MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

QUARTERLY EM&A REPORT

December 2016 – February 2017

Client	**:**	Civil Engineering and Development Department, HKSAR
Contract No.	**:**	KLN/2015/07
Contract Name	**:**	Environmental Monitoring Works for Contract KL/2014/03 – Kai Tak Development – Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway
Report No.	**:**	0405/15/ED/0745A

EP-337/2009 New Distributor Roads Serving the Planned Kai Tak Development Area

EP-339/2009/A Decommissioning of the Remaining Parts (Ex-GFS Building, Radar Station and Hong Kong Aviation Club) of the former Kai Tak Airport

EP-451/2013 Trunk Road T2

Prepared by : Alfred Y. S. Lam

Reviewed by : Cyrus C. Y. Lai

Certified by :

Colin K. L. Yung
Environmental Team Leader
MateriaLab Consultants Limited

RAMBOLL ENVIRON

Ref.: CEDKTDS3EM00_0_0180L.17

27 March 2017

By Post and Email

Hyder-Meinhardt Joint Venture
20/F., AXA Tower,
Landmark East,
100 How Ming Street,
Kwun Tong,
Kowloon, Hong Kong

Attention: Mr. Wong W K, Chris

Dear Mr. Wong,

Re: Contract No. KL/2014/03 – Kai Tak Development – Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway
Quarterly EM&A Report for December to February 2017

Reference is made to the Environmental Team's submission of the Quarterly EM&A Report for December 2016 to February 2017 (Report No. 0405_15_ED_0745A) we received by e-mail on 27 March 2017.

Please be informed that we have no adverse comment on the captioned report.

Thank you for your attention. Please do not hesitate to contact us should you have any queries.

Yours sincerely,
For and on behalf of
Ramboll Environ Hong Kong Limited

F. C. Tsang
Independent Environmental Checker

c.c.	CEDD	Attn.:	Ms. Amy Chu	Fax: 2369 4980
	MateriaLab	Attn.:	Mr. Colin K. L. Yung	Fax: 2450 8032
	CRBC	Attn.:	Mr. Arnold Chan	Fax: 2283 1689

Q:\Projects\CEDKTDS3EM00\02_Proj_Mgt\02_Corr\CEDKTDS3EM00_0_0180L.17.docx

Ramboll Environ Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.Ramboll-Environ.com

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

TABLE OF CONTENTS

FIGURES

LIST OF APPENDICES

EXECUTIVE SUMMARY

i. The Civil Engineering and Development Department HKSAR has appointed MateriaLab Consultants Limited (MCL) to undertake the Environmental Team services for the Project and implement the EM&A works.

ii. This is the fourth Quarterly EM&A Report presents the environmental monitoring and audit works for the period between 1 December 2016 and 28 February 2017. As informed by the Contractor, major activities in the reporting period included:

December 2016	January 2017	February 2017
• Temporary utility diversion; • Implementation of Temporary Traffic Arragement (TTA); • Construction of Socket H piles; • Excavation and Earth Lateral Support (ELS) construction for Supporting Underground Structure (SUS). • Construction of Subway B; • Construction of guide walls and D-walls; and • Construction of District Cooling System Works.	• Temporary utility diversion; • Implementation of Temporary Traffic Arragement (TTA); • Construction of Tunnel structure; • Construction of Subway B; • Construction of guide walls and D-walls; and • Construction of District Cooling System Works.	• Temporary utility diversion; • Implementation of Temporary Traffic Arragement (TTA); • Construction of Tunnel structure; • Construction of Subway B; • Construction of guide walls and D-walls; and • Construction of District Cooling System Works.

Breaches of the Action and Limit Levels

iii. No Action and Limit Level exceedance for 24-hr TSP and noise was recorded in the reporting period at all monitoring stations.

Complaint, Notification of Summons and Successful Prosecution

iv. A compliant received on 7 December 2016 was referred from EPD on 15 December 2016 regarding the sand and mud dropped from the vehicle that caused Cheung Yip Street and Shing Cheong dusty. The notification of complaint was received by ET on 27 January 2017.

v. A complaint received on 9 February 2017 was referred from EPD on 21 February 2017 and summarized as below:

- No car washing machine was found in the construction site near the gate of former Radar Tower.
- Dust was observed when the vehicle leaving and entering the Site.

The notification of complaint was received by ET on 22 February 2017.

vi. No notification of summons and successful prosecution were received in the reporting period.

1. INTRODUCTION

1.1 Background

1.1.1 The Kai Tak Development is located in the south-eastern part of Kowloon Peninsula of the HKSAR, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling.

1.1.2 Contract No. KL/2014/03 is the works package to construct an approximately 420m long supporting underground structure (SUS) underneath Shing Cheong Road and Cheung Yip Street. The EM&A programme under this Contract is governed by three EPs (EP-337/2009, EP-339/2009/A and EP-451/2013) and two EM&A Manuals (AEIAR-130/2009 and AEIAR-174/2013). The Works to be executed under this Contract and corresponding EPs include but not be limited to the following main items:

EP-451/2013 – Trunk Road T2

(i) Construction of approximately 420m long supporting underground structure (SUS) including diaphragm walls, barrettes, piled foundation, top and bottom slabs, end wall and adits underneath Shing Cheong Road and Cheung Yip Street;

EP-337/2009 – New Distributor Roads Serving the Planned Kai Tak Development

(ii) Widening and re-alignment of Cheung Yip Street of approximately 330m long and associated footpaths;
(iii) Demolition, reconstruction and widening of Shing Cheong Road of approximately 410m long and associated footpaths;
(iv) Construction of drainage outfall and modification of existing seawall;
(v) Construction of ancillary works including surface drainage, sewerage, water, fire fighting, street lighting, street furniture, road marking, road signage, utilities and services, irrigation and landscape works.

EP-339/2009/A – Decommissioning of the Remaining Parts (Ex-GFS Building, Radar Station and Hong Kong Aviation Club) of the former Kai Tak Airport

(vi) Demolition of RADAR Tower and guard house;

Other works not covered by any EP

(vii) Construction of two subways between Phase II of New Acute Hospital (Site A) and Hong Kong Children's Hospital (Site C), and between Phase I of New Acute Hospital (Site B) and Site C;
(viii) Construction of District Cooling System (DCS) along Cheung Yip Street and Shing Cheong Road

1.1.3 The location and boundary of the site is shown in **Figure 1**.

1.1.4 This Quarterly EM&A report is required under Section 16.1.2 and 16.7.1 of the EM&A Manual AEIAR-130/2009. It is to report the results and findings of the EM&A programme required in the EM&A Manual.

1.1.5 This is the fourth quarterly EM&A Report which summaries the impact monitoring results and audit findings for the Project within the period between 1 December 2016 and 28 February 2017.

1.2 Project Organization

1.2.1 The project proponent was the Civil Engineering and Development Department, HKSAR (CEDD). Hyder Meinhardt Joint Venture (HMJV) was commissioned by CEDD as the Engineer for the Project. Ramboll Environ Hong Kong Limited was commissioned as the Independent Environmental Checker (IEC). China Road and Bridge Corporation (Hong Kong) (CRBC) was appointed as the main contractor for the construction works under the contract KL/2014/03. MateriaLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by CEDD to implement the EM&A programme for the Project.

1.2.2 The organization structure is shown in **Appendix B**. The key personnel contact names and numbers for the Project are summarized in **Table 1.1**.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Project Proponent (CEDD)	Co-ordinator	Ms. Amy Chu	3106 3172	2369 4980
Engineer's Representative (HMJV)	Chief Resident Engineer	Mr. W. K., Chris Wong	3742 3803	3742 3899
IEC (Ramboll Environ Hong Kong Limited)	Independent Environmental Checker	Mr. F. C. Tsang	3465 2851	3465 2899
Main Contractor (CRBC)	Site Agent	Mr. Chan See Wai, Arnold	9380 4110	2283 1689
	Environmental Officer	Mr. Andy Choy	6278 2693	2283 1689
ET (MCL)	Environmental Team Leader	Mr. Colin Yung	3565 4114	3565 4160

1.3 Construction Programme and Activities

1.3.1 The construction of the Project commenced in February 2016 and is expected to complete in 2020. The construction programme is shown in **Appendix A**.

1.3.2 A summary of the major construction activities undertaken in the reporting period were:

December 2016	January 2017	February 2017
• Temporary utility diversion; • Implementation of Temporary Traffic Arragement (TTA); • Construction of Socket H piles; • Excavation and Earth Lateral Support (ELS) construction for Supporting Underground Structure (SUS). • Construction of Subway B; • Construction of guide walls and D-walls; and • Construction of District Cooling System Works.	• Temporary utility diversion; • Implementation of Temporary Traffic Arragement (TTA); • Construction of Tunnel structure; • Construction of Subway B; • Construction of guide walls and D-walls; and • Construction of District Cooling System Works.	• Temporary utility diversion; • Implementation of Temporary Traffic Arragement (TTA); • Construction of Tunnel structure; • Construction of Subway B; • Construction of guide walls and D-walls; and • Construction of District Cooling System Works.

2. SUMMARY OF EM&A REQUIREMENTS AND MONITORING RESULTS

2.1 Monitoring Requirement

In accordance with the approved EM&A Manuals, 24-hour Total Suspended Particulates (TSP) level and Leq (30min) at the designated monitoring stations is required. Impact 24-hour TSP monitoring should be carried out at least once every 6 days. In case of complaints, 1-hour TSP monitoring should be carried out at least 3 times per 6 days when the highest dust impacts are likely to occur. Leq (30min) monitoring is conducted for at least once a week during the construction phase between 0700 and 1900 on normal weekdays. The Action and Limit Levels of the air quality monitoring and noise monitoring are given in **Appendix C**

2.2 Monitoring Locations

2.2.1 According to the EM&A Manual, three monitoring locations for air quality monitoring and noise monitoring, namely KTD1, KTD2 and KER1, are covered by this Contract within the South Apron Area of Former Kai Tak Airport. The other two air quality monitoring locations and two noise monitoring locations which are identified in Cha Kwo Ling area, are farther than 500m and 300m away from the site boundary respectively and thus not covered by this Contract. The monitoring works in Cha Kwo Ling area are covered by other Contract(s) respectively.

2.2.2 According to the approved alternative baseline air quality and noise monitoring locations (EPD reference: EP2/K19/A/21 Pt.5), the original monitoring locations (KTD1, KTD2 and KER1) are proposed to be replaced by alternative monitoring locations (KTD1a, KTD2a and KER1b), they are summarized in **Table 2.1** and shown in **Figure 2**.

Table 2.1 Location of Air Quality Monitoring and Noise Monitoring Station

Monitoring Station	Location
KTD1a	Centre of Excellence in Paediatrics (Children's Hospital)
KTD2a	G/IC Zone next to Kwun Tong Bypass (Future Hospital at Site 3C1)
KER1b	Site Boundary at Cheung Yip Street

2.3 Results and Observations

2.3.1 No Action and Limit Level exceedance for 24-hr TSP was recorded in the reporting period at all monitoring stations.

2.3.2 No Action / Limit Level exceedance for construction noise was recorded in the reporting period at all monitoring stations.

2.3.3 No raining and wind with speed over 5 m/s was observed during noise monitoring according to the onsite observation.

2.3.4 During the reporting period, major dust sources including loading and unloading of C&D wastes, vehicles movement were observed in the site. Major noise sources including noise emission from plant & PME and some other construction activities, travel of vehicles, loading and unloading of C&D waste were observed in the site. Non-project related construction activities at the nearby construction site and road traffic along Shing Cheong Road, Cheung Yip Street and the Kwun Tong By-pass were observed. The above factors may affect the monitoring results.

2.3.5 Graphical presentation of the monitoring data in the reporting period is presented in **Appendix D**.

2.4 Comparison of Monitoring Results with EIA Predictions

2.4.1 The monitoring data was compared with the EIA predictions as summarized in **Table 2.4** and **Table 2.5**.

Table 2.4 Comparison of 24-hr TSP data with EIA predictions

Monitoring Station	Receiver Reference	Predicted Maximum 24-hour TSP Concentration (μg/m^3)	24-hour TSP concentration in Reporting Period (μg/ m^3)			Average 24-hour TSP concentration in Reporting Period (μg/ m^3)		
			Dec 2016	Jan 2017	Feb 2017	Dec 2016	Jan 2017	Feb 2017
KTD1a	KTD3	126	60 – 174	17 – 142	44 – 110	131	99	75
KTD2a	-	-	19 – 93	25 – 94	34 – 87	56	59	58
KER1b	KTD6	169	110 – 144	36 – 95	58 – 132	128	66	86

Note:
For KTD2a, there was no receiver reference in the EIA report, EIAR-174/2013.
Predicted Maximum TSP Concentration extracted from Table 4.14 of EIA Report, EIAR-174/2013.

Table 2.5 Comparison of Noise Monitoring data with EIA predictions

Monitoring Station	Receiver Reference	Maximum Predicted Mitigated Construction Noise Level, dB(A)	Leq $_{(30min)}$ dB(A) in Reporting Period		
			Dec 2016	Jan 2017	Feb 2017
KTD1a	KTD1	74	68 - 71	67 - 73	67 - 72
KTD2a	KTD2	75	63 - 69	64 - 69	60 - 66
KER1b	KER1	75	64 - 74	65 - 73	65 - 73

Note:
Maximum Predicted Mitigated Construction Noise Level extracted from Table 5.13 of EIA Report, EIAR-174/2013.

2.4.2 The 24-hour TSP monitoring result of KTD 1a on 3, 9, 15 and 20 December 2016 exceeded the prediction in the approved in the approved EIA report. However, the result did not exceed the Action Level. Mitigation measures, including water spraying and covering of stockpiles of dusty materials were adopted and observed near the monitoring station KTD1a during the site inspections in December 2016. The discrepancy between the 24-hour TSP concentration and EIA Prediction in KTD1a is considered due to dust source from the non-project related construction activities near the monitoring station and the road travel along Shing Fung Road.

2.4.3 The 24-hour TSP monitoring result of KTD 1a on 5 January 2017 exceeded the prediction in the approved EIA report. However, the result did not exceed the Action Level. Mitigation measures, including water spraying and covering of stockpiles of dusty materials were adopted and observed near the monitoring station KTD1a during the site inspections on 5 January 2017. The discrepancy between the 24-hour TSP concentration and EIA Prediction in KTD1a is considered due to dust source from the non-project related construction activities near the monitoring station and the road travel along Shing Fung Road.

2.4.4 The noise monitoring results in the reporting months were below the Maximum Predicted Mitigated Construction Noise Level in the approved Environmental Impact Assessment (EIA) Report and no Action / Limit Level exceedance was recorded in the reporting period.

3. LANDSCAPE AND VISUAL

3.1 Results and Observations

3.1.1 To monitor and audit the implementation of landscape and visual mitigation measures, 13 weekly Landscape and Visual Site audits were carried out and 7 of them were carried out by a Registered Landscape Architect. The weekly Landscape and Visual Impact reports were counter-signed by IEC as according to the requirement of EM&A Manual (AEIAR-130/2009).

3.1.2 Total 6 no. of non-compliance were recorded in the weekly Landscape and Visual Site audits in the reporting period.

3.1.3 Observations and recommendations during site audits are summarized in **Table 5.1**.

4. WASTE MANAGEMENT

4.1 Results and Observations

4.1.1 C&D materials and wastes sorting were carried out on site. Receptacles were available for C&D wastes and general refuse collection.

4.1.2 The amount of wastes generated by the site activities in the reporting period is shown in **Appendix E**.

4.1.3 The Contractor is advised to properly maintain on site C&D materials and wastes collection, sorting and recording system and maximize reuse / recycle of C&D materials and wastes. The Contractor is reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.

4.1.4 The Contractor is reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

5. SITE INSPECTION

5.1 Site Inspection

5.1.1 Site inspections were carried out weekly to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. A summary of the mitigation measures implementation schedule is provided in **Appendix F**.

5.1.2 In the reporting month, 13 site inspections were carried out. 7 of them were the joint inspections with the IEC, ER, the Contractor and the ET.

5.1.3 No outstanding issues were reported during the reporting period.

5.1.4 All the follow-up actions requested by Contractor's ET and IEC during the site inspections were undertaken as reported by the Contractor and confirmed in the following weekly site inspection conducted during the reporting month.

