4		
Bulldozer (239kW)	40%	1	30.0	30.0	12.0		
				Total:	22.4		
	Percentage of Usage Area to Works Area:						

S	Stage 1 - Group 3								
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
		usage No. of Flant Activity	(m²)	Area (m²)	Usage (m²)				
Г	Dump truck (50t)	80%	4	35.0	140.0	112.0			
		Total:							
			Percentage of	f Usage Area to	Works Area:	0.1142			

From: Day 1 of Month	16 To:	Day 30 of Month 20	Dura	tion (months):	5
Stage 2 - Piling					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fidili/Activity	usage	usage No. of Plant/ Activity		Area (m²)	Usage (m²)
Excavator (45kW)	40%	3	13.0	39.0	15.6
Lorry (35 t)	30%	6	24.0	144.0	43.2
	58.8				
		Percentage o	f Usage Area to	Works Area:	0.0600

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, reverse circulation drill	40%	3	36.0	108.0	43.2
Piling, large diameter bored, oscillator	40%	3	36.0	108.0	43.2
	86.4				
	0.0881				

Stage 2 - Group 3							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
	usage	NO. OF Plant Activity	(m²)	Area (m²)	Usage (m²)		
Mobile crane	50%	6	36.0	216.0	108.0		
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8		
	136.8						
	Percentage of Usage Area to Works Area:						

From: Day 15 of Month 17	To:	Day 30 of Month 17	Dura	tion (months):	0.5
From: Day 1 of Month 19	To:	Day 15 of Month 19	Dura	tion (months):	0.5
From: Day 1 of Month 21	To:	Day 30 of Month 21	Dura	tion (months):	1
Stage 3 - PileCaps					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiall/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	6	24.0	144.0	72.0
	85.0				
		Percentage of	f Usage Area to	Works Area:	0.0867

Stage 3 -Group 2							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8		
Mobile crane	100%	6	36.0	216.0	216.0		
	244.8						
	Percentage of Usage Area to Works Area:						

Fanling Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

From: Day 1 of Month 18	To:	Day 30 of Month 18	Duration (months): 1		
From: Day 15 of Month 19	To:	Day 30 of Month 20	Dura	1.5	
From: Day 1 of Month 22	To:	Day 15 of Month 23	Duration (months): 1.5		1.5
Stage 4 - Piers					
Plant/Activity	% of	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage		(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
Mobile crane	50%	3	36.0	108.0	54.0
	82.8				
		Percentage o	f Usage Area to	Works Area:	0.0845

From: Day 1 of Month 19		Day 30 of Month 30	Dura	tion (months):	12		
Stage 5 - Bridge Decks							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Mobile crane	50%	2	36.0	72.0	36.0		
Lorry (35 t)	40%	4	24.0	96.0	38.4		
	Total:						
	Percentage of Usage Area to Works Area:						

From: Day 15 of Month 29	To:	Day 30 of Month 30	Dura	tion (months):	1.5
Stage 6 - Parapet & Surfacing					
Stage 6 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	30%	2	36.0	72.0	21.6
Lorry (35 t)	50%	2	24.0	48.0	24.0
			45.6		
		Percentage o	f Usage Area to	Works Area:	0.0465

Stage 6 - Group 2								
Plant/Activity	% of No. of Plant/ Activity Plan	Plan Area	Total Plan	Area in terms of Time of				
Plant/Activity		usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)			
Asphalt paver	70%	1	6.0	6.0	4.2			
Road roller	70%	3	6.0	18.0	12.6			
	Total:							
		Percentage o	f Usage Area to	Works Area:	0.0171			

Fanling Highway Connection Flyovers - Link Road 2_via	duct							
From: Day 1 of Month 28	To:	Day 15 of Month 28	Dura	tion (months):	0.5			
Stage 1 - Site Clearance & Haul Road								
Stage 1 - Group 1								
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
Plant/Activity	usage No. of Plant/ Activi	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)			
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6			
Total:								
	Percentage of Usage Area to Works Area:							

Stage 1 - Group 2							
Plant/Activity	I No. of Plant/ Activity I	Plan Area	Total Plan	Area in terms of Time of			
Fiant/Activity		(m²)	Area (m²)	Usage (m²)			
Excavator (45kW)	40%	2	13.0	26.0	10.4		
Bulldozer (239kW)	40%	1	30.0	30.0	12.0		
	Total:						
		Percentage o	f Usage Area to	Works Area:	0.0228		

