JOB NO.: TCS00670/13

AGREEMENT NO. CE 45/2008 (CE)
LIANTANG/HEUNG YUEN WAI
BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

6th QUARTERLY ENVIRONMENTAL MONITORING & AUDIT SUMMARY REPORT – (November 2014 to January 2015)

PREPARED FOR

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD)

Quality Index

Date	Reference No.	Prepared By	Certified By
30 March 2015	TCS00670/13/600/R0332v2		
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Version	Date	Description
1	17 March 2015	First Submission
2	30 March 2015	Amended against the IEC's comments on 25 March 2015

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8 April 2015

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Your ref:

AECOM
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138 Shatin Rural Committee Road
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By Email & Post

Attention: Mr Simon LEUNG

Dear Sirs

Agreement No. CE 45/2008 (CE)
Liantang/Heung Yuen Wai Boundary Control Point and Associated Works
Independent Environmental Checker – Investigation
Quarterly EM&A Summary Report (No. 6) – November 2014 to January 2015

With reference to the Quarterly EM&A Report No. 6 for November 2014 to January 2015 (Version 2) certified by the ET Leader and received by us on 30 March 2015, please be noted that we have no adverse comments on the captioned submission. We herewith verify the captioned submission in accordance with Section 13.4 of the EM&A Manual.

Thank you for your attention and please do not hesitate to contact the undersigned on tel. 3995 8120 or by email to antony.wong@smec.com; or our Mr Francis LEE on tel. 3995 8144 or by email to francis.lee@smec.com.

Yours faithfully
for and on behalf of
SMEC Asia Limited

Antony WONG
Independent Environmental Checker

cc	CEDD/BCP	-	Mr Karl KL Kwan / Ms Teresa MA/ Mr William CHEUNG / Mr CM OR	by fax: 3547 1659
	AECOM	-	Mr Pat LAM / Mr Perry YAM	by email
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EXECUTIVE SUMMARY

ES.01. This is the **6th** Quarterly EM&A Summary Report for the "*Liantang/Heung Yuen Wai Boundary Control Point and Associated Works"* under Environmental Permit No. EP-404/2011/C (hereinafter ''the EP''), covering the period from **1 November 2014 to 31 January 2015** (hereinafter "Reporting Period").

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.02. Environmental monitoring activities under the EM&A programme in the Reporting Period are summarized in the following table.

Environmental Aspect	Environmental Monitoring Parameters / Inspection	Reporting Period	
		Number of Monitoring Locations to undertake	Total Occasions
Air Quality	1-hour TSP	**6**	**288**
	24-hour TSP	**6**	**96**
Construction Noise	$L_{eq(30min)}$ Daytime	**8**	**128**
Water Quality	Water sampling	**5**	**40 (*)**
Joint Site Inspection / Audit	IEC, ET, the Contractor and RE joint site Environmental Inspection and Auditing	**Contract 2**	**13**
		Contract 3	**13**
		Contract 5	**13**

(*) number of sampling day

BREACHES OF ACTION/LIMIT LEVELS

ES.03. In the Reporting Period, two noise complaints (which is an Action Level exceedance) were registered for the Project. For air quality monitoring, there were six (6) Action Level exceedances of 1-hour TSP and six (6) Action Level exceedances of 24-hour TSP recorded. For water quality monitoring, a total of nine (9) Limit Level exceedances including the parameter of DO, turbidity and SS were recorded at location WM1. The summary of breach of environmental performance is shown below.

Environmental Aspect	Monitoring Parameters	Action Level	Limit Level	Event & Action		
				NOE Issued	Investigation	Corrective Actions
Air Quality	1-hour TSP	**6**	0	**6**	Not project related	N/A
	24-hour TSP	**6**	0	**6**		
Construction Noise	$L_{eq(30min)}$ Daytime	**2**	0	**1**	Resolved by the Contractor	--
Water Quality	DO	0	**3**	**3**	Not project related	N/A
	Turbidity	0	**3**	**3**		
	SS	0	**3**	**3**		

ENVIRONMENTAL COMPLAINT

ES.04. In this Reporting Period, a total of ten (10) documented environmental complaints were received and lodged for Contracts 2, 3 and 5 regarding to dust, noise and water impact. Follow up actions have been undertaken by both Contractor to resolve the complaints and deficiencies in due time. Investigation reports for the complaint have been submitted to all relevant parties for review.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.05. No environmental summons or successful prosecutions were recorded in the Reporting Period.

REPORTING CHANGES

ES.06. No reporting changes were made in the Reporting Period.

FUTURE KEY ISSUES

ES.07. During dry season, special attention should be paid on the potential construction dust impact since most of the construction sites are adjacent to villages. The Contractor should fully implement the construction dust mitigation measures properly.

ES.08. Muddy water or other water pollutants from sites surface flow to local stream such as Kong Yiu Channel and Ma Wat Channel or public area should properly avoided. Water quality mitigation measures to prevent surface runoff into nearby water bodies or public areas should be fully implemented.

ES.09. Construction noise would be a key environmental issue during construction work of the Project. Noise mitigation measures such as using quiet plants should be implemented in accordance with the EM&A requirement.

ES.10. To control the site performance on waste management, the Contractor shall ensure that all solid and liquid waste management works are fully in compliance with the relevant license/permit requirements, such as the effluent discharge license and the chemical waste producer registration. The Contractor is also reminded to implement the recommended environmental mitigation measures according to the Environmental Monitoring and Audit Manual.

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1. Civil Engineering and Development Department is the Project Proponent and the Permit Holder of *Agreement No. CE 45/2008 (CE) Liantang / Heung Yuen Wai Boundary Control Point and Associated Works*, which is a Designated Project to be implemented under Environmental Permit number EP-404/2011/C granted on 12 March 2015.

1.1.2. The Project consists of two main components: Construction of a Boundary Control Point (hereinafter referred as "BCP"); and Construction of a connecting road alignment. Layout plan of the Project is shown in ***Appendix A***.

1.1.3. The proposed BCP is located at the boundary with Shenzhen near the existing Chuk Yuen Village, comprising a main passenger building with passenger and cargo processing facilities and the associated customs, transport and ancillary facilities. The connecting road alignment consists of six main sections:

1) Lin Ma Hang to Frontier Closed Area (FCA) Boundary – this section comprises at-grade and viaducts and includes the improvement works at Lin Ma Hang Road;
2) Ping Yeung to Wo Keng Shan – this section stretches from the Frontier Closed Area Boundary to the tunnel portal at Cheung Shan and comprises at-grade and viaducts including an interchange at Ping Yeung;
3) North Tunnel – this section comprises the tunnel segment at Cheung Shan and includes a ventilation building at the portals on either end of the tunnel;
4) Sha Tau Kok Road – this section stretches from the tunnel portal at Wo Keng Shan to the tunnel portal south of Loi Tung and comprises at-grade and viaducts including an interchange at Sha Tau Kok and an administration building;
5) South Tunnel – this section comprises a tunnel segment that stretches from Loi Tung to Fanling and includes a ventilation building at the portals on either end of the tunnel as well as a ventilation building in the middle of the tunnel near Lau Shui Heung;
6) Fanling – this section comprises the at-grade, viaducts and interchange connection to the existing Fanling Highway.

1.1.4. Action-United Environmental Services & Consulting has been commissioned as an Independent ET to implement the relevant EM&A program in accordance with the approved EM&A Manual, as well as the associated duties.

1.1.5. This is the **6th** Quarterly EM&A Summary Report for the "*Liantang/Heung Yuen Wai Boundary Control Point and Associated Works"* under Environmental Permit No. EP-404/2011/C, covering the period from **1 November 2014 to 31 January 2015**.

1.2 REPORT STRUCTURE

1.2.1 The Monthly Environmental Monitoring and Audit (EM&A) Report is structured into the following sections:-

Section 1	Introduction
Section 2	Project Organization and Construction progress
Section 3	Summary of Impact monitoring Requirements
Section 4	Air Quality Monitoring
Section 5	Construction Noise Monitoring
Section 6	Water Quality Monitoring
Section 7	Waste Management
Section 8	Non-compliance, Complaints, Notifications of Summons and Successful Prosecutions
Section 9	Implementation Status of Mitigation Measures
Section 10	Conclusions and Recommendations

2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1 CONSTRUCTION CONTRACT PACKAGING

2.1.1 To facilitate the project management and implementation, the Project would be divided by the following contracts:

- Contract 2 (CV/2012/08)
- Contract 3 (CV/2012/09)
- Contract 4 (TCSS)
- Contract 5 (CV/2013/03)
- Contract 6 (CV/2013/08)

2.1.2 The details of each contracts is summarized below and the delineation of each contracts is shown in ***Appendix A***.

Contract 2 (CV/2012/08)

2.1.3 Contract 2 has awarded in December 2013 and construction work was commenced on 19 May 2014. Major Scope of Work of the Contract 2 is listed below:

- construction of an approximately 5.2km long dual two-lane connecting road (with about 0.4km of at-grade road and 4.8km of tunnel) connecting the Fanling Interchange with the proposed Sha Tau Kok Interchange;
- construction of a ventilation adit tunnel and the mid-ventilation building;
- construction of the north and south portal buildings of the Lung Shan Tunnel and their associated slope works;
- provision and installation of ventilation system, E&M works and building services works for Lung Shan tunnel and Cheung Shan tunnel and their portal buildings;
- construction of Tunnel Administration Building adjacent to Wo Keng Shan Road and the associated E&M and building services works; and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

Contract 3 (CV/2012/09)

2.1.4 Contract 3 was awarded in July 2013 and construction work was commenced on 5 November 2013. Major Scope of Work of the Contract 3 is listed below:

- construction of four link roads connecting the existing Fanling Highway and the south portal of the Lung Shan Tunnel;
- realignment of the existing Tai Wo Service Road West and Tai Wo Service Road East;
- widening of the existing Fanling Highway (HyD's entrustment works);
- demolishing existing Kiu Tau vehicular bridge and Kiu Tau footbridge and reconstruction of the existing Kiu Tau Footbridge (HyD's entrustment works); and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

Contract 4 (Contract number to be assigned)

2.1.5 Contract 4 has not yet awarded. The work of the Contract 4 includes provision and installation of Traffic Control and Surveillance System and the associated electrical and mechanical works for the Project.

Contract 5 (CV/2013/03)

2.1.6 Contract 5 has awarded in April 2013 and construction work was commenced in August 2013. Major Scope of Work of the Contract 5 is listed below:

- site formation of about 23 hectares of land for the development of the BCP;

- construction of an approximately 1.6 km long perimeter road at the BCP including a 175m long depressed road;
- associated diversion/modification works at existing local roads and junctions including Lin Ma Hang Road;
- construction of pedestrian subway linking the BCP to Lin Ma Hang Road;
- provision of resite area with supporting infrastructure for reprovisioning of the affected village houses; and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

Contract 6 (CV/2013/08)

2.1.7 Contract 6 has not yet awarded. Major Scope of Work of the Contract 6 will be included below:

- construction of an approximately 4.6km long dual two-lane connecting road (with about 0.6km of at-grade road, 3.3km of viaduct and 0.7km of tunnel) connecting the BCP with the proposed Sha Tau Kok Road Interchange and the associated ventilation buildings;
- associated diversion/modification works at access roads to the resite of Chuk Yuen Village;
- provision of sewage collection, treatment and disposal facilities for the BCP and the resite of Chuk Yuen Village;
- construction of a pedestrian subway linking the BCP to Lin Ma Hang Road;
- provisioning of the affected facilities including Wo Keng Shan Road garden; and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

2.2 PROJECT ORGANIZATION

2.2.1 The project organization is shown in ***Appendix B***. The responsibilities of respective parties are:

Civil Engineering and Development Department (CEDD)

2.2.2 CEDD is the Project Proponent and the Permit Holder of the EP of the development of the Project and will assume overall responsibility for the project. An Independent Environmental Checker (IEC) shall be employed by CEDD to audit the results of the EM&A works carried out by the ET.

Environmental Protection Department (EPD)

2.2.3 EPD is the statutory enforcement body for environmental protection matters in Hong Kong.

Engineer or Engineers Representative (ER)

2.2.4 The ER is responsible for overseeing the construction works and for ensuring that the works are undertaken by the Contractor in accordance with the specification and contract requirements. The duties and responsibilities of the ER with respect to EM&A are:

- Monitor the Contractors' compliance with contract specifications, including the implementation and operation of the environmental mitigation measures and their effectiveness
- Monitor Contractors's, ET's and IEC's compliance with the requirements in the Environmental Permit (EP) and EM&A Manual
- Facilitate ET's implementation of the EM&A programme
- Participate in joint site inspection by the ET and IEC
- Oversee the implementation of the agreed Event / Action Plan in the event of any exceedance
- Adhere to the procedures for carrying out complaint investigation
- Liaison with DSD, Engineer/Engineer's Representative, ET, IEC and the Contractor of the "Construction of the DSD's Regulaiton of Shenzhen River Stage 4 (RSR 4)" Project discussing regarding the cumulative impact issues.

The Contractor(s)

2.2.5 There will be one contractor for each individual works contract. The Contractor(s) should report to the ER. The duties and responsibilities of the Contractor are:

- Comply with the relevant contract conditions and specifications on environmental protection
- Employ an Environmental Team (ET) to undertake monitoring, laboratory analysis and reporting of EM &A Facilitate ET's monitoring and site inspection activities
- Participate in the site inspections by the ET and IEC, and undertake any corrective actions
- Provide information / advice to the ET regarding works programme and activities which may contribute to the generation of adverse environmental impacts
- Submit proposals on mitigation measures in case of exceedances of Action and Limit levels in accordance with the Event / Action Plans
- Implement measures to reduce impact where Action and Limit levels are exceeded
- Adhere to the procedures for carrying out complaint investigation

Environmental Team (ET)

2.2.6 One ET will be employed for this Project. The ET shall not be in any way an associated body of the Contractor(s), and shall be employed by the Project Proponent/Contractor to conduct the EM&A programme. The ET should be managed by the ET Leader. The ET Leader shall be a person who has at least 7 years' experience in EM&A and has relevant professional qualifications. Suitably qualified staff should be included in the ET, and resources for the implementation of the EM&A programme should be allocated in time under the Contract(s), to enable fulfillment of the Project's EM&A requirements as specified in the EM&A Manual during construction of the Project. The ET shall report to the Project Proponent and the duties shall include:

- Monitor and audit various environmental parameters as required in this EM&A Manual
- Analyse the environmental monitoring and audit data, review the success of EM&A programme and the adequacy of mitigation measures implemented, confirm the validity of the EIA predictions and identify any adverse environmental impacts arising
- Carry out regular site inspection to investigate and audit the Contractors' site practice, equipment/plant and work methodologies with respect to pollution control and environmental mitigation, and effect proactive action to pre-empt problems
- Monitor compliance with conditions in the EP, environmental protection, pollution prevention and control regulations and contract specifications
- Audit environmental conditions on site
- Report on the environmental monitoring and audit results to EPD, the ER, the lEC and Contractor(s) or their delegated representatives
- Recommend suitable mitigation measures to the Contractor in the case of exceedance of Action and Limit levels in accordance with the Event and Action Plans
- Liaise with the IEC on all environmental performance matters and timely submit all relevant EM&A proforma for approval by IEC
- Advise the Contractor(s) on environmental improvement, awareness, enhancement measures etc., on site
- Adhere to the procedures for carrying out complaint investigation
- Liaison with the client departments, Engineer/Engineer's Representative, ET, lEC and the Contractor(s) of the concurrent projects as listed under Section 2.3 below regarding the cumulative impact issues.

Independent Environmental Checker (IEC)

2.2.7 One IEC will be employed for this Project. The Independent Environmental Checker (IEC) should not be in any way an associated body of the Contractor(s) or the ET for the Project. The IEC should be employed by the Permit Holder (i.e., CEDD) prior to the commencement of the construction of the Project. The IEC should have at least 10 years' experience in EM&A and have relevant professional qualifications. The duty of IEC should be:

- Provide proactive advice to the ER and the Project Proponent on EM&A matters related to the project, independent from the management of construction works, but empowered to audit the environmental performance of construction
- Review and audit all aspects of the EM&A programme implemented by the ET
- Review and verify the monitoring data and all submissions in connection with the EP and EM&A Manual submitted by the ET
- Arrange and conduct regular, at least monthly site inspections of the works during construction phase, and ad hoc inspections if significant environmental problems are identified
- Check compliance with the agreed Event / Action Plan in the event of any exceedance
- Check compliance with the procedures for carrying out complaint investigation
- Check the effectiveness of corrective measures
- Feedback audit results to ET by signing off relevant EM&A proforma
- Check that the mitigation measures are effectively implemented
- Report the works conducted, the findings, recommendation and improvement of the site inspections, after reviewing ET's and Contractor's works, and advices to the ER and Project Proponent on a monthly basis
- Liaison with the client departments, Engineer/Engineer's Representative, ET, lEC and the Contractor(s) of the concurrent projects as listed under Section 2.3 below regarding the cumulative impact issues.

2.3 CONCURRENT PROJECTS

2.3.1 The concurrent construction works that may be carried out include, but not limited to, the following:

(a) Regulation of Shenzhen River Stage;
(b) Building works and road works by contractors of ArchSD;
(c) Widening of Fanling Highway – Tai Hang to Wo Hop Shek Interchange – Contract No. HY/2012/06;
(d) Construction of cross-boundary vehicular and pedestrian bridges (total 5 numbers) across the Shenzhen River; and
(e) Construction of BCP facilities in Shenzhen.

2.4 CONSTRUCTION PROGRESS

2.4.1 In the Reporting Period, the major construction activity conducted under the Project is located in Contract 2, Contract 3 and Contract 5. They are summarized in below. Moreover, the master construction program of the Contract 2, Contract 3 and Contract 5 is enclosed in ***Appendix C***.

Contract 2 (CV/2012/08)

2.4.2 Construction work of Contract 2 was commenced on 19 May 2014, the following activities were conducted in the Reporting Period.

- ***Project wide including:***
  - Ground Investigation (GI) Field Works
- ***North Portal including:***
  - Permanent Slope Formation for Tunnel Boring Machine (TBM) Site Installation
  - Sub-station Construction
  - Contractor's site office: Construction of Core and Material Store
  - Soil nailing works
  - Excavation Stage 2
  - Site Installation and logistics for TBM Works
  - Permanent drainage implementation at Mid Valley
  - Tree felling works
  - Top heading excavation
  - Completion of blast door installation

- Instrument installation for strengthening works for WSD Tunnel
- Completion of site clearance in Portions CR5A, CR6A and TA-1
- Top heading excavation (canopies) for Southbound
- Permanent slope formation

- ***Mid Vent Portal including:***
  - Site installation (Tunnel and Portal)
  - Top heading canopies
  - Bench excavation
  - Sub-station construction and CLP Installation
  - Start of blast door erection
  - Blast Door installation completion
- ***South Portal including:***
  - Temporary bridge: finishing and surfacing works
  - Sub-station construction and CLP Installation
  - Tree removal
  - Tree transplanting works
  - Sub-station construction and CLP Installation
  - Temporary access road
  - Permanent and temporary Cut Slope
  - Wheel washer and weight bridge installation + pavement works
  - Site formation and temporary drainage works
  - Slope and excavation works

Contract 3 (CV/2012/09)

2.4.3 Contract commenced in November 2013, the following activities were conducted in the Reporting Period.

- Pile cap construction for Bridge E
- Automatic Deformation Monitoring System (ADMS) installation
- Cable detection and trial trenches
- Catch fence erection
- Filling Works at Tong Hang East
- Lagging wall and capping beam for bored pile wall
- Storm drains laying
- Sewer pipes laying
- Water pipes laying
- Construction of noise barriers
- Pier Construction
- Pile cap works
- Piling works
- Pre-drilling works
- Construction of valve control and telemetry house
- Retaining structure construction
- Traffic diversion for Fanling Highway
- Road works at Fanling Highway
- Socket H-pile installation
- Utilities duct laying
- Erection of temporary support at DSD nullah
- Abutment construction for Bridge E

Contract 4 (Contract number to be assigned)

2.4.4 The contract has not yet awarded.

Contract 5 (CV/2013/03)

2.4.5 Contract awarded in April 2013 and commenced in August 2013, the following activities were conducted in the Reporting Period.

- Bituminous laying at proposed Lin Ma Hang (LMH) road

- Construction of Eastern pedestrian subway and pump room at LMH
- Construction of Western pedestrian subway and staircase at Lin Ma Hang
- Deck construction works at Bridge J
- Abutment construction works at Bridge J
- Construction of retaining wall No.1 & 2a & 5
- Preparation works for soil cement slope along BCP Area.
- Pipe Jacking for CLP cable across Kong Yuen River (pit no. 2)
- Pipe laying/pulling for CLP cable ducting of 3 nos. of steel sleeve pipe across Kong Yuen River
- Drainage works at existing / proposed Lin Ma Hang Road
- Drainage works at BCP area
- Water works at existing / proposed Lin Ma Hang Road
- Formation Works at BCP Area
- Pruning/ felling/ transplanting of existing tree
- Preparation works for soil cement slope along BCP Area.
- Installation of Underground utilities (CLP cables) at proposed LMH road.
- Diversion of Underground utilities (CLP cables) at existing LMH road.
- Road works (kerb laying) for proposed LMH Road
- Utility laying (132kV & 11kV) at existing LMH road
- Soil cement slope along BCP Area.
- Dismantling of asbestos at BCP4

Contract 6 (CV/2013/08)

2.4.6 The contract has not yet awarded.

2.5 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.5.1 In according to the EP, the required documents have submitted to EPD for retention which listed in below:

- Project Layout Plans of Contracts 2, 3 and 5
- Landscape Plan
- Topsoil Management Plan
- Environmental Monitoring and Audit Programme
- Baseline Monitoring Report (TCS00690/13/600/R0030v3) for the Project
- Waste Management Plan of the Contracts 3 and 5
- Contamination Assessment Plan (CAP) for Po Kat Tsai, Loi Tung and the workshops in Fanling
- Contamination Assessment Report (CAR) for Po Kat Tsai, Loi Tung and the workshops in Fanling
- Vegetation Survey Report

2.5.2 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project of each contracts are presented in ***Table 2-1***.

Table 2-1 Status of Environmental Licenses and Permits of the Contracts

Item	Description	License/Permit Status	
Contract 2			
1	Air pollution Control (Construction Dust) Regulation	Ref No.: 368864	31 Dec 2013
2	Chemical Waste Producer Registration	***North Portal*** Waste Producers Number: No. 5213-652-D2523-01	Valid from 25 Mar 2014
		Mid-Vent Portal Waste Producers Number: No. 5213-634-D2524-01	Valid from 25 Mar 2014
		South Portal Waste Producers Number: No. 5213-634-D2526-01	Valid from 9 Apr 2014

Item	Description	License/Permit Status	
3	Water Pollution Control Ordinance - Discharge License	No.WT00018374-2014	Valid from 3 Mar 2014 to 28 Feb 2019
		No.: W5/1I389	Valid from 28 Mar 2014 to 31 Mar 2019
		No.: W5/1I390	Valid from 24 Mar 2014 to 31 Mar 2019 Surrendered, effective 19 June 2014
		No.: W5/1I391	Valid from 28 Mar 2014 to 31 Mar 2019
		No.: W5/1I392	Valid from 28 Mar 2014 to 31 Mar 2019
4	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7019105	Valid from 8 Jan 2014
5	Construction Noise Permit	GW-RN0693-14	Valid 11 Nov 2014 - 10 May 2015
		GW-RN0656-14	Valid 27 Oct2014 - 21 Apr 2015
		GW-RN0430-14	Valid 8 Jul 2014 - 29 Dec 2014
		GW-RN0707-14	Valid 1 Dec 2014 - 29 Dec 2014
		GW-RN0704-14	Valid 1 Dec 2014 - 31 Jan 2015
		GW-RN0778-14	Valid 29 Dec 2014 - 28 Jun 2015
		GW-RN0020-15	Valid 21 Jan2015 - 18 Feb 2015
Contract 3			
1	Air pollution Control (Construction Dust) Regulation	Ref. No: 362101	Notification received by EPD on 17 Jul 2013
2	Chemical Waste Producer Registration	Waste Producers Number: No.:5113-634-C3817-01	Valid form 7 Oct 2013 till the end of Contract
3	Water Pollution Control Ordinance - Discharge License	No.:WT00016832 – 2013	Valid from 28 Aug 13 to 31 Aug 2018
4	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7017914	Valid form 2 Aug 13 till the end of Contract
5	Construction Noise Permit	GW-RN0397-14	Valid on 29 Jun 2014 till 28 Dec 2014
		GW-RN0445-14	Valid on 28 Jul 2014 till 25 Jan 2015
		GW-RN0485-14	Valid on 7 Aug 2014 till 5 Feb 2015
		GW-RN0557-14	Valid on 21 Sep 2014 till 28 Dec 2014
		GW-RN0651-14	Valid on 21 Oct 2014 till 20 Nov 2015
		GW-RN0684-14	Valid on 16 Nov 2014

Item	Description	License/Permit Status	
			till 26 Apr 2015
		GW-RN0720-14	Valid on 21 Nov 2014 till 3 Jan 2015
		GW-RN0810-14	Valid on 4 Jan 2015 till 15 Feb 2015
		GW-RN0022-15	Valid on 25 Jan 2015 till 22 Feb 2015
		GW-RN0045-15	Valid on 31 Jan 2015 till 28 Feb 2015
Contract 5			
1	Air pollution Control (Construction Dust) Regulation	Ref. No: 359338	Notified EPD on 13 May 2013
2	Chemical Waste Producer Registration	Waste Producers Number No.: 5213-642-S3735-01	Valid form 8 Jun 2013 till the end of Contract
3	Water Pollution Control Ordinance - Discharge License	No.: W5/1G44/1	Valid from 8 Jun 13 to 30 Jun 2018
4	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7017351	Valid form 29 Apr 13 till the end of Contract
5	Construction Noise Permit	NA	NA

3 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

3.1 GENERAL

3.1.1 The Environmental Monitoring and Audit requirements are set out in the Approved EM&A manual. Environmental issues such as air quality, construction noise and water quality were identified as the key issues during the construction phase of the Project.

3.1.2 A summary of construction phase EM&A requirements are presented in the sub-sections below.

3.2 MONITORING PARAMETERS

3.2.1 The EM&A program of construction phase monitoring shall cover the following environmental issues:

- Air quality;
- Construction noise; and
- Water quality

3.2.2 A summary of the monitoring parameters is presented in ***Table 3-1.***

Table 3-1 Summary of EM&A Requirements

Environmental Issue	Parameters
Air Quality	• 1-hour TSP by Real-Time Portable Dust Meter; and • 24-hour TSP by High Volume Air Sampler.
Noise	• $L_{eq(30min)}$ in normal working days (Monday to Saturday) 07:00-19:00 except public holiday; and • 3 sets of consecutive $L_{eq(5min)}$ on restricted hours i.e. 19:00 to 07:00 next day, and whole day of public holiday or Sunday • Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.
Water Quality	**In-situ Measurements** • Dissolved Oxygen Concentration (mg/L); • Dissolved Oxygen Saturation (%); • Turbidity (NTU); • pH unit; • Water depth (m); and • Temperature (℃).
	Laboratory Analysis • Suspended Solids (mg/L)

3.3 MONITORING LOCATIONS

3.3.1 The designated monitoring locations as recommended in the *EM&A Manual* are shown in ***Appendix D***. As the access to some of the designated monitoring locations was questionable due to safety reason or denied by the landlords, alternative locations therefore have had proposed. The proposed alternative monitoring locations has updated in the revised EM&A Programme which verified by IEC and certified by ET Leader prior submitted to EPD on 10 July 2013. ***Table 3-2***, ***Table 3-3*** and ***Table 3-4*** are respectively listed the air quality, construction noise and water quality monitoring locations for the Project and a map showing these monitoring stations is presented in ***Appendix E***.

Table 3-2 Impact Monitoring Stations - Air Quality

Station ID	Description	Works Area	Related to the Work Contract
AM1	Tsung Yuen Ha Village House No. 63	BCP	Contract 5
AM1a*	Garden Farm, Tsung Yuen Ha Village	BCP	Contract 5
AM2	Village House near Lin Ma Hang Road	LMH to Frontier Closed Area	Contract 5, Contract 6

Station ID	Description	Works Area	Related to the Work Contract
AM3	Ta Kwu Ling Fire Service Station of Ta Kwu Ling Village.	LMH to Frontier Closed Area	Contract 5, Contract 6
AM4a	A village house located at about 160m east side of the original point AM4	LMH to Frontier Closed Area	Contract 6
AM5	Ping Yeung Village House	Ping Yeung to Wo Keng Shan	Contract 6
AM6	Wo Keng Shan Village House	Ping Yeung to Wo Keng Shan	Contract 6
AM7a	Another village (nameless) aligns to Sha Tau Kok Road – Wo Hang Section proximity to Tai Tong Wu Village. The location is about 140m away from the original point AM7	Sha Tau Kok Road	Contract 2
AM8	Po Kat Tsai Village No. 4	Po Kat Tsai	Contract 2
AM9b	Nam Wa Po Village House No. 80	Fanling	Contract 3

** Proposal for the change of air quality monitoring location from AM1to AM1a was submitted to EPD on 24 March2014 after verified by the IEC.*

Table 3-3 Impact Monitoring Stations - Construction Noise

Station ID	Description	Works Area	Related to the Work Contract
NM1	Tsung Yuen Ha Village House No. 63	BCP	Contract 5
NM2	Village House near Lin Ma Hang Road	Lin Ma Hang to Frontier Closed Area	Contract 5, Contract 6
NM3	Ping Yeung Village House (facade facing northeast)	Ping Yeung to Wo Keng Shan	Contract 6
NM4	Wo Keng Shan Village House	Ping Yeung to Wo Keng Shan	Contract 6
NM5	Village House, Loi Tung	Sha Tau Kok Road	Contract 2, Contract 6
NM6	Tai Tong Wu Village House 2	Sha Tau Kok Rpad	Contract 2, Contract 6
NM7	Po Kat Tsai Village	Po Kat Tsai	Contract 2
NM8	Village House, Tong Hang	Fanling	Contract 2 Contract 3
NM9	Village House, Kiu Tau Village	Fanling	Contract 3
NM10	Nam Wa Po Village House No. 78	Fanling	Contract 3

Table 3-4 Impact Monitoring Stations - Water Quality

Station ID	Description	Designated / Alternative Location		Nature of the location	Related to the Work Contract
		Coordinates			
		Easting	Northing		
WM1	Downstream of Kong Yiu Channel	833679	845421	Alternative location located at upstream 51m of the designated location	Contract 5
WM1-Control	Upstream of Kong Yiu Channel	834185	845917	NA	Contract 5
WM2A	Downstream of River Ganges	834204	844471	Alternative location located at	Contract 6

Station ID	Description	Designated / Alternative Location Coordinates		Nature of the location	Related to the Work Contract
		Easting	Northing		
				downstream 81m of the designated location	
WM2A-Control	Upstream of River Ganges	835270	844243	Alternative location located at upstream 78m of the designated location	Contract 6
WM2B	Downstream of River Ganges	835433	843397	NA	Contract 6
WM2B-Control	Upstream of River Ganges	835835	843351	Alternative location located at downstream 31m of the designated location	Contract 6
WM3	Downstream of River Indus	836324	842407	NA	Contract 6
WM3-Control	Upstream of River Indus	836763	842400	Alternative location located at downstream 26m of the designated location	Contract 6
WM4	Downstream of Ma Wat Channel	833850	838338	Alternative location located at upstream 11m of the designated location	Contract 3
WM4–Control A	Kau Lung Hang Stream	834028	837695	Alternative location located at downstream 28m of the designated location	Contract 3
WM4–Control B	Upstream of Ma Wat Channel	833760	837395	Alternative location located at upstream 15m of the designated location	Contract 3

3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 The requirements of impact monitoring are stipulated in *Sections 2.1.6, 3.1.5* and *4.1.6* of the approved *EM&A Manual* and presented as follows.

Air Quality Monitoring

3.4.2 Frequency of impact air quality monitoring is as follows:

- 1-hour TSP 3 times every six days during course of works
- 24-hour TSP Once every 6 days during course of works.

Noise Monitoring

3.4.3 One set of $L_{eq(30min)}$ as 6 consecutive $L_{eq(5min)}$ between 0700-1900 hours on normal weekdays and once every week during course of works. If construction work necessary to carry out at other time periods, i.e. restricted time period (19:00 to 07:00 the next morning and whole day on public holidays) (hereinafter referred as "the restricted hours"), 3 consecutive $L_{eq(5min)}$ measurement will depended CNP requirements to undertake. Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

Water Quality Monitoring

3.4.4 The water quality monitoring frequency shall be 3 days per week during course of works. The interval between two sets of monitoring shall not be less than 36 hours.

3.5 MONITORING EQUIPMENT

Air Quality Monitoring

3.5.1 The 24-hour and 1-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 *(Part 50), Appendix B.* If the ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to the IEC to approve.

3.5.2 The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited laboratory.

3.5.3 All equipment to be used for air quality monitoring is listed in ***Table 3-5***.

Table 3-5 Air Quality Monitoring Equipment

Equipment	Model
24-Hr TSP	
High Volume Air Sampler	TISCH High Volume Air Sampler, HVS Model TE-5170
Calibration Kit	TISCH Model TE-5025A
1-Hour TSP	
Portable Dust Meter	Sibata LD-3B Laser Dust monitor Particle Mass Profiler & Counter

Wind Data Monitoring Equipment

3.5.4 According to the approved EM&A Manual, wind data monitoring equipment shall also be provided and set up for logging wind speed and wind direction near the dust monitoring locations. The equipment installation location shall be proposed by the ET and agreed with the IEC. For installation and operation of wind data monitoring equipment, the following points shall be observed:

1) The wind sensors should be installed 10 m above ground so that they are clear of obstructions or turbulence caused by buildings.
2) The wind data should be captured by a data logger. The data shall be downloaded for analysis at least once a month.
3) The wind data monitoring equipment should be re-calibrated at least once every six months.
4) Wind direction should be divided into 16 sectors of 22.5 degrees each.

3.5.5 ET has liaised with the landlords of the successful granted HVS installation premises. However, the owners rejected to provide premises for wind data monitoring equipment installation.

3.5.6 Under this situation, the ET proposed alternative methods to obtain representative wind data. Meteorological information as extracted from “the Hong Kong Observatory Ta Kwu Ling Station” is alternative method to obtain representative wind data. For Ta Kwu Ling Station, it is located nearby the Project site. Moreover, this station is located at 15m above mean sea level while its anemometer is located at 13m above the existing ground which in compliance with the general setting up requirement. Furthermore, this station also can be to provide the humidity, rainfall, and air pressure and temperature etc. meteorological information. In Hong Kong of a lot development projects, weather information extracted from Hong Kong Observatory is common alternative method if weather station installation not allowed.

Noise Monitoring

3.5.7 Sound level meter in compliance with the International Electrotechnical Commission Publications

651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m s^{-1}.

3.5.8 Noise monitoring equipment to be used for monitoring is listed in ***Table 3-6***.

Table 3-6 Construction Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	B&K Type 2238 or Rion NL-14 or Rion NL-31or Rion NL-52
Calibrator	B&K Type 4231
Portable Wind Speed Indicator	Testo Anemometer

3.5.9 Sound level meters listed above comply with the *International Electrotechnical Commission Publications 651: 1979 (Type 1)* and *804: 1985 (Type 1)* specifications, as recommended in TM issued under the NCO. The acoustic calibrator and sound level meter to be used in the impact monitoring will be calibrated yearly.

Water Quality Monitoring

3.5.10 DO and water temperature should be measured in-situ by a DO/temperature meter. The instrument should be portable and weatherproof using a DC power source. It should have a membrane electrode with automatic temperature compensation complete with a cable. The equipment should be capable of measuring:

- DO level in the range of 0-20 mg/l and 0-200% saturation; and
- temperature of between 0 and 45 degree Celsius.

3.5.11 A portable pH meter capable of measuring a range between 0.0 and 14.0 should be provided to measure pH under the specified conditions accordingly to the APHA Standard Methods.

3.5.12 The instrument should be portable and weatherproof using a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU.

3.5.13 A portable, battery-operated echo sounder or tape measure will be used for the determination of water depth at each designated monitoring station as appropriate.

3.5.14 A water sampler e.g. Kahlsico Water Sampler, which is a transparent PVC cylinder with capacity not less than 2 litres, will be used for water sampling if water depth over than 0.5m. For sampling from very shallow water depths e.g. <0.5 m, water sample collection will be directly from water surface below 100mm use sampling plastic bottle to avoid inclusion of bottom sediment or humus. Moreover, Teflon/stainless steel bailer or self-made sampling buckets maybe used for water sampling. The equipment used for sampling will be depended the sampling location and depth situations.

3.5.15 Water samples for laboratory measurement of SS will be collected in high density polythene bottles, packed in ice (cooled to 4 ºC without being frozen), and delivered to the laboratory in the same day as the samples were collected.

3.5.16 Analysis of suspended solids should be carried out in a HOKLAS or other accredited laboratory. Water samples of about 1L should be collected at the monitoring stations for carrying out the laboratory suspended solids determination. The SS determination work should start within 24 hours after collection of the water samples. The SS analyses should follow the *APHA Standard Methods 2540D* with Limit of Reporting of 2 mg/L.

3.5.17 Water quality monitoring equipment used in the impact monitoring is listed in ***Table 3-7***. Suspended solids (SS) analysis is carried out by a local HOKLAS-accredited laboratory, namely *ALS Technichem (HK) Pty Ltd*.

Table 3-7 Water Quality Monitoring Equipment

Equipment	Model
Water Depth Detector	Eagle Sonar or tape measures
Water Sampler	A 2-litre transparent PVC cylinder with latex cups at both ends or teflon/stainless steel bailer or self-made sampling bucket
Thermometer & DO meter	YSI PRO20 Handheld Dissolved Oxygen Instrument
pH meter	The EcoSense ® pH10A pen-style instrument or AZ8685 pH pen-style meter
Turbidimeter	Hach 2100Q
Sample Container	High density polythene bottles (provided by laboratory)
Storage Container	'Willow' 33-liter plastic cool box with Ice pad

3.6 MONITORING METHODOLOGY

1-hour TSP Monitoring

3.6.1 The 1-hour TSP monitor was a brand named "Sibata LD-3B Laser Dust monitor Particle Mass Profiler & Counter" which is a portable, battery-operated laser photometer. The 1-hour TSP meter provides a real time 1-hour TSP measurement based on 90° light scattering. The 1-hour TSP monitor consists of the following:

(a.) A pump to draw sample aerosol through the optic chamber where TSP is measured;
(b.) A sheath air system to isolate the aerosol in the chamber to keep the optics clean for maximum reliability; and
(c.) A built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

3.6.2 The 1-hour TSP meter is used within the valid period as follow manufacturer's Operation and Service Manual.

24-hour TSP Monitoring

3.6.3 The equipment used for 24-hour TSP measurement is Thermo Andersen Model GS2310 TSP high volume air sampling system, which complied with *EPA Code of Federal Regulation, Appendix B to Part 50*. The High Volume Air Sampler (HVS) consists of the following:

(a.) An anodized aluminum shelter;
(b.) A 8"x10" stainless steel filter holder;
(c.) A blower motor assembly;
(d.) A continuous flow/pressure recorder;
(e.) A motor speed-voltage control/elapsed time indicator;
(f.) A 7-day mechanical timer, and
(g.) A power supply of 220v/50 Hz

3.6.4 The HVS is operated and calibrated on a regular basis in accordance with the manufacturer's instruction using Tisch Calibration Kit Model TE-5025A. Calibration would carry out in two month interval.

3.6.5 24-hour TSP is collected by the ET on filters of HVS and quantified by a local HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd (ALS), upon receipt of the samples. The ET keep all the sampled 24-hour TSP filters in normal air conditioned room conditions, i.e. 70% RH (Relative Humidity) and 25°C, for six months prior to disposal.

Noise Monitoring

3.6.6 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (L_{eq}) measured in decibels dB(A). Supplementary statistical results (L_{10} and L_{90}) were also obtained for reference.

3.6.7 During the monitoring, all noise measurements were performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (L_{eq}). $Leq_{(30min)}$ in six consecutive $Leq_{(5min)}$ measurements were used as the monitoring parameter for the time period between 0700-1900 hours on weekdays; and also $Leq_{(15min)}$ in three consecutive $Leq_{(5min)}$ measurements is used as monitoring parameter for other time periods (e.g. during restricted hours), if necessary.

3.6.8 Prior of noise measurement, the accuracy of the sound level meter is checked using an acoustic calibrator generating a known sound pressure level at a known frequency. The checking was performed before and after the noise measurement.

Water Quality

3.6.9 Water quality monitoring is conducted at the designated locations. The sampling produce with the in-situ monitoring are presented as below:

Sampling Procedure

3.6.10 A Digital Global Positioning System (GPS) is used to identify the designated monitoring stations prior to water sampling. A portable, battery-operated echo sounder is used for the determination of water depth at each station. At each station, water sample would be collected from 0.1m below water surface or the water surface to prevent the river bed sediment for stirring.

3.6.11 The sample container will be rinsed with a portion of the water sample. The water sample then will be transferred to the high-density polythene bottles as provided by the laboratory, labeled with a unique sample number and sealed with a screw cap.

3.6.12 Before sampling, general information such as the date and time of sampling, weather condition as well as the personnel responsible for the monitoring would be recorded on the field data sheet.

3.6.13 A 'Willow' 33-liter plastic cool box packed with ice will be used to preserve the water samples prior to arrival at the laboratory for chemical determination. The water temperature of the cool box is maintained at a temperature as close to 4^0C as possible without being frozen. Samples collected are delivered to the laboratory upon collection.

In-situ Measurement

3.6.14 YSI PRO20 Handheld Dissolved Oxygen Instrument is used for water in-situ measures, which automates the measurements and data logging of temperature, dissolved oxygen and dissolved oxygen saturation. Before each round of monitoring, the dissolved oxygen probe would be calibrated by the wet bulb method.

3.6.15 A portable EcoSense® pH10A pen-style meter or AZ8685 pH pen-style meter is used for in-situ pH measurement. The pH meter is capable of measuring pH in the range of 0 – 14 and readable to 0.1.

3.6.16 A portable Hach 2100Q Turbidimeter is used for in-situ turbidity measurement. The turbidity meter is capable of measuring turbidity in the range of 0 – 1000 NTU. StablCal® Standards of known NTU are used for calibration of the instrument before and after measurement.

3.6.17 All in-situ measurement equipment are calibrated by HOKLAS accredited laboratory of three month interval.

Laboratory Analysis

3.6.18 All water samples are analyzed with Suspended Solids (SS) as specified in the *EM&A Manual* by a local HOKLAS-accredited testing laboratory (ALS Technichem (HK) Pty Ltd HOKLAS registration no. 66). SS analysis is determined by the laboratory upon receipt of the water samples using *APHA Standard Methods 2540D* (namely ALS Method EA-025 as accredited

HOKLAS Scheme) started within 48 hours of water sample receipt.

3.7 EQUIPMENT CALIBRATION

3.7.1 Calibration of the HVS is performed upon installation and thereafter at bimonthly intervals in accordance with the manufacturer's instruction using the certified standard calibrator (TISCH Model TE-5025A). Moreover, the Calibration Kit would be calibrated annually. The calibration data are properly documented and the records are maintained by ET for future reference.

3.7.2 The 1-hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment would be checked before and after each monitoring event. Annually calibration with the High Volume Sampler (HVS) in same condition would be undertaken by the Laboratory.

3.7.3 The sound level meter and calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis.

3.7.4 All water quality monitoring equipment is calibrated by HOKLAS accredited laboratory of three month intervals.

3.7.5 The calibration certificates of all monitoring equipment used for the impact monitoring program in the Reporting Period and the HOKLAS accredited certificate of laboratory are presented in the relevant monthly EM&A reports.

3.8 DERIVATION OF ACTION/LIMIT (A/L) LEVELS

3.8.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. According to the approved Environmental Monitoring and Audit Manual, the air quality, construction noise and water quality criteria were set up, namely Action and Limit levels are listed in ***Tables 3-8, 3-9*** and ***3-10***.

Table 3-8 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (μg /m^3)		Limit Level (μg/m^3)	
	1-hour TSP	24-hour TSP	1-hour TSP	24-hour TSP
AM1/ AM1a	265	143	500	260
AM2	268	149		
AM3	269	145		
AM4a	267	148		
AM5	268	143		
AM6	269	148		
AM7a	275	156		
AM8	269	144		
AM9a	271	151		

Table 3-9 Action and Limit Levels for Construction Noise

Monitoring Location	Action Level	Limit Level in dB(A)
	Time Period: 0700-1900 hours on normal weekdays	
NM1, NM2, NM3, NM4, NM5, NM6, NM7, NM8, NM9, NM10	When one or more documented complaints are received	75 dB(A)[Note 1 & Note 2]

Note 1: Acceptable Noise Levels for school should be reduced to 70 dB(A) and 65 dB(A) during examination period

Note 2: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the NCA have to be followed.

Table 3-10 Action and Limit Levels for Water Quality

Parameter	Performance criteria	Monitoring Location				
		WM1	**WM2A**	**WM2B**	**WM3**	**WM4**
DO (mg/L)	Action Level	(*)4.23	(**)4.00	(*)4.74	(**)4.00	(*)4.14
	Limit Level	(#)4.19	(**)4.00	(#)4.60	(**)4.00	(#)4.08
Turbidity (NTU)	Action Level	51.3	24.9	11.4	13.4	35.2
		AND	120% of upstream control station of the same day			
	Limit Level	67.6	33.8	12.3	14.0	38.4
		AND	130% of upstream control station of the same day			
SS (mg/L)	Action Level	54.5	14.6	11.8	12.6	39.4
		AND	120% of upstream control station of the same day			
	Limit Level	64.9	17.3	12.4	12.9	45.5
		AND	130% of upstream control station of the same day			

Remarks:
(*) *The Proposed **Action Level** of Dissolved Oxygen is adopted to be used 5%-ile of baseline data*
(**) *The Proposed **Action & Limit Level** of Dissolved Oxygen is used 4mg/L*
(#) *The Proposed **Limit Level** of Dissolved Oxygen is adopted to be used 1%-ile of baseline data*

3.8.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan which presented in ***Appendix F*.**

3.9 DATA MANAGEMENT AND DATA QA/QC CONTROL

3.9.1 All monitoring data will be handled by the ET's in-house data recording and management system. The monitoring data recorded in the equipment will be downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data will input into a computerized database properly maintained by the ET. The laboratory results will be input directly into the computerized database and checked by personnel other than those who input the data.

3.9.2 For monitoring parameters that require laboratory analysis, the local laboratory shall follow the QA/QC requirements as set out under the HOKLAS scheme for the relevant laboratory tests.

4 AIR QUALITY MONITORING

4.1 GENERAL

4.1.1 In the Reporting Period, construction works under the project have been commenced in Contracts 2, 3 and 5 and air quality monitoring was performed at ***6*** relevant designated locations as below:

- AM1a - Garden Farm, Tsung Yuen Ha Village;
- AM2 - Village House near Lin Ma Hang Road;
- AM3 - Ta Kwu Ling Fire Service Station of Ta Kwu Ling Village;
- AM7b – Loi Tung Village;
- AM8 - Po Kat Tsai Village;
- AM9b - Nam Wa Po Village House No. 80

4.2 SUMMARY OF MONITORING RESULTS

4.2.1 Summary of air quality monitoring results during the Reporting Period are tabulated in ***Table 4-1.*** The relevant graphical plots throughout the Reporting Period are presented in ***Appendix G***.

Table 4-1 Summary of Air Quality Monitoring Results

Monitoring Location	1-hour TSP (μg/m^3)			24-hour TSP (μg/m^3)		
	Max	Min	Mean	Max	Min	Mean
AM1a	379	50	158	142	33	81
Record Date	27-Jan-15	1-Dec-14	48 events	13-Dec-14	8-Nov-14	16 events
AM2	282	48	157	230	49	131
Record Date	27-Jan-15	1-Dec-14	48 events	14-Nov-14	8-Nov-14	16 events
AM3	257	46	153	185	35	101
Record Date	9-Jan-15	1-Dec-14	48 events	13-Dec-14	28-Jan-15	16 events
AM7b	252	48	136	253	40	110
Record Date	4-Nov-14	30-Dec-14	48 events	26-Nov-14	8-Nov-14	16 events
AM8	237	44	98	122	36	74
Record Date	4-Nov-14	30-Dec-14	48 events	3-Nov-14	28-Jan-15	16 events
AM9b	366	52	145	147	34	88
Record Date	21-Jan-15	1-Dec-14	48 events	26-Nov-14	8-Nov-14	16 events

4.2.2 Breaches of air quality A/L levels and statistical analysis of compliance for the air quality monitoring results are summarized in ***Table 4-2***.

Table 4-2 Summaries of Breaches of Air Quality A/L Levels

Location	Exceedance	1-hour TSP	24- hour TSP	Total
AM1	Action Level	**2**	0	**2**
	Limit Level	0	0	0
AM2	Action Level	**1**	**3**	**4**
	Limit Level	0	0	0
AM3	Action Level	0	**1**	**1**
	Limit Level	0	0	0
AM7b	Action Level	0	**2**	**2**
	Limit Level	0	0	0
AM8	Action Level	0	0	0
	Limit Level	0	0	0
AM9b	Action Level	**3**	0	**3**
	Limit Level	0	0	0

4.2.3 In the Reporting Period, a total of twelve (12) Action Level exceedances were recoded for air quality monitoring including six (6) Action Level exceedances for 1-hour TSP and six (6) Action Level exceedances for 24-hour TSP.

4.2.4 In General, in November 2014, 24-hour TSP exceedance was recorded at AM2 on 14 November

2014 and at AM7b on 14 and 26 November 2014. In December 2014, two (2) Action Level exceedances of 24-hour TSP was recorded at AM2 and AM3 on 13 December 2014. In January 2015, one (1) Action Level exceedance of 24-hour TSP monitoring was recorded at AM2 on 22 January 2015 and a total of six (6) Action Level exceedances of 1-hour TSP, namely 2 exceedances at AM1 and 1 exceedance at AM2 on 28 January 2015 and 3 Action Level exceedances at AM9b on 22 January 2015 were recorded. According to investigation result, it was concluded that the exceedances were not due to the works under the project.. The detailed investigation findings have been presented in the relevant monthly EM&A reports.

4.2.5 The summary of weather conditions during the Reporting Period is presented in ***Appendix H.***

5 CONSTRUCTION NOISE MONITORING

5.1 GENERAL

5.1.1 In the Reporting Period, construction works under the project have been commenced in Contracts 2, 3 and 5 and noise monitoring was performed at ***8*** relevant designated locations as below:

- NM1 - Tsung Yuen Ha Village House No. 63
- NM2 - Village House near Lin Ma Hang Road
- NM5 - Village House, Loi Tung
- NM6 - Tai Tong Wu Village House 2
- NM7 - Po Kat Tsai Village
- NM8 - Village House, Tong Hang
- NM9 - Village House, Kiu Tau Village; and
- NM10 - Nam Wa Po Village House No. 80

5.2 SUMMARY OF MONITORING RESULTS

5.2.1 The sound level meter was set in 1m from the exterior of the building façade including noise monitoring locations NM1, NM2, NM5, NM6, NM7, NM8 and NM9. No façade correction (+3 dB(A) is added according to acoustical principles and EPD guidelines. However, free-field status is performed at NM10 and façade correction (+3 dB(A) has added according to the requirement.

5.2.2 Summary of noise monitoring results during the Reporting Period are tabulated in ***Table 5-1.*** The relevant graphical plots throughout the Reporting Period are presented in ***Appendix G***.

Table 5-1 Summary of Construction Noise Monitoring Results

Monitoring Location	Leq, 30min (dB((A))	
	Max	**Min**
NM1	62	44
Record Date	18-Dec-14	21-Jan-15
NM2	66	56
Record Date	18-Dec-14	6-Dec-14
NM5	69	53
Record Date	24-Dec-14	22-Jan-15
NM6	64	55
Record Date	9-Dec-14	16-Jan-15
NM7	75	54
Record Date	4-Nov-14	24-Dec-14
NM8	65	55
Record Date	9-Jan-15	29-Dec-14
NM9	75	54
Record Date	13-Nov-14	29-Dec-14
NM10(*)	72	61
Record Date	4-Sep-14	7-Nov-14 & 13-Nov-14 & 23-Dec-14 & 3-Jan-15

(*) *façade correction (+3 dB(A) is added according to acoustical principles and EPD guidelines*

5.2.3 Breaches of construction noise A/L levels and statistical analysis of compliance for construction noise monitoring results are summarized in ***Table 5-2***.

Table 5-2 Summaries of Breaches of Construction Noise A/L Levels

Station	Limit Level	Action Level	Received Date
NM1	0	2	11 November 2014 & 10 December 2014
NM2	0		
NM5	0		
NM6	0		
NM7	0		
NM8	0		
NM9	0		
NM10	0		

5.2.4 In this Reporting Period, the noise level measured at the eight (8) designated monitoring locations were below 75dB(A). In addition, two noise complaints (Action Level exceedance) were received by the RE on 11 November and 10 December 2014 and they have been settled by the Contractor.

6 WATER QUALITY MONITORING

6.1 GENERAL

6.1.1 In the Reporting Period, water quality monitoring was performed at 5 designated locations which related the Contract 3 and Contract 5 as below:

- WM1 – Contract 5 working site downstream at Kong Yiu Channel;
- WM1-Control – Contract 5 working site upstream at Kong Yiu Channel;
- WM4 – Contract 3 working site Downstream of Ma Wat Channel;
- WM4-Control A – Contract 3 working site Kau Lung Hang Stream; and
- WM4-Control B – Contract 3 working site Upstream of Ma Wat Channel

6.2 SUMMARY OF MONITORING RESULTS

6.2.1 Summary of monitoring results during the Reporting Period are tabulated in ***Tables 6-1 and 6-2.*** The relevant graphical plots throughout the Reporting Period are presented in ***Appendix G***.

Table 6-1 Summary of the Water Quality Monitoring Results – Contract 5

Statistics	DO (mg/L)		Turbidity (NTU)		SS (mg/L)	
	WM1	WM1-Control	WM1	WM1-Control	WM1	WM1-Control
Min	0.44	4.87	4.95	4.40	2.50	2.00
Max	8.23	10.61	244.50	258.50	140.50	117.00
Average	5.75	8.17	30.38	16.34	20.76	7.24

Table 6-2 Summary of the Water Quality Monitoring Results – Contract 3

Statistics	DO (mg/L)			Turbidity (NTU)			SS (mg/L)		
	WM4	WM4 - CA	WM4 - CB	WM4	WM4 - CA	WM4 - CB	WM4	WM4 - CA	WM4 - CB
Min	4.65	5.00	3.50	7.50	2.20	4.00	7.50	1.99	2.00
Max	8.85	9.26	9.06	34.55	656.00	26.85	38.00	301.50	21.00
Average	6.60	7.63	6.05	17.12	45.49	9.56	18.10	22.72	7.49

Noted:
WM4-CA = WM4-Control A; WM4-CB = WM4-Control B

6.2.2 Breaches of water quality A/L levels and statistical analysis of compliance for the water quality monitoring results are summarized in ***Tables 6-3.***

Table 6-3 Summaries of Breaches of the Existing Water Quality A/L Levels

Reporting Period	No. of sampling day	Location	DO (mg/L)		Turbidity (NTU)		SS (mg/L)	
			Action	Limit	Action	Limit	Action	Limit
Nov-14	13	WM1	0	0	0	0	0	0
		WM4	0	0	0	0	0	0
Dec-14	14	WM1	0	0	0	**3**	0	**3**
		WM4	0	0	0	0	0	0
Jan-15	13	WM1	0	**3**	0	0	0	0
		WM4	0	0	0	0	0	0
Total	**40**	WM1	0	**3**	0	**3**	0	**3**
		WM4	0	0	0	0	0	0

In the Reporting Period, a total of nine (9) Limit Level exceedances at WM1, namely 3 exceedances of DO, 3 exceedances of turbidity and 3 exceedances of SS were recorded. NOEs

were issued to relevant parties upon confirmation of the results.

6.2.3 In general, no exceedances of water quality monitoring were recorded in November 2014. However, in December 2014, , a total six (6) Limit Level exceedances including the parameters of turbidity and suspended solids which recorded 10, 27 and 31 December 2014. In January 2015, a total of three (3) Limit Levels exceedance of dissolved oxygen was recorded on 21, 27 and 29 January 2015. According to investigation result, it was concluded that the exceedances were not due to the works under the project. The detailed investigation findings have been presented in the relevant monthly EM&A reports.

6.2.4 The summary of weather conditions during the Reporting Period is presented in ***Appendix H.***

7 WASTE MANAGEMENT

7.1 GENERAL WASTE MANAGEMENT

7.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time.

7.2 RECORDS OF WASTE QUANTITIES

7.2.1 All types of waste arising from the construction work are classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse

7.2.2 Whenever possible, materials were reused on-site as far as practicable. The quantities of waste for disposal in the Reporting Period are summarized in ***Tables 7-1*** and ***7-2*** and the Waste Flow Table is presented in ***Appendix I***.

Table 7-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Contract No	Quantity				Disposal Location
		Nov 14	Dec 14	Jan 15	Total	
C&D Materials (Inert) (in '000m^3)	2	81.8833	53.8164	66.2666	215.9603	-
	3	4.295	3.835	3.864		-
	5	0	2	0		-
Reused in this Project (Inert) (in '000m^3)	2	0	0	0.067	2.95	
	3	0.645	1.59	0.648		-
	5	0	0	0		-
Reused in other Projects (Inert) (in '000m^3)	2	81.1527	53.5003	65.6529	200.3059	C5
	3	0	0	0		-
	5	0	0	0		-
Disposal as Public Fill (Inert) (in '000m^3)	2	0.7306	0.3161	0.5467	10.7044	Tuen Mun 38
	3	3.65	2.245	3.216		Tuen Mun 38
	5	0	0	0		-

Table 7-2 Summary of Quantities of C&D Wastes

Type of Waste	Contract No	Quantity				Disposal Location
		Nov 14	Dec 14	Jan 15	Total	
Recycled Metal ('000kg) #	2	0	3.21	0	15.11	By licensed collector
	3	0	0	0		
	5	0	7.74	4.16		
Recycled Paper / Cardboard Packing ('000kg) #	2	0.119	0.32	0.25	0.0987	By licensed collector
	3	0	0	0		
	5	0.051	0.247	0		
Recycled Plastic ('000kg) #	2	0	0.007	0	7kg+ 10m^3	By licensed collector
	3	0.01	0	0		
	5	0	0	0		
Chemical Wastes ('000kg) #	2	1.89	1.47	0	5736kg + 41m^3	By licensed collector
	3	0.001	0	0.04		
	5	0	2.376	0		
General Refuses ('000m^3)	2	0.0367	0.034	0.0617	2.1374	NENT
	3	0.11	0.085	0.08		
	5	0.755	0.555	0.42		

Remark #: Unit of recycled metal, recycled paper/ cardboard packing, recycled plastic and chemical waste for Contractor 3 was in ('000m^3).