5.1.5 Details of observations recorded during the site inspections are presented in **Table 5.1**.

Table 5.1 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Air Quality	14 December 2016	Open stockpile shall be covered with impermeable sheeting to prevent dust emission. (Portion I)	The item was rectified by the Contractor and inspected on 21 December 2016.
	29 December 2016	Open stockpile shall be covered with impermeable sheeting to prevent dust emission. (Portion I)	The item was rectified by the Contractor and inspected on 5 January 2017.
	5 January 2017	Contractor was reminded to provide adequate watering to reduce dust emission. Adequate watering shall be provided. (Portion I).	The item was rectified by the Contractor and inspected on 12 January 2017.
	5 January 2017	The C&D material shall be properly covered after the excavation is done (Zone1).	The item was rectified by the Contractor and inspected on 12 January 2017.
	12 January 2017	Dusty road shall be sprayed with water regularly to reduce dust emission. (Zone 4)	The item was rectified by the Contractor and inspected on 18 January 2017.
	18 January 2017	Open stockpile shall be covered with impermeable sheeting to prevent dust emission. (Zone 4)	The item was rectified by the Contractor and inspected on 26 January 2017.
	26 January 2017	Dark smoke was observed in an operating crane. Purifier shall be installed and repairing programme shall be implemented (Zone 2).	The item was rectified by the Contractor and inspected on 2 February 2017.
	26 January 2017	Contractor was reminded to keep watering to reduce dust emission form construction activities (Zone 4).	The item was rectified by the Contractor and inspected on 2 February 2017.
	9 February 2017	Open stockpile shall be covered with impermeable sheeting to prevent dust emission. (Zone 4)	The item was rectified by the Contractor and inspected on 15 February 2017.

Parameters	Date	Observations and Recommendations	Follow-up
	23 February 2017	Open stockpile shall be covered with impermeable sheeting to prevent dust emission. (Zone 4)	The item was rectified by the Contractor and inspected on 2 March 2017.
Noise	1 December 2016	The door of air compressor shall be closed in order to reduce noise impact. (Zone 4)	The item was rectified by the Contractor and inspected on 8 December 2016.
Water Quality	5 January 2017	Contractor shall provide a good practise to prevent waste water from wheel washing to enter the public drainage. Proper wheel washing area shall be provided. (Zone 2)	The item was rectified by the Contractor and inspected on 12 January 2017.
	26 January 2017	Waste water from wheel washing shall be from the pit at Zone 2. Waste water shall be removed. (Zone 2).	The item was rectified by the Contractor and inspected on 2 February 2017.
	23 February 2017	Channel between Zone 1 and the Wetsep was blocked by silt or clay. Blockage should be cleared before the wet season. (Zone 1)	The item was rectified by the Contractor and inspected on 2 March 2017.
	23 February 2017	Surface runoff shall be prevented to enter public drainage or haul road. (Zone 4)	The item was rectified by the Contractor and inspected on 2 March 2017.
Chemical and Waste Management	21 December 2016	Sufficient waste disposal points and regular collection for disposal shall be provided. Larger skip shall be provided. General refuse shall be collected regularly (Zone 2).	The item was rectified by the Contractor and inspected on 29 December 2016.
	21 December 2016	Chemical oil shall be stored properly. Drip tray shall be provided (Zone 3).	The item was rectified by the Contractor and inspected on 29 December 2016.
	12 January 2017	Oil Containers shall be stored properly. Drip tray shall be provided. Empty oil containers shall be removed. (Zone 1 and Zone 4)	The item was rectified by the Contractor and inspected on 18 January 2017.
Land Contamination	2 February 2017	Breaker tips should be removed or stored on tray to prevent land contamination. (Zone 2)	The item was rectified by the Contractor and inspected on 9 February 2017.
Landscape and Visual Impact	14 December 2016	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance. (Portion I and Zone 1)	The item was rectified by the Contractor and inspected on 21 December 2016.
	29 December 2016	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat	The item was rectified by the Contractor and inspected on 5 January 2017.

Parameters	Date	Observations and Recommendations	Follow-up
		and tidy visual appearance. (Portion I)	
	5 January 2017	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance. (Portion I)	The item was rectified by the Contractor and inspected on 12 January 2017.
	18 January 2017	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance. (Zone 4)	The item was rectified by the Contractor and inspected on 26 January 2017.
	9 February 2017	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance. (Zone 4)	The item was rectified by the Contractor and inspected on 15 February 2017.
	23 February 2017	Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance. (Zone 4)	The item was rectified by the Contractor and inspected on 2 March 2017.
General	8 December 2016	Stagnant water was found in the platform in Zone 1. Stagnant water shall be removed. (Zone 1)	The item was rectified by the Contractor and inspected on 14 December 2016.
	9 February 2017	Proper wheel washing facilities in every vehicle exit point shall be provided or otherwise to ensure no vehicle would exit. (Zone 2)	The item was rectified by the Contractor and inspected on 15 February 2017.
	23 February 2017	Proper wheel washing facilities in every vehicle exit point shall be provided or otherwise to ensure no vehicle would exit. (Zone 3)	The item was rectified by the Contractor and inspected on 2 March 2017.

6. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

6.1 Environmental Exceedance

6.1.1 No Action and Limit Level exceedance for 24-hr TSP and noise was recorded in the reporting period at all monitoring stations. Number of exceedance in the reporting period was summarized in **Table 6.1**.

Table 6.1 Summary of Exceedance in Reporting Period

Monitoring Station		Number of exceedance in the reporting period						
		24hr TSP μg/m^3			Leq $_{(30min)}$ dB(A)			Total
		December 2016	January 2017	February 2017	December 2016	January 2017	February 2017	
KTD1a	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0
KTD2a	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0
KER1b	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0
Total	AL	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0

6.2 Complaints, Notification of Summons and Prosecution

6.2.1 No complaint, inspection notice, notification of summons or prosecution was received in this reporting period. Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in **Table 6.2, 6.3 and 6.4**.

Table 6.2 Environmental Complaints Log

Complaint Log No.	Date of Notification	Received From and Received By	Nature of Complaint	Date of Investigation	Outcome	Date of Reply
1	15 December 2016	Andy Choy	Air	13 February 2017	Project-related	13 February 2017
2	21 February 2017	Andy Choy	Air	22 February 2017	Not Project-related	7 March 2017

Table 6.3 Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints in the Reporting Period			Cumulative Project-to-Date
		December 2016	January 2017	February 2017	
Air	0	1	0	1	2
Noise	0	0	0	0	0
Water	0	0	0	0	0
Waste	0	0	0	0	0
Total	0	0	0	0	0

Table 6.4 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Reporting Period			Cumulative Project-to-Date
		December 2016	January 2017	February 2017	
Air	0	0	0	0	0
Noise	0	0	0	0	0
Water	0	0	0	0	0
Waste	0	0	0	0	0
Total	0	0	0	0	0

7. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

7.1 Implementation Status

7.1.1 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and the EM&A Manuals. The implementation status of the mitigation measures during the reporting period is summarized in **Appendix F**.

8. CONCLUSIONS

8.1.1 No Action and Limit Level exceedance for 24-hr TSP and noise was recorded in the reporting period at all monitoring stations.

8.1.2 13 weekly environmental site inspections were carried out in the reporting period. Recommendations on mitigation measures on air quality, water quality, noise, waste management, land contamination and landscape and visual impact were given to the Contractor for remediating the deficiencies identified during the site inspections.

8.1.3 13 weekly Landscape and Visual Site audits were carried out on in the reporting period and 7 of them were carried out by a Registered Landscape Architect in the reporting period. The weekly Landscape and Visual Impact reports were counter-signed by IEC as according to the requirement of EM&A Manual (AEIAR-130/2009). Total 6 no. of non-compliance were recorded in the weekly Landscape and Visual Site audits in the reporting period.

8.1.4 A compliant received on 7 December 2016 was referred from EPD on 15 December 2016 regarding the sand and mud dropped from the vehicle that caused Cheung Yip Street and Shing Cheong dusty. The notification of complaint was received by ET on 27 January 2017.

8.1.5 A complaint received on 9 February 2017 was referred from EPD on 21 February 2017 and summarized as below:

- No car washing machine was found in the construction site near the gate of former Radar Tower.
- Dust was observed when the vehicle leaving and entering the Site.

The notification of complaint was received by ET on 22 February 2017.

8.1.6 Referring to the Contractor's information, no notification of summons and successful prosecution was received in the reporting period.

8.2 Comment and Recommendations

8.2.1 The recommended environmental mitigation measures, as proposed in the EIA reports and EM&A Manuals shall be effectively implemented to minimize the potential environmental impacts from the Project. The EM&A programme would effectively monitor the environmental impacts generated from the construction activities and ensure the proper implementation of mitigation measures.

8.2.2 According to the environmental audit performed in the reporting period, the following recommendations were made:

Air Quality Impact

- Open stockpiles shall be covered by unobtrusive sheeting to prevent dust emission.
- Contractor was reminded to provide adequate watering to reduce dust emission.
- The C&D material shall be properly covered after the excavation is done.
- Dark smoke was observed in an operating crane. Purifier shall be installed and repairing programme shall be implemented.

Construction Noise Impact

- The door of air compressor shall be closed in order to reduce noise impact.

Water Quality Impact

- Contractor shall provide a good practise to prevent waste water from wheel washing to enter the public drainage. Proper wheel washing area shall be provided.
- Waste water shall be removed.
- Channel between Zone 1 and the Wetsep was blocked by silt or clay. Blockage should be cleared before the wet season Waste water shall be removed.
- Surface runoff shall be prevented to enter public drainage or haul road.

Chemical and Waste Management

- Sufficient waste disposal points and regular collection for disposal shall be provided.
- Chemical oil shall be stored properly. Drip tray shall be provided.

Landscape and Visual Impact

- Open stockpiles shall be covered by unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance.

General Condition

- Stagnant water was found in the storage area of construction materials. Stagnant water shall be removed.
- Proper wheel washing facilities in every vehicle exit point shall be provided or otherwise to ensure no vehicle would exit.

Permit / Licenses

- No specific observation was identified in the reporting month.

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Figure 1

Project General Layout

PROPOSED
NEW ACUTE HOSPITAL
(PHASE II)

PROPOSED
NEW ACUTE HOSPITAL
(PHASE I)

HONG KONG CHILDREN'S HOSPITAL
(HKCH)

PUBLIC WORKS
CENTRAL LABORATARY
BUILDING

Proposed Fire Station cum Ambulance Facility

WANG CHU ROAD

TSUNG KWO ROAD

TSUNG YIP STREET

KAI HING ROAD

LAM CHAK STREET

Kowloon Bay Waste Recycling Centre

Temporary Department Vehicle Examination Centre

Octa Tower

Pacific Trade Centre

Kowloon Godown

Kerry D.G. Godown (Kowloon Bay)

Open Storage

Elevated Road

Podium

Road

Seawall

CREEK

KAI TAK BRIDGE

KEY PLAN

KAI TAK

KOWLOON BAY

JORDAN VALLEY

SAU MAU PING

NGAU TAU KOK

KWUN TONG

SAU KOK

AWA WAN

To Kwa Wan Typhoon Shelter

Kwun Tong Typhoon Shelter

SAI TSO WAN

SHA KWO LING

KWUN TONG TSAI WAN (YAU TONG BAY)

YAU TONG

LEGENDS:

- SITE BOUNDARY
- HOSPITAL SITE BOUNDARY
- PROPOSED SUPPORTING UNDERGROUND STRUCTURE
- PROPOSED SUBWAYS
- PROPOSED ROADWORKS
- PROPOSED DISTRICT COOLING SYSTEM
- DEMOLITION OF RADAR TOWER

Rev.	Date	Drawn	Description	Checked	Approved

Hyder-Meinhardt JV

CLIENT

土木工程拓展署
Civil Engineering and Development Department
九龍拓展處
Kowloon Development Office

PROJECT

CONTRACT NO. KL/2014/03
KAI TAK DEVELOPMENT - STAGE 3
INFRASTRUCTURE WORKS FOR DEVELOPMENTS AT THE SOUTHERN PART OF THE FORMER RUNWAY

TITLE

GENERAL LAYOUT PLAN

DESIGNED			ENG. CHECK		
DRAWN			COORDINATION		
DWG. CHECK			APPROVED		

SCALE AT A1	STATUS	REV
1 : 1000		A

Drawing No.

FIGURE 1.0

PRINTED BY: kitchan 18/2/2015 13:00:43
FILENAME: K:\9164 Trunk Road T2\Tender Drawing (Contract II)\Figure 1.dgn

PLOT DRIVE: K:\9164 Trunk Road T2\Cad Admin\AI_COLOUR V8I.plt

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

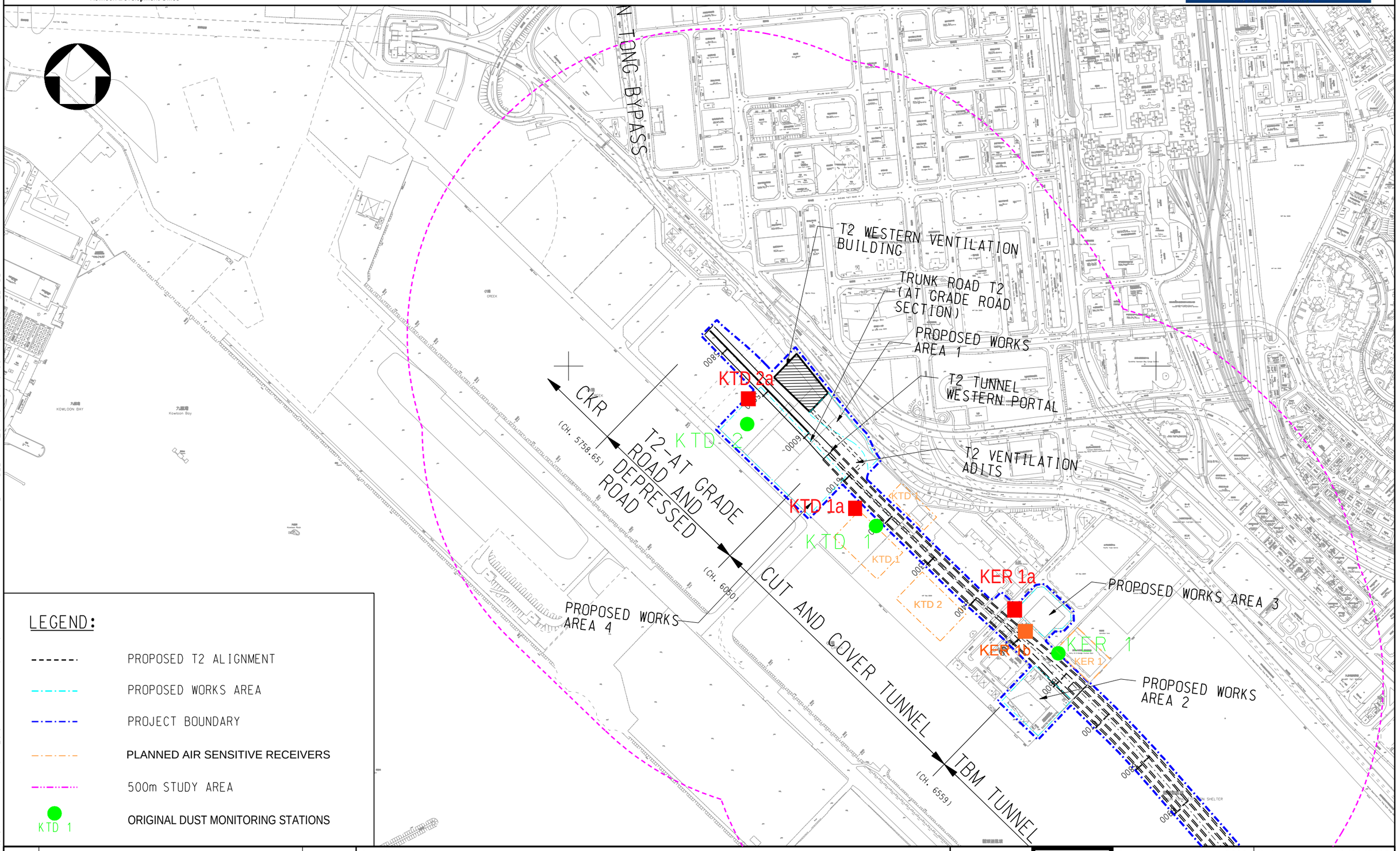
Figure 2

Air and Noise Monitoring Locations

土木工程拓展署
Civil Engineering and Development Department
九龍拓展處
Kowloon Development Office

AGREEMENT NO. CE 38/2008(HY)
KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON - INVESTIGATION, DESIGN AND CONSTRUCTION