Stage 1 - Group 3					
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity		usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Dump truck (50t)	80%	4	35.0	140.0	112.0
				Total:	112.0
		Percentage o	f Usage Area to	Works Area:	0.1142
·					

L	From: Day 1 of Month 28	To:	Day 15 of Month 32	Duration (months): 4.5			
,	Stage 2 - Piling						
•	Stage 2 - Group 1						
Γ	Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
			NO. OF Plant Activity	(m²)	Area (m²)	Usage (m²)	
Γ	Excavator (45kW)	40%	3	13.0	39.0	15.6	
	Lorry (35 t)	30%	6	24.0	144.0	43.2	

Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

•	•		Total:	58.8
		Percentage of Usa	ge Area to Works Area:	0.0600

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity		usage No. of Plant/ Activity (m	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, reverse circulation drill	40%	3	36.0	108.0	43.2
Piling, large diameter bored, oscillator	40%	3	36.0	108.0	43.2
	86.4				
		Percentage of	of Usage Area to	Works Area:	0.0881

Stage 2 - Group 3							
Plant/Activity	% of	% of No. of Plant/ Activity	Plan Area	Plan Area Total Plan	Area in terms of Time of		
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Mobile crane	50%	6	36.0	216.0	108.0		
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8		
	136.8						
	Percentage of Usage Area to Works Area:						

From: Day 15 of Month 29	To:	Day 30 of Month 29	Dura	tion (months):	0.5		
From: Day 1 of Month 31	To:	Day 15 of Month 31	Dura	tion (months):	0.5		
From: Day 15 of Month 32	To:	Day 15 of Month 33	Dura	tion (months):	1		
Stage 3 - PileCaps							
Stage 3 - Group 1							
Plant/Activity	% of	No. of Dlant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Plant/Activity	usage No. of Pla	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Excavator (45kW)	50%	2	13.0	26.0	13.0		
Lorry (35 t)	50%	6	24.0	144.0	72.0		
	Total:						
	Percentage of Usage Area to Works Area:						

Stage 3 -Group 2								
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
· · · · · · · · · · · · · · · · · · ·	usage	usage	(m²)	Area (m²)	Usage (m²)			
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8			
Mobile crane	100%	6	36.0	216.0	216.0			
	Total:							
		Percentage o	f Usage Area to	Works Area:	0.2497			

From: Day 1 of Month 30	To:	Day 30 of Month 30	Dura	tion (months):	1
From: Day 15 of Month 31	To:	Day 15 of Month 32	Dura	tion (months):	1
From: Day 1 of Month 33	To:	Day 15 of Month 34	Dura	tion (months):	1.5
Stage 4 - Piers					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
Mobile crane	50%	3	36.0	108.0	54.0
	82.8				
		Percentage of	f Usage Area to	Works Area:	0.0845

From: Day 15 of Month 30	To:	Day 30 of Month 43	Durat	tion (months):	13.5
Stage 5 - Bridge Decks					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	50%	2	36.0	72.0	36.0
Lorry (35 t)	40%	4	24.0	96.0	38.4
Total:					74.4
		Percentage of	f Usage Area to	Works Area:	0.0759

From: Day 15 of Month 42	To:	Day 30 of Month 43	Dura	tion (months):	1.5	
Stage 6 - Parapet & Surfacing						
Stage 6 - Group 1						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	30%	2	36.0	72.0	21.6	
Lorry (35 t)	50%	2	24.0	48.0	24.0	
	Total:					
		Percentage o	f Usage Area to	Works Area:	0.0465	

Stage 6 - Group 2					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Asphalt paver	70%	1	6.0	6.0	4.2

Fanling Highway Connection Flyovers - Link Road 1-5	(viaduct)	and Road Section (at o	grade)		
Road roller	70%	3	6.0	18.0	12.6
	16.8				
		Percentage o	f Usage Area to	Works Area:	0.0171