7.2.3 To control the site performance on waste management, the Contractor shall ensure that all solid and liquid waste management works are fully in compliance with the relevant license/permit requirements, such as the effluent discharge license and the chemical waste producer registration.

The Contractor is also reminded to implement the recommended environmental mitigation measures according to the Environmental Monitoring and Audit Manual.

8 SITE INSPECTIONS

8.1 REQUIREMENTS

8.1.1 According to the approved EM&A Manual, the environmental site inspection shall be formulation by ET Leader. Weekly environmental site inspections should carry out to confirm the environmental performance.

Contract 2

8.1.2 During the Reporting Period, ***13*** events of the joint site inspections were undertaken at Contract 2 to evaluate the site environmental performance. The summaries of the findings during site inspection are presented in ***Table 8-1*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 8-1 Summary of Reminders/Observations of Site Inspection – Contract 2

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
November 2014	7, 14, 21 and 28 November 2014	8	Completed
December 2014	5, 12, 19 and 24 December 2014	6	Completed
January 2015	2, 9, 16, 23 and 30 January 2015	7	Completed

8.1.3 In the Reporting Period, no non-compliance was recorded; however, ***21*** observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 3

8.1.4 During the Reporting Period, ***13*** events of the joint site inspections were undertaken at Contract 3 to evaluate the site environmental performance. The summaries of the findings during site inspection are presented in ***Table 8-2*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 8-2 Summary of Reminders/Observations of Site Inspection – Contract 3

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
November 2014	3, 10, 19 and 24 November 2014	4	Completed
December 2014	1, 8, 17, 22 and 29 December 2014	11	Completed
January 2015	5, 14, 19 and 26 January 2015	9	Completed

8.1.5 In the Reporting Period, no non-compliance was recorded; however, ***24*** observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 5

8.1.6 During the Reporting Period, ***13*** events of the joint site inspections were undertaken at Contract 5 to evaluate the site environmental performance. The summaries of the findings during site inspection are presented in ***Table 8-3*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 8-3 Summary of Reminders/Observations of Site Inspection – Contract 5

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
November 2014	6, 13, 20 and 27 November 2014	4	Completed
December 2014	4, 11, 18, 23 and 30 December 2014	10	Completed
January 2015	8, 15, 22 and 29 January 2015	4	Completed

8.1.7 In the Reporting Period, no non-compliance was recorded; however, ***18*** observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Other Contracts

8.1.8 Since the construction works at the Contract 4 and Contract 6 are not yet commenced, no site inspection is performed for these Contracts.

9 NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

9.1 NON-COMPLIANCE

9.1.1 No environmental non-compliance was recorded in the Reporting Period.

9.2 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

9.2.1 In the Reporting Period, no summons and prosecution under the EM&A Programme was lodged for Contracts 2, 3 and 5. However, a total of ten (10) documented environmental complaints was received and lodged for Contracts 2, 3 and 5. Follow up actions have been undertaken by both Contractor to resolve the complaints and deficiencies in due time. Investigation reports for the complaint have been submitted to all relevant parties for review.

9.2.2 The statistical summary table of environmental complaint, summons and prosecution are presented in **Tables 9-1, 9-2** and **9-3**.

Table 9-1 Statistical Summary of Environmental Complaints

Contract No	Reporting Period	Environmental Complaint Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
2	Nov 2014	2	11	0	1	1
	Dec 2014	3		1	1	1
	Jan 2015	3		1	2	0
3	Nov 2014	1	3	1	0	0
	Dec 2014	0		0		0
	Jan 2015	0		0	0	0
5	Nov 2014	0	2	0	0	0
	Dec 2014	1		0	1	0
	Jan 2015	0		0	0	0

Table 9-2 Statistical Summary of Environmental Summons

Contract No	Reporting Period	Environmental Summons Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
2	Nov 2014	0	0	0	0	0
	Dec 2014	0		0	0	0
	Jan 2015	0		0	0	0
3	Nov 2014	0	0	0	0	0
	Dec 2014	0		0	0	0
	Jan 2015	0		0	0	0
5	Nov 2014	0	0	0	0	0
	Dec 2014	0		0	0	0
	Jan 2015	0		0	0	0

Table 9-3 Statistical Summary of Environmental Prosecution

Contract No	Reporting Period	Environmental Prosecution Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
2	Nov 2014	0	0	0	0	0
	Dec 2014	0		0	0	0
	Jan 2015	0		0	0	0

Contract No	Reporting Period	Environmental Prosecution Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
3	Nov 2014	0	**0**	0	0	0
	Dec 2014	0		0	0	0
	Jan 2015	0		0	0	0
5	Nov 2014	0	**0**	0	0	0
	Dec 2014	0		0	0	0
	Jan 2015	0		0	0	0

9.2.3 Since the construction works at the Contract 4 and Contract 6 are not yet commenced, no environmental complaint, summons and prosecution are received in the Reporting Period accordingly.

10 IMPLEMENTATION STATUS OF MITIGATION MEASURES

10.1 GENERAL REQUIREMENTS

10.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in ***Appendix J.***

10.1.2 All contracts under the Project shall be implementing the required environmental mitigation measures according to the approved EM&A Manual as subject to the site condition. Environmental mitigation measures generally implemented by Contracts 2, 3 and 5 in this Reporting Period are summarized in ***Table 10-1***.

Table 10-1 Environmental Mitigation Measures

Issues	Environmental Mitigation Measures
Water Quality	• Wastewater to be treated by the filtration systems i.e. sedimentation tank or AquaSed before to discharge.
Air Quality	• Maintain damp / wet surface on access road • Keep slow speed in the sites • All vehicles must use wheel washing facility before off site • Sprayed water during breaking works • A cleaning truck was regularly performed on the public road to prevent fugitive dust emission
Noise	• Restrain operation time of plants from 07:00 to 19:00 on any working day except for Public Holiday and Sunday. • Keep good maintenance of plants • Place noisy plants away from residence or school • Provide noise barriers or hoarding to enclose the noisy plants or works • Shut down the plants when not in used.
Waste and Chemical Management	• On-site sorting prior to disposal • Follow requirements and procedures of the “Trip-ticket System” • Predict required quantity of concrete accurately • Collect the unused fresh concrete at designated locations in the sites for subsequent disposal
General	• The site was generally kept tidy and clean.

11 CONCLUSIONS AND RECOMMENDATIONS

11.1 CONCLUSIONS

11.1.1 This is the 6th Quarterly EM&A Summary Report presenting the monitoring results and inspection findings for the Reporting Period from 1 November 2014 to 28 February 2015.

11.1.2 For air quality monitoring, there were a total of six (6) Action Level exceedances of 1-hour TSP and six (6) Action Level exceedances of 24-hour TSP recorded. NOE was issued to relevant parties upon confirmation of the monitoring results. The investigation for the causes of exceedances was completed and it concluded that the exceedances were not related to works under the Project.

11.1.3 No construction noise measurement results that exceeded the Limit Level were recorded in the Reporting Period. However, two noise complaints (which is an Action Level exceedance) were registered for the Project and they were settled by the Contractor.

11.1.4 For water quality monitoring, a total of nine (9) Limit Level exceedances including the parameter of DO, turbidity and SS were recorded at location WM1. NOEs were issued to relevant parties upon confirmation of the results. The investigation for the causes of exceedances was completed and it concluded that the exceedances were not related to works under the Project.

11.1.5 During the Reporting Period, 13 events of joint site inspections for Contract 2, Contract 3 and Contract 5 were undertaken to evaluate the site environmental performance. No adverse environmental impacts were observed during the weekly site inspection and environmental audit of the Reporting Period, indicating the implemented mitigation measures for air quality, construction noise and water quality were effective. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

11.1.6 In this Reporting Period, a total of ten (10) documented environmental complaints was received and lodged for Contracts 2, 3 and 5 regarding to dust, noise and water impact. Follow up actions have been undertaken by both Contractor to resolve the complaints and deficiencies in due time. Investigation reports for the complaint have been submitted to all relevant parties for review.

11.2 RECOMMENDATIONS

11.2.1 During dry season, special attention should be paid on the potential construction dust impact since most of the construction sites are adjacent to villages. The Contractor should fully implement the construction dust mitigation measures properly.

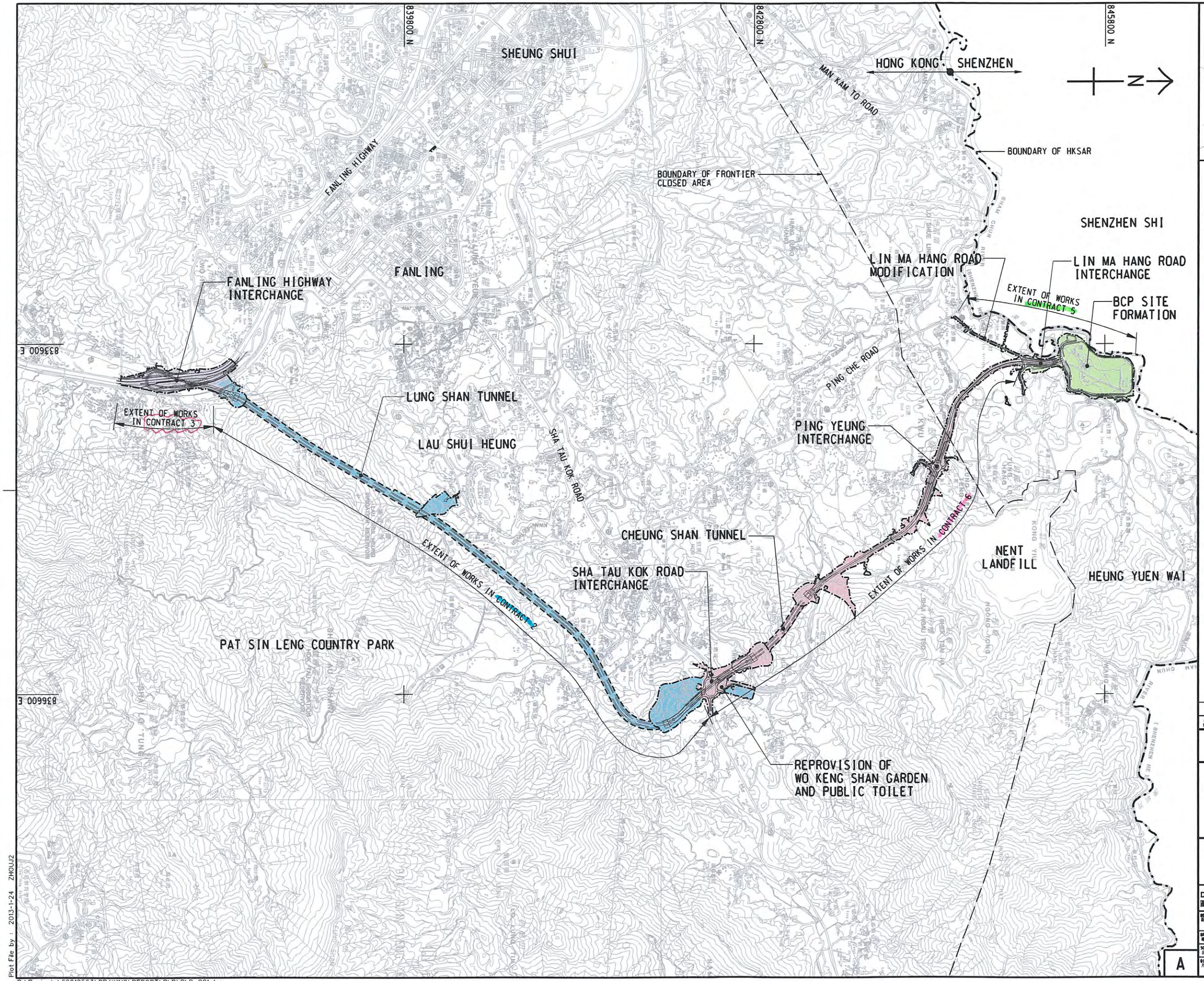
11.2.2 Muddy water or other water pollutants from site surface runoff into Kong Yiu Channel and Ma Wat Channel should also be alerted. Water quality mitigation measures to prevent surface runoff into nearby water bodies should be fully implemented.

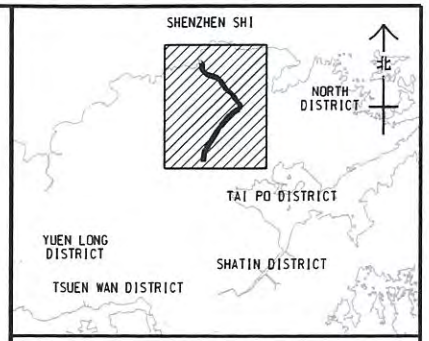
11.2.3 Construction noise should be a key environmental impact during the works. The noise mitigation measures such as use of quiet plants or temporary noise barrier installation at the construction noise predominate area should be implemented as accordance with the EM&A requirement.

11.2.4 Furthermore, daily cleaning and weekly tidiness shall be properly performed and maintained. In addition, mosquito control should be kept to prevent mosquito breeding on site.

Appendix A

Layout plan of the Project





LOCATION PLAN
SCALE 1 : 30000

LEGEND:

- SITE BOUNDARY
- UNDERGROUND WORKS SITE BOUNDARY

REV. 修訂	DESCRIPTION 內容摘要	BY 由	CHECKED 審核	DATE 日期

CEDD 土木工程拓展署 Civil Engineering and Development Department

LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS (SITE FORMATION AND INFRASTRUCTURES) - DESIGN AND CONSTRUCTION

PROJECT LAYOUT PLAN

AECOM

DRG.NO. 圖紙編號 60212563/PLP/001

DESIGNED BY 設計	CONTRACT NO. 合約編號	P. Dir. APPROVED 負責人
-	-	-
DRAWN BY 繪圖 ZJ	STATUS 階段	
SCALE 比例 A1 1 : 15000		
DIMENSIONS ARE IN 尺寸單位 METRES	© COPYRIGHT RESERVED 版權所有	

A

Plot File by : 2013-1-24 ZHOUJ2

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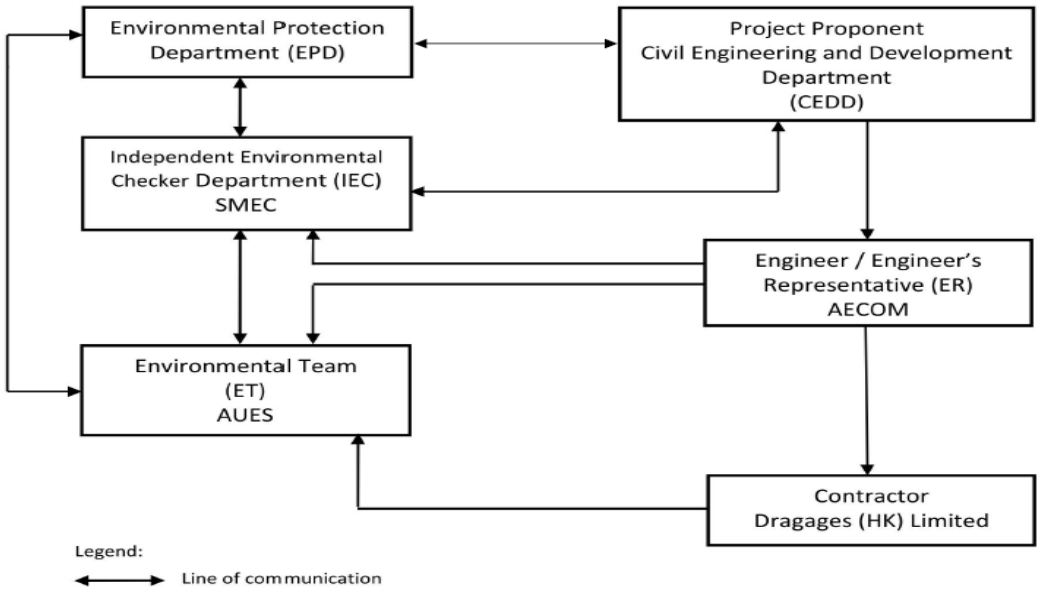
Appendix B

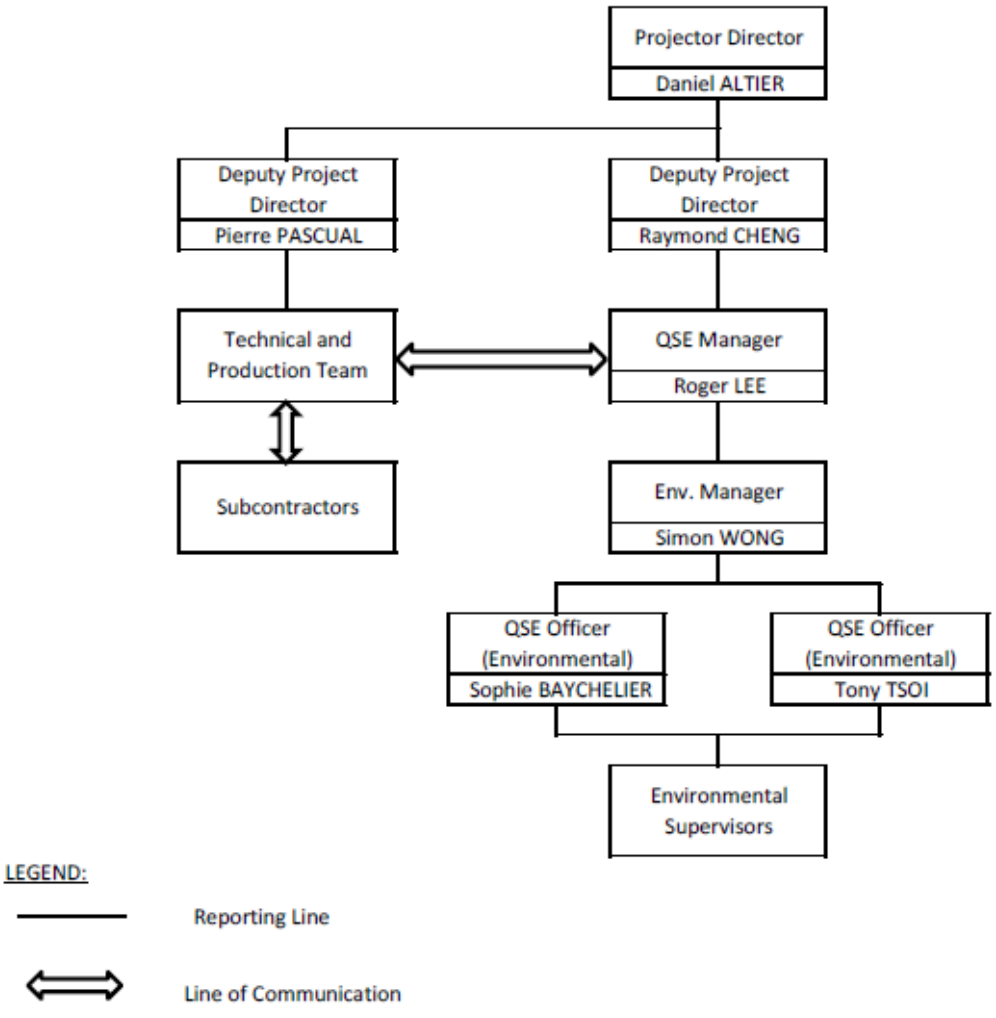
Environmental Management Organization Chart

Environmental Management Organization for Contract 2 - (CV/2012/08)

Project Organization Structure



Structure Within Dragages (HK) Limited



Contact Details of Key Personnel for Contract 2 - CV/2012/08

Organization	Project Role	Name of Key Staff	Tel No	Fax No.
AECOM	Engineer's Representative	Gregory Lo	2659 8810	2685 1155
SMEC	Independent Environmental Checker	Antony Wong	3995 8120	3995 8101
DHK	Project Director	Daniel Altier	2171 3004	2171 3299
DHK	Deputy Project Manager	Raymond Cheng / Pierre Pascual	2171 3004	2171 3299
DHK	QSE Manager	Roger Lee	6293 8726	2171 3299
DHK	Environmental Manager (Environmental Officer)	Simon Wong	9281 4346	2171 3299
DHK	QSE Officer (Environmental)	Sophie Baycheuer	6321 5001	2171 3299
DHK	QSE Officer (Environmental)	Tony Tsoi	6028 5623	2171 3299
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

CEDD (Employer) – Civil Engineering and Development Department

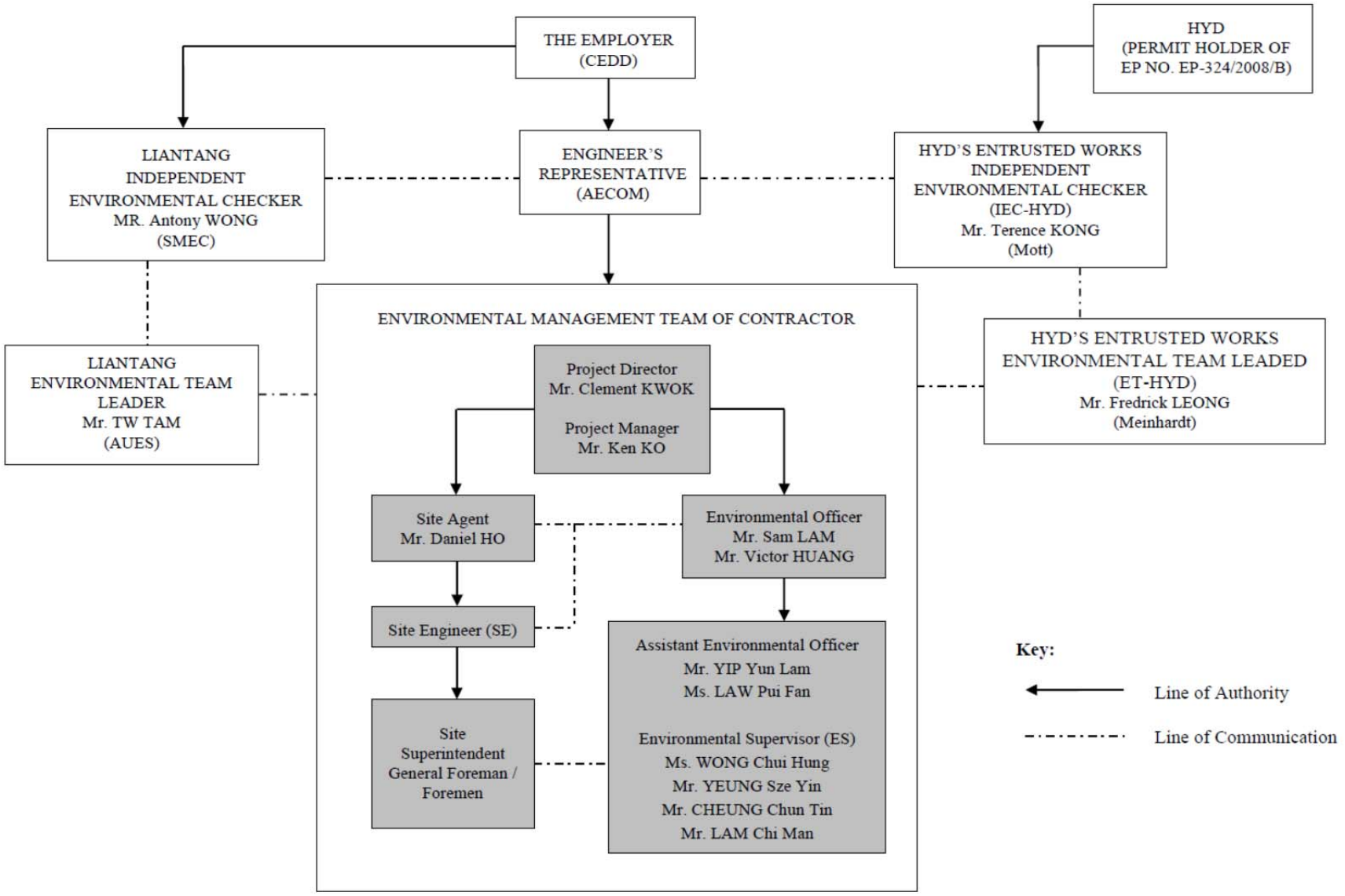
AECOM (Engineer) – AECOM Asia Co. Ltd.

DHK(Main Contractor) –Dragages Hong Kong Ltd.

SMEC (IEC) – SMEC Asia Limited

AUES (ET) – Action-United Environmental Services & Consulting

Environmental Management Organization for Contract 3 - (CV/2012/09)



Contact Details of Key Personnel for Contract 3 - CV/2012/09

Organization	Project Role	Name of Key Staff	Tel No	Fax No.
AECOM	Engineer's Representative	Alan Lee	2472 0212	2472 0132
SMEC	Independent Environmental Checker	Antony Wong	3995 8120	3995 8101
Chun Wo	Project Director	Clement Kwok	3758 8735	2638 7077
Chun Wo	Project Manager	Ken Ko	2638 6136	2638 7077
Chun Wo	Site Agent	Daniel Ho	2638 6144	2638 7077
Chun Wo	Environmental Officer	Sam Lam/ Victor Huang	2638 6115	2638 7077
Chun Wo	Environmental Supervisor	Yip Yun Lam Law Pui Fan	2638 6125	2638 7077
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

CEDD (Employer) – Civil Engineering and Development Department

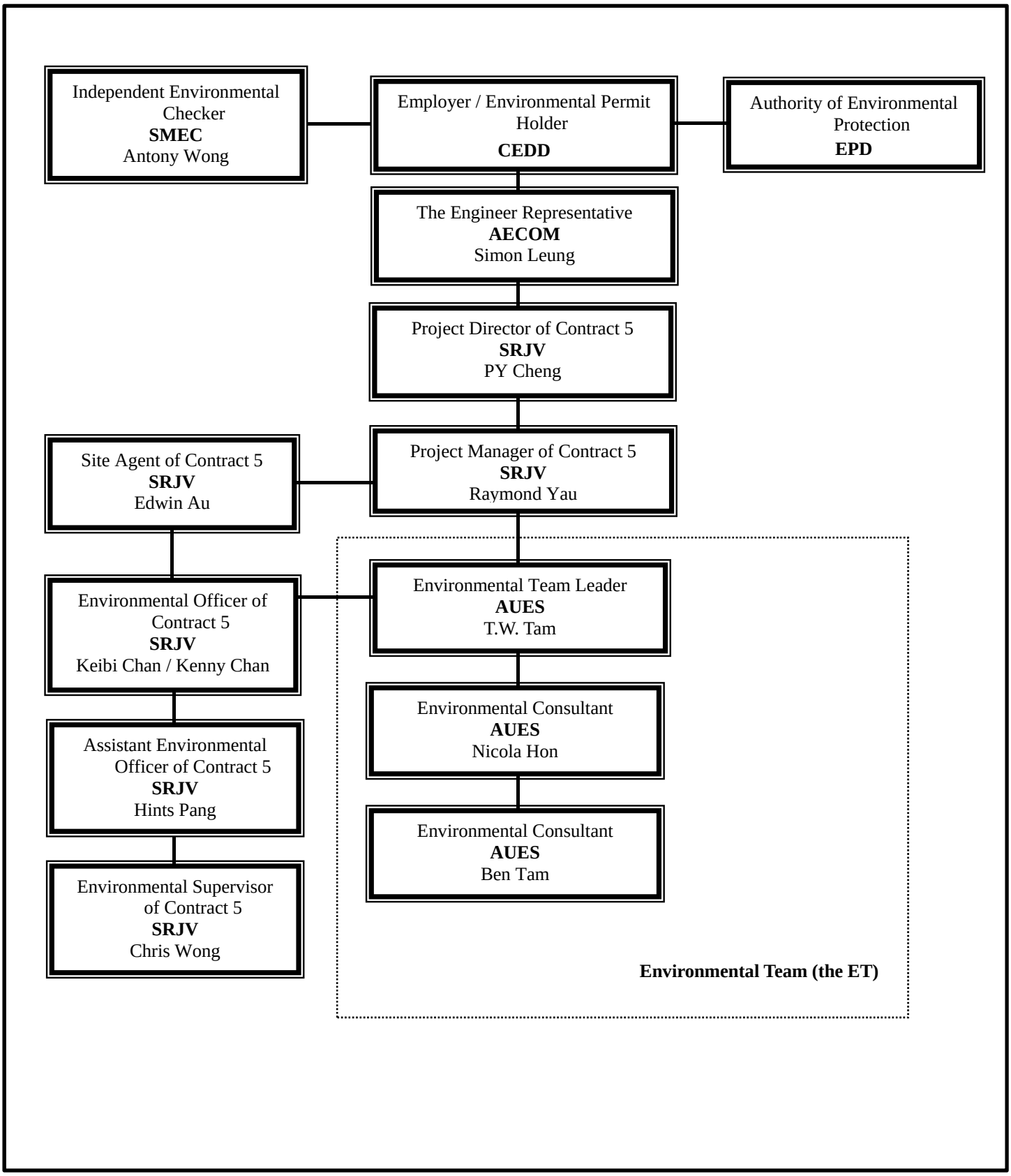
AECOM (Engineer) – AECOM Asia Co. Ltd.

Chun Wo (Main Contractor) – Chun Wo Construction Ltd.

SMEC (IEC) – SMEC Asia Limited

AUES (ET) – Action-United Environmental Services & Consulting

Environmental Management Organization for Contract 5 - (CV/2013/03)



Contact Details of Key Personnel for Contract 5 - CV/2013/03

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
AECOM	Engineer's Representative	Simon Leung	2674 2273	3922 9797
SMEC	Independent Environmental Checker	Antony Wong	3995 8120	3995 8101
SRJV	Project Director	PY Cheng	9023 4821	2403 1162
SRJV	Contract Manager	Raymond Yu	9041 1620	2403 1162
SRJV	Project Manager	Aaron Mak	9464 7095	2403 1162
SRJV	Site Agent	Edwin Au	9208 7329	2403 1162
SRJV	Environmental Officer	Chan Ng jhon-keibi / Kenny Chan	6090 0183	2403 1162
SRJV	Environmental Supervisor	Chris Wong	6387 4683	2403 1162
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

CEDD (Employer) – Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

SRJV (Main Contractor) – Sang Hing Civil – Richwell Machinery JV

SMEC (IEC) – SMEC Asia Limited

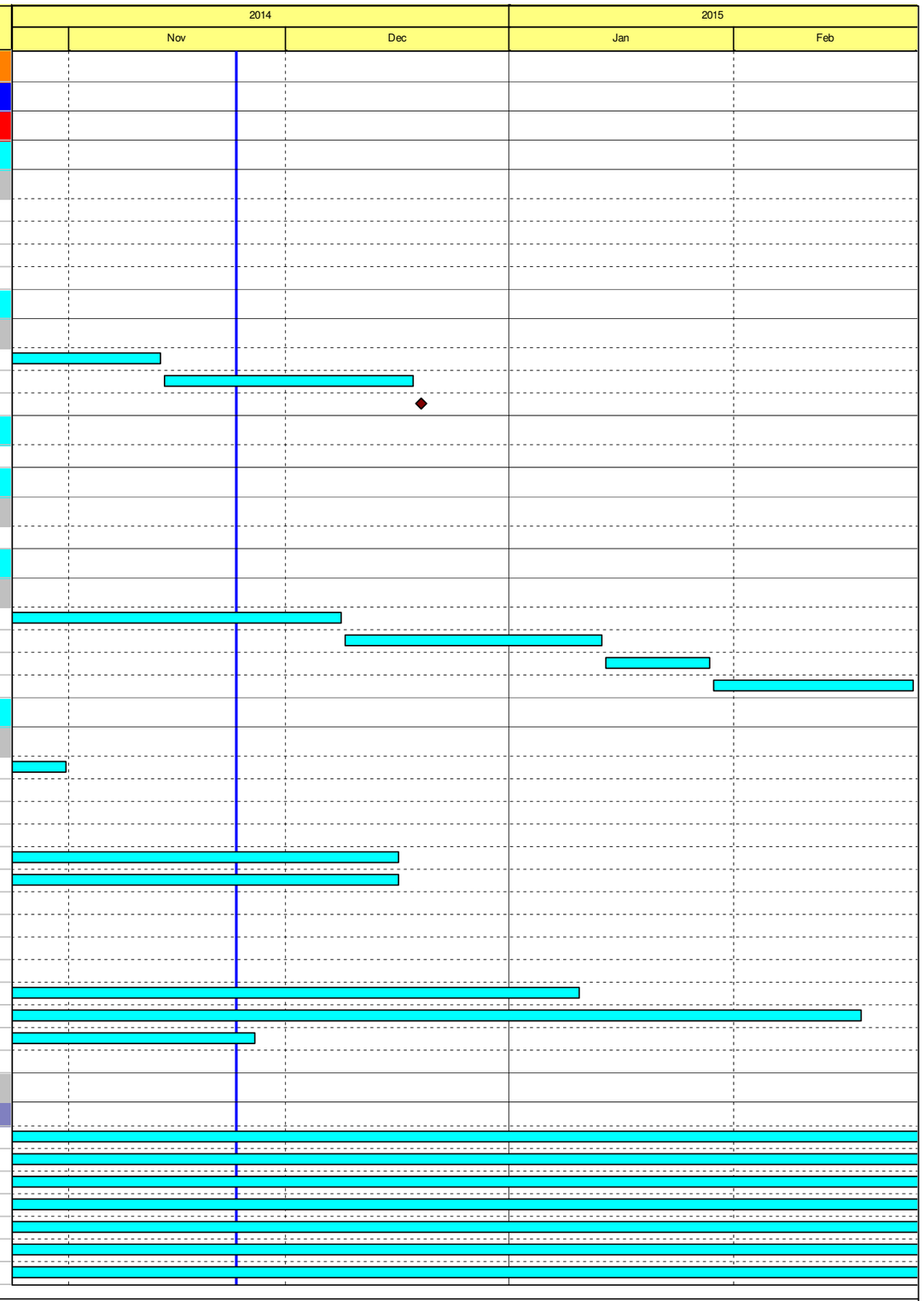
AUES (ET) – Action-United Environmental Services & Consulting

Appendix C

Master Construction Programme

Contract 2

Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
Total		1020	20-Dec-13	30-Mar-17
HKLTH Works Programme update 20-Nov-2014 [wpb]		1020	20-Dec-13	30-Mar-17
2 General		564	20-Jan-14	14-Dec-15
Programme		141	31-May-14	18-Oct-14
Works Programme		141	31-May-14	18-Oct-14
A24050	Works Programme	60	31-May-14	29-Jul-14
A24065	Engineer's Comment for Works Programme	30	30-Jul-14	28-Aug-14
A24066	Further Information for Works Programme (if necessary)	21	29-Aug-14	18-Sep-14
A24067	Engineer's Approval of Works Programme	30	19-Sep-14	18-Oct-14
Ground Investigation		231	13-Mar-14	19-Dec-14
GI Works		231	13-Mar-14	19-Dec-14
DSN018605	GI: Field Works [including pre-drilling works]	200	13-Mar-14	13-Nov-14
DSN018606	GI: Tests & Reports (Contract Boreholes)	30	14-Nov-14	18-Dec-14
DSN018607	KD2: Sect. II (Completion of Geotechnical investigation fieldworks + laboratory tests) (Contract Boreholes)	0		19-Dec-14
Project Wide Procurement		66	14-Jun-14	30-Aug-14
A01001a34	Explosives, Accessories, a nd Services	66	14-Jun-14	30-Aug-14
Geotechnical Interpretative Report 1st Revision		28	10-May-14	12-Jun-14
DDA Submission		28	10-May-14	12-Jun-14
GIR2022060	ER/IP's Approval	28	10-May-14	12-Jun-14
Geotechnical Interpretative Report 2nd Revision		223	22-Sep-14	25-Feb-15
DDA Submission		223	22-Sep-14	25-Feb-15
GIR21021890	Preparation of DDA for formal submission to ER/ICE/IP	65	22-Sep-14	08-Dec-14
GIR21021940	IPs'/ ER's Review	28	09-Dec-14	13-Jan-15
GIR21021960	Preparation of DDA with ICE Certification for resubmission to ER/ICE/IP	13	14-Jan-15	28-Jan-15
GIR21022050	ER/IP's Approval	28	29-Jan-15	25-Feb-15
Project Wide E&M		564	20-Jan-14	14-Dec-15
E&M Design Works for Civil Design Interface		409	20-Jan-14	18-Feb-15
PD..AE.1050	Establish E&M Procurement Matrix & Pre-Qualification Process	195	06-Mar-14	31-Oct-14
PD.AE.1000	Develop E&M Design and Submission Schedule	42	20-Jan-14	12-Mar-14
PD.AE.1020	Review Civil Programme & Develop E&M Programme	88	16-Apr-14	04-Aug-14
PD.AE.1030	Establish Civil/E&M Interface Matrix	50	09-Apr-14	12-Jun-14
PD.AE.1060	Overall Technical Review of E&M System	260	04-Feb-14	16-Dec-14
PD.AE.1070	Review Civil Design Submission on Tunnel Space Proofing & Vent Buildings	260	04-Feb-14	16-Dec-14
PD.AE.1080	Civil Provisions Check for Utility Cable Trough in Tunnels	112	09-Apr-14	25-Aug-14
PD.AE.1090	Civil Provisions Check for E&M Installations in Tunnels	118	05-May-14	23-Sep-14
PD.AE.1110	Spatial Study and Installation Coordination for Tunnel Cable Brackets	92	13-Jun-14	30-Sep-14
PD.AE.1120	E&M Structural Openings Check in Tunnel and Cross Passage	90	05-Jun-14	19-Sep-14
PD.AE.1130	E&M Spatial Study and Structural Provisions Check for Ventilation Buildings	110	29-Aug-14	10-Jan-15
PD.AE.1140	E&M Spatial Study and Structural Provisions Check for Administration Building	125	20-Sep-14	18-Feb-15
PD.AE.1150	Design Verification and Development for Tunnel Ventilation System	170	07-May-14	26-Nov-14
PD.AE.1160	Design Verification and Development for Tunnel Lighting System	128	07-May-14	08-Oct-14
E&M Design & Engineering Works		418	17-Apr-14	29-Aug-15
Engineering Design Submission		340	17-Apr-14	12-Jun-15
PD..FS.DS	Fire Service System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.CM.DS	CMC System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.EC.DS	Tunnel Ventilation System Submission and Approval by the Engineer	340	17-Apr-14	12-Jun-15
PD.EC.DS.a	Environmental Control System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.EL.DS	Electrical System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.EV.DS	ELV System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.PD.DS	Plumbing & Drainage System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15



REV	DESCRIPTION	DATE	PREPARED	CHECKED	APPROVED
A	Monthly Report No.11	20/11/2014	RAN	RBS/SJO	PPL/DAL

MAIN CONTRACTOR
香寶嘉港 Dragages HongKong
A member of the Bouygues Construction group

CLIENT
CEDD 土木工程拓展署 Civil Engineering and Development Department

THE ENGINEER
AECOM

CONTRACTOR'S DESIGNER
ATKINS

PROJECT
Contract No. CV/2012/08
Liantang/Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure Works Contract 2

TITLE
Monthly Report No.11 3-Months Rolling Programme (Works Programme Rev. B)

DOCUMENT NO.
LTH/DHK/PGR/PW/PLP/00017/A

DOC. STATUS	CREATION DATE	REVISION
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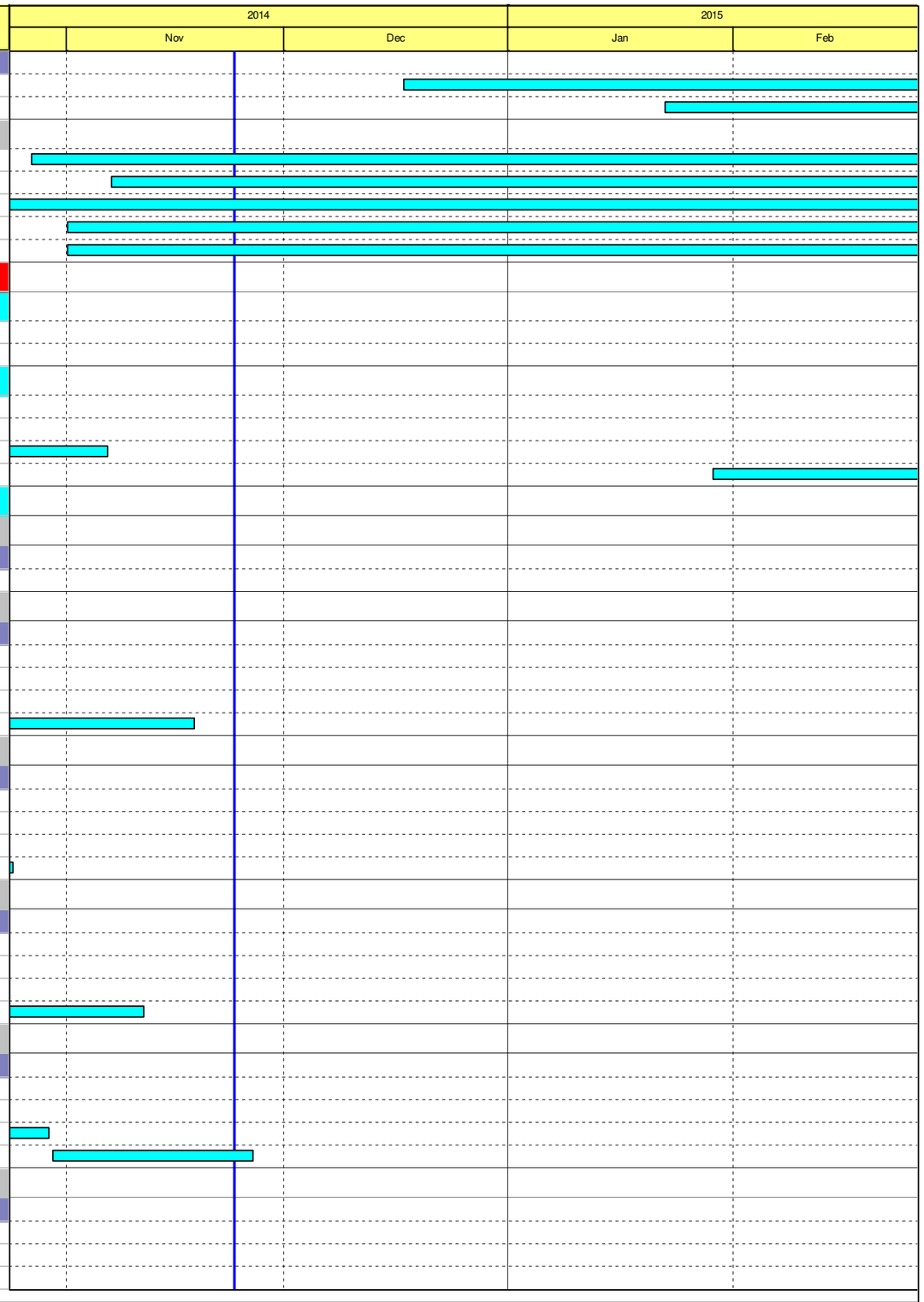
Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
Shop Drawing & Builder's Drawing Submission		205	17-Dec-14	29-Aug-15
PD.DW.1000	Shop Drawings & Builder's Drawings Preparation	176	17-Dec-14	27-Jul-15
PD.DW.1010	Shop Drawings & Builder's Drawings Submission & Approval	177	22-Jan-15	29-Aug-15
Equipment Selection & Submission		409	01-Aug-14	14-Dec-15
PD.PQ.1080	Electrical Services System Submission and Approval by the Engineer	338	27-Oct-14	14-Dec-15
PD.PQ.1150	Tunnel Ventilation System Submission and Approval by the Engineer	228	07-Nov-14	15-Aug-15
PD.PQ.1480	ELV System Submission and Approval by the Engineer	294	01-Aug-14	29-Jul-15
PD.PQ.1910	P&D System Submission and Approval by the Engineer	169	01-Nov-14	30-May-15
PD.PQ.2010	FS System Submission and Approval by the Engineer	278	01-Nov-14	09-Oct-15
3 South Portal Area		599	20-Dec-13	27-May-15
3.0 South Portal Site Possession Contract Dates		218	20-Apr-14	20-Apr-14
A2450	LS12 (near South Portal)	0	20-Apr-14	
A2470	LS2 (near South Vent. Demolition & Noise Barrier)	0	20-Apr-14	
3.1 South Portal Subcontract & Procurement		247	31-Jul-14	16-Apr-15
SPS&P0030	Subcontract : Earthworks	60	31-Jul-14	11-Oct-14
SPS&P0040	Subcontract : Soil Nailing Works	60	31-Jul-14	11-Oct-14
SPS&P0050	Subcontract : Tunnel Spoil Disposal	60	26-Aug-14	06-Nov-14
SPS&P0060	Subcontract : Ventilation Building Foundation Works	60	29-Jan-15	16-Apr-15
3.2 South Portal Design Submission		376	17-Feb-14	27-May-15
South Portal: Temp. Bridge at LS1		28	19-Mar-14	15-Apr-14
DDA Submission		28	19-Mar-14	15-Apr-14
DSN01500	ER/IP's Approval	28	19-Mar-14	15-Apr-14
South Portal: South Portal Site Formation		225	17-Feb-14	18-Nov-14
DDA Submission		225	17-Feb-14	18-Nov-14
DSN019800	Preparation for formal submission to ER/ICE/IP	147	17-Feb-14	15-Aug-14
DSN019850	IPs'/ ER's Review	28	16-Aug-14	18-Sep-14
DSN019870	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	19-Sep-14	21-Oct-14
DSN019970	ER/IP's Approval	28	22-Oct-14	18-Nov-14
South Portal Permanent Works for Retaining Wall (Lower Section Slope)		78	26-May-14	24-Oct-14
DDA Submission		78	26-May-14	24-Oct-14
DSN29120	Preparation for formal submission to ER/ICE/IP	50	26-May-14	24-Jul-14
DSN29130	IPs'/ ER's Review	28	25-Jul-14	26-Aug-14
DSN29140	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	27-Aug-14	26-Sep-14
DSN29150	ER/IP's Approval	28	27-Sep-14	24-Oct-14
South Portal: Temp Support For Retaining Wall		270	01-Mar-14	11-Nov-14
DDA Submission		270	01-Mar-14	11-Nov-14
DSN03140	Preparation for formal submission to ER/ICE/IP	130	01-Mar-14	08-Aug-14
DSN03190	IPs'/ ER's Review	28	09-Aug-14	11-Sep-14
DSN03210	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	12-Sep-14	14-Oct-14
DSN03310	ER/IP's Approval	28	15-Oct-14	11-Nov-14
South Portal: Permanent Retaining Wall		186	30-Jun-14	26-Nov-14
DDA Submission		186	30-Jun-14	26-Nov-14
DSN019440	Preparation for formal submission to ER/ICE/IP	47	30-Jun-14	23-Aug-14
DSN019490	IPs'/ ER's Review	28	25-Aug-14	26-Sep-14
DSN019510	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	27-Sep-14	29-Oct-14
DSN019610	ER/IP's Approval	28	30-Oct-14	26-Nov-14
South Portal: Ventilation Buildings - Foundation Design		276	10-Apr-14	28-Jan-15
AIP Submission		161	10-Apr-14	25-Oct-14
DSN07620	Preparation for formal submission to ER/ICE/IP	88	10-Apr-14	29-Jul-14
DSN07690	IPs'/ ER's Review	28	30-Jul-14	30-Aug-14
DSN07710	Preparation for resubmission to ER/ICE/IP with ICE Certification	23	01-Sep-14	27-Sep-14



REV	DESCRIPTION	DATE	PREPARED	CHECKED	APPROVED
A	Monthly Report No.11	20/11/2014	RAN	RBS/SJO	PPL/DAL

MAIN CONTRACTOR: 香寶嘉港 Dragages HongKong — A member of the Bouygues Construction group

CLIENT: CEDD 土木工程拓展署 Civil Engineering and Development Department

THE ENGINEER: AECOM

CONTRACTOR'S DESIGNER: ATKINS

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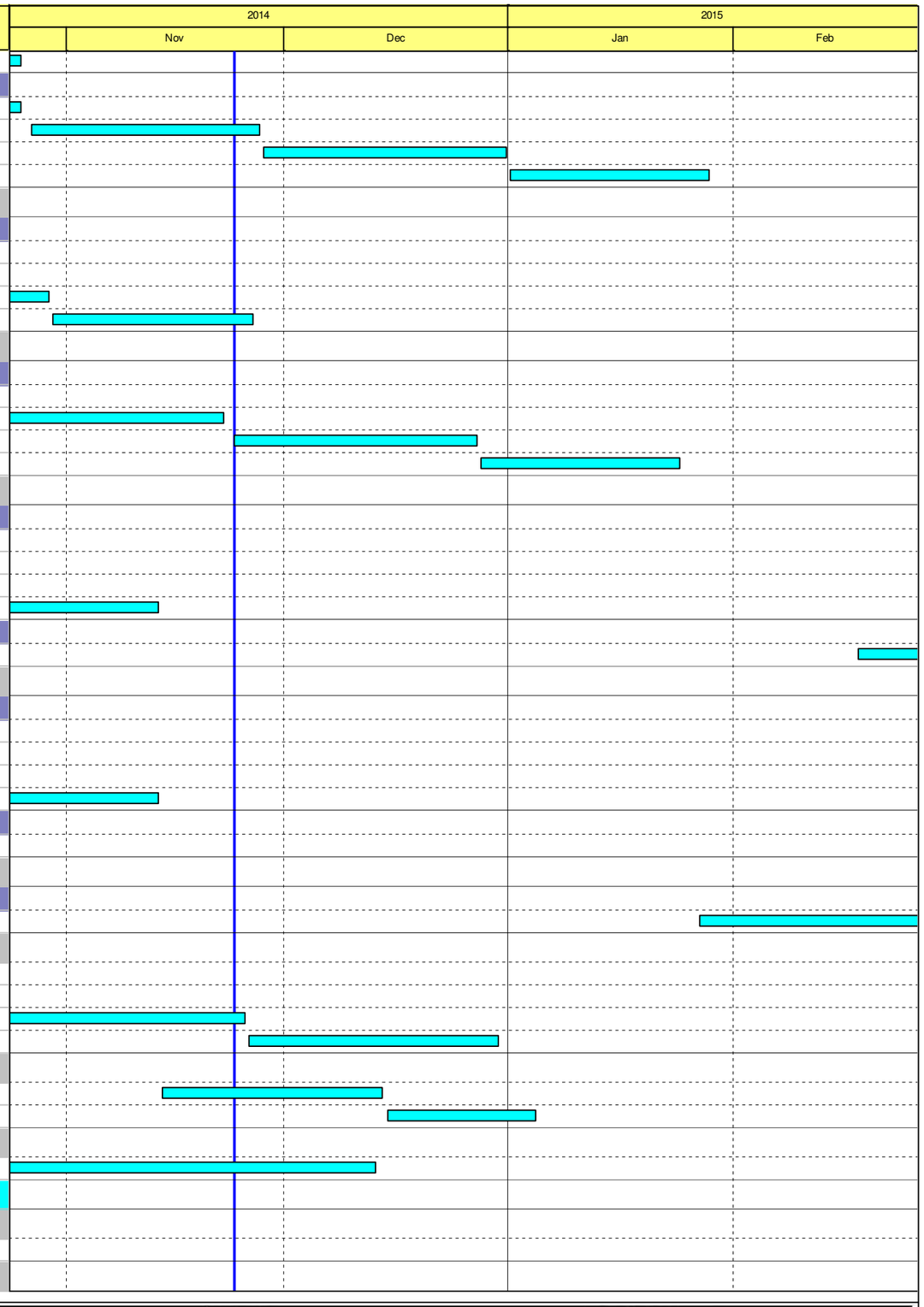
Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
DSN07810	ER/IP's Approval	28	28-Sep-14	25-Oct-14
DDA Submission		189	29-Jul-14	28-Jan-15
DSN07820	Preparation for formal submission to ER/ICE/IP	74	29-Jul-14	25-Oct-14
DSN07870	IPs'/ ER's Review	28	27-Oct-14	27-Nov-14
DSN07890	Preparation for resubmission to ER/ICE/IP with ICE Certification	27	28-Nov-14	31-Dec-14
DSN07990	ER/IP's Approval	28	01-Jan-15	28-Jan-15
South Portal: Temp Works For Mined Tunnelling		197	29-Mar-14	26-Nov-14
DDA Submission		197	29-Mar-14	26-Nov-14
DSN010510	Preparation for formal submission to ER/ICE/IP	118	29-Mar-14	22-Aug-14
DSN010560	IPs'/ ER's Review	28	23-Aug-14	25-Sep-14
DSN010580	Preparation for resubmission to ER/ICE/IP with ICE Certification	27	26-Sep-14	29-Oct-14
DSN010680	ER/IP's Approval	28	30-Oct-14	26-Nov-14
South Portal: Temp Works For D&B Tunnelling		188	23-Jul-14	24-Jan-15
DDA Submission		188	23-Jul-14	24-Jan-15
DSN010150	Preparation for formal submission to ER/ICE/IP	75	23-Jul-14	21-Oct-14
DSN010200	IPs'/ ER's Review	28	22-Oct-14	22-Nov-14
DSN010220	Preparation for resubmission to ER/ICE/IP with ICE Certification	28	24-Nov-14	27-Dec-14
DSN010320	ER/IP's Approval	28	28-Dec-14	24-Jan-15
South Tunnel Permanent Lining		301	14-Apr-14	22-Apr-15
AIP Submission		235	14-Apr-14	13-Nov-14
STPL1023340	Preparation for formal submission to ER/ICE/IP	108	14-Apr-14	25-Aug-14
STPL1023390	IPs'/ ER's Review	24	26-Aug-14	23-Sep-14
STPL1023410	Preparation for resubmission to ER/ICE/IP with ICE Certification	18	24-Sep-14	16-Oct-14
STPL1023510	ER/IP's Approval	28	17-Oct-14	13-Nov-14
DDA Submission		48	18-Feb-15	22-Apr-15
STPL1023520	Preparation for formal submission to ER/ICE/IP	48	18-Feb-15	22-Apr-15
South Tunnel Internal Structures		306	16-May-14	27-May-15
AIP Submission		183	16-May-14	13-Nov-14
STIS1L1023340	Preparation for formal submission to ER/ICE/IP	77	16-May-14	15-Aug-14
STIS1L1023390	IPs'/ ER's Review	24	16-Aug-14	13-Sep-14
STIS1L1023410	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	15-Sep-14	16-Oct-14
STIS1L1023510	ER/IP's Approval	28	17-Oct-14	13-Nov-14
DDA Submission		45	30-Mar-15	27-May-15
STIS1L1023520	Preparation for formal submission to ER/ICE/IP	45	30-Mar-15	27-May-15
Cross Passages -Temp Works D&B Tunnel - Soft Ground		50	27-Jan-15	28-Mar-15
DDA Submission		50	27-Jan-15	28-Mar-15
DSN26930	Preparation for formal submission to ER/ICE/IP	50	27-Jan-15	28-Mar-15
CBAR South Tunnels		138	15-Jul-14	30-Dec-14
A26040a	Preparation and Submission of CBAR - 1st Submission	54	15-Jul-14	16-Sep-14
A26040b	ER/IP's Review	28	17-Sep-14	21-Oct-14
A26040c	Preparation and Submission of CBAR - 2nd Submission	30	22-Oct-14	25-Nov-14
A26040d	ER/IP's Review&Approval of CBAR	28	26-Nov-14	30-Dec-14
CIA- South Portal & South D&B Tunnels inc Mid Vent Junction & CP		31	14-Nov-14	04-Jan-15
SC01140	Draft Report	31	14-Nov-14	14-Dec-14
SC01175	*Final CIA Report (14d)	21	15-Dec-14	04-Jan-15
As-Built Drawings [Contractor's Design/ Contractor's Alternative Design]		60	15-Oct-14	13-Dec-14
SC1630	As-Built Drawings Submission - Temporary Vehicular Bridge	60	15-Oct-14	13-Dec-14
3.3 South Portal Method Statement Submission		333	28-Apr-14	28-Apr-15
South Portal: Temporary Bridge		28	28-Apr-14	31-May-14
FL560	Engineer's Approval	28	28-Apr-14	31-May-14
South Portal: Temporary Slopeworks		164	16-Aug-14	29-Nov-14