Hyder-Meinhardt JV



LEGEND:

- PROPOSED T2 ALIGNMENT
- PROPOSED WORKS AREA
- PROJECT BOUNDARY
- PLANNED AIR SENSITIVE RECEIVERS
- 500m STUDY AREA
- KTD 1 — ORIGINAL DUST MONITORING STATIONS
- KTD 1a — PROPOSED DUST MONITORING STATIONS

Rev.	Description	Date

Drawing title

IDENTIFIED DUST MONITORING STATIONS AT SOUTH APRON OF FORMER KAI TAK AIRPORT

Original Size: A3
Scale: 1 : 6000
Date: 30/01/2012
File name:
© Copyright reserved
Drawing No.: FIGURE 2.1a (revised)
Rev.: --

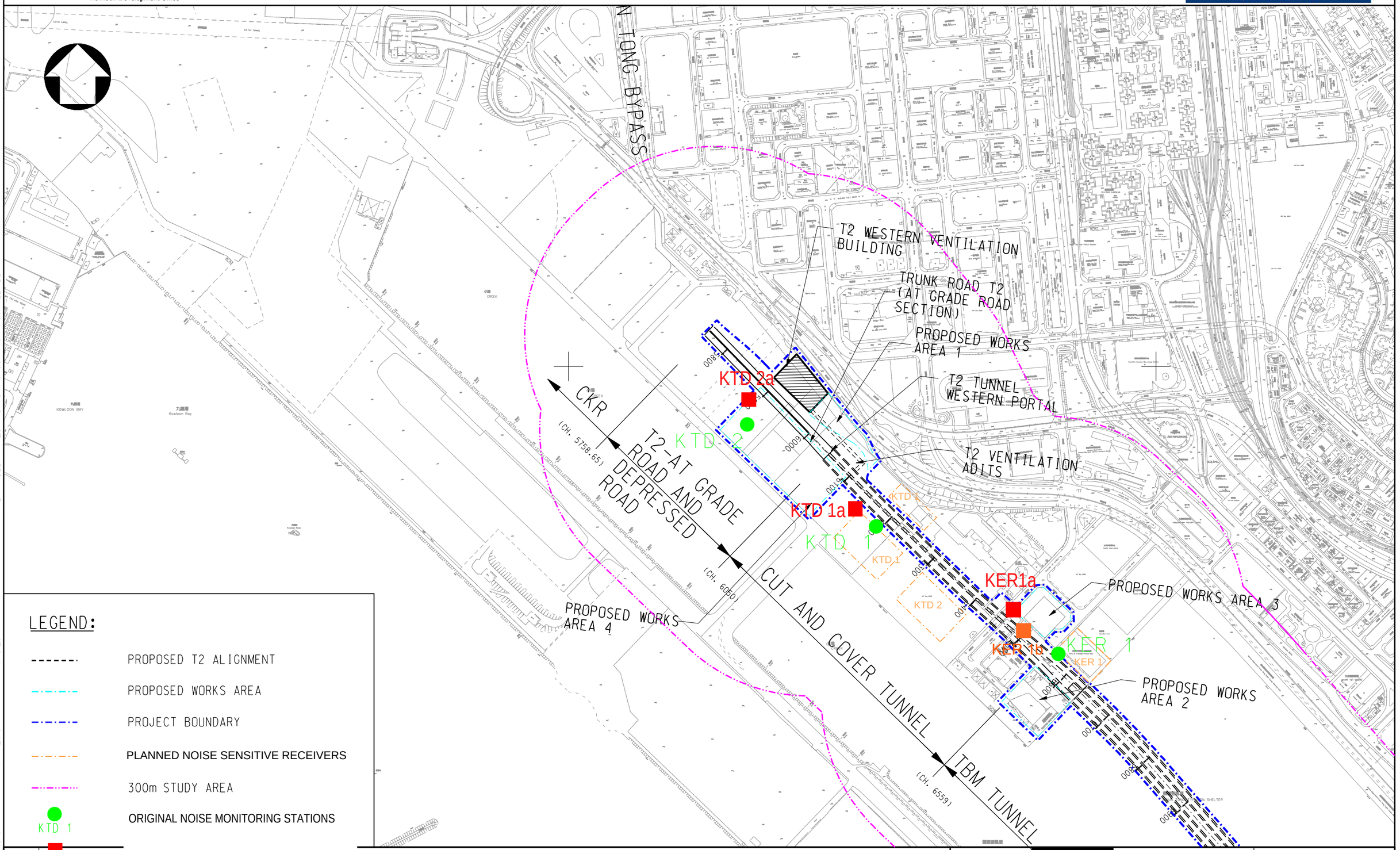
PEN TABLE: K:_STANDARD\MICROSTATION\Plot\MIEL.TBL
PRINTER NAME: PDFCreator
PLOT DRV: K:\91164 Trunk Road T2\Cad Admin\A3_colour.plt
PRINTED BY: kitchan
6/11/2013 6:14:49 PM

CAD FILE : k:\91164 trunk road t2\report\final emna report\Figure 2.1a.dgn

土木工程拓展署
Civil Engineering and Development Department
九龍拓展處
Kowloon Development Office

AGREEMENT NO. CE 38/2008(HY)
KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON - INVESTIGATION, DESIGN AND CONSTRUCTION

Hyder-Meinhardt JV



LEGEND:

- PROPOSED T2 ALIGNMENT
- PROPOSED WORKS AREA
- PROJECT BOUNDARY
- PLANNED NOISE SENSITIVE RECEIVERS
- 300m STUDY AREA
- KTD 1 — ORIGINAL NOISE MONITORING STATIONS
- KTD 1a — PROPOSED NOISE MONITORING STATIONS

Rev.	Description	Date

Drawing title

IDENTIFIED NOISE MONITORING STATIONS AT SOUTH APRON OF FORMER KAI TAK AIRPORT

Original Size: A3

Scale: 1 : 6000 | Date: 30/01/2012

File name

Drawing No. FIGURE 3.1a (revised) | Rev. --

CAD FILE : k:\91164 trunk road t2\report\final emna report\Figure 3.1a.dgn

PEN TABLE: K:_STANDARD\MICROSTATION\Plot\MIEL_TBL
PRINTER NAME: PDFCreator
PLOT DRV: K:\91164 Trunk Road T2\Cad Admin\A3_colour.plt
PRINTED BY: kitchan
6/11/2013 6:15:29 PM

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Appendix A

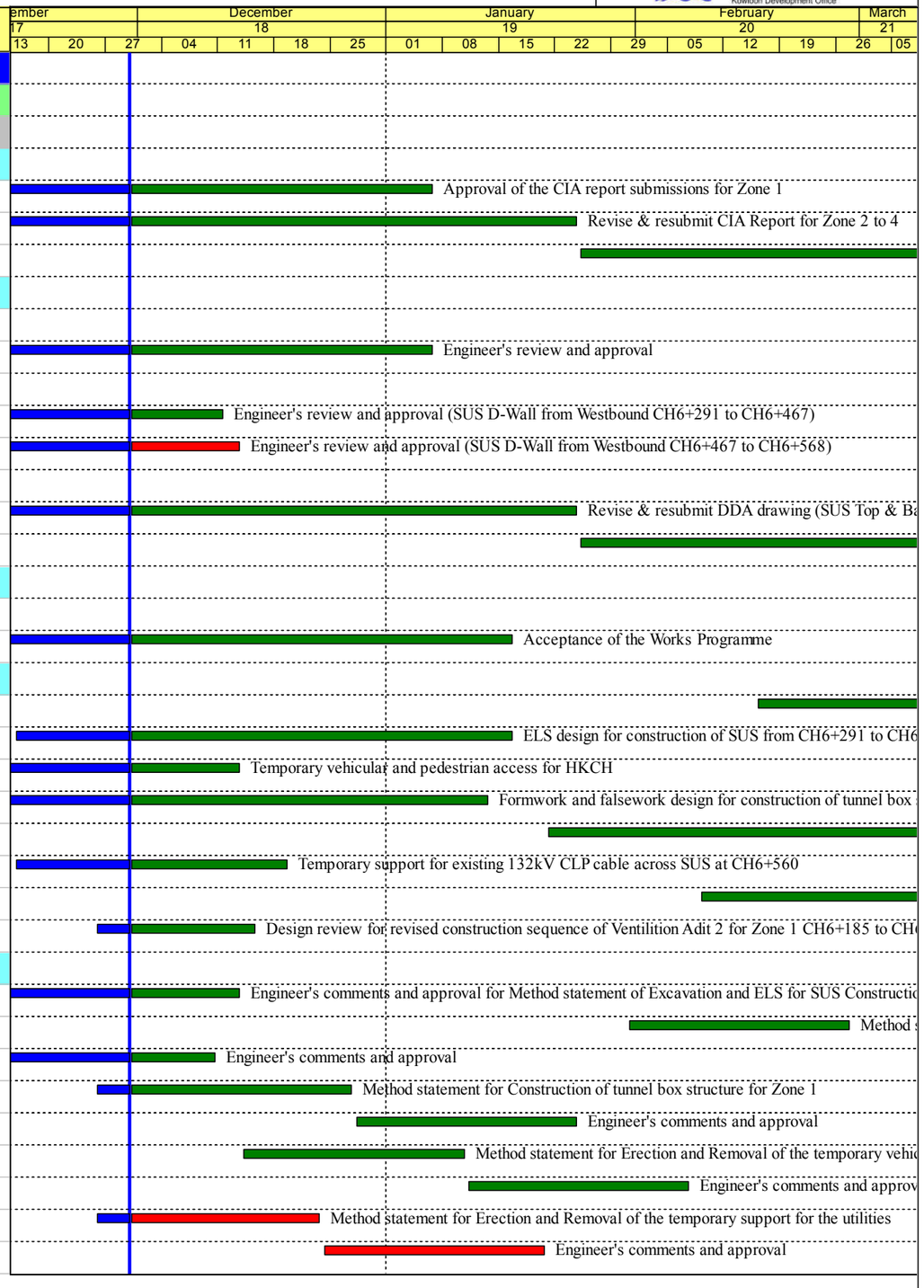
Construction Programme

Hyder - Meinhardt JV

KL/2014/03 Kai Tak Development - Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway

CEDD 土木工程拓展署 Civil Engineering and Development Department 九龍拓展處 Kowloon Development Office

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish
KL/2014/03-Stage 3 Infrastructure Works for Developments at the Southern Part of the Forme		1200	925	04-Jan-16 A	12-Jun-19
Project Key Dates		1190	925	01-Feb-16 A	12-Jun-19
General Submission		321	147	11-May-16 A	25-Apr-17
Condition Survey & Construction Impact Assessment		203	112	11-May-16 A	21-Mar-17
K-DR-PRE-1230	Approval of the CIA report submissions for Zone 1	56	38	14-Sep-16 A	06-Jan-17
K-DR-PRE-1320	Revise & resubmit CIA Report for Zone 2 to 4	30	56	11-May-16 A	24-Jan-17
K-DR-PRE-1330	Approval of the CIA report submissions	56	56	25-Jan-17	21-Mar-17
Alternative Design Submission and Approval		225	112	12-Jul-16 A	21-Mar-17
Package B03 : SUS Tunnel box from (CH6+150 to CH6+220)		56	38	12-Jul-16 A	06-Jan-17
K-PA-ADS-1030	Engineer's review and approval	56	38	12-Jul-16 A	06-Jan-17
Package B05 : SUS D-wall from (CH6+291 to CH6+568)		86	14	13-Jul-16 A	13-Dec-16
K-PA-ADS-1510	Engineer's review and approval (SUS D-Wall from Westbound CH6+291 to CH6+467)	21	12	13-Jul-16 A	11-Dec-16
K-PA-ADS-1550	Engineer's review and approval (SUS D-Wall from Westbound CH6+467 to CH6+568)	28	14	13-Jul-16 A	13-Dec-16
Package B06 : SUS Top & base slab and intermediate wall from (CH6+220 to CH6+568)		222	112	12-Aug-16 A	21-Mar-17
K-PA-ADS-1420	Revise & resubmit DDA drawing (SUS Top & Base slab and Intermediate wall from CH6+220 to CH6+568)	28	56	12-Aug-16 A	24-Jan-17
K-PA-ADS-1430	Engineer's review and approval	56	56	25-Jan-17	21-Mar-17
Programming / Reporting		28	48	09-Jun-16 A	16-Jan-17
Works Programme		28	48	09-Jun-16 A	16-Jan-17
K-PA-GSP-4300	Acceptance of the Works Programme	28	48	09-Jun-16 A	16-Jan-17
Major Temporary Works Design		225	134	24-Aug-16 A	12-Apr-17
K-PA-GSP-6820	ELS design for construction of SUS from CH6+220 to CH6+291 in Zone 2 - horizontal members	56	56	16-Feb-17	12-Apr-17
K-PA-GSP-6835	ELS design for construction of SUS from CH6+291 to CH6+568 in Zone 4 - horizontal members	56	48	16-Nov-16 A	16-Jan-17
K-PA-GSP-6870	Temporary vehicular and pedestrian access for HKCH	35	14	24-Aug-16 A	13-Dec-16
K-PA-GSP-6880	Formwork and falsework design for construction of tunnel box structure	56	45	02-Nov-16 A	13-Jan-17
K-PA-GSP-8860	Pumping Test for SUS Cofferdam in Zone 4	50	50	21-Jan-17	11-Mar-17
K-PA-GSP-9100	Temporary support for existing 132kV CLP cable across SUS at CH6+560	35	20	16-Nov-16 A	19-Dec-16
K-PA-GSP-9250	ELS design for construction of existing seawall	35	35	09-Feb-17	15-Mar-17
K-PA-GSP-9260	Design review for revised construction sequence of Ventilition Adit 2 for Zone 1 CH6+185 to CH6+220	28	16	26-Nov-16 A	15-Dec-16
Major Construction Works Method Statement		165	90	06-Sep-16 A	27-Feb-17
K-PA-GSP-7145	Engineer's comments and approval for Method statement of Excavation and ELS for SUS Construction for Zone 1	28	14	06-Sep-16 A	13-Dec-16
K-PA-GSP-7150	Method statement of Excavation and ELS for SUS Construction for Zone 3	28	28	31-Jan-17	27-Feb-17
K-PA-GSP-7316	Engineer's comments and approval	28	11	28-Oct-16 A	10-Dec-16
K-PA-GSP-7400	Method statement for Construction of tunnel box structure for Zone 1	28	28	26-Nov-16 A	27-Dec-16
K-PA-GSP-7405	Engineer's comments and approval	28	28	28-Dec-16	24-Jan-17
K-PA-GSP-7490	Method statement for Erection and Removal of the temporary vehicular and pedestrian access for HKCH	28	28	14-Dec-16	10-Jan-17
K-PA-GSP-7495	Engineer's comments and approval	28	28	11-Jan-17	07-Feb-17
K-PA-GSP-7500	Method statement for Erection and Removal of the temporary support for the utilities	28	24	26-Nov-16 A	23-Dec-16
K-PA-GSP-7505	Engineer's comments and approval	28	28	24-Dec-16	20-Jan-17



中國路橋工程有限責任公司 CHINA ROAD AND BRIDGE CORPORATION

◆ Milestone
Critical Activity
Non-Critical Activity
Remaining Level of Effort
Actual Work