Fanling Highway Connection Flyovers - Lin	k Road 3_viaduct						
From: Day	1 of Month 1 To:	Day 15 of Month 1	Dura	tion (months):	0.5		
Stage 1 - Site Clearance & Haul Road							
Stage 1 - Group 1							
Dlant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6		
	Total:						
		Percentage o	f Usage Area to	Works Area:	0.0006		

Stage 1 - Group 2							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Tiant/Activity	usage		(m²)	Area (m²)	Usage (m²)		
Excavator (45kW)	40%	2	13.0	26.0	10.4		
Bulldozer (239kW)	40%	1	30.0	30.0	12.0		
	Total:						
	<u> </u>	Percentage o	f Usage Area to	Works Area:	0.0228		

Stage 1 - Group 3							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Figure	usage	age	(m²)	Area (m²)	Usage (m²)		
Dump truck (50t)	80%	4	35.0	140.0	112.0		
	Total:						
		Percentage o	f Usage Area to	Works Area:	0.1142		

From: Day 1 of Month 1	To:	Day 15 of Month 4	Dura	tion (months):	3.5
Stage 2 - Piling					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Disself Assistan	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	40%	3	13.0	39.0	15.6
Lorry (35 t)	30%	6	24.0	144.0	43.2
	Total:				
		Percentage of	f Usage Area to	Works Area:	0.0600

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
TiditeActivity	usage	sage No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, reverse circulation drill	40%	3	36.0	108.0	43.2
Piling, large diameter bored, oscillator	40%	3	36.0	108.0	43.2
	86.4				
		Percentage o	f Usage Area to	Works Area:	0.0881

Stage 2 - Group 3							
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Fiant/Activity	usage	isage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)		
Mobile crane	50%	6	36.0	216.0	108.0		
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8		
	Total:						
		Percentage o	f Usage Area to	Works Area:	0.1395		

From: Day 1 of Month 2	To:	Day 15 of Month 2	Dura	tion (months):	0.5
From: Day 1 of Month 3	To:	Day 15 of Month 3	Dura	tion (months):	0.5
From: Day 15 of Month 4	To:	Day 30 of Month 4	Dura	tion (months):	0.5
Stage 3 - PileCaps					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flail/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	6	24.0	144.0	72.0
	85.0				
		Percentage of	f Usage Area to	Works Area:	0.0867

Stage 3 -Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
Mobile crane	100%	6	36.0	216.0	216.0

Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

- animing ringinitary commodation rejectors - Emittended to (readable) and residue cootion (as grade)	
Total:	244.8
Percentage of Usage Area to Works Area:	0.2497

From: Day 15 of Month 2	To:	Day 30 of Month 2	Dura	tion (months):	0.5
From: Day 15 of Month 3	To:	Day 30 of Month 3	Dura	tion (months):	0.5
From: Day 1 of Month 5	To:	Day 15 of Month 5	Dura	tion (months):	0.5
Stage 4 - Piers					
Plant/Activity	% of Name of Plant (Automotive P	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
Mobile crane	50%	3	36.0	108.0	54.0
			<u> </u>	Total:	82.8
	Percentage of Usage Area to Works Area:				

From: Day 1 of Month 3		To: Day 15 of Month 10 Duration (months			7.5	
Stage 5 - Bridge Decks						
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity	usage	NO. OF FIAIT! ACTIVITY	(m²)	Area (m²)	Usage (m²)	
Mobile crane	50%	2	36.0	72.0	36.0	
Lorry (35 t)	40%	4	24.0	96.0	38.4	
	Total:					
		Percentage o	f Usage Area to	Works Area:	0.0759	

From: Day 1 of Month 10	To:	Day 30 of Month 10	Dura	tion (months):	1
Stage 6 - Parapet & Surfacing					
Stage 6 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	e No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	30%	2	36.0	72.0	21.6
Lorry (35 t)	50%	2	24.0	48.0	24.0
			•	Total:	45.6
		Percentage o	f Usage Area to	Works Area:	0.0465

Stage 6 - Group 2						
Plant/Activity		% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Tiunt/Activity	usage	No. of Flant Activity	(m²)	Area (m²)	Usage (m²)	
Asphalt paver	70%	1	6.0	6.0	4.2	
Road roller	70%	3	6.0	18.0	12.6	
	Total:					
		Percentage o	f Usage Area to	Works Area:	0.0171	