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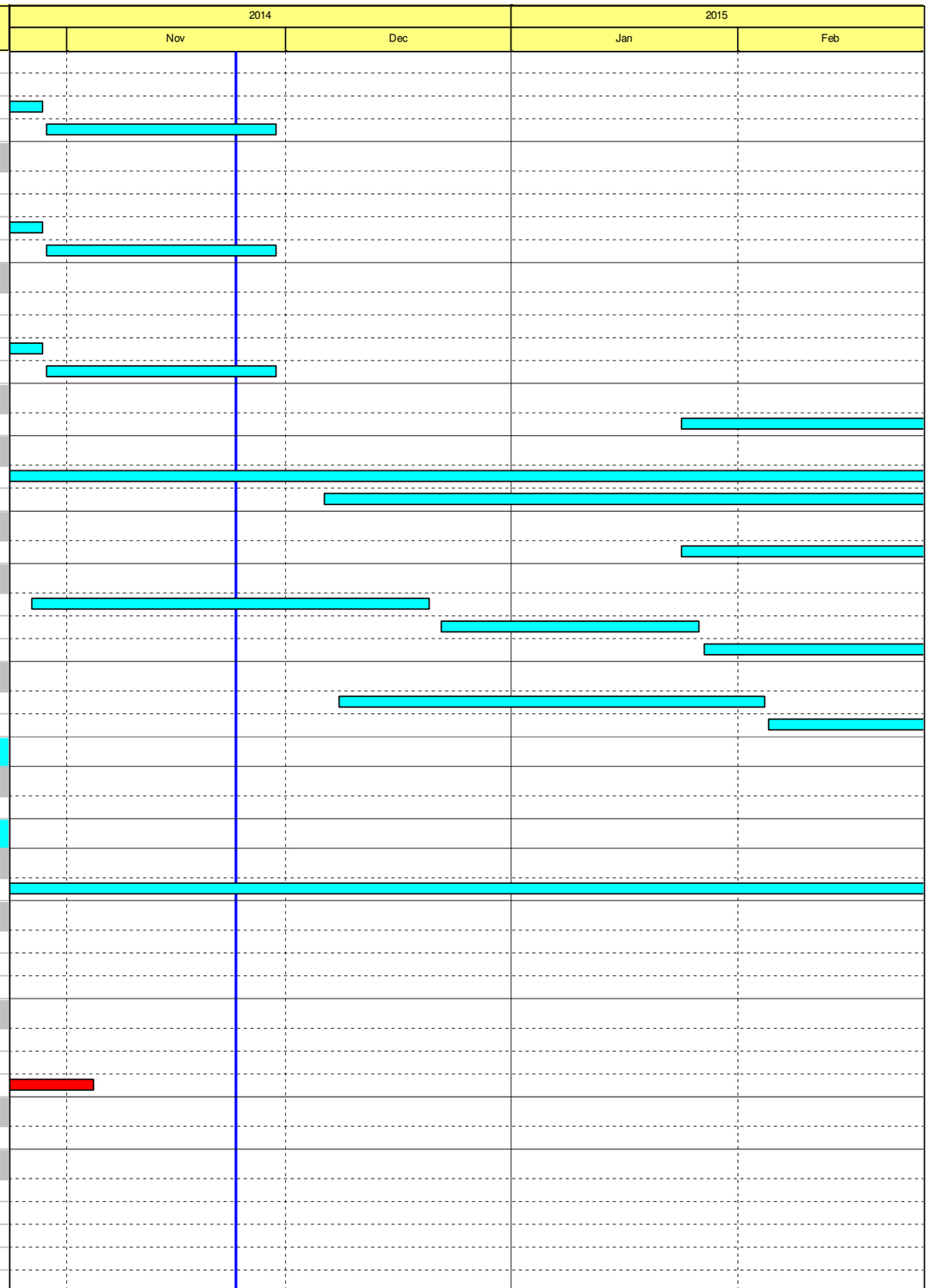
Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
FL2022081	Prepare Method Statement	20	16-Aug-14	08-Sep-14
FL2022082	Engineer's Comment	28	10-Sep-14	14-Oct-14
FL2022083	Re-submission Method Statement	12	15-Oct-14	28-Oct-14
FL2022084	Engineer's Approval	28	29-Oct-14	29-Nov-14
South Portal: Earthworks & Bulk Excavation Works		164	16-Aug-14	29-Nov-14
FL2022089	Prepare Method Statement	20	16-Aug-14	08-Sep-14
FL2022090	Engineer's Comment	28	10-Sep-14	14-Oct-14
FL2022091	Re-submission Method Statement	12	15-Oct-14	28-Oct-14
FL2022092	Engineer's Approval	28	29-Oct-14	29-Nov-14
South Portal: Site Drainage Management		150	16-Aug-14	29-Nov-14
FL2022085	Prepare Method Statement	20	16-Aug-14	08-Sep-14
FL2022086	Engineer's Comment	28	10-Sep-14	14-Oct-14
FL2022087	Re-submission Method Statement	12	15-Oct-14	28-Oct-14
FL2022088	Engineer's Approval	28	29-Oct-14	29-Nov-14
South Portal: Tunnel Mechanical Excavation		48	24-Jan-15	24-Mar-15
FL2022093	Prepare Method Statement	48	24-Jan-15	24-Mar-15
South Tunnels: Blasting Method Statement		160	13-Oct-14	28-Apr-15
FL2022101	Preparation and Submission of Blasting Method Statement	135	13-Oct-14	25-Mar-15
FL2022104	Engineer's/IP's Review & Approval	113	06-Dec-14	28-Apr-15
South Portal: Bored Piling Works		48	24-Jan-15	24-Mar-15
A25485	Prepare Method Statement	48	24-Jan-15	24-Mar-15
South Portal: Pilecap, Footings & Tie beams		100	27-Oct-14	26-Feb-15
A2330	Prepare Method Statement	48	27-Oct-14	20-Dec-14
A2340	Engineer's Comment	28	22-Dec-14	26-Jan-15
A2350	Re-submission Method Statement	24	27-Jan-15	26-Feb-15
South Portal: Permanent Retaining Walls		76	08-Dec-14	12-Mar-15
A25481	Prepare Method Statement	48	08-Dec-14	04-Feb-15
A25482	Engineer's Comment	28	05-Feb-15	12-Mar-15
3.4 South Portal General Submission		84	09-Jul-14	17-Oct-14
South Portal: Temp.CLP Substation		84	09-Jul-14	17-Oct-14
TSS2050	Prepare & Submit CLP Sub-station Proposal + CLP's Approval	84	09-Jul-14	17-Oct-14
3.5 South Portal Works		599	20-Dec-13	23-May-15
South Portal: CLP Substation		106	18-Oct-14	28-Feb-15
SCLP2060	Sub-station Construction + CLP Installation	106	18-Oct-14	28-Feb-15
South Portal: Demolition		96	12-Jun-14	13-Oct-14
SV2840	Precautionary Measures	24	12-Jun-14	12-Jul-14
SV2860	Demolish Existing Building (LS2 - GLL T14097)	36	14-Jul-14	27-Aug-14
SV2870	Demolish Existing Building (LS1 - GLL T5729)	36	28-Aug-14	13-Oct-14
South Portal: Tree Transplant & Felling		413	21-Jan-14	04-Nov-14
SV2135	Tree Transplant	72	21-Jan-14	22-Apr-14
SV2145	Tree Felling for Bridge	30	21-Jan-14	27-Feb-14
SV2155	Tree Felling Remaining	24	08-Oct-14	04-Nov-14
South Portal: 132kV Diversion (South Portal)		1	20-Dec-13	20-Dec-13
SC01300	*CLP 132kV Diversion (by Others) - CLP Pylon at Portal	1	20-Dec-13	20-Dec-13
South Portal: Temp.Bridge (South Portal)		178	26-May-14	15-Oct-14
SV2620	Foundation works (East)	24	03-Jun-14	03-Jul-14
SV2625	Ramp + Columns (East)	18	04-Jul-14	26-Jul-14
SV2630	Foundation works (West)	30	26-May-14	04-Jul-14
SV2640	Ramp + Columns (West)	38	05-Jul-14	22-Aug-14
SV2650	Main Deck Installation	40	08-Aug-14	26-Sep-14



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Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
SV2660	Surfacing works + Finishing works	24	15-Sep-14	14-Oct-14
SV2670	KD9 - Stage 1 (Completion of Temp.Bridge Construction)	0		15-Oct-14
South Portal: Slopeworks		174	15-Oct-14	23-May-15
SV2680	Temp.Access Road (~+26.0 >> +57.0)	18	15-Oct-14	04-Nov-14
SV2690	Permanent Cut Slope (+68.0 to apprx +45.0mPD)	55	05-Nov-14	10-Jan-15
SV2700	Temporary Slope Cut below +45.0mPD (soft) w/Soil Nails	48	12-Jan-15	14-Mar-15
SV2702dwp	Temporary Soil Nails between +44.6mPd to +26.7mPD	71	16-Feb-15	23-May-15
4 Middle Portal Area		481	28-Feb-14	11-Aug-15
4.1 Middle Portal Subcontract & Procurement		187	05-Feb-15	11-Aug-15
MPS&P0040	Subcontract : Tunnel Lining Works	60	05-Feb-15	23-Apr-15
MPS&P0050	Subcontract : Tunnel Lining Formworks (Design, Fabrication, Delivery, & On-Site Assembly)	150	05-Feb-15	11-Aug-15
MPS&P0060	Subcontract : Ventilation Building Foundation Works	60	12-Feb-15	30-Apr-15
4.2 Middle Portal Design Submission		354	18-Mar-14	24-Apr-15
Middle Portal: Site & Portal Formation		28	18-Mar-14	14-Apr-14
DDA Submission		28	18-Mar-14	14-Apr-14
DSN29051	IPs'/ ER's Review /Approval	28	18-Mar-14	14-Apr-14
Mid Vent Building - ELS		50	15-Apr-14	18-Jun-14
DDA Submission		50	15-Apr-14	18-Jun-14
DSN29056	Preparation for resubmission to ER/ICE/IP with ICE Certification	27	15-Apr-14	21-May-14
DSN29057	ER/IP's Approval	28	22-May-14	18-Jun-14
Mid Vent Building - Foundation		226	26-May-14	11-Feb-15
AIP Submission		71	26-May-14	18-Aug-14
DSN29059	IPs'/ ER's Review	24	26-May-14	23-Jun-14
DSN29060	Preparation for resubmission to ER/ICE/IP with ICE Certification	23	24-Jun-14	21-Jul-14
DSN29061	ER/IP's Approval	28	22-Jul-14	18-Aug-14
DDA Submission		195	03-Jul-14	11-Feb-15
DSN29062	Preparation for formal submission to ER/ICE/IP	108	03-Jul-14	08-Nov-14
DSN29063	IPs'/ ER's Review	28	10-Nov-14	11-Dec-14
DSN29064	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	12-Dec-14	14-Jan-15
DSN29065	ER/IP's Approval	28	15-Jan-15	11-Feb-15
Middle Portal: Temp Support for Mined and D&B Tunnelling		64	16-May-14	31-Jul-14
DDA Submission		64	16-May-14	31-Jul-14
DSN29068	Preparation for resubmission to ER/ICE/IP with ICE Certification	40	16-May-14	03-Jul-14
DSN29069	ER/IP's Approval	28	04-Jul-14	31-Jul-14
Mid Vent Adit Permanent Lining		241	21-Jun-14	04-Feb-15
AIP Submission		28	21-Jun-14	18-Jul-14
DSN29073	ER/IP's Approval	28	21-Jun-14	18-Jul-14
DDA Submission		189	22-Aug-14	04-Feb-15
DSN29074	Preparation for formal submission to ER/ICE/IP	57	22-Aug-14	30-Oct-14
DSN29075	IPs'/ ER's Review	28	31-Oct-14	02-Dec-14
DSN29076	Preparation for resubmission to ER/ICE/IP with ICE Certification	28	03-Dec-14	07-Jan-15
DSN29077	ER/IP's Approval	28	08-Jan-15	04-Feb-15
Mid Vent Adit Internal Structure		75	05-Jul-14	03-Oct-14
AIP Submission		75	05-Jul-14	03-Oct-14
DSN29079	IPs'/ ER's Review	28	05-Jul-14	06-Aug-14
DSN29080	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	07-Aug-14	05-Sep-14
DSN29081	ER/IP's Approval	28	06-Sep-14	03-Oct-14
Mid Vent Adit/Junction - Temp Works For D&B Tunnelling		165	25-Sep-14	28-Feb-15
DDA Submission		165	25-Sep-14	28-Feb-15
DSN29086	Preparation for formal submission to ER/ICE/IP	49	25-Sep-14	22-Nov-14
DSN29087	IPs'/ ER's Review	28	24-Nov-14	27-Dec-14

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Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
DSN29088	Preparation for resubmission to ER/ICE/IP with ICE Certification	29	29-Dec-14	31-Jan-15
DSN29089	ER/IP's Approval	28	01-Feb-15	28-Feb-15
Mid Vent Adit/Junction Permanent Lining & Backfill		293	05-Jun-14	24-Apr-15
AIP Submission		127	05-Jun-14	04-Nov-14
DSN29090	Preparation for formal submission to ER/ICE/IP	49	05-Jun-14	01-Aug-14
DSN29091	IPs'/ ER's Review	28	02-Aug-14	03-Sep-14
DSN29092	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	04-Sep-14	07-Oct-14
DSN29093	ER/IP's Approval	28	08-Oct-14	04-Nov-14
DDA Submission		49	23-Feb-15	24-Apr-15
DSN29094	Preparation for formal submission to ER/ICE/IP	49	23-Feb-15	24-Apr-15
Mid Vent Junction Internal Structure		230	19-Jun-14	18-Nov-14
AIP Submission		230	19-Jun-14	18-Nov-14
DSN29098	Preparation for formal submission to ER/ICE/IP	49	19-Jun-14	15-Aug-14
DSN29099	IPs'/ ER's Review	28	16-Aug-14	18-Sep-14
DSN29100	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	19-Sep-14	21-Oct-14
DSN29101	ER/IP's Approval	28	22-Oct-14	18-Nov-14
CBAR Mid Vent Adit		78	27-May-14	27-Aug-14
A26020c	Preparation and Submission of CBAR - 2nd Submission	54	27-May-14	30-Jul-14
A26020d	ER/IP's Review&Approval of CBAR	28	31-Jul-14	27-Aug-14
CBAR Cavern		141	27-Jun-14	12-Dec-14
A26020a1	Preparation and Submission of CBAR- 1st Submission	50	27-Jun-14	25-Aug-14
A26020b1	ER/IP's Review	28	26-Aug-14	27-Sep-14
A26020c1	Preparation and Submission of CBAR - 2nd Submission	39	29-Sep-14	14-Nov-14
A26020d1	ER/IP's Review&Approval of CBAR	28	15-Nov-14	12-Dec-14
4.3 Middle Portal Method Statement Submission		417	28-Feb-14	28-Jul-15
Middle Ventilation Adit Blasting Method Statement		100	12-Jun-14	10-Oct-14
FL2022105	Preparation and Submission of Blasting Method Statement	75	12-Jun-14	08-Sep-14
FL2022106	Engineer's/IP's Review & Approval	45	16-Aug-14	10-Oct-14
Cavern Blasting Method Statement		125	14-Oct-14	03-Mar-15
FL2022107	Preparation and Submission of Blasting Method Statement	90	14-Oct-14	29-Jan-15
FL2022108	Engineer's/IP's Review & Approval	90	12-Nov-14	03-Mar-15
Middle Portal: Pipe Pile Works		128	12-Mar-14	16-Aug-14
A2290	Prepare Method Statement for Pipe Pile Works	48	12-Mar-14	13-May-14
A2300	Engineer's Comment	28	14-May-14	16-Jun-14
A2310	Re-submission Method Statement for Pipe Pile Works	24	17-Jun-14	15-Jul-14
A2320	Engineer's Approval	28	16-Jul-14	16-Aug-14
Middle Portal: Site and Portal Formation		38	28-Feb-14	14-Apr-14
A25470	Re-submission Method Statement for Portal Formation	14	28-Feb-14	15-Mar-14
A25480	Engineer's Approval	24	17-Mar-14	14-Apr-14
Middle Portal: Water Management Plan		38	28-Feb-14	14-Apr-14
A25499	Re-submission Method Statement for Portal Formation	14	28-Feb-14	15-Mar-14
A25500	Engineer's Approval	24	17-Mar-14	14-Apr-14
Middle Portal: Soil Nailing Works		28	05-Mar-14	07-Apr-14
A25508	Engineer's Comment & Approval	28	05-Mar-14	07-Apr-14
Middle Portal: Tunnel Mechanical Excavation		62	31-Mar-14	18-Jun-14
A25502	Engineer's Comment	24	31-Mar-14	02-May-14
A25503	Re-submission Method Statement for Portal Formation	14	03-May-14	20-May-14
A25504	Engineer's Approval	24	21-May-14	18-Jun-14
Middle Ventilation Adit Lining Works		48	05-Feb-15	09-Apr-15
A25513	Prepare Method Statement	48	05-Feb-15	09-Apr-15

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Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
Cavern Permanent Lining		48	01-Jun-15	28-Jul-15
A25521	Prepare Method Statement	48	01-Jun-15	28-Jul-15
Mid Vent Bldg. Foundation		48	12-Feb-15	16-Apr-15
A25509	Prepare Method Statement	48	12-Feb-15	16-Apr-15
Mid Vent Building Construction		48	14-Jan-15	13-Mar-15
FL5900	Prepare Method Statement for Mid Vent Building Construction	48	14-Jan-15	13-Mar-15
4.4 Middle Portal General Submission		84	18-Jun-14	25-Sep-14
Middle Portal: Temp.CLP Substation		84	18-Jun-14	25-Sep-14
TSS332020	Prepare & Submit CLP Sub-station Proposal + CLP's Approval	84	18-Jun-14	25-Sep-14
4.5 Middle Portal Works		327	04-Mar-14	05-Mar-15
Middle Portal: CLP Substation		111	26-Sep-14	07-Feb-15
TSS3P2060	Sub-station Construction + CLP Installation	110	26-Sep-14	06-Feb-15
TSS3P2090	Energization	1	07-Feb-15	07-Feb-15
Middle Portal: Site Establishment		60	04-Mar-14	21-May-14
MV2800	Permanent Slope Stabilization	60	04-Mar-14	21-May-14
Middle Portal: Portal Formation		241	15-Apr-14	14-Nov-14
MV2480	Excavation up to Portal Formation (+15.5.0mPD)	54	15-Apr-14	28-Jun-14
MV2481	Excavation for Site Installation and up to Temporary Working Platform for Pipe Pile Works (+25.0mPD)	54	15-Apr-14	28-Jun-14
MV2482	Temporary Ramp Formation	2	30-Jun-14	02-Jul-14
MV2806	Pipe Piling Works	60	30-Jun-14	15-Sep-14
MV2817	Excavation for Site Installation (Tunneling Works) up to (+22.0mPD)	50	16-Sep-14	14-Nov-14
Adit Construction - Mid Portal		238	03-Jul-14	05-Mar-15
MV2490dwp1	Top Heading Canopies & Bench Excavation Ch0>Ch24	85	03-Jul-14	13-Oct-14
MV2490dwp2a	Top Heading Canopies & Bench Excavation Ch24>Ch70	91	14-Oct-14	29-Jan-15
MV2490dwp3	Blast door installation + Noise Measurement and 24Hr permit approval	30	30-Jan-15	05-Mar-15
5 North Portal Area		997	20-Jan-14	30-Mar-17
5.1 North Portal Subcontract & Procurement		997	20-Jan-14	30-Mar-17
NPS&P0050	Subcontract : Tunnel Spoil Disposal	60	21-May-14	31-Jul-14
NPS&P0060	Subcontract : Ventilation Building Bored Piling Works	60	24-May-14	04-Aug-14
North Portal: TBM Procurement & Delivery		997	20-Jan-14	30-Mar-17
DSN027980	TBM Procurement, Fabrication & Delivery	405	20-Jan-14	28-Feb-15
DSN027981	Conveyor Belt System Procurement & Delivery	90	03-Nov-14	31-Jan-15
N21400	Precast Segment Mould Fabrication and Delivery to Precasting Yard	116	02-May-14	29-Sep-14
N21410a	Precast Segment Fabrication (1.6m Ring) - Temporary Segments	190	30-Sep-14	23-May-15
N21410b	Precast Segment Fabrication (2.2m Ring)	715	01-Nov-14	30-Mar-17
5.2 North Portal Design Submission		407	21-Jan-14	28-Mar-15
TBM Design		327	21-Jan-14	17-Aug-14
A24660a	*TBM Detailed Design (Group C)	175	21-Jan-14	14-Jul-14
A24660b	Engineer Review & Comments (Group C)	14	15-Jul-14	28-Jul-14
A24660c	Re-submission for (Group C)	10	29-Jul-14	07-Aug-14
A24660d	Engineer Review & Comments for Re-submission (Group C)	10	08-Aug-14	17-Aug-14
Engineeer and Contractor Site Offices		12	18-Feb-14	03-Mar-14
N21345	Engineer's Approval for Site Office	12	18-Feb-14	03-Mar-14
North Portal Site Formation		35	08-May-14	18-Jun-14
DDA Submission		35	08-May-14	18-Jun-14
FL2022115	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	08-May-14	21-May-14
FL2022116	ER/IP's Approval	28	22-May-14	18-Jun-14
North Portal: Temp Support for Retaining Wall		35	12-Jun-14	23-Jul-14
DDA Submission		35	12-Jun-14	23-Jul-14

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FL2022123	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	12-Jun-14	25-Jun-14
FL2022124	ER/IP's Approval	28	26-Jun-14	23-Jul-14
North Portal: Permanent Retaining Wall		65	21-May-14	06-Aug-14
DDA Submission		65	21-May-14	06-Aug-14
FL2022126	IPs'/ ER's Review	28	21-May-14	23-Jun-14
FL2022127	Preparation for resubmission to ER/ICE/IP with ICE Certification	13	24-Jun-14	09-Jul-14
FL2022128	ER/IP's Approval	28	10-Jul-14	06-Aug-14
North Portal: Ventilation Building - Foundation Design		103	12-Apr-14	18-Aug-14
AIP Submission		28	12-Apr-14	09-May-14
FL2022132	ER/IP's Approval	28	12-Apr-14	09-May-14
DDA Submission		72	24-May-14	18-Aug-14
FL2022134	IPs'/ ER's Review	28	24-May-14	26-Jun-14
FL2022135	Preparation for resubmission to ER/ICE/IP with ICE Certification	20	27-Jun-14	21-Jul-14
FL2022136	ER/IP's Approval	28	22-Jul-14	18-Aug-14
North Tunnel Curved Section - N/B & S/B- Temp Support in Soft Ground		67	26-Apr-14	17-Jul-14
DDA Submission		67	26-Apr-14	17-Jul-14
FL2022138	IPs'/ ER's Review	28	26-Apr-14	30-May-14
FL2022139	Preparation for resubmission to ER/ICE/IP with ICE Certification	16	31-May-14	19-Jun-14
FL2022140	ER/IP's Approval	28	20-Jun-14	17-Jul-14
North Tunnel Curved Section - N/B & S/B- Temp Support in Rock		139	19-May-14	01-Nov-14
DDA Submission		139	19-May-14	01-Nov-14
FL2022141	Preparation for formal submission to ER/ICE/IP	75	19-May-14	15-Aug-14
FL2022142	IPs'/ ER's Review	28	16-Aug-14	18-Sep-14
FL2022143	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	19-Sep-14	04-Oct-14
FL2022144	ER/IP's Approval	28	05-Oct-14	01-Nov-14
North Tunnel Curved Section Southbound Temp Segmental Lining		89	13-Jun-14	26-Sep-14
DDA Submission		89	13-Jun-14	26-Sep-14
FL2022097	Preparation for formal submission to ER/ICE/IP	21	13-Jun-14	08-Jul-14
FL2022098	IPs'/ ER's Review	28	09-Jul-14	09-Aug-14
FL2022099	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	11-Aug-14	23-Aug-14
FL2022100	ER/IP's Approval	28	25-Aug-14	26-Sep-14
North Tunnel Curved Section Southbound Temp Support For Enlargement		73	25-Nov-14	09-Mar-15
DDA Submission		73	25-Nov-14	09-Mar-15
FL2022145	Preparation for formal submission to ER/ICE/IP	56	25-Nov-14	31-Jan-15
FL2022146	IPs'/ ER's Review	28	02-Feb-15	09-Mar-15
Bored Tunnel Space Proofing & Sight Assessment		36	24-Feb-14	07-Apr-14
AIP Submission		36	24-Feb-14	07-Apr-14
FL2022151	Preparation for resubmission to ER/ICE/IP with ICE Certification	13	24-Feb-14	10-Mar-14
FL2022152	ER/IP's Approval	28	11-Mar-14	07-Apr-14
Bored Tunnel Segmental Lining		180	28-Apr-14	01-Dec-14
AIP Submission		45	28-Apr-14	21-Jun-14
FL2022155	Preparation for resubmission to ER/ICE/IP with ICE Certification	22	28-Apr-14	24-May-14
FL2022156	ER/IP's Approval	28	25-May-14	21-Jun-14
DDA Submission		73	04-Sep-14	01-Dec-14
FL2022158	IPs'/ ER's Review	28	04-Sep-14	09-Oct-14
FL2022159	Preparation for resubmission to ER/ICE/IP with ICE Certification	21	10-Oct-14	03-Nov-14
FL2022160	ER/IP's Approval	28	04-Nov-14	01-Dec-14
Bored Tunnel OHVD Slab		293	10-Mar-14	05-Mar-15
AIP Submission		276	10-Mar-14	05-Nov-14
FL2022161	Preparation for formal submission to ER/ICE/IP	123	10-Mar-14	08-Aug-14
FL2022162	IPs'/ ER's Review	28	09-Aug-14	11-Sep-14

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FL2022163	Preparation for resubmission to ER/ICE/IP with ICE Certification	21	12-Sep-14	08-Oct-14
FL2022164	ER/IP's Approval	28	09-Oct-14	05-Nov-14
DDA Submission		42	13-Jan-15	05-Mar-15
FL2022165	Preparation for formal submission to ER/ICE/IP	42	13-Jan-15	05-Mar-15
Bored Tunnel Internal Structure (except OHVD Slab)		364	15-Mar-14	05-Mar-15
AIP Submission		271	15-Mar-14	01-Nov-14
FL2022169	Preparation for formal submission to ER/ICE/IP	115	15-Mar-14	05-Aug-14
FL2022170	IPs'/ ER's Review	28	06-Aug-14	06-Sep-14
FL2022171	Preparation for resubmission to ER/ICE/IP with ICE Certification	21	08-Sep-14	04-Oct-14
FL2022172	ER/IP's Approval	28	05-Oct-14	01-Nov-14
DDA Submission		42	13-Jan-15	05-Mar-15
FL2022173	Preparation for formal submission to ER/ICE/IP	42	13-Jan-15	05-Mar-15
Bored Tunnel/ D&B Tunnel Transition - Headwall Structure (N/B & S/B)		198	02-Jul-14	21-Nov-14
AIP Submission		198	02-Jul-14	21-Nov-14
FL2022177	Preparation for formal submission to ER/ICE/IP	45	02-Jul-14	22-Aug-14
FL2022178	IPs'/ ER's Review	28	23-Aug-14	25-Sep-14
FL2022179	Preparation for resubmission to ER/ICE/IP with ICE Certification	23	26-Sep-14	24-Oct-14
FL2022180	ER/IP's Approval	28	25-Oct-14	21-Nov-14
Northbound TBM Dismantling Cavern Temporary Works		42	03-Jan-15	24-Feb-15
DDA Submission		42	03-Jan-15	24-Feb-15
FL2022185	Preparation for formal submission to ER/ICE/IP	42	03-Jan-15	24-Feb-15
Bored Tunnel Cross Passages Temp Works (Soft Ground)		50	27-Jan-15	28-Mar-15
DDA Submission		50	27-Jan-15	28-Mar-15
FL2022197	Preparation for formal submission to ER/ICE/IP	50	27-Jan-15	28-Mar-15
Bored Tunnel Cross Passages Temp Works (Rock)		50	27-Jan-15	28-Mar-15
DDA Submission		50	27-Jan-15	28-Mar-15
FL2022201	Preparation for formal submission to ER/ICE/IP	50	27-Jan-15	28-Mar-15
Bored Tunnel Cross Passages Permanent Lining (Soft Ground)		133	27-Sep-14	03-Feb-15
AIP Submission		133	27-Sep-14	03-Feb-15
FL2022205	Preparation for formal submission to ER/ICE/IP	42	27-Sep-14	17-Nov-14
FL2022206	IPs'/ ER's Review	28	18-Nov-14	19-Dec-14
FL2022207	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	20-Dec-14	06-Jan-15
FL2022208	ER/IP's Approval	28	07-Jan-15	03-Feb-15
Bored Tunnel Cross Passages Permanent Lining (Rock)		133	27-Sep-14	03-Feb-15
AIP Submission		133	27-Sep-14	03-Feb-15
FL2022213	Preparation for formal submission to ER/ICE/IP	42	27-Sep-14	17-Nov-14
FL2022214	IPs'/ ER's Review	28	18-Nov-14	19-Dec-14
FL2022215	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	20-Dec-14	06-Jan-15
FL2022216	ER/IP's Approval	28	07-Jan-15	03-Feb-15
Bored Tunnel Cross Passages Internal Structures		53	27-Nov-14	23-Feb-15
AIP Submission		53	27-Nov-14	23-Feb-15
FL2022221	Preparation for formal submission to ER/ICE/IP	42	27-Nov-14	17-Jan-15
FL2022222	IPs'/ ER's Review	28	19-Jan-15	23-Feb-15
Temp Pre-Cast Reinforced Box for TBM Segment Del in Curved Section		57	03-Dec-14	28-Feb-15
DDA Submission		57	03-Dec-14	28-Feb-15
FL2022229	Preparation for formal submission to ER/ICE/IP	42	03-Dec-14	23-Jan-15
FL2022230	IPs'/ ER's Review	28	24-Jan-15	28-Feb-15
Confinement Pressure Report		117	14-Oct-14	26-Feb-15
DDA Submission		117	14-Oct-14	26-Feb-15
FL2022233	Preparation for formal submission to ER/ICE/IP	42	14-Oct-14	01-Dec-14
FL2022234	IPs'/ ER's Review	28	02-Dec-14	06-Jan-15

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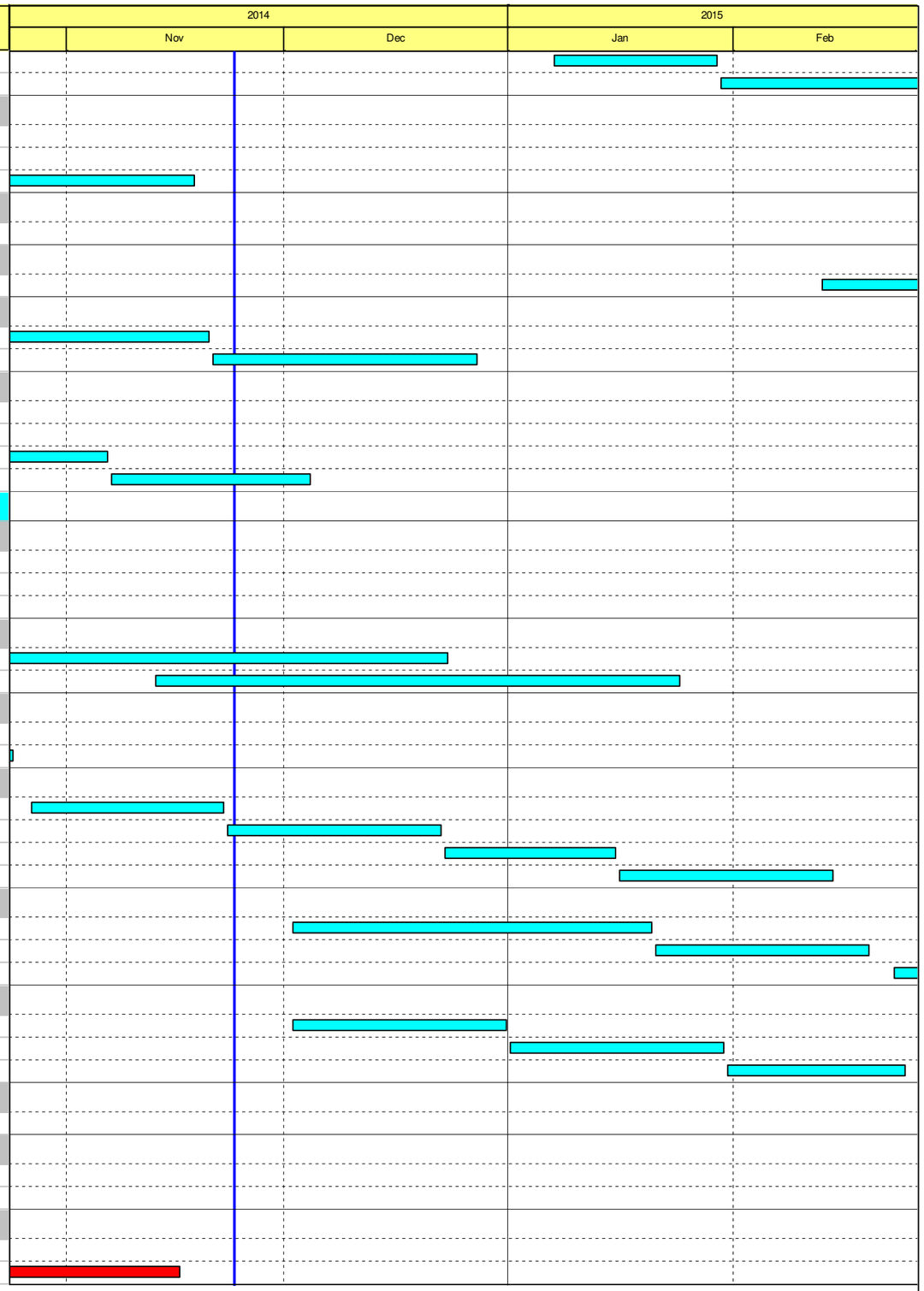
FL2022235	Preparation for resubmission to ER/ICE/IP with ICE Certification	20	07-Jan-15	29-Jan-15
FL2022236	ER/IP's Approval	28	30-Jan-15	26-Feb-15
CBAR North Tunnel (D&B Section)		73	22-Aug-14	18-Nov-14
A26030a2	ER/IP's Review	28	22-Aug-14	24-Sep-14
A26030a3	Preparation and Submission of CBAR -2nd Submission	21	25-Sep-14	21-Oct-14
A26030b	ER/IP's Review&Approval of CBAR	28	22-Oct-14	18-Nov-14
Construction Impact Assesment - North Portal & North D&B Tunnels		70	07-Jun-14	15-Aug-14
SC01115	*Final Report	70	07-Jun-14	15-Aug-14
Construction Impact Assesment - North Tunnels Cross Passages		31	13-Feb-15	15-Mar-15
FL21090	Draft Report	31	13-Feb-15	15-Mar-15
Construction Impact Assesment - Bored Tunnel		87	21-Oct-14	27-Dec-14
FL21140	Draft Report	31	21-Oct-14	20-Nov-14
FL21175	*Final CIA Report	37	21-Nov-14	27-Dec-14
Waterworks Impact Assessment - Existing WSD Nam Chung Water Tunnel		90	22-Jul-14	04-Dec-14
FL2022243	Preparation for formal submission to ER/ICE/IP	42	22-Jul-14	08-Sep-14
FL2022244	IPs'/ ER's Review	28	10-Sep-14	14-Oct-14
FL2022245	Preparation for resubmission to ER/ICE/IP with ICE Certification	20	15-Oct-14	06-Nov-14
FL2022246	ER/IP's Approval	28	07-Nov-14	04-Dec-14
5.3 North Portal Method Statement Submission		382	05-Apr-14	14-Nov-15
North Portal: Temporary Drainage System		63	05-Apr-14	25-Jun-14
FL2022274	ER's Comment for Method Statement	30	05-Apr-14	04-May-14
FL2022284	Prepare & Re-submit Method Statement	18	05-May-14	26-May-14
FL2022294	ER's Approval for Method Statement	30	27-May-14	25-Jun-14
North Tunnel (D&B Section) Blasting Method Statement		122	03-Oct-14	24-Jan-15
FL2022109	Preparation and Submission of Blasting Method Statement	70	03-Oct-14	23-Dec-14
FL2022110	Engineer's/IP's Review & Approval	60	13-Nov-14	24-Jan-15
North Portal: MS for Site Installation for TBM		123	22-Aug-14	24-Oct-14
N21550	Prepare Method Statement	24	22-Aug-14	19-Sep-14
N21560	Engineer's Review / Approval	28	20-Sep-14	24-Oct-14
MS for TBM On-Site Assembly		99	27-Oct-14	14-Feb-15
FL4875	Prepare & Submit Method Statement	24	27-Oct-14	22-Nov-14
FL4880	ER's Comment for Method Statement	30	23-Nov-14	22-Dec-14
FL4885	Prepare & Re-submit Method Statement	18	23-Dec-14	15-Jan-15
FL4890	ER's Approval for Method Statement	30	16-Jan-15	14-Feb-15
MS for TBM Launching		75	02-Dec-14	14-Mar-15
FL2022061	Prepare & Submit Method Statement	40	02-Dec-14	20-Jan-15
FL2022062	ER's Comment for Method Statement	30	21-Jan-15	19-Feb-15
FL2022063	Prepare & Re-submit Method Statement	18	23-Feb-15	14-Mar-15
MS forTBM Excavation		67	02-Dec-14	24-Feb-15
FL2875	Prepare & Submit Method Statement	24	02-Dec-14	31-Dec-14
FL2880	ER's Comment for Method Statement	30	01-Jan-15	30-Jan-15
FL2885	Prepare & Re-submit Method Statement	18	31-Jan-15	24-Feb-15
MS for TBM Turn		24	17-Oct-15	14-Nov-15
FL3875	Prepare & Submit Method Statement	24	17-Oct-15	14-Nov-15
North Portal: MS for Temp.CLP Substation		52	04-Aug-14	06-Oct-14
N21020	Prepare & Submit CLP Sub-station Proposal	24	04-Aug-14	30-Aug-14
N21030	CLP Review & Approval	28	01-Sep-14	06-Oct-14
North Portal: WSD Tunnel Instrumentation		56	11-Sep-14	05-Jan-15
FL2022464	Prepare & Submit Method Statement	30	11-Sep-14	17-Oct-14
FL2022474	ER's Comment for Method Statement	30	18-Oct-14	16-Nov-14



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FL2022484	Prepare & Re-submit Method Statement	18	17-Nov-14	06-Dec-14
FL2022494	ER's Approval for Method Statement	30	07-Dec-14	05-Jan-15
5.5 North Portal Works		881	04-Feb-14	30-Sep-15
Engineer's Principal Site Office & Contractor's Site Office		240	05-Mar-14	29-Nov-14
N21355	Site Office Procurement & Erection	100	05-Mar-14	08-Jul-14
N21564	Construction of Core and Material Store	25	01-Nov-14	29-Nov-14
CLP Substation		251	04-May-14	14-Feb-15
N21059	Prepare & Submit CLP Sub-station Proposal + CLP's Approval	150	04-May-14	30-Sep-14
N21060	Sub-station Construction	110	07-Oct-14	14-Feb-15
N21090	Energization	1	14-Feb-15	14-Feb-15
North Portal: Strengthening Works for WSD Tunnel		18	08-Dec-14	30-Dec-14
DSN018310	Instrument Installation	18	08-Dec-14	30-Dec-14
North Portal: Site Establishment		102	04-Feb-14	14-Jun-14
N20530	Hoarding Erection & Site Installation	18	04-Feb-14	24-Feb-14
N20560a1	Haul Road Widening	39	24-Apr-14	14-Jun-14
North Portal: Site Formation		464	29-Apr-14	30-Sep-15
N20495	Permanent Slope Formation for TBM Site Installation	150	29-Apr-14	07-Nov-14
N20505	Permanent Slope Formation (Remaining)	200	08-Nov-14	25-Jul-15
N20515	SB: Stage 1 Open Cut to +30mPD	22	19-Jun-14	17-Jul-14
N20525	SB: Stage 2 Cut Slope w/Temp.Soil Nails from +30mPD to +20mPD	30	18-Jul-14	25-Aug-14
N20545	SB: Stage 3 Cut Slope from +20mPD to +12.50mPD w/3 rowsSoil Nail	24	08-Sep-14	08-Oct-14
N20615	NB: Stage 1 Cut Slope to + 38mPD	40	18-Jul-14	06-Sep-14
N20625	NB: Pre-bored H Piles [Retaining Wall]	36	08-Sep-14	22-Oct-14
N20635	NB: Stage 2 Excavation from +38mPD to +18mPD w/10 rows Soil Nail	74	23-Oct-14	20-Jan-15
N20655	NB: Stage 3 Permanent Slope from +75mPD to +30mPD	192	21-Jan-15	30-Sep-15
N20695	Site Clearance for CR6A	96	16-Jun-14	16-Oct-14
N21562	KD-12 Stage IV Completion of site clearance in Portions CR5A, CR6A and TA-1	0		19-Dec-14
North Portal: Site Installation for TBM		129	08-Nov-14	06-May-15
SC01310	Site Installation and Logistics for TBM Works	60	08-Nov-14	20-Jan-15
TD1000	Conveyor Belt System Construction	75	26-Jan-15	06-May-15
Southbound Tunnel (Mined Excavation) inc Enlargement		175	26-Aug-14	09-Mar-15
DB6370a	Top Heading Excavation (Canopies) (Ch6,450>Ch6,415) (35m) [P21: 4850 to 4815]	80	26-Aug-14	28-Nov-14
DB6370b	Blast door installation + Noise Measurement and 24Hr permit approval	30	06-Nov-14	05-Dec-14
DB6370c	Top Heading Excavation (Canopies) (Ch6,415>Ch6,355) (60m) [P21: 4815 to 4755]	72	06-Dec-14	02-Mar-15
DB6370d	Platform excavation for bench excavation	22	12-Feb-15	09-Mar-15
5.6 Administration Building:		299	23-May-14	04-May-15
5.62 Administration Building: Design Submission		299	23-May-14	10-Mar-15
Admin. Building - Foundation Design		299	23-May-14	10-Mar-15
AIP Submission		71	23-May-14	15-Aug-14
DSN015060	IPs'/ ER's Review	24	23-May-14	20-Jun-14
DSN015080	Preparation for resubmission to ER/ICE/IP with ICE Certification	19	21-Jun-14	14-Jul-14
DSN015180	ER/IP's Approval	28	15-Jul-14	15-Aug-14
DDA Submission		123	20-Dec-14	10-Mar-15
DSN29107	Preparation for formal submission to ER/ICE/IP	35	20-Dec-14	02-Feb-15
DSN29108	IPs'/ ER's Review	28	03-Feb-15	10-Mar-15
5.63 Administration Building: Method Statement Submission		56	09-Jan-15	18-Mar-15
Method Statement for Admin.Building Construction		52	14-Jan-15	18-Mar-15
A1990	Prepare Method Statement for Adminstration Building Construction	24	14-Jan-15	10-Feb-15
A2000	ER's Comment	28	11-Feb-15	18-Mar-15
MS for Adminstration Building: Demolition		47	09-Jan-15	07-Mar-15
SV2905	Prepare & Submit Demolition Plan & Method Statement	24	09-Jan-15	05-Feb-15

REV	DESCRIPTION	DATE	PREPARED	CHECKED	APPROVED
A	Monthly Report No.11	20/11/2014	RAN	RBS/SJO	PPL/DAL

MAIN CONTRACTOR: 香寶嘉 Dragages HongKong — A member of the Bouygues Construction group

CLIENT: CEDD 土木工程拓展署 Civil Engineering and Development Department

THE ENGINEER: AECOM

CONTRACTOR'S DESIGNER: ATKINS

PROJECT: Contract No. CV/2012/08 Liantang/Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure Works Contract 2

TITLE: Monthly Report No.11 3-Months Rolling Programme (Works Programme Rev. B)

DOCUMENT NO.: LTH/DHK/PGR/PW/PLP/00017/A

DOC. STATUS	CREATION DATE	REVISION
FOR INFO.	20/11/2014	A

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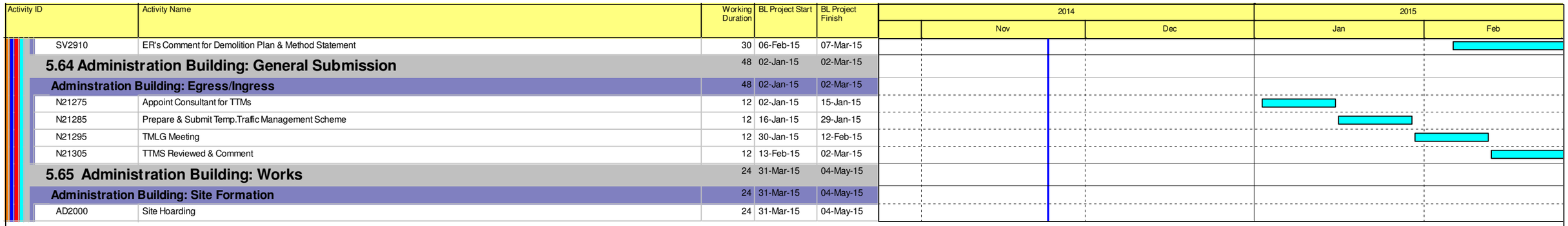
A3	N/A	11 of 12

Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
SV2910	ER's Comment for Demolition Plan & Method Statement	30	06-Feb-15	07-Mar-15
5.64 Administration Building: General Submission		48	02-Jan-15	02-Mar-15
Adminstration Building: Egress/Ingress		48	02-Jan-15	02-Mar-15
N21275	Appoint Consultant for TTMs	12	02-Jan-15	15-Jan-15
N21285	Prepare & Submit Temp.Trafic Management Scheme	12	16-Jan-15	29-Jan-15
N21295	TMLG Meeting	12	30-Jan-15	12-Feb-15
N21305	TTMS Reviewed & Comment	12	13-Feb-15	02-Mar-15
5.65 Administration Building: Works		24	31-Mar-15	04-May-15
Administration Building: Site Formation		24	31-Mar-15	04-May-15
AD2000	Site Hoarding	24	31-Mar-15	04-May-15



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MAIN CONTRACTOR: 香寶嘉港 Dragages HongKong — A member of the Bouygues Construction group

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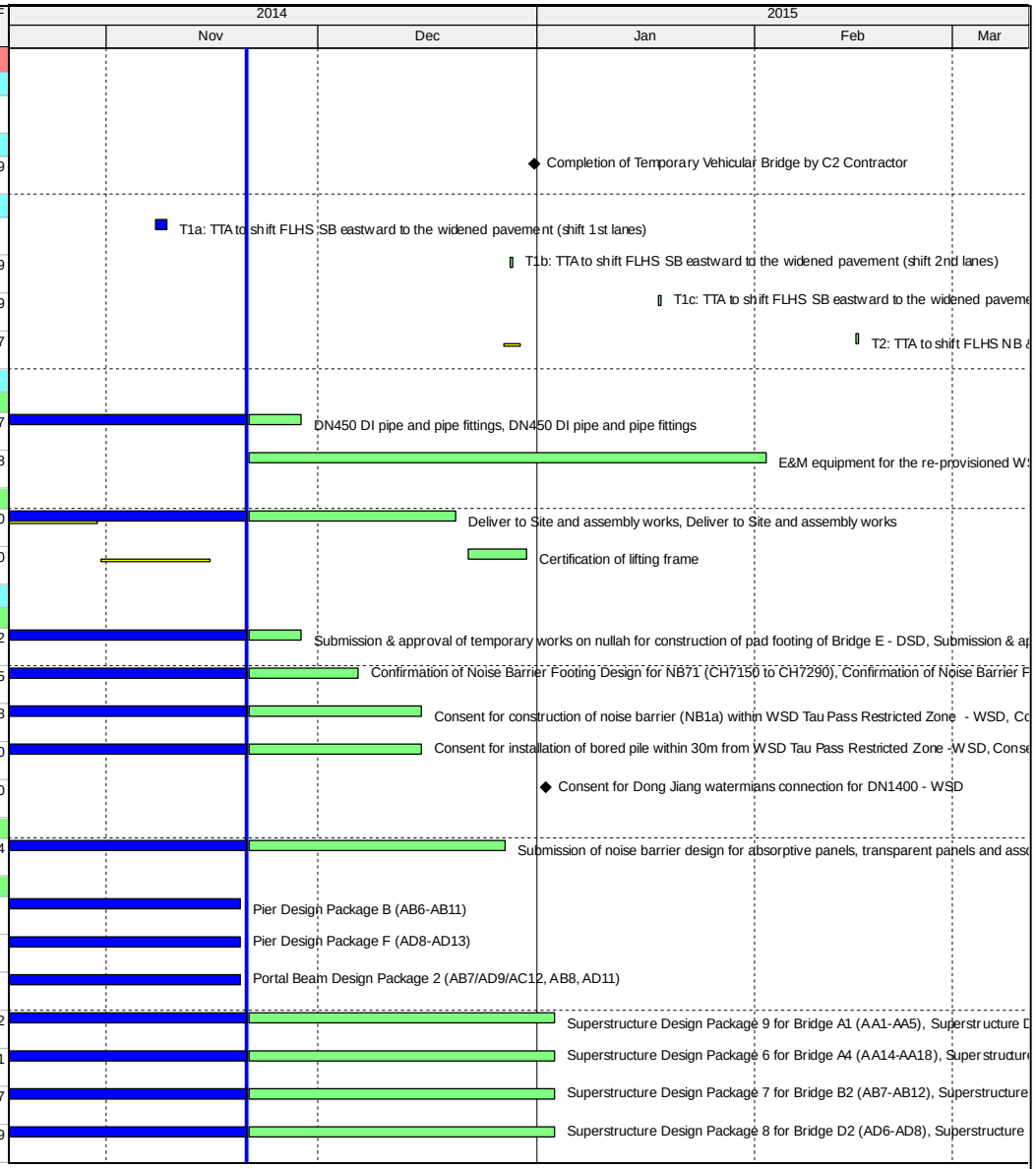
A3	N/A	12 of 12

Contract 3

Activity ID	Activity Name	OD	RD	Start	Finish	TF
3-Month Rolling Programme 2014-11-21						
Key Dates (Contractual)						
KD-0010	Commencement of Works	0	0	31-Jul-13 A		
Dependent Milestones from Other Contracts						
MS-0100	Completion of Temporary Vehicular Bridge by C2 Contractor	0	0		31-Dec-14*	-99
Major Milestones and Events						
MS-2000A1	T1a: TTA to shift FLHS SB eastward to the widened pavement (shift 1st lanes)	1	0	08-Nov-14 A	09-Nov-14 A	
MS-2000A2	T1b: TTA to shift FLHS SB eastward to the widened pavement (shift 2nd lanes)	1	1	28-Dec-14*	28-Dec-14	9
MS-2000A3	T1c: TTA to shift FLHS SB eastward to the widened pavement (shift 3rd lanes)	1	1	18-Jan-15*	18-Jan-15	9
MS-2000B	T2: TTA to shift FLHS NB & TWSRW eastward	1	1	15-Feb-15*	15-Feb-15	17
Major Procurement & Delivery						
Water Supply Pipeworks						
MM-1050	DN450 DI pipe and pipe fittings	60	7	21-Jun-14 A	28-Nov-14	147
MM-1060	E&M equipment for the re-provisioned WSD Valve Control House	60	60	21-Nov-14	02-Feb-15	8
Precast Bridge Segment Lifting Frames and Precast Yard						
MM-2040	Deliver to Site and assembly works	44	26	28-Sep-14 A	20-Dec-14	10
MM-2050	Certification of lifting frame	6	6	22-Dec-14	30-Dec-14	10
Design and Submissions						
Statutory Approval						
PRE-1040	Submission & approval of temporary works on nullah for construction of pad footing of Bridge E - DSD	40	7	11-Sep-14 A	28-Nov-14	2
PRE-1500	Confirmation of Noise Barrier Footing Design for NB71 (CH7150 to CH7290)	70	14	17-Apr-14 A	06-Dec-14	1385
PRE-1220	Consent for construction of noise barrier (NB1a) within WSD Tau Pass Restricted Zone - WSD	45	21	09-Apr-14 A	15-Dec-14	188
PRE-1230B	Consent for installation of bored pile within 30m from WSD Tau Pass Restricted Zone -WSD	90	21	15-Jan-14 A	15-Dec-14	0
PRE-1210	Consent for Dong Jiang watermians connection for DN1400 - WSD	0	0		02-Jan-15*	0
Method Statement and Design (Major) Approved by AECOM						
PRE-2020	Submission of noise barrier design for absorptive panels, transparent panels and associated fixing details	60	30	11-Mar-14 A	27-Dec-14	154
Contractor's Alternative Design (AD) Submission & Approval						
PRE-4220	Pier Design Package B (AB6-AB11)	43	0	28-Nov-13 A	20-Nov-14 A	
PRE-4260	Pier Design Package F (AD8-AD13)	50	0	20-Jan-14 A	20-Nov-14 A	
PRE-4280	Portal Beam Design Package 2 (AB7/AD9/AC12, AB8, AD11)	38	0	23-Aug-14 A	20-Nov-14 A	
PRE-4310A	Superstructure Design Package 9 for Bridge A1 (AA1-AA5)	118	35	16-May-14 A	03-Jan-15	362
PRE-4310D	Superstructure Design Package 6 for Bridge A4 (AA14-AA18)	108	35	16-May-14 A	03-Jan-15	101
PRE-4320B	Superstructure Design Package 7 for Bridge B2 (AB7-AB12)	196	35	21-May-14 A	03-Jan-15	7
PRE-4340B	Superstructure Design Package 8 for Bridge D2 (AD6-AD8)	56	35	30-Jul-14 A	03-Jan-15	229



俊和建築工程有限公司
CHUN WO CONSTRUCTION & ENGINEERING CO., LTD.

Actual Work
Remaining Work
Summary Bar
Critical Remaining Work
Milestone
Project Baseline Bar

CEDD Contract No. CV/2012/09

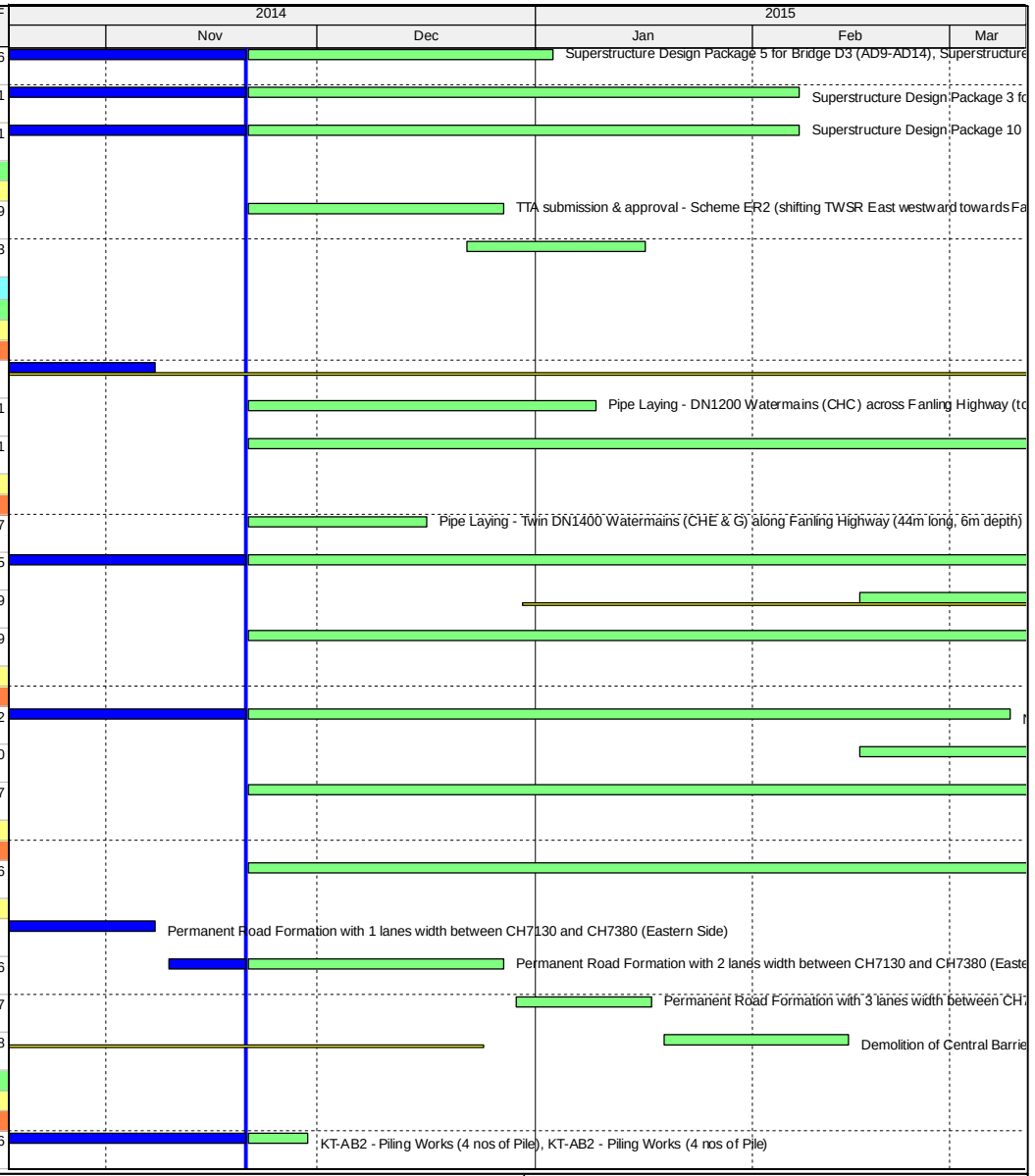
Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2014-11-21

Date	Revision	Checked	Approved
24-Nov-14	Rev.1	SL	

Activity ID	Activity Name	OD	RD	Start	Finish	TF
PRE-4340C	Superstructure Design Package 5 for Bridge D3 (AD9-AD14)	196	35	07-May-14 A	03-Jan-15	36
PRE-4310C	Superstructure Design Package 3 for Bridge A3 (AA10-AA13)	158	65	04-Apr-14 A	07-Feb-15	81
PRE-4310B	Superstructure Design Package 10 for Bridge A2 (AA6-AA9)	154	65	16-May-14 A	07-Feb-15	471
Temporary Traffic Arrangement (TTA) Submission and Approval						
TTA for Tai Wo Service Road East						
PRE-6220	TTA submission & approval - Scheme ER2 (shifting TWSR East westward towards Fanling Highway for pipe laying works)	30	30	21-Nov-14*	27-Dec-14	1369
PRE-6210	TTA submission & approval - Scheme ER1 (shifting TWSR East to Access Road A)	20	20	22-Dec-14*	16-Jan-15	1353
Section IA & IB - Fanling Highway Widening (KD-1 & KD-2)						
Fanling Highway South Portion between CH6935 and CH7470						
Fanling Highway Zone 1 between CH6935 and CH7130 (within SBZ2)						
At-Grade Roadworks (195m)						
FHW-1160	Road Formation, Road Drainage, Kerb and Pavement (Eastern Side)	48	0	31-Jul-14 A	08-Nov-14 A	
FHW-1110*	Pipe Laying - DN1200 Watermains (CHC) across Fanling Highway (total 80m for 2 shafts)	275	40	09-Jun-14 A	09-Jan-15	711
FHW-1150*	Pipe Laying - DN1200 Watermains (CHC) along Fanling Highway (80m long, 4m depth)	182	160	20-Feb-14 A	12-Jun-15	711
Fanling Highway Zone 2 between CH7130 and CH7290						
At-Grade Roadworks (160m)						
FHW-2120*	Pipe Laying - Twin DN1400 Watermains (CHE & G) along Fanling Highway (44m long, 6m depth)	85	22	09-Jul-14 A	16-Dec-14	287
FHW-2110B	Noise Barrier NB71 - Footing adjacent to SB lane (96m) (affected due to design change)	128	154	26-Jul-14 A	05-Jun-15	75
FHW-2200	Noise Barrier NB67 - Mini-Piling adjacent to NB lane (CSD: 36 nos)	108	108	16-Feb-15	07-Jul-15	9
FHW-2130*	Pipe Laying - DN1200 & DN600 Watermains (CHB & CHC) along Fanling Highway (183m long, 4m depth)	95	249	26-May-14 A	26-Sep-15	459
Fanling Highway Zone 3 between CH7290 and CH7380						
At-Grade Roadworks (130m)						
FHW-3130	Noise Barrier NB71 - Footing adjacent to SB lane (130m) Including pile cap	109	84	23-May-14 A	09-Mar-15	132
FHW-3210	Noise Barrier NB69 - Mini-Piling adjacent to NB lane (CSD: 34nos)	68	68	16-Feb-15	18-May-15	140
FHW-3150*	Pipe Laying - DN600, DN1200 Watermains (CHB &CHC) along Fanling Highway (90m long, 3m depth)	150	429	07-Jun-14 A	13-May-16	387
Fanling Highway Zone 4 between CH7380 and CH7470						
At-Grade Roadworks (90m)						
FHW-4120*	Pipe Laying - Twin DN1400 Watermains (CHE & CHG) along Fanling Highway (90m long, 3m depth)	155	123	15-Oct-14 A	28-Apr-15	186
Miscellaneous Works for Facilitating Traffic Diversion of Fanling Highway						
FHW-M-1010	Permanent Road Formation with 1 lanes width between CH7130 and CH7380 (Eastern Side)	62	0	13-Jul-14 A	08-Nov-14 A	
FHW-M-1020	Permanent Road Formation with 2 lanes width between CH7130 and CH7380 (Eastern Side)	29	30	10-Nov-14 A	27-Dec-14	6
FHW-M-1030	Permanent Road Formation with 3 lanes width between CH7130 and CH7380 (Eastern Side)	17	17	29-Dec-14	17-Jan-15	7
FHW-M-1000	Demolition of Central Barrier & Make Good of Road Pavement for further Traffic Diversion	24	24	19-Jan-15	14-Feb-15	8
Fanling Highway North Portion between CH7470 and CH7925						
Fanling Highway Zone 5 between CH7470 and CH7600 (Provision of Kiu Tau Footbridge)						
Kiu Tau Footbridge Reprovision (East)						
FHW-5000B	KT-AB2 - Piling Works (4 nos of Pile)	20	8	24-Sep-14 A	29-Nov-14	276



俊和建築工程有限公司
CHUN WO CONSTRUCTION & ENGINEERING CO., LTD.

