

## MATERIALAB CONSULTANTS LIMITED

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Report No.: 0165/15/ED/0213

### QUARTERLY ENVIRONMENTAL MONITORING & AUDIT REPORT (Rev.1)

**September 2015 to November 2015**

**Client:** China Harbour Engineering Co., Ltd.

**Project:** Contract No. HY/2013/03  
Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Boundary Crossing Facilities -  
Vehicle Clearance Plazas and  
Ancillary Buildings and Facilities

**Report No.:** 0165/15/ED/0213

Prepared by: Sandra Pang

Reviewed by: Bong Yu

Certified by:



Arthur Cheng  
Environmental Team Leader

5 January 2016

By Fax (3468 2076) and By Post

AECOM Asia Co. Ltd.  
The PRE's Office  
5 Ying Hei Road, Tung Chung, Lantau  
Hong Kong

Attention: Mr. Michael Tovey

Dear Sir,

**Re: Agreement No. CE 48/2011 (EP)  
Environmental Project Office for the  
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities,  
and Tuen Mun-Chek Lap Kok Link – Investigation**

**Contract No. HY/2013/03 – HZMB HKBCF – Vehicle Clearance Plazas and  
Ancillary Buildings and Facilities  
Quarterly EM&A Report No.1 for September 2015 to November 2015**

Reference is made to the Environmental Team's submission of Quarterly Environmental Monitoring & Audit Report No.1 for September 2015 to November 2015 (Rev. 1) certified by the ET Leader (ET's ref.: "MCL/ED/0005/2016/C" dated 5 January 2016) and provided to us via e-mail on 5 January 2016.

We are pleased to inform you that we have no adverse comment on the captioned report. We write to verify the captioned submission in accordance with Section 16.4.1 of the Updated EM&A Manual (2011).

Thank you very much for your attention and please feel free to contact the undersigned should you require further information.

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



Raymond Dai  
Independent Environmental Checker

c.c.	HyD	Mr. Matthew Fung	(By Fax: 3188 6614)
	HyD	Mr. Ken Woo	(By Fax: 3188 6614)
	MCL	Mr. Arthur Cheng	(By Fax: 2450 8032)
	CHEC	Mr. Johnason Ko	(By Fax: 2887 3014)

Internal: DY, YH, LP, CL, ENPO Site

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Date 5 January 2016  
Our Ref. MCL/ED/0005/2016/C

Ramboll Environ Hong Kong Limited  
(formerly ENVIRON Hong Kong Limited)  
Room 2403, 24/F, Jubilee Centre,  
18 Fenwick Street, Wan Chai,  
Hong Kong

BY HAND

Attn.: Mr. Raymond Dai, IEC

Dear Sir,

**Quarterly EM&A Report for September 2015 to November 2015  
Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities –  
Vehicle Clearance Plazas and Ancillary Buildings and Facilities (Contract No. HY/2013/03)**

Pursuant to Section 16.4 of the updated EM&A Manual for Hong Kong Boundary Crossing Facilities (Version 1.0) covering the captioned contract, we are pleased to submit the certified Quarterly EM&A Report for September 2015 to November 2015 (Rev.1) for your verification.

Should you require further information, please do not hesitate to contact our Ms Sandra Pang at 3565 4485 or the undersigned at 3565 4115.

Yours faithfully,  
for and on behalf of  
MATERIALAB CONSULTANTS LIMITED



Arthur Cheng  
Environmental Team Leader

AC/by

Encl.

c.c. AECOM – Mr. P.K. Lee, Mr. W.S. Ng, Ms. Miranda Wong  
CHEC – Mr. Paul Pui, Mr. Marko Chan  
Ramboll Environ – Mr. Ray Yan, Mr. Andy Wong

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### EXECUTIVE SUMMARY

This Quarterly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract No. HY/2013/03 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities)” (hereafter referred to as “the Contract”) for the Highways Department of Hong Kong Special Administrative Region (HKSAR). The Contract was awarded to China Harbour Engineering Co. Limited (hereafter referred to as “the Contractor”) and MaterialLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by the Contractor.

The Contract is part of the “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities” (HZMB HKBCF) Project which is a “Designated Project” under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and for which an EIA Report (Register No. AEIAR-145/2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP-353/2009/I, was issued on 17 July 2015. These documents are available through the EIA Ordinance Register. Commencement of the Contract took place on 10 April 2015 while the construction works and the EM&A programme of this Contract commenced on 29 August 2015.

MaterialLab Consultants Limited (MCL) has been appointed by the Contractor to implement the Environmental Monitoring & Audit (EM&A) programme for the Contract in accordance with the Updated EM&A Manual for HKBCF (Version 1.0) and will be providing environmental team services for the Contract. This is the 1<sup>st</sup> Quarterly EM&A Report for the Contract which summaries findings of the EM&A works during the reporting period from 29 August 2015 to 30 November 2015 (the “reporting period”).

### Environmental Monitoring and Audit Progress

The EM&A programme was undertaken in accordance with the Updated EM&A Manual for HKBCF (Version 1.0). It should be noted that the air quality and noise monitoring works for the Contract are covered by Contract No. HY/2010/02 “Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works” and Contract No. HY/2011/03 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF”. The ET of the Contract or another ET of the HZMB project is required to conduct impact air quality monitoring at AMS6 and AMS7A and noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract Nos. HY/2010/02 and HY/2011/03. However, this is subject to ENPO’s final decision on which ET should carry out the monitoring work at these stations.

The dates of site inspection during the reporting period are listed below:

Environmental Site Inspection:

- 2, 11, 17 and 25 September 2015
- 2, 8, 15, 23 and 29 October 2015
- 5, 13, 20 and 23 November 2015

### Breaches of Action and Limit Levels

Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 is reported in the monthly EM&A report prepared by Contract No. HY/2011/03.

There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

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There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

There was no marine works conducted during the reporting period and therefore, no water quality impact monitoring result is reported.

There was no marine transportation and operation during the reporting period and therefore, no ecology monitoring result is reported.

### Complaint Log

There was one complaint received in relation to the environmental impact during the reporting period.

Log No.	Environmental Complaint Ref. No.	Date of Complaint Receipt	Description
001	ENPO-C0093	23 October 2015	Air & Noise

After investigation, it was concluded that the complaint was not related to Contract No. HY/2013/03.

### Notifications of Summons and Successful Prosecutions

There were no notifications of summons or prosecutions received during this reporting period.

### Reporting Changes

There was no reporting change during the reporting period.

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## 1. INTRODUCTION

### 1.1 Basic Project Information

1.1.1 This Quarterly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract No. HY/2013/03 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities” (hereafter referred to as “the Contract”) for the Highways Department of Hong Kong Special Administrative Region (HKSAR). The Contract was awarded to China Harbour Engineering Co. Limited (hereafter referred to as “the Contractor”) and MaterialLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by the Contractor.

1.1.2 The Contract is part of the “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities” (HZMB HKBCF) Project which is a “Designated Project” under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and for which an EIA Report (Register No. AEIAR-145/2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP-353/2009/I, was issued on 17 July 2015. These documents are available through the EIA Ordinance Register. Commencement of the Contract took place on 10 April 2015 and the construction works commenced on 29 August 2015. The works areas of the contract are shown in **Appendix A**.

1.1.3 This is the 1<sup>st</sup> Quarterly EM&A Report summarising the findings of EM&A activities conducted under the Contract from 29 August 2015 to 30 November 2015 (the “reporting period”) and is submitted to fulfil Condition 16.4 of the Updated EM&A Manual for HKBCF.

### 1.2 Project Organisation

1.2.1 The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix B**. The key personnel contact names and numbers are summarized in **Table 1.1**.

Table 1.1 Contact Information of Key Personnel

Party	Position	Contact Person	Telephone No.	Fax No.
Engineer or Engineer's Representative (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Mr. Michael Tovey	3985 7470	3902 8800
Environmental Project Office / Independent Environmental Checker (Ramboll Environ Hong Kong Limited)	Environmental Project Office Leader	Mr. Y. H. Hui	3547 2133	3465 2899
	Independent Environmental Checker (IEC)	Mr. Raymond Dai	3465 2888	34652899
	Environmental Site Supervisor	Mr. Ray Yan	5181 8165	3465 2899
Contractor (China Harbour Engineering Co. Ltd)	Site Agent	Mr. Paul Pui	9125 0700	2512 0427
	Environmental Officer	Mr. Marko Chan	9427 2879	2512 0427
Environmental Team (MaterialLab Consultants Limited)	Environmental Team Leader (ETL)	Mr. Arthur Cheng	3565 4115	2450 8032
24-hr Complaint Hotline	--	--	5236 7111	--

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### 1.3 Construction Programme

1.3.1 The Construction Works Programme of the Project is provided in **Appendix C**.

### 1.4 Construction Works undertaken during the Reporting Period

1.4.1 A summary of the construction activities undertaken during this reporting period is shown below:

#### September 2015

- Site Investigation at Portion A1 & G; and
- Building and Drainage Works at Portion A1

#### October 2015

- Site Investigation at Portion A1, A2 & G;
- Piling, Building & Drainage at Portion A1; and
- CUE Construction at Portion B.

#### November 2015

- Site Investigation at Portion A1, A2 & G;
- Piling, Building & Drainage at Portion A1; and
- CUE Construction at Portion B.

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## 2. EM&A REQUIREMENTS

### 2.1 Summary of EM&A Requirements

2.1.1 The EM&A programme was undertaken in accordance with the Updated EM&A Manual for HKBCF (Version 1.0). It should be noted that the air quality and noise monitoring works for the Contract are covered by Contract No. HY/2010/02 "Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works" and Contract No. HY/2011/03 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF". The ET of the Contract or another ET of the HZMB project is required to conduct impact air quality monitoring at AMS6 and AMS7A and noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract Nos. HY/2010/02 and HY/2011/03. However, this is subject to ENPO's final decision on which ET should carry out the monitoring work at these stations.

2.1.2 A summary of air and noise monitoring locations are presented in **Table 2.1**. The location of air quality and noise monitoring stations are shown as in **Figure 1** and **Figure 2**, respectively.

Table 2.1 Air Quality and Noise Monitoring Locations

Environmental Monitoring	Identification No.	Location Description
Air Quality	AMS6(1)	Dragonair/CNAC (Group) Building (A80)
	AMS7A(1)	Chu Kong Air-Sea Union Transportation Co. Ltd.
Noise	NMS2(2)	Seaview Crescent
	NMS3B(2) (3)	Site Boundary of Site Office Area at WA2

Remarks:

- (1) The ET of this Contract should conduct impact air quality monitoring at the AMS listed in the table as part of EM&A programme according to latest notification from ENPO when the monitoring station(s) is/are no longer covered by another ET of the HZMB project.
- (2) The ET of this Contract should conduct impact noise monitoring at the NMS listed in the table as part of EM&A programme according to the latest notification from ENPO when the monitoring station(s) is/are no longer covered by another ET of the HZMB project.
- (3) The Action and Limit Levels for schools will be applied for this alternative monitoring location.

### 2.2 Monitoring Requirements

2.2.1 The monitoring requirements, monitoring equipment, monitoring parameters, frequency and duration, monitoring methodology, monitoring schedule, meteorological information are detailed in the monthly EM&A Reports prepared for Contract Nos. HY/2010/02 and HY/2011/03.

### 2.3 Action and Limit Levels

2.3.1 The Action and Limit Levels for 1-hr TSP and 24-hr TSP are provided in **Table 2.2** and **Table 2.3** respectively.

Table 2.2 Action and Limit Levels for 1-hour TSP

Monitoring Station	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
AMS6	360	500
AMS7A	370	

Table 2.3 Action and Limit Levels for 24-hour TSP

Monitoring Station	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
AMS6	173	260
AMS7A	183	

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2.3.2 If exceedance(s) at these stations is/are recorded by the ET of the Contract or referred by the other ET under the HZMB project to the Contract, the ET of the Contract will carry out an investigation and findings will be reported in the quarterly EM&A Report.

2.3.3 The Action and Limit Levels for construction noise are defined in **Table 2.4**.

Table 2.4 Action and Limit Level for Construction Noise

Monitoring Station	Action Level	Limit Level
For the Time Period 0700-1900 hrs. on Normal Weekdays		
NMS2	When one documented complaint is received	75.0 dB (A) Leq (30 min.)
NMS3B		70.0 dB (A) Leq (30 min.)*

Notes: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

\* Reduce to 70 dB(A) for schools and 65 dB(A) during school examination period.

2.3.4 If exceedance(s) at these stations is/are recorded by the ET of the Contract or referred by the other ET under the HZMB project to the Contract, the ET of the Contract will carry out an investigation and findings will be reported in the quarterly EM&A Report.

## 2.4 Event and Action Plans

2.4.1 The event and action plans for air quality and noise are provided in **Appendix D**.

## 2.5 Mitigation Measures

2.5.1 Environmental mitigation measures for the contract were recommended in the approved EIA Report. **Appendix E** lists the recommended mitigation measures and the implementation status.



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**3. ENVIRONMENTAL MONITORING AND AUDIT****3.1 Air Quality Monitoring Results**

- 3.1.1 The monitoring results for AMS6 and AMS7A are reported in the monthly EM&A Reports (for September 2015, October 2015 and November 2015) prepared for Contract Nos. HY/2011/03 and HY/2010/02 respectively.
- 3.1.2 Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 is reported in the monthly EM&A Reports (for September 2015, October 2015 and November 2015) prepared by Contract No. HY/2011/03.
- 3.1.3 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

**3.2 Noise Monitoring Results**

- 3.2.1 The monitoring results for NMS2 and NMS3B are reported in the monthly EM&A Reports (for September 2015, October 2015 and November 2015) prepared for Contract No. HY/2010/02.
- 3.2.2 No noise exceedances were recorded at stations NMS2 and NMS3B by the ET of Contract No. HY/2010/02 during the reporting period.

**3.3 Water Quality Monitoring Results**

- 3.3.1 There was no marine works conducted during the reporting period and therefore, no relevant monitoring result is reported. However, ET of the Contract shall closely monitor on the status of marine works, which shall conduct monitoring when marine works commence in the future.
- 3.3.2 The ET of the Contract is required to conduct impact water quality monitoring as part of EM&A programme if water quality monitoring is no longer covered by another ET of the HZMB project. The ETL shall review and obtain IEC, ENPO and EPD agreement on the contract specific water quality monitoring works at least a month before the commencement of any marine works.

**3.4 Ecology Monitoring Results**

- 3.4.1 There was no marine works conducted, no marine transportation and operation impacted to the ecology during the reporting period and therefore, no relevant monitoring result is reported. However, ET of the Contract shall closely monitor on the status of marine works, which shall conduct monitoring when marine works commence in the future.
- 3.4.2 The ET of the Contract is required to conduct ecology monitoring as part of EM&A programme if ecology monitoring is no longer covered by another ET of the HZMB project. The ETL shall review and obtain IEC, ENPO, AFCD and EPD agreement on the contract specific marine ecology monitoring works at least a month before the commencement of any marine works, marine transportation or operation.

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### **3.5 Implementation of Environmental Measures**

- 3.5.1 In response to the site audit findings, the Contractor carried out corrective actions. Details of site audit findings and the corrective actions during the reporting period are presented in **Appendix F**.
- 3.5.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix E**. All necessary mitigation measures at this stage of works were implemented properly.

### **3.6 Advice on the Solid and Liquid Waste Management Status**

- 3.6.1 The Contractor registered as a chemical waste producer for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 3.6.2 There was no generation of excavated sediment for treatment during this reporting period. Excavated marine sediment will be treated using cement solidification/stabilization (Cement S/S) techniques and will be reused onsite for either backfilling or landscaping (e.g. berm material). If off-site disposal is required, the excavated marine mud from the land-based works shall be disposed of at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee or other locations as agreed by the Director. The Contractor shall ensure no spilling and overflowing of materials during loading / unloading / transportation is allowed.
- 3.6.3 The summary of waste flow table is detailed in **Appendix G**.
- 3.6.4 The site activities include site clearance works, erection of site office at WA3, ground investigation at Portion G and site preparation work at Portion A1 contributed to the waste disposal during June 2015 to August 2015 prior to construction work commencement. These site activities generated 0.505 (in'000m<sup>3</sup>) of Inert C & D Materials and 0.136 (in'000m<sup>3</sup>) of Non-inert C & D Wastes during June 2015 to August 2015.

### **3.7 Environmental Licences and Permits**

- 3.7.1 The valid environmental licences and permits during the reporting period are summarized in **Appendix H**.