Fanling Highway Connection Flyovers - Link Road 4_viaduct

From: Day 1 of Month 8	To:	Day 15 of Month 8	Durat	tion (months):	0.5				
Stage 1 - Site Clearance & Haul Road									
Stage 1 - Group 1									
Dlama/A addington		% of	Plan Area	Total Plan	Area in terms of Time of				
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)				
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6				
	0.6								
		Percentage o	f Usage Area to	Works Area:	0.0006				

Stage 1 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	40%	2	13.0	26.0	10.4
Bulldozer (239kW)	40%	1	30.0	30.0	12.0
	22.4				
		Percentage o	f Usage Area to	Works Area:	0.0228

Stage 1 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Dump truck (50t)	80%	4	35.0	140.0	112.0
				Total:	112.0
	0.1142				

	From: Day 1 of Month 8	To:	Day 15 of Month 11	Duration (months): 3.5	
Stage 2 - Piling					
Stage 2 - Group 1					

Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Г	Excavator (45kW)	40%	3	13.0	39.0	15.6
	Lorry (35 t)	30%	6	24.0	144.0	43.2
		58.8				
			Percentage o	f Usage Area to	Works Area:	0.0600

Stage 2 - Group 2						
Plant/Activity	% of	% of No. of Plant/ Activity	Plan Area	Total Plan Area (m²)	Area in terms of Time of	
Tidilit/Activity	usage	No. of Flant/ Activity	(m²)		Usage (m²)	
Piling, large diameter bored, reverse circulation drill	40%	3	36.0	108.0	43.2	
Piling, large diameter bored, oscillator	40%	3	36.0	108.0	43.2	
			86.4			
	Percentage of Usage Area to Works Area:					

Stage 2 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	50%	6	36.0	216.0	108.0
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
	Total:	136.8			
		Percentage o	f Usage Area to	Works Area:	0.1395

From: Day 15 of Month 9	To:	Day 30 of Month 9	Duration (months):		0.5
From: Day 15 of Month 11	To:	Day 15 of Month 12	Dura	tion (months):	1
Stage 3 - PileCaps					
Stage 3 - Group 1					
Diout/Autivity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	6	24.0	144.0	72.0
				Total:	85.0
Percentage of Usage Area to Works Area:				0.0867	

Stage 3 -Group 2					
Plant/Activity	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Platti/Activity		(m²)	Area (m²)	Usage (m²)	
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
Mobile crane	100%	6	36.0	216.0	216.0
	244.8				
Percentage of Usage Area to Works Area:				0.2497	

From: Day 1 of Month 10	To:	Day 15 of Month 10	Duration (months):		0.5
From: Day 15 of Month 12	To:	Day 30 of Month 13	Dura	tion (months):	1.5
Stage 4 - Piers					
Diamet / A akindan	I No. of Plant/ Activity I	Plan Area	Total Plan	Area in terms of Time of	
Plant/Activity		No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
Mobile crane	50%	3	36.0	108.0	54.0
Total:					82.8
	Percentage of Usage Area to Works Area:				0.0845

From: Day 15 of Month 10		Day 30 of Month 18	Duration (months): 8.5		8.5
Stage 5 - Bridge Decks					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	50%	2	36.0	72.0	36.0
Lorry (35 t)	40%	4	24.0	96.0	38.4
				Total:	74.4
	Percentage of Usage Area to Works Area:				

From: Day 1 of Month 18	To:	Day 30 of Month 18	Dura	tion (months):	1
Stage 6 - Parapet & Surfacing					
Stage 6 - Group 1					
Plant/Activity	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity		(m²)	Area (m²)	Usage (m²)	
Mobile crane	30%	2	36.0	72.0	21.6
Lorry (35 t)	50%	2	24.0	48.0	24.0
				Total:	45.6
	Percentage of Usage Area to Works Area:			0.0465	

Stage 6 - Group 2	

Fanling Highway Connec	tion Flyovers - Link Ro	oad 1-5 (viaduct) and R	load Section (at grade)

Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Asphalt paver	70%	1	6.0	6.0	4.2
Road roller	70%	3	6.0	18.0	12.6
	16.8				
	0.0171				