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Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2014-11-21

Date	Revision	Checked	Approved
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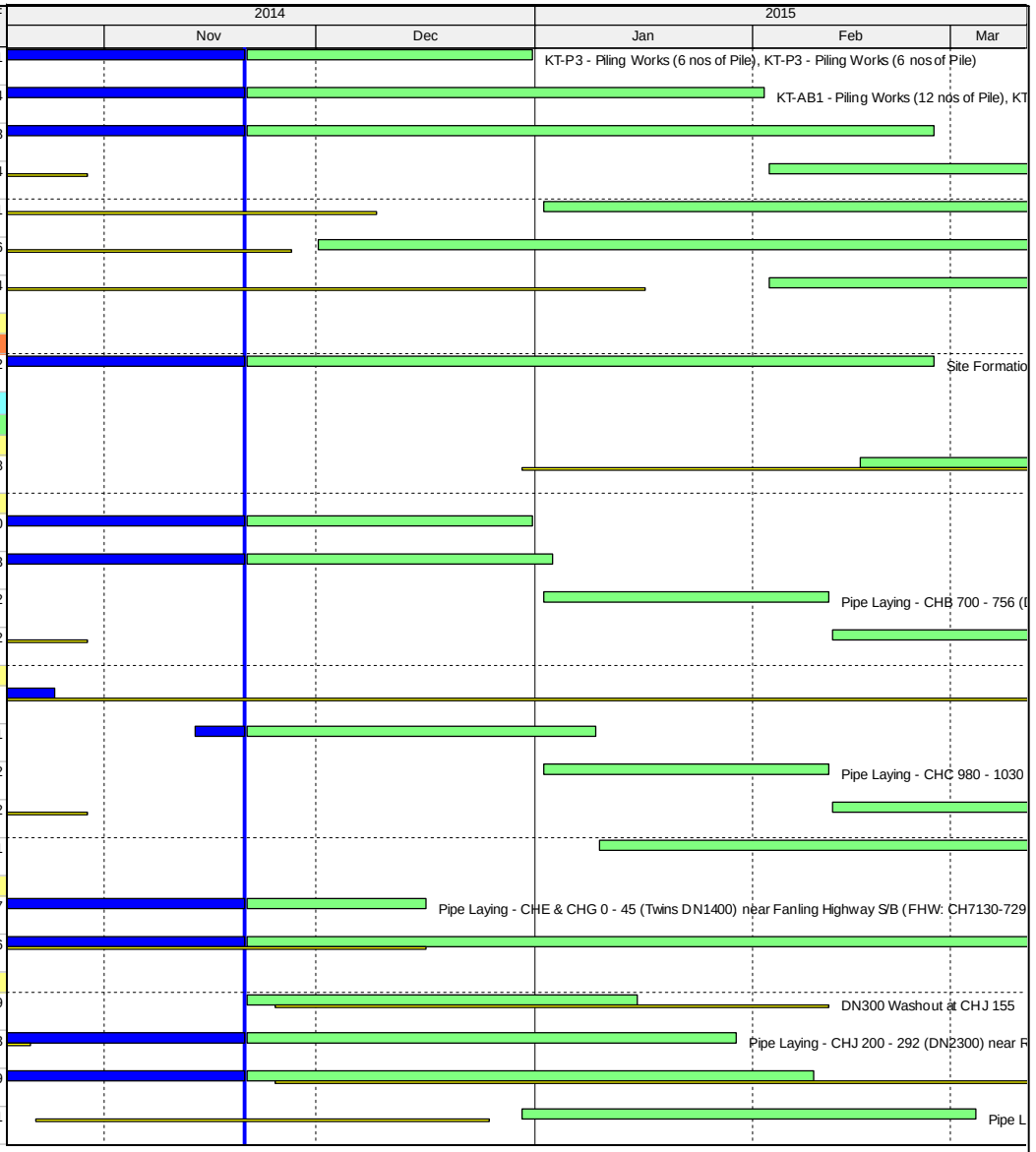
Activity ID	Activity Name	OD	RD	Start	Finish	TF
FHW-5000D	KT-P3 - Piling Works (6 nos of Pile)	40	33	06-Oct-14 A	31-Dec-14	111
FHW-5000A	KT-AB1 - Piling Works (12 nos of Pile)	60	60	29-Sep-14 A	02-Feb-15	84
FHW-5000C	KT-P2 - Piling Works (6 nos of Pile)	30	75	04-Oct-14 A	26-Feb-15	268
FHW-5000E	KT-P4 - Piling Works (8 nos of Pile)	40	40	03-Feb-15	27-Mar-15	84
FHW-5010D	KT-P3 - Pile Cap & Pier	75	75	02-Jan-15	10-Apr-15	281
FHW-5010B	KT-AB2 - Pile Cap & Abutment	105	105	01-Dec-14	16-Apr-15	276
FHW-5010A	KT-AB1 - Pile Cap & Abutment	105	105	03-Feb-15	18-Jun-15	224
Fanling Highway Zone 7 between CH7660 and CH7925						
At-Grade Roadworks (265m)						
FHW-7100	Site Formation, Preparation Works & Tree Transplant	127	75	30-Aug-13 A	26-Feb-15	282
Section II - Remainder of the Works (KD-3)						
WSD Works						
DN450 Fire Mains (CHA)						
WA-1030	Pipe Laying - CHA 260 - 360 (DN450) near Ext. TWSR West, 100m long & 2m depth	65	65	16-Feb-15	14-May-15	18
DN600 Water Mains (CHB)						
WB-0100	Temporary Local Diversion for DN600 near Abutment AD1	80	33	25-Sep-14 A	31-Dec-14	580
WB-1000	Pipe Laying - CHB 0 - 153 (DN600) near Fanling Highway S/B (FHW: CH7130-7290), 153m long (common trench with NB)	95	35	26-May-14 A	03-Jan-15	673
WB-1080	Pipe Laying - CHB 700 - 756 (DN600) near Realigned TWSR East (along Roundabout), 56m long & GL	35	35	02-Jan-15*	11-Feb-15	12
WB-1090	Pipe Laying - CHB 756 - 849 (DN600) near Realigned TWSR East (along Slip Road A), 93m long & GL	72	72	12-Feb-15	19-May-15	12
DN1200 Water Mains (CHC)						
WC-1030A	Excavation - CHC 100 - 155 (DN1200) across Fanling Highway by Trenchless Method, 110m long for 2 shafts	169	0	19-Sep-14 A	25-Oct-14 A	
WC-1030B	Pipe Laying - CHC 100 - 155 (DN1200) across Fanling Highway & associated Grouting Works	46	40	14-Nov-14 A	09-Jan-15	711
WC-1140	Pipe Laying - CHC 980 - 1030 (DN1200) near Realigned TWSR East (along Roundabout), 50m long & GL	35	35	02-Jan-15*	11-Feb-15	12
WC-1150	Pipe Laying - CHC 1030 - 1123 (DN1200) near Realigned TWSR East (along Slip Road A), 93m long & GL	72	72	12-Feb-15	19-May-15	12
WC-1050A	Pipe Laying - CHC 155 - 235 (DN1200) near Fanling Highway S/B (FHW: CH6935-7130), 50m long, 4m depth	120	120	10-Jan-15	12-Jun-15	711
Twin DN1400 Water Mains (CHE & CHG)						
WE-1000	Pipe Laying - CHE & CHG 0 - 45 (Twins DN1400) near Fanling Highway S/B (FHW: CH7130-7290), 45m long & 6m depth	85	22	09-Jul-14 A	16-Dec-14	287
WE-1020	Pipe Laying - CHE & CHG 135 - 225 (Twins DN1400) near Fanling Highway S/B (FHW: CH7380-7470), 90m long & 3m depth	155	123	15-Oct-14 A	28-Apr-15	186
DN2300 Water Mains and Leakage Collection System (CHJ & CHKA/CHK)						
WJ-1110	DN300 Washout at CHJ 155	45	45	21-Nov-14	15-Jan-15	169
WJ-1050	Pipe Laying - CHJ 200 - 292 (DN2300) near Realigned TWSR East (along Access Road A), 92m long & GL	97	57	01-Sep-14 A	29-Jan-15	23
WJ-1010	Pipe Laying - CHJ 0 - 100 (DN2200) near existing TWSR East, 100m long & 6m depth	120	81	13-Oct-14 A	09-Feb-15	189
WJ-1020B	Pipe Laying - CHKA 0 - 73 (DN1400) near Realigned TWSR East, 73m long & 4m depth	65	65	30-Dec-14	04-Mar-15	11



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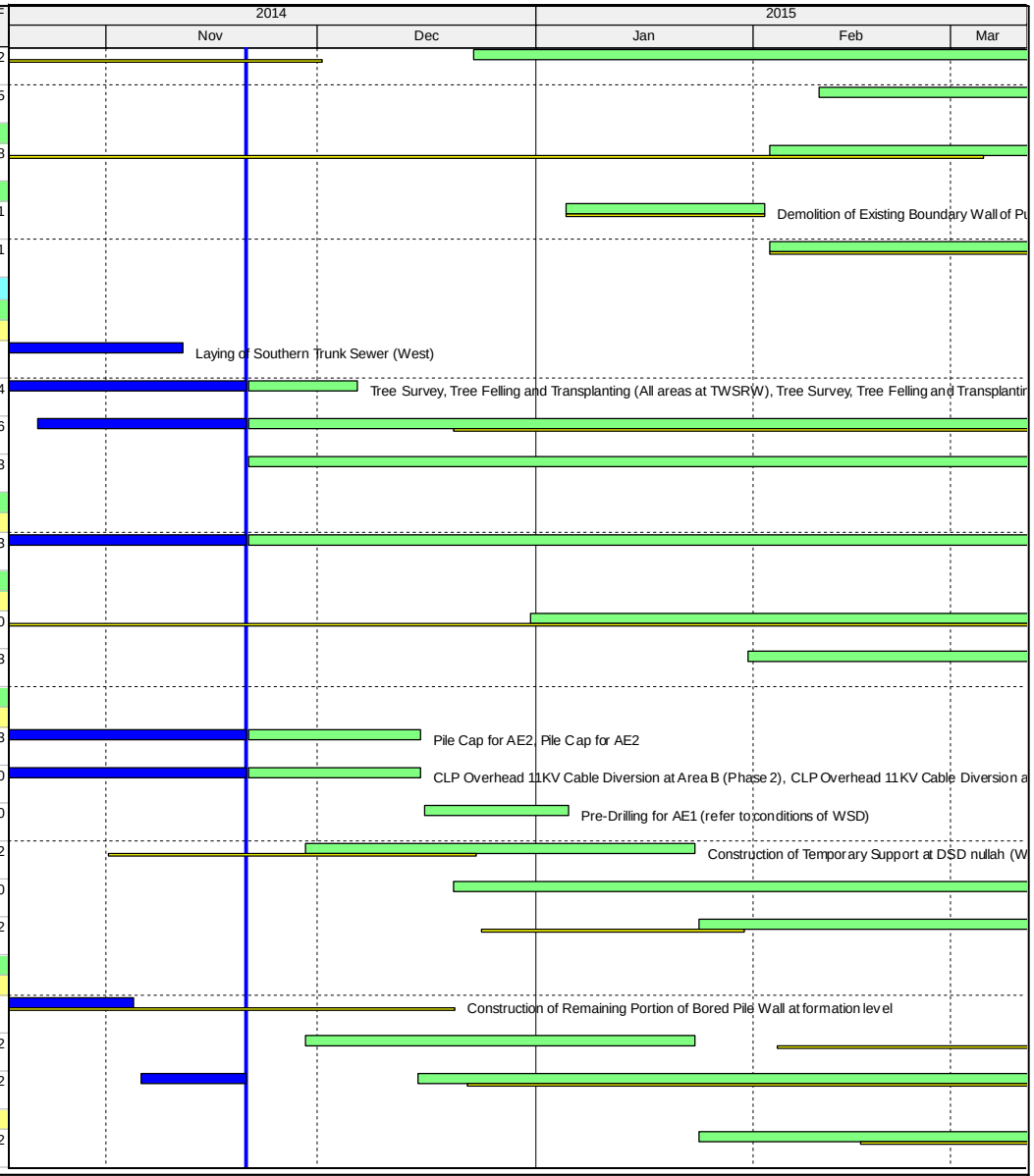
Activity ID	Activity Name	OD	RD	Start	Finish	TF
WJ-1100	DN300 Washout at CHJ 212	65	65	23-Dec-14	18-Mar-15	122
WJ-1000	Implementation of TTA - Scheme EX2 (Shifting TWSRE toward newly formation area beside Fanling Highway)	28	28	10-Feb-15	20-Mar-15	1305
Kau Lung Hang Valve Control & Telemetry House Reprovision						
VCTH-1010	BS and E&M Works	90	90	03-Feb-15	01-Jun-15	8
Existing Nam Wa Po Trunk Sewage Pumping Station (PST3)						
PS-1000	Demolition of Existing Boundary Wall of Pumping Station (PST3)	25	25	05-Jan-15*	02-Feb-15	841
PS-1010	Construction of New Boundary Wall for Pumping Station (PST3)	35	35	03-Feb-15	21-Mar-15	841
Stage 1A - Realignment of Tai Wo Service Road West (KD-7)						
TWSRW Zone 1 betweeen CH100 and CH155						
At-Grade Roadworks						
TWSRW-1130	Laying of Southern Trunk Sewer (West)	95	0	23-Apr-14 A	12-Nov-14 A	
TWSRW-1100	Tree Survey, Tree Felling and Transplanting (All areas at TWSRW)	81	14	16-Oct-13 A	06-Dec-14	4
TWSRW-1150	Installation of Cable Ducts for Utilities Diversion Works at Zone 1 & Zone 2 (Approx. 100m) (by utilities undertakers)	167	137	22-Oct-14 A	06-Apr-15	66
TWSRW-1160	Road Formation, Road Drainage, Kerb, Planter & Pavement	286	286	21-Nov-14	12-Nov-15	53
TWSRW Zone 2 betweeen CH155 and CH280						
At-Grade Roadworks						
TWSRW-2120	Road Formation, Road Drainage, Kerb, Planter and Pavement	337	306	16-Oct-14 A	05-Dec-15	33
TWSRW Zone 3 betweeen CH280 and CH315						
At-Grade Roadworks						
TWSRW-3110	Installation of Cable Ducts for Utilities Diversion Works at Zone 3 (Approx. 120m) (by utilities undertakers)	209	209	31-Dec-14*	27-Jul-15	0
TWSRW-3120	Road Formation, Road Drainage, Kerb, Planter and Pavement	248	248	31-Jan-15	05-Dec-15	33
TWSRW Zone 4 betweeen CH315 and CH376						
Construction of Bridge E						
TWSRW-4050B	Pile Cap for AE2	50	21	13-Oct-14 A	15-Dec-14	33
TWSRW-4000B	CLP Overhead 11KV Cable Diversion at Area B (Phase 2)	140	21	04-Nov-13 A	15-Dec-14	0
TWSRW-4010A	Pre-Drilling for AE1 (refer to conditions of WSD)	15	15	16-Dec-14*	05-Jan-15	0
TWSRW-4060	Construction of Temporary Support at DSD nullah (Work in dry season)	45	45	29-Nov-14	23-Jan-15	2
TWSRW-4030A	Bored Pile Works for AE1	65	65	20-Dec-14	16-Mar-15	0
TWSRW-4070	In-situ Casting for Bridge Segment (North Bay & Middle Bay)	110	110	24-Jan-15	15-Jun-15	2
TWSRW Zone 5 betweeen CH376 and CH520						
Construction of Retaining Structures						
TWSRW-5050D	Construction of Remaining Portion of Bored Pile Wall at formation level	85	0	02-Sep-14 A	05-Nov-14 A	
TWSRW-5080	Retaining Strucute along Slope no. 3SW-C/C898 (to be covered by VO)	45	45	29-Nov-14	23-Jan-15	22
TWSRW-5090	Lagging Wall Construction and Capping Beam	135	122	06-Nov-14 A	21-May-15	22
At-Grade Roadworks						
TWSRW-5100	Noise Barrier NB2 - Footing and Retaining Structure adjacent to Realigned TWSR West (66m)	90	90	24-Jan-15	21-May-15	22



俊和建築工程有限公司
CHUN WO CONSTRUCTION & ENGINEERING CO., LTD.

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CEDD Contract No. CV/2012/09

Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2014-11-21

Date	Revision	Checked	Approved
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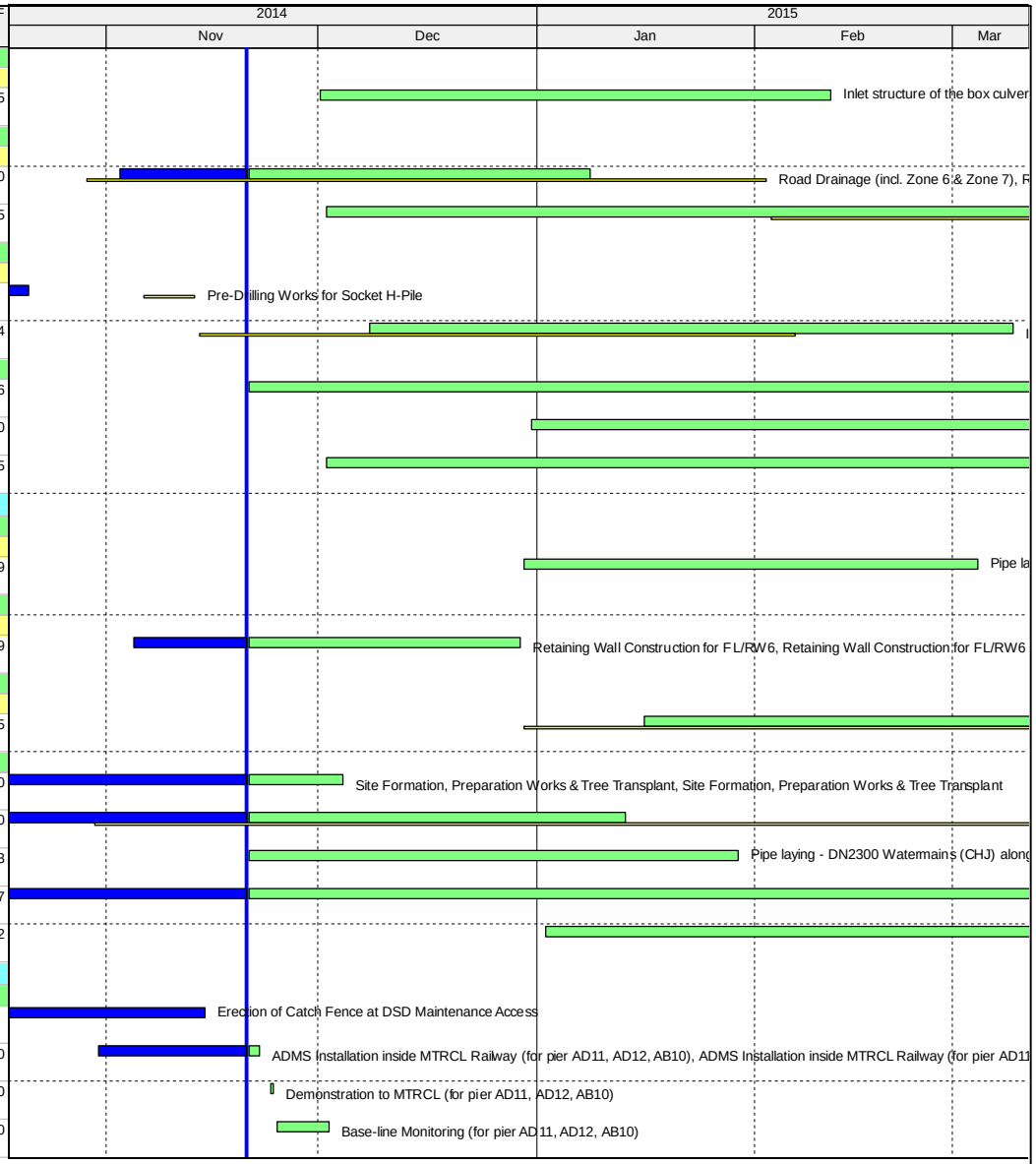
Activity ID	Activity Name	OD	RD	Start	Finish	TF
	TWSRW Zone 6 betweeen CH520 and CH530					
	Box Culvert Extension - BC01					
TWSRW-6070	Inlet structure of the box culvert BC01 (Covered by VO no. 41)	60	60	01-Dec-14*	11-Feb-15*	35
	TWSRW Zone 7 betweeen CH530 and CH640					
	At-Grade Roadworks					
TWSRW-7130	Road Drainage (incl. Zone 6 & Zone 7)	55	39	03-Nov-14 A	08-Jan-15	20
TWSRW-7140	Installation of Cable Ducts for Utilities Diversion Works at Area 4 (Approx. 150m) (by utilities undertakers)	251	251	02-Dec-14	09-Aug-15	25
	TWSRW Zone 8 betweeen CH640 and CH695					
	Kiu Tau Footbridge Reprovision (West)					
TWSRW-8000	Pre-Drilling Works for Socket H-Pile	45	0	06-Oct-14 A	21-Oct-14 A	
TWSRW-8010	Installation of Socket H-Pile for Proposed Kiu Tau Footbridge (14 nos of Pile)	70	70	08-Dec-14	09-Mar-15	4
	Remainder of the Works					
TWSRW-9010*	Utilities Diversion in Area 1 (along Re-aligned TWSRW CH100 - CH280)	167	137	22-Oct-14 A	06-Apr-15	66
TWSRW-9020*	Utilities Diversion in Area 2 (along Re-aligned TWSRW CH 280 - CH315)	209	209	31-Dec-14	27-Jul-15	0
TWSRW-9040*	Utilities Diversion in Area 4 (along Re-aligned TWSRW CH530 - CH640)	251	251	02-Dec-14	09-Aug-15	25
	Stage N4A & N4B - Realignment of Tai Wo Service Road East (KD-13 & KD-14)					
	TWSRE Zone 1 between CH100 and CH270					
	At-Grade Roadworks					
TWSRE-1140*	Pipe laying - DN1400 Watermains (CHKA) along Realigned TWSR East	49	49	30-Dec-14	04-Mar-15	9
	TWSRE Zone 2 between CH270 and CH380					
	At-Grade Roadworks					
TWSRE-2020	Retaining Wall Construction for FL/RW6	45	31	05-Nov-14 A	29-Dec-14	9
	TWSRE Zone 3 between CH380 and CH456					
	At-Grade Roadworks					
TWSRE-3010	Noise Barrier NB3 - Footing adjacent to Realigned TWSR East (62m)	85	85	16-Jan-15	07-May-15	65
	Roundabout A, Slip Road and Access Road					
TWSRE-4000	Site Formation, Preparation Works & Tree Transplant	65	12	15-Apr-14 A	04-Dec-14	140
TWSRE-4060	Access Road A - Road Formation, Road Drainage, Kerb, Planter and Pavement	134	43	18-Jul-14 A	13-Jan-15	80
TWSRE-4050B*	Pipe laying - DN2300 Watermains (CHJ) along Access Road A & Roundabout	91	57	20-Jun-14 A	29-Jan-15	23
TWSRE-4040	Slip Road Y (CH100-CH230) - Road Formation, Road Drainage, Kerb, Planter and Pavement	158	105	18-Sep-14 A	02-Apr-15	47
TWSRE-4050A*	Pipe laying - DN600 & DN1200 Watermains (CHB & CHC) along Access Road A & Roundabout	107	107	02-Jan-15	19-May-15	12
	Stage 1C - Viaduct Structure & TCSS Civil Provisions (KD-9)					
	Preliminaries					
B-4020	Erection of Catch Fence at DSD Maintenance Access	37	0	13-Oct-14 A	15-Nov-14 A	
B-1000A	ADMS Installation inside MTRCL Railway (for pier AD11, AD12, AB10)	14	2	31-Oct-14 A	22-Nov-14	0
B-1010A	Demonstration to MTRCL (for pier AD11, AD12, AB10)	1	1	24-Nov-14	24-Nov-14	0
B-1020A	Base-line Monitoring (for pier AD11, AD12, AB10)	7	7	25-Nov-14	02-Dec-14	0



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Date	Revision	Checked	Approved
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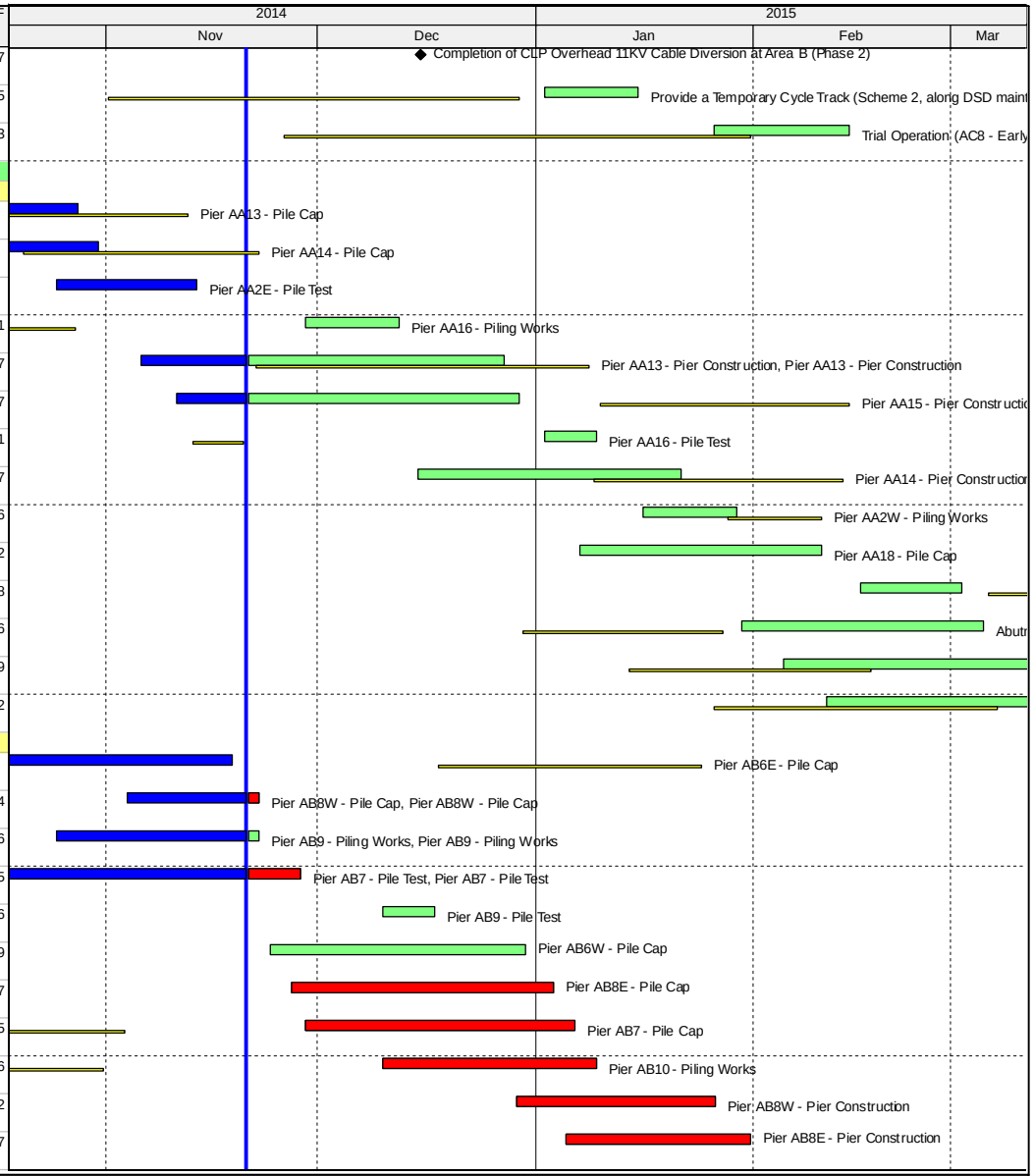
Activity ID	Activity Name	OD	RD	Start	Finish	TF
B-2030	Completion of CLP Overhead 11KV Cable Diversion at Area B (Phase 2)	0	0		15-Dec-14	87
B-5010	Provide a Temporary Cycle Track (Scheme 2, along DSD maintenance access)	12	12	02-Jan-15	15-Jan-15	65
B-9000	Trial Operation (AC8 - Early Start on 26 Nov 14)	18	18	26-Jan-15	14-Feb-15	53
Foundation & Pier Construction						
Bridge A						
BA-13-1020	Pier AA13 - Pile Cap	30	0	13-Aug-14 A	28-Oct-14 A	
BA-14-1020	Pier AA14 - Pile Cap	30	0	16-Oct-14 A	31-Oct-14 A	
BA-02-2010	Pier AA2E - Pile Test	7	0	25-Oct-14 A	14-Nov-14 A	
BA-16-1000	Pier AA16 - Piling Works	12	12	29-Nov-14	12-Dec-14	101
BA-13-1030	Pier AA13 - Pier Construction	38	30	06-Nov-14 A	27-Dec-14	67
BA-15-1030	Pier AA15 - Pier Construction	31	31	11-Nov-14 A	29-Dec-14	37
BA-16-1010	Pier AA16 - Pile Test	7	7	02-Jan-15	09-Jan-15	101
BA-14-1030	Pier AA14 - Pier Construction	30	30	15-Dec-14	21-Jan-15	37
BA-02-1000	Pier AA2W - Piling Works	12	12	16-Jan-15	29-Jan-15	136
BA-18-1020	Pier AA18 - Pile Cap	30	30	07-Jan-15	10-Feb-15	132
BA-02-1010	Pier AA2W - Pile Test	7	7	16-Feb-15	02-Mar-15	178
BA-01-1000	Abutment AA1 - Piling Works	24	24	30-Jan-15	05-Mar-15	136
BA-16-1020	Pier AA16 - Pile Cap	30	30	05-Feb-15	18-Mar-15	79
BA-03-1020	Pier AA3 - Pile Cap	30	30	11-Feb-15	24-Mar-15	132
Bridge B						
BB-06-1020A	Pier AB6E - Pile Cap	30	0	10-Oct-14 A	19-Nov-14 A	
BB-08-1020B	Pier AB8W - Pile Cap	30	2	04-Nov-14 A	22-Nov-14	-34
BB-09-1000	Pier AB9 - Piling Works	24	2	25-Oct-14 A	22-Nov-14	26
BB-07-1010	Pier AB7 - Pile Test	7	7	13-Sep-14 A	28-Nov-14	-45
BB-09-1010	Pier AB9 - Pile Test	7	7	10-Dec-14	17-Dec-14	26
BB-06-1020B	Pier AB6W - Pile Cap	30	30	24-Nov-14	30-Dec-14	229
BB-08-1020A	Pier AB8E - Pile Cap	30	30	27-Nov-14*	03-Jan-15	-97
BB-07-1020	Pier AB7 - Pile Cap	30	30	29-Nov-14	06-Jan-15	-45
BB-10-1000	Pier AB10 - Piling Works	24	24	10-Dec-14	09-Jan-15	-6
BB-08-1030	Pier AB8W - Pier Construction	24	24	29-Dec-14*	26-Jan-15	-62
BB-08-1040	Pier AB8E - Pier Construction	24	24	05-Jan-15	31-Jan-15	-97



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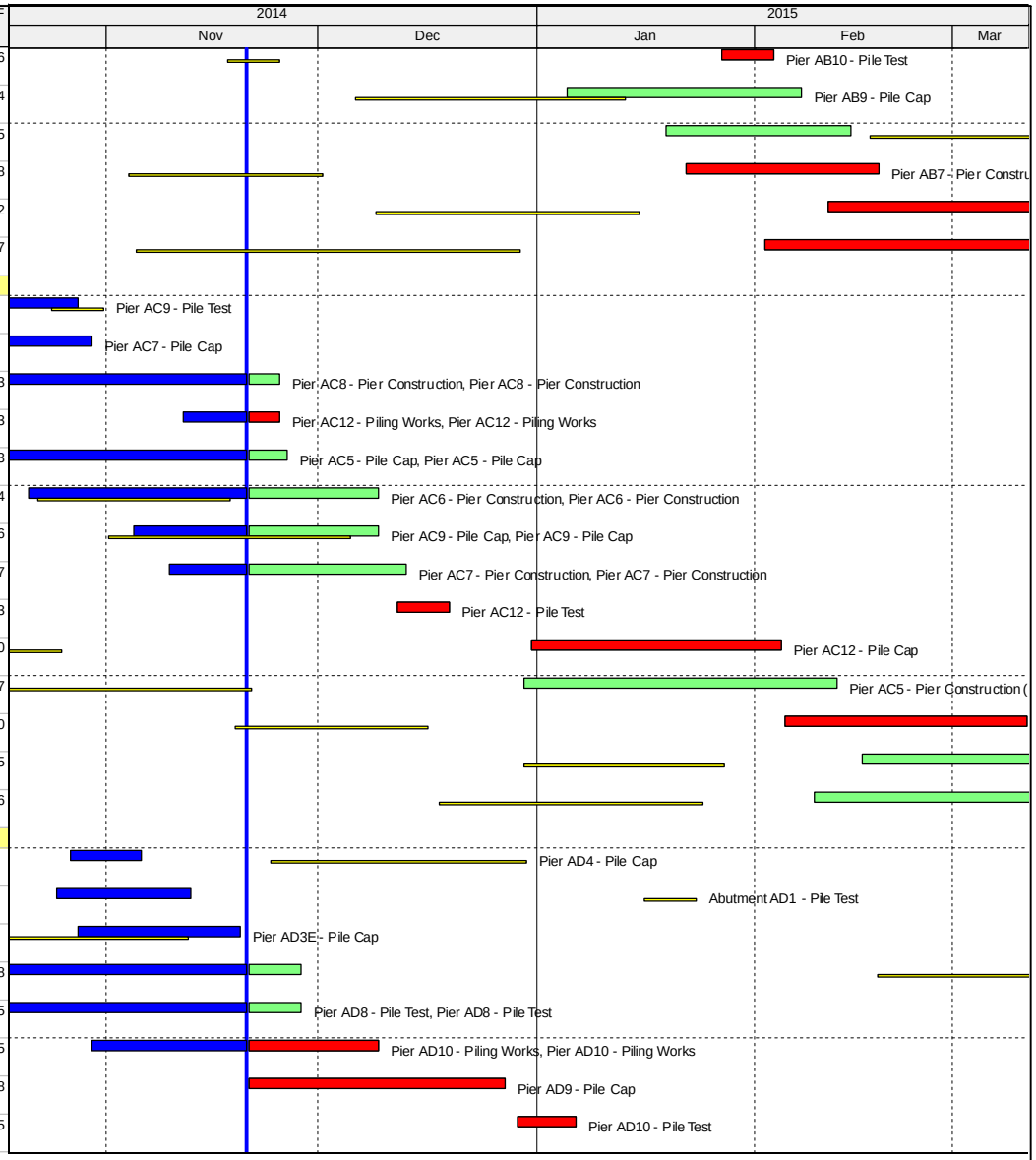
BB-10-1010	Pier AB10 - Pile Test	7	7	27-Jan-15	03-Feb-15	-6
BB-09-1020	Pier AB9 - Pile Cap	30	30	05-Jan-15	07-Feb-15	14
BB-11-1000	Pier AB11 - Piling Works	24	24	19-Jan-15	14-Feb-15	55
BB-07-1030	Pier AB7 - Pier Construction	24	24	22-Jan-15*	18-Feb-15	-58
BB-10-1020	Pier AB10 - Pile Cap	30	30	11-Feb-15	24-Mar-15	-12
BB-08-1050	Portal AB8 - Portal Construction	45	45	02-Feb-15	01-Apr-15	-97
Bridge C						
BC-09-1010	Pier AC9 - Pile Test	7	0	08-Oct-14 A	28-Oct-14 A	
BC-07-1020	Pier AC7 - Pile Cap	30	0	05-Sep-14 A	30-Oct-14 A	
BC-08-1030	Pier AC8 - Pier Construction	24	4	13-Sep-14 A	25-Nov-14	53
BC-12-1000	Pier AC12 - Piling Works	12	4	12-Nov-14 A	25-Nov-14	-63
BC-05-1020	Pier AC5 - Pile Cap	30	5	06-Oct-14 A	26-Nov-14	63
BC-06-1030	Pier AC6 - Pier Construction	24	16	21-Oct-14 A	09-Dec-14	104
BC-09-1020	Pier AC9 - Pile Cap	30	16	05-Nov-14 A	09-Dec-14	126
BC-07-1030	Pier AC7 - Pier Construction	24	20	10-Nov-14 A	13-Dec-14	37
BC-12-1010	Pier AC12 - Pile Test	7	7	12-Dec-14	19-Dec-14	-63
BC-12-1020	Pier AC12 - Pile Cap	30	30	31-Dec-14*	04-Feb-15	-70
BC-05-1030	Pier AC5 - Pier Construction (Twin Pier)	38	38	30-Dec-14	12-Feb-15	37
BC-12-1030	Pier AC12 - Pier Construction	24	24	05-Feb-15	11-Mar-15	-70
BC-03-1000	Pier AC3 - Piling Works	24	24	16-Feb-15	21-Mar-15	115
BC-11-1020	Pier AC11 - Pile Cap	30	30	09-Feb-15	21-Mar-15	126
Bridge D						
BD-04-1020	Pier AD4 - Pile Cap	30	0	27-Oct-14 A	06-Nov-14 A	
BD-01-1010	Abutment AD1 - Pile Test	7	0	25-Oct-14 A	13-Nov-14 A	
BD-03-1020A	Pier AD3E - Pile Cap	30	0	28-Oct-14 A	20-Nov-14 A	
BD-06-1020	Pier AD6 - Pile Cap	30	7	16-Oct-14 A	28-Nov-14	178
BD-08-1010	Pier AD8 - Pile Test	7	7	23-Aug-14 A	28-Nov-14	135
BD-10-1000	Pier AD10 - Piling Works	24	16	30-Oct-14 A	09-Dec-14	-55
BD-09-1020	Pier AD9 - Pile Cap	30	30	21-Nov-14	27-Dec-14	-48
BD-10-1010	Pier AD10 - Pile Test	7	7	29-Dec-14	06-Jan-15	-55



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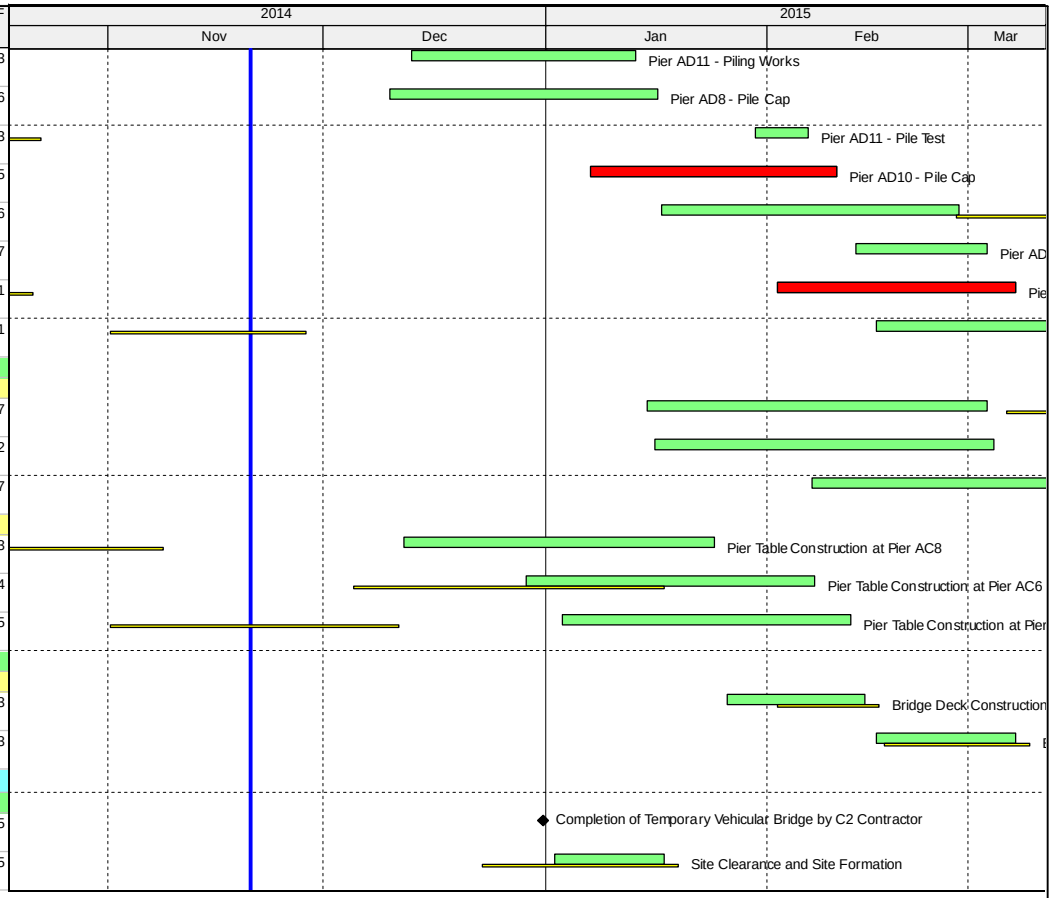
BD-11-1000	Pier AD11 - Piling Works	24	24	13-Dec-14	13-Jan-15	113
BD-08-1020	Pier AD8 - Pile Cap	30	30	10-Dec-14	16-Jan-15	126
BD-11-1010	Pier AD11 - Pile Test	7	7	30-Jan-15	06-Feb-15	113
BD-10-1020	Pier AD10 - Pile Cap	30	30	07-Jan-15	10-Feb-15	-55
BD-01-1020	Abutment AD1 - Pile Cap	30	30	17-Jan-15	27-Feb-15	126
BD-03-1030	Pier AD3W - Pier Construction	10	10	13-Feb-15	03-Mar-15	37
BD-09-1030	Pier AD9 - Pier Construction	24	24	02-Feb-15	07-Mar-15	-71
BD-12-1000	Pier AD12 - Piling Works	24	24	16-Feb-15	21-Mar-15	121
Pier Head Construction						
Bridge A						
PA-1130	Pier Table Construction at Pier AA13	35	35	15-Jan-15	03-Mar-15	67
PA-1150	Pier Table Construction at Pier AA15	35	35	16-Jan-15	04-Mar-15	112
PA-1140	Pier Table Construction at Pier AA14	35	35	07-Feb-15	26-Mar-15	37
Bridge C						
PC-1080	Pier Table Construction at Pier AC8	35	35	12-Dec-14	24-Jan-15	53
PC-1060	Pier Table Construction at Pier AC6	35	35	29-Dec-14	07-Feb-15	104
PC-1070	Pier Table Construction at Pier AC7	35	35	03-Jan-15	12-Feb-15	55
Viaduct Bridge Segement Erection						
Bridge C						
EC-1080	Bridge Deck Construction at Pier AC8 by Typical Lifting Frame (24 nos)	18	18	26-Jan-15	14-Feb-15	53
EC-1070	Bridge Deck Construction at Pier AC7 by Typical Lifting Frame (27 nos)	12	12	16-Feb-15	07-Mar-15	53
Section VI - Works in Portion FH9 (KD-6A)						
Preliminary Preparation Works						
S6-1000	Completion of Temporary Vehicular Bridge by C2 Contractor	0	0		31-Dec-14	55
S6-1020	Site Clearance and Site Formation	14	14	02-Jan-15	17-Jan-15	55



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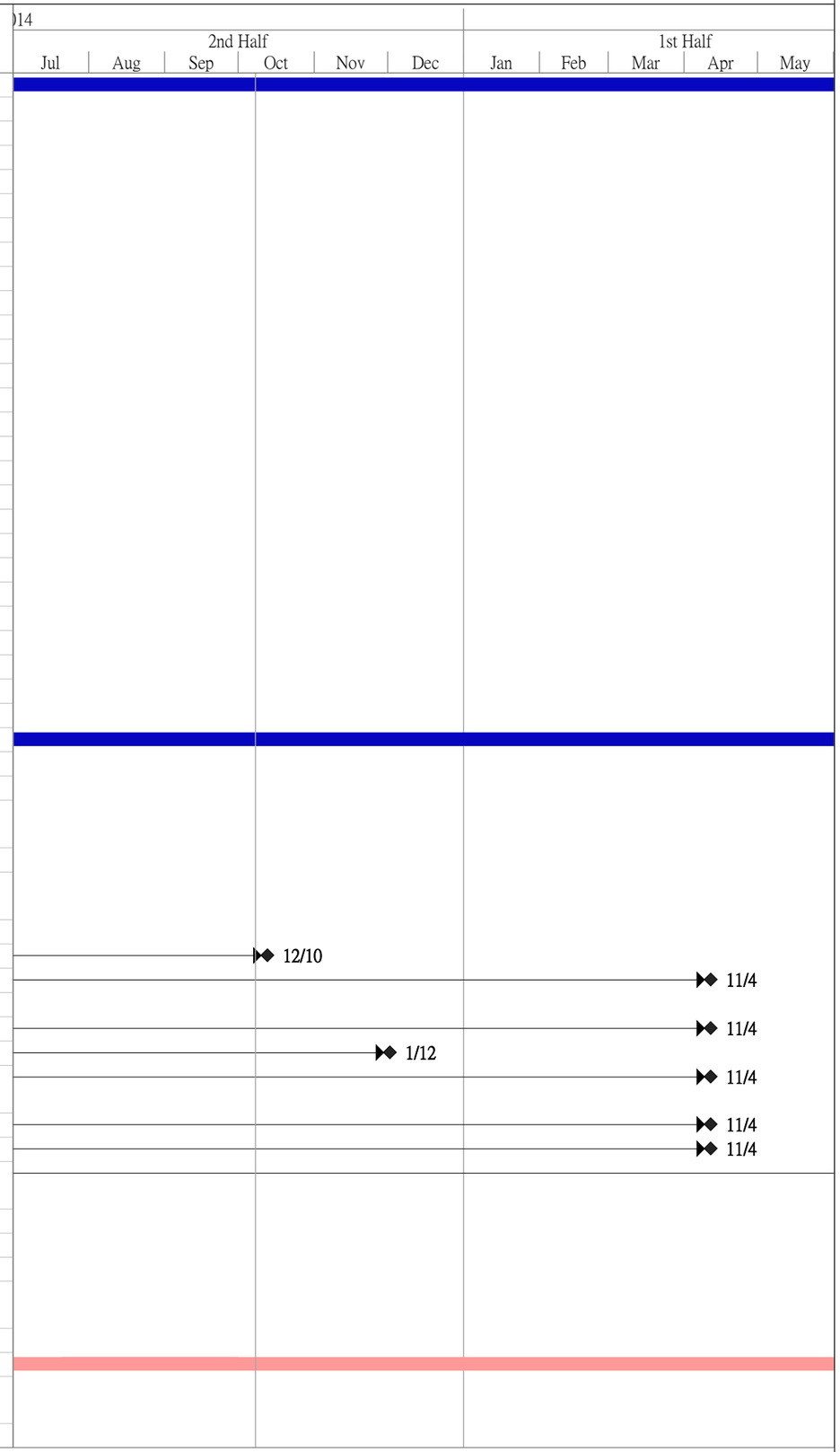
Contract 5

ID	WBS	Task Name	Duration	Start	Finish	% Complete
1	**1**	**Key Dates**	**1110 days**	**28/3/2013**	**10/4/2016**	**0%**
2	**1.1**	**Contract Award & Commencement**	**15 days**	**28/3/2013**	**11/4/2013**	**100%**
3	1.1.1	Letter of Acceptance	0 days	28/3/2013	28/3/2013	100%
4	1.1.2	Commencement of Works	0 days	11/4/2013	11/4/2013	100%
5	**1.2**	**Site Possession Date**	**330 days**	**11/4/2013**	**7/3/2014**	**100%**
6	1.2.1	Portion BCP 1	0 days	11/5/2013	11/5/2013	100%
7	1.2.2	Portion BCP 2	0 days	10/6/2013	10/6/2013	100%
8	1.2.3	Portion BCP 3 (villagers illegal occcupation)	0 days	8/9/2013	8/9/2013	100%
9	1.2.4	Portion BCP 4 (delaying site possession)	0 days	7/3/2014	7/3/2014	100%
10	1.2.5	Portion BCP 5	0 days	8/9/2013	8/9/2013	100%
11	1.2.6	Portion BCP 6	0 days	8/9/2013	8/9/2013	100%
12	1.2.7	Portion BCP 7	0 days	8/9/2013	8/9/2013	100%
13	1.2.8	Portion CR 2	0 days	7/12/2013	7/12/2013	100%
14	1.2.9	Portion CR 40 (delaying site possession)	0 days	7/3/2014	7/3/2014	100%
15	1.2.10	Portion CR 41 (delaying site possession)	0 days	7/3/2014	7/3/2014	100%
16	1.2.11	Portion CR 42 (delaying site possession)	0 days	7/3/2014	7/3/2014	100%
17	1.2.12	Portion CR 44 (delaying site possession)	0 days	5/2/2014	5/2/2014	100%
18	1.2.13	Area LMH 0	0 days	11/4/2013	11/4/2013	100%
19	1.2.14	Area LMH 1	0 days	8/9/2013	8/9/2013	100%
20	1.2.15	Area LMH 2	0 days	11/5/2013	11/5/2013	100%
21	1.2.16	Area LMH 3	0 days	7/3/2014	7/3/2014	100%
22	1.2.17	Area LMH 4	0 days	8/9/2013	8/9/2013	100%
23	1.2.18	Area LMH 5	0 days	8/10/2013	8/10/2013	100%
24	1.2.19	Area RS 1	0 days	11/5/2013	11/5/2013	100%
25	1.2.20	Area RS 2 (Omitted)	0 days	11/5/2013	11/5/2013	100%
26	1.2.21	Area RS 3	0 days	11/5/2013	11/5/2013	100%
27	1.2.22	Area RS 4	0 days	11/5/2013	11/5/2013	100%
28	**1.3**	**Section Completion Date**	**976 days**	**8/8/2013**	**10/4/2016**	**0%**
29	1.3.1	KD-1 Section I of the Works - G.I. field works	0 days	4/2/2014	4/2/2014	100%
30	1.3.2	KD-2 Section II of the Works - All laboratory tests for Section I	0 days	6/3/2014	6/3/2014	100%
31	1.3.3	KD-3 Section III of the Works - Site formation works for portion RS1, RS2 & RS3	0 days	8/8/2013	8/8/2013	100%
32	1.3.4	KD-4 Section IV of the Works - Village house within portion RS4	0 days	5/1/2014	5/1/2014	100%
33	1.3.5	KD-5 Section V of the Works - All works within portion RS4 exclude Section IV	0 days	5/1/2014	5/1/2014	100%
34	1.3.6	KD-7 Section VII of the Works - All works within Area CRD	0 days	15/5/2014	15/5/2014	100%
35	1.3.7	KD-8 Section VIII of the Works - All works within Area BCPA	0 days	12/10/2014	12/10/2014	0%
36	1.3.8	KD-8 Section IX of the Works - All works within Area BCPB	0 days	11/4/2015	11/4/2015	0%
37	1.3.9	KD-10 Section X of the Works - All works within Area BCPC	0 days	4/6/2014	4/6/2014	100%
38	1.3.10	KD-11 Section XI of the Works - All works within Area BCPD	0 days	11/4/2015	11/4/2015	0%
39	1.3.11	KD-12 Section XII of the Works - All works within Area LMH	0 days	1/12/2014	1/12/2014	0%
40	1.3.12	KD-13 Section XIII of the Works - Works not covered in any other Sections	0 days	11/4/2015	11/4/2015	0%
41	1.3.13	KD-14 Section XIV of the Works - Trees preservation and protection	0 days	11/4/2015	11/4/2015	0%
42	1.3.14	KD-15 Section XV of the Works - Landscape soft works	0 days	11/4/2015	11/4/2015	0%
43	1.3.15	KD-16 Section XVI of the Works - Establishment works for landscape soft works	0 days	10/4/2016	10/4/2016	0%
44	**1.4**	**Stage Completion Date**	**60 days**	**8/8/2013**	**7/10/2013**	**100%**
47	**2**	**Preliminaries and Statuary / Contractual Submissions**	**424 days**	**11/4/2013**	**9/6/2014**	**100%**
78	**3**	**Stage of the Works**	**180 days**	**11/4/2013**	**7/10/2013**	**100%**
79	**3.1**	**Stage I of the Works - Temporary vehicular bridge B and temporary Lin Ma Hang Road**	**179 days**	**12/4/2013**	**7/10/2013**	**100%**
90	**3.2**	**Stage II of the Works - Temporary ArchSD Depot (LMH2)**	**78 days**	**11/4/2013**	**27/6/2013**	**100%**
94	**4**	**Section of the Works**	**1095 days**	**12/4/2013**	**10/4/2016**	**47%**
95	**4.1**	**Section I of the Works - Ground Investigation field works (Drg. 7101A-7111A)**	**251 days**	**30/5/2013**	**4/2/2014**	**100%**
100	**4.2**	**Section II of the Works - All laboratory tests for Section I**	**188 days**	**31/8/2013**	**6/3/2014**	**100%**