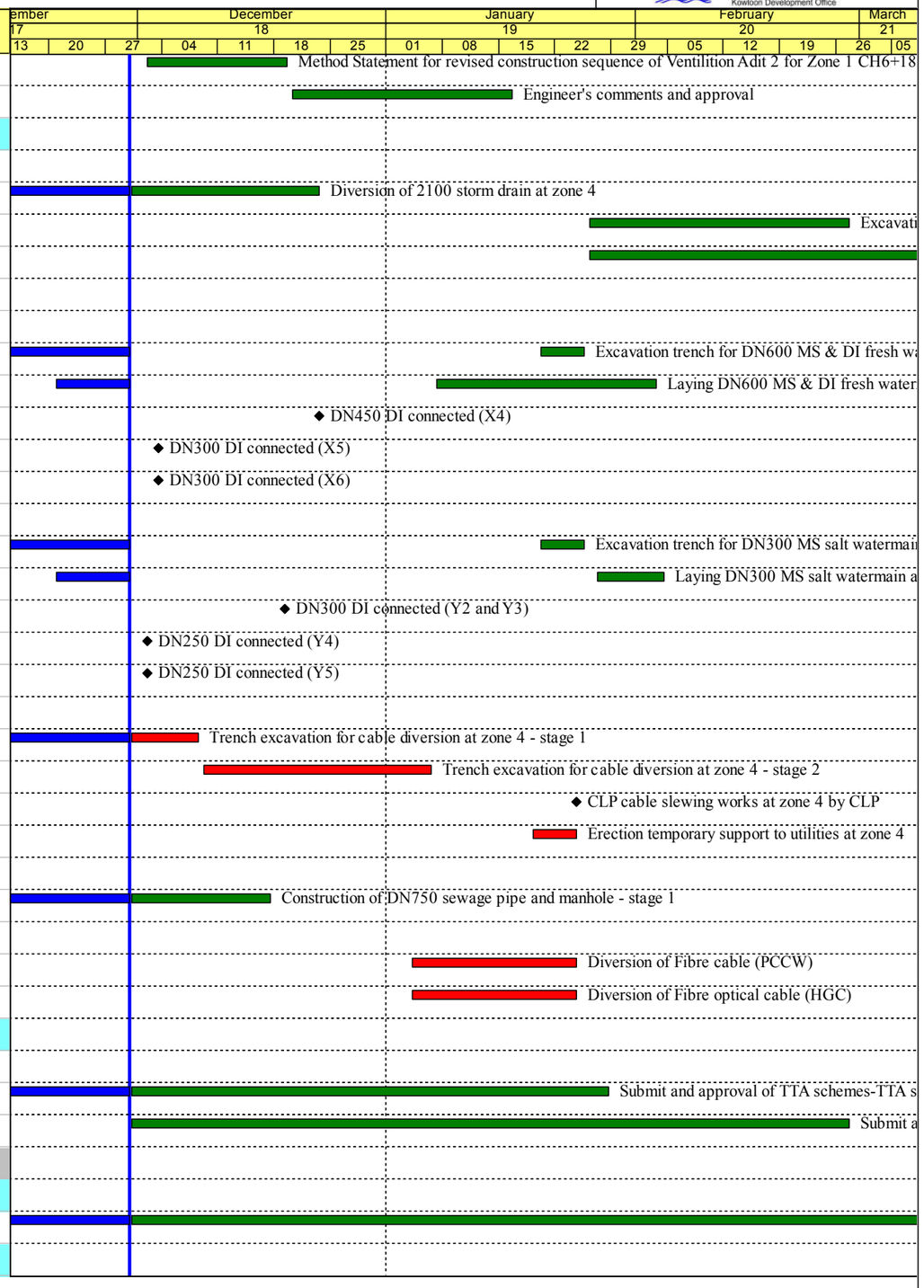
3 MRP Dec 2016 - Feb 2017

Project ID :12 3MPR Dec - Feb 17
Layout : KL201403 WP3 3MRP

3 Months Rolling Programme

Date	Revision	Checked	Approved
30-Nov-16	3MPR Dec 16 - Feb 17		

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish
K-PA-GSP-9270	Method Statement for revised construction sequence of Ventilition Adit 2 for Zone 1 CH6+185 to CH6+220	18	18	02-Dec-16	19-Dec-16
K-PA-GSP-9280	Engineer's comments and approval	28	28	20-Dec-16	16-Jan-17
Temporary Utility Diversion Works		175	116	05-Sep-16 A	25-Apr-17
Temporary Diversion for Drainage Works		175	116	05-Sep-16 A	25-Apr-17
K-PA-TUD-2400	Diversion of 2100 storm drain at zone 4	60	21	05-Sep-16 A	23-Dec-16
K-PA-TUD-2500	Excavation and laying of DN600 MS pipe and manhole (N-CP-1) at zone 4 for HKCH connection	25	25	26-Jan-17	27-Feb-17
K-PA-TUD-2600	Excavation and laying of DN300 MS pipe and manhole (FMH23-15D) at zone 4	70	70	26-Jan-17	25-Apr-17
Temporary Diversion for Watermain Works		47	50	31-Oct-16 A	04-Feb-17
Laying Proposed (Fresh) Watermain		47	47	31-Oct-16 A	03-Feb-17
K-PA-TUD-1100	Excavation trench for DN600 MS & DI fresh watermain at subway B & zone 1	15	5	31-Oct-16 A	25-Jan-17
K-PA-TUD-1120	Laying DN600 MS & DI fresh watermain at subway B & zone 1	20	21	21-Nov-16 A	03-Feb-17
K-PA-TUD-2050	DN450 DI connected (X4)	0	0		23-Dec-16
K-PA-TUD-2140	DN300 DI connected (X5)	0	0		03-Dec-16
K-PA-TUD-2150	DN300 DI connected (X6)	0	0		03-Dec-16
Laying Proposed (Salt) Watermain		46	50	31-Oct-16 A	04-Feb-17
K-PA-TUD-1200	Excavation trench for DN300 MS salt watermain at subway B & zone 1	18	5	31-Oct-16 A	25-Jan-17
K-PA-TUD-1220	Laying DN300 MS salt watermain at subway B & zone 1	20	5	21-Nov-16 A	04-Feb-17
K-PA-TUD-2250	DN300 DI connected (Y2 and Y3)	0	0		19-Dec-16
K-PA-TUD-2340	DN250 DI connected (Y4)	0	0		02-Dec-16
K-PA-TUD-2350	DN250 DI connected (Y5)	0	0		02-Dec-16
Temporary Diversion for CLP Cable at CH6+560		71	45	17-Oct-16 A	24-Jan-17
K-PA-TUD-3300	Trench excavation for cable diversion at zone 4 - stage 1	22	8	17-Oct-16 A	08-Dec-16
K-PA-TUD-3500	Trench excavation for cable diversion at zone 4 - stage 2	22	22	09-Dec-16	06-Jan-17
K-PA-TUD-3600	CLP cable slewing works at zone 4 by CLP	0	0		24-Jan-17
K-PA-TUD-3650	Erection temporary support to utilities at zone 4	5	5	19-Jan-17	24-Jan-17
Temporary Diversion for Sewage Rising Main		10	16	15-Nov-16 A	17-Dec-16
K-PA-TUD-1600	Construction of DN750 sewage pipe and manhole - stage 1	10	16	15-Nov-16 A	17-Dec-16
Temporary Diversion for Telecommunication Cable		18	18	04-Jan-17	24-Jan-17
K-PA-TUD-4000	Diversion of Fibre cable (PCCW)	18	18	04-Jan-17	24-Jan-17
K-PA-TUD-4050	Diversion of Fibre optical cable (HGC)	18	18	04-Jan-17	24-Jan-17
Temporary Traffic Management		212	90	31-Jul-16 A	27-Feb-17
Temp Traffic Arrangement Schemes		212	90	31-Jul-16 A	27-Feb-17
K-PA-TTA-8100	Submit and approval of TTA schemes-TTA stage 2 for D-wall W/B at Zone 2	90	60	31-Jul-16 A	28-Jan-17
K-PA-TTA-8900	Submit and approval of TTA schemes-TTA stage 3 for re-construction of Cheung Yip Street	90	90	30-Nov-16	27-Feb-17
Materials Procurement (Major Materials)		921	665	01-Feb-16 A	25-Sep-18
ELS struct / waling		360	300	10-Jun-16 A	25-Sep-17
K-PA-MP-1150	Manufacturing & delivery to site	360	300	10-Jun-16 A	25-Sep-17
Chilled Water Pipes - DCS		630	630	04-Jan-17	25-Sep-18

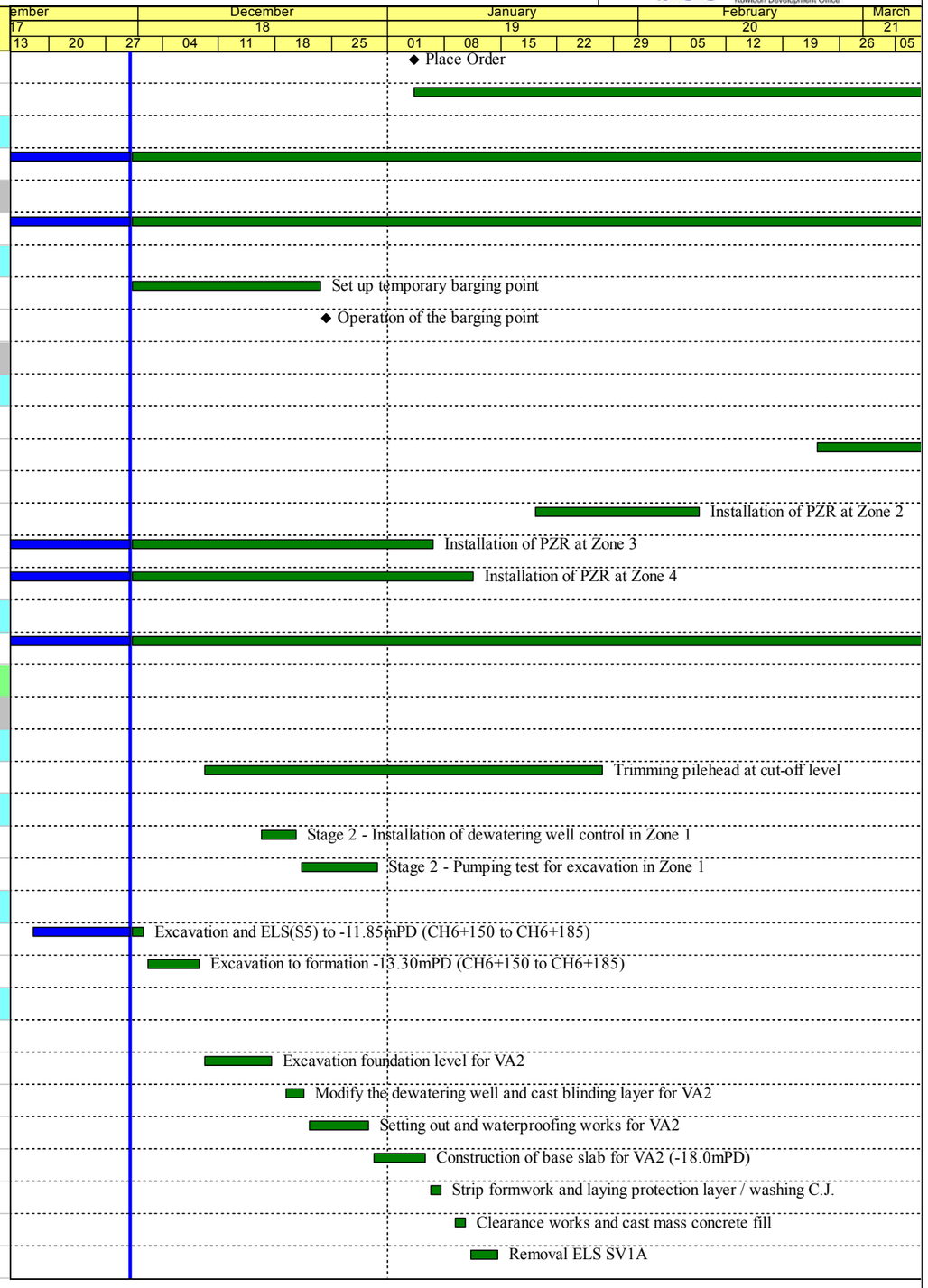


Hyder - Meinhardt JV

KL/2014/03 Kai Tak Development - Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway

CEDD 土木工程拓展署 Civil Engineering and Development Department 九龍拓展處 Kowloon Development Office

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish
K-PA-MP-1300	Place Order	0	0	04-Jan-17	
K-PA-MP-1350	Manufacturing & delivery to site	630	630	04-Jan-17	25-Sep-18
Steel H-Pile		420	160	01-Feb-16 A	08-May-17
K-PA-MP-1250	Manufacturing & delivery to site	420	160	01-Feb-16 A	08-May-17
Prelimiaries		1190	925	11-Mar-16 A	12-Jun-19
K-DR-PRE-1800	Submission of time-lapsed photographs and viedo	1190	925	11-Mar-16 A	12-Jun-19
Barge Loading Facilities		21	21	30-Nov-16	24-Dec-16
K-DR-PRE-1450	Set up temporary barging point	21	21	30-Nov-16	23-Dec-16
K-DR-PRE-1480	Operation of the barging point	0	0	24-Dec-16	
Instrumentation and Monitoring		367	240	19-Jul-16 A	27-Jul-17
Westbound Instrumentation and Monitoring		206	82	19-Jul-16 A	11-Mar-17
Extensomter (EXT)		15	15	23-Feb-17	11-Mar-17
K-IM-EXT-1370	Installation of EXT at Zone 3	15	15	23-Feb-17	11-Mar-17
Piezometer/Standpipe (PZR)		179	55	19-Jul-16 A	08-Feb-17
K-IM-PZR-1360	Installation of PZR at Zone 2	15	15	19-Jan-17	08-Feb-17
K-IM-PZR-1370	Installation of PZR at Zone 3	40	30	05-Aug-16 A	06-Jan-17
K-IM-PZR-1380	Installation of PZR at Zone 4	40	34	19-Jul-16 A	11-Jan-17
Tilt Monitoring Tile Plates		310	240	03-Aug-16 A	27-Jul-17
K-IM-TMT-1000	Tilt Monitoring Tile Plates near PWCL	310	240	03-Aug-16 A	27-Jul-17
Section 1A of the Works -Construction of Supporting Underground Structure (Alternative Design)		156	117	15-Oct-16 A	26-Apr-17
SUS and Ventilation Adits from CH6+150 to CH6+220 in Zone 1		76	78	15-Nov-16 A	07-Mar-17
Construction of Socketed H-Pile		40	40	09-Dec-16	27-Jan-17
K-1A-SV1-3400	Trimming pilehead at cut-off level	40	40	09-Dec-16	27-Jan-17
Pumping Test		11	11	16-Dec-16	30-Dec-16
K-1A-SV1-4210	Stage 2 - Installation of dewatering well control in Zone 1	4	4	16-Dec-16	20-Dec-16
K-1A-SV1-4220	Stage 2 - Pumping test for excavation in Zone 1	7	7	21-Dec-16	30-Dec-16
Excavation and ELS Construction		29	8	18-Nov-16 A	08-Dec-16
K-1A-SV1-5450	Excavation and ELS(S5) to -11.85mPD (CH6+150 to CH6+185)	17	2	18-Nov-16 A	01-Dec-16
K-1A-SV1-5550	Excavation to formation -13.30mPD (CH6+150 to CH6+185)	6	6	02-Dec-16	08-Dec-16
Construction of Tunnel Box Structure		72	78	15-Nov-16 A	07-Mar-17
SUS Bay 1 (Ch6150-Ch6167.5)		70	70	09-Dec-16	07-Mar-17
K-1A-SV1-8040	Excavation foundation level for VA2	8	8	09-Dec-16	17-Dec-16
K-1A-SV1-8050	Modify the dewatering well and cast blinding layer for VA2	3	3	19-Dec-16	21-Dec-16
K-1A-SV1-8060	Setting out and waterproofing works for VA2	5	5	22-Dec-16	29-Dec-16
K-1A-SV1-8070	Construction of base slab for VA2 (-18.0mPD)	5	5	30-Dec-16	05-Jan-17
K-1A-SV1-8080	Strip formwork and laying protection layer / washing C.J.	2	2	06-Jan-17	07-Jan-17
K-1A-SV1-8090	Clearance works and cast mass concrete fill	2	2	09-Jan-17	10-Jan-17
K-1A-SV1-8100	Removal ELS SV1A	4	4	11-Jan-17	14-Jan-17