Fanling Highway Connection Flyovers -	Link Road 5_viaduct							
From: Da	ay 1 of Month 42 To:	Day 15 of Month 42	Dura	tion (months):	0.5			
itage 1 - Site Clearance & Haul Road								
Stage 1 - Group 1								
Plant/Activity	% of	% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of			
Tiant/Activity	usage		(m²)	Area (m²)	Usage (m²)			
Breaker, hand-held breaker, 35kg	30%	2	1.0	2.0	0.6			
	0.6							
		Percentage of	of Usage Area to	Works Area:	0.0006			

Stage 1 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
Excavator (45kW)	40%	2	13.0	26.0	10.4
Bulldozer (239kW)	40%	1	30.0	30.0	12.0
Total:					22.4
	Percentage of Usage Area to Works Area:				

Stage 1 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	(m²)	Area (m²)	Usage (m²)	
Dump truck (50t)	80%	4	35.0	140.0	112.0
	Total:				
Percentage of Usage Area to Works Area:					0.1142

	From: Day 1 of Month 42		Day 15 of Month 43	Duration (months):		1.5
9)	Stage 2 - Piling					
9	Stage 2 - Group 1					
	Plant/Activity		% of usage No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
				(m²)	Area (m²)	Usage (m²)
	Excavator (45kW)	40%	3	13.0	39.0	15.6
	Lorry (35 t)	30%	6	24.0	144.0	43.2
					Total:	58.8
			Percentage o	f Usage Area to	Works Area:	0.0600

Stage 2 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, reverse circulation drill	40%	3	36.0	108.0	43.2
Piling, large diameter bored, oscillator	40%	3	36.0	108.0	43.2
				Total:	86.4
		Percentage o	f Usage Area to	Works Area:	0.0881

Stage 2 - Group 3					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
1 Idill Addivity	usage	No. of Flant, Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	50%	6	36.0	216.0	108.0
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
				Total:	136.8
		Percentage o	f Usage Area to	Works Area:	0.1395

From: Day 15 of Month 43	To:	Day 30 of Month 43	Dura	tion (months):	0.5
Stage 3 - PileCaps					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	2	13.0	26.0	13.0
Lorry (35 t)	50%	6	24.0	144.0	72.0
				Total:	85.0
		Percentage o	f Usage Area to	Works Area:	0.0867

Stage 3 -Group 2					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8

Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

r anning riighway connection r ryovers - Ellik rioda r o	(Vidadet)	ana moda ocomon (at g	gruuc)		
Mobile crane	100%	6	36.0	216.0	216.0
				Total:	244.8
		Percentage o	f Usage Area to V	Vorks Area:	0.2497

From: Day 1 of Month 44	To:	Day 15 of Month 44	Dura	tion (months):	0.5
Stage 4 - Piers					
Plant/Activity		No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	20%	6	24.0	144.0	28.8
Mobile crane	50%	3	36.0	108.0	54.0
				Total:	82.8
		Percentage of	f Usage Area to	Works Area:	0.0845

From: Day 15 of Month 44	To:	Day 30 of Month 46	Durat	tion (months):	2.5
Stage 5 - Bridge Decks					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	50%	2	36.0	72.0	36.0
Lorry (35 t)	40%	4	24.0	96.0	38.4
				Total:	74.4
		Percentage of	f Usage Area to	Works Area:	0.0759

	From: Day 1 of Month 46	To:	Day 30 of Month 46	Dura	tion (months):	1
S	Stage 6 - Parapet & Surfacing					
S	itage 6 - Group 1					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
L	Flant/Activity	usage No. of Plant/ Activity		(m²)	Area (m²)	Usage (m²)
Г	Mobile crane	30%	2	36.0	72.0	21.6
	Lorry (35 t)	50%	2	24.0	48.0	24.0
l					Total:	45.6
			Percentage o	f Usage Area to	Works Area:	0.0465

Stage 6 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage No. of Plant/ Acti	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Asphalt paver	70%	1	6.0	6.0	4.2
Road roller	70%	3	6.0	18.0	12.6
				Total:	16.8
		Percentage o	f Usage Area to	Works Area:	0.0171

Fanling Road Section_at grade (final) From: Day 1 of Month 4 To: Day 30 of Month 6 Duration (months): 3 Stage 1 - Site Clearance Stage 1 - Group 1 Area in terms of Time of % of Plan Area Total Plan Plant/Activity No. of Plant/ Activity (m²) Area (m²) Usage (m²) usage Breaker, hand-held breaker, 35kg 70% 1.0 3.0 Dump truck (50t) 80% 4 35.0 140.0 112.0 Excavator (45kW) 80% 8 104.0 83.2 Total: 195.2 Percentage of Usage Area to Works Area: 0.1991

Stage 1 - Group 2					
Plant/Activity	I No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity		NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	2	24.0	48.0	33.6
				Total:	48.0
		Percentage o	f Usage Area to	Works Area:	0.0490

From: Day 1 of Month 7	To:	Day 30 of Month 12	Durat	tion (months):	6
Stage 2 - Site Formation					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flant/Activity	usage	No. of Flant/ Activity	(m²)	Area (m²)	Usage (m²)
Excavator (45kW)	50%	5	13.0	65.0	32.5
Lorry with crane/grab	50%	4	24.0	96.0	48.0
			•	Total:	80.5
	Percentage of Usage Area to Works Area:				0.0821

Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

S	itage 2 - Group 2					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
F	Bulldozer (239kW)	70%	1	36.0	(/	25.2
	Dump truck (50t)	80%	5	35.0	175.0	140.0
					Total:	165.2
			Percentage o	f Usage Area to	Works Area:	0.1685

tage 2 - Group 3					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Concrete lorry mixer (5m3)	40%	2	24.0	48.0	19.2
Mobile crane	100%	1	36.0	36.0	36.0
Compactor, vibratory	50%	3	12.0	36.0	18.0
Vibratory roller (9kW)	70%	3	12.0	36.0	25.2
				Total:	98.4
		Percentage o	f Usage Area to	Works Area:	0.1004

From: Day 1 of Month 7	7 To:	Day 30 of Month 12	Dura	tion (months):	6
Stage 3 - Slope Stabilisation					
Stage 3 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	e No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held breaker, 35kg	20%	2	1.0	2.0	0.4
Breaker, excavator mounted (hydraulic), 52kW	80%	1	13.0	13.0	10.4
Lorry with crane/grab	40%	2	24.0	48.0	19.2
				Total:	30.0
		Percentage o	f Usage Area to	Works Area:	0.0306

S	Stage 3 -Group 2					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Г	Drill rig, rotary type (diesel)	70%	2	13.8	27.6	19.3
					Total:	19.3
ı			Percentage of	f Usage Area to	Works Area:	0.0197

Stage 3 -Group 3						
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of		
Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Mobile crane	70%	1	36.0	36.0	25.2	
Grout mixer	40%	1	6.0	6.0	2.4	
	Total:					
		Percentage o	f Usage Area to	Works Area:	0.0282	

From: Day 1 of Month 7	To:	Day 30 of Month 12	Duration (months): 6		
Stage 4 - Bored Pile Wall					
Stage 4 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	isage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Drill rig, rotary type (diesel)	40%	2	13.8	27.6	11.0
			11.0		
		Percentage o	f Usage Area to	Works Area:	0.0113

Stage 4 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tiant/Activity	usage	No. of Flam, Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	100%	1	36.0	36.0	36.0
Piling, large diameter bored, grab and chisel	70%	2	36.0	72.0	50.4
				Total:	86.4
		Percentage o	f Usage Area to	Works Area:	0.0881

S	age 4 - Group 3					
	Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
	Concrete lorry mixer (5m3)	50%	1	24.0	24.0	12.0
					Total:	12.0
Ī	_		Percentage o	f Usage Area to	Works Area:	0.0122

From: Day 1 of Month 13	To:	Day 30 of Month 16	Duration (months): 4			
Stage 5 - Road Works						
Stage 5 - Group 1						
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)	

Appendix 3.1d - Estimation of Percentage Active Area for Different Stages of Construction Activities

Fanling Highway Connection Flyovers - Link Road 1-5 (viaduct) and Road Section (at grade)

	running ringinitaly connection rily croic Emik rioua r c	(Tidadot)	and mode occion far g	j.uuc/		
	Mobile crane	30%	2	36.0	72.0	21.6
	Lorry (35 t)	50%	2	24.0	48.0	24.0
		45.6				
ı			Percentage o	f Usage Area to	Works Area:	0.0465