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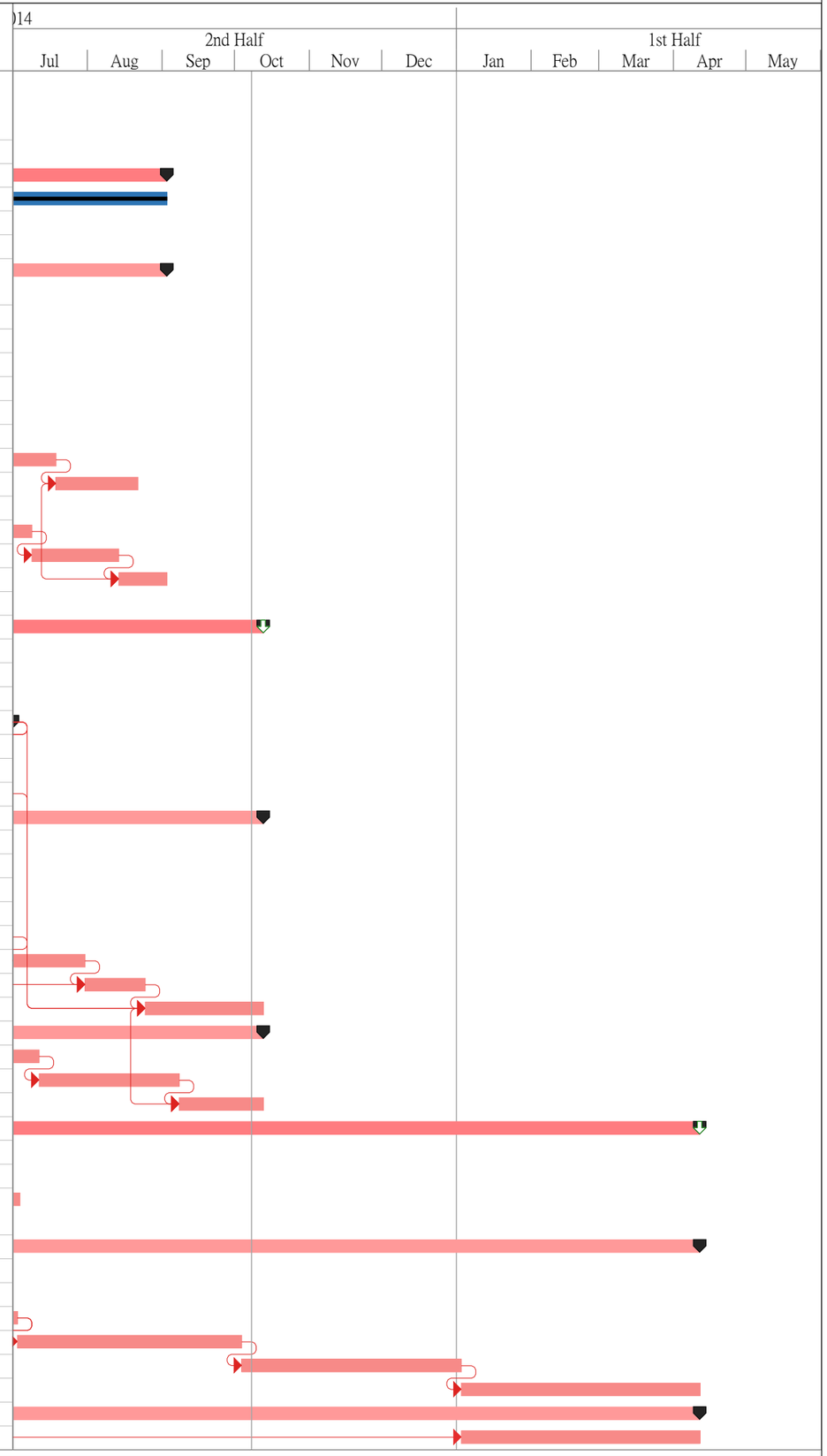
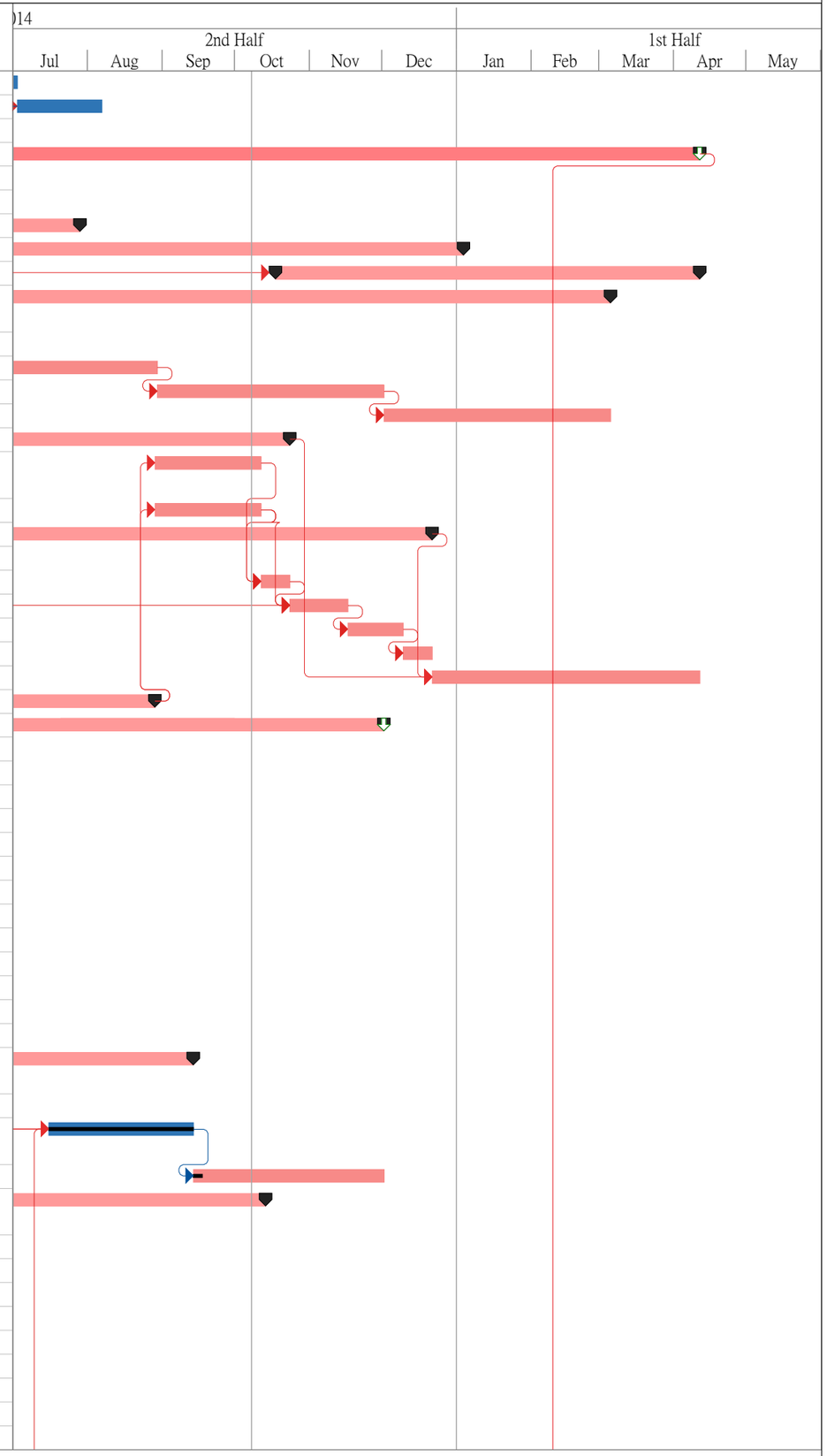
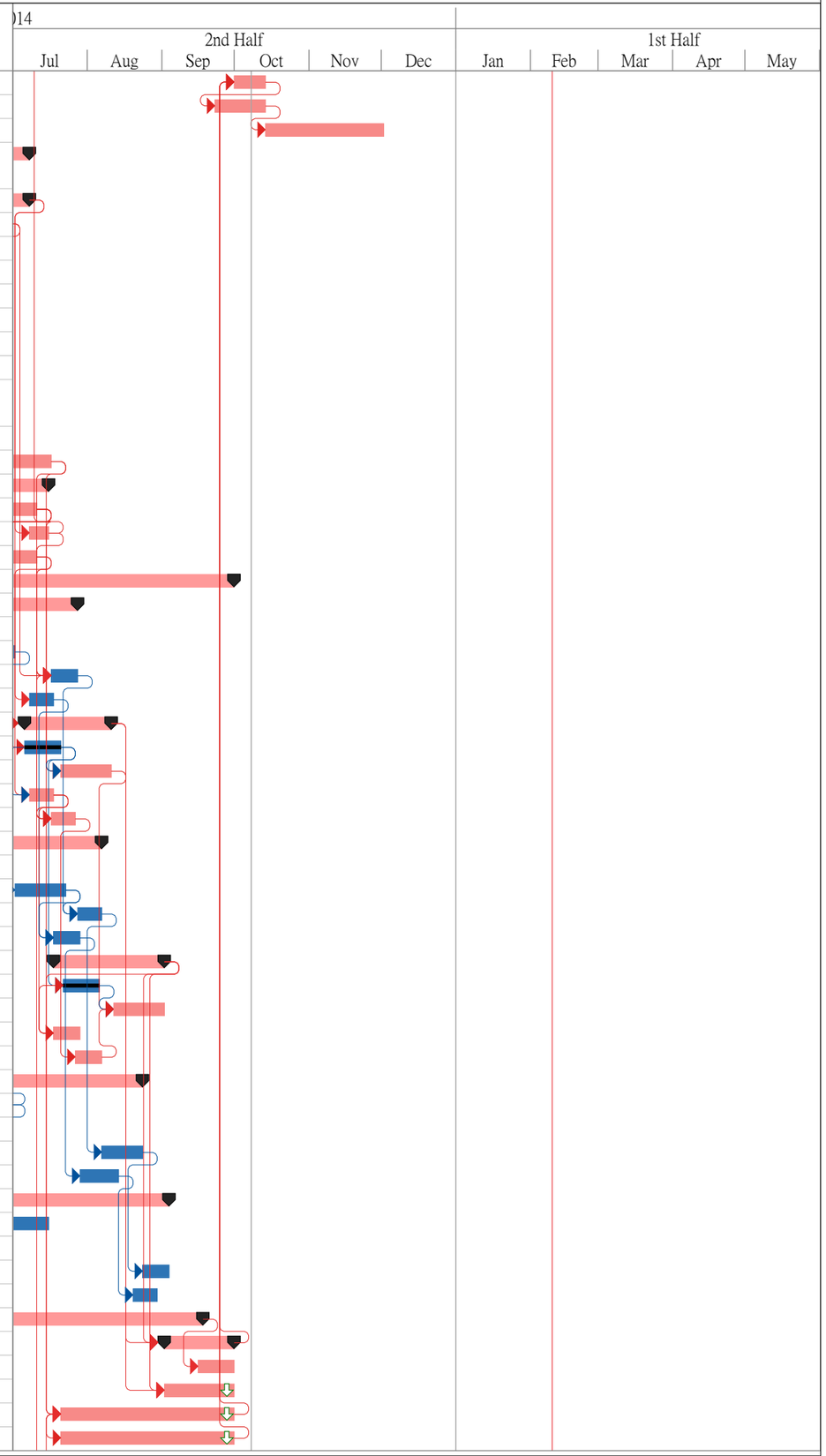
105	**4.3**	**Section III of the Works - Site formation works for Portions RS1, RS2 & RS3 (seek for certificate of completion in letter ref. SRJV/W47/SO/J5/1308/00416 dated 23/8/2013)**	**89 days**	**12/5/2013**	**8/8/2013**	**100%**
111	**4.4**	**Section IV of the Works - Village house within portion RS4**	**399 days**	**12/4/2013**	**15/5/2014**	**100%**
123	**4.5**	**Section V of the Works-All works within portion RS4 exclude Section IV**	**509 days**	**12/4/2013**	**2/9/2014**	**42%**
124	**4.5.1**	**ISSUED EOT2**	**241 days**	**5/1/2014**	**2/9/2014**	**100%**
125	4.5.2	Submissions and method statement	37 days	12/4/2013	18/5/2013	100%
126	4.5.3	Approvals from ER	30 days	26/4/2013	25/5/2013	100%
127	**4.5.4**	**Construction of footbridge and staircase with mini-piles 8 nos. x Ø 273 and staircase (Drg. 2201A to 2207B, 6001B)**	**235 days**	**11/1/2014**	**2/9/2014**	**0%**
128	4.5.4.1	Mini-piles	61 days	11/1/2014	12/3/2014	0%
129	4.5.4.2	Pile Caps	52 days	14/2/2014	6/4/2014	0%
130	4.5.4.3	Abutments	45 days	10/3/2014	23/4/2014	0%
131	4.5.4.4	Wing walls	45 days	27/3/2014	10/5/2014	0%
132	4.5.4.5	Mass concrete	41 days	13/4/2014	23/5/2014	0%
133	4.5.4.6	Remove sheetpiles from abutments	11 days	24/5/2014	3/6/2014	0%
134	4.5.4.7	Beams	45 days	4/6/2014	18/7/2014	0%
135	4.5.4.8	Deck	34 days	19/7/2014	21/8/2014	0%
136	4.5.4.9	Compact fill behind abutments	14 days	4/6/2014	17/6/2014	0%
137	4.5.4.10	New footpath	21 days	18/6/2014	8/7/2014	0%
138	4.5.4.11	New staircase	36 days	9/7/2014	13/8/2014	0%
139	4.5.4.12	Miscellaneous (pedestrian parapet, granite tile etc.)	20 days	14/8/2014	2/9/2014	0%
140	**4.6**	**Section VII of the Works - All works within Area CRD**	**249 days**	**9/9/2013**	**15/5/2014**	**100%**
177	**4.7**	**Section VIII of the Works - All works within Area BCPA**	**489 days**	**11/6/2013**	**12/10/2014**	**49%**
178	4.7.1	Submission for Site Formation Works & import fill	72 days	11/6/2013	21/8/2013	100%
179	4.7.2	Approval of submission for Site Formation Works	50 days	22/8/2013	10/10/2013	100%
180	4.7.3	Approval for sources of import fill	69 days	28/9/2013	5/12/2013	100%
181	4.7.4	Site formation of land (import fill 121433m3)	263 days	11/10/2013	30/6/2014	61%
182	4.7.4.1	site formation (A1-A9)	82 days	11/10/2013	31/12/2013	98%
183	4.7.4.2	site formation (A10-13, A15-20, A23, A24-A25)	90 days	1/1/2014	31/3/2014	90%
184	4.7.4.3	site formation (A14, A22, A26)	91 days	1/4/2014	30/6/2014	0%
185	4.7.5	Slope drainage works (Drg. 7156B-7159B)	284 days	2/1/2014	12/10/2014	37%
186	4.7.5.1	submission of design of sedimentation tank/pond	38 days	2/1/2014	8/2/2014	100%
187	4.7.5.2	approval of design of sedimentation tank/pond	36 days	9/2/2014	16/3/2014	100%
188	4.7.5.3	discharge to existing Box Culvert No. 4 & sedimentation tank	16 days	17/3/2014	1/4/2014	60%
189	4.7.5.4	DN1050 from CP to sedimentation tank	73 days	2/4/2014	13/6/2014	0%
190	4.7.5.5	shortcreted TC (from A3,A2,A1,A5)	31 days	31/5/2014	30/6/2014	90%
191	4.7.5.6	shortcreted TC (from A10-13)	30 days	1/7/2014	30/7/2014	0%
192	4.7.5.7	shortcreted TC (from A10,A15,A19)	25 days	31/7/2014	24/8/2014	0%
193	4.7.5.8	shortcreted TC (from A20-24A26,A14)	49 days	25/8/2014	12/10/2014	0%
194	4.7.6	Chain link fence (1120m)	195 days	1/4/2014	12/10/2014	0%
195	4.7.6.1	chain link fence (A1-5,A10,A15,A19)	102 days	1/4/2014	11/7/2014	0%
196	4.7.6.2	chain link fence (A4,A9,A14,A26,A24)	58 days	12/7/2014	7/9/2014	0%
197	4.7.6.3	chain link fence (A21-24)	35 days	8/9/2014	12/10/2014	0%
198	**4.8**	**Section IX of the Works - All works within Area BCPB**	**492 days**	**6/12/2013**	**11/4/2015**	**11%**
199	4.8.1	Submission for demolition of existing building structures	37 days	20/12/2013	25/1/2014	100%
200	4.8.2	Approval of submission for demolish existing building structures	41 days	26/1/2014	7/3/2014	100%
201	4.8.3	Demolition of existing building structures UPON instruction (Drg. 6152A, 6153A)	118 days	8/3/2014	3/7/2014	0%
202	4.8.4	Site formation works (import fill 370523m3)	492 days	6/12/2013	11/4/2015	3%
203	4.8.4.1	site formation works (B20)	28 days	6/12/2013	2/1/2014	0%
204	4.8.4.2	site formation works (B1,3,6,9,21,22)	89 days	3/1/2014	1/4/2014	16%
205	4.8.4.3	site formation works (B2,5)	92 days	2/4/2014	2/7/2014	0%
206	4.8.4.4	site formation works (B7,11,12)	93 days	3/7/2014	3/10/2014	0%
207	4.8.4.5	site formation works (4,8,10,13,14,16,17)	91 days	4/10/2014	2/1/2015	0%
208	4.8.4.6	site formation works (B15,18,19)	99 days	3/1/2015	11/4/2015	0%
209	4.8.5	Temp. boundary fence, chain link fence (Drg.1002C, 1032B, 1033B)	320 days	27/5/2014	11/4/2015	0%
210	4.8.5.1	chain link fence (780m)	99 days	3/1/2015	11/4/2015	0%



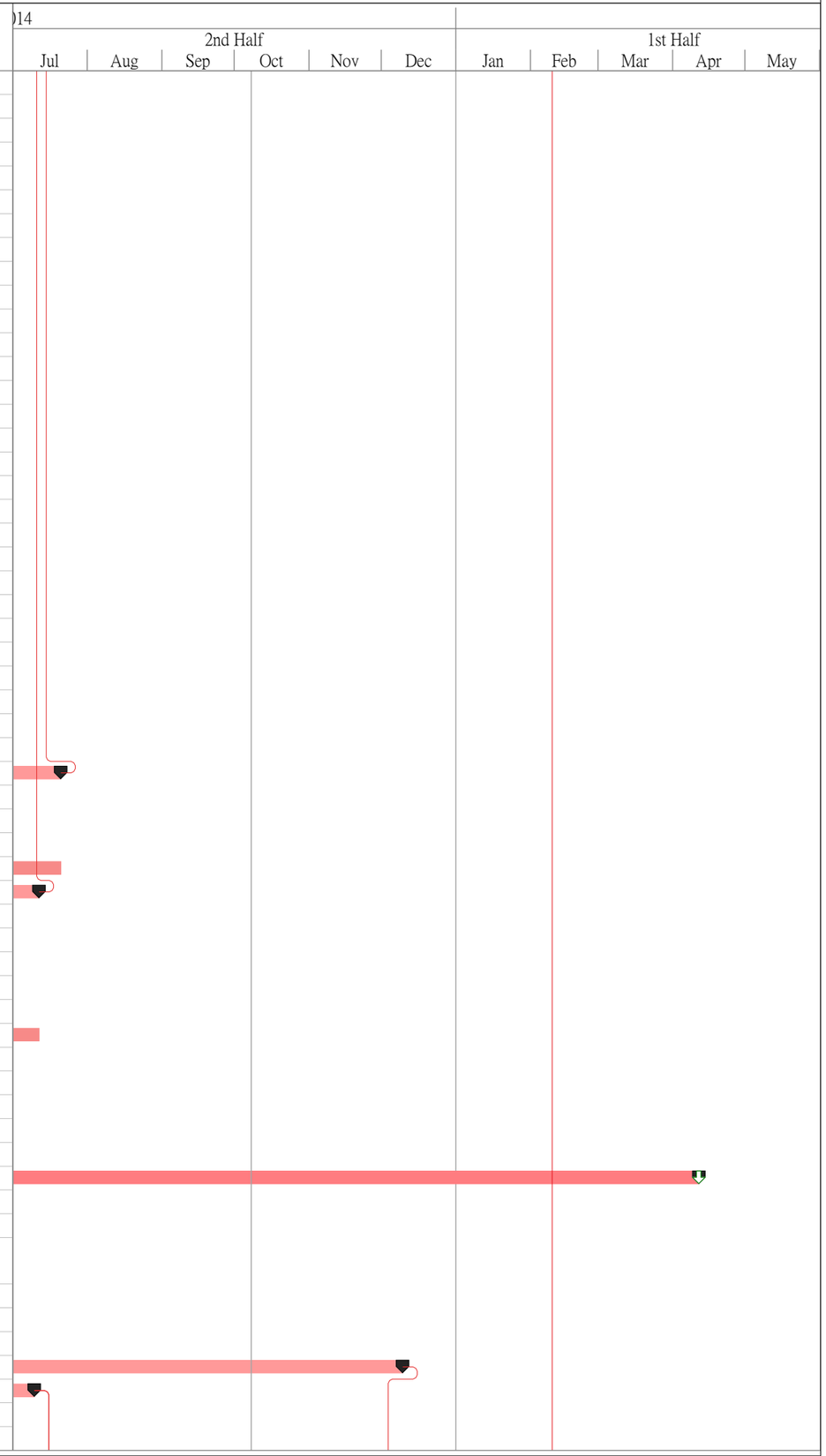
ID	WBS	Task Name	Duration	Start	Finish	% Complete
211	4.8.5.2	fabricate temporary boundary fence & post	37 days	27/5/2014	2/7/2014	0%
212	4.8.5.3	fix temporary boundary fence (105m)	35 days	3/7/2014	6/8/2014	0%
213	**4.9**	**Section X of the Works - All works within Area BCPC**	**269 days**	**9/9/2013**	**4/6/2014**	**100%**
229	**4.10**	**Section XI of the Works - All works within Area BCPD**	**598 days**	**22/8/2013**	**11/4/2015**	**14%**
230	4.10.1	Submissions	23 days	22/8/2013	13/9/2013	100%
231	4.10.2	Approval of Submissions	37 days	14/9/2013	20/10/2013	100%
232	**4.10.3**	**Construction of retaining wall RW2 - CH0 to 840 (length 840m)**	**281 days**	**21/10/2013**	**28/7/2014**	**35%**
248	4.10.4	Boundary fence (Drg.1002C, 1003A)	267 days	12/4/2014	3/1/2015	0%
253	4.10.5	Modified CEDD hoarding Type III (Drg. 1032B)	176 days	18/10/2014	11/4/2015	0%
257	4.10.6	Site Formation works (import fill 104958m3) including slope drainage works (Drg. 7155B-7159B)	423 days	7/1/2014	5/3/2015	18%
258	4.10.6.1	D1-D2	84 days	7/1/2014	31/3/2014	60%
259	4.10.6.2	D3, D10,D11, D17, D12- D14	95 days	27/5/2014	29/8/2014	18%
260	4.10.6.3	D4, D15, D16	94 days	30/8/2014	1/12/2014	0%
261	4.10.6.4	D5-D9	94 days	2/12/2014	5/3/2015	0%
262	4.10.7	Sewerage, Drainage & Water Works (Drg. 1323B,1305C,1309A)	368 days	21/10/2013	23/10/2014	0%
277	4.10.8	Irrigation system (sequence 3)(see Appendix C) adjacent to underpass & depressed road	44 days	29/8/2014	11/10/2014	0%
278	4.10.9	Irrigation system (sequence 4) (see Appendix C) next to BCPC	44 days	29/8/2014	11/10/2014	0%
279	4.10.10	Utilities works (Drg. 1405A) (see Appendix A)	369 days	18/12/2013	21/12/2014	0%
280	4.10.10.1	Sequence 1 - allow ducts for 11kV & LV across the underpass	13 days	18/12/2013	30/12/2013	0%
281	4.10.10.2	Sequence 5a - 132kV	12 days	12/10/2014	23/10/2014	0%
282	4.10.10.3	Sequence 5b - 11kV	24 days	24/10/2014	16/11/2014	0%
283	4.10.10.4	Sequence 5c - LV	23 days	17/11/2014	9/12/2014	0%
284	4.10.10.5	Sequence 5d - PCCW	12 days	10/12/2014	21/12/2014	0%
285	4.10.11	Road works and Road lighting works (Drg.1205A,1505C,1605B)	111 days	22/12/2014	11/4/2015	0%
286	**4.10.12**	**Construction of depressed road & underpass-9.3m wide x168m long**	**241 days**	**31/12/2013**	**28/8/2014**	**0%**
292	**4.11**	**Section XII of the Works - All works within Area LMH**	**467 days**	**22/8/2013**	**1/12/2014**	**59%**
293	4.11.1	Submissions for method statement of subway & staircase	70 days	22/8/2013	30/10/2013	100%
294	4.11.2	Approval of Submissions for method statement of subway & staircase	68 days	30/8/2013	5/11/2013	100%
295	**4.11.3**	**Construction of retaining wall RW1 - CH0 to 561.053m**	**213 days**	**26/9/2013**	**26/4/2014**	**94%**
296	4.11.3.1	Bay 1075 to Bay 1068 (8 bays) -H1	77 days	26/9/2013	11/12/2013	100%
297	4.11.3.2	Bay 1067 to Bay 1060 (8 bays) -H2	77 days	8/10/2013	23/12/2013	100%
298	4.11.3.3	Bay 1059 to Bay 1052 (8 bays) - H3	93 days	15/11/2013	15/2/2014	100%
299	4.11.3.4	Bay 1051 to Bay 1044 (8 bays) -H4	80 days	29/11/2013	16/2/2014	100%
300	4.11.3.5	Bay 1043 to Bay 1036 (8 bays) - H5	79 days	13/12/2013	1/3/2014	100%
301	4.11.3.6	Bay 1035 to Bay 1028 (8 bays) -H5,H6	83 days	17/1/2014	9/4/2014	100%
302	4.11.3.7	Bay 1027 to Bay 1020 (8 bays) -H6	79 days	16/12/2013	4/3/2014	100%
303	4.11.3.8	Bay 1019 to Bay 1012 (8 bays) -H7	105 days	28/12/2013	11/4/2014	100%
304	4.11.3.9	Bay 1011 to Bay 1004 (8 bays) H7,H8	87 days	30/12/2013	26/3/2014	77%
305	4.11.3.10	Bay 1003 to Bay 1001 (3 bays) - H8	31 days	27/3/2014	26/4/2014	0%
306	**4.11.4**	**Construction of retaining wall RW1A-CH561.053 to 612.457m (length approx.. 51.4m)**	**368 days**	**11/9/2013**	**13/9/2014**	**100%**
307	4.11.4.1	Bay 1076 to Bay 1078 (base & wall)	49 days	11/9/2013	29/10/2013	100%
308	4.11.4.2	Bay 1079 to Bay 1082 (after divert existing Rd i.e. after Staircase & Lift Shaft)	60 days	16/7/2014	13/9/2014	100%
309	4.11.5	Filling & Slope drainage behind RW1A (involve TTA)	79 days	14/9/2014	1/12/2014	5%
310	**4.11.6**	**Site formation works (import fill 15300m3) including slope drainage works (Drg. 7154B, 7159B) (see Appendix B)**	**294 days**	**24/12/2013**	**13/10/2014**	**48%**
311	**4.11.6.1**	**site formation (H1-H8) & slope drainage works**	**157 days**	**24/12/2013**	**29/5/2014**	**58%**
312	4.11.6.1.1	fill H1	36 days	24/4/2014	29/5/2014	5%
313	4.11.6.1.2	fill H2	20 days	24/12/2013	12/1/2014	100%
314	4.11.6.1.3	fill H3	17 days	17/2/2014	5/3/2014	100%
315	4.11.6.1.4	fill H4	17 days	17/2/2014	5/3/2014	100%
316	4.11.6.1.5	fill H5	18 days	10/4/2014	27/4/2014	95%
317	4.11.6.1.6	fill H6	19 days	16/4/2014	4/5/2014	95%
318	4.11.6.1.7	fill H7	18 days	12/4/2014	29/4/2014	20%
319	4.11.6.1.8	fill H8	19 days	27/3/2014	14/4/2014	0%



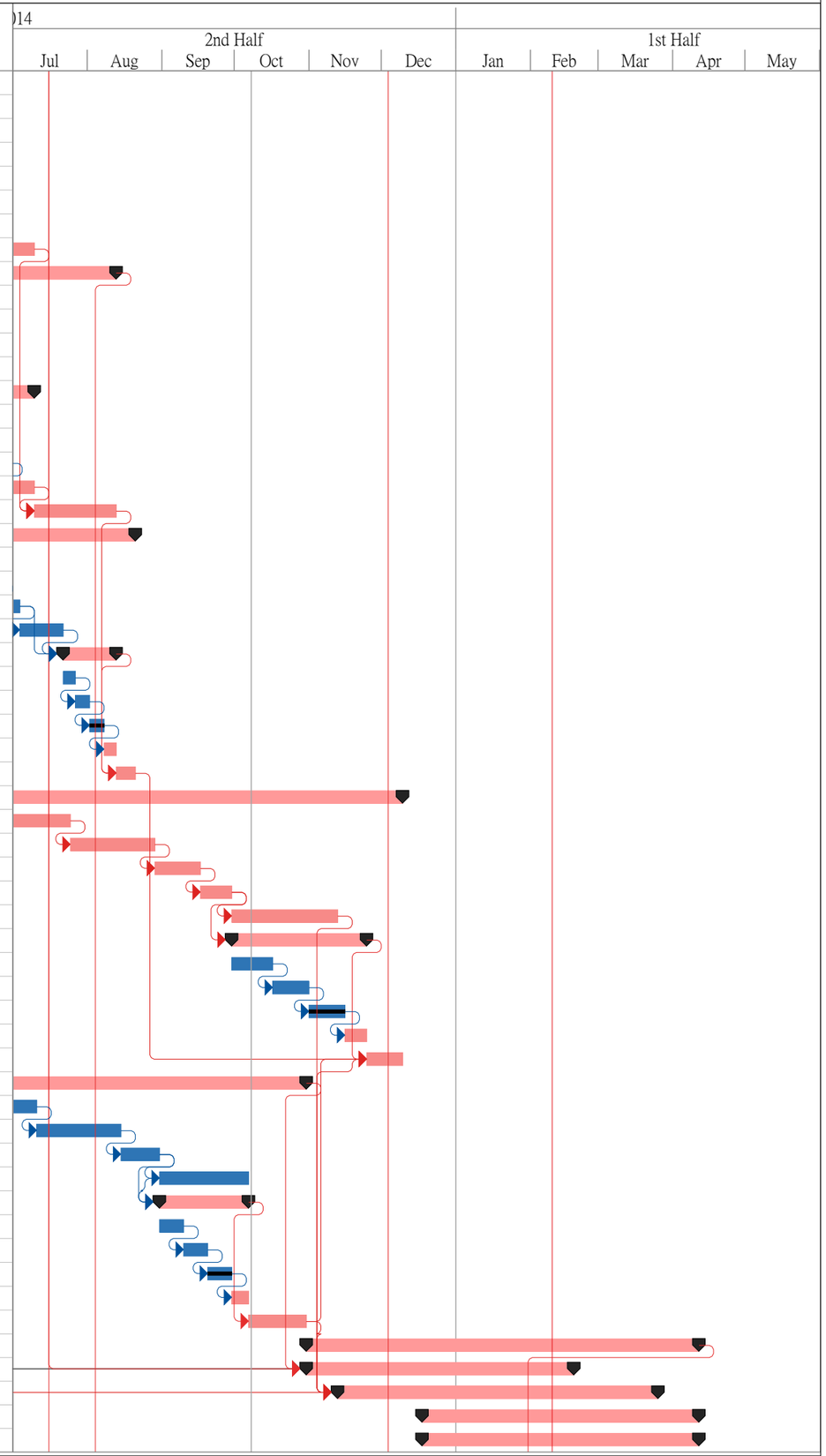
ID	WBS	Task Name	Duration	Start	Finish	% Complete
320	4.11.6.2	Remove existing Lin Ma Hang Road	13 days	1/10/2014	13/10/2014	0%
321	4.11.6.3	Fill H9 & B15 for slope	21 days	23/9/2014	13/10/2014	0%
322	4.11.7	Boundary fence & chain link fence on top of slope	49 days	14/10/2014	1/12/2014	0%
323	**4.11.8**	**Drainage works at Lin Ma Hang Road (Drg. 1304B, 1306A, 1307A, 1309A) (see Appendix B)**	**244 days**	**6/11/2013**	**7/7/2014**	**34%**
324	4.11.8.1	H1-SM16-9062, 9201 & 9105A-9062, 9054-9062, 9101-9105	244 days	6/11/2013	7/7/2014	1%
330	4.11.8.2	SMH6895-6808, 6804-6808	49 days	10/5/2014	27/6/2014	0%
331	4.11.8.3	H2 - SMH9054-45,44, 9043	52 days	13/1/2014	5/3/2014	100%
332	4.11.8.4	H3 - SMH9043-37, 9036 (DN900)	41 days	6/3/2014	15/4/2014	100%
333	4.11.8.5	H4 - SMH9036-30,9029 (DN900)	32 days	15/3/2014	15/4/2014	100%
334	4.11.8.6	H5 - SMH9029-22,9021 (DN750,900)	43 days	28/4/2014	9/6/2014	100%
335	4.11.8.7	H6 - SMH9021-14,9013 (DN750)	36 days	5/5/2014	9/6/2014	50%
336	4.11.8.8	H7 - SMH9013-06,9005 (DN600,750)	35 days	30/4/2014	3/6/2014	15%
337	4.11.8.9	H8 - SMH9005-03,9002 (DN450)	23 days	8/5/2014	30/5/2014	0%
338	4.11.8.10	H8 - SMH9002-9001 (DN300)	9 days	31/5/2014	8/6/2014	0%
339	4.11.9	Water works at Lin Ma Hang Road (Drg.1914B-1917B)	128 days	11/3/2014	16/7/2014	75%
340	4.11.10	Irrigation System at Lin Ma Hang Road (Drg.1974B, 1976A, 1977A)	42 days	4/6/2014	15/7/2014	0%
341	4.11.10.1	from Phase H2-H8	37 days	4/6/2014	10/7/2014	0%
342	4.11.10.2	for Phase H1	8 days	8/7/2014	15/7/2014	0%
343	4.11.10.3	after Phase H8	13 days	28/6/2014	10/7/2014	0%
344	**4.11.11**	**Utility Works**	**168 days**	**16/4/2014**	**30/9/2014**	**25%**
345	**4.11.11.1**	**CLP - LV (west side of new Lin Ma Hang Road)**	**103 days**	**16/4/2014**	**27/7/2014**	**26%**
346	4.11.11.1.1	from chainage 840 to chainage 1125	15 days	16/4/2014	30/4/2014	100%
347	4.11.11.1.2	from chainage 630 to chainage 840	22 days	10/6/2014	1/7/2014	0%
348	4.11.11.1.3	from chainage 475 to chainage 630	11 days	17/7/2014	27/7/2014	0%
349	4.11.11.1.4	from chainage 1125 to chainage 1270	10 days	8/7/2014	17/7/2014	0%
350	4.11.11.2	CLP - LV (east side of new Lin Ma Hang Road)	36 days	6/7/2014	10/8/2014	27%
351	4.11.11.2.1	from chainage 840 to chainage 1125	15 days	6/7/2014	20/7/2014	100%
352	4.11.11.2.2	from chainage 630 to chainage 840	21 days	21/7/2014	10/8/2014	0%
353	4.11.11.2.3	from chainage 475 to chainage 630	10 days	8/7/2014	17/7/2014	0%
354	4.11.11.2.4	from chainage 1125 to chainage 1270	10 days	17/7/2014	26/7/2014	0%
355	**4.11.11.3**	**CLP - 11kV (west side of new Lin Ma Hang Road)**	**97 days**	**2/5/2014**	**6/8/2014**	**26%**
356	4.11.11.3.1	from chainage 840 to chainage 1125	15 days	2/5/2014	16/5/2014	100%
357	4.11.11.3.2	from chainage 630 to chainage 840	21 days	2/7/2014	22/7/2014	0%
358	4.11.11.3.3	from chainage 475 to chainage 630	10 days	28/7/2014	6/8/2014	0%
359	4.11.11.3.4	from chainage 1125 to chainage 1270	11 days	18/7/2014	28/7/2014	0%
360	4.11.11.4	CLP - 11kV (east side of new Lin Ma Hang Road)	46 days	18/7/2014	1/9/2014	26%
361	4.11.11.4.1	from chainage 840 to chainage 1125	15 days	22/7/2014	5/8/2014	100%
362	4.11.11.4.2	from chainage 630 to chainage 840	21 days	12/8/2014	1/9/2014	0%
363	4.11.11.4.3	from chainage 475 to chainage 630	11 days	18/7/2014	28/7/2014	0%
364	4.11.11.4.4	from chainage 1125 to chainage 1270	11 days	27/7/2014	6/8/2014	0%
365	**4.11.11.5**	**PCCW (west side of new Lin Ma Hang Road)**	**114 days**	**2/5/2014**	**23/8/2014**	**0%**
366	4.11.11.5.1	from chainage 840 to chainage 1125	25 days	5/6/2014	29/6/2014	0%
367	4.11.11.5.2	from chainage 630 to chainage 840	34 days	2/5/2014	4/6/2014	0%
368	4.11.11.5.3	from chainage 475 to chainage 630	17 days	7/8/2014	23/8/2014	0%
369	4.11.11.5.4	from chainage 1125 to chainage 1270	16 days	29/7/2014	13/8/2014	0%
370	**4.11.11.6**	**HGC (west side of new Lin Ma Hang Road)**	**91 days**	**5/6/2014**	**3/9/2014**	**0%**
371	4.11.11.6.1	from chainage 840 to chainage 1125	16 days	30/6/2014	15/7/2014	0%
372	4.11.11.6.2	from chainage 630 to chainage 840	21 days	5/6/2014	25/6/2014	0%
373	4.11.11.6.3	from chainage 475 to chainage 630	11 days	24/8/2014	3/9/2014	0%
374	4.11.11.6.4	from chainage 1125 to chainage 1270	10 days	20/8/2014	29/8/2014	0%
375	**4.11.11.7**	**NWT (west side of new Lin Ma Hang Road)**	**84 days**	**26/6/2014**	**17/9/2014**	**100%**
380	4.11.11.8	Street lighting work	29 days	2/9/2014	30/9/2014	0%
381	4.11.11.8.1	west side of new Lin Ma Hang Road	15 days	16/9/2014	30/9/2014	0%
382	4.11.11.8.2	east side of new Lin Ma Hang Road	29 days	2/9/2014	30/9/2014	0%
383	4.11.12	Roadwork of carriageway (new Lin Ma Hang Road for BCPA)	72 days	21/7/2014	30/9/2014	0%
384	4.11.13	Construction of footpath (for BCPA)	72 days	21/7/2014	30/9/2014	0%



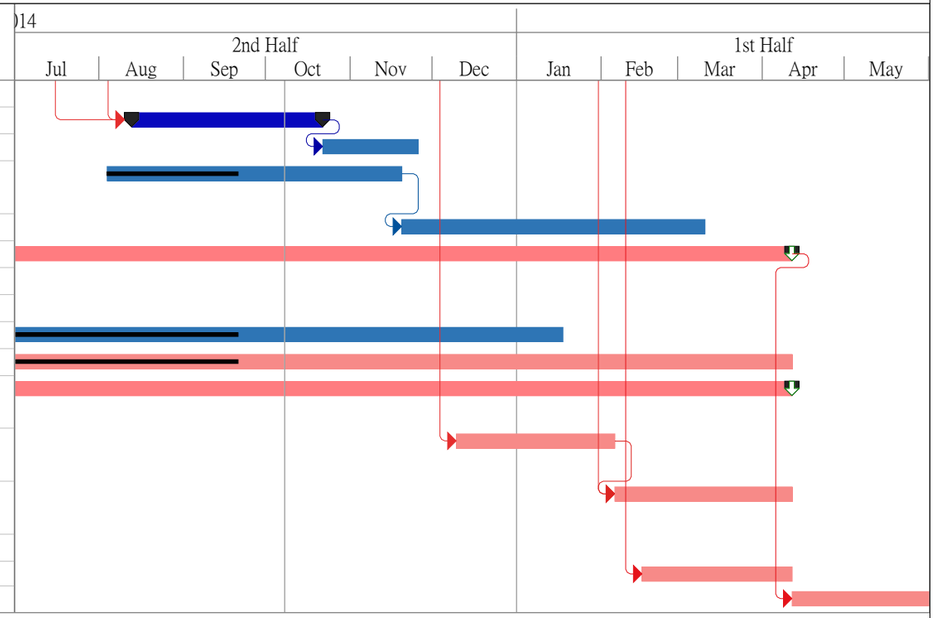
ID	WBS	Task Name	Duration	Start	Finish	% Complete
385	**4.11.14**	**Construction of pedestrian subway & pump room**	**202 days**	**6/11/2013**	**26/5/2014**	**92%**
386	4.11.14.1	prepare formation of sheetpiling/excavation	9 days	6/11/2013	14/11/2013	100%
387	4.11.14.2	excavation &/or sheetpiling	33 days	15/11/2013	17/12/2013	100%
388	4.11.14.3	rubble mound	16 days	2/12/2013	17/12/2013	100%
389	4.11.14.4	cast blinding layer	17 days	11/12/2013	27/12/2013	100%
390	4.11.14.5	pump house	30 days	16/12/2013	14/1/2014	100%
391	4.11.14.6	subway 8th bay	27 days	15/1/2014	10/2/2014	100%
392	4.11.14.7	subway 7th bay	23 days	11/2/2014	5/3/2014	99%
393	4.11.14.8	subway 6th bay	17 days	25/2/2014	13/3/2014	100%
394	4.11.14.9	miscellaneous works	74 days	14/3/2014	26/5/2014	75%
395	**4.11.15**	**Construction of staircase with lift shaft with 6 nos. of mini pile**	**225 days**	**14/10/2013**	**26/5/2014**	**100%**
396	4.11.15.1	mini-piles	54 days	14/10/2013	6/12/2013	100%
397	4.11.15.2	lift shaft	41 days	7/12/2013	16/1/2014	100%
398	4.11.15.3	Bay 9	33 days	17/1/2014	18/2/2014	100%
399	4.11.15.4	Staircase	64 days	19/2/2014	23/4/2014	100%
400	4.11.15.5	miscellaneous works	73 days	15/3/2014	26/5/2014	100%
401	**4.11.16**	**1 no. DN1650 pipe jacking LV009 including jacking & receiving pits**	**147 days**	**6/11/2013**	**1/4/2014**	**87%**
402	**4.11.16.1**	**Pits construction**	**36 days**	**6/11/2013**	**11/12/2013**	**100%**
403	4.11.16.1.1	utility detection of the area	3 days	6/11/2013	8/11/2013	100%
404	4.11.16.1.2	inspection pits for jacking pit and receiving pit	5 days	9/11/2013	13/11/2013	100%
405	4.11.16.1.3	temporary work & excavation for receiving pit	14 days	28/11/2013	11/12/2013	100%
406	4.11.16.1.4	temporary work & excavation for jacking pit	14 days	14/11/2013	27/11/2013	100%
407	**4.11.16.2**	**Jack sleeve Pipes**	**89 days**	**12/12/2013**	**10/3/2014**	**100%**
408	4.11.16.2.1	establishment of jacking equipment	15 days	12/12/2013	26/12/2013	100%
409	4.11.16.2.2	jack pipe and excavate	74 days	27/12/2013	10/3/2014	100%
410	4.11.16.3	HDPE pipes	22 days	11/3/2014	1/4/2014	16%
411	4.11.16.3.1	Lay HDPE pipes	7 days	11/3/2014	17/3/2014	50%
412	4.11.16.3.2	Grout HDPE pipes	7 days	18/3/2014	24/3/2014	0%
413	4.11.16.3.3	Remove temporary works and backfilling	8 days	25/3/2014	1/4/2014	0%
414	**4.11.17**	**Construction of retaining wall RW9 - CH0 to 75m (length 75m)**	**110 days**	**2/4/2014**	**20/7/2014**	**0%**
415	4.11.17.1	drive sheetpile & excavation	14 days	2/4/2014	15/4/2014	0%
416	4.11.17.2	grade 200 rock fill	14 days	6/4/2014	19/4/2014	0%
417	4.11.17.3	cast blinding layer	14 days	14/4/2014	27/4/2014	0%
418	4.11.17.4	Bay 9001-9010	94 days	18/4/2014	20/7/2014	0%
419	**4.11.18**	**Construction of Bridge J with 6 x Ø 1500 bored piles**	**217 days**	**7/12/2013**	**11/7/2014**	**49%**
420	4.11.18.1	bored piles	73 days	7/12/2013	17/2/2014	100%
421	4.11.18.2	pile caps	15 days	18/2/2014	4/3/2014	100%
422	4.11.18.3	abutment walls	24 days	3/3/2014	26/3/2014	80%
423	4.11.18.4	falsework for deck	15 days	25/3/2014	8/4/2014	0%
424	4.11.18.5	deck	55 days	9/4/2014	2/6/2014	0%
425	4.11.18.6	parapet	39 days	3/6/2014	11/7/2014	0%
426	**4.11.19**	**Construction of retaining wall RW5 - CH0 to 60m (length 60m)**	**44 days**	**27/3/2014**	**9/5/2014**	**0%**
427	4.11.19.1	drive sheetpile & excavation	11 days	27/3/2014	6/4/2014	0%
428	4.11.19.2	grade 200 rock fill	4 days	7/4/2014	10/4/2014	0%
429	4.11.19.3	cast blinding layer	5 days	11/4/2014	15/4/2014	0%
430	4.11.19.4	Bay 5001-5008	24 days	16/4/2014	9/5/2014	0%
431	**4.12**	**Section XIII of the Works - Works not covered in any other Sections**	**598 days**	**22/8/2013**	**11/4/2015**	**31%**
432	4.12.1	Submissions	70 days	22/8/2013	30/10/2013	100%
433	4.12.2	Approval of Submissions	68 days	16/9/2013	22/11/2013	100%
434	**4.12.3**	**Temporary Traffic Arrangement (TTA) Scheme for Works at existing LMH Rd**	**92 days**	**23/8/2013**	**22/11/2013**	**100%**
435	4.12.3.1	Preparation of TTA scheme	21 days	23/8/2013	12/9/2013	100%
436	4.12.3.2	Comment & approval of TTA scheme by TD & RMO	55 days	13/9/2013	6/11/2013	100%
437	4.12.3.3	Obtain roadwork advice from RMO	16 days	7/11/2013	22/11/2013	100%
438	**4.12.4**	**Northbound of Re-aligned Lin Ma Hang Road (west side)**	**382 days**	**23/11/2013**	**9/12/2014**	**29%**
439	**4.12.4.1**	**Works from chainage 190 to chainage 310**	**229 days**	**23/11/2013**	**9/7/2014**	**54%**
440	4.12.4.1.1	Drainage & slope drain	76 days	23/11/2013	6/2/2014	100%
441	4.12.4.1.2	Waterwork	38 days	7/2/2014	16/3/2014	97%



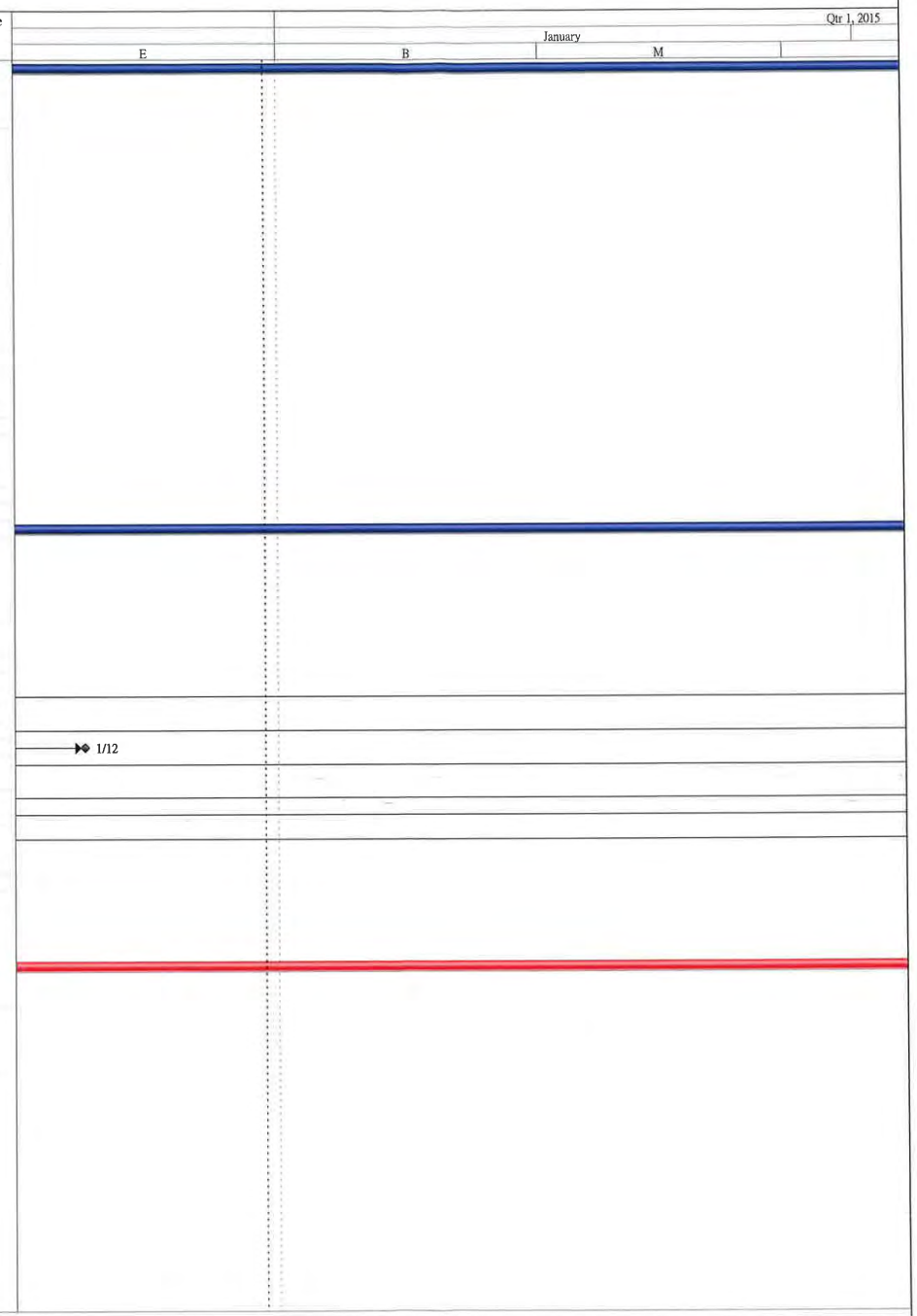
ID	WBS	Task Name	Duration	Start	Finish	% Complete
442	4.12.4.1.3	Irrigation System	18 days	17/3/2014	3/4/2014	0%
443	4.12.4.1.4	Roadwork	40 days	4/4/2014	13/5/2014	0%
444	4.12.4.1.5	Utilities works	38 days	14/5/2014	20/6/2014	26%
445	4.12.4.1.5.1	11kV	9 days	14/5/2014	22/5/2014	0%
446	4.12.4.1.5.2	LV	9 days	23/5/2014	31/5/2014	0%
447	4.12.4.1.5.3	NWT	10 days	1/6/2014	10/6/2014	100%
448	4.12.4.1.5.4	Highway lighting	10 days	11/6/2014	20/6/2014	0%
449	4.12.4.1.6	Footpath	19 days	21/6/2014	9/7/2014	0%
450	**4.12.4.2**	**Works from chainage 380 to chainage 580**	**263 days**	**23/11/2013**	**12/8/2014**	**57%**
451	4.12.4.2.1	Drainage	76 days	23/11/2013	6/2/2014	96%
452	4.12.4.2.2	Waterwork	35 days	7/2/2014	13/3/2014	96%
453	4.12.4.2.3	Irrigation System	18 days	14/3/2014	31/3/2014	0%
454	4.12.4.2.4	Roadwork	43 days	1/4/2014	13/5/2014	0%
455	**4.12.4.2.5**	**Utilities works**	**57 days**	**14/5/2014**	**9/7/2014**	**78%**
456	4.12.4.2.5.1	11kV	15 days	14/5/2014	28/5/2014	95%
457	4.12.4.2.5.2	LV	16 days	29/5/2014	13/6/2014	95%
458	4.12.4.2.5.3	NWT	15 days	14/6/2014	28/6/2014	100%
459	4.12.4.2.5.4	Highway lighting	11 days	29/6/2014	9/7/2014	0%
460	4.12.4.2.6	Footpath	34 days	10/7/2014	12/8/2014	0%
461	**4.12.4.3**	**Works from chainage 310 to chainage 380**	**99 days**	**14/5/2014**	**20/8/2014**	**8%**
462	4.12.4.3.1	Drainage	30 days	14/5/2014	12/6/2014	5%
463	4.12.4.3.2	Waterwork	12 days	13/6/2014	24/6/2014	0%
464	4.12.4.3.3	Irrigation System	9 days	25/6/2014	3/7/2014	0%
465	4.12.4.3.4	Roadwork	18 days	4/7/2014	21/7/2014	0%
466	4.12.4.3.5	Utilities works	22 days	22/7/2014	12/8/2014	27%
467	4.12.4.3.5.1	11kV	5 days	22/7/2014	26/7/2014	0%
468	4.12.4.3.5.2	LV	6 days	27/7/2014	1/8/2014	0%
469	4.12.4.3.5.3	NWT	6 days	2/8/2014	7/8/2014	100%
470	4.12.4.3.5.4	Highway lighting	5 days	8/8/2014	12/8/2014	0%
471	4.12.4.3.6	Footpath	8 days	13/8/2014	20/8/2014	0%
472	**4.12.4.4**	**Works from chainage 580 to chainage 780**	**210 days**	**14/5/2014**	**9/12/2014**	**6%**
473	4.12.4.4.1	Drainage	72 days	14/5/2014	24/7/2014	0%
474	4.12.4.4.2	Waterwork	35 days	25/7/2014	28/8/2014	0%
475	4.12.4.4.3	Irrigation System	19 days	29/8/2014	16/9/2014	0%
476	4.12.4.4.4	Sewerage	13 days	17/9/2014	29/9/2014	0%
477	4.12.4.4.5	Roadwork	44 days	30/9/2014	12/11/2014	0%
478	4.12.4.4.6	Utilities works	56 days	30/9/2014	24/11/2014	27%
479	4.12.4.4.6.1	11kV	17 days	30/9/2014	16/10/2014	0%
480	4.12.4.4.6.2	LV	15 days	17/10/2014	31/10/2014	0%
481	4.12.4.4.6.3	NWT	15 days	1/11/2014	15/11/2014	100%
482	4.12.4.4.6.4	Highway lighting	9 days	16/11/2014	24/11/2014	0%
483	4.12.4.4.7	Footpath	15 days	25/11/2014	9/12/2014	0%
484	**4.12.4.5**	**Works from chainage 80 to chainage 190**	**170 days**	**14/5/2014**	**30/10/2014**	**5%**
485	4.12.4.5.1	Drainage	58 days	14/5/2014	10/7/2014	0%
486	4.12.4.5.2	Waterwork	35 days	11/7/2014	14/8/2014	0%
487	4.12.4.5.3	Irrigation System	16 days	15/8/2014	30/8/2014	0%
488	4.12.4.5.4	Roadwork	37 days	31/8/2014	6/10/2014	0%
489	4.12.4.5.5	Utilities works	37 days	31/8/2014	6/10/2014	27%
490	4.12.4.5.5.1	11kV	10 days	31/8/2014	9/9/2014	0%
491	4.12.4.5.5.2	LV	10 days	10/9/2014	19/9/2014	0%
492	4.12.4.5.5.3	NWT	10 days	20/9/2014	29/9/2014	100%
493	4.12.4.5.5.4	Highway lighting	7 days	30/9/2014	6/10/2014	0%
494	4.12.4.5.6	Footpath	24 days	7/10/2014	30/10/2014	0%
495	**4.12.5**	**Southbound of Re-aligned Lin Ma Hang Road (east side)**	**163 days**	**31/10/2014**	**11/4/2015**	**0%**
496	**4.12.5.1**	**Works from chainage 60 to chainage 200**	**111 days**	**31/10/2014**	**18/2/2015**	**0%**
506	**4.12.5.2**	**Works from chainage 400 to chainage 600**	**133 days**	**13/11/2014**	**25/3/2015**	**0%**
516	**4.12.5.3**	**Works from chainage 200 to chainage 400**	**115 days**	**18/12/2014**	**11/4/2015**	**0%**
527	**4.12.5.4**	**Works from chainage 600 to chainage 780**	**115 days**	**18/12/2014**	**11/4/2015**	**0%**



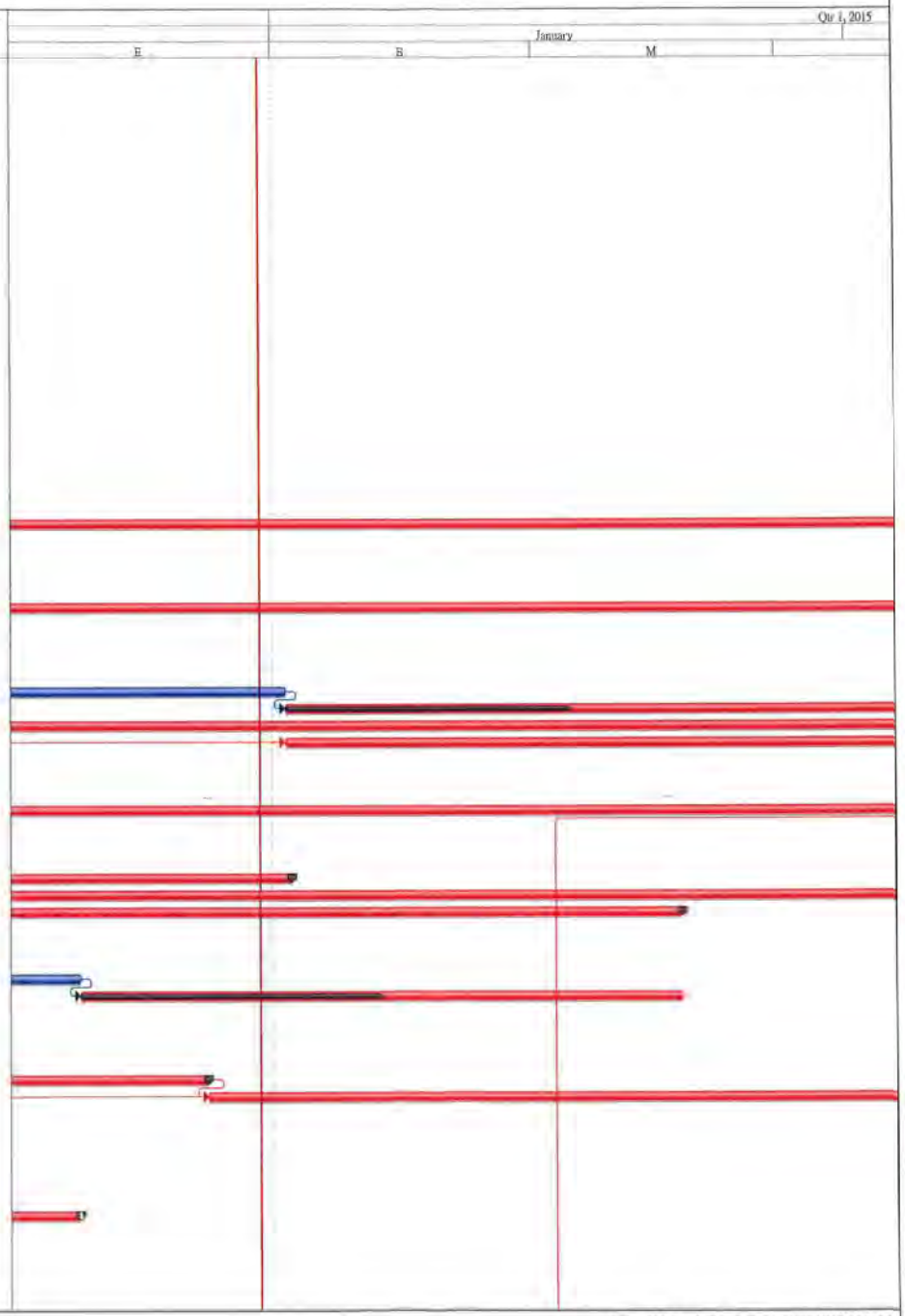
ID	WBS	Task Name	Duration	Start	Finish	% Complete
537	**4.12.6**	**Archaeological survey (Sections T1 to T3)(Drg. 6403A)**	**167 days**	**24/10/2013**	**8/4/2014**	**100%**
543	**4.12.7**	**Construction of retaining wall RW8 - CH0 to 22 (3 bays)**	**70 days**	**13/8/2014**	**21/10/2014**	**0%**
545	4.12.8	Site Formation works for ArchSD Depot (Drg. 1001B)	35 days	22/10/2014	25/11/2014	0%
546	4.12.9	Existing road to be improved & run-in to the site to be constructed at RS1 (Drg.1203A, 1001B)	108 days	4/8/2014	19/11/2014	44%
547	4.12.10	Access road to be re-constructed / upgraded at RS3 (Drg/1203)	111 days	20/11/2014	10/3/2015	0%
548	**4.13**	**Section XIV of the Works - Trees preservation and protection**	**730 days**	**12/4/2013**	**11/4/2015**	**74%**
549	4.13.1	Submissions	69 days	12/4/2013	19/6/2013	100%
550	4.13.2	Approval of Submissions	70 days	20/6/2013	28/8/2013	100%
551	4.13.3	Tree felling/removal works and tree transplanting works	499 days	6/9/2013	17/1/2015	76%
552	4.13.4	Preservation and Protection of Existing Trees in all Portion of the Site	591 days	29/8/2013	11/4/2015	66%
553	**4.14**	**Section XV of the Works - Landscape soft works (including transplant trees to permanent locations)**	**332 days**	**15/5/2014**	**11/4/2015**	**11%**
554	4.14.1	tree & shrub planting at re-aligned Lin Ma Hang Road (west) for Section XIII of the Works	58 days	10/12/2014	5/2/2015	0%
555	4.14.2	tree & shrub planting at re-aligned Lin Ma Hang Road (east) for Section XIII of the Works	65 days	6/2/2015	11/4/2015	0%
556	4.14.3	shrub planting at BCPC for Section X of the Works	21 days	15/5/2014	4/6/2014	100%
557	4.14.4	tree & shrub planting at BCPD Section XI of the Works	55 days	16/2/2015	11/4/2015	0%
558	**4.15**	**Section XVI of the Works - Establishment works for landscape soft works**	**365 days**	**12/4/2015**	**10/4/2016**	**0%**