中國路橋工程有限責任公司 CHINA ROAD AND BRIDGE CORPORATION

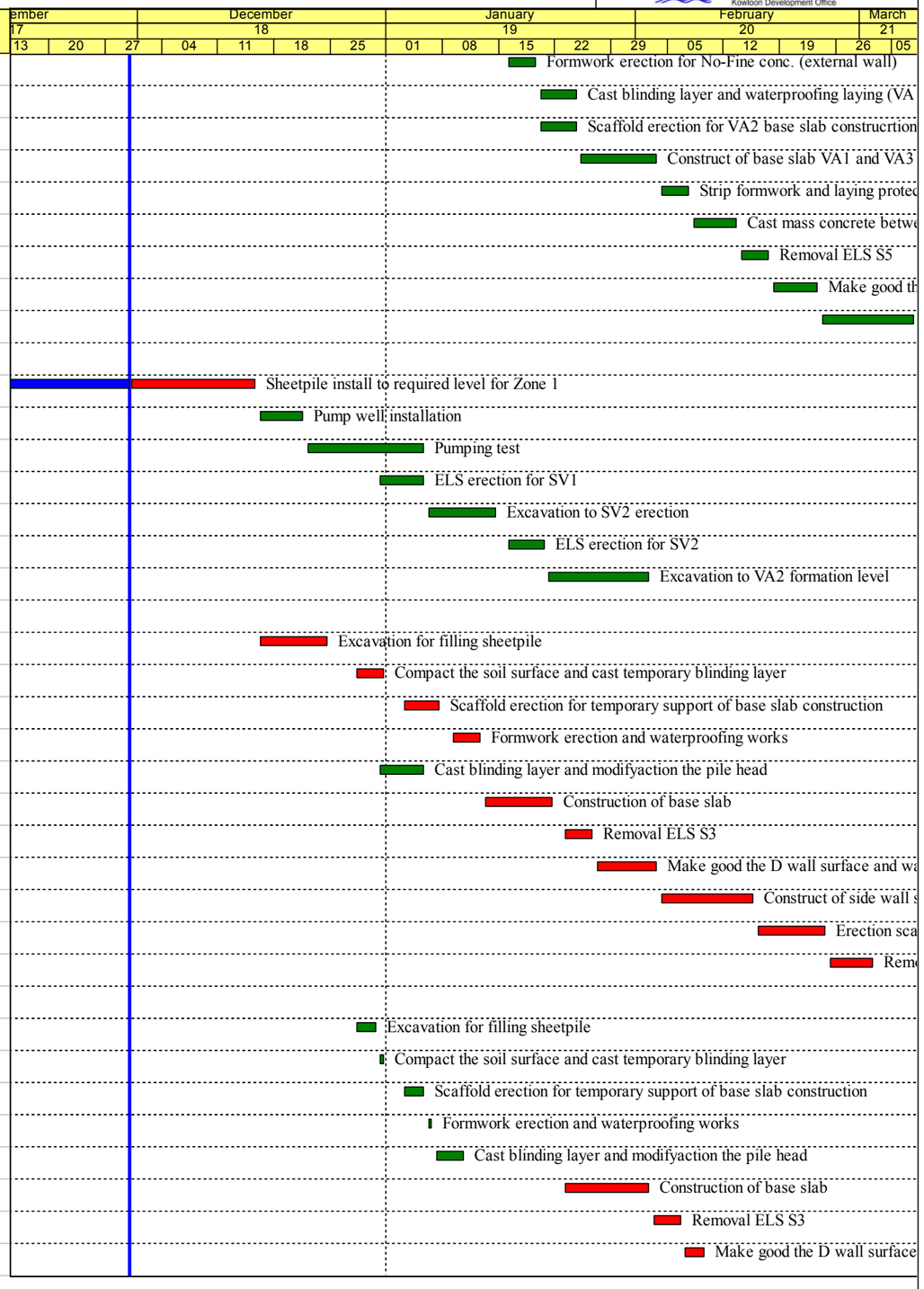
◆ Milestone
Critical Activity
Non-Critical Activity
Remaining Level of Effort
Actual Work

3 MRP Dec 2016 - Feb 2017

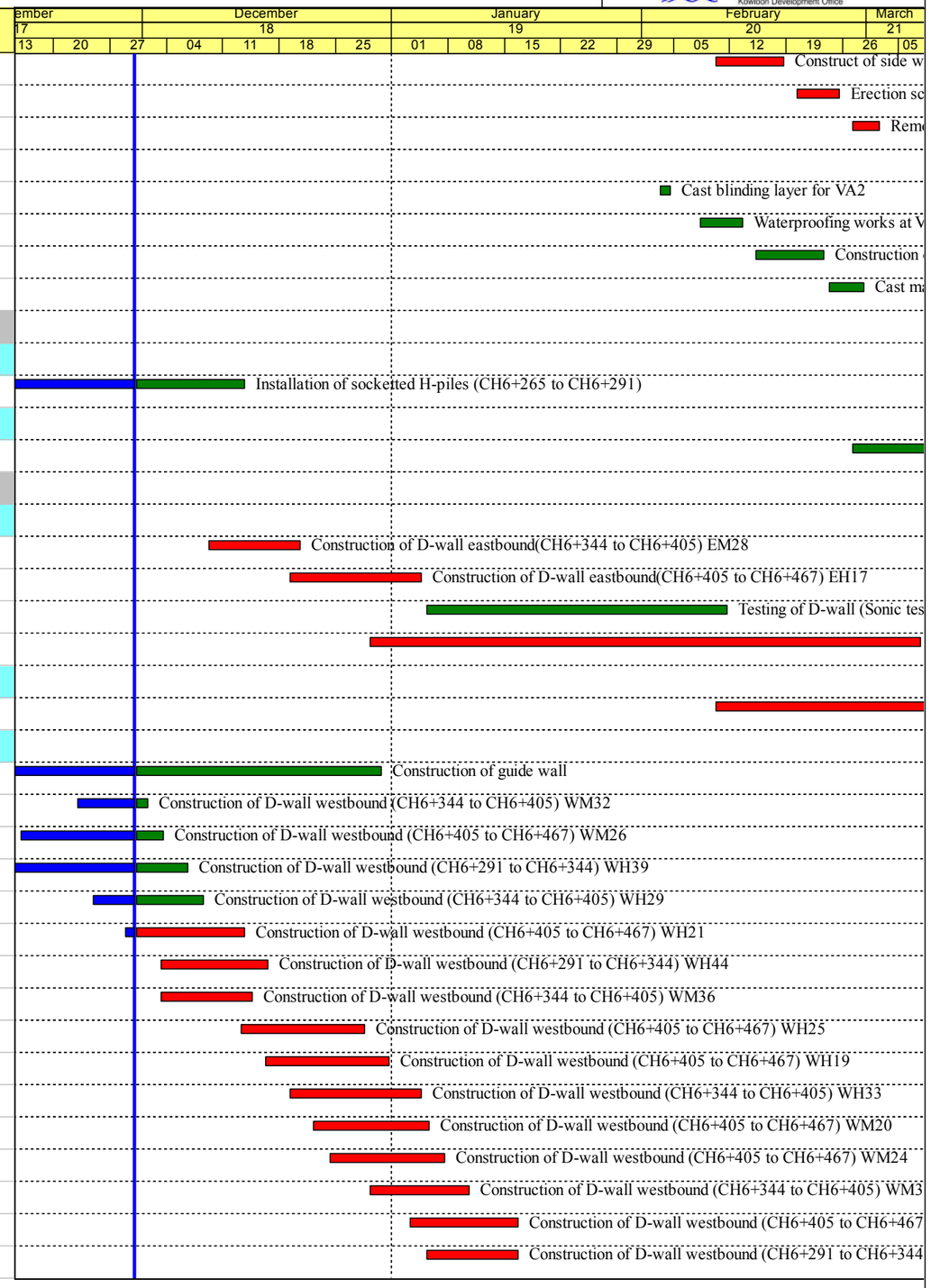
Project ID :12 3MPR Dec - Feb 17
Layout : KL201403 WP3 3MRP

3 Months Rolling Programme			
Date	Revision	Checked	Approved
30-Nov-16	3MPR Dec 16 - Feb 17		

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish
K-1A-SV1-8110	Formwork erection for No-Fine conc. (external wall)	4	4	16-Jan-17	19-Jan-17
K-1A-SV1-8120	Cast blinding layer and waterproofing laying (VA1 and VA3)	4	4	20-Jan-17	24-Jan-17
K-1A-SV1-8130	Scaffold erection for VA2 base slab construcrtion	4	4	20-Jan-17	24-Jan-17
K-1A-SV1-8140	Construct of base slab VA1 and VA3 (-13.9 mPD)	6	6	25-Jan-17	03-Feb-17
K-1A-SV1-8150	Strip formwork and laying protection layer / washing C.J.	3	3	04-Feb-17	07-Feb-17
K-1A-SV1-8160	Cast mass concrete between VA1 and VA3	5	5	08-Feb-17	13-Feb-17
K-1A-SV1-8170	Removal ELS S5	4	4	14-Feb-17	17-Feb-17
K-1A-SV1-8180	Make good the D wall surface and waterproofing works	5	5	18-Feb-17	23-Feb-17
K-1A-SV1-8190	Construction of wall struct for VA1 and VA3	10	10	24-Feb-17	07-Mar-17
Sheet pile installation and Excavation works to VA2 formation level		44	50	15-Nov-16 A	02-Feb-17
K-1A-SV1-8430	Sheetpile install to required level for Zone 1	15	14	15-Nov-16 A	15-Dec-16
K-1A-SV1-8440	Pump well installation	5	5	16-Dec-16	21-Dec-16
K-1A-SV1-8450	Pumping test	10	10	22-Dec-16	05-Jan-17
K-1A-SV1-8460	ELS erection for SV1	4	4	31-Dec-16	05-Jan-17
K-1A-SV1-8470	Excavation to SV2 erection	8	8	06-Jan-17	14-Jan-17
K-1A-SV1-8480	ELS erection for SV2	5	5	16-Jan-17	20-Jan-17
K-1A-SV1-8490	Excavation to VA2 formation level	8	8	21-Jan-17	02-Feb-17
SUS Bay 4 (Ch6202.5-Ch6220)		60	60	16-Dec-16	02-Mar-17
K-1A-SV1-8500	Excavation for filling sheetpile	8	8	16-Dec-16	24-Dec-16
K-1A-SV1-8510	Compact the soil surface and cast temporary blinding layer	4	4	28-Dec-16	31-Dec-16
K-1A-SV1-8520	Scaffold erection for temporary support of base slab construction	5	5	03-Jan-17	07-Jan-17
K-1A-SV1-8530	Formwork erection and waterproofing works	4	4	09-Jan-17	12-Jan-17
K-1A-SV1-8540	Cast blinding layer and modifyaction the pile head	4	4	31-Dec-16	05-Jan-17
K-1A-SV1-8550	Construction of base slab	8	8	13-Jan-17	21-Jan-17
K-1A-SV1-8560	Removal ELS S3	4	4	23-Jan-17	26-Jan-17
K-1A-SV1-8570	Make good the D wall surface and waterproofing works	4	4	27-Jan-17	03-Feb-17
K-1A-SV1-8580	Construct of side wall structure (external wall)	10	10	04-Feb-17	15-Feb-17
K-1A-SV1-8590	Erection scaffold and install re-prop struct inside W/B and E/B	8	8	16-Feb-17	24-Feb-17
K-1A-SV1-8600	Removal ELS S2	5	5	25-Feb-17	02-Mar-17
SUS Bay 3 (Ch6185-Ch6202.5)		52	52	28-Dec-16	02-Mar-17
K-1A-SV1-8660	Excavation for filling sheetpile	3	3	28-Dec-16	30-Dec-16
K-1A-SV1-8670	Compact the soil surface and cast temporary blinding layer	1	1	31-Dec-16	31-Dec-16
K-1A-SV1-8680	Scaffold erection for temporary support of base slab construction	3	3	03-Jan-17	05-Jan-17
K-1A-SV1-8690	Formwork erection and waterproofing works	1	1	06-Jan-17	06-Jan-17
K-1A-SV1-8700	Cast blinding layer and modifyaction the pile head	3	3	07-Jan-17	10-Jan-17
K-1A-SV1-8710	Construction of base slab	7	7	23-Jan-17	02-Feb-17
K-1A-SV1-8720	Removal ELS S3	3	3	03-Feb-17	06-Feb-17
K-1A-SV1-8730	Make good the D wall surface and waterproofing works	3	3	07-Feb-17	09-Feb-17



Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish
K-1A-SV1-8740	Construct of side wall construction (external wall)	8	8	10-Feb-17	18-Feb-17
K-1A-SV1-8750	Erection scaffold and install re-prop struct inside W/B and E/B	6	6	20-Feb-17	25-Feb-17
K-1A-SV1-8760	Removal ELS S2	4	4	27-Feb-17	02-Mar-17
SUS Bay 2 (Ch6167.5-Ch6185)		22	22	03-Feb-17	28-Feb-17
K-1A-SV1-8820	Cast blinding layer for VA2	2	2	03-Feb-17	04-Feb-17
K-1A-SV1-8830	Waterproofing works at VA2	5	5	08-Feb-17	13-Feb-17
K-1A-SV1-8840	Construction of base slab for VA2	8	8	15-Feb-17	23-Feb-17
K-1A-SV1-8850	Cast mass conc. fill	4	4	24-Feb-17	28-Feb-17
SUS and Ventilation Adits from CH6+220 to CH6+291 in Zone 2		129	100	17-Oct-16 A	01-Apr-17
Construction of Socketed H-Pile		30	12	17-Oct-16 A	13-Dec-16
K-1A-SV2-3201	Installation of socketted H-piles (CH6+265 to CH6+291)	30	12	17-Oct-16 A	13-Dec-16
W/B Construction of D-Wall in TTA Stage 1A		30	30	27-Feb-17	01-Apr-17
K-1A-SV2-5000	Construction of guide wall	30	30	27-Feb-17	01-Apr-17
SUS Structure from CH6+291 to 6+467 in Zone 3		156	117	15-Oct-16 A	26-Apr-17
E/B Construction of D-Wall		70	70	09-Dec-16	07-Mar-17
K-1A-SV3-2310	Construction of D-wall eastbound(CH6+344 to CH6+405) EM28	10	10	09-Dec-16	20-Dec-16
K-1A-SV3-2355	Construction of D-wall eastbound(CH6+405 to CH6+467) EH17	12	12	19-Dec-16	04-Jan-17
K-1A-SV3-2400	Testing of D-wall (Sonic test and IC)	30	30	05-Jan-17	11-Feb-17
K-1A-SV3-2500	Toe grouting works	55	55	29-Dec-16	07-Mar-17
Construction of Socketed H-Pile		45	45	10-Feb-17	03-Apr-17
K-1A-SV3-3008	Installation of socketted H-piles (CH6+320 to CH6+380)	45	45	10-Feb-17	03-Apr-17
W/B Construction of D-Wall in TTA Stage 1A		156	117	15-Oct-16 A	26-Apr-17
K-1A-SV3-4000	Construction of guide wall	45	25	15-Oct-16 A	30-Dec-16
K-1A-SV3-4010	Construction of D-wall westbound (CH6+344 to CH6+405) WM32	10	2	23-Nov-16 A	01-Dec-16
K-1A-SV3-4030	Construction of D-wall westbound (CH6+405 to CH6+467) WM26	10	4	16-Nov-16 A	03-Dec-16
K-1A-SV3-4040	Construction of D-wall westbound (CH6+291 to CH6+344) WH39	12	6	14-Nov-16 A	06-Dec-16
K-1A-SV3-4050	Construction of D-wall westbound (CH6+344 to CH6+405) WH29	12	8	25-Nov-16 A	08-Dec-16
K-1A-SV3-4060	Construction of D-wall westbound (CH6+405 to CH6+467) WH21	12	12	29-Nov-16 A	13-Dec-16
K-1A-SV3-4070	Construction of D-wall westbound (CH6+291 to CH6+344) WH44	12	12	03-Dec-16	16-Dec-16
K-1A-SV3-4080	Construction of D-wall westbound (CH6+344 to CH6+405) WM36	10	10	03-Dec-16	14-Dec-16
K-1A-SV3-4090	Construction of D-wall westbound (CH6+405 to CH6+467) WH25	12	12	13-Dec-16	28-Dec-16
K-1A-SV3-4100	Construction of D-wall westbound (CH6+405 to CH6+467) WH19	12	12	16-Dec-16	31-Dec-16
K-1A-SV3-4110	Construction of D-wall westbound (CH6+344 to CH6+405) WH33	12	12	19-Dec-16	04-Jan-17
K-1A-SV3-4120	Construction of D-wall westbound (CH6+405 to CH6+467) WM20	10	10	22-Dec-16	05-Jan-17
K-1A-SV3-4130	Construction of D-wall westbound (CH6+405 to CH6+467) WM24	10	10	24-Dec-16	07-Jan-17
K-1A-SV3-4140	Construction of D-wall westbound (CH6+344 to CH6+405) WM38	10	10	29-Dec-16	10-Jan-17
K-1A-SV3-4150	Construction of D-wall westbound (CH6+405 to CH6+467) WH28	12	12	03-Jan-17	16-Jan-17
K-1A-SV3-4160	Construction of D-wall westbound (CH6+291 to CH6+344) WM47	10	10	05-Jan-17	16-Jan-17