Stage 5 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
Asphalt paver	70%	1	6.0	6.0	4.2
Road roller	70%	3	6.0	18.0	12.6
				Total:	16.8
		Percentage o	f Usage Area to	Works Area:	0.0171

Note:

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e

Fanling South Portal of South Tunnel and Ventilation Building (at grade) Works area (m^2) = 17545

From: Day 1 of M	Month 4 To:	Day 30 of Month 6	Dura	tion (months):	9
Stage 1 - Site Clearance & Haul Road					
Stage 1 - Group 1					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Breaker, hand-held breaker, 35kg	70%	3	1.0	3.0	2.1
Dump truck (50t)	80%	4	35.0	140.0	112.0
Excavator (45kW)	80%	4	13.0	52.0	41.6
				Total:	155.7
		Percentage of	Usage Area to	Works Area:	0.8874

Stage 1 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Tidilitactivity	usage	sage	(m²)	Area (m²)	Usage (m²)
Mobile crane	40%	1	36.0	36.0	14.4
Lorry with crane/grab	70%	2	24.0	48.0	33.6
				Total:	48.0
		Percentage o	f Usage Area to	Works Area:	0.2736

From: Day 1 of Month 7	To:	Day 30 of Month 15	Duration (months):		9
Stage 2 - Portal Formation					
Stage 2 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)	
Excavator (45kW)	80%	5	13.0	65.0	52.0
Lorry with crane/grab	70%	2	24.0	48.0	33.6
				Total:	85.6
		Percentage of	f Usage Area to	Works Area:	0.4879

S	tage 2 - Group 2					
Г	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Fiant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
	Bulldozer (239kW)	70%	1	35.0	35.0	24.5
	Dump truck (50t)	80%	5	35.0	175.0	140.0
					Total:	164.5
		•	Percentage o	f Usage Area to	Works Area:	0.9376

Stage 2 - Group 3					
Plant/Activity	% of No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of	
Fiant/Activity	usage	No. of Flatti Activity	(m²)	Area (m²)	Usage (m²)
Concrete lorry mixer (5m3)	40%	1	24.0	24.0	9.6
Mobile crane	100%	1	36.0	36.0	36.0
Compactor, vibratory	50%	1	12.0	12.0	6.0
Vibratory roller (9kW)	20%	1	12.0	12.0	2.4
				Total:	54.0
		Percentage of	Usage Area to	Works Area:	0.3078

From: Day 1 of Month 7		Day 30 of Month 12	Dura	tion (months):	6
Stage 3 - Slope Stabilisation					
Stage 3 - Group 1					
Plant/Activity	% of usage	No. of Plant/ Activity	Plan Area (m²)	Total Plan Area (m²)	Area in terms of Time of Usage (m ²)
Breaker, hand-held breaker, 35kg	20%	2	1.0	2.0	0.4
Breaker, excavator mounted (hydraulic), 52kW	80%	1	13.0	13.0	10.4
Lorry with crane/grab	50%	2	24.0	48.0	24.0
				Total:	34.8
		Percentage of	f Usage Area to	Works Area:	0.1983

Sta	ge 3 -Group 2					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Flant/Activity	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m ²)
П	Orill rig, rotary type (diesel)	70%	2	24.0	48.0	33.6
					Total:	33.6
			Percentage of	f Usage Area to	Works Area:	0.1915

S	tage 3 -Group 3					
Г	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
	Mobile crane	70%	1	36.0	36.0	25.2
	Grout mixer	40%	1	6.0	6.0	2.4
					Total:	27.6
l			Percentage of	f Usage Area to	Works Area:	0.1573

Fanling South Portal of South Tunnel and Ventilation Building (at grade)

From: Day 1 of Month 9	To:	Day 30 of Month 14	Durat	tion (months):	6
Stage 4 - Bored Pile Wall					
Stage 4 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage No. of Plant/ Acti	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Drill rig, rotary type (diesel)	40%	2	13.8	27.6	11.0
				Total:	11.0
		Percentage of	Usage Area to	Works Area:	0.0629