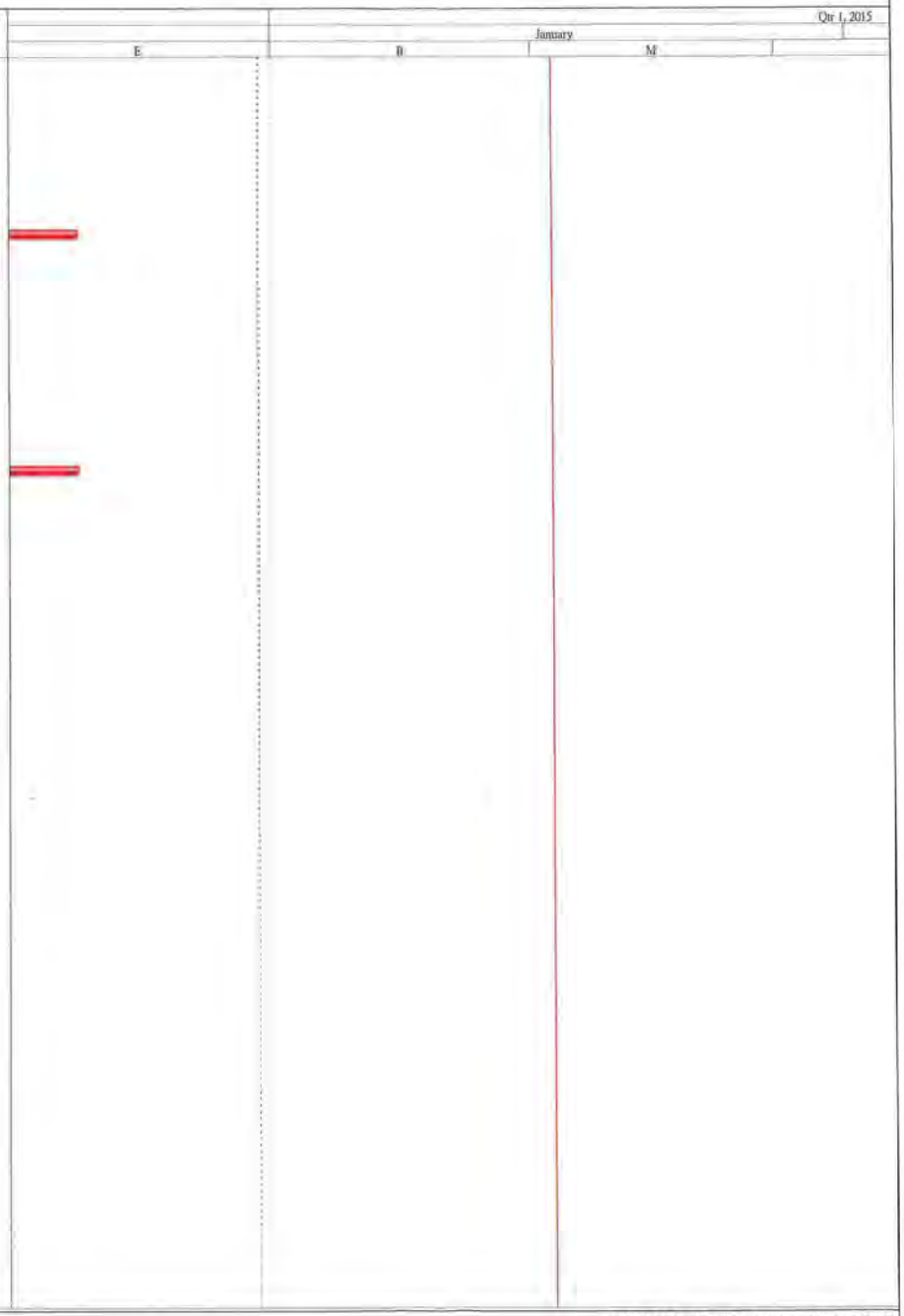
ID	WBS	Task Name	Duration	Start	Finish	% Complete
1	1	**Key Dates**	**1110 days**	**Thu 28/3/13**	**Sun 10/4/16**	**0%**
2	1.1	**Contract Award & Commencement**	**15 days**	**Thu 28/3/13**	**Thu 11/4/13**	**100%**
3	1.1.1	Letter of Acceptance	0 days	Thu 28/3/13	Thu 28/3/13	100%
4	1.1.2	Commencement of Works	0 days	Thu 11/4/13	Thu 11/4/13	100%
5	1.2	**Site Possession Date**	**330 days**	**Thu 11/4/13**	**Fri 7/3/14**	**100%**
6	1.2.1	Portion BCP 1	0 days	Sat 11/5/13	Sat 11/5/13	100%
7	1.2.2	Portion BCP 2	0 days	Mon 10/6/13	Mon 10/6/13	100%
8	1.2.3	Portion BCP 3 (villagers illegal occcupation)	0 days	Sun 8/9/13	Sun 8/9/13	100%
9	1.2.4	Portion BCP 4 (delayed site possession)	0 days	Fri 7/3/14	Fri 7/3/14	100%
10	1.2.5	Portion BCP 5	0 days	Sun 8/9/13	Sun 8/9/13	100%
11	1.2.6	Portion BCP 6	0 days	Sun 8/9/13	Sun 8/9/13	100%
12	1.2.7	Portion BCP 7	0 days	Sun 8/9/13	Sun 8/9/13	100%
13	1.2.8	Portion CR 2	0 days	Sat 7/12/13	Sat 7/12/13	100%
14	1.2.9	Portion CR 40 (delaying site possession)	0 days	Fri 7/3/14	Fri 7/3/14	100%
15	1.2.10	Portion CR 41 (delaying site possession)	0 days	Fri 7/3/14	Fri 7/3/14	100%
16	1.2.11	Portion CR 42 (delaying site possession)	0 days	Fri 7/3/14	Fri 7/3/14	100%
17	1.2.12	Portion CR 44 (delaying site possession)	0 days	Wed 5/2/14	Wed 5/2/14	100%
18	1.2.13	Area LMH 0	0 days	Thu 11/4/13	Thu 11/4/13	100%
19	1.2.14	Area LMH 1	0 days	Sun 8/9/13	Sun 8/9/13	100%
20	1.2.15	Area LMH 2	0 days	Sat 11/5/13	Sat 11/5/13	100%
21	1.2.16	Area LMH 3	0 days	Fri 7/3/14	Fri 7/3/14	100%
22	1.2.17	Area LMH 4	0 days	Sun 8/9/13	Sun 8/9/13	100%
23	1.2.18	Area LMH 5	0 days	Tue 8/10/13	Tue 8/10/13	100%
24	1.2.19	Area RS 1	0 days	Sat 11/5/13	Sat 11/5/13	100%
25	1.2.20	Area RS 2 (Omitted)	0 days	Sat 11/5/13	Sat 11/5/13	100%
26	1.2.21	Area RS 3	0 days	Sat 11/5/13	Sat 11/5/13	100%
27	1.2.22	Area RS 4	0 days	Sat 11/5/13	Sat 11/5/13	100%
28	1.3	**Section Completion Date**	**976 days**	**Thu 8/8/13**	**Sun 10/4/16**	**0%**
29	1.3.1	KD-1 Section I of the Works - G.I. field works	0 days	Tue 4/2/14	Tue 4/2/14	100%
30	1.3.2	KD-2 Section II of the Works - All laboratory tests for Section I	0 days	Thu 6/3/14	Thu 6/3/14	100%
31	1.3.3	KD-3 Section III of the Works - Site formation works for portion RS1, RS2 & RS3	0 days	Thu 8/8/13	Thu 8/8/13	100%
32	1.3.4	KD-4 Section IV of the Works - Village house within portion RS4	0 days	Sun 5/1/14	Sun 5/1/14	100%
33	1.3.5	KD-5 Section V of the Works - All works within portion RS4 exclude Section IV	0 days	Sun 5/1/14	Sun 5/1/14	100%
34	1.3.6	KD-7 Section VII of the Works - All works within Area CRD	0 days	Thu 15/5/14	Thu 15/5/14	100%
35	1.3.7	KD-8 Section VIII of the Works - All works within Area BCPA	0 days	Sun 12/10/14	Sun 12/10/14	100%
36	1.3.8	KD-8 Section IX of the Works - All works within Area BCPB	0 days	Sat 11/4/15	Sat 11/4/15	0%
37	1.3.9	KD-10 Section X of the Works - All works within Area BCPC	0 days	Wed 4/6/14	Wed 4/6/14	100%
38	1.3.10	KD-11 Section XI of the Works - All works within Area BCPD	0 days	Sat 11/4/15	Sat 11/4/15	0%
39	1.3.11	KD-12 Section XII of the Works - All works within Area LMH	0 days	Mon 1/12/14	Mon 1/12/14	0%
40	1.3.12	KD-13 Section XIII of the Works - Works not covered in any other Sections	0 days	Sat 11/4/15	Sat 11/4/15	0%
41	1.3.13	KD-14 Section XIV of the Works - Trees preservation and protection	0 days	Sat 11/4/15	Sat 11/4/15	0%
42	1.3.14	KD-15 Section XV of the Works - Landscape soft works	0 days	Sat 11/4/15	Sat 11/4/15	0%
43	1.3.15	KD-16 Section XVI of the Works - Establishment works for landscape soft works	0 days	Sun 10/4/16	Sun 10/4/16	0%
44	1.4	**Stage Completion Date**	**60 days**	**Thu 8/8/13**	**Mon 7/10/13**	**100%**
47	2	**Preliminaries and Statuary / Contractual Submissions**	**424 days**	**Thu 11/4/13**	**Mon 9/6/14**	**100%**
78	3	**Stage of the Works**	**180 days**	**Thu 11/4/13**	**Mon 7/10/13**	**100%**
79	3.1	**Stage I of the Works - Temporary vehicular bridge B and temporary Lin Ma Hang Road**	**179 days**	**Fri 12/4/13**	**Mon 7/10/13**	**100%**
90	3.2	**Stage II of the Works - Temporary ArchSD Depot (LMH2)**	**78 days**	**Thu 11/4/13**	**Thu 27/6/13**	**100%**
94	4	**Section of the Works**	**1095 days**	**Fri 12/4/13**	**Sun 10/4/16**	**59%**
95	4.1	**Section I of the Works - Ground Investigation field works (Drg. 7101A-7111A)**	**251 days**	**Thu 30/5/13**	**Tue 4/2/14**	**100%**
100	4.2	**Section II of the Works - All laboratory tests for Section I**	**188 days**	**Sat 31/8/13**	**Thu 6/3/14**	**100%**
105	4.3	**Section III of the Works - Site formation works for Portions RS1, RS2 & RS3 (seek for certificate of completion in letter ref. SRJV/W47/SO/J5/1308/00416 dated 23/8/2013)**	**89 days**	**Sun 12/5/13**	**Thu 8/8/13**	**100%**
111	4.4	**Section IV of the Works - Village house within portion RS4**	**399 days**	**Fri 12/4/13**	**Thu 15/5/14**	**100%**
123	4.5	**Section V of the Works-All works within portion RS4 exclude Section IV**	**509 days**	**Fri 12/4/13**	**Tue 2/9/14**	**46%**
124	4.5.1	**ISSUED EOT2**	**241 days**	**Sun 5/1/14**	**Tue 2/9/14**	**100%**
125	4.5.2	Submissions and method statement	37 days	Fri 12/4/13	Sat 18/5/13	100%
126	4.5.3	Approvals from ER	30 days	Fri 26/4/13	Sat 25/5/13	100%
127	4.5.4	**Construction of footbridge and staircase with mini-piles 8 nos. x Ø273 and staircase (Drg. 2201A to 2207B, 6001B)**	**235 days**	**Sat 11/1/14**	**Tue 2/9/14**	**7%**
128	4.5.4.1	Mini-piles	61 days	Sat 11/1/14	Wed 12/3/14	50%
129	4.5.4.2	Pile Caps	52 days	Fri 14/2/14	Sun 6/4/14	0%
130	4.5.4.3	Abutments	45 days	Mon 10/3/14	Wed 23/4/14	0%
131	4.5.4.4	Wing walls	45 days	Thu 27/3/14	Sat 10/5/14	0%
132	4.5.4.5	Mass concrete	41 days	Sun 13/4/14	Fri 23/5/14	0%
133	4.5.4.6	Remove sheetpiles from abutments	11 days	Sat 24/5/14	Tue 3/6/14	0%
134	4.5.4.7	Beams	45 days	Wed 4/6/14	Fri 18/7/14	0%



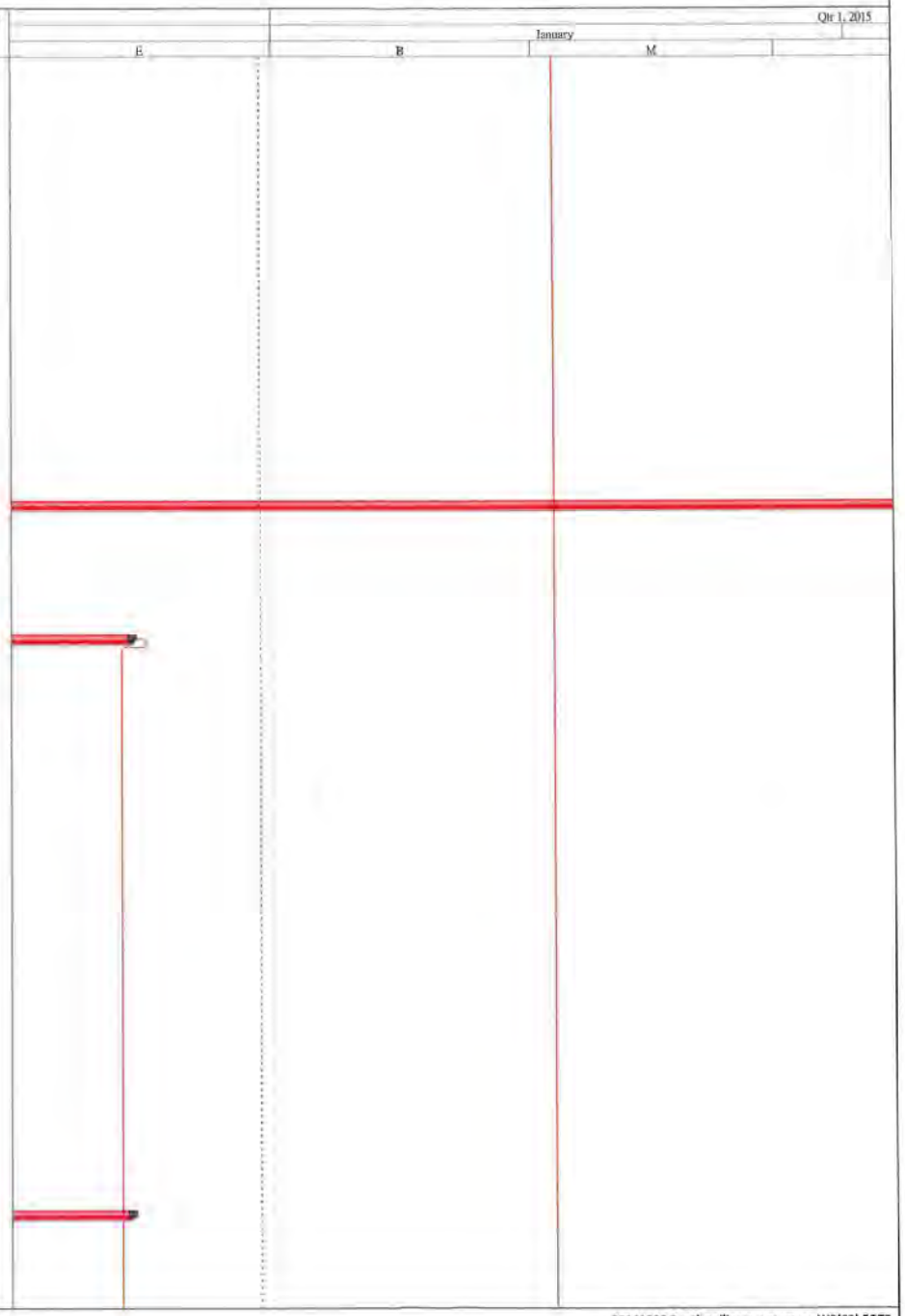
ID	WBS	Task Name	Duration	Start	Finish	% Complete
135	4.5.4.8	Deck	34 days	Sat 19/7/14	Thu 21/8/14	0%
136	4.5.4.9	Compact fill behind abutments	14 days	Wed 4/6/14	Tue 17/6/14	0%
137	4.5.4.10	New footpath	21 days	Wed 18/6/14	Tue 8/7/14	0%
138	4.5.4.11	New staircase	36 days	Wed 9/7/14	Wed 13/8/14	0%
139	4.5.4.12	Miscellaneous (pedestrian parapet, granite tile etc.)	20 days	Thu 14/8/14	Tue 2/9/14	0%
140	4.6	**Section VII of the Works - All works within Area CRD**	**249 days**	**Mon 9/9/13**	**Thu 15/5/14**	**100%**
177	4.7	**Section VIII of the Works - All works within Area BCPA**	**489 days**	**Tue 11/6/13**	**Sun 12/10/14**	**58%**
178	4.7.1	Submission for Site Formation Works & import fill	72 days	Tue 11/6/13	Wed 21/8/13	100%
179	4.7.2	Approval of submission for Site Formation Works	50 days	Thu 22/8/13	Thu 10/10/13	100%
180	4.7.3	Approval for sources of import fill	69 days	Sat 28/9/13	Thu 5/12/13	100%
181	4.7.4	Site formation of land (import fill 121433m3)	263 days	Fri 11/10/13	Mon 30/6/14	81%
182	4.7.4.1	site formation (A1-A9)	82 days	Fri 11/10/13	Tue 31/12/13	99%
183	4.7.4.2	site formation (A10-13, A15-20, A23, A24-A25)	90 days	Wed 1/1/14	Mon 31/3/14	97%
184	4.7.4.3	site formation (A14, A22, A26)	91 days	Tue 1/4/14	Mon 30/6/14	50%
185	4.7.5	Slope drainage works (Drg. 7156B-7159B)	284 days	Thu 2/1/14	Sun 12/10/14	50%
186	4.7.5.1	submission of design of sedimentation tank/pond	38 days	Thu 2/1/14	Sat 8/2/14	100%
187	4.7.5.2	approval of design of sedimentation tank/pond	36 days	Sun 9/2/14	Sun 16/3/14	100%
188	4.7.5.3	discharge to existing Box Culvert No. 4 & sedimentation tank	16 days	Mon 17/3/14	Tue 1/4/14	75%
189	4.7.5.4	DN1050 from CP to sedimentation tank	73 days	Wed 2/4/14	Fri 13/6/14	85%
190	4.7.5.5	shortcreted TC (from A3,A2,A1,A5)	31 days	Sat 31/5/14	Mon 30/6/14	0%
191	4.7.5.6	shortcreted TC (from A10-13)	30 days	Tue 1/7/14	Wed 30/7/14	0%
192	4.7.5.7	shortcreted TC (from A10,A15,A19)	25 days	Thu 31/7/14	Sun 24/8/14	0%
193	4.7.5.8	shortcreted TC (from A20-24A26,A14)	49 days	Mon 25/8/14	Sun 12/10/14	0%
194	4.7.6	Chain link fence (1120m)	195 days	Tue 1/4/14	Sun 12/10/14	0%
195	4.7.6.1	chain link fence (A1-5,A10,A15,A19)	102 days	Tue 1/4/14	Fri 11/7/14	0%
196	4.7.6.2	chain link fence (A4,A9,A14,A26,A24)	58 days	Sat 12/7/14	Sun 7/9/14	0%
197	4.7.6.3	chain link fence (A21-24)	35 days	Mon 8/9/14	Sun 12/10/14	0%
198	4.8	**Section IX of the Works - All works within Area BCPB**	**492 days**	**Fri 6/12/13**	**Sat 11/4/15**	**36%**
199	4.8.1	Submission for demolition of existing building structures	37 days	Fri 20/12/13	Sat 25/1/14	100%
200	4.8.2	Approval of submission for demolish existing building structures	41 days	Sun 26/1/14	Fri 7/3/14	100%
201	4.8.3	Demolition of existing building structures UPON instruction (Drg. 6152A, 6153A)	118 days	Sat 8/3/14	Thu 3/7/14	50%
202	4.8.4	Site formation works (import fill 370523m3)	492 days	Fri 6/12/13	Sat 11/4/15	36%
203	4.8.4.1	site formation works (B20)	28 days	Fri 6/12/13	Thu 2/1/14	75%
204	4.8.4.2	site formation works (B1,3,6,9,21,22)	89 days	Fri 3/1/14	Tue 1/4/14	90%
205	4.8.4.3	site formation works (B2,5)	92 days	Wed 2/4/14	Wed 2/7/14	10%
206	4.8.4.4	site formation works (B7,11,12)	93 days	Thu 3/7/14	Fri 3/10/14	0%
207	4.8.4.5	site formation works (B4,8,10,13,14,16,17)	91 days	Sat 4/10/14	Fri 2/1/15	22%
208	4.8.4.6	site formation works (B15,18,19)	99 days	Sat 3/1/15	Sat 11/4/15	45%
209	4.8.5	Temp. boundary fence, chain link fence (Drg.1002C, 1032B, 1033B)	320 days	Tue 27/5/14	Sat 11/4/15	0%
210	4.8.5.1	chain link fence (780m)	99 days	Sat 3/1/15	Sat 11/4/15	0%
211	4.8.5.2	fabricate temporary boundary fence & post	37 days	Tue 27/5/14	Wed 2/7/14	0%
212	4.8.5.3	fix temporary boundary fence (105m)	35 days	Thu 3/7/14	Wed 6/8/14	0%
213	4.9	**Section X of the Works - All works within Area BCPC**	**269 days**	**Mon 9/9/13**	**Wed 4/6/14**	**100%**
229	4.10	**Section XI of the Works - All works within Area BCPD**	**598 days**	**Thu 22/8/13**	**Sat 11/4/15**	**40%**
230	4.10.1	Submissions	23 days	Thu 22/8/13	Fri 13/9/13	100%
231	4.10.2	Approval of Submissions	37 days	Sat 14/9/13	Sun 20/10/13	100%
232	4.10.3	**Construction of retaining wall RW2**	**281 days**	**Mon 21/10/13**	**Mon 28/7/14**	**100%**
248	4.10.4	Boundary fence (Drg.1002C, 1003A)	267 days	Sat 12/4/14	Sat 3/1/15	0%
253	4.10.5	Modified CEDD hoarding Type III (Drg. 1032B)	176 days	Sat 18/10/14	Sat 11/4/15	0%
257	4.10.6	Site Formation works (import fill 104958m3) including slope drainage works (Drg. 7155B-7159B)	423 days	Tue 7/1/14	Thu 5/3/15	62%
258	4.10.6.1	D1-D2	84 days	Tue 7/1/14	Mon 31/3/14	75%
259	4.10.6.2	D3, D10,D11, D17, D12- D14	95 days	Tue 27/5/14	Fri 29/8/14	75%
260	4.10.6.3	D4, D15, D16	94 days	Sat 30/8/14	Mon 1/12/14	50%
261	4.10.6.4	D5-D9	94 days	Tue 2/12/14	Thu 5/3/15	50%
262	4.10.7	Sewerage, Drainage & Water Works (Drg. 1323B,1305C,1309A)	368 days	Mon 21/10/13	Thu 23/10/14	5%
277	4.10.8	Irrigation system (sequence 3)(see Appendix C) adjacent to underpass & depressed road	44 days	Fri 29/8/14	Sat 11/10/14	0%
278	4.10.9	Irrigation system (sequence 4) (see Appendix C) next to BCPC	44 days	Fri 29/8/14	Sat 11/10/14	0%
279	4.10.10	Utilities works (Drg. 1405A) (see Appendix A)	369 days	Wed 18/12/13	Sun 21/12/14	0%
285	4.10.11	Road works and Road lighting works (Drg.1205A,1505C,1605B)	111 days	Mon 22/12/14	Sat 11/4/15	0%
286	4.10.12	**Construction of depressed road & underpass-9.3m wide x168m long**	**241 days**	**Tue 31/12/13**	**Thu 28/8/14**	**6%**
287	4.10.12.1	Bay 16015-16012	54 days	Tue 31/12/13	Sat 22/2/14	35%
288	4.10.12.2	Bay 16011-16008	50 days	Sun 23/2/14	Sun 13/4/14	0%
289	4.10.12.3	Bay 16007-16004	52 days	Mon 14/4/14	Wed 4/6/14	0%
290	4.10.12.4	Bay 16003-16001	50 days	Thu 5/6/14	Thu 24/7/14	0%
291	4.10.12.5	miscellaneous works	85 days	Thu 5/6/14	Thu 28/8/14	0%
292	4.11	**Section XII of the Works - All works within Area LMH**	**467 days**	**Thu 22/8/13**	**Mon 1/12/14**	**71%**
293	4.11.1	Submissions for method statement of subway & staircase	70 days	Thu 22/8/13	Wed 30/10/13	100%
294	4.11.2	Approval of Submissions for method statement of subway & staircase	68 days	Fri 30/8/13	Tue 5/11/13	100%
295	4.11.3	**Construction of retaining wall RW1 - CH0 to 561.053m**	**213 days**	**Thu 26/9/13**	**Sat 26/4/14**	**96%**
296	4.11.3.1	Bay 1075 to Bay 1068 (8 bays) -H1	77 days	Thu 26/9/13	Wed 11/12/13	100%
297	4.11.3.2	Bay 1067 to Bay 1060 (8 bays) -H2	77 days	Tue 8/10/13	Mon 23/12/13	100%



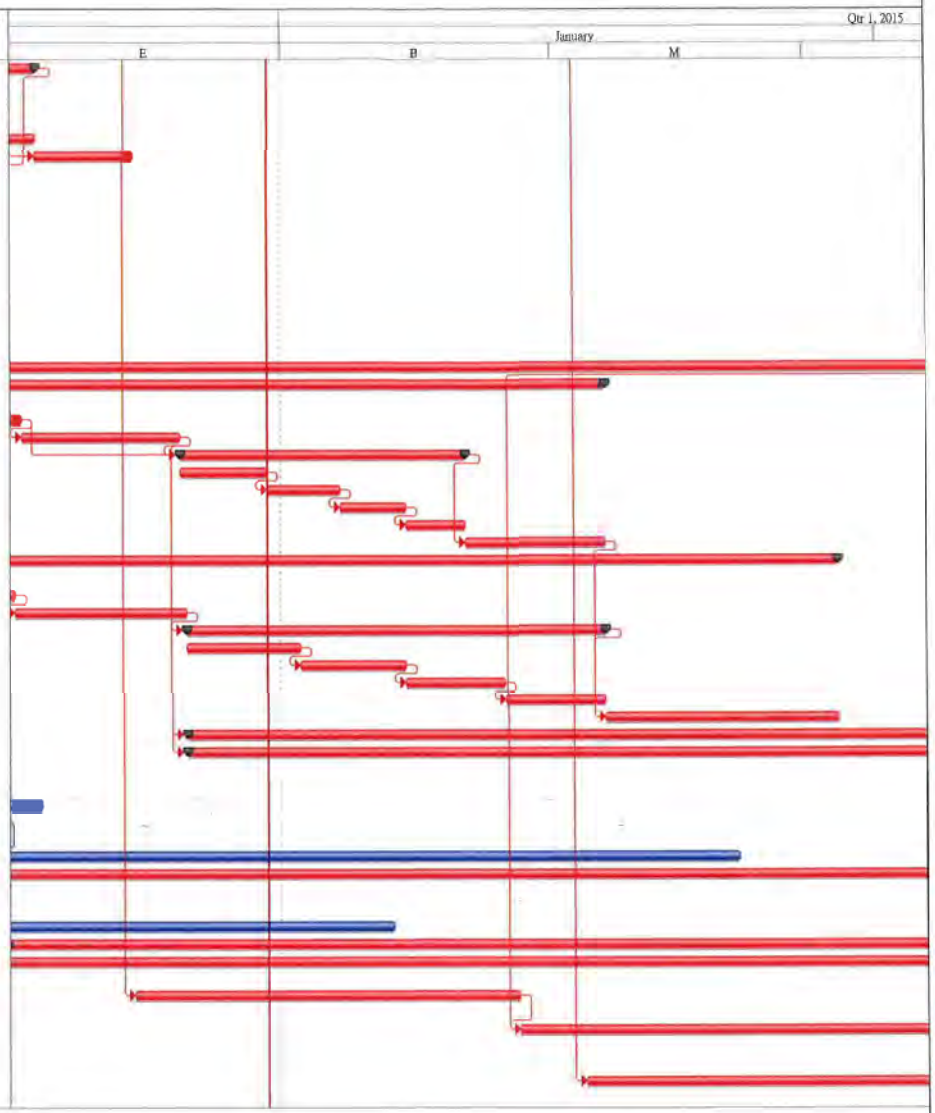
ID	WBS	Task Name	Duration	Start	Finish	% Complete
298	4.11.3.3	Bay 1059 to Bay 1052 (8 bays) - H3	93 days	Fri 15/11/13	Sat 15/2/14	100%
299	4.11.3.4	Bay 1051 to Bay 1044 (8 bays) -H4	80 days	Fri 29/11/13	Sun 16/2/14	100%
300	4.11.3.5	Bay 1043 to Bay 1036 (8 bays) - H5	79 days	Fri 13/12/13	Sat 1/3/14	100%
301	4.11.3.6	Bay 1035 to Bay 1028 (8 bays) -H5,H6	83 days	Fri 17/1/14	Wed 9/4/14	100%
302	4.11.3.7	Bay 1027 to Bay 1020 (8 bays) -H6	79 days	Mon 16/12/13	Tue 4/3/14	100%
303	4.11.3.8	Bay 1019 to Bay 1012 (8 bays) -H7	105 days	Sat 28/12/13	Fri 11/4/14	100%
304	4.11.3.9	Bay 1011 to Bay 1004 (8 bays) H7,H8	87 days	Mon 30/12/13	Wed 26/3/14	95%
305	4.11.3.10	Bay 1003 to Bay 1001 (3 bays) - H8	31 days	Thu 27/3/14	Sat 26/4/14	10%
306	**4.11.4**	**Construction of retaining wall RW1A-CH561.053 to 612.457m (length approx.. 51.4m)**	**368 days**	**Wed 11/9/13**	**Sat 13/9/14**	**100%**
309	4.11.5	Filling & Slope drainage behind RW1A (involve TTA)	79 days	Sun 14/9/14	Mon 1/12/14	50%
310	**4.11.6**	**Site formation works (import fill 15300m3) including slope drainage works (Drg. 7154B, 7159B) (see Appendix B)**	**294 days**	**Tue 24/12/13**	**Mon 13/10/14**	**67%**
311	**4.11.6.1**	**site formation (H1-H8) & slope drainage works**	**157 days**	**Tue 24/12/13**	**Thu 29/5/14**	**81%**
312	4.11.6.1.1	fill H1	36 days	Thu 24/4/14	Thu 29/5/14	65%
313	4.11.6.1.2	fill H2	20 days	Tue 24/12/13	Sun 12/1/14	100%
314	4.11.6.1.3	fill H3	17 days	Mon 17/2/14	Wed 5/3/14	100%
315	4.11.6.1.4	fill H4	17 days	Mon 17/2/14	Wed 5/3/14	100%
316	4.11.6.1.5	fill H5	18 days	Thu 10/4/14	Sun 27/4/14	100%
317	4.11.6.1.6	fill H6	19 days	Wed 16/4/14	Sun 4/5/14	100%
318	4.11.6.1.7	fill H7	18 days	Sat 12/4/14	Tue 29/4/14	100%
319	4.11.6.1.8	fill H8	19 days	Thu 27/3/14	Mon 14/4/14	0%
320	4.11.6.2	Remove existing Lin Ma Hang Road	13 days	Wed 1/10/14	Mon 13/10/14	0%
321	4.11.6.3	Fill H9 & B15 for slope	21 days	Tue 23/9/14	Mon 13/10/14	5%
322	4.11.7	Boundary fence & chain link fence on top of slope	49 days	Tue 14/10/14	Mon 1/12/14	0%
323	4.11.8	Drainage works at Lin Ma Hang Road (Drg. 1304B, 1306A, 1307A, 1309A) (see Appendix B)	244 days	Wed 6/11/13	Mon 7/7/14	49%
324	4.11.8.1	H1-SM16-9062, 9201 & 9105A-9062, 9054-9062, 9101-9105	244 days	Wed 6/11/13	Mon 7/7/14	15%
330	4.11.8.2	SMH6895-6808, 6804-6808	49 days	Sat 10/5/14	Fri 27/6/14	0%
331	4.11.8.3	H2 - SMH9054-45,44, 9043	52 days	Mon 13/1/14	Wed 5/3/14	100%
332	4.11.8.4	H3 - SMH9043-37, 9036 (DN900)	41 days	Thu 6/3/14	Tue 15/4/14	100%
333	4.11.8.5	H4 - SMH9036-30,9029 (DN900)	32 days	Sat 15/3/14	Tue 15/4/14	100%
334	4.11.8.6	H5 - SMH9029-22,9021 (DN750,900)	43 days	Mon 28/4/14	Mon 9/6/14	100%
335	4.11.8.7	H6 - SMH9021-14,9013 (DN750)	36 days	Mon 5/5/14	Mon 9/6/14	100%
336	4.11.8.8	H7 - SMH9013-06,9005 (DN600,750)	35 days	Wed 30/4/14	Tue 3/6/14	100%
337	4.11.8.9	H8 - SMH9005-03,9002 (DN450)	23 days	Thu 8/5/14	Fri 30/5/14	10%
338	4.11.8.10	H8 - SMH9002-9001 (DN300)	9 days	Sat 31/5/14	Sun 8/6/14	0%
339	4.11.9	Water works at Lin Ma Hang Road (Drg.1914B-1917B)	128 days	Tue 11/3/14	Wed 16/7/14	100%
340	4.11.10	Irrigation System at Lin Ma Hang Road (Drg.1974B, 1976A, 1977A)	42 days	Wed 4/6/14	Tue 15/7/14	0%
341	4.11.10.1	from Phase H2-H8	37 days	Wed 4/6/14	Thu 10/7/14	0%
342	4.11.10.2	for Phase H1	8 days	Tue 8/7/14	Tue 15/7/14	0%
343	4.11.10.3	after Phase H8	13 days	Sat 28/6/14	Thu 10/7/14	0%
344	**4.11.11**	**Utility Works**	**168 days**	**Wed 16/4/14**	**Tue 30/9/14**	**62%**
345	**4.11.11.1**	**CLP - LV (west side of new Lin Ma Hang Road)**	**103 days**	**Wed 16/4/14**	**Sun 27/7/14**	**64%**
346	4.11.11.1.1	from chainage 840 to chainage 1125	15 days	Wed 16/4/14	Wed 30/4/14	100%
347	4.11.11.1.2	from chainage 630 to chainage 840	22 days	Tue 10/6/14	Tue 1/7/14	100%
348	4.11.11.1.3	from chainage 475 to chainage 630	11 days	Thu 17/7/14	Sun 27/7/14	0%
349	4.11.11.1.4	from chainage 1125 to chainage 1270	10 days	Tue 8/7/14	Thu 17/7/14	0%
350	4.11.11.2	CLP - LV (east side of new Lin Ma Hang Road)	36 days	Sun 6/7/14	Sun 10/8/14	64%
351	4.11.11.2.1	from chainage 840 to chainage 1125	15 days	Sun 6/7/14	Sun 20/7/14	100%
352	4.11.11.2.2	from chainage 630 to chainage 840	21 days	Mon 21/7/14	Sun 10/8/14	100%
353	4.11.11.2.3	from chainage 475 to chainage 630	10 days	Tue 8/7/14	Thu 17/7/14	0%
354	4.11.11.2.4	from chainage 1125 to chainage 1270	10 days	Thu 17/7/14	Sat 26/7/14	0%
355	**4.11.11.3**	**CLP - 11kV (west side of new Lin Ma Hang Road)**	**97 days**	**Fri 2/5/14**	**Wed 6/8/14**	**63%**
356	4.11.11.3.1	from chainage 840 to chainage 1125	15 days	Fri 2/5/14	Fri 16/5/14	100%
357	4.11.11.3.2	from chainage 630 to chainage 840	21 days	Wed 2/7/14	Tue 22/7/14	100%
358	4.11.11.3.3	from chainage 475 to chainage 630	10 days	Mon 28/7/14	Wed 6/8/14	0%
359	4.11.11.3.4	from chainage 1125 to chainage 1270	11 days	Fri 18/7/14	Mon 28/7/14	0%
360	4.11.11.4	CLP - 11kV (east side of new Lin Ma Hang Road)	46 days	Fri 18/7/14	Mon 1/9/14	62%
361	4.11.11.4.1	from chainage 840 to chainage 1125	15 days	Tue 22/7/14	Tue 5/8/14	100%
362	4.11.11.4.2	from chainage 630 to chainage 840	21 days	Tue 12/8/14	Mon 1/9/14	100%
363	4.11.11.4.3	from chainage 475 to chainage 630	11 days	Fri 18/7/14	Mon 28/7/14	0%
364	4.11.11.4.4	from chainage 1125 to chainage 1270	11 days	Sun 27/7/14	Wed 6/8/14	0%
365	**4.11.11.5**	**PCCW (west side of new Lin Ma Hang Road)**	**114 days**	**Fri 2/5/14**	**Sat 23/8/14**	**64%**
366	4.11.11.5.1	from chainage 840 to chainage 1125	25 days	Thu 5/6/14	Sun 29/6/14	100%
367	4.11.11.5.2	from chainage 630 to chainage 840	34 days	Fri 2/5/14	Wed 4/6/14	100%
368	4.11.11.5.3	from chainage 475 to chainage 630	17 days	Thu 7/8/14	Sat 23/8/14	0%
369	4.11.11.5.4	from chainage 1125 to chainage 1270	16 days	Tue 29/7/14	Wed 13/8/14	0%
370	**4.11.11.6**	**HGC (west side of new Lin Ma Hang Road)**	**91 days**	**Thu 5/6/14**	**Wed 3/9/14**	**64%**
371	4.11.11.6.1	from chainage 840 to chainage 1125	16 days	Mon 30/6/14	Tue 15/7/14	100%
372	4.11.11.6.2	from chainage 630 to chainage 840	21 days	Thu 5/6/14	Wed 25/6/14	100%
373	4.11.11.6.3	from chainage 475 to chainage 630	11 days	Sun 24/8/14	Wed 3/9/14	0%
374	4.11.11.6.4	from chainage 1125 to chainage 1270	10 days	Wed 20/8/14	Fri 29/8/14	0%



ID	WBS	Task Name	Duration	Start	Finish	% Complete
375	**4.11.11.7**	**NWT (west side of new Lin Ma Hang Road)**	**84 days**	**Thu 26/6/14**	**Wed 17/9/14**	**100%**
380	4.11.11.8	Street lighting work	29 days	Tue 2/9/14	Tue 30/9/14	0%
381	4.11.11.8.1	west side of new Lin Ma Hang Road	15 days	Tue 16/9/14	Tue 30/9/14	0%
382	4.11.11.8.2	east side of new Lin Ma Hang Road	29 days	Tue 2/9/14	Tue 30/9/14	0%
383	4.11.12	Roadwork of carriageway	72 days	Mon 21/7/14	Tue 30/9/14	17%
384	4.11.13	Construction of footpath (for BCPA)	72 days	Mon 21/7/14	Tue 30/9/14	0%
385	**4.11.14**	**Construction of pedestrian subway & pump room**	**202 days**	**Wed 6/11/13**	**Mon 26/5/14**	**100%**
395	**4.11.15**	**Construction of staircase with lift shaft with 6 nos. of mini pile**	**225 days**	**Mon 14/10/13**	**Mon 26/5/14**	**100%**
401	**4.11.16**	**1 no. DN1650 pipe jacking LV009 including jacking & receiving pits**	**147 days**	**Wed 6/11/13**	**Tue 1/4/14**	**100%**
414	**4.11.17**	**Construction of retaining wall RW9 - CH0 to 75m (length 75m)**	**110 days**	**Wed 2/4/14**	**Sun 20/7/14**	**0%**
415	4.11.17.1	drive sheetpile & excavation	14 days	Wed 2/4/14	Tue 15/4/14	0%
416	4.11.17.2	grade 200 rock fill	14 days	Sun 6/4/14	Sat 19/4/14	0%
417	4.11.17.3	cast blinding layer	14 days	Mon 14/4/14	Sun 27/4/14	0%
418	4.11.17.4	Bay 9001-9010	94 days	Fri 18/4/14	Sun 20/7/14	0%
419	**4.11.18**	**Construction of Bridge J with 6 x Ø1500 bored piles**	**217 days**	**Sat 7/12/13**	**Fri 11/7/14**	**62%**
420	4.11.18.1	bored piles	73 days	Sat 7/12/13	Mon 17/2/14	100%
421	4.11.18.2	pile caps	15 days	Tue 18/2/14	Tue 4/3/14	100%
422	4.11.18.3	abutment walls	24 days	Mon 3/3/14	Wed 26/3/14	100%
423	4.11.18.4	falsework for deck	15 days	Tue 25/3/14	Tue 8/4/14	100%
424	4.11.18.5	deck	55 days	Wed 9/4/14	Mon 2/6/14	20%
425	4.11.18.6	parapet	39 days	Tue 3/6/14	Fri 11/7/14	0%
426	**4.11.19**	**Construction of retaining wall RW5 - CH0 to 60m (length 60m)**	**44 days**	**Thu 27/3/14**	**Fri 9/5/14**	**17%**
427	4.11.19.1	drive sheetpile & excavation	11 days	Thu 27/3/14	Sun 6/4/14	25%
428	4.11.19.2	grade 200 rock fill	4 days	Mon 7/4/14	Thu 10/4/14	25%
429	4.11.19.3	cast blinding layer	5 days	Fri 11/4/14	Tue 15/4/14	25%
430	4.11.19.4	Bay 5001-5008	24 days	Wed 16/4/14	Fri 9/5/14	10%
431	**4.12**	**Section XIII of the Works - Works not covered in any other Sections**	**598 days**	**Thu 22/8/13**	**Sat 11/4/15**	**37%**
432	4.12.1	Submissions	70 days	Thu 22/8/13	Wed 30/10/13	100%
433	4.12.2	Approval of Submissions	68 days	Mon 16/9/13	Fri 22/11/13	100%
434	**4.12.3**	**Temporary Traffic Arrangement (TTA) Scheme for Works at existing LMH Rd**	**92 days**	**Fri 23/8/13**	**Fri 22/11/13**	**100%**
435	4.12.3.1	Preparation of TTA scheme	21 days	Fri 23/8/13	Thu 12/9/13	100%
436	4.12.3.2	Comment & approval of TTA scheme by TD & RMO	55 days	Fri 13/9/13	Wed 6/11/13	100%
437	4.12.3.3	Obtain roadwork advice from RMO	16 days	Thu 7/11/13	Fri 22/11/13	100%
438	**4.12.4**	**Northbound of Re-aligned Lin Ma Hang Road (west side)**	**382 days**	**Sat 23/11/13**	**Tue 9/12/14**	**35%**
439	**4.12.4.1**	**Works from chainage 190 to chainage 310**	**229 days**	**Sat 23/11/13**	**Wed 9/7/14**	**55%**
440	4.12.4.1.1	Drainage & slope drain	76 days	Sat 23/11/13	Thu 6/2/14	100%
441	4.12.4.1.2	Waterwork	38 days	Fri 7/2/14	Sun 16/3/14	100%
442	4.12.4.1.3	Irrigation System	18 days	Mon 17/3/14	Thu 3/4/14	10%
443	4.12.4.1.4	Roadwork	40 days	Fri 4/4/14	Tue 13/5/14	0%
444	4.12.4.1.5	Utilities works	38 days	Wed 14/5/14	Fri 20/6/14	26%
445	4.12.4.1.5.1	11kV	9 days	Wed 14/5/14	Thu 22/5/14	0%
446	4.12.4.1.5.2	LV	9 days	Fri 23/5/14	Sat 31/5/14	0%
447	4.12.4.1.5.3	NWT	10 days	Sun 1/6/14	Tue 10/6/14	100%
448	4.12.4.1.5.4	Highway lighting	10 days	Wed 11/6/14	Fri 20/6/14	0%
449	4.12.4.1.6	Footpath	19 days	Sat 21/6/14	Wed 9/7/14	0%
450	**4.12.4.2**	**Works from chainage 380 to chainage 580**	**263 days**	**Sat 23/11/13**	**Tue 12/8/14**	**60%**
451	4.12.4.2.1	Drainage	76 days	Sat 23/11/13	Thu 6/2/14	100%
452	4.12.4.2.2	Waterwork	35 days	Fri 7/2/14	Thu 13/3/14	100%
453	4.12.4.2.3	Irrigation System	18 days	Fri 14/3/14	Mon 31/3/14	0%
454	4.12.4.2.4	Roadwork	43 days	Tue 1/4/14	Tue 13/5/14	0%
455	4.12.4.2.5	Utilities works	57 days	Wed 14/5/14	Wed 9/7/14	81%
456	4.12.4.2.5.1	11kV	15 days	Wed 14/5/14	Wed 28/5/14	100%
457	4.12.4.2.5.2	LV	16 days	Thu 29/5/14	Fri 13/6/14	100%
458	4.12.4.2.5.3	NWT	15 days	Sat 14/6/14	Sat 28/6/14	100%
459	4.12.4.2.5.4	Highway lighting	11 days	Sun 29/6/14	Wed 9/7/14	0%
460	4.12.4.2.6	Footpath	34 days	Thu 10/7/14	Tue 12/8/14	0%
461	**4.12.4.3**	**Works from chainage 310 to chainage 380**	**99 days**	**Wed 14/5/14**	**Wed 20/8/14**	**33%**
462	4.12.4.3.1	Drainage	30 days	Wed 14/5/14	Thu 12/6/14	50%
463	4.12.4.3.2	Waterwork	12 days	Fri 13/6/14	Tue 24/6/14	95%
464	4.12.4.3.3	Irrigation System	9 days	Wed 25/6/14	Thu 3/7/14	0%
465	4.12.4.3.4	Roadwork	18 days	Fri 4/7/14	Mon 21/7/14	0%
466	4.12.4.3.5	Utilities works	22 days	Tue 22/7/14	Tue 12/8/14	27%
467	4.12.4.3.5.1	11kV	5 days	Tue 22/7/14	Sat 26/7/14	0%
468	4.12.4.3.5.2	LV	6 days	Sun 27/7/14	Fri 1/8/14	0%
469	4.12.4.3.5.3	NWT	6 days	Sat 2/8/14	Thu 7/8/14	100%
470	4.12.4.3.5.4	Highway lighting	5 days	Fri 8/8/14	Tue 12/8/14	0%
471	4.12.4.3.6	Footpath	8 days	Wed 13/8/14	Wed 20/8/14	0%
472	**4.12.4.4**	**Works from chainage 580 to chainage 780**	**210 days**	**Wed 14/5/14**	**Tue 9/12/14**	**19%**
473	4.12.4.4.1	Drainage	72 days	Wed 14/5/14	Thu 24/7/14	0%
474	4.12.4.4.2	Waterwork	35 days	Fri 25/7/14	Thu 28/8/14	0%
475	4.12.4.4.3	Irrigation System	19 days	Fri 29/8/14	Tue 16/9/14	0%
476	4.12.4.4.4	Sewerage	13 days	Wed 17/9/14	Mon 29/9/14	0%
477	4.12.4.4.5	Roadwork	44 days	Tue 30/9/14	Wed 12/11/14	0%

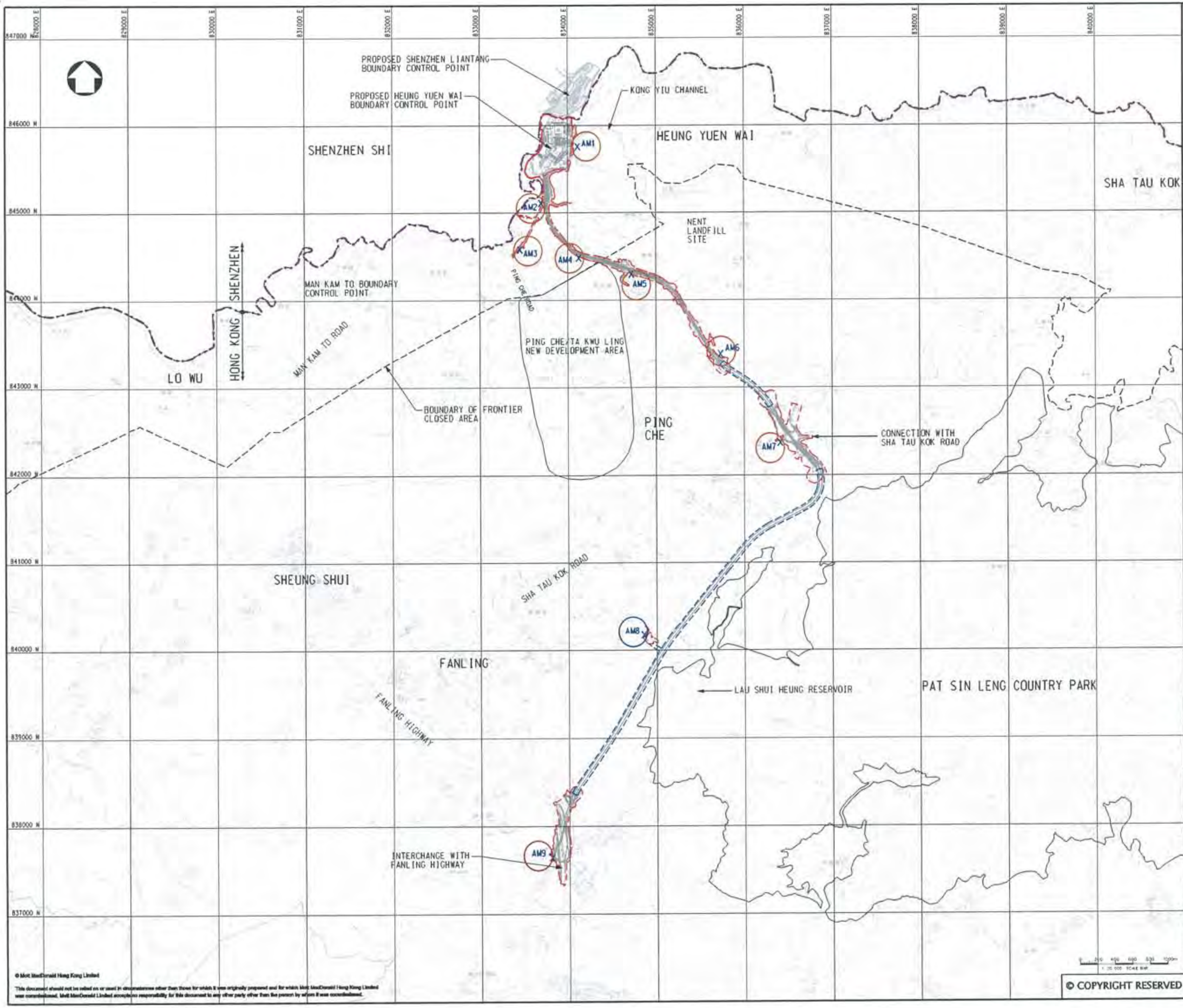


ID	WBS	Task Name	Duration	Start	Finish	% Complete
478	4.12.4.4.6	Utilities works	56 days	Tue 30/9/14	Mon 24/11/14	84%
479	4.12.4.4.6.1	11kV	17 days	Tue 30/9/14	Thu 16/10/14	100%
480	4.12.4.4.6.2	LV	15 days	Fri 17/10/14	Fri 31/10/14	100%
481	4.12.4.4.6.3	NWT	15 days	Sat 1/11/14	Sat 15/11/14	100%
482	4.12.4.4.6.4	Highway lighting	9 days	Sun 16/11/14	Mon 24/11/14	0%
483	4.12.4.4.7	Footpath	15 days	Tue 25/11/14	Tue 9/12/14	0%
484	**4.12.4.5**	**Works from chainage 80 to chainage 190**	**170 days**	**Wed 14/5/14**	**Thu 30/10/14**	**5%**
485	4.12.4.5.1	Drainage	58 days	Wed 14/5/14	Thu 10/7/14	0%
486	4.12.4.5.2	Waterwork	35 days	Fri 11/7/14	Thu 14/8/14	0%
487	4.12.4.5.3	Irrigation System	16 days	Fri 15/8/14	Sat 30/8/14	0%
488	4.12.4.5.4	Roadwork	37 days	Sun 31/8/14	Mon 6/10/14	0%
489	4.12.4.5.5	Utilities works	37 days	Sun 31/8/14	Mon 6/10/14	27%
490	4.12.4.5.5.1	11kV	10 days	Sun 31/8/14	Tue 9/9/14	0%
491	4.12.4.5.5.2	LV	10 days	Wed 10/9/14	Fri 19/9/14	0%
492	4.12.4.5.5.3	NWT	10 days	Sat 20/9/14	Mon 29/9/14	100%
493	4.12.4.5.5.4	Highway lighting	7 days	Tue 30/9/14	Mon 6/10/14	0%
494	4.12.4.5.6	Footpath	24 days	Tue 7/10/14	Thu 30/10/14	0%
495	**4.12.5**	**Southbound of Re-aligned Lin Ma Hang Road (east side)**	**163 days**	**Fri 31/10/14**	**Sat 11/4/15**	**0%**
496	**4.12.5.1**	**Works from chainage 60 to chainage 200**	**111 days**	**Fri 31/10/14**	**Wed 18/2/15**	**0%**
497	4.12.5.1.1	Drainage	16 days	Fri 31/10/14	Sat 15/11/14	0%
498	4.12.5.1.2	Irrigation System	7 days	Sun 16/11/14	Sat 22/11/14	0%
499	4.12.5.1.3	Roadwork	24 days	Sun 23/11/14	Tue 16/12/14	0%
500	4.12.5.1.4	Utilities works	43 days	Wed 17/12/14	Wed 28/1/15	0%
501	4.12.5.1.4.1	11kV	13 days	Wed 17/12/14	Mon 29/12/14	0%
502	4.12.5.1.4.2	LV	11 days	Tue 30/12/14	Fri 9/1/15	0%
503	4.12.5.1.4.3	HGC	10 days	Sat 10/1/15	Mon 19/1/15	0%
504	4.12.5.1.4.4	Highway lighting	9 days	Tue 20/1/15	Wed 28/1/15	0%
505	4.12.5.1.5	Footpath	21 days	Thu 29/1/15	Wed 18/2/15	0%
506	**4.12.5.2**	**Works from chainage 400 to chainage 600**	**133 days**	**Thu 13/11/14**	**Wed 25/3/15**	**0%**
507	4.12.5.2.1	Waterwork	4 days	Thu 13/11/14	Sun 16/11/14	0%
508	4.12.5.2.2	Irrigation System	5 days	Mon 17/11/14	Fri 21/11/14	0%
509	4.12.5.2.3	Roadwork	26 days	Sat 22/11/14	Wed 17/12/14	0%
510	4.12.5.2.4	Utilities works	63 days	Thu 18/12/14	Wed 18/2/15	0%
511	4.12.5.2.4.1	11kV	17 days	Thu 18/12/14	Sat 3/1/15	0%
512	4.12.5.2.4.2	LV	16 days	Sun 4/1/15	Mon 19/1/15	0%
513	4.12.5.2.4.3	HGC	15 days	Tue 20/1/15	Tue 3/2/15	0%
514	4.12.5.2.4.4	Highway lighting	15 days	Wed 4/2/15	Wed 18/2/15	0%
515	4.12.5.2.5	Footpath	35 days	Thu 19/2/15	Wed 25/3/15	0%
516	**4.12.5.3**	**Works from chainage 200 to chainage 400**	**115 days**	**Thu 18/12/14**	**Sat 11/4/15**	**0%**
527	**4.12.5.4**	**Works from chainage 600 to chainage 780**	**115 days**	**Thu 18/12/14**	**Sat 11/4/15**	**0%**
537	**4.12.6**	**Archaeological survey (Sections T1 to T3)(Drg. 6403A)**	**167 days**	**Thu 24/10/13**	**Tue 8/4/14**	**100%**
543	**4.12.7**	**Construction of retaining wall RW8 - CH0 to 22 (3 bays)**	**70 days**	**Wed 13/8/14**	**Tue 21/10/14**	**0%**
545	4.12.8	Site Formation works for ArchSD Depot (Drg. 1001B)	35 days	Wed 22/10/14	Tue 25/11/14	0%
546	4.12.9	Existing road to be improved & run-in to the site to be constructed at RS1 (Drg.1203A, 1001B)	108 days	Mon 4/8/14	Wed 19/11/14	95%
547	4.12.10	Access road to be re-constructed / upgraded at RS3 (Drg/1203)	111 days	Thu 20/11/14	Tue 10/3/15	0%
548	**4.13**	**Section XIV of the Works - Trees preservation and protection**	**730 days**	**Fri 12/4/13**	**Sat 11/4/15**	**84%**
549	4.13.1	Submissions	69 days	Fri 12/4/13	Wed 19/6/13	100%
550	4.13.2	Approval of Submissions	70 days	Thu 20/6/13	Wed 28/8/13	100%
551	4.13.3	Tree felling/removal works and tree transplanting works	499 days	Fri 6/9/13	Sat 17/1/15	88%
552	4.13.4	Preservation and Protection of Existing Trees in all Portion of the Site	591 days	Thu 29/8/13	Sat 11/4/15	76%
553	**4.14**	**Section XV of the Works - Landscape soft works (including transplant trees to permanent locations)**	**332 days**	**Thu 15/5/14**	**Sat 11/4/15**	**11%**
554	4.14.1	tree & shrub planting at re-aligned Lin Ma Hang Road (west) for Section XIII of the Works	58 days	Wed 10/12/14	Thu 5/2/15	0%
555	4.14.2	tree & shrub planting at re-aligned Lin Ma Hang Road (east) for Section XIII of the Works	65 days	Fri 6/2/15	Sat 11/4/15	0%
556	4.14.3	shrub planting at BCPC for Section X of the Works	21 days	Thu 15/5/14	Wed 4/6/14	100%
557	4.14.4	tree & shrub planting at BCPD Section XI of the Works	55 days	Mon 16/2/15	Sat 11/4/15	0%
558	**4.15**	**Section XVI of the Works - Establishment works for landscape soft works**	**365 days**	**Sun 12/4/15**	**Sun 10/4/16**	**0%**