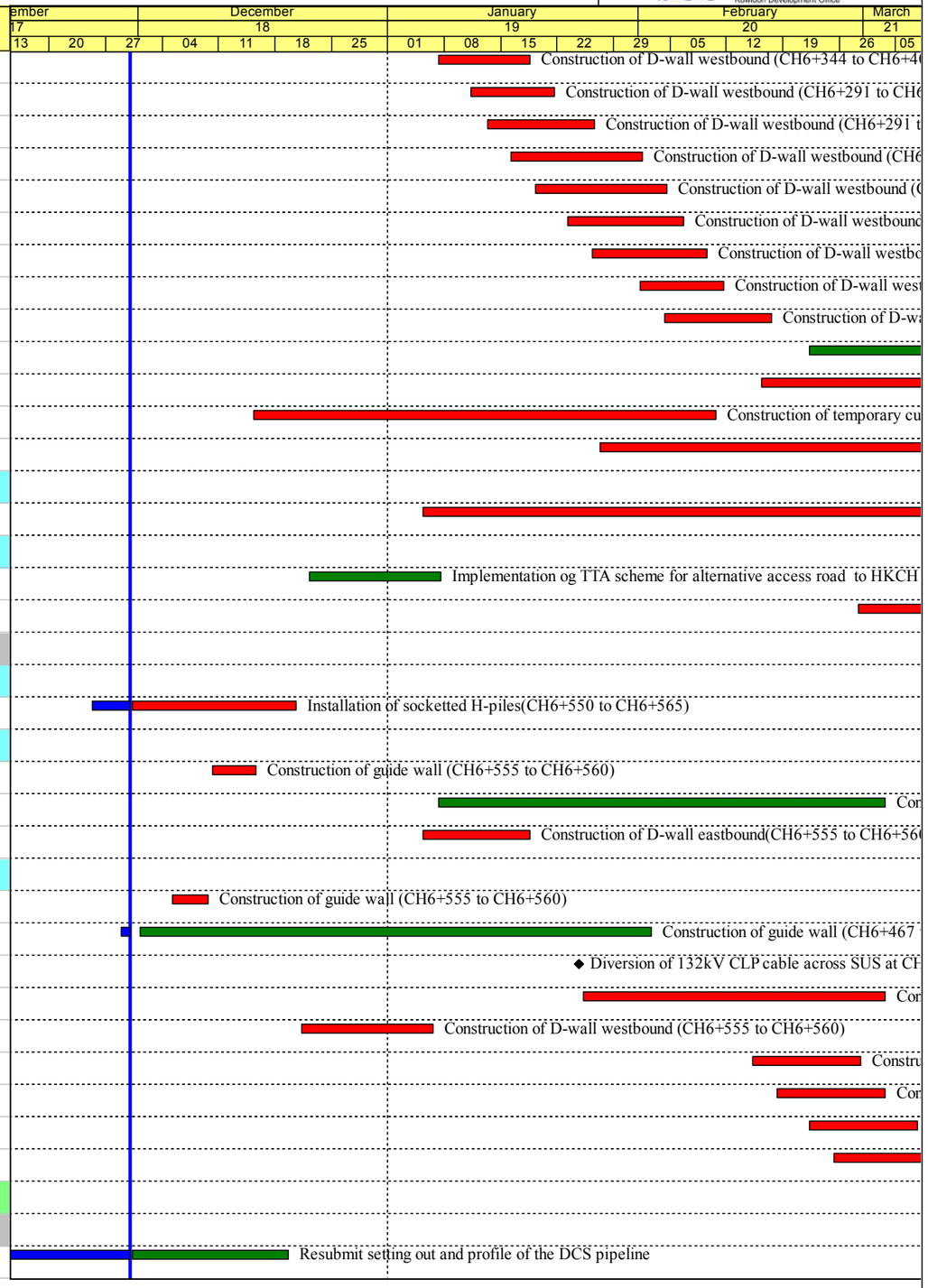


Hyder - Meinhardt JV

KL/2014/03 Kai Tak Development - Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway

CEDD 土木工程拓展署 Civil Engineering and Development Department 九龍拓展處 Kowloon Development Office

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish
K-1A-SV3-4170	Construction of D-wall westbound (CH6+344 to CH6+405) WM34	10	10	07-Jan-17	18-Jan-17
K-1A-SV3-4180	Construction of D-wall westbound (CH6+291 to CH6+344) WM43	10	10	11-Jan-17	21-Jan-17
K-1A-SV3-4190	Construction of D-wall westbound (CH6+291 to CH6+344) WH40	12	12	13-Jan-17	26-Jan-17
K-1A-SV3-4200	Construction of D-wall westbound (CH6+344 to CH6+405) WH37	12	12	16-Jan-17	01-Feb-17
K-1A-SV3-4210	Construction of D-wall westbound (CH6+291 to CH6+344) WH42	12	12	19-Jan-17	04-Feb-17
K-1A-SV3-4220	Construction of D-wall westbound (CH6+291 to CH6+344) WM45	10	10	23-Jan-17	06-Feb-17
K-1A-SV3-4230	Construction of D-wall westbound (CH6+291 to CH6+344) WM39A	10	10	26-Jan-17	09-Feb-17
K-1A-SV3-4240	Construction of D-wall westbound (CH6+291 to CH6+344) WM41	10	10	01-Feb-17	11-Feb-17
K-1A-SV3-4250	Construction of D-wall westbound (CH6+291 to CH6+344) WH46	12	12	04-Feb-17	17-Feb-17
K-1A-SV3-4270	Testing of D-wall (Sonic test and IC)	30	30	22-Feb-17	28-Mar-17
K-1A-SV3-4280	Toe grouting works	56	56	16-Feb-17	26-Apr-17
K-1A-SV3-4290	Construction of temporary cut-off wall at CH6+291	44	44	15-Dec-16	10-Feb-17
K-1A-SV3-4300	Construction of temporary cut-off wall at CH6+467	61	61	27-Jan-17	12-Apr-17
Pumping Test		80	80	05-Jan-17	12-Apr-17
K-1A-SV3-5000	Installation of dewatering well,observation well and recharging well in Zone 3	80	80	05-Jan-17	12-Apr-17
Excavation and ELS Construction		94	94	22-Dec-16	21-Apr-17
K-1A-SV3-5450	Implementation og TTA scheme for alternative access road to HKCH at Zone 3	12	12	22-Dec-16	07-Jan-17
K-1A-SV3-5500	Construction of temporary vehicular access at CH6+325	42	42	28-Feb-17	21-Apr-17
SUS Structure from CH6+467 to 6+568 in Zone 4		85	81	25-Nov-16 A	10-Mar-17
Construction of Socketed H-Pile		32	18	25-Nov-16 A	20-Dec-16
K-1A-SV4-3500	Installation of socketted H-piles(CH6+550 to CH6+565)	32	18	25-Nov-16 A	20-Dec-16
E/B Construction of D-Wall		66	66	10-Dec-16	03-Mar-17
K-1A-SV4-2110	Construction of guide wall (CH6+555 to CH6+560)	5	5	10-Dec-16	15-Dec-16
K-1A-SV4-2150	Construction of guide wall (CH6+467 to CH6+555)	45	45	07-Jan-17	03-Mar-17
K-1A-SV4-2400	Construction of D-wall eastbound(CH6+555 to CH6+560)	12	12	05-Jan-17	18-Jan-17
W/B and End Construction of D-Wall in TTA Stage 1A		77	80	29-Nov-16 A	10-Mar-17
K-1A-SV4-3990	Construction of guide wall (CH6+555 to CH6+560)	5	5	05-Dec-16	09-Dec-16
K-1A-SV4-4000	Construction of guide wall (CH6+467 to CH6+555)	50	49	29-Nov-16 A	02-Feb-17
K-1A-SV4-4040	Diversion of 132kV CLP cable across SUS at CH6+560 by CLP	0	0		24-Jan-17
K-1A-SV4-4050	Construction of guide wall (End Wall)	30	30	25-Jan-17	03-Mar-17
K-1A-SV4-4300	Construction of D-wall westbound (CH6+555 to CH6+560)	12	12	21-Dec-16	06-Jan-17
K-1A-SV4-4700	Construction of D-wall (CH6+560 to CH6+568) & end wall at CH6+568 SH06	12	12	15-Feb-17	28-Feb-17
K-1A-SV4-4702	Construction of D-wall (CH6+560 to CH6+568) & end wall at CH6+568 SH03	12	12	18-Feb-17	03-Mar-17
K-1A-SV4-4703	Construction of D-wall (CH6+560 to CH6+568) & end wall at CH6+568 EH01	12	12	22-Feb-17	07-Mar-17
K-1A-SV4-4704	Construction of D-wall (CH6+560 to CH6+568) & end wall at CH6+568 SH07	12	12	25-Feb-17	10-Mar-17
Section 3 of the Works- Construction of District Cooling System (Subject to Excision)		212	113	23-Aug-16 A	22-Mar-17
Preparation Works		149	50	23-Aug-16 A	18-Jan-17
K-03-DCS-0820	Resubmit setting out and profile of the DCS pipeline	30	20	23-Aug-16 A	19-Dec-16



中國路橋工程有限責任公司 CHINA ROAD AND BRIDGE CORPORATION

◆ Milestone
Critical Activity
Non-Critical Activity
Remaining Level of Effort
Actual Work

3 MRP Dec 2016 - Feb 2017

Project ID :12 3MPR Dec - Feb 17
Layout : KL201403 WP3 3MRP

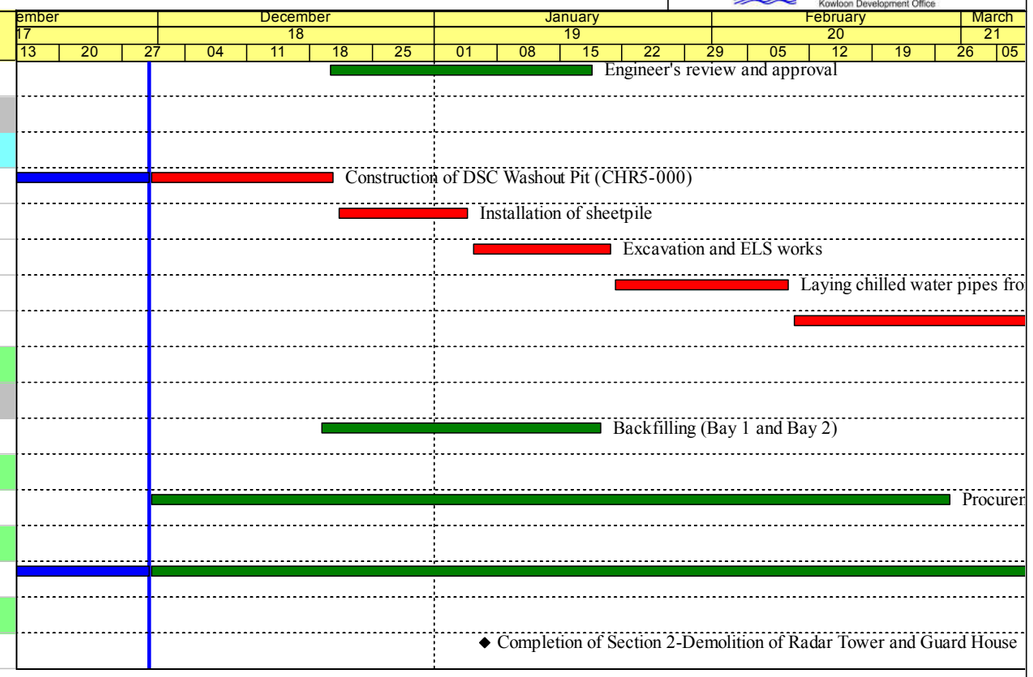
3 Months Rolling Programme			
Date	Revision	Checked	Approved
30-Nov-16	3MPR Dec 16 - Feb 17		

Hyder - Meinhardt JV

KL/2014/03 Kai Tak Development - Stage 3 Infrastructure Works for Developments at the Southern Part of the Former Runway

CEDD 土木工程拓展署 Civil Engineering and Development Department 九龍拓展處 Kowloon Development Office

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish
K-03-DCS-0830	Engineer's review and approval	30	30	20-Dec-16	18-Jan-17
Construction of District Cooling System		120	91	10-Sep-16 A	22-Mar-17
Construction of DCS Works at Zone 1		120	91	10-Sep-16 A	22-Mar-17
K-03-DCS-1050	Construction of DSC Washout Pit (CHR5-000)	30	18	10-Sep-16 A	20-Dec-16
K-03-DCS-1100	Installation of sheetpile	10	10	21-Dec-16	04-Jan-17
K-03-DCS-1150	Excavation and ELS works	14	14	05-Jan-17	20-Jan-17
K-03-DCS-1200	Laying chilled water pipes from CHR5-000 to CHR5-024	14	14	21-Jan-17	09-Feb-17
K-03-DCS-1300	Backfilling at Zone 1 (CHR5-000 to CHR5-024)	35	35	10-Feb-17	22-Mar-17
Section 4B of the Works- Construction of Subway B (Subject to Excision)		25	25	19-Dec-16	19-Jan-17
Bay 1 & 2		25	25	19-Dec-16	19-Jan-17
K-4B-BAY-2450	Backfilling (Bay 1 and Bay 2)	25	25	19-Dec-16	19-Jan-17
Section 5 of the Works-Completion of All Landscape Softworks		90	90	30-Nov-16	27-Feb-17
K-05-LCS-1000	Procurement of plant species	90	90	30-Nov-16	27-Feb-17
Section 7 of the Works-Preservation and Protection of Existing Trees		1200	916	04-Jan-16 A	03-Jun-19
K-07-001-1000	Section 7 of the Works-Preservation and Protection of Existing Trees	1200	916	04-Jan-16 A	03-Jun-19
Sections Completion Date		0	0	06-Jan-17	06-Jan-17
K-PK-SCC-2100	Completion of Section 2-Demolition of Radar Tower and Guard House	0	0		06-Jan-17



中國路橋工程有限責任公司 CHINA ROAD AND BRIDGE CORPORATION

◆ Milestone
Critical Activity
Non-Critical Activity
Remaining Level of Effort
Actual Work

3 MRP Dec 2016 - Feb 2017

Project ID :12 3MPR Dec - Feb 17
Layout : KL201403 WP3 3MRP

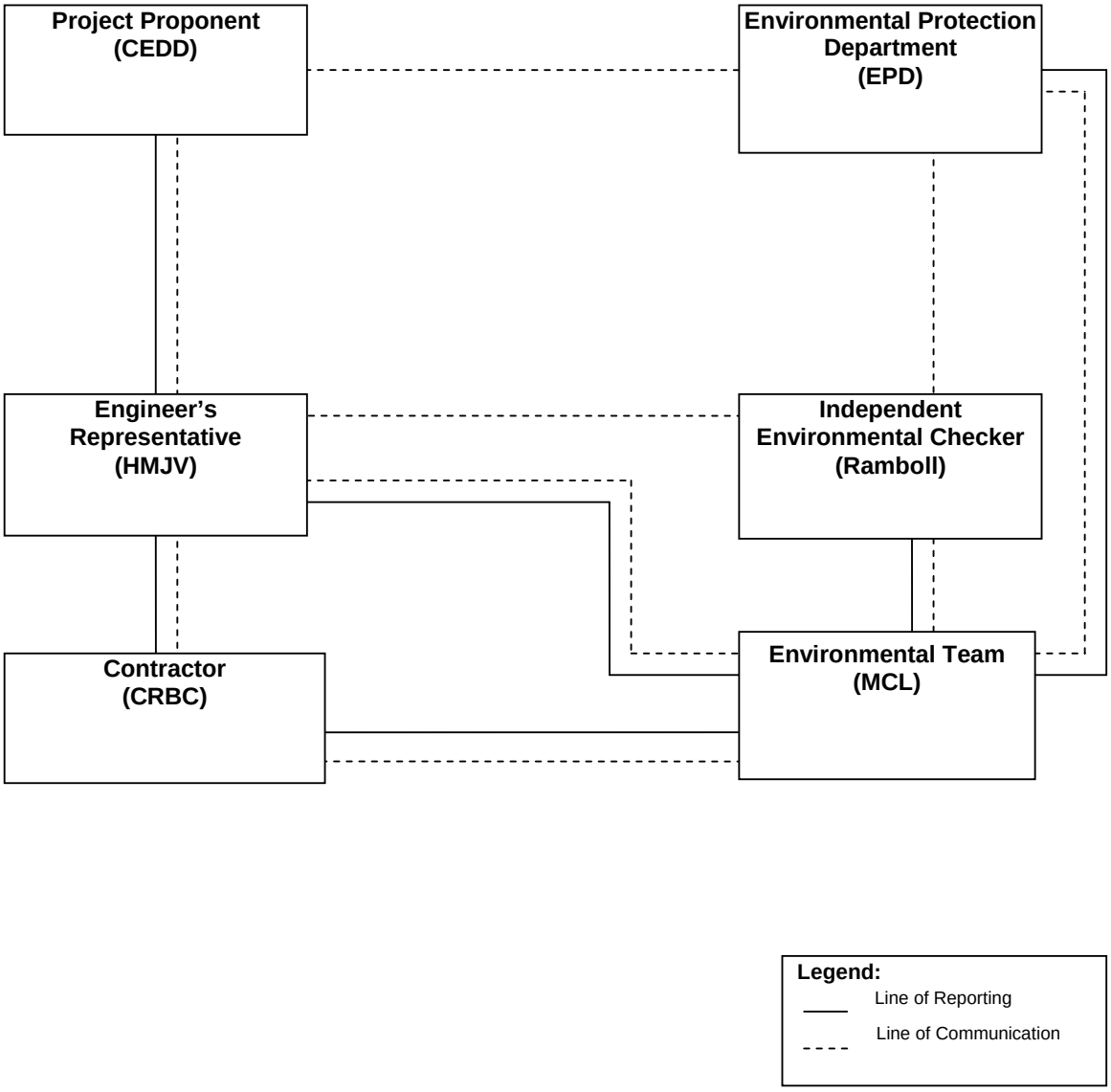
3 Months Rolling Programme			
Date	Revision	Checked	Approved
30-Nov-16	3MPR Dec 16 - Feb 17		

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Appendix B

Project Organization Chart

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com



MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Appendix C

Action and Limit Levels for Air Quality and Noise

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Action and Limit Levels for 24-hr TSP and 1-hr TSP

Parameter	Monitoring Station	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/ m^3$)
24-hr TSP ($\mu g/m^3$)	KTD1a	177	260
	KTD2a	157	
	KER1b	172	
*1-hr TSP ($\mu g/m^3$)	KTD1a	285	500
	KTD2a	279	
	KER1b	295	

Note:
1-hr TSP monitoring should be required in case of complaints.

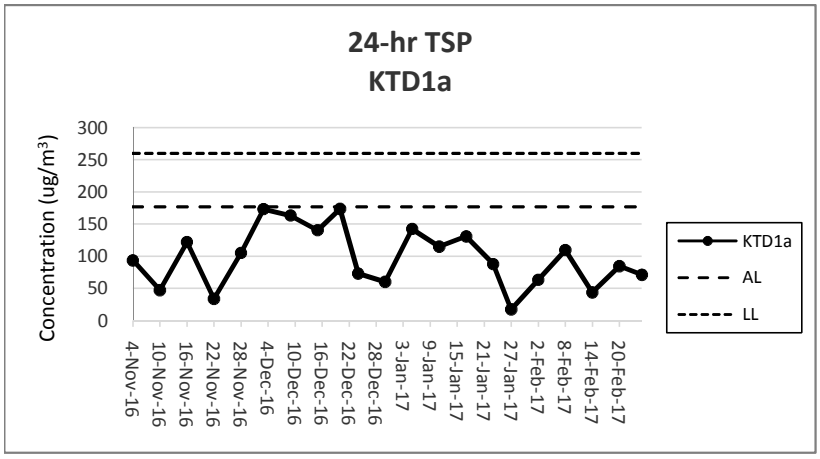
Action and Limit Levels for Construction Noise, Leq (30min), dB(A)

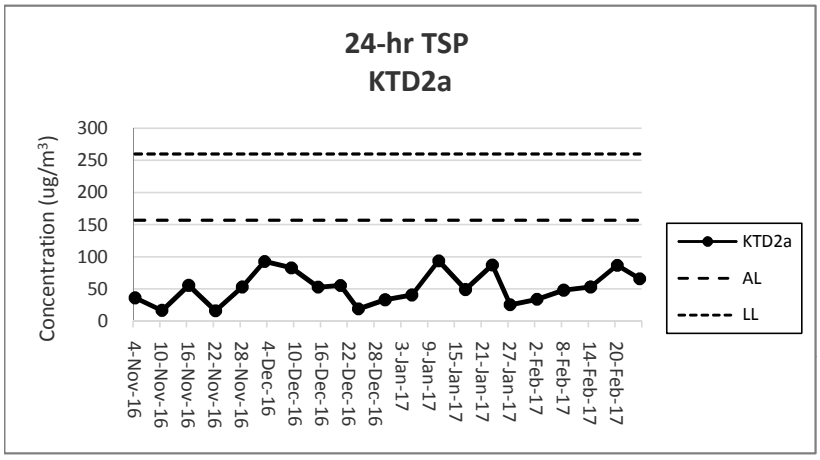
Time Period	Location	Action	Limit
0700-1900 hrs on normal weekdays	KTD1a KTD2a KER1b	When one documented complaint is received	75 dB(A)

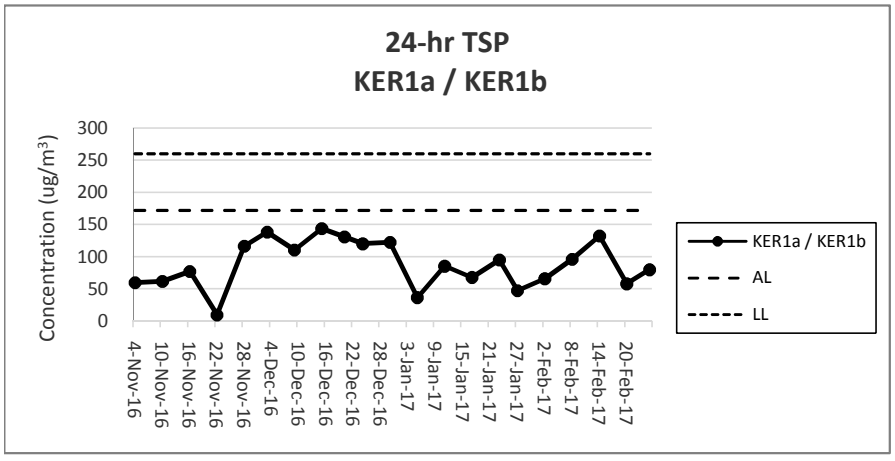
MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Appendix D

Graphical Presentation of Monitoring Data

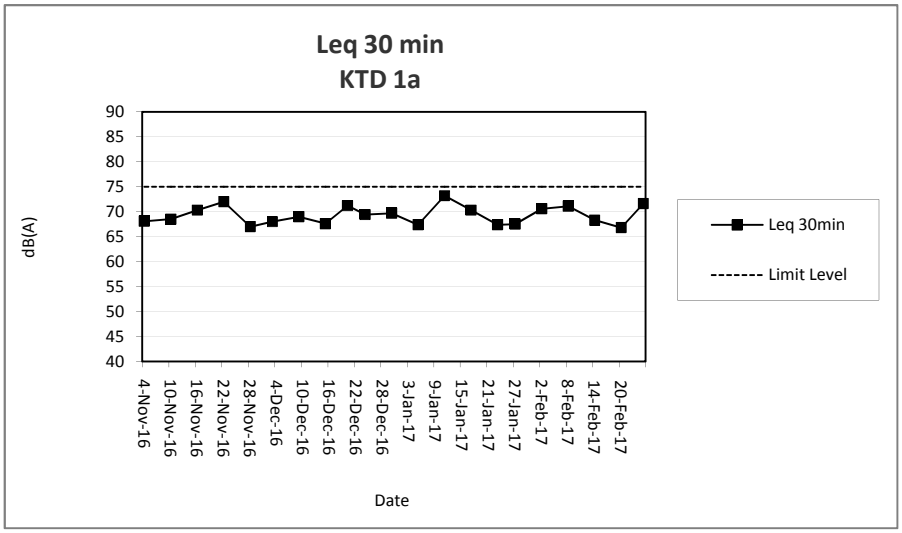


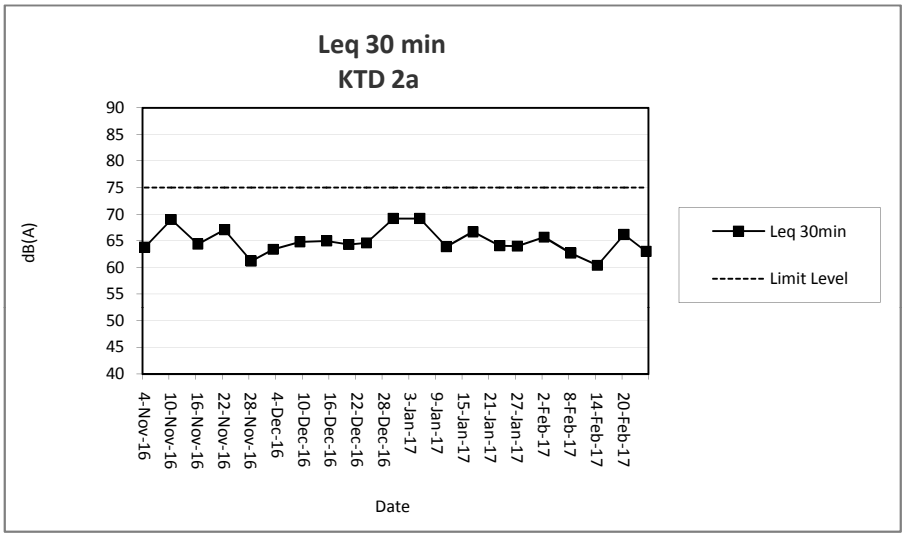


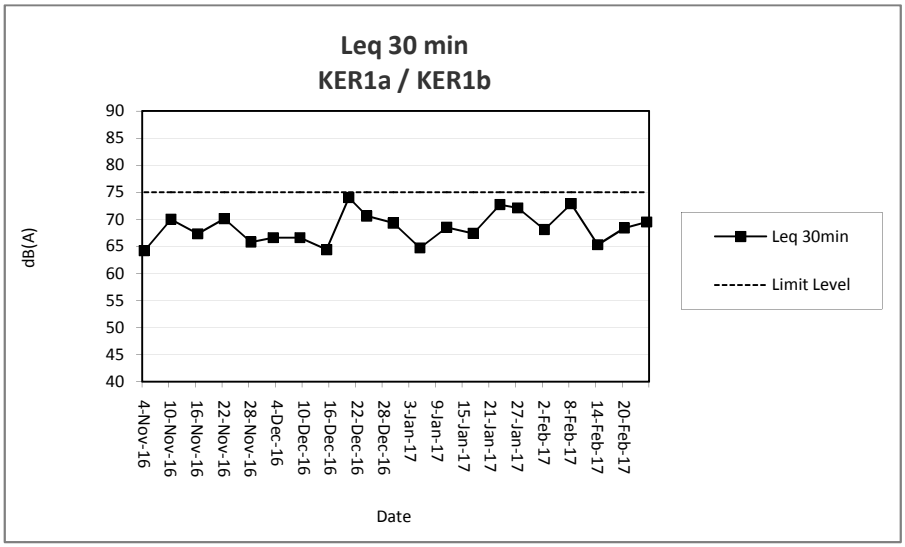


Note:

1) The major activities being carried out on site during the reporting period can be referred to Section 1.3.2.
2) The weather conditions during monitoring in the reporting period was range from hazy, cloudy, fine and sun
3) Any other factors which might affect the monitoing results can be referred to Section 2.3.4.
4) The 24-hour TSP monitoring location KER1a was replaced by KER1b, effective from 16 November 2016.







Note:

1) The major activities being carried out on site during the reporting period can be referred to Section 1.3.2.
2) The weather conditions during monitoring in the reporting period was range from hazy, cloudy, fine and sunny. No raining or wind with speed over 5 m/s was observed during monitoring in the reporting period.
3) Any other factors which might affect the monitoing results can be referred to Section 2.3.4.
4) Noise monitoring location KER1a was replaced by KER1b, effective from 16 November 2016.

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Appendix E

Waste Flow Table

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

MateriaLab

Waste Flow Table for Year 2016

Months	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated (Inert C&D)	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
2016 Jan	0.159	0.101	0.058	Nil	Nil	Nil	Nil	0.023	0.00002	0.0158	0.0335
2016 Feb	0.291	0.050	0.241	Nil	Nil	Nil	1.34	0.023	0.00002	0.0158	0.0335
2016 Mar	2.7389	0.0407	0.0662	Nil	2.632	Nil	5.92	0.023	0.00002	0.0158	0.0571
2016 Apr	4.1718	0.0578	0.462	Nil	3.652	Nil	12.5	0.023	0.00002	0.0158	0.0426
2016 May	3.592	Nil	0.299	Nil	3.293	Nil	5.23	0.023	0.00002	0.0158	0.0621
2016 June	4.6035	Nil	0.8555	Nil	3.748	Nil	Nil	0.023	0.00002	0.0158	0.0619
2016 July	6.155	0.153	0.015	Nil	5.987	Nil	7.84	0.023	0.00002	0.0158	0.0433
2016 Aug	5.1155	Nil	Nil	Nil	5.1155	Nil	19.93	0.023	Nil	Nil	0.0147
2016 Sept	7.2267	Nil	Nil	Nil	7.2267	Nil	33.65	0.023	Nil	Nil	0.0103
2016 Oct	4.6448	Nil	Nil	Nil	4.6448	Nil	13.30	0.023	Nil	Nil	0.0385
2016 Nov	6.1626	Nil	Nil	Nil	6.1626	Nil	27.06	0.023	Nil	Nil	0.0192
2016 Dec	6.3522	Nil	Nil	Nil	6.3522	Nil	13.30	0.023	Nil	Nil	0.0121
Total	51.213	0.4025	1.9967	Nil	48.8138	Nil	140.07	0.276	0.00014	0.1106	0.4288

Note:

1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Waste Flow Table for Year 2017

Months	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated (Inert C&D)	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
2017 Jan	4.2300	Nil	Nil	Nil	4.2300	Nil	0.015	0.023	Nil	Nil	0.0109
2017 Feb	3.2128	Nil	Nil	Nil	3.2128	Nil	0.015	0.023	Nil	Nil	0.0096
Total	7.4428	Nil	Nil	Nil	7.4428	Nil	0.030	0.046	Nil	Nil	0.0205

Note:

1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

Appendix F

Environmental Mitigation Implementation Schedule (EMIS)

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
Air Quality Measures					
New Distributor Roads Serving the Planned KTD					
AEIAR-130/2009 S3.2	AEIAR 130/2009 EM&A Manual S2.2	8 times daily watering of the work site with active dust emitting activities.	Contractor	All relevant worksites	Implemented
Decommissioning of the Radar Station of the former Kai Tak Airport					
AEIAR-130/2009 S5.2.19	AEIAR 130/2009 EM&A Manual S4.2.4	The excavation area should be limited to as small in size as possible and backfilled with clean and/or treated soil shortly after excavation work. The exposed excavated area should be covered by the tarpaulin during night time. The top layer soils should be sprayed with fine misting of water immediately before the excavation.	Contractor	All relevant worksites	Not Applicable
Trunk Road T2					
AEIAR-174/2013 S4.9.2.1	AEIAR-174/2013 EM&A Manual S2.3.1.1	Watering of the construction areas 12 times per day to reduce dust emissions by 91.7%, with reference to the "Control of Open Fugitive Dust Sources" (USEPA AP-42). The amount of water to be applied would be 0.91L/m2 for the respective watering frequency.	Contractor	All relevant worksites	Implemented
		Dust enclosures with watering would be provided along the loading ramps and conveyor belts for unloading the C&D materials to the barge for dust suppression.	Contractor	All relevant worksites	Not Applicable
		8 km per hour is the recommended limit of the speed for vehicles on unpaved site roads.	Contractor	All relevant worksites	Implemented
		Good Site Practices			
AEIAR-130/2009 S3.2, S5.2.19, AEIAR-174/2013 S4.9.2.2	AEIAR 130/2009 EM&A Manual S2.2, S4.2, AEIAR-174/2013 EM&A Manual S2.3.1.2	Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission.	Contractor	All relevant worksites	Partially Implemented
		Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. Use of frequent watering for particularly dusty construction areas and areas close to ASRs.	Contractor	All relevant worksites	Partially Implemented
		Misting for the dusty material should be carried out before being loaded into the vehicle. Any vehicle with an open load carrying area should have properly fitted side and tail boards.	Contractor	All relevant worksites	Implemented
		Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin.	Contractor	All relevant worksites	Implemented

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations; The tarpaulin should be properly secured and should extent at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary before transportation.	Contractor	All relevant worksites	Implemented
		The vehicles should be restricted to maximum speed of 10 km per hour. Confined haulage and delivery vehicle to designated roadways insider the site. Onsite unpaved roads should be compacted and kept free of lose materials.	Contractor	All relevant worksites	Implemented
		Vehicle washing facilities should be provided at every vehicle exit point. Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	Contractor	All relevant worksites	Partially Implemented
		Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	Contractor	All relevant worksites	Implemented
		Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.	Contractor	All relevant worksites	Implemented
		Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed.	Contractor	All relevant worksites	Implemented
		Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.	Contractor	All relevant worksites	Implemented
		Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.	Contractor	All relevant worksites	Implemented
		Open stockpiles shall be avoided or covered. Prevent placing dusty material storage piles near ASRs.	Contractor	All relevant worksites	Partially Implemented
		Routing of vehicles and position of construction plant should be at the maximum possible distance from ASRs.	Contractor	All relevant worksites	Implemented
		Dark smoke			
		Dark smoke emission shall be control in accordance with the Air Pollution Control (Smoke)	Contractor	All relevant	Implemented

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		Regulation and ETWB TCW 19/2005.		worksites	
		Plant and equipment should be well maintained to prevent dark smoke emission.	Contractor	All relevant worksites	Implemented
Noise Measures					
Trunk Road T2					
AEIAR-174/2013 S5.9.2.1	AEIAR-174/2013 EM&A Manual S3.4.1.1	The use of quieter plant, including Quality Powered Mechanical Equipment (QPME) is specified for the list of equipment: • Concrete lorry mixer • Dump Truck, 5.5 tonne < gross vehicle weight <= 38 tonne • Generator, Super Silenced, 70 dB(A) at 7m • Poker, vibratory, Hand-held (electric) • Water Pump, Submersible (Electric) • Mobile Crane - KOBELCO CKS900 • Excavator, wheeled/tracked - HYUNDAI R80CR-9	Contractor	All relevant worksites	Implemented
		Use of temporary or fixed noise barriers with a surface density of at least 10kg/m^2 to screen noise from movable and stationary plant.	Contractor	All relevant worksites	Not Applicable
		Use of enclosures with covers at top and three sides and a surface density of at least 10kg/m^2 to screen noise from generally static noisy plant such as air compressors.	Contractor	All relevant worksites	Not Applicable
		Use of acoustic fabric for the silent piling system, drill rigs, rock drills etc.	Contractor	All relevant worksites	Implemented
		Good Site Practices			
AEIAR-130/2009 S3.3, S5.3.10, AEIAR-174/2013 S5.9.2.1	AEIAR 130/2009 EM&A Manual S2.3, S4.3.2, AEIAR-174/2013 EM&A Manual S3.4.1.1	Only well-maintained plant should be operated on-site and plant shall be serviced regularly during the construction/ decommissioning program.	Contractor	All relevant worksites	Implemented
		Silencers or mufflers on construction equipment should be utilized and shall be properly maintained during the construction/ decommissioning program.	Contractor	All relevant worksites	Not Applicable
		Mobile plant, if any, should be sited as far away from NSRs as possible.	Contractor	All relevant worksites	Implemented
		Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or should be throttled down to a minimum.	Contractor	All relevant worksites	Implemented
		Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	Contractor	All relevant worksites	Implemented
		Material stockpiles and other structures should be effectively utilized, wherever practicable, in	Contractor	All relevant	Implemented

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		screening noise from on-site construction/ decommissioning activities.		worksites	
		Use of site hoarding as a noise barrier to screen noise at low level NSRs.	Contractor	All relevant worksites	Implemented
		For the use of hand held percussive breakers (with mass of above 10kg) and portable air compressors (supply air at 500 kPa or above), the noise level of such PME shall comply with a stringent noise emission standard and a noise emission label shall be obtained from the DEP before use at any time in construction site.	Contractor	All relevant worksites	Implemented
		Quiet powered mechanical equipment (PME) shall be used for the construction of the Project.	Contractor	All relevant worksites	Implemented
		Full enclosures shall be used to screen noise from relatively static PMEs (including air compressor, bar bender, concrete pump, generator and water pump) from sensitive receiver(s).	Contractor	All relevant worksites	Not Applicable
		Movable cantilevered noise barriers shall be used to screen noise from mobile PMEs (including asphalt paver, breaker, excavator and hand-held breaker) from sensitive receiver(s). These movable cantilevered noise barriers shall be located close to the mobile PMEs and shall be moved/adjusted iteratively in step with each movement of the corresponding mobile PMEs in order to maximize their noise reduction effects.	Contractor	All relevant worksites	Not Applicable
		Only approved or exempted Non-road Mobile Machineries (NRMMs) including regulated machines and non-road vechicles with proper labels are allowed to be used in specified activities on-site.	Contractor	All relevant worksites	Implemented
Water Quality Measures					
Trunk Road T2					
		Accidental Spillage			
AEIAR-174/2013 S6.4.8.5	AEIAR-174/2013 EM&A Manual S4.2.1.1	All bentonite slurry should be stored in a container that resistant to corrosion, maintained in good conditions and securely closed; The container should be labelled in English and Chinese and note that the container is for storage of bentonite slurry only.	Contractor	All relevant worksites	Implemented
		The storage container should be placed on an area of impermeable flooring and bunded with capacity to accommodate 110% of the volume of the container size or 20% by volume stored in the area and enclosed with at least 3 sides.	Contractor	All relevant worksites	Implemented
		The storage container should be sufficiently covered to prevent rainfall entering the container or bunded area (water collected within the bund must be tested and disposed of as chemical waste, if necessary). An emergency clean up kit shall be readily available where bentonite fluid will be stored or used.	Contractor	All relevant worksites	Implemented

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		The handling and disposal of bentonite slurries should be undertaken in accordance within ProPECC PN 1/94. Surplus bentonite slurries used in construction works shall be reconditioned and reused wherever practicable. Residual bentonite slurry shall be disposed of from the site as soon as possible as stipulated in Clause 8.56 of the General Specification for Civil Engineering Works. The Contractor should explore alternative disposal outlets for the residual bentonite slurry (dewatered bentonite slurry to be disposed to a public filling area and liquid bentonite slurry, if mixed with inert fill material, to be disposed to a public filling area) and disposal at landfill should be the last resort.	Contractor	All relevant worksites	Implemented
AEIAR-174/2013 S6.4.8.8	AEIAR-174/2013 EM&A Manual S4.2.1.1	In order to protect against impacts to the surrounding marine waters of the KTTS and Victoria Harbour in the event of an accidental spillage of fuel or oil, the Contractor will be required to prepare a spill response plan to the satisfaction of AFCD, EPD, FSD, Police, TD and WSD to define procedures for the control, containment and clean-up of any spillage that could occur on the construction site.	Contractor	All relevant worksites	Implemented
		Dredging, Reclamation and Filling			
		No dredging, reclamation or filling in the marine environment shall be carried out.	Contractor	All relevant worksites	Implemented
Decommissioning of the Radar Station of the former Kai Tak Airport					
		Building Demolition			
AEIAR-130/2009 S5.4	AEIAR 130/2009 EM&A Manual S4.4	The site practices outlined in ProPECC PN 1/94 “Construction Site Drainage” should be followed as far as practicable in order to minimise surface runoff and the chance of erosion.	Contractor	All relevant worksites	Not Applicable
		There is a need to apply to EPD for a discharge licence under the WPCO for discharging effluent from the construction site. The discharge quality is required to meet the requirements specified in the discharge licence. All the runoff, wastewater or extracted groundwater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. It is anticipated that the wastewater generated from the works areas would be of small quantity. Monitoring of the treated effluent quality from the works areas should be carried out in accordance with the WPCO license which is under the ambit of regional office (RO) of EPD.	Contractor	All relevant worksites	Implemented
		General Construction Works			
		Construction Runoff			
AEIAR-130/2009 S3.4,	AEIAR 130/2009 EM&A Manual	Exposed soil areas should be minimised to reduce the potential for increased siltation, contamination of runoff, and erosion. Construction runoff related impacts associated with the	Contractor	All relevant worksites	Partially Implemented

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
S5.4/ AEIAR-174/2013 S6.4.8.1	S2.4, S4.4/ AEIAR-174/2013 EM&A Manual S4.2.1.1	above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include the use of sediment traps and adequate maintenance of drainage systems to prevent flooding and overflow.			
		Construction site should be provided with adequately designed perimeter channel and pre-treatment facilities and proper maintenance. The boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilitate runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94.	Contractor	All relevant worksites	Implemented
		Ideally, construction works should be programmed to minimise surface excavation works during the rainy season (April to September). All exposed earth areas should be completed as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.	Contractor	All relevant worksites	Implemented
		Sediment tanks of sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacity, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity is flexible and able to handle multiple inputs from a variety of sources and particularly suited to applications where the influent is pumped.	Contractor	All relevant worksites	Implemented
		Open stockpiles of construction materials (for examples, aggregates, sand and fill material) of more than 50 m^3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.	Contractor	All relevant worksites	Partially Implemented
		Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers.	Contractor	All relevant worksites	Implemented
		Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events.	Contractor	All relevant worksites	Not Applicable

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		Oil interceptors should be provided in the drainage system and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	Contractor	All relevant worksites	Not Applicable
		An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains.	Contractor	All relevant worksites	Implemented
		<u>Drainage</u>			
		It is recommended that on-site drainage system should be installed prior to the commencement of other construction activities. Sediment traps should be installed in order to minimise the sediment loading of the effluent prior to discharge into foul sewers. There should be no direct discharge of effluent from the site into the sea.	Contractor	All relevant worksites	Implemented
		All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment control measures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage should be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.	Contractor	All relevant worksites	Partially Implemented
		<u>Stormwater Discharges</u>			
		Minimum distances of 100 m should be maintained between the existing or planned stormwater discharges and the existing or planned seawater intakes.	Contractor	All relevant worksites	Not Applicable
		<u>Sewage Effluent</u>			
		Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage may need to be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor should also be responsible for waste disposal and maintenance practices.	Contractor	All relevant worksites	Implemented
		<u>Debris and Litter</u>			
		In order to maintain water quality in acceptable conditions with regard to aesthetic quality,	Contractor	All relevant	Implemented

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		contractors should be required, under conditions of contract, to ensure that site management is optimised and that disposal of any solid materials, litter or wastes to marine waters does not occur. Debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering into the adjacent harbour waters. Stockpiles of cement and other construction materials should be kept covered when not being used.		worksites	
		Accidental Spillage			
		Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to the nearby harbour waters, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour WCZ. The bund should be drained of rainwater after a rain event.	Contractor	All relevant worksites	Implemented
		Waste Management Measures			
		Waste Management Plan			
AEIAR-174/2013 S11.4.8.1	AEIAR-174/2013 EM&A Manual S9.2.1.2	Contractor should be requested to submit an outline Waste Management Plan (WMP) prior to the commencement of construction work, in accordance with the ETWB TC(W) No.19/2005 so as to provide an overall framework of waste management and reduction.	Contractor	All relevant worksites	Implemented
		Good Site Practices			
AEIAR-130/2009 S3.5, S5.5	AEIAR 130/2009 EM&A Manual S2.5, S4.5	Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.	Contractor	All relevant worksites	Implemented
		Training of site personnel in proper waste management and chemical waste handling procedures.	Contractor	All relevant worksites	Implemented
		Provision of sufficient waste disposal points and regular collection for disposal.	Contractor	All relevant worksites	Partially Implemented
		Appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	Contractor	All relevant worksites	Implemented
		A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	Contractor	All relevant worksites	Implemented
		Waste Reduction Measures			
		Sort C&D waste from demolition of the remaining structures to recover recyclable portions such as metals.	Contractor	All relevant worksites	Implemented

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	Contractor	All relevant worksites	Implemented
		Encourage collection of aluminum cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force.	Contractor	All relevant worksites	Implemented
		Any unused chemicals or those with remaining functional capacity should be recycled.	Contractor	All relevant worksites	Implemented
		Proper storage and site practices to minimize the potential for damage or contamination of construction materials.	Contractor	All relevant worksites	Implemented
		Construction and Demolition Materials			
		Where it is unavoidable to have transient stockpiles of C&D material within the work site pending collection for disposal, the transient stockpiles shall be located away from waterfront or storm drains as far as possible.	Contractor	All relevant worksites	Implemented
		Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	Contractor	All relevant worksites	Partially Implemented
		Skip hoist for material transport should be totally enclosed by impervious sheeting.	Contractor	All relevant worksites	Implemented
		Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving a construction site.	Contractor	All relevant worksites	Implemented
		The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	Contractor	All relevant worksites	Implemented
		The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle.	Contractor	All relevant worksites	Implemented
		All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	Contractor	All relevant worksites	Implemented
		The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading.	Contractor	All relevant worksites	Implemented
		When delivering inert C&D material to public fill reception facilities, the material should consist entirely of inert construction waste and of size less than 250mm or other sizes as agreed with the Secretary of the Public Fill Committee. In order to monitor the disposal of the surplus C&D material at the designed public fill reception facility and to control fly tipping, a trip-ticket system as stipulated in the ETWB TCW No. 31/2004 “Trip Ticket System for Disposal of Construction	Contractor	All relevant worksites	Implemented

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
		and Demolition Materials" should be included as one of the contractual requirements and implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. An Independent Environmental Checker should be responsible for auditing the results of the system.			
		Chemical Waste			
		After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals should be collected by a licensed collector for disposal at the CWTF or other licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Contractor	All relevant worksites	Partially Implemented
		General Refuse			
		General refuse should be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Effective collection and storage methods (including enclosed and covered area) of site wastes would be required to prevent waste materials from being blown around by wind, wastewater discharge by flushing or leaching into the marine environment, or creating odour nuisance or pest and vermin problem.	Contractor	All relevant worksites	Partially Implemented
Land Contamination Measures					
		For any excavation works conducted at Radar Station			
AEIAR-130/2009 S3.6.57	AEIAR 130/2009 EM&A Manual S4.6	As the risk due to dermal contact with groundwater by site workers is uncertain, it is recommended that personnel protective equipment (PPE) be used by site workers as a mitigation measure.	Contractor	All relevant worksites	Not Applicable
Landscape and Visual Impact					
New Distributor Roads Serving the Planned KTD					
		Construction Phase			
AEIAR-130/2009 S3.8.12	AEIAR 130/2009 EM&A Manual S2.8	All existing trees should be carefully protected during construction.	Contractor	All relevant worksites	Not Applicable
		Trees unavoidably affected by the works should be transplanted where practical. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees should be agreed prior to commencement of the work.	Contractor	All relevant worksites	Not Applicable
		Control of night-time lighting.	Contractor	All	Not Applicable

MATERIALAB CONSULTANTS LIMITED
Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong..
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

EIA Ref	EM&A Ref	Environmental Protection Measures / Mitigation Measures	Who to implement the measure	Location / Timing	Construction Phase Implementation Status
				relevant worksites	
		Erection of decorative screen hoarding.	Contractor	All relevant worksites	Implemented
Trunk Road T2					
		Construction Phase			
AEIAR-174/2013 S9.9.1.1	AEIAR-174/2013 EM&A Manual S7.2.1.2	All works shall be carefully designed to minimize impacts on existing landscape resources and visually sensitive receivers. Existing trees within works area shall be retained and protected.	Contractor	All relevant worksites	Not Applicable
		Existing trees of good quality and condition that are unavoidably affected by the works should be transplanted.	Contractor	All relevant worksites	Not Applicable
		Large temporary stockpiles of excavated material shall be covered with unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance.	Contractor	All relevant worksites	Partially Implemented
		Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance.	Contractor	All relevant worksites	Implemented
		Erection of decorative screen hoarding should be designed to be compatible with the existing urban context.	Contractor	All relevant worksites	Implemented
		All lighting in construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residences and GIC user. The contractor shall consider other security measures, which shall minimize the visual impacts.	Contractor	All relevant worksites	Not Applicable
General Condition					
		The Permit Holder shall display conspicuously a copy of this Permit on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times. The Permit Holder shall ensure that the most updated information about the Permit, including any amended Permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the Permit, the notice he sends to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s).	Contractor	All relevant worksites	Implemented

Implementation status: Implemented / Partially Implemented / Not Implemented / Not Applicable