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#### 4. SUMMARY OF EXCEEDANCES, COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTION

##### 4.1 Summary of Exceedance of the Environmental Quality Performance Limit

- 4.1.1 Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 is reported in the monthly EM&A Reports (for September 2015, October 2015 and November 2015) prepared by Contract No. HY/2011/03.
- 4.1.2 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 4.1.3 There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

##### 4.2 Summary of Complaints, Notification of Summons and Successful Prosecution

- 4.2.1 There was one complaint received in relation to the environmental impact during the reporting period. The summary of environmental complaints is presented in **Table 4.1**. The details of cumulative statistics of Environmental Complaints are provided in **Appendix I**.

Table 4.1 Summary of Environmental Complaints for the Reporting Period

Log No.	Environmental Complaint Ref. No.	Date of Complaint Receipt	Description
001	ENPO-C0093	23 October 2015	Air & Noise

- 4.2.2 The complaint was received by EPD from a hotel guest living in the Hong Kong SkyCity Marriott Hotel on 23 October 2015 complained about the construction noise, dark smoke and construction dust from the construction site of HZMB near SKY CITY ROAD EAST at night time from Monday to Saturday 2200 to 0000 and Sundays and public holiday from 1 October 2015 to 23 October 2015. After investigation, it was concluded that the complaint was not related to the construction site activities of Contract No. HY/2013/03. Nevertheless, the contractor had been reminded to comply with the requirements stipulated in the Environmental Mitigation Implementation Schedule (EMIS) of the EM&A Manual, in particular:

- Air Quality:  
A3: The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.
- Construction Noise (air borne):  
N1: Use of good site practices to limit noise emissions: machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; and  
N5: sequencing operation of construction plants where practicable.

- 4.2.3 No notification of summons or prosecutions was received during the reporting period.

- 4.2.4 Statistics on notifications of summons and successful prosecutions are summarized in **Appendix I**.

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## **5. COMMENTS, RECOMMENDATIONS AND CONCLUSIONS**

### **5.1 Comments**

5.1.1 According to the environmental site inspections undertaken during the reporting period, the following recommendations were provided:

- CHEC was reminded to display EP on notice board in Portion A1.
- CHEC was reminded to provide drip tray for chemical containers at Portion A1.
- CHEC was reminded to label all chemical containers at Portion A1 and to provide drip tray for generator on site at Portion A1.
- CHEC was reminded to maintain house keeping practice at Portion A1.
- CHEC was reminded to water the site at least 8 times per day at Portion A1.
- CHEC was reminded that the load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle at CUE – Common Utility Enclosure.
- CHEC was reminded that good housekeeping practice shall be maintained on site.
- CHEC was reminded that stagnant water was found in manhole.
- CHEC was reminded that construction materials and stagnant water were found in the wells of rooftop.
- CHEC was reminded to fully cover the tarpaulin sheets properly for the exposed earth slope at CUE's works area.

5.1.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix E**. All necessary mitigation measures at this stage of works were implemented properly.

### **5.2 Recommendations**

5.2.1 With implementation of the recommended environmental mitigation measures, the contract's environmental impacts were considered environmentally acceptable. The weekly environmental site inspections ensured that all the environmental mitigation measures recommended were effectively implemented.

5.2.2 The recommended environmental mitigation measures, as included in the EM&A programme, effectively minimize the potential environmental impacts from the contract. Also, the EM&A programme effectively monitored the environmental impacts from the construction activities and ensure the proper implementation of mitigation measures. No particular recommendation was advised for the improvement of the programme.

### **5.3 Conclusions**

5.3.1 Commencement of the Contract took place on 10 April 2015 and the construction works of the Contract commenced on 29 August 2015. This is the 1<sup>st</sup> Quarterly EM&A Report summarising the findings of EM&A activities conducted under the Contract from 29 August 2015 to 30 November 2015.

5.3.2 Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A Reports (for September 2015, October 2015 and November 2015) prepared by Contract No. HY/2011/03.

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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, black, sans-serif font. The text is centered within a rectangular frame that has a thick black border on the top and bottom, and a thinner black border on the sides.

Report No.: 0165/15/ED/0213

- 5.3.3 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 5.3.4 There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 5.3.5 There was no marine works conducted during the reporting period and therefore, no water quality impact monitoring result is reported.
- 5.3.6 There was no marine transportation and operation during the reporting period and therefore, no ecology monitoring result is reported.
- 5.3.7 Environmental site inspection was carried out on 2, 11, 17 and 25 September 2015, 2, 8, 15, 23 and 29 October 2015, and 5, 13, 20 and 23 November 2015. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.
- 5.3.8 There was one complaint received in relation to the environmental impact during the reporting period. After investigation, it was found that the complaint was not related to the Contract.
- 5.3.9 There were no notifications of summons or prosecutions received during the reporting period.

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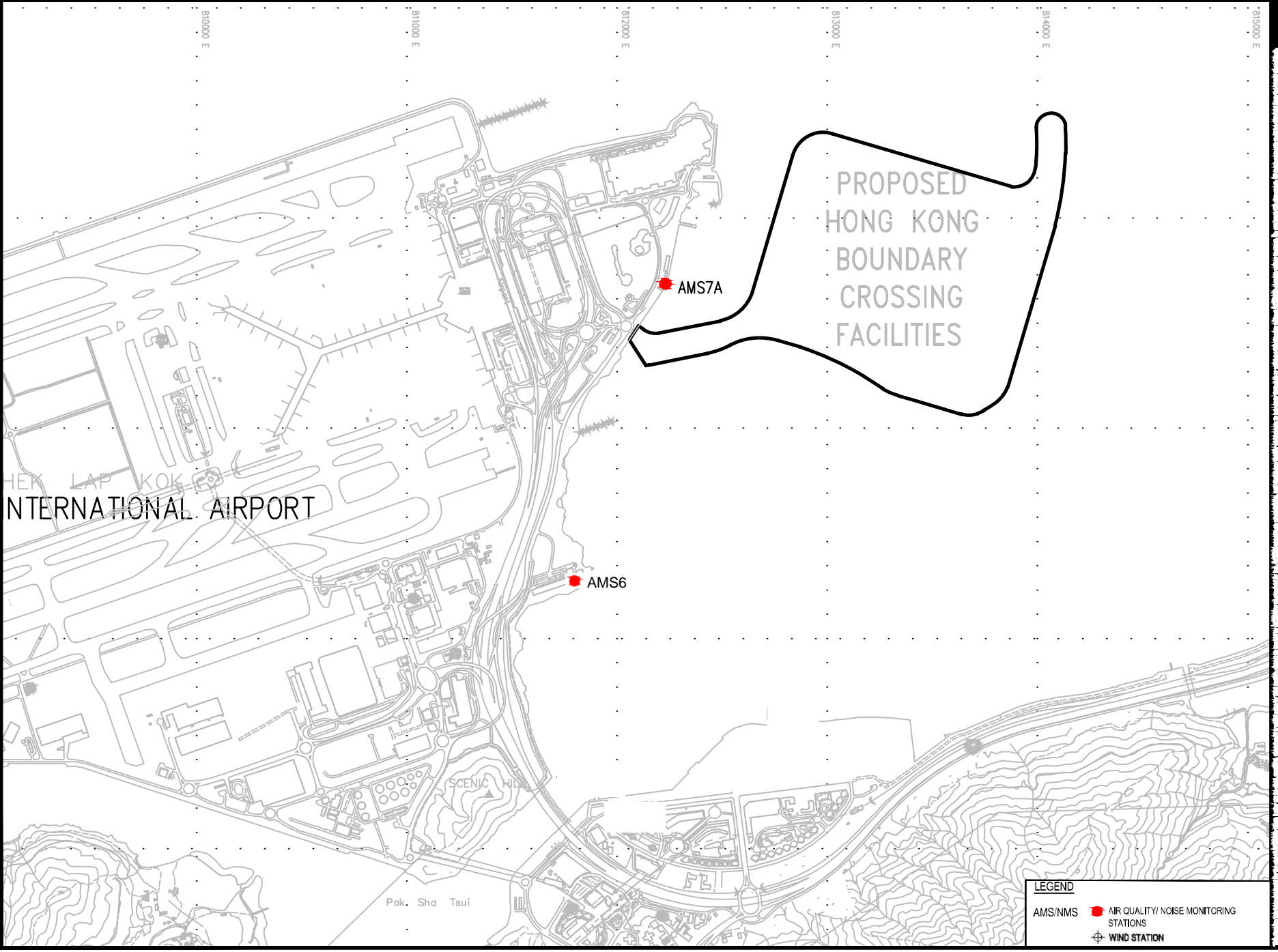
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### **Figure 1**

#### **Air Quality Monitoring Stations**





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### **Figure 2**

#### **Noise Monitoring Stations**



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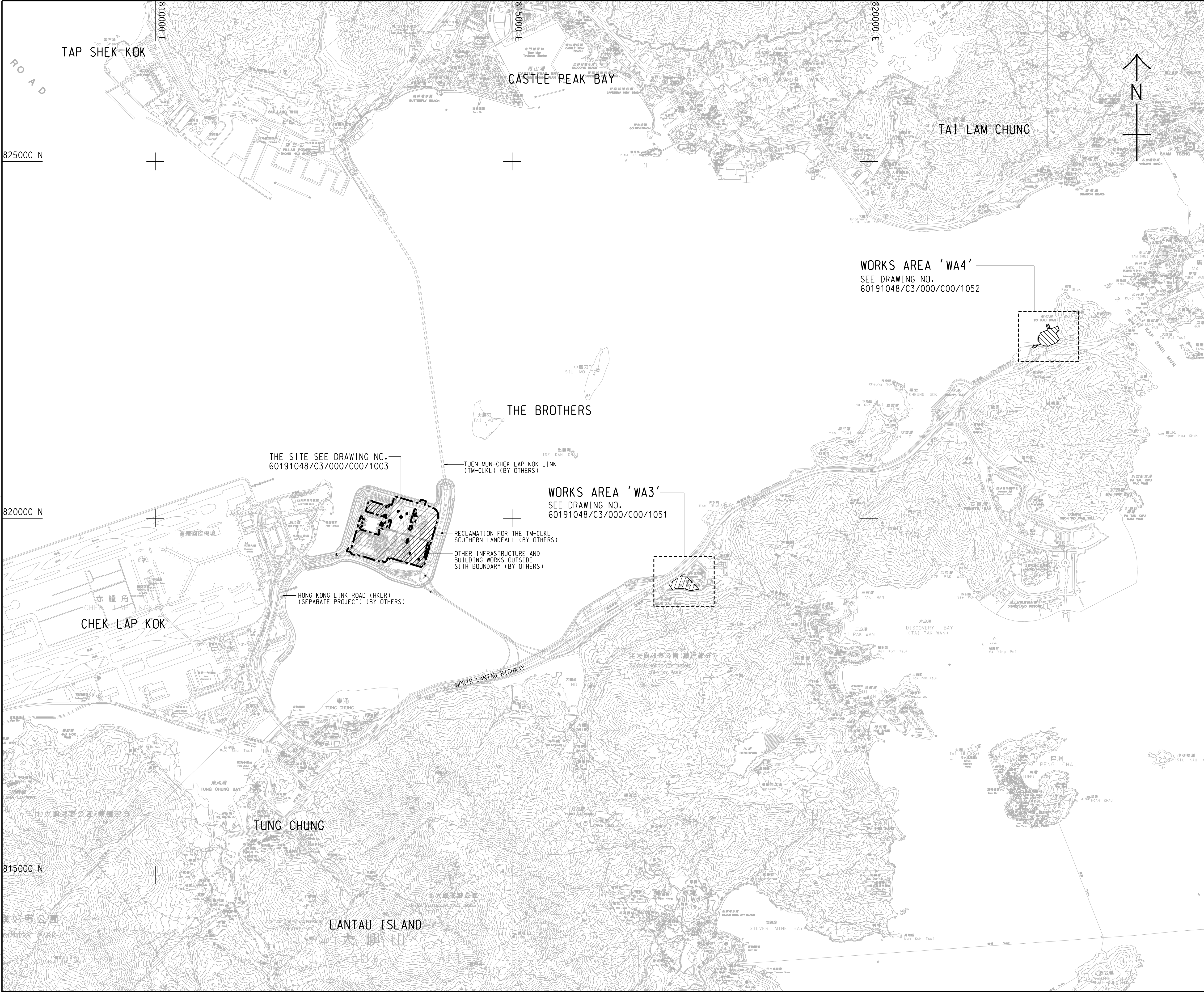
Report No.: 0165/15/ED/0213

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### **Appendix A**

#### **Location of Works Areas**





NOTES:

- COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
- DIMENSIONS ARE IN MILLIMETER AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 60191048/C3/000/C00/1051 TO 1053.

LEGEND:

- SITE BOUNDARY
- WORKS AREA

- TENDER DRAWING		BWCW SCI	MAR. 14
REV.	DESCRIPTION	DATE	DATE
01	ISSUED FOR TENDER	01/03/14	01/03/14

**HIGHWAYS DEPARTMENT**  
路政署  
香港大橋工程管理局  
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

HONG KONG-ZHUHAI-MACAO BRIDGE  
HONG KONG BOUNDARY CROSSING FACILITIES  
VEHICLE CLEARANCE PLAZAS AND  
ANCILLARY BUILDINGS AND FACILITIES

SITE LOCATION PLAN

**AECOM**  
Rogers Stirk Harbour + Partners  
BURO HAPPOLD ATKINS ADI

**Aedas**

DRG.NO. 60191048/C3/000/C00/1000  
圖紙編號

DESIGNED BY 設計	CONTRACT NO. 合約編號	P. Dir. APPROVED 批准人
BWCW	HY/2013/03	TKH

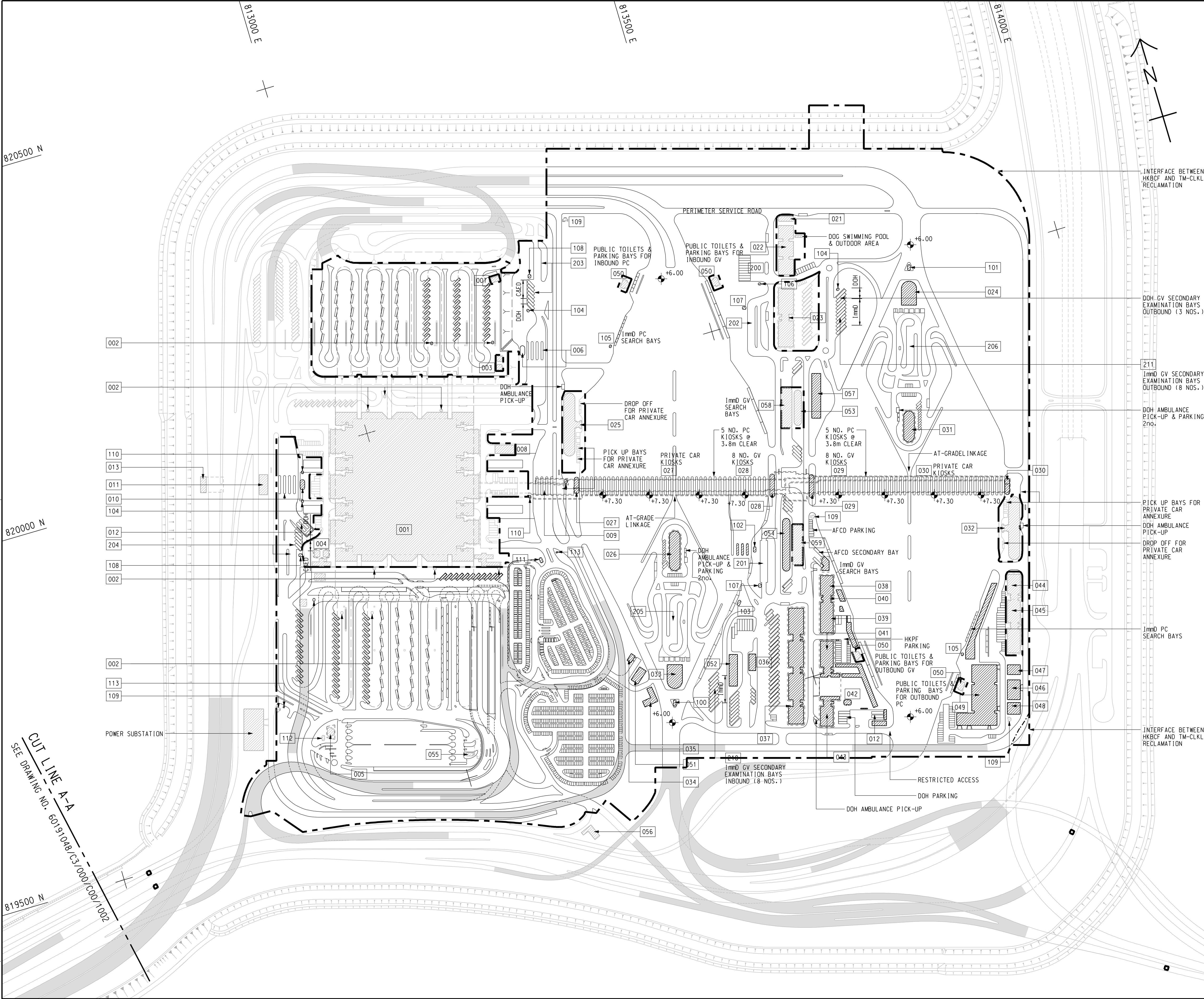
DRAWN BY 繪圖	STATUS 階段
WSY	

SCALE  
比例  
A1 1 : 25000

DIMENSIONS ARE IN  
尺寸單位  
METRES

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NOTE :

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH  
DRAWING NO. 60191048/C3/000/C00/1003.

LEGEND:

- SITE BOUNDARY
- VIADUCT
- BUILDING/FACILITIES

INTERFACE BETWEEN  
HKBCF AND TM-CLKL  
RECLAMATION

DOH GV SECONDARY  
EXAMINATION BAYS  
OUTBOUND (3 NOS.)

211  
Imm GV SECONDARY  
EXAMINATION BAYS  
OUTBOUND (8 NOS.)

DOH AMBULANCE  
PICK-UP & PARKING  
2no.

PICK UP BAYS FOR  
PRIVATE CAR  
ANNEXURE  
DOH AMBULANCE  
PICK-UP  
DROP OFF FOR  
PRIVATE CAR  
ANNEXURE

Imm PC  
SEARCH BAYS

INTERFACE BETWEEN  
HKBCF AND TM-CLKL  
RECLAMATION

-	TENDER DRAWING	BWCW SCI	MAR.14
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REV.	DESCRIPTION	DATE
01	ISSUED FOR TENDER	2014/03/26

HONG KONG-ZHUHAI-MACAO BRIDGE  
HONG KONG-BORDER CROSSING FACILITIES  
VEHICLE CLEARANCE PLAZAS AND  
ANCILLARY BUILDINGS AND FACILITIES

Figure 1-1  
Current Layout Plan

SHEET 1 OF 2

**AECOM**  
Rogers Stirk Harbour + Partners  
BURO HAPPOLD ATKINS ADI

**Aedas**

DRG.NO. 60191048/C3/000/C00/1001  
圖紙編號

DESIGNED BY 設計	BWCW	CONTRACT NO. 合約編號	HY/2013/03	P. DIR. APPROVED 批准人	TKH
DRAWN BY 繪圖	WSY	STATUS 階段			
SCALE 比例	A1 1 : 2500				
DIMENSIONS ARE IN 尺寸單位	METRES				

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CUT LINE A-A  
SEE DRAWING NO. 60191048/C3/000/C00/1002







# SETTING OUT POINT

POINT	EASTING	NORTHING
401	822488.151	822632.315
402	822640.593	822689.415
403	822515.608	822559.848
404	822610.940	822599.642
405	822629.428	822607.359
406	822526.988	822529.813
407	822618.348	822567.950
408	822542.232	822489.581
409	822584.983	822507.426
410	822606.866	822516.561
411	822560.278	822441.956
412	822602.949	822460.010
413	822621.914	822467.959
414	822624.130	822470.998
415	822651.725	822508.856
416	822644.758	822521.192

822600 N

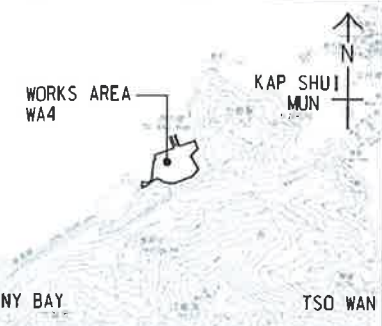
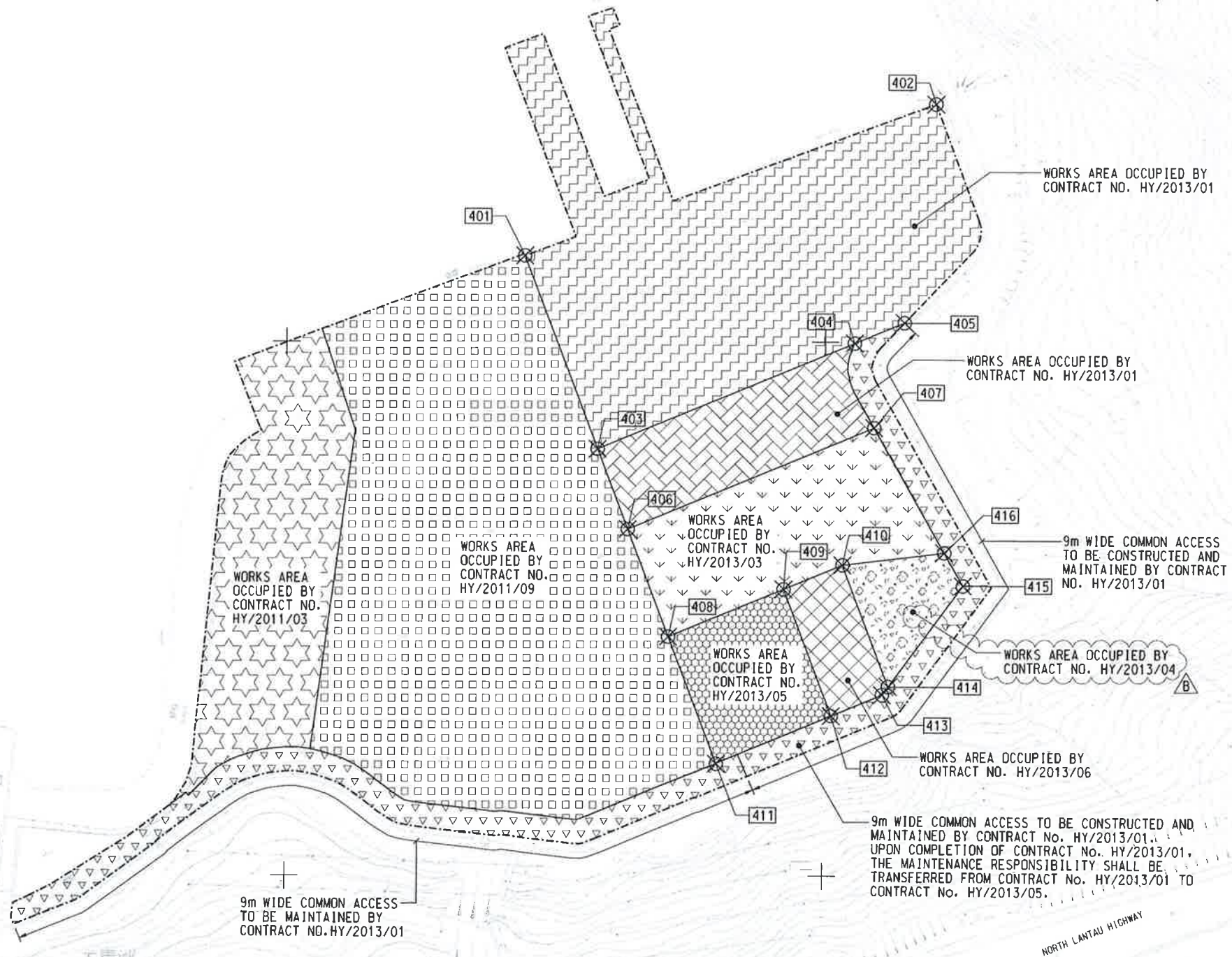
822400 N

Plot File by 2014/5/5 WANGSY

P:\PROJECTS\60191048\DRAWING\CONTRACT\C3\1000\C3\_000\_C00\_1052.dgn

822400 E

822600 E



LOCATION PLAN  
SCALE 1 : 25000

- NOTES:**
- COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
  - DIMENSIONS ARE IN MILLIMETER AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.

**LEGEND:**

-----	WORKS AREA BOUNDARY
[Pattern 1]	PORTION 4.1
[Pattern 2]	PORTION 4.2
[Pattern 3]	PORTION 4.3
[Pattern 4]	PORTION 4.4
[Pattern 5]	PORTION 4.5
[Pattern 6]	PORTION 4.6
[Pattern 7]	PORTION 4.7
[Pattern 8]	PORTION 4.8
[Pattern 9]	PORTION 4.9

**CONTROLLED DOCUMENT**

**FOR CONSTRUCTION**

C	WORKING DRAWING	BWCW SCI MAY.15
B	TENDER ADDENDUM NO. 2	BWCW SCI MAY.14
A	TENDER ADDENDUM NO. 1	BWCW SCI APR.14
-	TENDER DRAWING	BWCW SCI MAR.14

**HONG KONG - ZHUHAI - MACAO BRIDGE**  
HONG KONG - ZHUHAI - MACAO BRIDGE PROJECT MANAGEMENT OFFICE  
HONG KONG - ZHUHAI - MACAO BRIDGE PROJECT MANAGEMENT OFFICE  
HONG KONG - ZHUHAI - MACAO BRIDGE PROJECT MANAGEMENT OFFICE

WORKS AREA WA4

Rogers Stirk Harbour + Partners  
BURO HAPPOLD ATKINS ADI

DRGNO. 60191048/C3/000/C00/1052C  
圖紙編號

DESIGNED BY BWCW	CONTRACT NO. HY/2013/03	APPROVED BY TKH
DRAWN BY WSY	STATUS WORKING DRAWING	
SCALE A1 1 : 1000	DIMENSIONS ARE IN METRES	

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### **Appendix B**

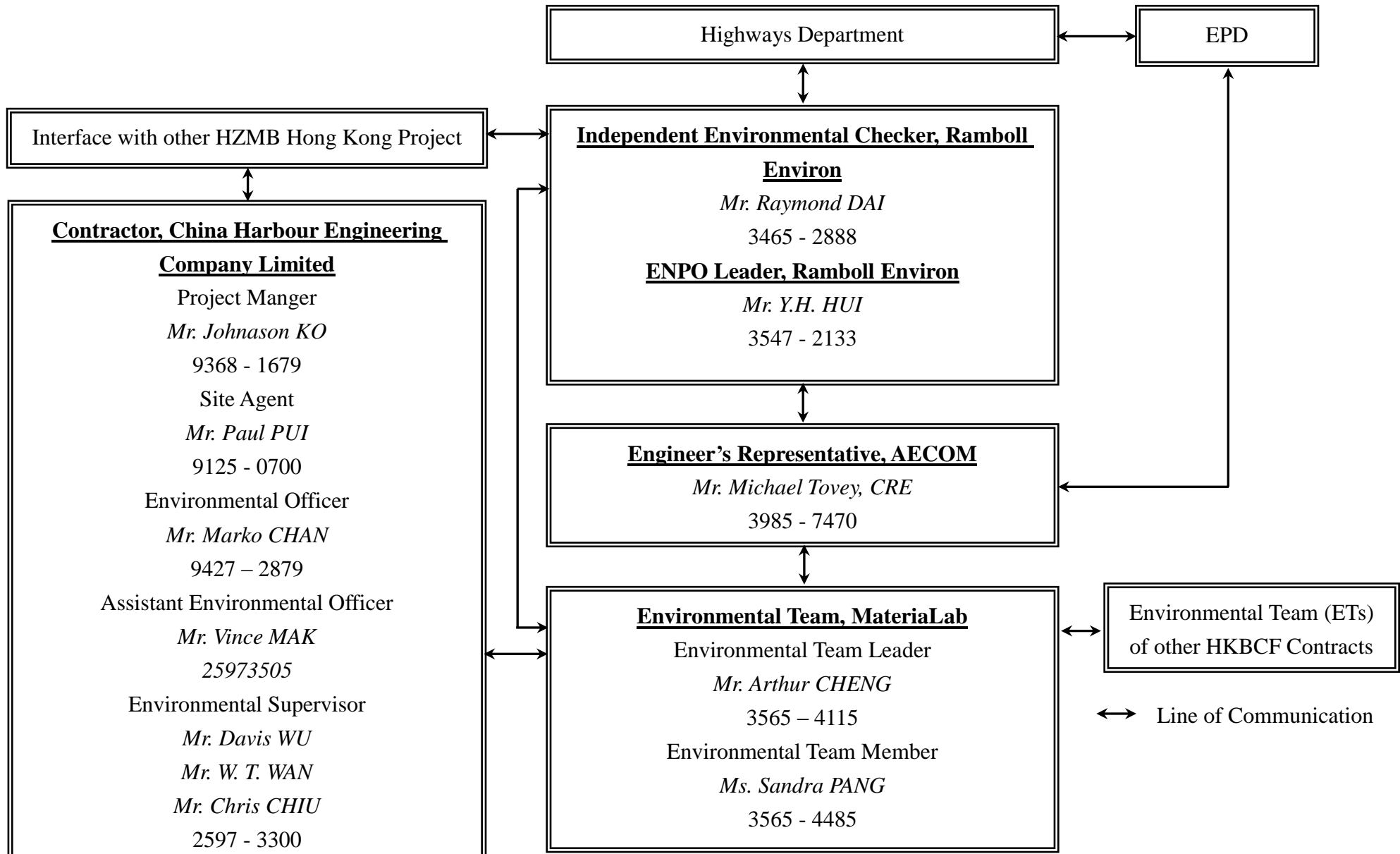
#### **Project Organization for Environmental Works**

# CHINA HARBOUR ENGINEERING COMPANY LIMITED



Contract No. HY/2013/03 Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing  
Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities

## Projects Organization for Environmental Works



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### **Appendix C**

#### **Construction Programme**

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								30-Sept-15					
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015					2016
								Sep	Oct	Nov	Dec	Jan	
HKBCF - VCP & Ancillary Buildings and Facilities, Rev. 3 UD													
CONTRACT DATES													
Site Access & Possession													
Possession of Portion of Site													
A0040	Possession of Portion C (<=100 days)	0	0	0%		30-Sep-15*	-73	◆ Possession of Portion C (<=100 days)					
A0050	Possession of Portion D (<=220 days)	0	0	0%		15-Nov-15*	0	◆ Possession of Portion D (<=220 days)					
A0060	Possession of Portion E (<=160 days)	0	0	100%		15-Sep-15 A		◆ Possession of Portion E (<=160 days)					
A0070	Possession of Portion F (<=220 days)	0	0	0%		15-Nov-15*	0	◆ Possession of Portion F (<=220 days)					
A0080	Possession of Portion G (<=225 days)	0	0	0%		20-Nov-15*	0	◆ Possession of Portion G (<=225 days)					
Section/Stage Subject to Excision													
A0740	Contract Date for Section IIB (100 days, latest date when the Engineer may order)	0	0	0%	30-Sep-15*		-74	◆ Contract Date for Section IIB (100 days, latest date when the Engineer may order)					
PORTION A1													
Portion A1 Structures													
Bridge A9													
Bored Pile													
S91010	Predrill SI, 10 nos.	61	61	0%	18-Nov-15	01-Feb-16	-82						
047 - Fresh Water Pumping Station, Portion A1 & A2													
A04700	Predrill SI, 4 nos.	12	12	0%	03-Dec-15	17-Dec-15	-63						
049 - Sewage Treatment Plant, Portion A1 & A2													
A04910	Predrill SI, 36 nos.	36	34	5%	22-Sep-15 A	18-Nov-15	-82						
A04920	Predrill SI, 3 nos.	6	6	0%	18-Nov-15	25-Nov-15	-82						
A04930	Approval of Rockhead & Foundation	14	14	0%	25-Nov-15	11-Dec-15	-82						
A04940	Bored Piling (39 Nr.)	127	127	0%	11-Dec-15	21-May-16	-82						
Portion A1 Buildings													
012 - DOH Disinsection Area and Store Room 1, at Portion A1													
A01210	Excavation & Blinding	10	10	0%	31-Oct-15	11-Nov-15	-51						
A01220	Raft Foundation	20	20	0%	12-Nov-15	04-Dec-15	-51						
A01240	Supersturcture	35	35	0%	05-Dec-15	18-Jan-16	-51						
036 - Weigh Station													
A03610	Excavation	10	0	100%	16-Sep-15 A	21-Sep-15 A							
A03620	Raft Foundation	50	45	10%	22-Sep-15 A	28-Jun-16	-62						
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)													
A03710	Excavation	14	14	0%	30-Sep-15	16-Oct-15	-84						
A03720	Substructure	50	50	0%	17-Oct-15	15-Dec-15	-84						
A03730	Super Structure	110	110	0%	16-Dec-15	04-May-16	-84						
041 Fire Station Cum Ambulance Deport													
A04100	Excavation + Blinding	14	14	0%	30-Sep-15	16-Oct-15	3						
042 Drill Tower													
A04200	Drill Tower (042) SI Drilling, 6 Nr.	19	0	100%	01-Sep-15 A	14-Sep-15 A							
A04210	Driven Piles 16 Nr.	15	15	0%	17-Dec-15	07-Jan-16	-63						
052 - Transforms (Zone 4)													