Appendix D

Designated Monitoring Locations as Recommended in the Approved EM&A Manual



Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	AUG 10	WING	FIRST ISSUE	DC	HT

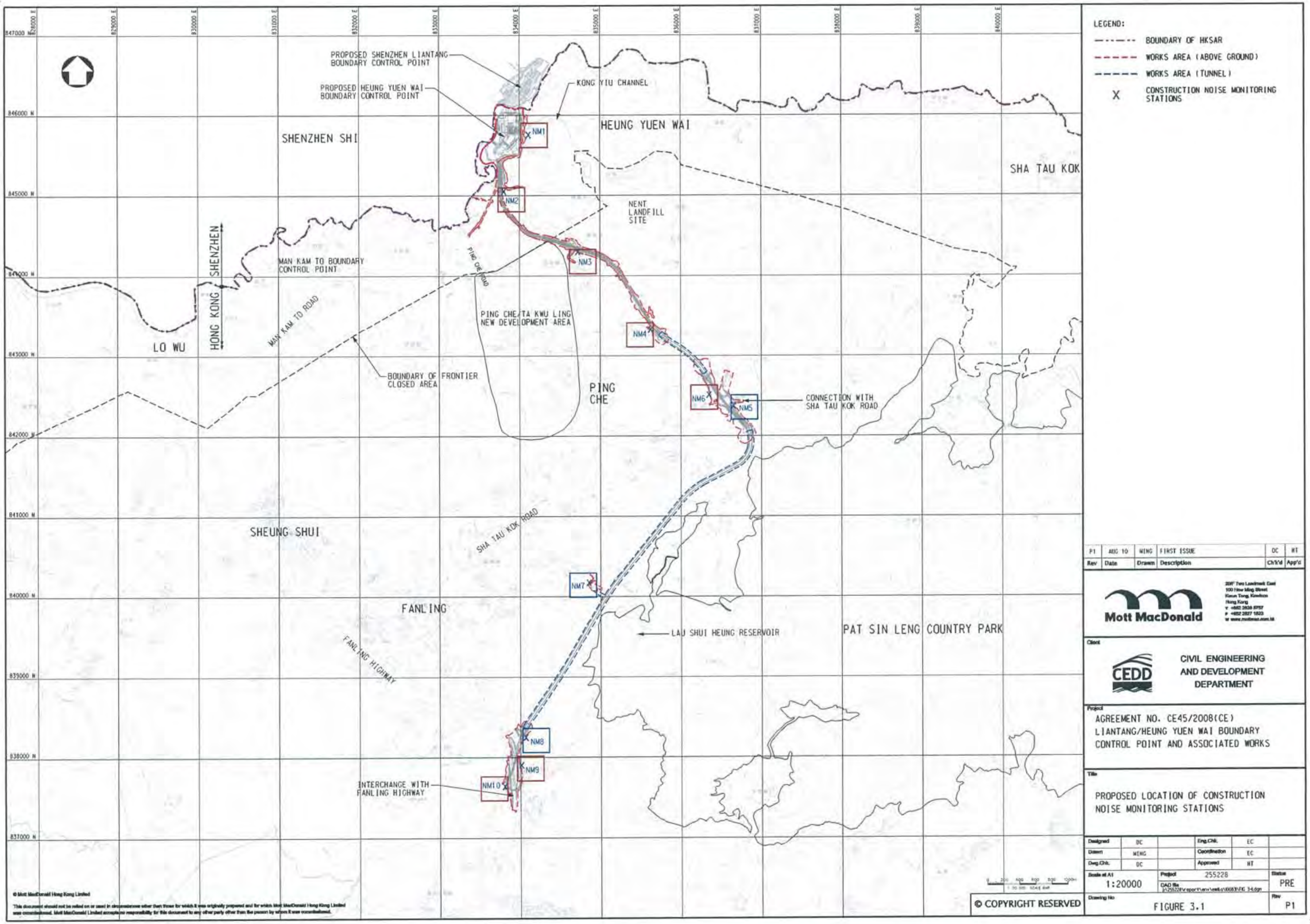
Mott MacDonald

Client: CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Project: AGREEMENT NO. CE45/2008(CE) LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

Title: PROPOSED LOCATION OF CONSTRUCTION AIR QUALITY MONITORING STATIONS

Designed	DC		Eng.Chk.	EC	
Drawn	WING		Coordination	EC	
Dwg.Chk.	DC		Approved	HT	
Scale at A1	1:20000		Project	255228	Status: PRE
Drawing No	FIGURE 2.1				Rev: P1


PROPOSED SHENZHEN LIANTANG BOUNDARY CONTROL POINT
PROPOSED HEUNG YUEN WAI BOUNDARY CONTROL POINT
KONG YIU CHANNEL
HEUNG YUEN WAI
SHENZHEN SHI
SHA TAU KOK
NENT LANDFILL SITE
MAN KAM TO BOUNDARY CONTROL POINT
HONG KONG
SHENZHEN
MAN KAM TO ROAD
PING CHE ROAD
PING CHE/TA KWU LING NEW DEVELOPMENT AREA
LO WU
BOUNDARY OF FRONTIER CLOSED AREA
PING CHE
CONNECTION WITH SHA TAU KOK ROAD
SHA TAU KOK ROAD
SHEUNG SHUI
FANLING
FANLING HIGHWAY
LAU SHUI HEUNG RESERVOIR
PAT SIN LENG COUNTRY PARK
INTERCHANGE WITH FANLING HIGHWAY
NM1
NM2
NM3
NM4
NM5
NM6
NM7
NM8
NM9
NM10
LEGEND:
BOUNDARY OF HKSAR
WORKS AREA (ABOVE GROUND)
WORKS AREA (TUNNEL)
X CONSTRUCTION NOISE MONITORING STATIONS
P1 | AUG 10 | WING | FIRST ISSUE | DC | HT
Rev | Date | Drawn | Description | Chk'd | App'd
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Project
AGREEMENT NO. CE45/2008(CE)
LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS
Title
PROPOSED LOCATION OF CONSTRUCTION NOISE MONITORING STATIONS
Designed DC | Eng Chk. EC
Drawn WING | Coordination EC
Dwg Chk. DC | Approved HT
Scale at A1 1:20000 | Project 255228 | Status PRE
Drawing No FIGURE 3.1 | Rev P1
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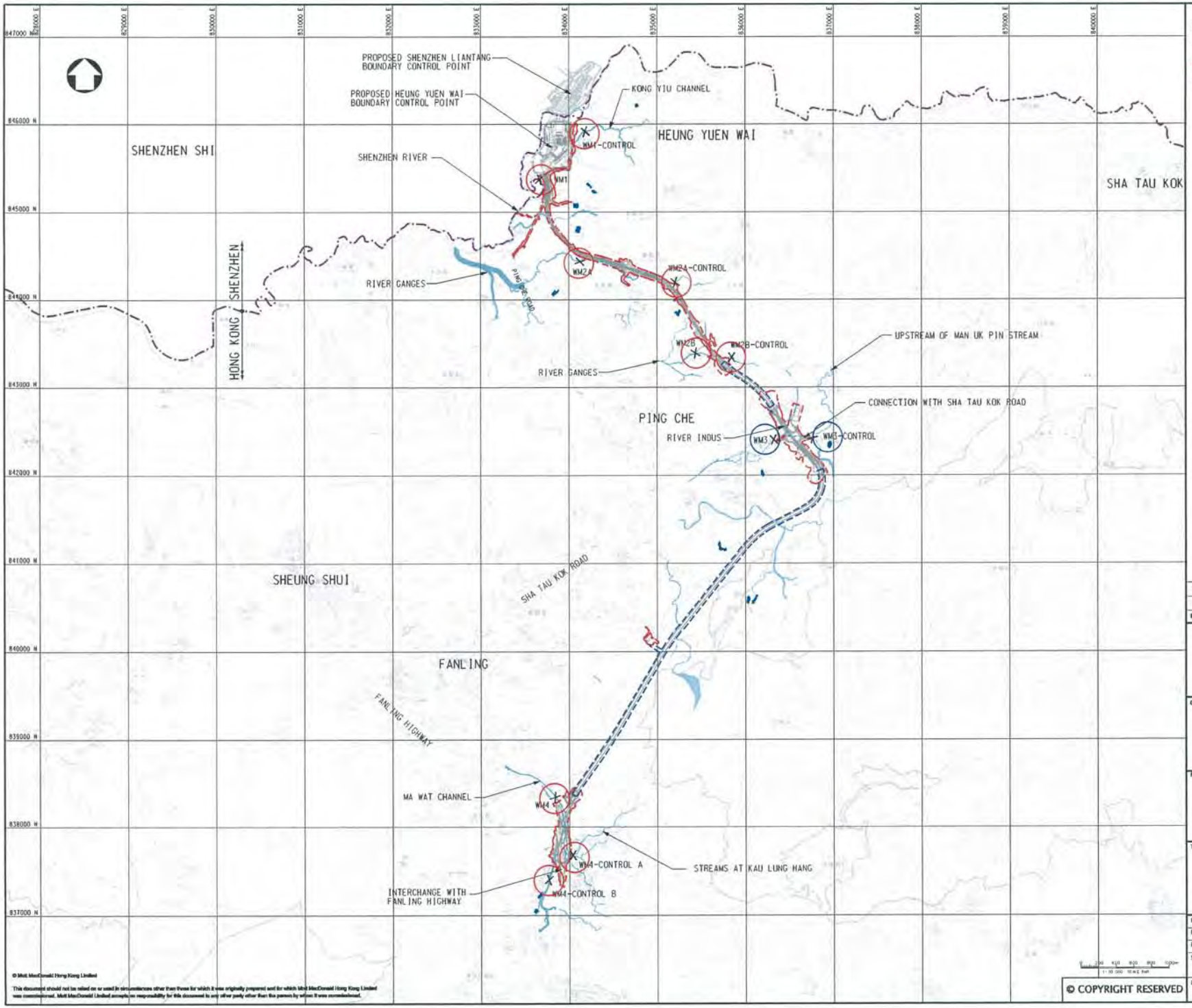

LEGEND:

- BOUNDARY OF HKSAR
- LAND REQUIREMENT LIMIT (ABOVE GROUND)
- LAND REQUIREMENT LIMIT (TUNNEL)
- X PROPOSED WATER QUALITY MONITORING STATION

MONITORING STATION	CO-ORDINATES	
	EAST(NG(m)	NORTHING(m)
WM1	833668.635	845371.097
WM1-CONTROL	834185.480	845916.662
WM2A	834132.193	844432.910
WM2A-CONTROL	835205.329	844200.151
WM2B	835434.744	843394.606
WM2B-CONTROL	835845.878	843343.625
WM3	836323.622	842404.977
WM3-CONTROL	836763.419	842425.507
WM4	833840.783	838344.842
WM4-CONTROL A	834038.937	837688.995
WM4-CONTROL B	833769.123	837406.936

Rev	Date	Drawn	Description	Ch'k'd	App'd
P2	NOV 10	WING	GENERAL REVISION	HC	HT
P1	OCT 10	WING	FIRST ISSUE	HC	HT

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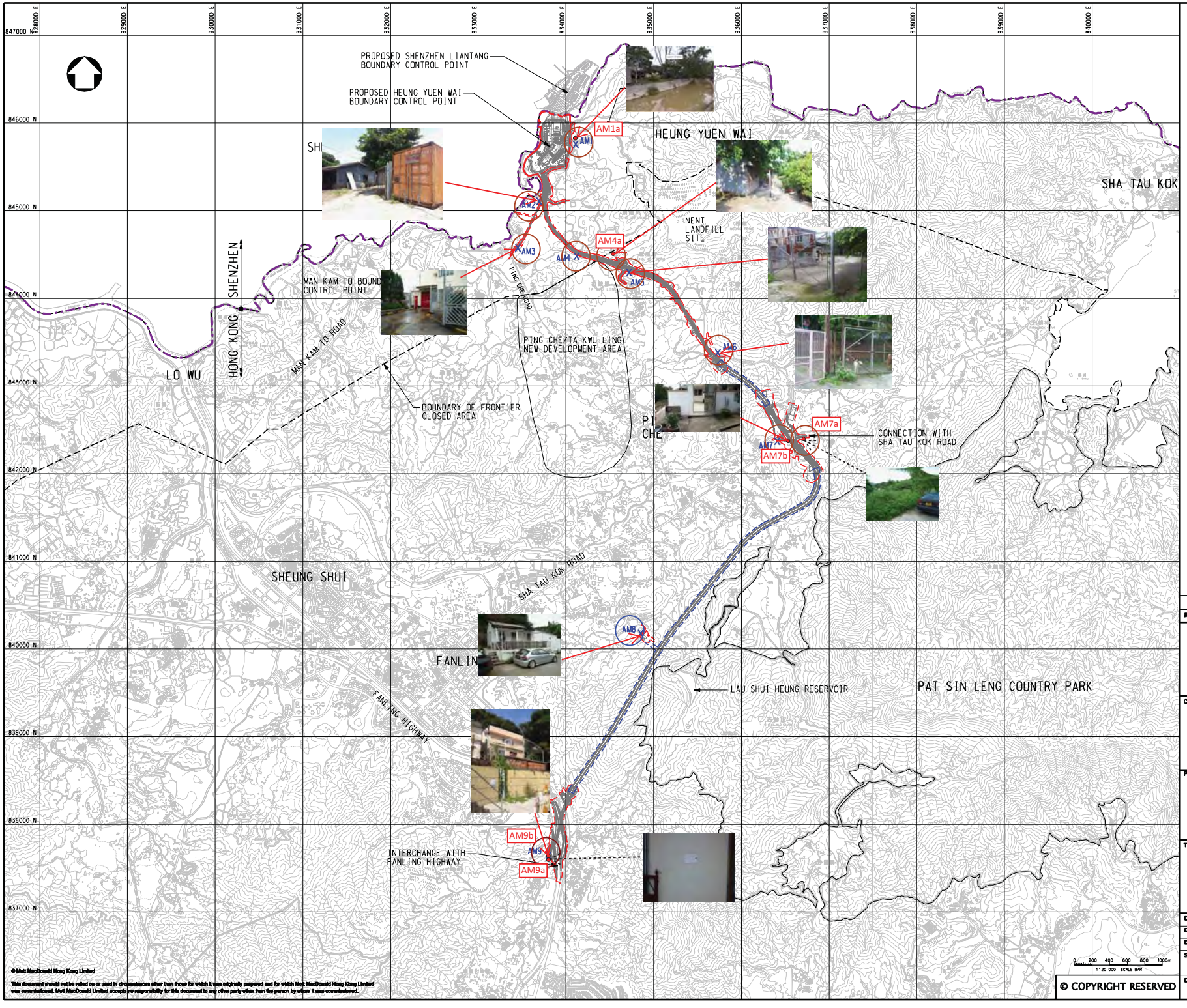
Project: AGREEMENT NO. CE45/2008(CE) LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

Title: LOCATIONS OF PROPOSED WATER QUALITY MONITORING STATIONS

Designed	HC		Eng.Chk.	EC	
Drawn	WING		Coordination	EC	
Eng.Chk.	HC		Approved	HT	
Scale at A1	1:20000	Project	255228		Status PRE
Drawing No	FIGURE 4.1				Rev P2

Appendix E

Monitoring Locations for Impact Monitoring



LEGEND:

- BOUNDARY OF HKSAR
- WORKS AREA (ABOVE GROUND)
- WORKS AREA (TUNNEL)
- X AIR MONITORING STATIONS

Rev	Date	Drawn	Description	Ch'k'd	App'd
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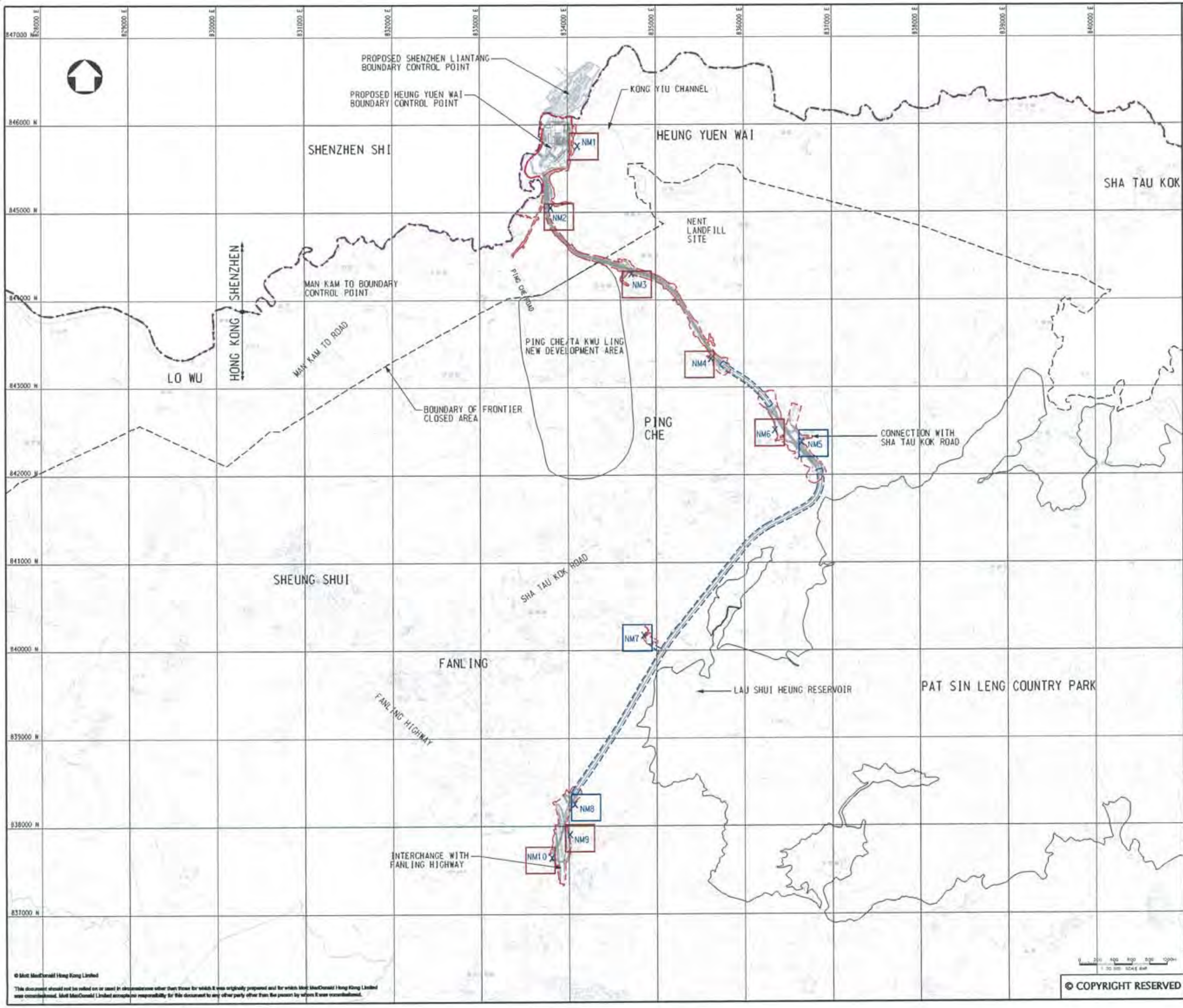
Title

PROPOSED LOCATION OF CONSTRUCTION AIR QUALITY MONITORING STATIONS

Designed	DC		Eng.Chk.	EC	
Drawn	MING		Coordination	EC	
Dwg.Chk.	DC		Approved	HT	
Scale at A1	1:20000	Project	255228	Status	PRE
		CAD file	j:\255228\report\env\em&o\00831\FIG 2-1.dgn		
Drawing No	FIGURE 2.1			Rev	P1

0 200 400 600 800 1000m
1:20 000 SCALE BAR



LEGEND:

- BOUNDARY OF HKSAR
- WORKS AREA (ABOVE GROUND)
- WORKS AREA (TUNNEL)
- X CONSTRUCTION NOISE MONITORING STATIONS

Rev	Date	Drawn	Description	Ch'k'd	App'd
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Title: PROPOSED LOCATION OF CONSTRUCTION NOISE MONITORING STATIONS

Designed	DC	Eng Chk.	EC
Drawn	WING	Coordination	EC
Dwg Chk.	DC	Approved	HT
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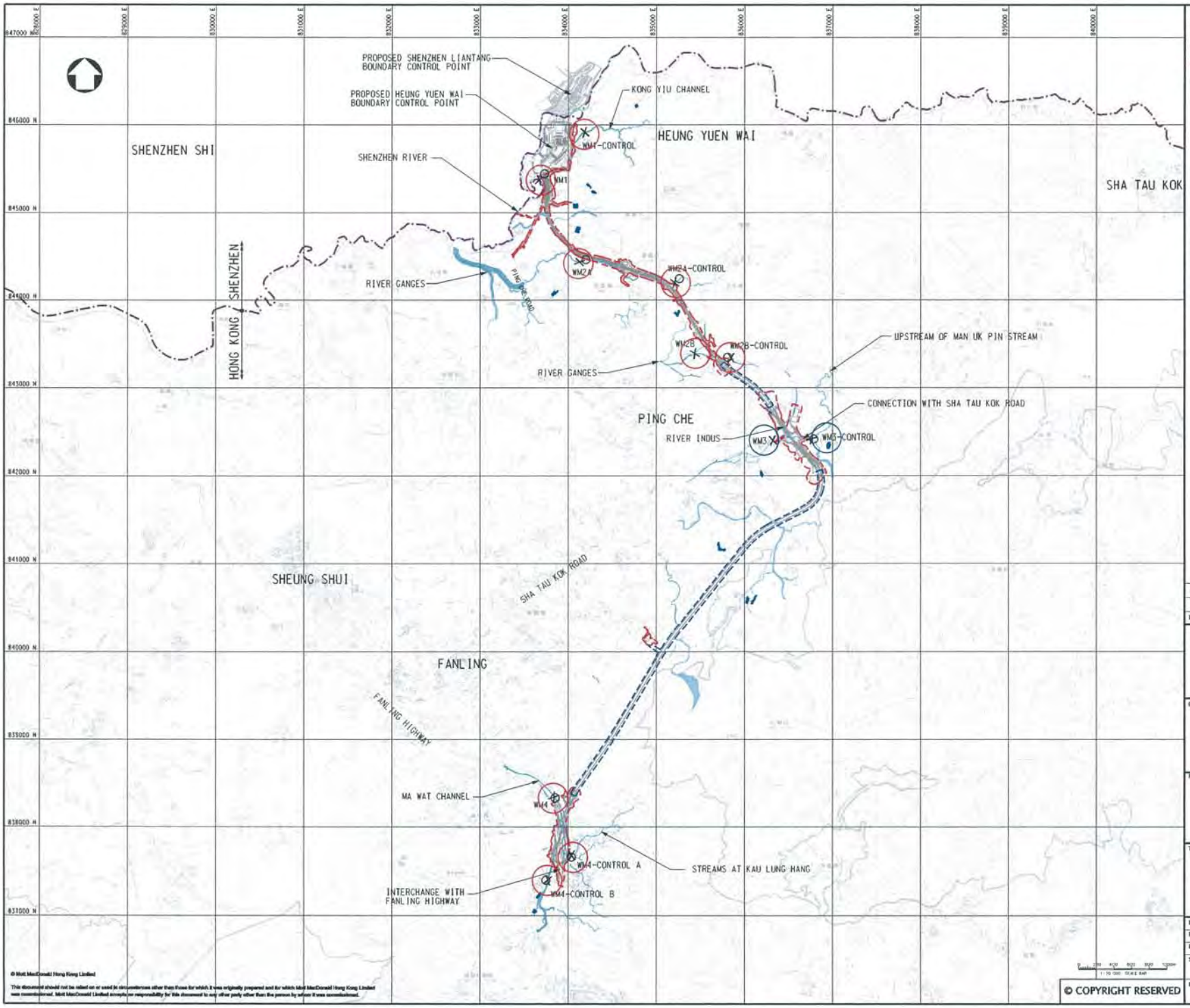
Drawing No	FIGURE 3.1	Status	PRE
		Rev	P1



LEGEND:

- BOUNDARY OF HKSAR
- LAND REQUIREMENT LIMIT (ABOVE GROUND)
- LAND REQUIREMENT LIMIT (TUNNEL)
- X — Water Quality Monitoring Location Recommended in EM&A Manual
- O — Alternative Water Quality Monitoring Location for EM&A Programme

Station ID	Location recommended in EM&A Manual – Coordinates		Location found during site visit – Coordinates	
	Easting	Northing	Easting	Northing
WM1	833668.635	845371.097	833679	845423
WM1-Control	834185.480	845916.662	834185	845917
WM2A	834132.193	844432.910	834204	844471
WM2A-Control	835205.529	844200.151	835270	844243
WM2B	835434.744	843394.606	835433	843397
WM2B-Control	835845.878	843343.625	835835	843351
WM3	836523.622	842404.977	836524	842407
WM3-Control	836763.419	842425.507	836763	842400
WM4	833840.785	838344.842	833850	838358
WM4-Control A	834038.937	837668.995	834028	837695
WM4-Control B	833769.123	837406.936	833760	837395

Rev	Date	Drawn	Description	Ch'k'd	App'd
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LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

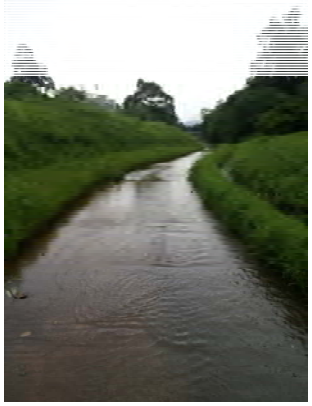
Title

LOCATIONS OF PROPOSED WATER QUALITY MONITORING STATIONS

Designed	HC		Eng.Chk.	EC	
Drawn	MING		Coordination	EC	
Dwg.Chk.	HC		Approved	HT	
Scale at A1	1:20000	Project	255228	Status	PRE
		CAD file	A1\255228\REPORT\EMY-EM&A MANUAL\FIG 4-1.dgn		
Drawing No	FIGURE 4.1			Rev	P2

Photographic Records for Water Quality Monitoring Location

	
Alternative Location of WM1	**Co-ordinates of Alternative Location of WM1**
	
Alternative Location of WM1 - Control	**Co-ordinates of Alternative Location of WM1 - Control**
	
Alternative Location of WM2A	**Co-ordinates of Alternative Location of WM2A**
	
Alternative Location of WM2-Control A	**Co-ordinates of Alternative Location of WM2 – Control**

	
Location of WM2B-Control	**Co-ordinates of WM2B-Control**
	
Location of WM2B	**Co-ordinates of WM2B**
	
Location of WM3-Control	**Co-ordinates of WM3-Control**
	
Location of WM3	**Co-ordinates of WM3**

	
Location of WM4–Control A	**Co-ordinates of WM4-Control A**
	
Location of WM4–Control B	**Co-ordinates of WM4-Control B**
	
Location of WM4	**Co-ordinates of WM4**

Appendix F

Event and Action Plan

Event and Action Plan for Air Quality

Event	ET	IEC	ER	Action Contractor
Action Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Monitor theimplementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 5. Monitor the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Construction Noise

Event	ET	IEC	ER	Action Contractor
Action Level	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures.	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals.
Limit Level	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated.

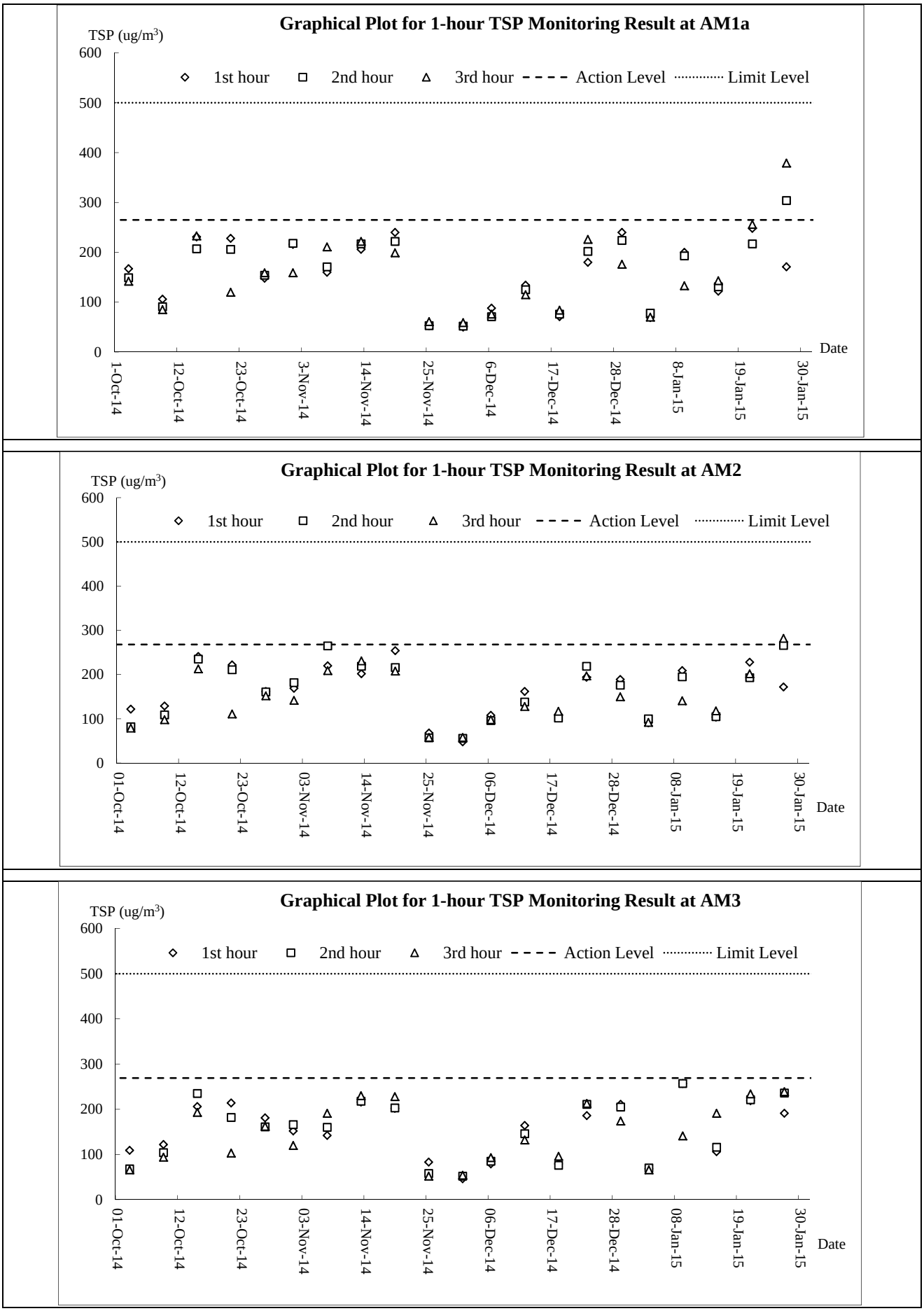
Event and Action Plan for Water Quality

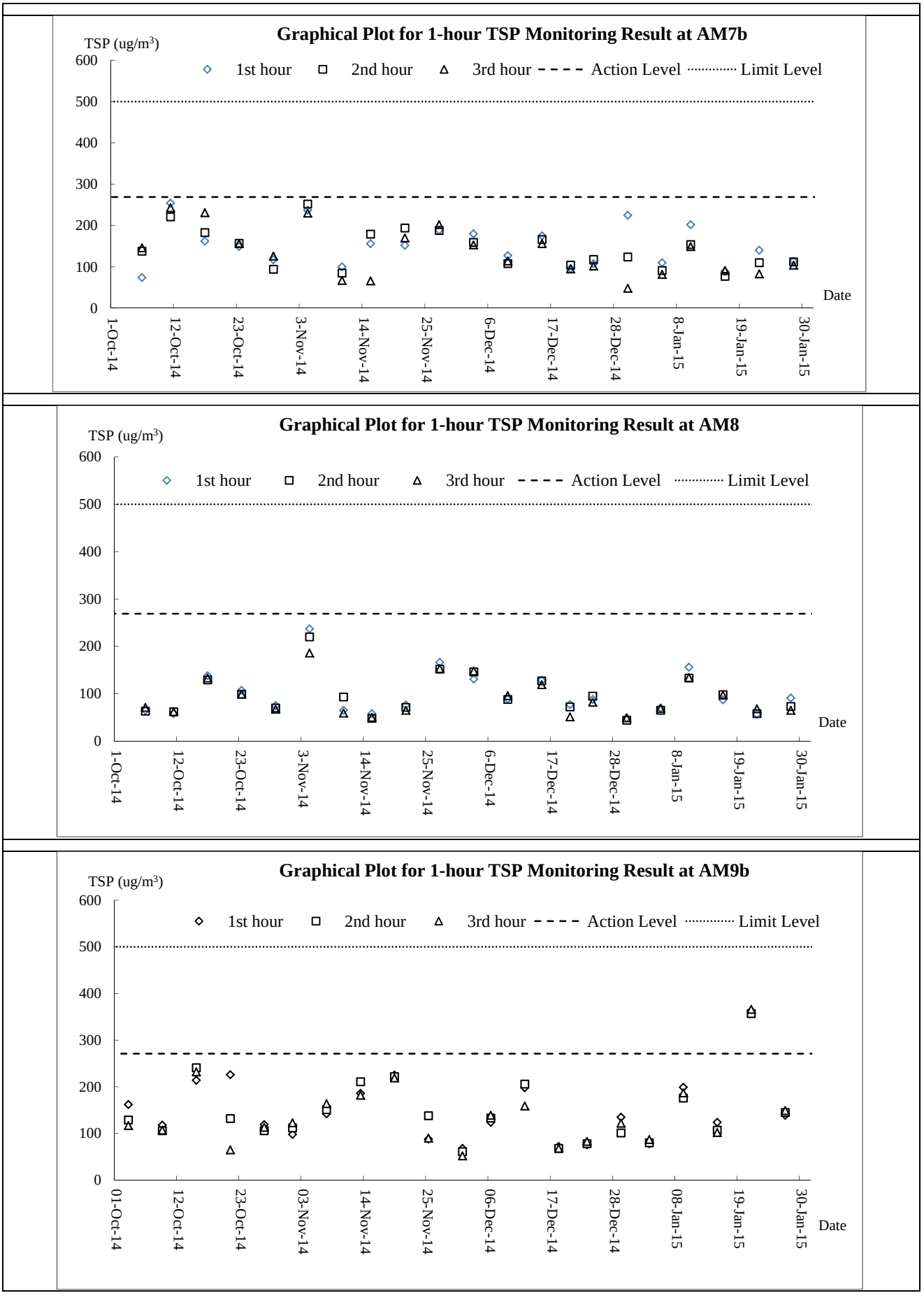
EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness of the implemented mitigation measures	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than two consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; 8. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness of the implemented mitigation measures	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit Level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures; 7. As directed by the ER, to slow down or to stop all or part of the construction activities.

Appendix G

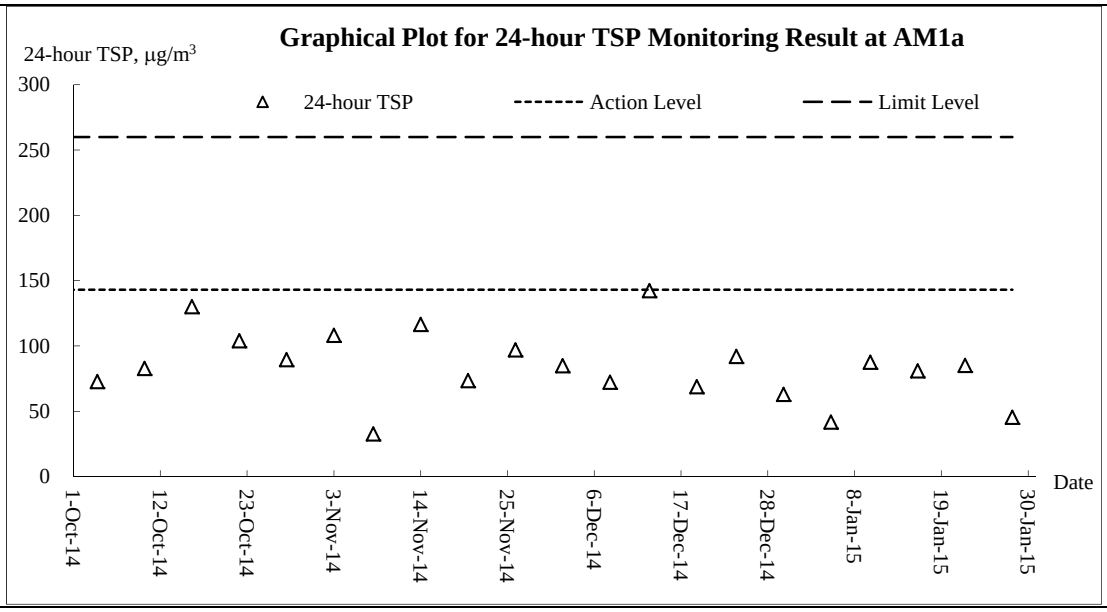
Graphical Plots for Monitoring Result

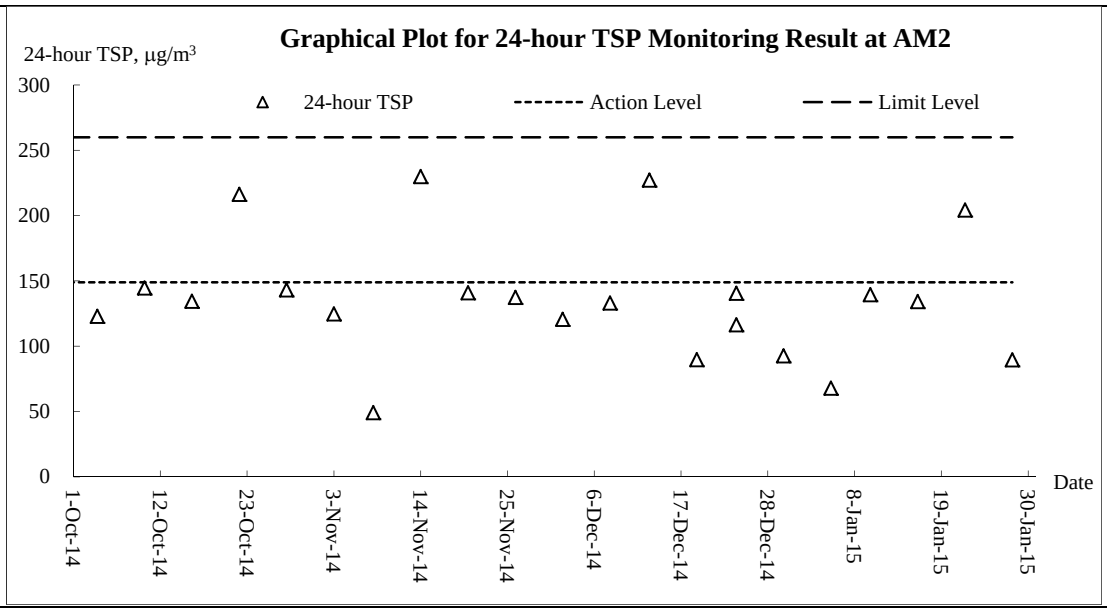
Air Quality – 1-hour TSP

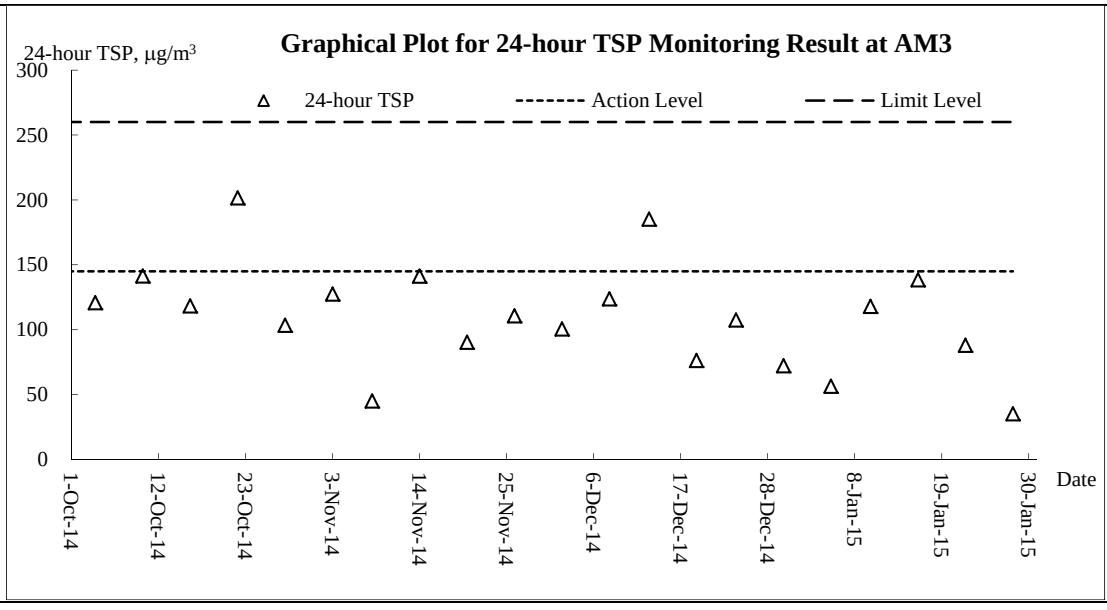


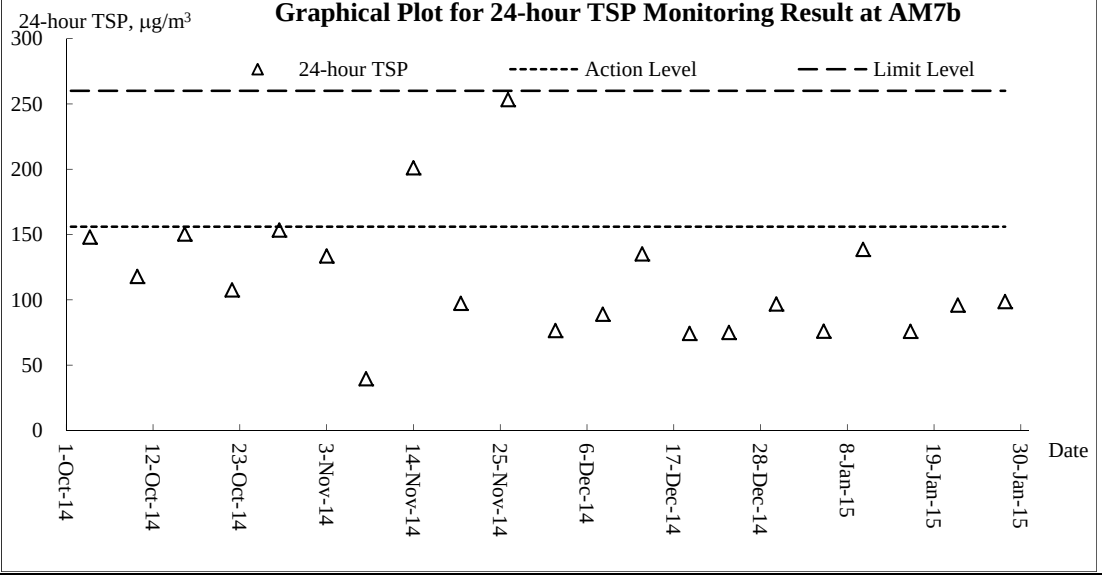

Graphical Plot for 1-hour TSP Monitoring Result at AM7b
TSP (ug/m3)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15
Graphical Plot for 1-hour TSP Monitoring Result at AM8
TSP (ug/m3)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15
Graphical Plot for 1-hour TSP Monitoring Result at AM9b
TSP (ug/m3)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
Date
01-Oct-14
12-Oct-14
23-Oct-14
03-Nov-14
14-Nov-14
25-Nov-14
06-Dec-14
17-Dec-14
28-Dec-14
08-Jan-15
19-Jan-15
30-Jan-15

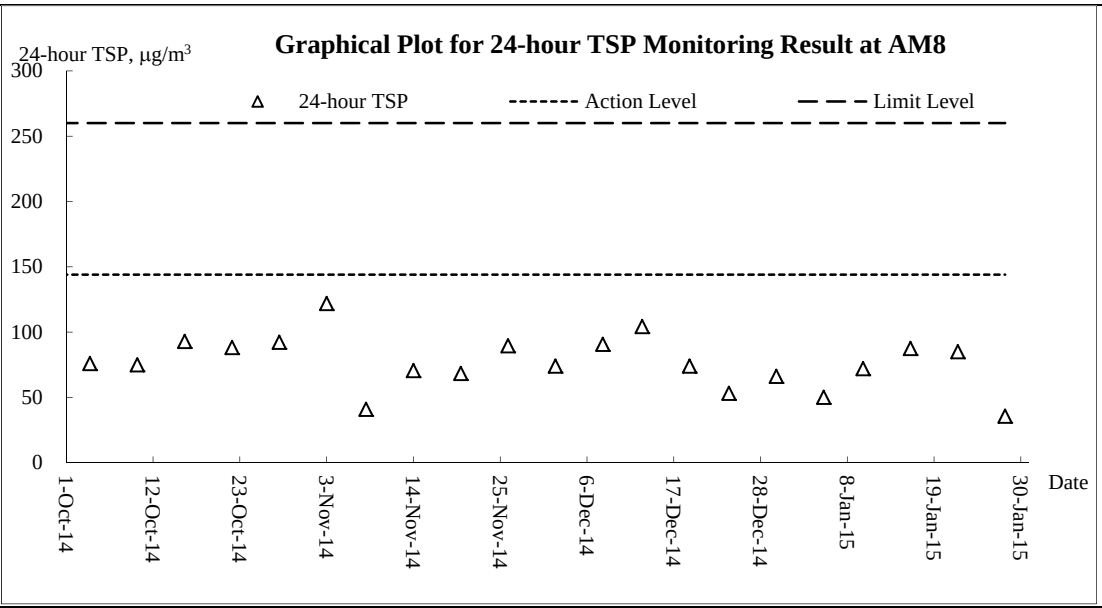
Air Quality – 24-hour TSP

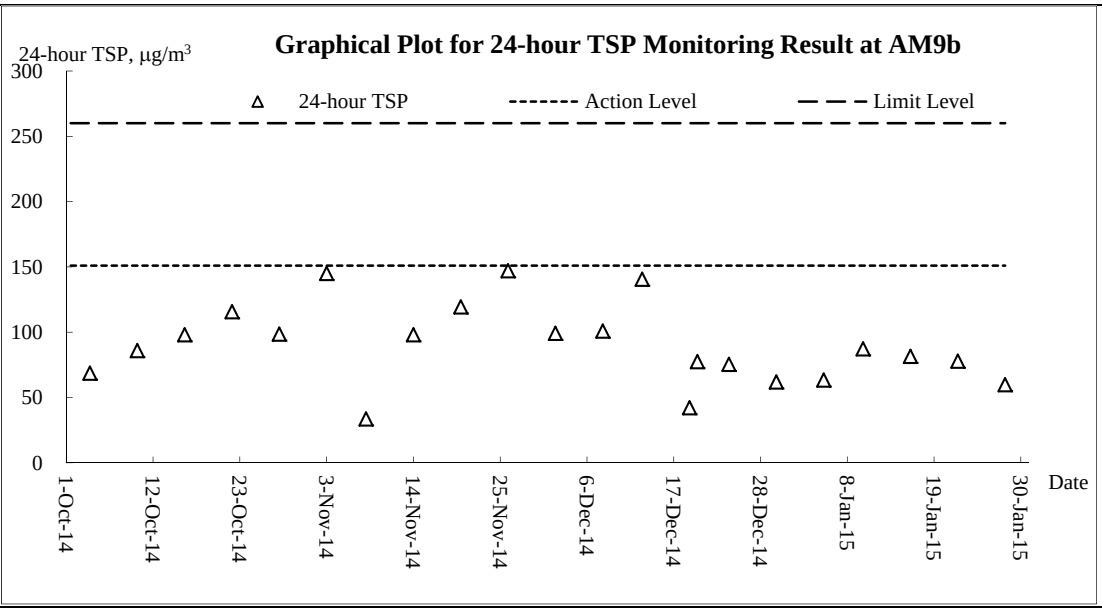




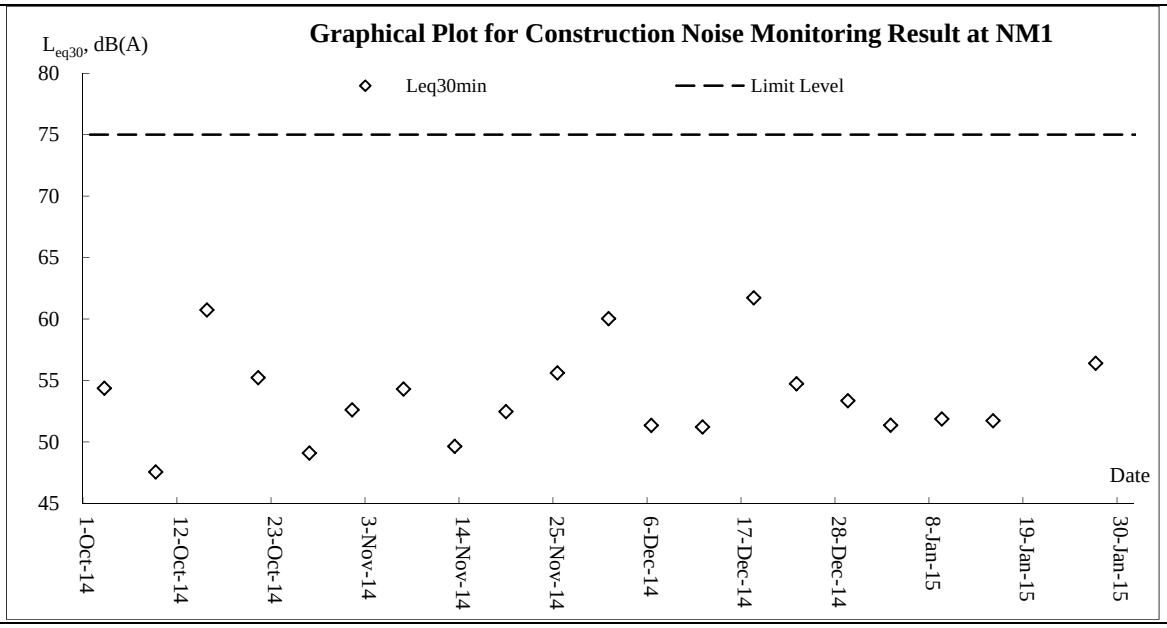



Graphical Plot for 24-hour TSP Monitoring Result at AM7b
24-hour TSP, µg/m3
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15
Date


Graphical Plot for 24-hour TSP Monitoring Result at AM8
24-hour TSP, µg/m3
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15
Date


Graphical Plot for 24-hour TSP Monitoring Result at AM9b
24-hour TSP, µg/m3
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15
Date

Noise


Graphical Plot for Construction Noise Monitoring Result at NM1
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
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25-Nov-14
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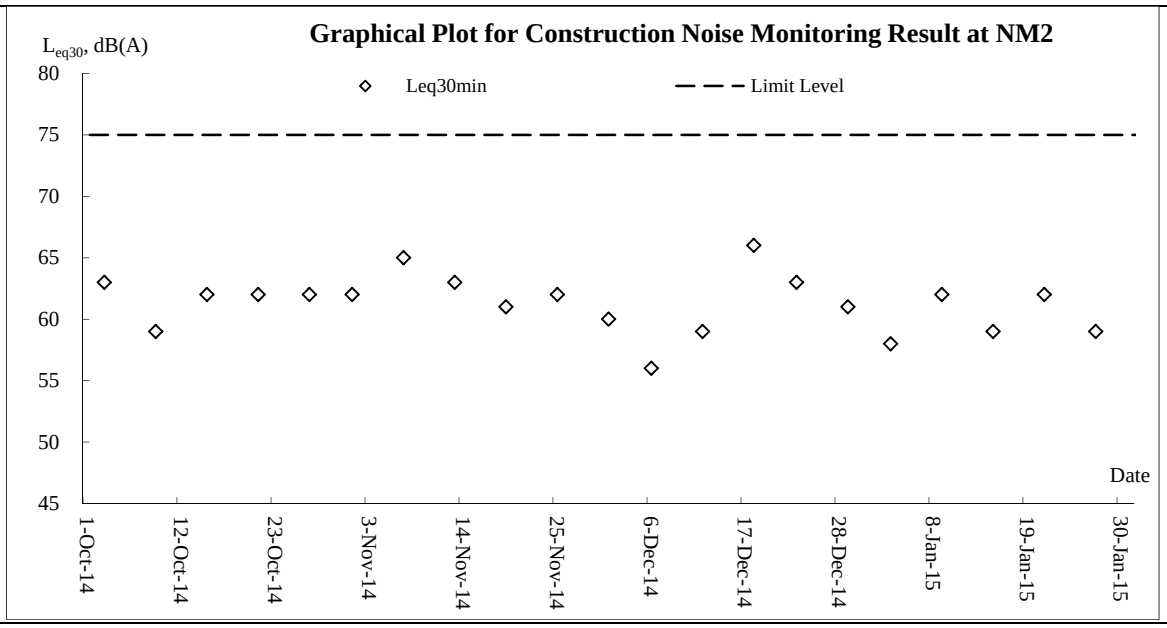
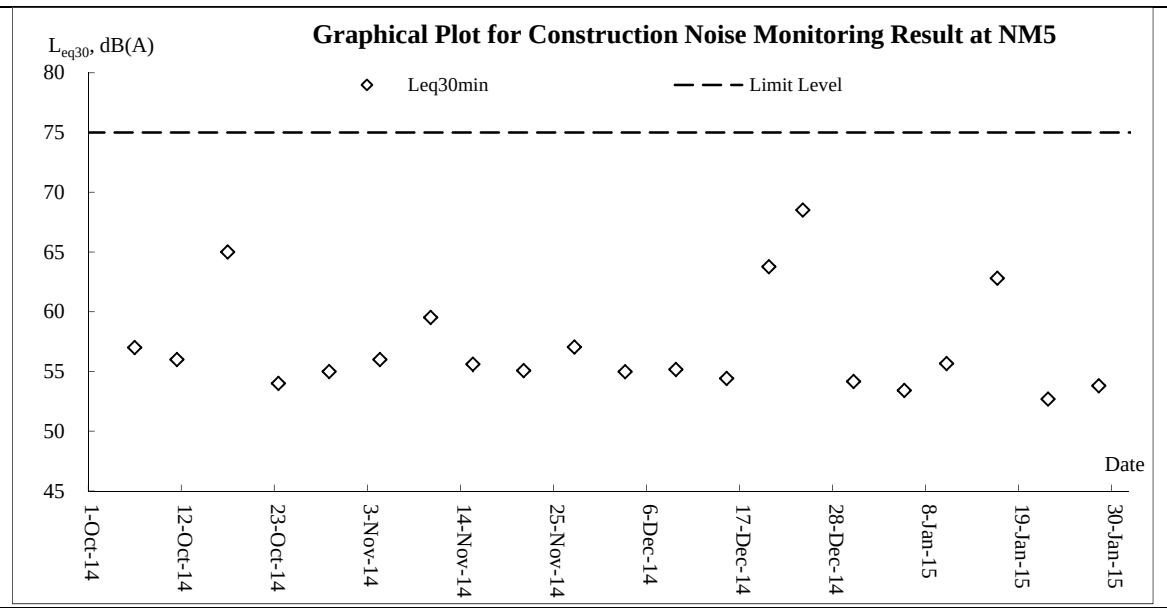
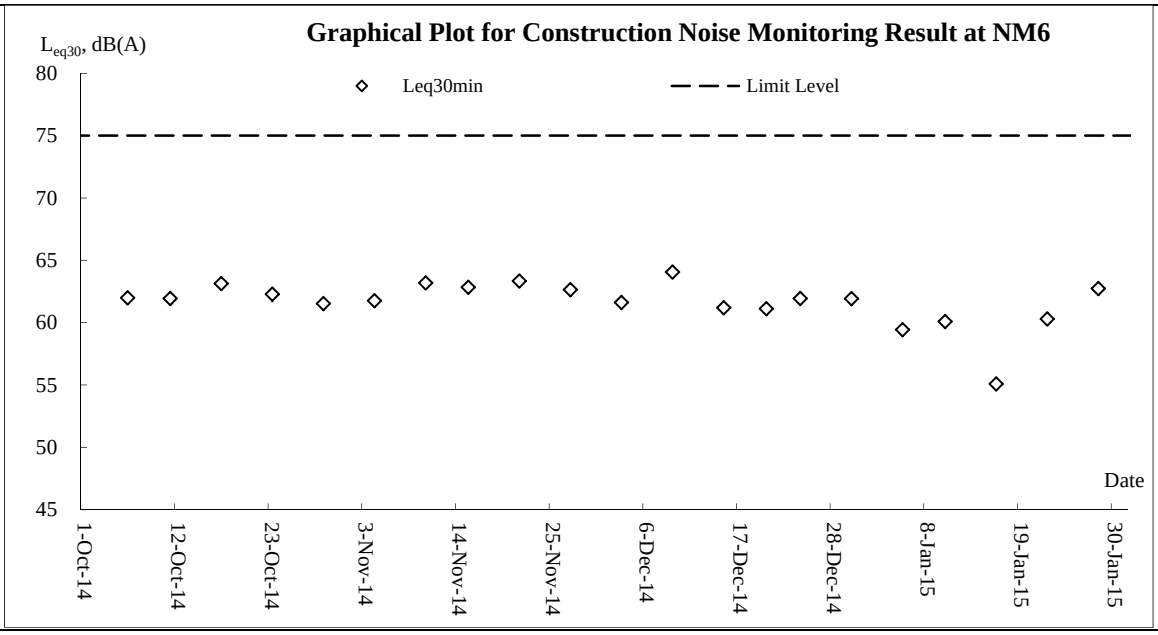
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15