Stage 4 -Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Mobile crane	100%	1	24.0	24.0	24.0
Piling, large diameter bored, grab and chisel	70%	2	36.0	72.0	50.4
				Total:	74.4
		Percentage o	f Usage Area to	Works Area:	0.4241

S	tage 4 -Group 3					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	. idility	usage	usage No. of Flant Activity		Area (m²)	Usage (m²)
	Concrete lorry mixer (5m3)	50%	1	24.0	24.0	12.0
					Total:	12.0
I			Percentage o	f Usage Area to	Works Area:	0.0684

	From: Day 1 of Month 13	To:	Day 30 of Month 15	Dura	tion (months):	3
S	age 5 - Road Works					
S	age 5 - Group 1					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	Fiant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
	Mobile crane	30%	2	36.0	72.0	21.6
	Lorry (35 t)	50%	2	24.0	48.0	24.0
Ī					Total:	45.6
Ī			Percentage of	f Usage Area to	Works Area:	0.2599

Stage 5 -Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
T latter-totterty	usage	No. of Flame Activity	(m²)	Area (m²)	Usage (m²)
Asphalt paver	70%	1	12.0	12.0	8.4
Road roller	70%	3	12.0	36.0	25.2
				Total:	33.6
		Percentage o	f Usage Area to	Works Area:	0.1915

From: Day 1 of Month 23	To:	Day 30 of Month 24	Dura	tion (months):	2
Stage 6 - Parapet & Surfacing					
Stage 6 - Group 1					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Plant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held, mass >= 20kg and <= 35kg	30%	2	0.5	1.0	0.3
Breaker, excavator mounted (hydraulic), 52kW	30%	1	13.0	13.0	3.9
		·		Total:	4.2
		Percentage of	Usage Area to	Works Area:	0.0239

Stage 6 - Group 2					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
Flant/Activity	usage	No. of Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Piling, large diameter bored, grab and chisel	90%	1	36.0	36.0	32.4
Piling, large diameter bored, reverse circulation drill	40%	1	36.0	36.0	14.4
	46.8				
Percentage of Usage Area to Works Area:					0.2667

South Portal of South Tunnel and Ventilation Building (at grade)

S	age 6 - Group 3					
	Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
		usage No. of Flant	No. of Flame Activity	(m²)	Area (m²)	Usage (m²)
	Mobile crane	80%	1	36.0	36.0	28.8
	Concrete lorry mixer (5m3)	50%	4	24.0	96.0	48.0
		76.8				
	Percentage of Usage Area to Works Area:					0.4377

From: Day 1 of Month 25	To:	Day 30 of Month 27 Duration (months)		tion (months):	3
Stage 7 - Building Structures					
Plant/Activity	% of	No. of Plant/ Activity	Plan Area	Total Plan	Area in terms of Time of
	usage	NO. OF Plant/ Activity	(m²)	Area (m²)	Usage (m²)
Breaker, hand-held, mass >= 20kg and <= 35kg	40%	2	0.5	1.0	0.4
Concrete lorry mixer	50%	3	24.0	72.0	36.0
Mobile crane	80%	1	36.0	36.0	28.8
Lorry with crane/grab	50%	2	24.0	48.0	24.0
Total:					89.2
Percentage of Usage Area to Works Area:					0.5084

Note:

- 1. For each stage of construction, different groups of construction activities are non-concurrent.
- 2. Plant and activity with no dust emission during operation is not included (i.e. area = 0)
- 3. All plant that would generate dust emissions during their operation (e.g. excavator) have been included in estimating the active work areas whereas the plant without dust emission in the course of their operation (e.g. pumps, generators, air compressors) have been excluded from the calculation.
- 4. Since the plants do not normally operate continuously throughout the 12-hour working period, an adjustment by "percentage of usage" was adopted for each plant/activity to reflect its estimated hours of operation on a typical working day.
- 5. The actual dust emission area for each plant/activity was estimated and given as "Plan Area", by taking into account the maximum area of dust emissions which could be created by the plant/activity at any time instant.
- 6. Justifications provided above are for the purpose of assessment predictions only. Actual figures would be defined by the Detailed Design Engineer.
- 7. For each stage of the construction activities, the site area with the highest total percentage active area was taken to estimate the total percentage active area of all stages as detailed in Appendix 3.1e