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								30-Sept-15					
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015					2016
								Sep	Oct	Nov	Dec	Jan	
A05200	Excavation	7	0	100%	01-Sep-15 A	04-Sep-15 A		<div></div>					
A05210	Substructure	22	0	100%	05-Sep-15 A	19-Sep-15 A		<div></div>					
A05220	Supersturcture	64	61	5%	21-Sep-15 A	11-Dec-15	-52	<div></div>	<div></div>				
A05230	Fitting out works in Tx Room to CLP (KD4)	55	55	0%	11-Dec-15	20-Feb-16	-52				<div></div>		
A05240	BS Installation (KD9)	66	66	0%	11-Dec-15	04-Mar-16	16				<div></div>		
A05250	Finishing (KD10)	87	87	0%	11-Dec-15	01-Apr-16	-5				<div></div>		
105 IMMD Guard Booth, Portion A1													
B10510	Excavation + Blinding	5	5	0%	12-Nov-15	17-Nov-15	0			<div></div>			
External Works for Portion A1													
Drainage Works													
B00010	Initial Survey	6	6	0%	17-Aug-15 A	07-Oct-15	-84	<div></div>	<div></div>				
SG0020	Drainage Works (4210m & 76MHs)	300	297	1%	16-Sep-15 A	10-Feb-17	-81	<div></div>					
SG0030	Sewerage (1063m & 30MHs)	300	300	0%	29-Dec-15	03-Jan-17	-52				<div></div>		
PORTION A2													
Portion A2 Structures													
048 - Reclaimed Water Pumping Station, Portion A2													
A04810	Predrill SI, 4 nos.	13	13	0%	18-Nov-15	03-Dec-15	-82			<div></div>			
A04820	Piling 4nr.	52	52	0%	17-Dec-15	23-Feb-16	-82				<div></div>		
External Works for Portion A2													
Drainage Works													
B00020	Initial Survey	6	6	0%	30-Sep-15	07-Oct-15	-81		<div></div>				
PORTION B													
Portion B Structures													
028 - Staff Subway													
C02810	ELS + Blind (Seg. 28-36 (12 Bay)	42	42	0%	15-Oct-15	03-Dec-15	-32		<div></div>				
C02820	Seg. 20-27 Construction - Base Slab	28	28	0%	30-Nov-15	04-Jan-16	-32				<div></div>		
C02830	Seg. 20-27 Construction - Wall + Top Slab	37	37	0%	23-Dec-15	06-Feb-16	-32				<div></div>		
Portion B Buildings													
027/028 Inbound Kiosks & 029 Outbound Kiosks													
A02700	Submission & Approval for Steel Works	50	50	0%	30-Sep-15	28-Nov-15	-13		<div></div>				
A02710	Pre-fabrication for the Steel Kiosks	100	100	0%	30-Nov-15	05-Apr-16	-13				<div></div>		
026 Inbound IMMD and DOH Secondary Screening Building													
A02610	Excavation + Blinding	10	10	0%	28-Oct-15	07-Nov-15	-54		<div></div>				
054 Inbound Fixed X-ray Building													
A05420	Excavation + Blinding	10	10	0%	30-Sep-15	12-Oct-15	-60		<div></div>				
A05430	Substructure	50	50	0%	13-Oct-15	10-Dec-15	-60		<div></div>				
A05440	Super Structure for Tx Room	60	60	0%	11-Dec-15	25-Feb-16	-60				<div></div>		
038 AFCD Office													
A03810	Excavation + Blinding	7	7	0%	28-Oct-15	04-Nov-15	7		<div></div>				
039 Police Main Building													
A03910	Excavation + Blinding	12	12	0%	30-Sep-15	14-Oct-15	-60		<div></div>				
A03920	Substructure	70	70	0%	15-Oct-15	08-Jan-16	-60		<div></div>				
040 Incident Control Tower													

Actual Work

 Remaining Work

Critical

Milestone

THREE MONTH ROLLING PROGRAMME (IWP REV.3)

VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

Page 2 of 5

Date	Revision	Checked	Approved
31-Jul-15	Initial Works Programme Rev. 2, 3MRP	ZJ	
31-Aug-15	Initial Works Programme Rev. 2, 3MRP	ZJ	
30-Sep-15	Initial Works Programme Rev. 3, 3MRP	ZJ	

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								30-Sept-15					
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015					2016
								Sep	Oct	Nov	Dec	Jan	
PORTION B	A04010	Excavation + Blinding	10	10	0%	15-Oct-15	27-Oct-15	0		<div></div>			
	Glass Wall												
	C04010	Shop Drawing Submission and Approval	30	30	0%	30-Sep-15	05-Nov-15	60		<div></div>			
	C04020	Fabrication of Glass Wall	60	60	0%	06-Nov-15	18-Jan-16	60			<div></div>		
	102 HKPF UVSS Monitor Room												
	A10200	Excavation + Blinding	7	7	0%	28-Oct-15	04-Nov-15	100		<div></div>			
	Metal Canopy and Roof Installation												
	B10210	Shop Drawing Submission and Approval	30	30	0%	22-Dec-15	28-Jan-16	55				<div></div>	
	103 Police Inspection Post												
	A10310	Excavation + Blinding	5	5	0%	22-Oct-15	27-Oct-15	-54		<div></div>			
PORTION C	HPL Composite Panel Cladding System												
	B10310	Shop Drawing Submission and Approval	30	30	0%	30-Sep-15	05-Nov-15	192		<div></div>			
	B10320	Fabrication of HPL Cladding	60	60	0%	06-Nov-15	18-Jan-16	192			<div></div>		
	057 Transformers (Zone 2)												
	A05710	Excavation + Blinding	10	10	0%	30-Sep-15	12-Oct-15	-60	<div></div>				
	A05720	Raft Foundation	52	52	0%	13-Oct-15	12-Dec-15	-60		<div></div>			
	A05730	Supersturcture	65	65	0%	14-Dec-15	04-Mar-16	-60				<div></div>	
	107 - C&ED Mobile X-ray Operation Office (Cargo), Portion B												
	C10710	Excavation + Blinding	7	7	0%	13-Oct-15	20-Oct-15	-60		<div></div>			
	C10720	Raft Foundation	32	32	0%	22-Oct-15	27-Nov-15	-60		<div></div>			
C10730	Superstructure (Roof Slabs)	62	62	0%	28-Nov-15	15-Feb-16	-60				<div></div>		
113 - Field Kiosk for Access Control, Portion B													
B11310	Excavation + Blinding	7	7	0%	09-Nov-15	16-Nov-15	-54			<div></div>			
B11320	Raft Foundation	32	32	0%	17-Nov-15	23-Dec-15	-54			<div></div>			
B11330	Superstructure (Roof Beams & Slabs)	60	60	0%	24-Dec-15	09-Mar-16	-54				<div></div>		
External Works for Portion B													
Drainage Works													
B00030	Initial Survey	12	12	0%	30-Sep-15	14-Oct-15	-60	<div></div>					
SG1540	Drainage Works (7812m & 168MHs)	360	360	0%	15-Oct-15	30-Dec-16	-55		<div></div>				
SG3580	Sewerage (1175m & 32MHs)	360	360	0%	15-Oct-15	30-Dec-16	-55		<div></div>				
Waterpipe Laying													
SW1550	Fresh Water Main Laying (1972m)	360	360	0%	11-Dec-15	01-Mar-17	-55				<div></div>		
SW1560	Flushing Water Main Laying (1851m)	360	360	0%	11-Dec-15	01-Mar-17	-55				<div></div>		
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
SU5300	Duct Laying for Utilities/Telecom Cabling	360	360	0%	11-Dec-15	01-Mar-17	-55				<div></div>		
Sign Gantry ADS 306A & ADS 306B													
SS0070	Sign Gantry ADS 306B SI Drilling, 2 Nr.	6	6	0%	28-Dec-15	05-Jan-16	-55				<div></div>		
SS0110	Sign Gantry ADS306A SI Drilling, 2 Nr.	7	7	0%	17-Dec-15	28-Dec-15	-55			<div></div>			
SS5230	Submission and approval for Sign Gantry	180	180	0%	30-Sep-15	11-May-16	-33	<div></div>					
PORTION C													
Portion C Buildings													
010 - Inbound Coach Kiosk & Staff Subway Entrance													
A01010	Substructure and Staircase Construction	60	60	0%	15-Oct-15	24-Dec-15	-60		<div></div>				
A01020	Kiosk Superstructure	100	100	0%	28-Dec-15	30-Apr-16	-34				<div></div>		
009 - Shuttle Bus Kiosk & Staff Subway Entrance													
A00910	ELS + Blinding (Seg. 1-7) (7 bay)	42	42	0%	15-Oct-15	03-Dec-15	-60		<div></div>				
A00920	Constructing Base Slab of Seg. 1-7	28	28	0%	30-Nov-15	04-Jan-16	-60				<div></div>		
A00930	Constructing Wall + Top Slab of Seg. 1-7	37	37	0%	23-Dec-15	06-Feb-16	-60				<div></div>		
<div><div></div> Actual Work</div> <div><div></div> Remaining Work</div> <div><div></div> Critical</div> <div><div></div> Milestone</div>		THREE MONTH ROLLING PROGRAMME (IWP REV.3) VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES Page 3 of 5						Date	Revision		Checked	Approved	
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								31-Aug-15	Initial Works Programme Rev. 2, 3MRP		ZJ		
								30-Sep-15	Initial Works Programme Rev. 3, 3MRP		ZJ		

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								30-Sept-15					
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015					2016
								Sep	Oct	Nov	Dec	Jan	
<b>012 - DOH Disinsection Area and Store Room 1, at Portion C</b>													
B01210	Excavation & Blinding	10	10	0%	13-Oct-15	24-Oct-15	-51		<div></div>				
<b>104 - DOH Secondary Screening Station, at Portion C</b>													
A10420	Excavation & Blinding	5	5	0%	26-Oct-15	30-Oct-15	-51		<div></div>				
<b>108 C&amp;ED Mobile X-ray Machine Operation Office, Portion C</b>													
A10805	Excavation & Blinding	5	5	0%	07-Oct-15	12-Oct-15	-51		<div></div>				
<b>HPL Composite Panel Cladding System</b>													
A10800	Shop Drawing Submission and Approval	30	30	0%	09-Nov-15	12-Dec-15	-20			<div></div>			
A10815	Fabrication of HPL Cladding	60	60	0%	14-Dec-15	27-Feb-16	-20				<div></div>		
<b>110 IMMD Guard Booth (Type 2)</b>													
A11020	Excavation & Blinding	5	5	0%	31-Oct-15	05-Nov-15	185		<div></div>				
<b>111 Field Kiosk for Carpark Operator</b>													
A11120	Excavation & Blinding	5	5	0%	17-Nov-15	21-Nov-15	117			<div></div>			
<b>113 - Field Kiosk for Access Control, Portion C</b>													
C11310	Excavation & Blinding	5	5	0%	30-Sep-15	06-Oct-15	-60	<div></div>					
C11320	Raft Foundation	30	30	0%	07-Oct-15	11-Nov-15	-60		<div></div>				
C11330	Superstructure (Roof Beams & Slabs)	60	60	0%	12-Nov-15	23-Jan-16	-60			<div></div>			
<b>External Works for Portion C</b>													
<b>Drainage Works</b>													
B00040	Initial Survey	12	12	0%	30-Sep-15	14-Oct-15	-60	<div></div>					
SG2400	Drainage Works (1695m & 32MHs)	150	150	0%	28-Dec-15	02-Jul-16	-60				<div></div>		
SG3610	Sewerage (186m & 4MHs)	150	150	0%	28-Dec-15	02-Jul-16	-39				<div></div>		
<b>PORTION D</b>													
<b>Portion D Building</b>													
<b>113 - Field Kiosk for Access Control, Portion D</b>													
C11350	Excavation & Blinding	5	5	0%	16-Nov-15	20-Nov-15	197			<div></div>			
<b>External Works for Portion D</b>													
<b>Drainage Works</b>													
B00050	Initial Survey	6	6	0%	16-Nov-15	21-Nov-15	85			<div></div>			
SG3640	Drainage Works (555m & 13MHs)	100	100	0%	23-Nov-15	24-Mar-16	85			<div></div>			
SG3760	Sewerage (121m & 6MHs)	100	100	0%	23-Nov-15	24-Mar-16	85			<div></div>			
<b>PORTION E</b>													
<b>External Works for Portion E</b>													
<b>Drainage Works</b>													
B00060	Initial Survey	6	6	0%	30-Sep-15	07-Oct-15	136	<div></div>					
<b>PORTION F</b>													
<b>External Works for Portion F</b>													
<b>Drainage Works</b>													
B00070	Initial Survey	6	6	0%	16-Nov-15	21-Nov-15	277			<div></div>			
<b>PORTION G, H1 &amp; H2</b>													
<b>Portion G Structures</b>													
<b>Box Culvert C</b>													
<b>Steel H Pile</b>													
SC0210	Predrill SI for Box Culvert C, 11 Nr.	66	7	90%	01-Sep-15 A	30-Dec-15	72	<div></div>			<div></div>		
<b>Bridge A1</b>													
<b>Bored Pile</b>													
<div><div></div> Actual Work</div> <div><div></div> Remaining Work</div> <div><div></div> Critical</div> <div><div></div> Milestone</div>		<b>THREE MONTH ROLLING PROGRAMME (IWP REV.3)</b> <b>VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES</b> Page 4 of 5						Date	Revision		Checked	Approved	
								31-Jul-15	Initial Works Programme Rev. 2, 3MRP		ZJ		
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								30-Sep-15	Initial Works Programme Rev. 3, 3MRP		ZJ		





HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								31-Oct-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015			2016	
								Oct	Nov	Dec	Jan	Feb
HKBCF - VCP & Ancillary Buildings and Facilities, Rev. 3 UD												
CONTRACT DATES												
Site Access & Possession												
Possession of Portion of Site												
A0040	Possession of Portion C (<=100 days)	0	0	0%		31-Oct-15*	-104	◆ Possession of Portion C (<=100 days)				
A0050	Possession of Portion D (<=220 days)	0	0	0%		15-Nov-15*	0		◆ Possession of Portion D (<=220 days)			
A0070	Possession of Portion F (<=220 days)	0	0	0%		15-Nov-15*	0		◆ Possession of Portion F (<=220 days)			
A0080	Possession of Portion G (<=225 days)	0	0	0%		20-Nov-15*	0		◆ Possession of Portion G (<=225 days)			
A0090	Possession of Portion H1 (<=273 days)	0	0	0%		07-Jan-16*	0		◆ Possession of Portion H1 (			
A0100	Possession of Portion H2 (<=273 days)	0	0	0%		07-Jan-16*	0		◆ Possession of Portion H2 (			
Section/Stage Subject to Excision												
A0710	Contract Date for Section IA (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*		0	◆ Contract Date for Section IIB (100 days, latest date when the Engineer may order)	◆ Contract Date for Section I			
A0720	Contract Date for Section IB (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*		0		◆ Contract Date for Section II			
A0740	Contract Date for Section IIB (100 days, latest date when the Engineer may order)	0	0	0%	31-Oct-15*		-105					
A0760	Contract Date for Section III (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*		0		◆ Contract Date for Section I			
A0810	Contract Date for Section IX (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0		◆ Contract Date for Section IX (			
A0820	Contract Date for Section X (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0		◆ Contract Date for Section X (2			
A0830	Contract Date for Stage 20 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0		◆ Contract Date for Stage 20 (2			
A0840	Contract Date for Stage 21 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0		◆ Contract Date for Stage 21 (2			
A0850	Contract Date for Stage 22 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0		◆ Contract Date for Stage 22 (2			
A0860	Contract Date for Stage 23 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0		◆ Contract Date for Stage 23 (2			
A0870	Contract Date for Stage 24 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0	◆ Contract Date for Stage 24 (2				
PORTION A1												
Portion A1 Structures												
Bridge A9												
Bored Pile												
S91010	Predrill SI, 10 nos.	61	61	0%	09-Nov-15	21-Jan-16	-73					
S91015	Bored pile for P904, A905, 4 nos.	58	58	0%	13-Jan-16	23-Mar-16	-73					
Box Culvert D												
Bored Pile												
SD0040	Bored Piling for Box Culvert D 45 nr.	128	127	1%	05-Oct-15 A	27-Aug-16	-73					
047 - Fresh Water Pumping Station, Portion A1 & A2												
A04700	Predrill SI, 4 nos.	12	12	0%	24-Nov-15	07-Dec-15	-55					
049 - Sewage Treatment Plant, Portion A1 & A2												
A04910	Predrill SI, 36 nos.	36	1	97.22%	22-Sep-15 A	07-Nov-15	-74					
A04920	Predrill SI, 3 nos.	6	6	0%	09-Nov-15	14-Nov-15	-74					
A04930	Approval of Rockhead & Foundation	14	14	0%	16-Nov-15	01-Dec-15	-74					
A04940	Bored Piling (39 Nr.)	127	127	0%	02-Dec-15	10-May-16	-74					
<div><div>Actual Work</div><div>Remaining Work</div><div>Critical</div><div>◆ Milestone</div></div>		THREE MONTH ROLLING PROGRAMME (IWP REV.3) VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES Page 1 of 6						Date	Revision		Checked	Approved
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								31-Oct-15	Initial Works Programme Rev. 3, 3MRP		ZJ	

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								31-Oct-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015			2016	
								Oct	Nov	Dec	Jan	Feb
A04950	Sheet Piling as ELS1 for Equalization Tanks	12	12	0%	30-Jan-16	16-Feb-16	-74					
Portion A1 Buildings												
012 - DOH Disinsection Area and Store Room 1, at Portion A1												
A01210	Excavation & Blinding	10	10	0%	30-Nov-15	10-Dec-15	-76					
A01220	Raft Foundation	20	20	0%	11-Dec-15	06-Jan-16	-76					
A01240	Supersturcture	35	35	0%	07-Jan-16	19-Feb-16	-76					
036 - Weigh Station												
A03620	Raft Foundation	50	0	100%	22-Sep-15 A	05-Oct-15 A						
A03630	Super Structure	90	36	60%	06-Oct-15 A	27-Jun-16	29					
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)												
A03710	Excavation	14	7	50%	07-Oct-15 A	07-Nov-15	-92					
A03720	Substructure	50	40	20%	13-Oct-15 A	24-Dec-15	-92					
A03730	Super Structure	110	110	0%	28-Dec-15	13-May-16	-92					
041 Fire Station Cum Ambulance Deport												
A04100	Excavation + Blinding	14	14	0%	31-Oct-15	16-Nov-15	-22					
A04110	Substructure	84	84	0%	28-Dec-15	12-Apr-16	-55					
042 Drill Tower												
A04210	Driven Piles 16 Nr.	15	15	0%	08-Dec-15	24-Dec-15	-55					
A04220	Piling Test	10	10	0%	28-Dec-15	08-Jan-16	-14					
A04230	Excavation	14	14	0%	09-Jan-16	25-Jan-16	-14					
A04240	Substructure	35	35	0%	26-Jan-16	09-Mar-16	-14					
052 - Transforms (Zone 4)												
A05220	Supersturcture	64	29	54%	21-Sep-15 A	04-Dec-15	-45					
A05230	Fitting out works in Tx Room to CLP (KD4)	55	55	0%	04-Dec-15	13-Feb-16	-45					
A05240	BS Installation (KD9)	66	66	0%	04-Dec-15	26-Feb-16	23					
A05250	Finishing (KD10)	87	87	0%	04-Dec-15	22-Mar-16	2					
105 IMMD Guard Booth, Portion A1												
B10510	Excavation + Blinding	5	5	0%	11-Dec-15	16-Dec-15	-25					
Facade Envelop Structure Installation												
B10580	Shop Drawing Submission and Approval	30	30	0%	04-Jan-16	06-Feb-16	17					
External Works for Portion A1												
Drainage Works												
B00010	Initial Survey	6	6	0%	17-Aug-15 A	06-Nov-15	-109					
SG0030	Sewerage (1063m & 30MHs)	300	300	0%	19-Dec-15	23-Dec-16	-45					
PORTION A2												
Portion A2 Structures												
048 - Reclaimed Water Pumping Station, Portion A2												
A04810	Predrill SI, 4 nos.	13	13	0%	09-Nov-15	23-Nov-15	-74					
A04820	Piling 4nr.	52	52	0%	08-Dec-15	12-Feb-16	-74					
External Works for Portion A2												
Drainage Works												
B00020	Initial Survey	6	6	0%	31-Oct-15	06-Nov-15	-106					
PORTION B												
Portion B Structures												

Actual Work

Remaining Work

Critical

Milestone

THREE MONTH ROLLING PROGRAMME (IWP REV.3)

VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

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Date	Revision	Checked	Approved
31-Aug-15	Initial Works Programme Rev. 2, 3MRP	ZJ	
30-Sep-15	Initial Works Programme Rev. 3, 3MRP	ZJ	
31-Oct-15	Initial Works Programme Rev. 3, 3MRP	ZJ	

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								31-Oct-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015			2016	
								Oct	Nov	Dec	Jan	Feb
<b>027 - Staff Subway</b>												
C02710	ELS + Blind (Seg. 8-19) (12 Bay)	47	47	0%	27-Oct-15 A	08-Apr-16	-82					
<b>028 - Staff Subway</b>												
C02810	ELS + Blind (Seg. 28-36 (12 Bay)	42	42	0%	14-Nov-15	05-Jan-16	-57					
C02820	Seg. 20-27 Construction - Base Slab	28	28	0%	31-Dec-15	02-Feb-16	-57					
C02830	Seg. 20-27 Construction - Wall + Top Slab	37	37	0%	25-Jan-16	10-Mar-16	-57					
<b>Portion B Buildings</b>												
<b>027/028 Inbound Kiosks &amp; 029 Outbound Kiosks</b>												
A02700	Submission & Approval for Steel Works	50	50	0%	31-Oct-15	30-Dec-15	-38					
A02710	Pre-fabrication for the Steel Kiosks	100	100	0%	31-Dec-15	05-May-16	-38					
<b>027/028 Inbound Kiosks &amp; 029 Outbound Kiosks, Section IX, Subject to Excision</b>												
B02730	Submission & Approval for Steel Works	75	75	0%	04-Jan-16	07-Apr-16	5					
<b>026 Inbound IMMD and DOH Secondary Screening Building</b>												
A02610	Excavation + Blinding	10	10	0%	26-Nov-15	07-Dec-15	-79					
<b>054 Inbound Fixed X-ray Building</b>												
A05420	Excavation + Blinding	10	10	0%	31-Oct-15	11-Nov-15	-85					
A05430	Substructure	50	50	0%	12-Nov-15	12-Jan-16	-85					
A05440	Super Structure for Tx Room	60	60	0%	13-Jan-16	29-Mar-16	-85					
<b>038 AFCD Office</b>												
A03810	Excavation + Blinding	7	7	0%	26-Nov-15	03-Dec-15	-18					
<b>039 Police Main Building</b>												
A03910	Excavation + Blinding	12	12	0%	31-Oct-15	13-Nov-15	-85					
A03920	Substructure	70	70	0%	14-Nov-15	06-Feb-16	-85					
<b>040 Incident Control Tower</b>												
A04010	Excavation + Blinding	10	10	0%	14-Nov-15	25-Nov-15	-25					
<b>Glass Wall</b>												
C04010	Shop Drawing Submission and Approval	30	30	0%	31-Oct-15	04-Dec-15	35					
C04020	Fabrication of Glass Wall	60	60	0%	05-Dec-15	19-Feb-16	35					
<b>102 HKPF UVSS Monitor Room</b>												
A10200	Excavation + Blinding	7	7	0%	26-Nov-15	03-Dec-15	75					
<b>Metal Canopy and Roof Installation</b>												
B10210	Shop Drawing Submission and Approval	30	30	0%	22-Dec-15	28-Jan-16	55					
B10212	Fabrication of MC/R	60	60	0%	29-Jan-16	15-Apr-16	55					
<b>103 Police Inspection Post</b>												
A10310	Excavation + Blinding	5	5	0%	20-Nov-15	25-Nov-15	-79					
<b>HPL Composite Panel Cladding System</b>												
B10310	Shop Drawing Submission and Approval	30	30	0%	31-Oct-15	04-Dec-15	167					
B10320	Fabrication of HPL Cladding	60	60	0%	05-Dec-15	19-Feb-16	167					
<b>057 Transformers (Zone 2)</b>												
A05710	Excavation + Blinding	10	10	0%	31-Oct-15	11-Nov-15	-85					
A05720	Raft Foundation	52	52	0%	12-Nov-15	14-Jan-16	-85					
A05730	Supersturcture	65	65	0%	15-Jan-16	07-Apr-16	-85					
<b>107 - C&amp;ED Mobile X-ray Operation Office (Cargo), Portion B</b>												
C10710	Excavation + Blinding	7	7	0%	12-Nov-15	19-Nov-15	-85					
C10720	Raft Foundation	32	32	0%	20-Nov-15	29-Dec-15	-85					
C10730	Superstructure (Roof Slabs)	62	62	0%	30-Dec-15	15-Mar-16	-85					
<b>113 - Field Kiosk for Access Control, Portion B</b>												
B11310	Excavation + Blinding	7	7	0%	08-Dec-15	15-Dec-15	-79					
B11320	Raft Foundation	32	32	0%	16-Dec-15	25-Jan-16	-79					
Actual Work		<b>THREE MONTH ROLLING PROGRAMME (IWP REV.3)</b> <b>VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES</b> Page 3 of 6						Date	Revision		Checked	Approved
Remaining Work								31-Aug-15	Initial Works Programme Rev. 2, 3MRP		ZJ	
Critical								30-Sep-15	Initial Works Programme Rev. 3, 3MRP		ZJ	
Milestone								31-Oct-15	Initial Works Programme Rev. 3, 3MRP		ZJ	

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								31-Oct-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015			2016	
								Oct	Nov	Dec	Jan	Feb
B11330	Superstructure (Roof Beams & Slabs)	60	60	0%	26-Jan-16	12-Apr-16	-79					
External Works for Portion B												
Drainage Works												
B00030	Initial Survey	12	12	0%	31-Oct-15	13-Nov-15	-85					
SG1540	Drainage Works (7812m & 168MHs)	360	360	0%	14-Nov-15	02-Feb-17	-80					
SG3580	Sewerage (1175m & 32MHs)	360	360	0%	14-Nov-15	02-Feb-17	-80					
Waterpipe Laying												
SW1550	Fresh Water Main Laying (1972m)	360	360	0%	13-Jan-16	30-Mar-17	-80					
SW1560	Flushing Water Main Laying (1851m)	360	360	0%	13-Jan-16	30-Mar-17	-80					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
SU5300	Duct Laying for Utilities/Telecom Cabling	360	360	0%	13-Jan-16	30-Mar-17	-80					
Sign Gantry ADS 306A & ADS 306B												
SS0070	Sign Gantry ADS 306B SI Drilling, 2 Nr.	6	6	0%	16-Dec-15	22-Dec-15	-46					
SS0110	Sign Gantry ADS306A SI Drilling, 2 Nr.	7	7	0%	08-Dec-15	15-Dec-15	-46					
SS5230	Submission and approval for Sign Gantry	180	180	0%	31-Oct-15	11-Jun-16	-58					
PORTION C												
Portion C Buildings												
010 - Inbound Coach Kiosk & Staff Subway Entrance												
A01010	Substructure and Staircase Construction	60	60	0%	14-Nov-15	26-Jan-16	-85					
A01020	Kiosk Superstructure	100	100	0%	27-Jan-16	01-Jun-16	-59					
009 - Shuttle Bus Kiosk & Staff Subway Entrance												
A00910	ELS + Blinding (Seg. 1-7) (7 bay)	42	42	0%	14-Nov-15	05-Jan-16	-82					
A00920	Constructing Base Slab of Seg. 1-7	28	28	0%	31-Dec-15	02-Feb-16	-82					
A00930	Constructing Wall + Top Slab of Seg. 1-7	37	37	0%	25-Jan-16	10-Mar-16	-82					
012 - DOH Disinsection Area and Store Room 1, at Portion C												
B01210	Excavation & Blinding	10	10	0%	12-Nov-15	23-Nov-15	-76					
104 - DOH Secondary Screening Station, at Portion C												
A10420	Excavation & Blinding	5	5	0%	24-Nov-15	28-Nov-15	-76					
108 C&ED Mobile X-ray Machine Operation Office, Portion C												
A10805	Excavation & Blinding	5	5	0%	06-Nov-15	11-Nov-15	-76					
HPL Composite Panel Cladding System												
A10800	Shop Drawing Submission and Approval	30	30	0%	10-Dec-15	16-Jan-16	-47					
A10815	Fabrication of HPL Cladding	60	60	0%	18-Jan-16	02-Apr-16	-47					
110 IMMD Guard Booth (Type 2)												
A11020	Excavation & Blinding	5	5	0%	30-Nov-15	04-Dec-15	160					
111 Field Kiosk for Carpark Operator												
A11120	Excavation & Blinding	5	5	0%	16-Dec-15	21-Dec-15	92					
113 - Field Kiosk for Access Control, Portion C												
C11310	Excavation & Blinding	5	5	0%	31-Oct-15	05-Nov-15	-85					
C11320	Raft Foundation	30	30	0%	06-Nov-15	10-Dec-15	-85					
C11330	Superstructure (Roof Beams & Slabs)	60	60	0%	11-Dec-15	25-Feb-16	-85					
External Works for Portion C												
Drainage Works												
B00040	Initial Survey	12	12	0%	31-Oct-15	13-Nov-15	-82					
SG2400	Drainage Works (1695m & 32MHs)	150	150	0%	27-Jan-16	01-Aug-16	-85					
SG3610	Sewerage (186m & 4MHs)	150	150	0%	27-Jan-16	01-Aug-16	-64					
PORTION D												
Portion D Building												
113 - Field Kiosk for Access Control, Portion D												
<div><div></div> Actual Work</div> <div><div></div> Remaining Work</div> <div><div></div> Critical</div> <div><div></div> Milestone</div>		THREE MONTH ROLLING PROGRAMME (IWP REV.3) VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES Page 4 of 6						Date	Revision		Checked	Approved
								31-Aug-15	Initial Works Programme Rev. 2, 3MRP		ZJ	
								30-Sep-15	Initial Works Programme Rev. 3, 3MRP		ZJ	
								31-Oct-15	Initial Works Programme Rev. 3, 3MRP		ZJ	



HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								31-Oct-15								
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016						
								Oct	Nov	Dec	Jan	Feb				
C11350	Excavation & Blinding	5	5	0%	05-Dec-15	10-Dec-15	180									
External Works for Portion D																
Drainage Works																
B00050	Initial Survey	6	6	0%	16-Nov-15	21-Nov-15	85									
SG3640	Drainage Works (555m & 13MHs)	100	100	0%	23-Nov-15	24-Mar-16	85									
SG3760	Sewerage (121m & 6MHs)	100	100	0%	23-Nov-15	24-Mar-16	85									
Waterpipe Laying																
SW3650	Fresh Water Main Laying (108m)	100	100	0%	23-Jan-16	28-May-16	85									
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting																
SU5340	Duct Laying for Utilities/Telecom Cabling	100	100	0%	23-Jan-16	28-May-16	109									
SU5350	Duct Laying for TCSS & Lighting	100	100	0%	23-Jan-16	28-May-16	109									
PORTION E																
External Works for Portion E																
Drainage Works																
B00060	Initial Survey	6	6	0%	31-Oct-15	06-Nov-15	111									
PORTION F																
External Works for Portion F																
Drainage Works																
B00070	Initial Survey	6	6	0%	16-Nov-15	21-Nov-15	277									
PORTION G, H1 & H2																
Portion G Structures																
Box Culvert C																
Steel H Pile																
SC0210	Predrill SI for Box Culvert C, 11 Nr.	66	0	100%	01-Sep-15 A	31-Oct-15 A										
SC0220	Predrill SI for Box Culvert C, 12 Nr.	36	0	100%	02-Oct-15 A	31-Oct-15 A										
SC0230	Predrill SI for Box Culvert C 19 Nr.	30	30	0%	23-Dec-15	29-Jan-16	66									
Bridge A1																
Bored Pile																
S10110	Predrill SI, 10 nos.	30	30	0%	05-Dec-15	12-Jan-16	85									
Bridge A4																
Bored Pile																
S42310	Predrill SI, (4 nos.)	10	0	100%	02-Oct-15 A	26-Oct-15 A										
S42320	Bore pile 4 Nr.	33	33	0%	23-Dec-15	02-Feb-16	-2									
Bridge A5																
Bored Pile																
S52610	Predrill SI, 15 nos.	18	0	100%	22-Sep-15 A	31-Oct-15 A										
S52620	Predrill SI for others 4 nos.	6	6	0%	05-Dec-15	11-Dec-15	29									
S52630	Bore piling for 19 Nr.	60	60	0%	05-Dec-15	19-Feb-16	18									
S52640	Pile Testing for P504, P505	7	7	0%	16-Jan-16	23-Jan-16	18									
Pile Cap																
S52710	Cap for P504, P505	30	30	0%	25-Jan-16	02-Mar-16	18									
Bridge A6																
Bored Pile																
S63510	Bore pile for P606, A607/A711, 6 Nr.	46	46	0%	23-Dec-15	20-Feb-16	-46									
Bridge A7a, A7b, A7c																
<div><div></div> Actual Work</div> <div><div></div> Remaining Work</div> <div><div></div> Critical</div> <div><div></div> Milestone</div>								THREE MONTH ROLLING PROGRAMME (IWP REV.3) VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES Page 5 of 6				Date	Revision		Checked	Approved
								31-Aug-15	Initial Works Programme Rev. 2, 3MRP		ZJ					
								30-Sep-15	Initial Works Programme Rev. 3, 3MRP		ZJ					
								31-Oct-15	Initial Works Programme Rev. 3, 3MRP		ZJ					

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								31-Oct-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015			2016	
								Oct	Nov	Dec	Jan	Feb
<b>Bored Pile</b>												
S74150	Predrill SI for P701, P702 - P705, 10 Nr.	30	30	0%	12-Dec-15	19-Jan-16	29					
<b>Bridge A8</b>												
<b>Bored Pile</b>												
S86110	Predrill SI for P803, P804 4 nos.	25	6	75%	30-Jul-15 A	29-Jan-16	35					
S86120	Predrill SI for P802 2 nos.	13	13	0%	05-Dec-15	19-Dec-15	66					
<b>Portion G Buildings</b>												
<b>033 Inbound Private Car Exam Building</b>												
A03300	Excavation + Blinding	10	10	0%	03-Dec-15	14-Dec-15	102					
<b>Glass Canopy Installation</b>												
B03300	Shop Drawing Submission and Approval	30	30	0%	11-Jan-16	17-Feb-16	119					
<b>Aluminium Metal Canopy</b>												
B03310	Shop Drawing Submission and Approval	30	30	0%	11-Jan-16	17-Feb-16	155					
<b>035 - Sewage Pumping Station, Portion G</b>												
A03525	Approval of Rockhead & Founding	14	14	0%	05-Dec-15	21-Dec-15	19					
<b>051 Transformers (Zone 5)</b>												
A05100	Excavation + Blinding	5	5	0%	21-Nov-15	26-Nov-15	0					
A05110	Substructure	15	15	0%	27-Nov-15	14-Dec-15	0					
A05140	Super Structure	35	35	0%	15-Dec-15	27-Jan-16	0					
A05150	Finishing	60	60	0%	28-Jan-16	14-Apr-16	121					
A05160	BS + E&M for Tx Room to CLP (Stage 3A)	59	59	0%	28-Jan-16	13-Apr-16	0					
<b>100 Inbound Traffic Control Kiosk</b>												
A10000	Excavation + Blinding	5	5	0%	27-Nov-15	02-Dec-15	45					
A10010	Raft Foundation	15	15	0%	28-Jan-16	17-Feb-16	0					
<b>HPL Composite Panel Cladding System</b>												
B10010	Shop Drawing Submission and Approval	30	30	0%	21-Nov-15	28-Dec-15	69					
B10015	Fabrication of F/C System	60	60	0%	29-Dec-15	11-Mar-16	69					
<b>External Works for Portion G, H1 &amp; H2</b>												
<b>Drainage Works</b>												
B00080	Initial Survey	12	12	0%	21-Nov-15	04-Dec-15	0					
<b>Sign Gantry DS40, DS41 &amp; DS75</b>												
SS0010	Sign Gantry DS40 SI Drilling, 3 Nr.	13	13	0%	16-Jan-16	30-Jan-16	64					
SS0030	Sign Gantry DS41 SI Drilling, 1 Nr.	13	13	0%	16-Jan-16	30-Jan-16	64					
SS0050	Sign Gantry DS75 SI Drilling, 2 Nr.	7	7	0%	08-Jan-16	15-Jan-16	64					
SS0170	Submission and approval for Sign Gantry	90	90	0%	21-Nov-15	11-Mar-16	14					
<b>PORTION J</b>												
<b>Portion J Structure</b>												
<b>030 Outbound Private Car &amp; GV Kiosks</b>												
A03010	Submission & Approval for Steel Works	60	60	0%	16-Dec-15	01-Mar-16	4					
<b>030 Outbound Kiosks, Section IX, Subject to Excision</b>												
C03010	Submission & Approval for Steel Works	100	100	0%	04-Jan-16	07-May-16	0					
<b>External Works for Portion J</b>												
<b>Sign Gantry DS104</b>												
SS0130	Sign Gantry DS104 SI Drilling, 2 Nr.	12	12	0%	15-Jan-16	28-Jan-16	186					

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								30-Nov-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016		
								Nov	Dec	Jan	Feb	Mar
HKBCF - VCP & Ancillary Buildings and Facilities, Rev. 3 UD												
CONTRACT DATES												
Key Dates												
A1040	KD4 Achievement of Stage 3B of the Works (250 days; 15 Dec. 15)	0	0	0%		04-Feb-16*	-51				◆ KD4 Achievement of Stage	
Site Access & Possession												
Possession of Portion of Site												
A0040	Possession of Portion C (<=100 days)	0	0	0%		30-Nov-15*	-134	◆ Possession of Portion C (<=100 days)				
A0050	Possession of Portion D (<=220 days)	0	0	0%		30-Nov-15*	-14	◆ Possession of Portion D (<=220 days)				
A0070	Possession of Portion F (<=220 days)	0	0	0%		30-Nov-15*	-14	◆ Possession of Portion F (<=220 days)				
A0080	Possession of Portion G (<=225 days)	0	0	0%		30-Nov-15*	-9	◆ Possession of Portion G (<=225 days)				
A0090	Possession of Portion H1 (<=273 days)	0	0	0%		07-Jan-16*	0			◆ Possession of Portion H1 (<=273 days)		
A0100	Possession of Portion H2 (<=273 days)	0	0	0%		07-Jan-16*	0			◆ Possession of Portion H2 (<=273 days)		
A0110	Possession of Portion J (<=320 days)	0	0	0%		23-Feb-16*	0				◆ Possession	
Section/Stage Subject to Excision												
A0710	Contract Date for Section IA (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*		0			◆ Contract Date for Section IA (273 days, latest date w		
A0720	Contract Date for Section IB (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*		0			◆ Contract Date for Section IB (273 days, latest date w		
A0740	Contract Date for Section IIB (100 days, latest date when the Engineer may order)	0	0	0%	30-Nov-15*		-135	◆ Contract Date for Section IIB (100 days, latest date when the Engineer may order)				
A0750	Contract Date for Section IIC (320 days, latest date when the Engineer may order)	0	0	0%	23-Feb-16*		0			◆ Contract Da		
A0760	Contract Date for Section III (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*		0			◆ Contract Date for Section III (273 days, latest date w		
A0810	Contract Date for Section IX (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0			◆ Contract Date for Section IX (270 days, latest date whe		
A0820	Contract Date for Section X (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0			◆ Contract Date for Section X (270 days, latest date whe		
A0830	Contract Date for Stage 20 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0			◆ Contract Date for Stage 20 (270 days, latest date whe		
A0840	Contract Date for Stage 21 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0			◆ Contract Date for Stage 21 (270 days, latest date whe		
A0850	Contract Date for Stage 22 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0			◆ Contract Date for Stage 22 (270 days, latest date whe		
A0860	Contract Date for Stage 23 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0			◆ Contract Date for Stage 23 (270 days, latest date whe		
A0870	Contract Date for Stage 24 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*		0			◆ Contract Date for Stage 24 (270 days, latest date whe		
PORTION A1												
Portion A1 Structures												
Bridge A9												
Bored Pile												
S91010	Predrill SI, 10 nos.	61	24	60%	10-Nov-15 A	07-Jan-16	-51					
S91015	Bored pile for P904, A905, 4 nos.	58	58	0%	28-Dec-15	09-Mar-16	-51					
047 - Fresh Water Pumping Station, Portion A1 & A2												
A04700	Predrill SI, 4 nos.	12	0	100%	03-Nov-15 A	23-Nov-15 A						
A04710	Piling 4nr.	50	50	0%	19-Feb-16	21-Apr-16	-79					
049 - Sewage Treatment Plant, Portion A1 & A2												
<div><div></div> Actual Work</div> <div><div></div> Remaining Work</div> <div><div></div> Critical</div> <div><div>◆</div> ◆ Milestone</div>					THREE MONTH ROLLING PROGRAMME (IWP REV.3) VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES Page 1 of 7			Date	Revision		Checked	Approved
							30-Sep-15	Initial Works Programme Rev. 3, 3MRP		ZJ		
							31-Oct-15	Initial Works Programme Rev. 3, 3MRP		ZJ		
							30-Nov-15	Initial Works Pogramme Rev. 3, 3MRP		ZJ		



HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								30-Nov-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016		
								Nov	Dec	Jan	Feb	Mar
A04910	Predrill SI, 36 nos.	36	0	100%	22-Sep-15 A	13-Nov-15 A						
A04920	Predrill SI, 3 nos.	6	0	100%	06-Nov-15 A	12-Nov-15 A						
A04930	Approval of Rockhead & Foundation	14	14	0%	07-Dec-15	22-Dec-15	-92					
A04940	Bored Piling (39 Nr.)	127	127	0%	23-Dec-15	01-Jun-16	-92					
A04950	Sheet Piling as ELS1 for Equalization Tanks	12	12	0%	24-Feb-16	08-Mar-16	-92					
Portion A1 Buildings												
012 - DOH Disinsection Area and Store Room 1, at Portion A1												
A01210	Excavation & Blinding	10	10	0%	31-Dec-15	12-Jan-16	-101					
A01220	Raft Foundation	20	20	0%	13-Jan-16	04-Feb-16	-101					
A01240	Supersturcture	35	35	0%	05-Feb-16	19-Mar-16	-101					
036 - Weigh Station												
A03630	Super Structure	90	0	100%	06-Oct-15 A	19-Nov-15 A						
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)												
A03710	Excavation	14	7	50%	07-Oct-15 A	07-Dec-15	-102					
A03720	Substructure	50	25	50%	13-Oct-15 A	08-Jan-16	-102					
A03730	Super Structure	110	110	0%	09-Jan-16	26-May-16	-102					
041 Fire Station Cum Ambulance Deport												
A04100	Excavation + Blinding	14	14	0%	30-Nov-15	15-Dec-15	-47					
A04110	Substructure	84	84	0%	24-Dec-15	11-Apr-16	-54					
042 Drill Tower												
A04210	Driven Piles 16 Nr.	15	15	0%	07-Dec-15	23-Dec-15	-54					
A04220	Piling Test	10	10	0%	24-Dec-15	07-Jan-16	-13					
A04230	Excavation	14	14	0%	08-Jan-16	23-Jan-16	-13					
A04240	Substructure	35	35	0%	25-Jan-16	08-Mar-16	-13					
052 - Transforms (Zone 4)												
A05220	Supersturcture	64	0	100%	21-Sep-15 A	30-Nov-15 A						
A05230	Fitting out works in Tx Room to CLP (KD4)	55	55	0%	30-Nov-15	04-Feb-16	-41					
A05235	Energisation by CLP	50	50	0%	05-Feb-16	11-Apr-16	0					
A05240	BS Installation (KD9)	66	66	0%	30-Nov-15	20-Feb-16	27					
A05250	Finishing (KD10)	87	87	0%	30-Nov-15	16-Mar-16	6					
105 IMMD Guard Booth, Portion A1												
B10510	Excavation + Blinding	5	5	0%	13-Jan-16	18-Jan-16	-50					
Facade Envelop Structure Installation												
B10580	Shop Drawing Submission and Approval	30	30	0%	04-Jan-16	06-Feb-16	17					
B10590	Fabrication of F/C System	60	60	0%	11-Feb-16	25-Apr-16	17					
External Works for Portion A1												
Drainage Works												
B00010	Initial Survey	6	6	0%	17-Aug-15 A	05-Dec-15	-134					
SG0030	Sewerage (1063m & 30MHs)	300	300	0%	15-Dec-15	17-Dec-16	-41					
PORTION A2												
Portion A2 Structures												
048 - Reclaimed Water Pumping Station, Portion A2												

Actual Work

Remaining Work

Critical

Milestone

THREE MONTH ROLLING PROGRAMME (IWP REV.3)

VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

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Date

Revision

Checked

Approved

30-Sep-15

Initial Works Programme Rev. 3, 3MRP

ZJ

31-Oct-15

Initial Works Programme Rev. 3, 3MRP

ZJ

30-Nov-15

Initial Works Pogramme Rev. 3, 3MRP

ZJ

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities								30-Nov-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016		
								Nov	Dec	Jan	Feb	Mar
A04810	Predrill SI, 4 nos.	13	0	100%	03-Nov-15 A	23-Nov-15 A		<div></div>				
	A04820	Piling 4nr.	52	52	0%	14-Dec-15	18-Feb-16	-79		<div></div>		
	A04830	Sheet Piling as ELS for Basement 1	12	12	0%	19-Feb-16	03-Mar-16	-79				<div></div>
External Works for Portion A2												
Drainage Works												
B00020	Initial Survey	6	6	0%	30-Nov-15	05-Dec-15	-131		<div></div>			
PORTION B												
Portion B Structures												
027 - Staff Subway												
C02720	Seg. 8-13 Construction - Base Slab	21	19	10%	03-Nov-15 A	13-Apr-16	-68	<div></div>				
028 - Staff Subway												
C02810	ELS + Blind (Seg. 28-36 (12 Bay)	42	42	0%	14-Dec-15	03-Feb-16	-82		<div></div>			
C02820	Seg. 20-27 Construction - Base Slab	28	28	0%	30-Jan-16	05-Mar-16	-82				<div></div>	
C02830	Seg. 20-27 Construction - Wall + Top Slab	37	37	0%	26-Feb-16	13-Apr-16	-82					<div></div>
Portion B Buildings												
027/028 Inbound Kiosks & 029 Outbound Kiosks												
A02700	Submission & Approval for Steel Works	50	50	0%	30-Nov-15	29-Jan-16	-63		<div></div>			
A02710	Pre-fabrication for the Steel Kiosks	100	100	0%	30-Jan-16	04-Jun-16	-63				<div></div>	
027/028 Inbound Kiosks & 029 Outbound Kiosks, Section IX, Subject to Excision												
B02730	Submission & Approval for Steel Works	75	75	0%	04-Jan-16	07-Apr-16	5			<div></div>		
026 Inbound IMMD and DOH Secondary Screening Building												
A02610	Excavation + Blinding	10	10	0%	28-Dec-15	08-Jan-16	-104		<div></div>			
054 Inbound Fixed X-ray Building												
A05420	Excavation + Blinding	10	10	0%	30-Nov-15	10-Dec-15	-110	<div></div>				
A05430	Substructure	50	50	0%	11-Dec-15	13-Feb-16	-110		<div></div>			
A05440	Super Structure for Tx Room	60	60	0%	15-Feb-16	28-Apr-16	-110				<div></div>	
038 AFCD Office												
A03810	Excavation + Blinding	7	7	0%	28-Dec-15	05-Jan-16	-43		<div></div>			
039 Police Main Building												
A03910	Excavation + Blinding	12	12	0%	30-Nov-15	12-Dec-15	-110	<div></div>				
A03920	Substructure	70	70	0%	14-Dec-15	10-Mar-16	-110		<div></div>			
040 Incident Control Tower												
A04010	Excavation + Blinding	10	10	0%	14-Dec-15	24-Dec-15	-50		<div></div>			
Facade Cladding System												
B04010	Shop Drawing Submission and Approval	30	30	0%	03-Feb-16	11-Mar-16	94				<div></div>	
Glass Wall												
C04010	Shop Drawing Submission and Approval	30	30	0%	30-Nov-15	06-Jan-16	10	<div></div>				
C04020	Fabrication of Glass Wall	60	60	0%	07-Jan-16	19-Mar-16	10			<div></div>		
102 HKPF UVSS Monitor Room												
A10200	Excavation + Blinding	7	7	0%	28-Dec-15	05-Jan-16	50		<div></div>			
Metal Canopy and Roof Installation												
B10210	Shop Drawing Submission and Approval	30	30	0%	22-Dec-15	28-Jan-16	55		<div></div>			
B10212	Fabrication of MC/R	60	60	0%	29-Jan-16	15-Apr-16	55			<div></div>		
103 Police Inspection Post												
A10310	Excavation + Blinding	5	5	0%	19-Dec-15	24-Dec-15	-104		<div></div>			
HPL Composite Panel Cladding System												
B10310	Shop Drawing Submission and Approval	30	30	0%	30-Nov-15	06-Jan-16	142	<div></div>				

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities									30-Nov-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016			
								Nov	Dec	Jan	Feb	Mar	
B10320	Fabrication of HPL Cladding	60	60	0%	07-Jan-16	19-Mar-16	142						
057 Transformers (Zone 2)													
A05710	Excavation + Blinding	10	10	0%	30-Nov-15	10-Dec-15	-110						
A05720	Raft Foundation	52	52	0%	11-Dec-15	16-Feb-16	-110						
A05730	Supersturcture	65	65	0%	17-Feb-16	07-May-16	-110						
107 - C&ED Mobile X-ray Operation Office (Cargo), Portion B													
C10710	Excavation + Blinding	7	7	0%	11-Dec-15	18-Dec-15	-110						
C10720	Raft Foundation	32	32	0%	19-Dec-15	28-Jan-16	-110						
C10730	Superstructure (Roof Slabs)	62	62	0%	29-Jan-16	18-Apr-16	-110						
113 - Field Kiosk for Access Control, Portion B													
B11310	Excavation + Blinding	7	7	0%	09-Jan-16	16-Jan-16	-104						
B11320	Raft Foundation	32	32	0%	18-Jan-16	26-Feb-16	-104						
B11330	Superstructure (Roof Beams & Slabs)	60	60	0%	27-Feb-16	12-May-16	-104						
External Works for Portion B													
Drainage Works													
B00030	Initial Survey	12	12	0%	30-Nov-15	12-Dec-15	-110						
SG1540	Drainage Works (7812m & 168MHs)	360	360	0%	14-Dec-15	03-Mar-17	-105						
SG3580	Sewerage (1175m & 32MHs)	360	360	0%	14-Dec-15	03-Mar-17	-105						
Waterpipe Laying													
SW1550	Fresh Water Main Laying (1972m)	360	360	0%	15-Feb-16	05-May-17	-105						
SW1560	Flushing Water Main Laying (1851m)	360	360	0%	15-Feb-16	05-May-17	-105						
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
SU5300	Duct Laying for Utilities/Telecom Cabling	360	360	0%	15-Feb-16	05-May-17	-105						
Sign Gantry ADS 306A & ADS 306B													
SS0070	Sign Gantry ADS 306B SI Drilling, 2 Nr.	6	6	0%	15-Dec-15	21-Dec-15	-36						
SS0110	Sign Gantry ADS306A SI Drilling, 2 Nr.	7	7	0%	07-Dec-15	14-Dec-15	-36						
SS5230	Submission and approval for Sign Gantry	180	180	0%	30-Nov-15	12-Jul-16	-83						
PORTION C													
Portion C Buildings													
010 - Inbound Coach Kiosk & Staff Subway Entrance													
A01010	Substructure and Staircase Construction	60	60	0%	14-Dec-15	27-Feb-16	-110						
009 - Shuttle Bus Kiosk & Staff Subway Entrance													
A00910	ELS + Blinding (Seg. 1-7) (7 bay)	42	42	0%	14-Dec-15	03-Feb-16	-98						
A00920	Constructing Base Slab of Seg. 1-7	28	28	0%	30-Jan-16	05-Mar-16	-98						
A00930	Constructing Wall + Top Slab of Seg. 1-7	37	37	0%	26-Feb-16	13-Apr-16	-98						
012 - DOH Disinsection Area and Store Room 1, at Portion C													
B01210	Excavation & Blinding	10	10	0%	11-Dec-15	22-Dec-15	-101						
104 - DOH Secondary Screening Station, at Portion C													
A10420	Excavation & Blinding	5	5	0%	23-Dec-15	30-Dec-15	-101						
108 C&ED Mobile X-ray Machine Operation Office, Portion C													
A10805	Excavation & Blinding	5	5	0%	05-Dec-15	10-Dec-15	-101						
HPL Composite Panel Cladding System													
A10800	Shop Drawing Submission and Approval	30	30	0%	09-Jan-16	16-Feb-16	-70						
A10815	Fabrication of HPL Cladding	60	60	0%	17-Feb-16	30-Apr-16	-70						
110 IMMD Guard Booth (Type 2)													
A11020	Excavation & Blinding	5	5	0%	31-Dec-15	06-Jan-16	135						
111 Field Kiosk for Carpark Operator													
A11120	Excavation & Blinding	5	5	0%	18-Jan-16	22-Jan-16	67						
113 - Field Kiosk for Access Control, Portion C													

Actual Work

Remaining Work

Critical

Milestone

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VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities									30-Nov-15				
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016			
								Nov	Dec	Jan	Feb	Mar	
	C11310	Excavation & Blinding	5	5	0%	30-Nov-15	04-Dec-15	-110					
	C11320	Raft Foundation	30	30	0%	05-Dec-15	12-Jan-16	-110					
	C11330	Superstructure (Roof Beams & Slabs)	60	60	0%	13-Jan-16	29-Mar-16	-110					
External Works for Portion C													
Drainage Works													
B00040	Initial Survey	12	12	0%	30-Nov-15	12-Dec-15	-98						
PORTION D													
Portion D Building													
113 - Field Kiosk for Access Control, Portion D													
C11350	Excavation & Blinding	5	5	0%	07-Jan-16	12-Jan-16	155						
External Works for Portion D													
Drainage Works													
B00050	Initial Survey	6	6	0%	30-Nov-15	05-Dec-15	73						
SG3640	Drainage Works (555m & 13MHs)	100	100	0%	07-Dec-15	12-Apr-16	73						
SG3760	Sewerage (121m & 6MHs)	100	100	0%	07-Dec-15	12-Apr-16	73						
Waterpipe Laying													
SW3650	Fresh Water Main Laying (108m)	100	100	0%	06-Feb-16	13-Jun-16	73						
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
SU5340	Duct Laying for Utilities/Telecom Cabling	100	100	0%	06-Feb-16	13-Jun-16	97						
SU5350	Duct Laying for TCSS & Lighting	100	100	0%	06-Feb-16	13-Jun-16	97						
PORTION E													
External Works for Portion E													
Drainage Works													
B00060	Initial Survey	6	6	0%	30-Nov-15	05-Dec-15	86						
PORTION F													
External Works for Portion F													
Drainage Works													
B00070	Initial Survey	6	6	0%	30-Nov-15	05-Dec-15	265						
PORTION G, H1 & H2													
Portion G Structures													
Box Culvert C													
Steel H Pile													
SC0210	Predrill SI for Box Culvert C, 11 Nr.	66	0	100%	01-Sep-15 A	31-Oct-15 A							
SC0220	Predrill SI for Box Culvert C, 12 Nr.	36	0	100%	02-Oct-15 A	31-Oct-15 A							
SC0230	Predrill SI for Box Culvert C 19 Nr.	30	6	80%	02-Nov-15 A	30-Dec-15	91						
SC5130	Box C - 164 nos. of driven H pile	60	60	0%	15-Jan-16	31-Mar-16	91						
Bridge A1													
Bored Pile													
S10110	Predrill SI, 10 nos.	30	30	0%	14-Dec-15	20-Jan-16	78						
Bridge A2													
Bored Pile													
S21410	Bore pile + P301 + P601, (6 + 4) Nr.	73	73	0%	26-Nov-15 A	27-Aug-16	-92						
Bridge A3													
Bored Pile													
S31630	Bore piling for A305, P304a/b (5 Nr.)	43	43	0%	02-Feb-16	29-Mar-16	-1						
<div><div></div> Actual Work</div> <div><div></div> Remaining Work</div> <div><div></div> Critical</div> <div><div></div> Milestone</div>		THREE MONTH ROLLING PROGRAMME (IWP REV.3) VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES Page 5 of 7						Date	Revision		Checked	Approved	
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities										30-Nov-15							
Activity ID		Activity Name		Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016					
										Nov	Dec	Jan	Feb	Mar			
<b>Bridge A4</b>																	
<b>Bored Pile</b>																	
S42320		Bore pile 4 Nr.		33	33	0%	22-Dec-15	01-Feb-16	-1								
S42340		Pile Testing		7	7	0%	16-Feb-16	23-Feb-16	24								
<b>Pile Cap</b>																	
S42360		Cap - Pier P401		30	30	0%	24-Feb-16	01-Apr-16	24								
S42370		Cap - Pier P402		30	30	0%	24-Feb-16	01-Apr-16	24								
<b>Bridge A5</b>																	
<b>Bored Pile</b>																	
S52610		Predrill SI, 15 nos.		18	0	100%	22-Sep-15 A	31-Oct-15 A									
S52620		Predrill SI for others 4 nos.		6	6	0%	14-Dec-15	19-Dec-15	37								
S52630		Bore piling for 19 Nr.		60	60	0%	14-Dec-15	27-Feb-16	11								
S52640		Pile Testing for P504, P505		7	7	0%	25-Jan-16	01-Feb-16	11								
<b>Pile Cap</b>																	
S52710		Cap for P504, P505		30	30	0%	02-Feb-16	10-Mar-16	11								
<b>Bridge A6</b>																	
<b>Bored Pile</b>																	
S63510		Bore pile for P606, A607/A711, 6 Nr.		46	46	0%	22-Dec-15	19-Feb-16	-36								
<b>Bridge A7a, A7b, A7c</b>																	
<b>Bored Pile</b>																	
S74150		Predrill SI for P701, P702 - P705, 10 Nr.		30	30	0%	21-Dec-15	27-Jan-16	37								
S74170		Bore Piling for A701, P702 - P705, 10 Nr.		42	42	0%	20-Nov-15 A	21-Apr-16	13								
<b>Bridge A8</b>																	
<b>Bored Pile</b>																	
S86110		Predrill SI for P803, P804 4 nos.		25	0	100%	30-Jul-15 A	23-Nov-15 A									
S86120		Predrill SI for P802 2 nos.		13	0	100%	17-Nov-15 A	23-Nov-15 A									
<b>Retaining Walls W1-1, W3-1, W5-1 &amp; W7-1</b>																	
<b>Retaining Wall W3-1</b>																	
S37110		Predrill SI for W3-1, 12 Nr.		36	0	100%	12-Sep-15 A	27-Nov-15 A									
S37120		Predrill SI for W3-1, other 4 Nr.		12	0	100%	02-Nov-15 A	27-Nov-15 A									
<b>Portion G Buildings</b>																	
<b>033 Inbound Private Car Exam Building</b>																	
A03300		Excavation + Blinding		10	10	0%	11-Dec-15	22-Dec-15	95								
<b>Glass Canopy Installation</b>																	
B03300		Shop Drawing Submission and Approval		30	30	0%	19-Jan-16	25-Feb-16	112								
B03305		Fabrication of Glass Canopy		60	60	0%	26-Feb-16	11-May-16	112								
<b>Aluminium Metal Canopy</b>																	
B03310		Shop Drawing Submission and Approval		30	30	0%	19-Jan-16	25-Feb-16	148								
B03315		Fabrication of F/C System		60	60	0%	26-Feb-16	11-May-16	148								
<b>035 - Sewage Pumping Station, Portion G</b>																	
A03525		Approval of Rockhead & Founding		14	14	0%	14-Dec-15	31-Dec-15	12								
<b>051 Transformers (Zone 5)</b>																	
A05100		Excavation + Blinding		5	5	0%	30-Nov-15	04-Dec-15	-7								
A05110		Substructure		15	15	0%	05-Dec-15	22-Dec-15	-7								
A05140		Super Structure		35	35	0%	23-Dec-15	04-Feb-16	-7								
<div><div>Actual Work</div><div>Remaining Work</div><div>Critical</div><div>Milestone</div></div>										<div>THREE MONTH ROLLING PROGRAMME (IWP REV.3)</div> <div>VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES</div> <div>Page 6 of 7</div>				<div>Date</div> <div>30-Sep-15</div> <div>31-Oct-15</div> <div>30-Nov-15</div>	<div>Revision</div> <div>Initial Works Programme Rev. 3, 3MRP</div> <div>Initial Works Programme Rev. 3, 3MRP</div> <div>Initial Works Pogramme Rev. 3, 3MRP</div>	<div>Checked</div> <div>ZJ</div> <div>ZJ</div> <div>ZJ</div>	<div>Approved</div> <div></div> <div></div> <div></div>



HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities									30-Nov-15					
Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015		2016				
								Nov	Dec	Jan	Feb	Mar		
PORTION G	A05150	Finishing	60	60	0%	05-Feb-16	22-Apr-16	114						
	A05160	BS + E&M for Tx Room to CLP (Stage 3A)	59	59	0%	05-Feb-16	21-Apr-16	-7						
	100 Inbound Traffic Control Kiosk													
	A10000	Excavation + Blinding	5	5	0%	05-Dec-15	10-Dec-15	38						
	A10010	Raft Foundation	15	15	0%	05-Feb-16	25-Feb-16	-7						
	A10040	Super Structure (Roof Beams & Slabs)	30	30	0%	26-Feb-16	05-Apr-16	-7						
	HPL Composite Panel Cladding System													
	B10010	Shop Drawing Submission and Approval	30	30	0%	30-Nov-15	06-Jan-16	62						
	B10015	Fabrication of F/C System	60	60	0%	07-Jan-16	19-Mar-16	62						
	External Works for Portion G, H1 & H2													
	Drainage Works													
	B00080	Initial Survey	12	12	0%	30-Nov-15	12-Dec-15	-7						
	Sign Gantry DS40, DS41 & DS75													
	SS0010	Sign Gantry DS40 SI Drilling, 3 Nr.	13	13	0%	16-Jan-16	30-Jan-16	76						
	SS0030	Sign Gantry DS41 SI Drilling, 1 Nr.	13	13	0%	16-Jan-16	30-Jan-16	76						
	SS0050	Sign Gantry DS75 SI Drilling, 2 Nr.	7	7	0%	08-Jan-16	15-Jan-16	76						
	SS0170	Submission and approval for Sign Gantry	90	90	0%	30-Nov-15	19-Mar-16	7						
	PORTION J													
	Portion J Structure													
030 Outbound Staff Subway (Portion J)														
B03010	ELS + blinding (Seg. 37-54) (18 bay)	55	55	0%	24-Feb-16	03-May-16	0							
030 Outbound Private Car & GV Kiosks														
A03010	Submission & Approval for Steel Works	60	60	0%	16-Dec-15	01-Mar-16	4							
030 Outbound Kiosks, Section IX, Subject to Excision														
C03010	Submission & Approval for Steel Works	100	100	0%	04-Jan-16	07-May-16	0							
Portion J Buildings														
024 Outbound Private Car Exam Building														
Glass Canopy Installation														
B02410	Shop Drawing Submission and Approval	30	30	0%	24-Feb-16	01-Apr-16	109							
Aluminium Metal Canopy														
B02450	Shop Drawing Submission and Approval	30	30	0%	24-Feb-16	01-Apr-16	124							
031 Outbound IMMD and DOH Secondary Screen Building														
A03100	Excavation + Blinding	10	10	0%	24-Feb-16	05-Mar-16	89							
061 Telecom Building														
A06120	Excavation + Blinding	5	5	0%	24-Feb-16	29-Feb-16	98							
101 Outbound Traffic Control Kiosk														
A10100	Excavation + Blinding	5	5	0%	24-Feb-16	29-Feb-16	2							
HPL Composite Panel Cladding System														
B10110	Shop Drawing Submission and Approval	30	30	0%	24-Feb-16	01-Apr-16	159							
External Works for Portion J														
Drainage Works														
B00110	Initial Survey	6	6	0%	24-Feb-16	01-Mar-16	0							
Sign Gantry DS104														
SS0130	Sign Gantry DS104 SI Drilling, 2 Nr.	12	12	0%	22-Dec-15	07-Jan-16	204							
SS5140	Submission and approval for Sign Gantry	60	60	0%	24-Feb-16	09-May-16	19							

Actual Work

 Remaining Work

Critical

Milestone

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### **Appendix D**

#### **Event / Action Plan**

## Appendix D –

### Event / Action Plan for Air Quality and Noise Monitoring

#### Event / Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
<b>Action Level</b>				
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.



Event	Action			
	ET	IEC	ER	Contractor
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 ER on the effectiveness of the proposed remedial measures; 5. Supervise 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.

Event	Action			
	ET	IEC	ER	Contractor
<b>Limit Level</b>				
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. Supervise implementation 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.

Event	Action			
	ET	IEC	ER	Contractor
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. 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; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation 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 exceedances abated.

# Event / Action Plan for Construction Noise Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> <li>1. Notify IEC and Contractor;</li> <li>2. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>3. Report the results of investigation to the IEC,ER and Contractor;</li> <li>4. Discuss with the Contractor and formulate remedial measures;</li> <li>5. Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analysed results submitted by the ET;</li> <li>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures are properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to IEC;</li> <li>2. Implement noise mitigation proposals.</li> </ol>

Event	Action			
	ET	IEC	ER	Contractor
Limit Level	1. Inform IEC, ER, EPD and Contractor; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 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 Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 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.

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### **Appendix E**

#### **Implementation Schedule for Environmental Mitigation Measures (EMIS)**

## Appendix E – Implementation Schedule of Environmental Mitigation Measures (EMIS)

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
<b>Air Quality</b>				
S5.5.6.1	A1	1) The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	All construction sites	V
S5.5.6.2	A2	2) Proper watering of exposed spoil should be undertaken throughout the construction phase: <ul style="list-style-type: none"> <li>Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;</li> <li>Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>A stockpile of dusty material should not extend beyond the pedestrian barriers, fencing or traffic cones.</li> <li>The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;</li> <li>Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;</li> </ul>	All construction sites	V
S5.5.6.2	A2	<ul style="list-style-type: none"> <li>When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;</li> <li>The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials,</li> <li>Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;</li> <li>Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;</li> <li>Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;</li> <li>Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top</li> </ul>	All construction sites	V
S5.5.6.2	A2	<ul style="list-style-type: none"> <li>Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;.</li> <li>Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should</li> </ul>	All construction sites	N/A

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		be fitted with an effective fabric filter or equivalent air pollution control system; and • Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies		
S5.5.6.3	A3	3) The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.	All construction sites	V
S5.5.6.4	A4	4) Engineer to incorporate the controlled measures into the Particular Specification (PS) for the civil work. The PS should also draw the contractor's attention to the relevant latest Practice Notes issued by EPD.	All construction sites	V
S5.5.6.4	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Selected Representative dust monitoring station	V
S5.5.7.1	A6	The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant; • Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; • All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; • Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; • The materials which may generate airborne dusty emissions should be wetted by water spray system; • All receiving hoppers should be enclosed on three sides up to 3m above unloading point; • All conveyor transfer points should be totally enclosed; • All access and route roads within the premises should be paved and wetted; and • Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body	Selected Representative dust monitoring station	V
S5.5.2.7	A7	The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point: • All road surface within the barging facilities will be paved; • Dust enclosures will be provided for the loading ramp; • Vehicles will be required to pass through designated wheels wash facilities; and • Continuous water spray at the loading points	All construction sites	N/A
<b>Construction Noise (Air borne)</b>				
S6.4.10	N1	1) Use of good site practices to limit noise emissions by considering the following: • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) 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, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as	All construction sites	V



EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		possible and practicable; • material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.		
S6.4.11	N2	2) Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	All construction sites	V
S6.4.12	N3	3) Install movable noise barriers (typically density@14kg/m acoustic mat or full enclosure close to noisy plants including compressor, generators, saw.	For plant items listed in Appendix 6D of the EIA report at all construction sites	N/A
S6.4.13	N4	4) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.	For plant items listed in Appendix 6D of the EIA report at all construction site	V
S6.4.14	N5	5) Sequencing operation of construction plants where practicable	All construction sites where practicable	V
S5.1	N6	6) Implement a noise monitoring under EM&A programme.	Selected representative noise monitoring station	V
<b>Sediment</b>				
S7.3	S1	1) The requirements as recommended in ETWB TC 34/2002 Management of Dredged/Excavated Sediment shall be included in the Particular Specification as appropriate.	All construction sites	N/A
<b>Waste Management (Construction Waste)</b>				
S8.3.8	WM1	<b>Construction and Demolition Material</b> The following mitigation measures should be implemented in handling the waste: • Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; • Carry out on-site sorting; • Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; and • Implement an enhanced Waste Management Plan similar to E7WBTC (Works) No. 19/2005 - "Environmental Management on Construction Sites" to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction. • In addition, disposal of the C&D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get its approval before implementation	All construction sites	V
S8.3.9-	WM2	<b>C&amp;D Waste</b>	All	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
S8.3.11		<ul style="list-style-type: none"> <li>Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&amp;D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage.</li> <li>The Contractor should recycle as much of the C&amp;D materials as possible on-site. Public fill and C&amp;D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage.</li> </ul>	construction sites	
S8.3.12- S8.3.15	WM3	<u>Chemical Waste</u> <ul style="list-style-type: none"> <li>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</li> <li>Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation.</li> <li>The storage area for chemical wastes should be clearly labeled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated</li> <li>Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD.</li> </ul>	All construction sites	V
S8.3.16	WM4	<u>Sewage</u> <ul style="list-style-type: none"> <li>Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly.</li> </ul>	All construction sites	V
S8.3.17	WM5	<u>General Refuse</u> <ul style="list-style-type: none"> <li>General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes.</li> <li>A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.</li> <li>Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible.</li> <li>Office wastes can be reduced through the recycling of</li> </ul>	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<p>paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor.</p> <ul style="list-style-type: none"> <li>• Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes.</li> </ul>		
<b>Water Quality ( Construction Phase)</b>				
S9.11.1.7	W2	<p><u>Land Works</u></p> <p>General construction activities on land should also be governed by standard good working practice. Specific measures to be written into the works contracts should include:</p> <ul style="list-style-type: none"> <li>• wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters;</li> <li>• sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided;</li> <li>• storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks;</li> <li>• silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm;</li> <li>• temporary access roads should be surfaced with crushed stone or gravel;</li> <li>• rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;</li> <li>• measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system;</li> <li>• open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms;</li> <li>• manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers;</li> <li>• discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system;</li> </ul>	Land-based works area	V
S9.11.1.7	W2	<ul style="list-style-type: none"> <li>• all vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit;</li> <li>• wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain;</li> <li>• the section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel;</li> <li>• wastewater generated from concreting, plastering, Internal decoration, cleaning work and other similar activities, shall be screened to remove large objects;</li> <li>• vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul</li> </ul>	Land-based works area	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal; <ul style="list-style-type: none"> <li>the contractors shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately;</li> <li>waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance;</li> <li>all fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank; and</li> <li>surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.</li> </ul>		
<b>Ecology (Construction Phase)</b>				
S10.7	E4	<ul style="list-style-type: none"> <li>Watering to reduce dust generation; prevention of siltation of freshwater habitats; Site runoff should be desilted, to reduce the potential for suspended sediments, organics and other contaminants to enter streams and standing freshwater</li> </ul>	Land-based works areas	N/A
S10.7	E5	<ul style="list-style-type: none"> <li>Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time</li> </ul>	Land-based works areas	V
S10.7	E8	<ul style="list-style-type: none"> <li>Control vessel speed</li> <li>Skipper training</li> <li>Predefined and regular routes for working vessels; avoid Brother Islands.</li> </ul>	Marine Traffic	V
<b>Fisheries</b>				
S11.7	F4	<ul style="list-style-type: none"> <li>Maritime Oil Spill Response Plan (MOSRP);</li> <li>Contingency plan.</li> </ul>	HKBCF	V
<b>Landscape &amp; Visual (Detailed Design Phase)</b>				
S14.3.3.1	LV1	<p>General design measures include:</p> <ul style="list-style-type: none"> <li>Roadside planting and planting along the edge of the HKBCF Island is proposed;</li> <li>Transplanting of mature trees in good health and amenity value where appropriate and reinstatement of areas disturbed during construction by compensatory hydro-seeding and planting;</li> <li>Protection measures for the trees to be retained during construction activities;</li> <li>Optimizing the sizes and spacing of the bridge columns;</li> <li>Fine-tuning the location of the bridge columns to avoid visually-sensitive locations;</li> <li>Providing planting area around peripheral of HKBCF for tree planting screening effect;</li> <li>Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline;</li> <li>For HKBCF, providing aesthetic architectural design on the related buildings (e.g. similar materials for PCB building facade to Airport buildings, roof planting and subtle materials for other facilities buildings and so on), and the related infrastructure (e.g. parapet planting and transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF; and</li> <li>Fine-tuning the sizes of the structural members to minimize the bulkiness of buildings and adjustment of building arrangement to minimise disturbance to surrounding vegetation in the HKBCF.</li> </ul>	HKBCF	V
<b>Landscape &amp; Visual (Construction Phase)</b>				
S14.3.3.3	LV2	<p>Mitigate both Landscape and Visual Impacts</p> <p>G1. Grass-hydroseed bare soil surface and stock pile areas.</p> <p>G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge footbridge to screen</p>	HKBCF	N/A

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		bridge and traffic. G3. Not applicable as this is for HKLR. G4. For HKBCF, providing aesthetic architectural design on the related buildings (e.g. similar materials for PCB building facade to Airport buildings, roof planting and subtle materials for other facilities buildings and so on), and the related infrastructure (e.g. parapet planting and transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF G5. Vegetation reinstatement and upgrading to disturbed areas G6. Maximizing new tree shrub and other vegetation planting to compensate tree felled and vegetation removed G7. Providing planting area around peripheral of HKBCF for tree planting screening effect; G8. Plant salt-tolerant native and shrubs etc along the planter strip at affected seawall. G9. Reserve of loose natural granite rocks for re-use, Provide new coastline to adopt "natural-look" by means of using armour rocks in the form of natural rock materials and planting strip area accommodating screen buffer to enhance "natural-look" of the new coastline.		
S14.3.3.3	LV3	<u>Mitigate Visual Impacts</u> V1.Minimize time for construction activities during construction period. V2. Provide screen hoarding at the portion of the project site / works areas / storage areas near VSRs who have close low-level views to the Project during HKBCF construction.	HKBCF	N/A
<b>EM&amp;A</b>				
S15.5.2.2	EM1	An Independent Environmental Checker needs to be employed as per the EM&A Manual	All construction sites	V
S15.5 – S15.6	EM2	1) An Environmental Team needs to be employed as per the EM&A Manual. 2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. 3) An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with.	All construction sites	V

Legend: V = implemented;

x = not implemented;

N/A = not applicable

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### **Appendix F**

#### **Site Audit Findings and Corrective Actions**

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Report No.: 0165/15/ED/0213**Appendix F – Site Audit Findings and Corrective Actions**

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. During the reporting period, 13 site inspections were carried out on 2, 11, 17 and 25 September 2015, 2, 8, 15, 23 and 29 October 2015, and 5, 13, 20 and 23 November 2015.

Particular observations during the site inspections are described below.

2 September 2015

1. No particular findings

11 September 2015

1. CHEC was reminded to display EP on notice board in Portion A1. EP was displayed properly on the Environmental bulletin board at Portion A1 on the same day.

17 September 2015

1. CHEC was reminded to provide drip tray for chemical containers at Portion A1. Subsequently, the Contractor provided drip tray for chemical containers at Portion A1. The observation was closed on 2 October 2015.

25 September 2015

1. CHEC was reminded to label all chemical containers at Portion A1 and to provide drip tray for generator on site at Portion A1. Subsequently, the Contractor labelled all chemical containers at Portion A1 and provided drip tray for generator on site at Portion A1. The observation was closed on 2 October 2015.

2 October 2015

1. CHEC was reminded to maintain house keeping practice at Portion A1. Subsequently, the Contractor removed the unwanted construction materials at Portion A1. The observation was closed on 8 October 2015.
2. CHEC was reminded to water the site at least 8 times per day at Portion A1. Subsequently, the Contractor provided recorded records of water spraying for haul road and exposed areas 8 times per day for inspection. Haul road was observed to be wet during follow-up site inspection, and no dusty site activities were observed at Portion A1. The observation was closed on 8 October 2015.

8 October 2015

1. No particular finding.

15 October 2015

1. No particular finding.

23 October 2015

1. No particular finding.

29 October 2015

1. CHEC was reminded that the load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle at CUE – Common Utility Enclosure. Subsequently, the load of dusty materials

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on a vehicle leaving a construction site was covered entirely by impervious sheeting. The observation was closed on 29 October 2015.

### 5 November 2015

1. No particular finding.

### 13 November 2015

1. No particular finding.

### 20 November 2015

1. CHEC was reminded that good housekeeping practice shall be maintained on site. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.
2. CHEC was reminded that stagnant water was found in manhole. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.
3. CHEC was reminded that construction materials and stagnant water were found in the wells of rooftop. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

### 23 November 2015

1. CHEC was reminded to fully cover the tarpaulin sheets properly for the exposed earth slope at CUE's works area. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

The Contractor has rectified most of the observations as identified during environmental site inspections during the reporting period. Follow-up actions for outstanding observations will be inspected during the next site inspections.



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### **Appendix G**

#### **Waste Flow Table**



### Monthly Summary of Waste Flow Table for 2015 (year)

Name of Person completing the Record: Marko Chan

Month	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(see Note 1) (in '000m <sup>3</sup> )						(see Note 2) (in '000 Kg)		
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 Kg)	(in '000 Kg)	(in '000 Kg)	(in '000 Kg)	(in '000m <sup>3</sup> )
Jan										
Feb										
Mar										
Apr	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0
Jun	0.003	0	0	0	0.003	0	0	0	0	0.063
Jul	0.402	0	0	0	0.402	0	0	0	0	0.029
Aug	0.100	0	0	0	0.100	0	0	0	0	0.044
Sept	0	0	0	0	0	0	0	0	0	0.034
Oct	0	0	0	0	0	0	0	0	0	0.024
Nov	0	0	0	0	0	0	0	0	0	0.034
Dec										
Total	0.505	0	0	0	0.505	0	0	0	0	0.228

Notes:

(1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

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### **Appendix H**

#### **Environmental Licenses and Permits**

## Appendix H - Environmental Permit / Licences Summary for Contract No. HY/2013/03

Item	Permit/Licence Registration	Permit No.	Work Area	Application Date	Issue Date	Valid Date		Status	Remark
						From	To		
1	Environmental Permit Pursuant to Environmental Impact Assessment Ordinance	EP-353/2009/I	HKBCF	30-Jun-15	17-Jul-15	17-Jul-15	Nil	Valid	
2	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	Ref No. 387703	Main Site Area	02-Apr-15	15-Apr-15	15-Apr-15	Nil	Valid	
3	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	Ref No. 387735	Works Area WA3	02-Apr-15	15-Apr-15	15-Apr-15	Nil	Valid	
4	Billing A/C for Construction Waste Disposal Pursuant to Section 6 & 9 of the Waste Disposal (Charges for Disposal of Construction waste) Regulation	A/C No. 7022228	Main Site Area, WA3 & 4	14-Apr-15	06-May-15	06-May-15	Nil	Valid	
5	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	5213-951-C1186-28	Main Site Area	24-Apr-15	01-Jun-15	01-Jun-15	Nil	Valid	
6	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	5213-974-C3597-03	Works Area WA4	24-Apr-15	01-Jun-15	01-Jun-15	Nil	Valid	
7	Water Discharge License Pursuant to Water Pollution Control Ordinance (Cap 358)	WT00022180-2015	Works Area WA3	28-Apr-15	04-Aug-15	03-Aug-15	31-Aug-20	Valid	
8	Water Discharge License Pursuant to Water Pollution Control Ordinance (Cap 358)	WT00022391-2015	Main Site Area	05-May-15	04-Sept-15	04-Sept-15	30-Sept-20	Valid	
9	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0477-15	Works Area WA3	20-Apr-15	04-May-15	18-May-15	17-Nov-15	Valid until 17-Nov-15	
10	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0566-15	Box Culvert D	08-May-15	22-May-15	08-Jun-15	07-Nov-15	Valid until 07-Nov-15	
11	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0020-15	Drill Tower	06-Jul-15	20-Jul-15	01-Aug-15	30-Nov-15	Valid until 30-Nov-15	
12	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0999-15	CUE	28-Aug-15	11-Sept-15	14-Sept-15	10-Dec-15	Cancelled on 02-Nov-15	Superseded By GW-RS1203-15
13	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1065-15	Portion A1	15-Sept-15	29-Sept-15	30-Sept-15	31-Dec-15	Valid	

Item	Permit/Licence Registration	Permit No.	Work Area	Application Date	Issue Date	Valid Date		Status	Remark
						From	To		
14	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1203-15	CUE	20-Oct-15	03-Nov-15	02-Nov-15	31-Jan-16	Valid	
15	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1315-15	Portion G	12-Nov-15	26-Nov-15	28-Nov-15	28-Feb-16	Valid	

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### **Appendix I**

#### **Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions**

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# MaterialLab

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### Appendix I –

#### Statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period	1	0	0
From commencement date of construction to end of reporting period	1	0	0