Graphical Plot for Construction Noise Monitoring Result at NM2
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15


Graphical Plot for Construction Noise Monitoring Result at NM5
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15


Graphical Plot for Construction Noise Monitoring Result at NM6
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
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25-Nov-14
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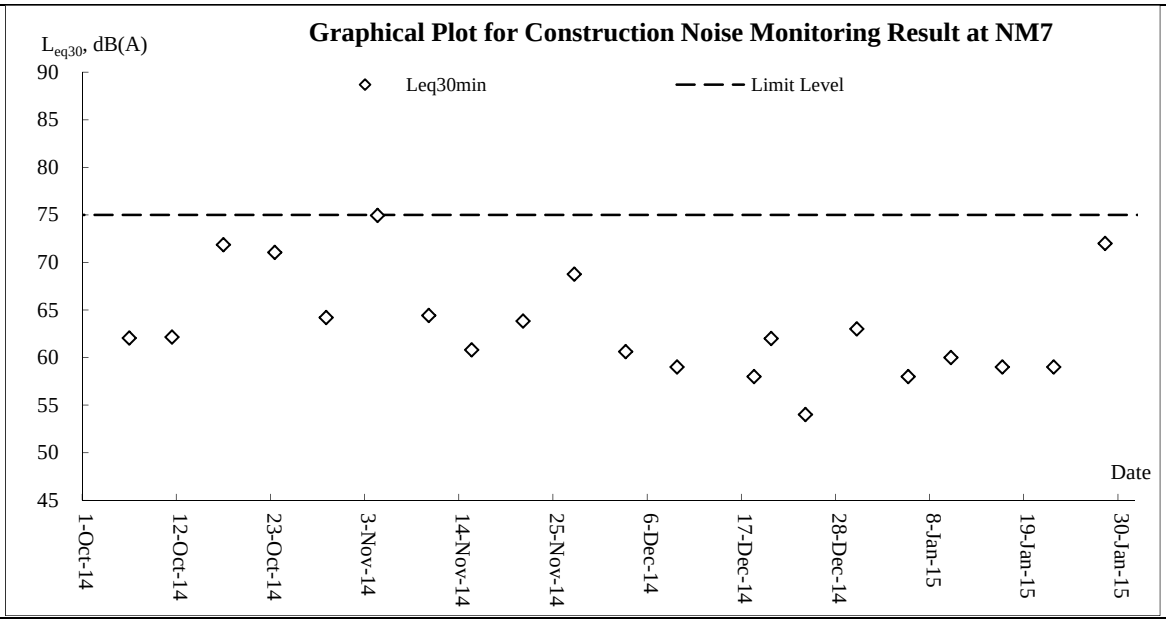
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15


Graphical Plot for Construction Noise Monitoring Result at NM7
L_{eq30}, dB(A)
Leq30min
Limit Level
90
85
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
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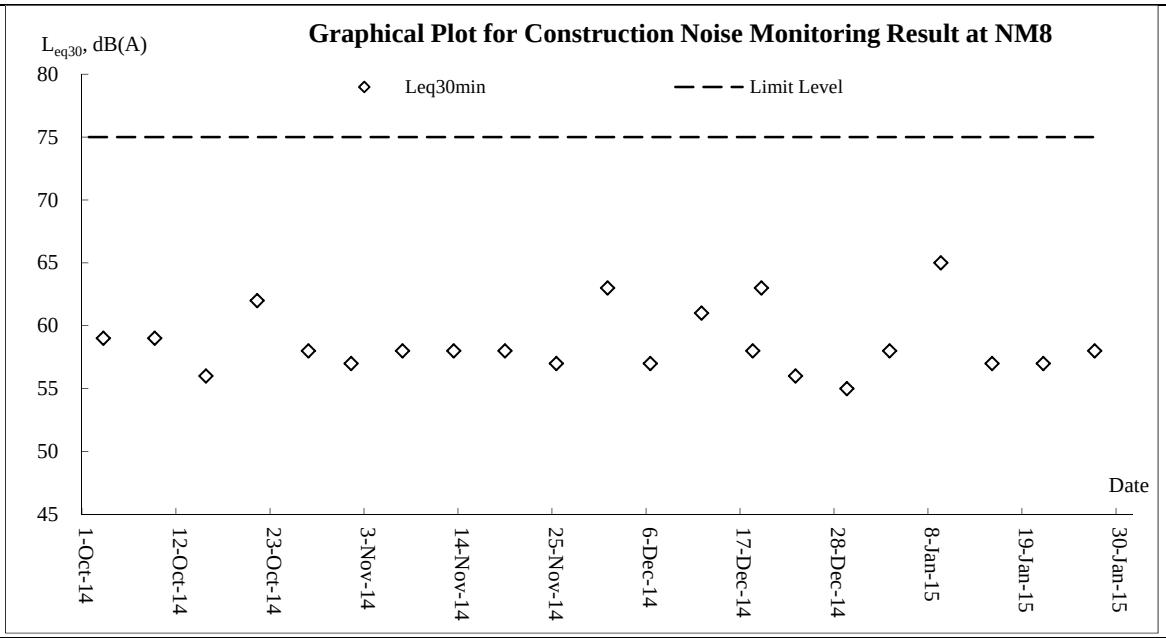
8-Jan-15
19-Jan-15
30-Jan-15


Graphical Plot for Construction Noise Monitoring Result at NM8
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
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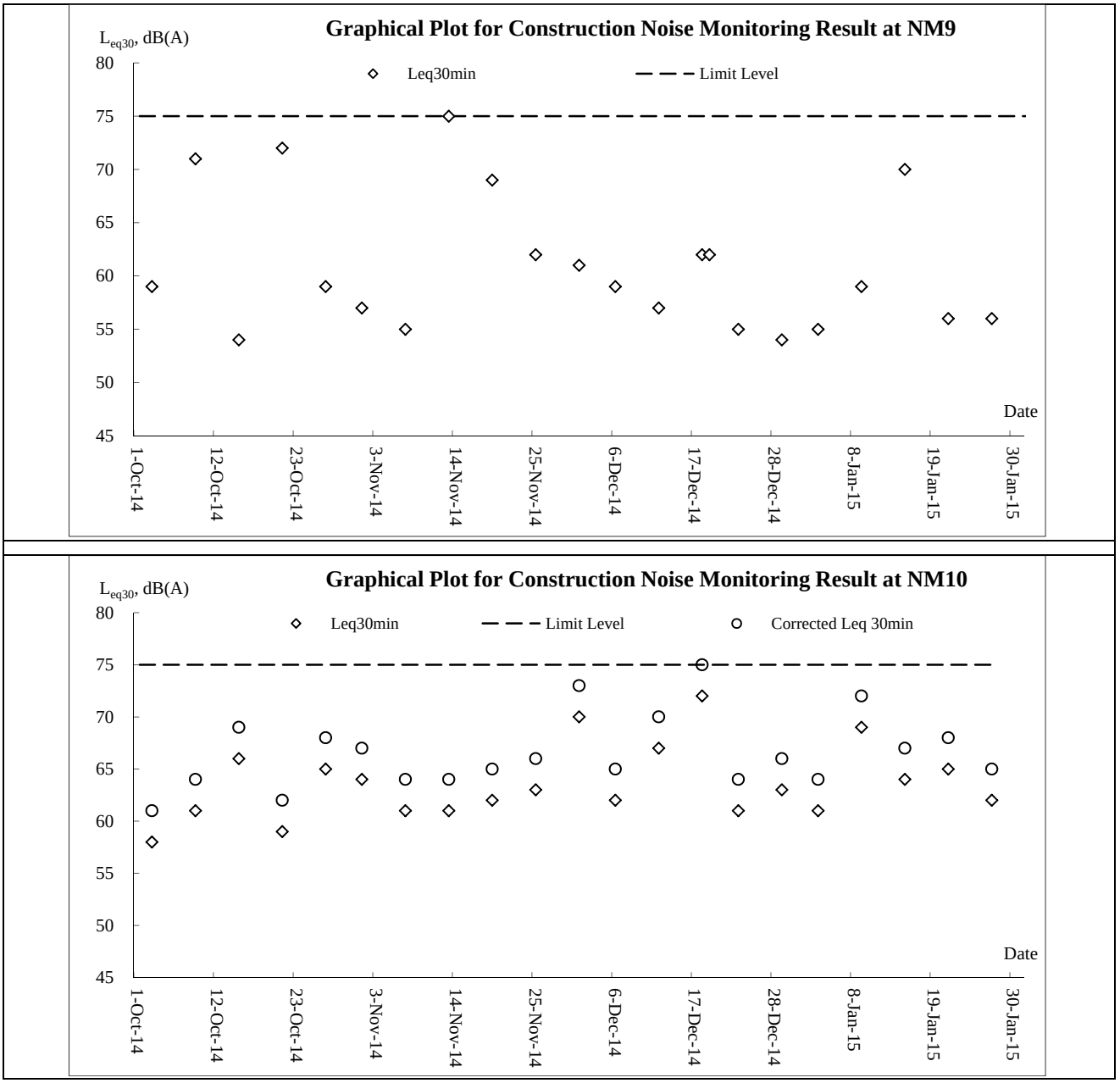
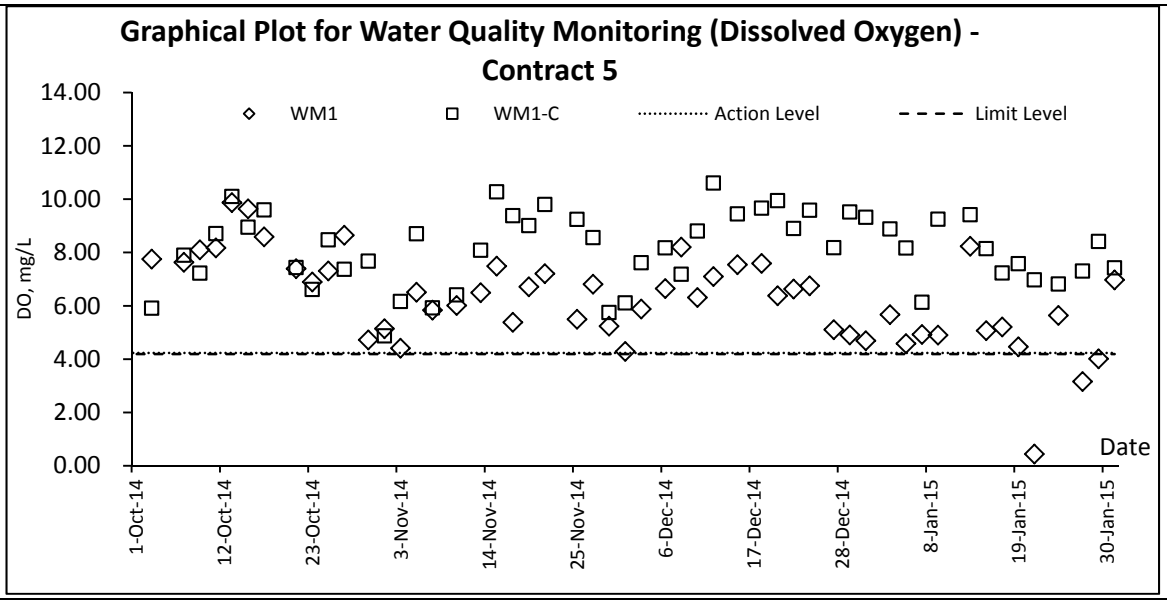
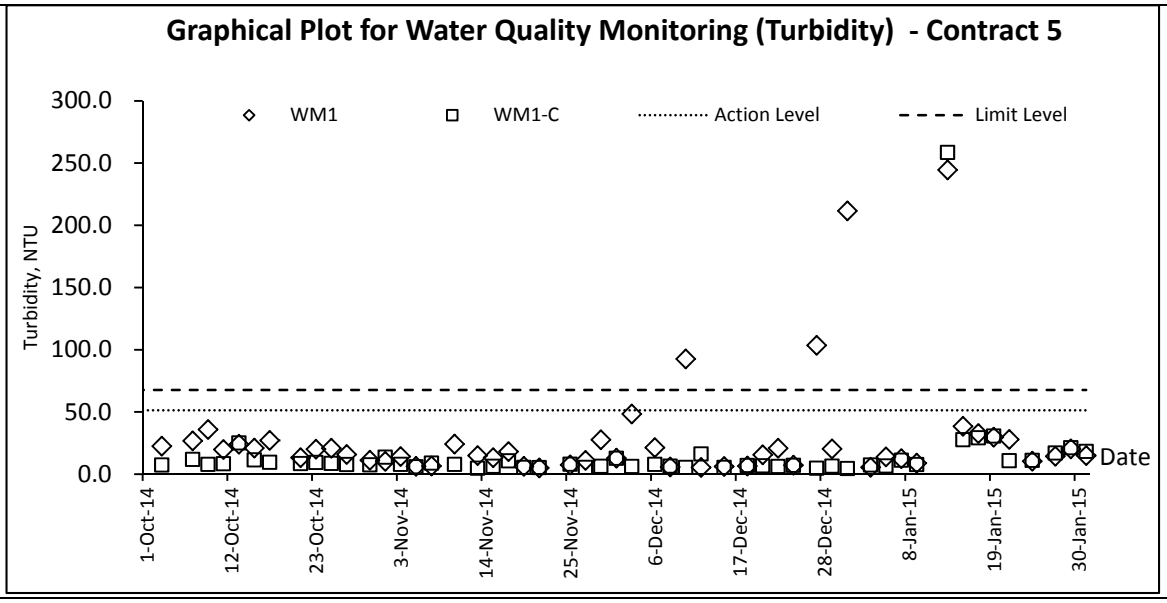
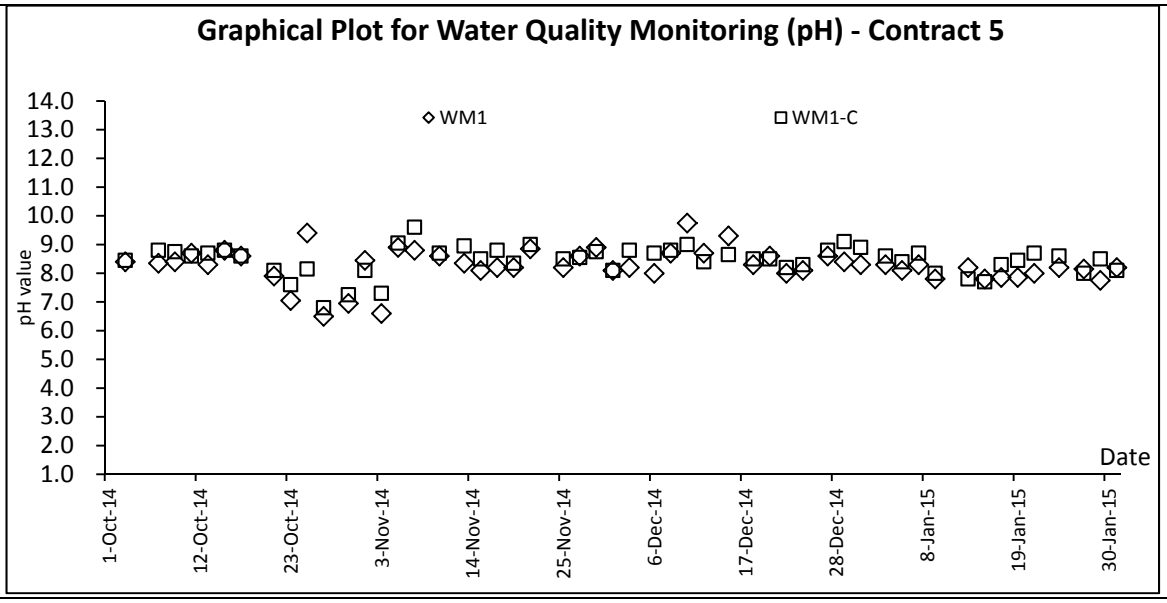
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15

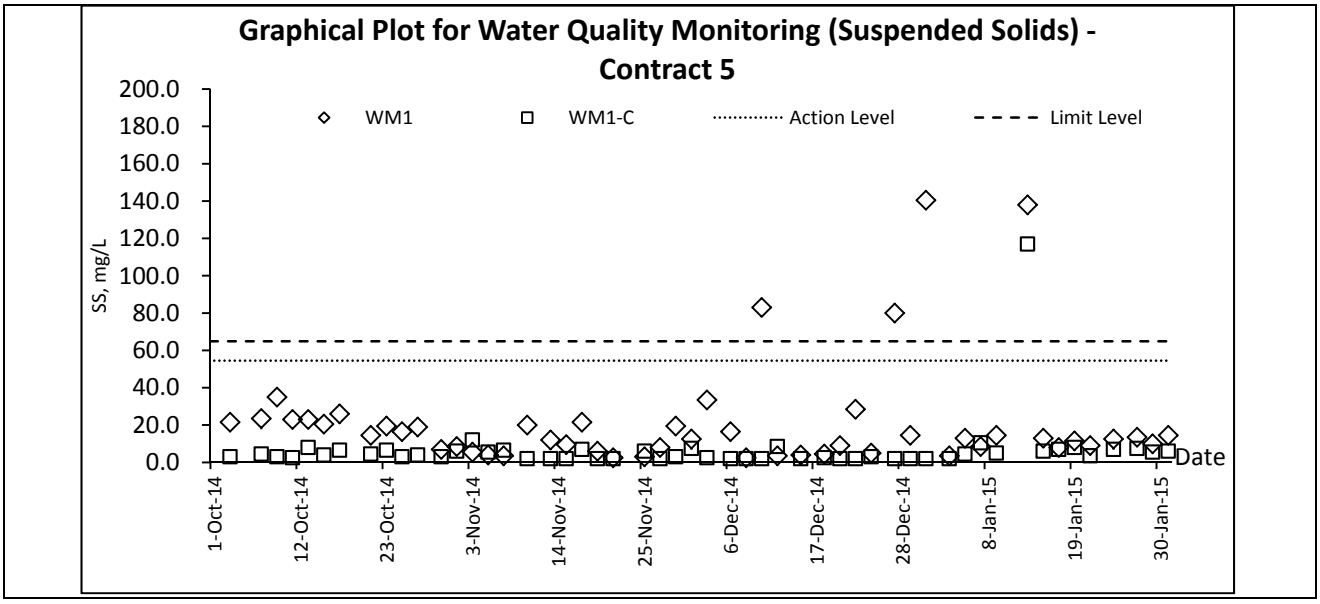

Graphical Plot for Construction Noise Monitoring Result at NM9
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15
Graphical Plot for Construction Noise Monitoring Result at NM10
L_{eq30}, dB(A)
Leq30min
Limit Level
Corrected Leq 30min
80
75
70
65
60
55
50
45
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15

Water Quality - Contract 5

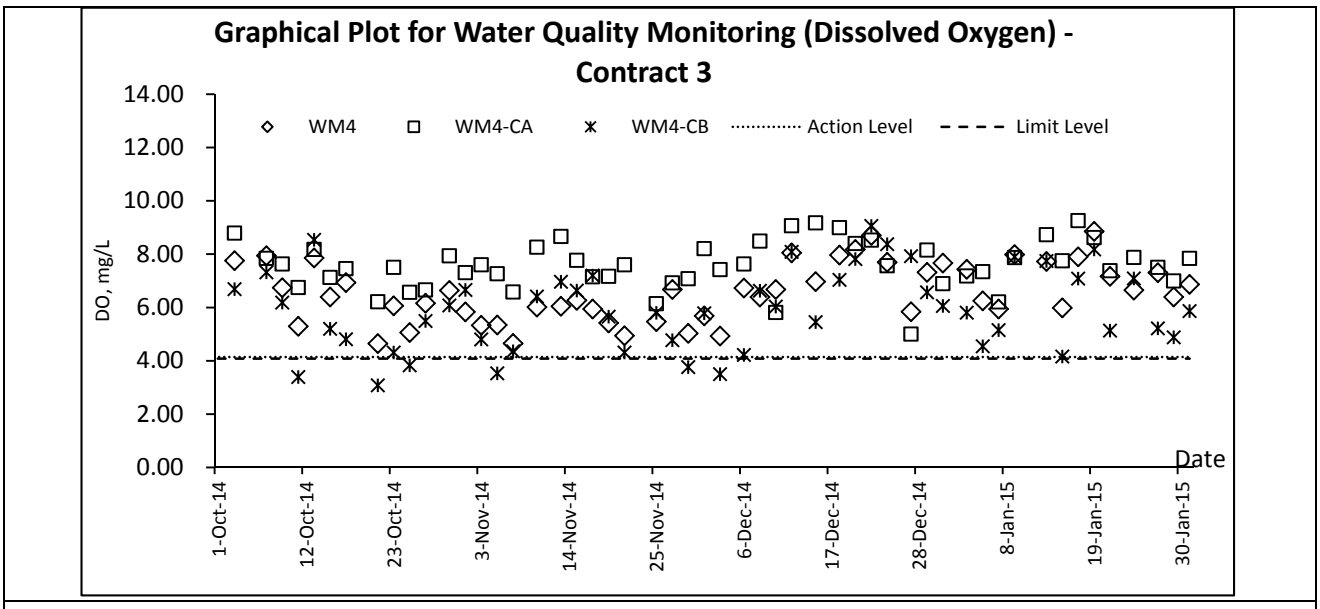


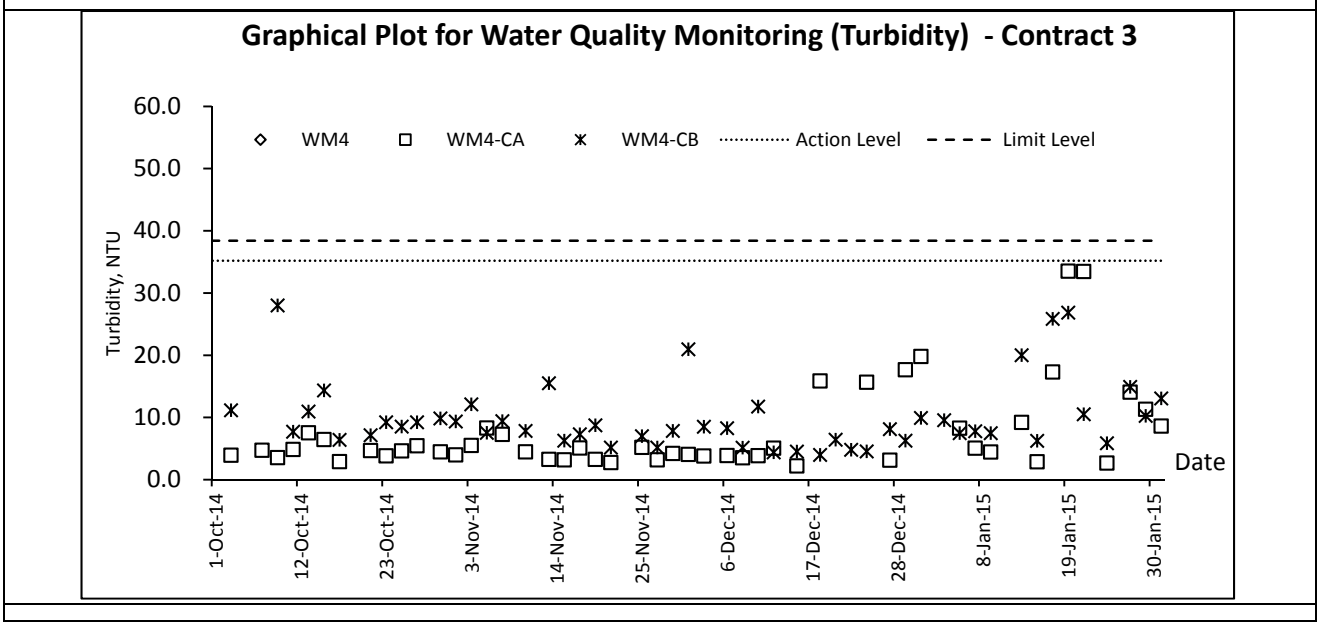


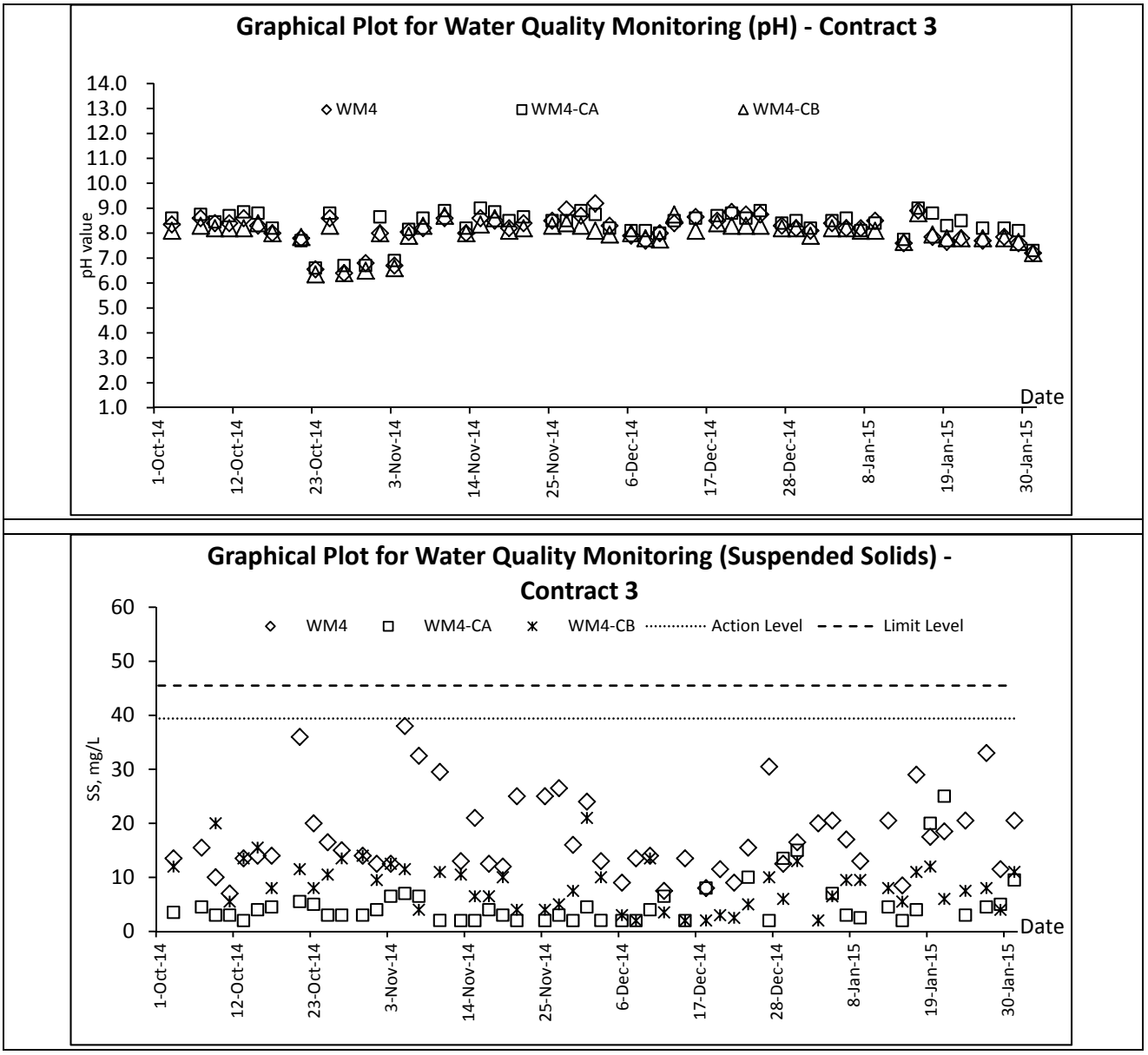




Water Quality - Contract 3






Graphical Plot for Water Quality Monitoring (pH) - Contract 3
WM4
WM4-CA
WM4-CB
pH value
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15
Graphical Plot for Water Quality Monitoring (Suspended Solids) - Contract 3
WM4
WM4-CA
WM4-CB
Action Level
Limit Level
SS, mg/L
60
50
40
30
20
10
0
Date
1-Oct-14
12-Oct-14
23-Oct-14
3-Nov-14
14-Nov-14
25-Nov-14
6-Dec-14
17-Dec-14
28-Dec-14
8-Jan-15
19-Jan-15
30-Jan-15

Appendix H

Weather information

Weather Condition Extracted from HKO

The weather of November 2014

Mainly attributed by Severe Typhoon Krosa and Super Typhoon Haiyan, the weather of November 2013 was wetter than usual. The total rainfall of the month was 83.1 millimetres, more than double of the normal figure of 37.6 millimetres. The accumulated rainfall since 1 January was 2759.0 millimetres, about 16 percent above the normal figure of 2371.6 millimetres for the same period. It was also gloomier than usual with 133.4 hours bright sunshine, about 26 percent below normal. The monthly mean temperature of 21.7 degrees was slightly below the normal figure of 21.8 degrees.

The weather of December 2014

Affected by frequent replenishments of the winter monsoon, the weather of December 2014 was cooler than normal, with spells of cloudy and rainy weather. The mean temperature for the month was 16.3 degrees, 1.6 degrees below the normal figure of 17.9 degrees. The total duration of bright sunshine in the month was 115.3 hours, 33 percent below the normal figure of 172.2 hours. The monthly total rainfall was 44.7 millimetres, about 67 percent above the normal figure of 26.8 millimetres. The annual rainfall of 2014 was 2638.3 millimetres, about 10 percent above the normal of 2398.5 millimetres.

The weather of January 2015

With the northeast monsoon bringing dry continental air mass to the south China coast during the month, the weather of January 2015 was sunnier than usual. The total duration of sunshine in the month was 198.8 hours, 39 percent above the normal figure of 143.0 hours. The monthly mean amount of cloud was 45 percent, against a normal figure of 61 percent. As a result of the rain on 12 and 13 January, the monthly total rainfall of 41.7 millimetres was 69 percent above the January normal of 24.7 millimetres. Overall, the mean temperature of the month was 16.4 degrees, only 0.1 degree above normal.

Remark: The meteorological data during the Reporting Period is presented in the relevant monthly EM&A report.

Appendix I

Waste Flow Table

Name of Department : CEDD **Contract No./ Work Order No. :** CV/2012/08

Appendix I - Monthly Summary Waste Flow Table for 2014

(All quantities shall be rounded off to 3 decimal places)

Month	Actual Quantities of Inert C&D Materials Generated / Imported (in '000 m3)						Actual Quantities of Other C&D Materials / Wastes Generated				
	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported C&D Material	Metal (in '000kg)	Paper/ Cardboard Packaging (in '000kg)	Plastic (bottles/containers, plastic sheets/ foams from package material) (in '000kg)	Chemical Waste (in '000kg)	Others (e.g. General Refuse etc.) (in '000m3)
January	0.0045	0.0000	0.0045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1773
February	0.9869	0.0000	0.9869	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1102
March	0.1366	0.0000	0.1366	0.0000	0.0000	0.2282	0.0000	0.0000	0.0000	3.2400	0.1825
April	0.2063	0.0000	0.1217	0.0269	0.0577	0.5536	0.0000	0.0000	0.0000	4.2800	0.2069
May	14.5769	0.0000	0.0643	14.4032	0.1094	2.0126	0.0000	0.0000	0.0000	0.0000	0.0887
June	26.0821	0.0000	0.0348	22.1289	3.9183	0.6915	0.0000	0.0000	0.0000	0.0000	1.1851
Half-year total	41.9932	0.0000	1.3487	36.5590	4.0855	3.4859	0.0000	0.0000	0.0000	7.5200	1.9508
July	49.4606	0.0000	0.0069	37.1170	12.3368	0.4385	0.0000	0.0000	0.0000	0.0000	0.0558
August	56.4391	0.0000	0.7325	51.3053	4.4013	0.8477	0.0000	0.0000	0.0000	0.0000	0.0774
September	56.614	0.0000	1.3762	44.492	10.7458	0.5819	0.0000	0.0000	0.0000	0.0000	0.0301
October	81.5270	0.0000	0.1239	67.7092	13.6939	0.2305	0.0000	0.0000	0.0000	0.0000	0.0761
November	80.7892	0.0000	0.0000	80.0586	0.7306	0.0000	0.0000	0.1190	0.0000	1.8900	0.0367
December	53.8164	0.0000	0.0000	53.5003	0.3161	0.0000	3.2100	0.3200	0.0070	1.4700	0.0340
Yearly Total	420.6397	0.0000	3.5882	370.7416	46.3099	5.5846	3.2100	0.4390	0.0070	10.8800	2.2609

Remark:

1) Density of C&D material to be 2.2 metric ton/m3
2) Density of General Refuse to be 1.6 metric ton/m3

Name of Department : CEDD **Contract No./ Work Order No. :** CV/2012/08

Appendix I - Monthly Summary Waste Flow Table for 2015

(All quantities shall be rounded off to 3 decimal places)

Month	Actual Quantities of Inert C&D Materials Generated / Imported (in '000 m3)						Actual Quantities of Other C&D Materials / Wastes Generated				
	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported C&D Material	Metal (in '000kg)	Paper/ Cardboard Packaging (in '000kg)	Plastic (bottles/containers, plastic sheets/ foams from package material) (in '000kg)	Chemical Waste (in '000kg)	Others (e.g. General Refuse etc.) (in '000m3)
January	66.2666	0.0000	0.0670	65.6529	0.5467	0.1150	0.0000	0.2500	0.0000	0.0000	0.0617
February	0.0000										
March	0.0000										
April	0.0000										
May	0.0000										
June	0.0000										
Half-year total	66.2666	0.0000	0.0670	65.6529	0.5467	0.1150	0.0000	0.2500	0.0000	0.0000	0.0617
July	0.0000										
August	0.0000										
September	0.000										
October	0.0000										
November	0.0000										
December	0.0000										
Yearly Total	66.2666	0.0000	0.0670	65.6529	0.5467	0.1150	0.0000	0.2500	0.0000	0.0000	0.0617

(All quantities shall be rounded off to 3 decimal places)

Year	Actual Quantities of Inert C&D Materials Generated / Imported (in '000 m3)						Actual Quantities of Other C&D Materials / Wastes Generated				
	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported C&D Material	Metal (in '000kg)	Paper/ Cardboard Packaging (in '000kg)	Plastic (bottles/containers, plastic sheets/ foams from package material) (in '000kg)	Chemical Waste (in '000kg)	Others (e.g. General Refuse etc.) (in '000m3)
2013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2014	425.4406	0.0000	2.7362	376.3945	46.3099	5.6245	3.2100	0.4390	0.0070	10.8800	2.2609
2015											
2016											
2017											
2018											
Total	425.4406	0.0000	2.7362	376.3945	46.3099	5.6245	3.2100	0.4390	0.0070	10.8800	2.2609

Remark:

1) Density of C&D material to be 2.2 metric ton/m3
2) Density of General Refuse to be 1.6 metric ton/m3

Name of Department: CEDD

Contract No.: CV/2012/09

Monthly Summary Waste Flow Table for 2014 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	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 3)	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 '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)
Jan	0.409	0.084	0	0	0.409	0.200	0	0	0.010	0	0.110
Feb	1.853	0.356	0.380	0	1.473	0	0.002	0	0	0.019	0.040
Mar	3.954	0.506	1.092	0	2.862	0	0	0	0	0	0.265
Apr	1.600	0.054	0.672	0	0.928	0.200	0	0	0	0.020	0.135
May	2.740	0.450	0.192	0	2.548	0.500	0	0	0	0.020	0.195
Jun	2.215	0.258	0.675	0	1.540	1.075	0	0	0	0.001	0.180
Sub-total	12.771	1.708	3.011	0.000	9.760	1.975	0.002	0.000	0.010	0.060	0.925
Jul	3.596	0.233	0.502	0	3.094	0.747	0	0	0.005	0	0.165
Aug	5.504	0.649	0.732	0	4.772	1.200	0	0	0.005	0.009	0.220
Sep	2.604	0.176	1.176	0	1.428	0.750	0	0	0.005	0	0.085
Oct	6.404	0.090	2.160	0	4.244	1.501	0	0	0.005	0	0.085
Nov	4.295	0	0.645	0	3.650	0	0	0	0.010	0.001	0.110
Dec	3.835	0.435	1.590	0	2.245	0	0	0	0	0	0.085
Total	39.009	3.291	9.816	0.000	29.193	6.173	0.002	0.000	0.040	0.070	1.675

Note:

1. Assume the density of soil fill is 2 ton/m^3.
2. Assume the density of rock and broken concrete is 2.5 ton/m^3.
3. Assume each truck of C&D wastes is 5m^3.
4. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
5. The slurry and bentonite are disposed at Tseung Kwun O 137.
6. The non-inert C&D wastes are disposed at NENT.
7. Assume the density of metal is 7,850 kg/m^3.

Name of Department: CEDD

Contract No.: CV/2012/09

Monthly Summary Waste Flow Table for 2015 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	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 3)	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 '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)
Jan	3.864	0.105	0.648	0.000	3.216	0.118	0.000	0.000	0.000	0.040	0.080
Feb											
Mar											
Apr											
May											
Jun											
Sub-total	3.864	0.105	0.648	0.000	3.216	0.118	0.000	0.000	0.000	0.040	0.080
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	3.864	0.105	0.648	0.000	3.216	0.118	0.000	0.000	0.000	0.040	0.080

Note:

1. Assume the density of soil fill is 2 ton/m^3.
2. Assume the density of rock and broken concrete is 2.5 ton/m^3.
3. Assume each truck of C&D wastes is 5m^3.
4. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
5. The slurry and bentonite are disposed at Tseung Kwun O 137.
6. The non-inert C&D wastes are disposed at NENT.
7. Assume the density of metal is 7,850 kg/m^3.

Name of Department: CEDD

Monthly Summary Waste Flow Table for 2014

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	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	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
JAN	0	0	0	0	0	16.571	0	0	0	0	0.85
FEB	0	0	0	0	0	18.672	0	0	0	0	0.005
MAR	0	0	0	0	0	2.968	0	0	0	6	0.01
APRIL	0	0	0	0	0	1.664	0.87	0.051	0	0	0.245
MAY	0	0	0	0	0	19.288	0	0	0	0	0.23
JUN	0	0	0	0	0	33.381	0	0.14	0	0	0
Sub Total	0	0	0	0	0	92.544	0.87	0.191	0	6	1.34
JUL	0	0	0	0	0	33.677	2.01	0.241	0	0	0.11
AUG	0	0	0	0	0	55.082	0	0	0	0	0.03
SEP	0	0	0	0	0	61.674	0	0	0	0	0.015
OCT	0	0	0	0	0	65.327	0	0.274	0	0	0.490
NOV	0	0	0	0	0	75.919	0	**0.051**	0	0	0.755
DEC	**2**	**2**	**0**	**0**	**0**	**11.274**	**7.74**	**0.247**	**0**	**2.376**	**0.555**
Total	2	2	0	0	0	395.50	10.62	1.004	0	8.376	3.295

Notes:

Name of Department: CEDD

Forecast of Total Quantities of C&D Materials to be Generated from the Contract (see Note 4)										
Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper / cardboard packaging	Plastics (see Note 3)	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
0	0	0	0	0	350	30	4	2	1	4

Notes:

(1) The performance targets are given in PS clause 6(14) above.

(2) The waste flow table shall also include C&D materials that are specified in the Contractor to be imported for use at the Site.

(3) Plastic refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature

- Hard Rocks and Large Broken Concrete = Cannot be defined at this stage
- Imported Fill = Estimated by the Contractor = 1 loading = 8m 3
- Metal = Estimated by the Contractor
- Paper/cardboard packaging = Estimated by the Contractor
- Plastics = Estimated by the Contractor
- Chemical Waste = Estimated by the Contractor (Spent lubricating oil, assume density 0.9kg/L)
- Other, e.g. general refuse = Estimated by the Contractor

Name of Department: CEDD

Monthly Summary Waste Flow Table for 2015

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	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	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
JAN	0	0	0	0	0	33.3285	4.16	0	0	0	0.42
FEB											
MAR											
APRIL											
MAY											
JUN											
Sub Total	0	0	0	0	0	33.3285	4.16	0	0	0	0.42
JUL											
AUG											
SEP											
OCT											
NOV											
DEC											
Total	0	0	0	0	0	33.33	4.16	0	0	0	0.42

Notes:

Name of Department: CEDD

Forecast of Total Quantities of C&D Materials to be Generated from the Contract (see Note 4)										
Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper / cardboard packaging	Plastics (see Note 3)	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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
0	0	0	0	0	350	30	4	2	1	4

Notes:

(1) The performance targets are given in PS clause 6(14) above.

(2) The waste flow table shall also include C&D materials that are specified in the Contractor to be imported for use at the Site.

(3) Plastic refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature

- Hard Rocks and Large Broken Concrete = Cannot be defined at this stage
- Imported Fill = Estimated by the Contractor = 1 loading = 8m 3
- Metal = Estimated by the Contractor
- Paper/cardboard packaging = Estimated by the Contractor
- Plastics = Estimated by the Contractor
- Chemical Waste = Estimated by the Contractor (Spent lubricating oil, assume density 0.9kg/L)
- Other, e.g. general refuse = Estimated by the Contractor

Appendix J

Implementation Schedule for Environmental Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
Air Quality Impact (Construction)							
3.6.1.1	2.1	**General Dust Control Measures** The following dust suppression measures should be implemented: ■ Frequent water spraying for active construction areas (4 times per day for active areas in Po Kak Tsai and 8 times per day for all other active areas), including areas with heavy construction and slope cutting activities ■ 80% of stockpile areas should be covered by impervious sheets ■ Speed of trucks within the site should be controlled to about 10 km/hr ■ All haul roads within the site should be paved to avoid dust emission due to vehicular movement	To minimize adverse dust emission generated from various construction activities of the works sites	Contractor	Construction Works Sites	During Construction	EIA Recommendation and Air Pollution Control (Construction Dust) Regulation
3.6.1.2	2.1	**Best Practice for Dust Control** The relevant best practices for dust control as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted to further reduce the construction dust impacts of the Project. These best practices include: *Good site management* ■ The Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. ■ Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimize the release of visible dust emission. ■ Any piles of materials accumulated on or around the work areas should be cleaned up regularly. ■ Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimizing generation of fugitive dust emissions. ■ The material should be handled properly to prevent fugitive dust emission before cleaning. *Disturbed Parts of the Roads* ■ Each and every main temporary access should be paved with	To minimize adverse dust emission generated from various construction activities of the works sites	Contractor	Construction Works Sites	During Construction	EIA Recommendation and Air Pollution Control (Construction Dust) Regulation

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or ■ Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. *Exposed Earth* ■ Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. *Loading, Unloading or Transfer of Dusty Materials* ■ All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. *Debris Handling* ■ Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. ■ Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. *Transport of Dusty Materials* ■ Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. *Wheel washing* ■ Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. *Use of vehicles* ■ Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. ■ Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.				

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		Site hoarding ■ Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. *Blasting* ■ The areas within 30m from the blasting area should be wetted with water prior to blasting.					
Air Quality Impact (Operation)							
3.5.2.2	2.2	The following odour containment and control measures will be provided for the proposed sewage treatment work at the BCP site: ■ The treatment work will be totally enclosed. Negative pressure ventilation will be provided within the enclosure to avoid any fugitive odorous emission from the treatment work. ■ Further odour containment will be achieved by covering or confining the sewage channels, sewage tanks, and equipment with potential odour emission. ■ Proper mixing will be provided at the equalization and sludge holding tanks to prevent sewage septicity. ■ Chemical or biological deodorisation facilities with a minimum odour removal efficiency of 90% will be provided to treat potential odorous emissions from the treatment plant including sewage channels / tanks, filter press and screening facilities so as to minimize any potential odour impact to the nearby ASRs.	To minimize potential odour impact from operation of the proposed sewage treatment work at BCP	DSD	BCP	Operation Phase	EIA recommendation
Noise Impact (Construction)							
4.4.1.4	3.1	**Adoption of Quieter PME** Use of the recommended quieter PME such as those given in the BS5228: Part 1:2009 and presented in **Table 4.14**, which can be found in Hong Kong.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and Noise Control Ordinance (NCO)

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
4.4.1.4	3.1	**Use of Movable Noise Barrier** The use of movable barrier for certain PME can further alleviate the construction noise impacts. In general, a 5 dB(A) reduction for movable PME and 10 dB(A) for stationary PME can be achieved depending on the actual design of the movable noise barrier. The Contractor shall be responsible for design of the movable noise barrier with due consideration given to the size of the PME and the requirement for intercepting the line of sight between the NSRs and PME. Barrier material with surface mass in excess of 7 kg/m^2 is recommended to achieve the predicted screening effect.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO
4.4.1.4	3.1	**Use of Noise Enclosure/ Acoustic Shed** The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the GW-TM.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO
4.4.1.4	3.1	**Use of Noise Insulating Fabric** Noise insulating fabric can be adopted for certain PME (e.g. drill rig, pilling auger etc). The insulating fabric should be lapped such that there are no openings or gaps on the joints. Technical data from manufacturers state that by using the Fabric, a noise reduction of over 10 dB(A) can be achieved on noise level.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
4.4.1.4	3.1	**Good Site Practice** The good site practices listed below should be followed during each phase of construction: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction programme; • Mobile plant, if any, should be sited as far from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO
Noise Impact (Operation)							
		Road Traffic Noise					
Table 4.42 and Figure 4.20.1 to 4.20.4	3.2	Erection of noise barrier/ enclosure along the viaduct section.	To minimize the road traffic noise along the connecting road of BCP	Contractor	Loi Tung and Fanling Highway Interchange	Before Operation	EIAO and NCO
		Fixed Plant Noise					
Table 4.46	3.2	Specification of the maximum allowable sound power levels of the proposed fixed plants during daytime and night-time.	To minimize the fixed plant noise impact	Managing Authority of the buildings / Contractor	BCP, Administration Building and all ventilation buildings	Before Operation	EIA recommendation, EIAO and NCO

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
4.5.2.4	3.2	The following noise reduction measures shall be considered as far as practicable during operation: • Choose quieter plant such as those which have been effectively silenced; • Include noise levels specification when ordering new plant (including chillier and E/M equipment); • Locate fixed plant/louver away from any NSRs as far as practicable; • Locate fixed plant in walled plant rooms or in specially designed enclosures; • Locate noisy machines in a basement or a completely separate building; • Install direct noise mitigation measures including silencers, acoustic louvers and acoustic enclosure where necessary; and • Develop and implement a regularly scheduled plant maintenance programme so that equipment is properly operated and serviced in order to maintain a controlled level of noise.	To minimize the fixed plant noise impact	Managing Authority of the buildings / Contractor	BCP, Administration Building and all ventilation buildings	Before Operation	EIAO and NCO
Water Quality Impact (Construction)							
5.6.1.1	4.1	**Construction site runoff and drainage** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts: ▪ At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the Contractor prior to the commencement of construction. ▪ The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas.	To control site runoff and drainage; prevent high sediment loading from reaching the nearby watercourses	Contractor	Construction Works Sites	Construction Phase	Practice Note for Professional Persons on Construction Site Drainage (ProPECC Note PN 1/94)

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		Temporary ditches should be provided to facilitate the runoff discharge into stormwater drainage system through a sediment/silt trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates, if practical. ▪ Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractor prior to the commencement of construction. ▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. ▪ Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities. ▪ If surface excavation works cannot be avoided during the wet season (April to September), temporarily exposed slope/soil surfaces should be covered by tarpaulin or other means, as far as practicable, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Interception channels should be provided (e.g. along the crest/edge of the excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place to ensure that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm. Other measures that need to be implemented before, during and after rainstorms are summarized in ProPECC Note PN 1/94. ▪ The overall slope of the site should be kept to a minimum to reduce					

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		the erosive potential of surface water flows. ▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly 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. ▪ Open stockpiles of construction materials or construction wastes on-site 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. ▪ Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers. ▪ Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. ▪ Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.					
5.6.1.1	4.1	**Good site practices for works within water gathering grounds** The following conditions should be complied, if there is any works to be carried out within the water gathering grounds:	To minimize water quality impacts to the water gathering grounds	Contractor	Construction Works Sites within the water gathering	Construction Phase	ProPECC Note PN 1/94

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		▪ Adequate measures should be implemented to ensure no pollution or siltation occurs to the catchwaters and catchments. ▪ No earth, building materials, oil or fuel, soil, toxic materials or any materials that may possibly cause contamination to water gathering grounds are allowed to be stockpiled on site. ▪ All surplus spoil should be removed from water gathering grounds as soon as possible. ▪ Temporary drains with silt traps should be constructed at the site boundary before the commencement of any earthworks. ▪ Regular cleaning of silt traps should be carried out to ensure proper operation at all time. ▪ All excavated or filled surfaces which have the risk of erosion should always be protected form erosion. ▪ Facilities for washing the wheels of vehicles before leaving the site should be provided. ▪ Any construction plant which causes pollution to catchwaters or catchments due to the leakage of oil or fuel should be removed off site immediately. ▪ No maintenance activities which may generate chemical wastes should be undertaken in the water gathering grounds. Vehicle maintenance should be confined to designated paved areas only and any spillages should be cleared up immediately using absorbents and waste oils should be collected in designated tanks prior to disposal off site. All storm water run-off from these areas should be discharged via oil/petrol separators and sand/silt removal traps. ▪ Any soil contaminated with fuel leaked from plant should be removed off site and the voids arising from removal of contaminated soil should be replaced by suitable material approved by the Director of Water Supplies. ▪ Provision of temporary toilet facilities and use of chemicals or insecticide of any kind are subject to the approval of the Director of Water Supplies. ▪ Drainage plans should be submitted for approval by the Director of			grounds		

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		Water Supplies. ▪ An unimpeded access through the waterworks access road should always be maintained. ▪ Earthworks near catchwaters or streamcourses should only be carried out in dry season between October and March, ▪ Advance notice must be given before the commencement of works on site quoting WSD's approval letter reference.					
5.6.1.2	4.1	**Good site practices of general construction activities** Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby stormwater drain. Stockpiles of cement and other construction materials should be kept covered when not being used. Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby stormwater drain, 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. The bund should be drained of rainwater after a rain event.	To minimize water quality impacts	Contractor	All construction works sites	Construction phase	EIA Recommendation
5.6.1.3	4.1	**Sewage effluent from construction workforce** Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	To minimize water quality impacts	Contractor	All construction works sites with on-site sanitary facilities	Construction phase	EIA Recommendation and Water Pollution Control Ordinance (WPCO)
5.6.1.4	4.1	**Hydrogeological Impact** Grout injection works would be conducted before blasting, for sealing a limited area around the tunnel with a grout of a suitable strength for controlling the potential groundwater inflows. The pre-injection grouting method would be supplemented by post-injection grouting where necessary to further enhance the groundwater inflow control. On-site treatment for the groundwater ingress pumped out would be required to remove any contamination by grouting materials before discharge off-site.	To minimize water quality impacts	Contractor	Construction works sites of the drill and blast tunnel	Construction phase	EIA Recommendation and WPCO
Water Quality Impact (Operation)							
		No mitigation measure is required.					

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Sewage and Sewerage Treatment Impact (Construction)							
6.7	5	The sewage generated by the on-site workforce should be collected in chemical toilets and disposed of off-site by a licensed waste collector.	To minimize water quality impacts	Contractor	All construction works sites with on-site sanitary facilities	Construction phase	EIA recommendation and WPCO
Sewage and Sewerage Treatment Impact (Operation)							
6.6.3	5	Sewage generated by the BCP and Chuk Yuen Village Resite will be collected and treated by the proposed on-site sewage treatment facility using Membrane Bioreactor treatment with a portion of the treated wastewater reused for irrigation and flushing within the BCP.	To minimize water quality impacts	DSD	BCP	Operation phase	EIA recommendation and WPCO
6.5.3	5	Sewage generated from the Administration Building will be discharged to the existing local sewerage system.	To minimize water quality impacts	DSD	Administration Building	Operation phase	EIA recommendation and WPCO
Waste Management Implication (Construction)							
7.6.1.1	6	**Good Site Practices** Adverse impacts related to waste management such as potential hazard, air, odour, noise, wastewater discharge and public transport as mentioned in section 3.4.7.2 (ii)(c) of the Study Brief are not expected to arise, provided that good site practices are strictly followed. Recommendations for good site practices during the construction activities include: ▪ 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 ▪ Training of site personnel in proper waste management and chemical handling procedures ▪ Provision of sufficient waste disposal points and regular collection of waste ▪ Dust suppression measures as required under the Air Pollution Control (Construction Dust) Regulation should be followed as far as practicable. Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by covering trucks or in enclosed containers ▪ General refuse shall be removed away immediately for disposal. As	To minimize adverse environmental impact	Contractor	Construction works sites (general)	Construction Phase	EIA recommendation; Waste Disposal Ordinance; Waste Disposal (Chemical Wastes) (General) Regulation; and ETWB TC(W) No. 19/2005, Environmental Management on Construction Site

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		such odour is not anticipated to be an issue to distant sensitive receivers ▪ Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction from public road ▪ Covers and water spraying system should be provided for the stockpiled C&D material to prevent dust impact or being washed away ▪ Designate different locations for storage of C&D material to enhance reuse ▪ Well planned programme for transportation of C&D material to lessen the off-site traffic impact. Well planned delivery programme for offsite disposal and imported filling material such that adverse noise impact from transporting of C&D material is not anticipated ▪ Site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be adopted as far as practicable, such as cleaning and maintenance of drainage systems regularly ▪ Provision of cover for the stockpile material, sand bag or earth bund as barrier to prevent material from washing away and entering the drains					
7.6.1.2	6	**Waste Reduction Measures** Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: ▪ 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 ▪ Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force ▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials ▪ Plan and stock construction materials carefully to minimise amount	To reduce the quantity of wastes	Contractor	Construction works sites (General)	Construction Phase	EIA recommendation and Waste Disposal Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		of waste generated and avoid unnecessary generation of waste ▪ In addition to the above measures, specific mitigation measures are recommended below for the identified waste arising to minimise environmental impacts during handling, transportation and disposal of these wastes.					
7.6.1.3	6	**C&D Materials** In order to minimise impacts resulting from collection and transportation of C&D material for off-site disposal, the excavated materials should be reused on-site as backfilling material as far as practicable. The surplus rock and other inert C&D material would be disposed of at the Government's Public Fill Reception Facilities (PFRFs) at Tuen Mun Area 38 for beneficial use by other projects in the HKSAR as the last resort. C&D waste generated from general site clearance and tree felling works would require disposal to the designated landfill site. Other mitigation requirements are listed below: ▪ A Waste Management Plan should be prepared and implemented in accordance with ETWB TC(W) No. 19/2005 Environmental Management on Construction Site; and ▪ In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills, and to control fly-tipping, a trip-ticket system (e.g. ETWB TCW No. 31/2004) should be included.	To minimize impacts resulting from C&D material	Contractor	Construction Works Sites (General)	Construction Phase	EIA recommendation; Waste Disposal Ordinance; and ETWB TCW No. 31/2004
7.6.1.4	6	**General refuse** General refuse should be stored in enclosed bins or compaction units separated from other C&D material. A reputable waste collector is to be employed by the Contractor to remove general refuse from the site separately. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' litter.	To minimize impacts resulting from collection and transportation of general refuse for off-site disposal	Contractor	Construction works sites (General)	Construction phase	Waste Disposal Ordinance and Public Health and Municipal Services Ordinance - Public Cleansing and Prevention of Nuisances Regulation
7.6.1.5	6	**Chemical waste** If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the *Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes*. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical	To minimize impacts resulting from collection and transportation of chemical waste for off-site disposal	Contractor	Construction works sites (General)	Construction phase	Waste Disposal (Chemical Waste) (General) Regulation and Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes