



# 中國港灣工程有限責任公司

香港代表： 振華工程有限公司

**CHINA HARBOUR ENGINEERING COMPANY LIMITED**  
**HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.**

Date : 16 May 2017  
Our Ref. : CHEC300/OUT/2017/05/04.01/025307

**By Hand**

**AECOM Asia Company Limited**  
8/F Grand Central Plaza  
Tower 2, 138 Shatin Rural Committee Road  
Shatin, Hong Kong

**Attn: Mr. Ng Wang Shek**  
**The Engineer's Representative**

Dear Sir,

**Contract No. HY/2013/03**  
**Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities –**  
**Vehicle Clearance Plazas and Ancillary Buildings and Facilities**  
**EP Condition 5.4 – Monthly EM&A Report (Apr 2017)**

Pursuant to the Condition 5.4 of the EP-353/2009/K, we are pleased to submit one soft copy and three hard copies of the certified Monthly EM&A Report (Rev.1) for April 2017 for your on-ward submission.

Thank you for your kind attention.

Yours faithfully,  
For and on behalf of  
**China Harbour Engineering Co. Ltd.**

  
\_\_\_\_\_  
Paul Pui  
Site Agent

PP/FH/MC/csh  


Encl.

15 May 2017

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. Patrick Lee

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  
Monthly Environmental Monitoring & Audit Report for April 2017**

Reference is made to the Environmental Team's submission of Monthly Environmental Monitoring & Audit Report for April 2017 (Rev. 1) certified by the ET Leader (ET's ref.: "MCL/ED/0281/2017/D" dated 12 May 2017) and provided to us via e-mail on 13 May 2017.

We are pleased to inform you that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 5.4 of the Environmental Permit No. EP-353/2009/K.

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. Vico Cheung	(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, ENPO Site

## MATERIALAB CONSULTANTS LIMITED

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Website : www.materialab-consultant.com

Date 12 May 2017  
Our Ref. MCL/ED/0281/2017/D

Ramboll Environ Hong Kong Limited  
(formerly ENVIRON Hong Kong Limited)  
21/F, BEA Harbour View Centre  
56 Gloucester Road, Wan Chai  
Hong Kong

BY HAND

Attn.: Mr. Raymond Dai, IEC

Dear Sir,

**EP Condition 5.4 – Monthly EM&A Report for  
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 Condition 5.4 of the Environmental Permit (EP-353/2009/K) for the captioned project, we are pleased to submit the certified Monthly EM&A Report for April 2017 (Rev.1) for your verification.

Should you require further information, please do not hesitate to contact our Miss Jamie Tam at 3565 4157 or the undersigned at 3565 4115.

Yours faithfully,  
for and on behalf of  
MATERIALAB CONSULTANTS LIMITED

  
\_\_\_\_\_  
Arthur Cheng  
Environmental Team Leader

AC/jt

c.c. AECOM – Mr. P.K. Lee, Mr. W.S. Ng, Mr. Patrick Ko  
RAMBOLL ENVIRON – Mr. Ray Yan, Mr. Andy Wong  
CHEC – Mr. Marko Chan

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Report No.: 0165/15/ED/0783

**MONTHLY ENVIRONMENTAL MONITORING & AUDIT  
REPORT (Rev. 1)**

**April 2017**

**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/0783

Prepared by: Jamie Tam

Reviewed by: Bong Yu

Certified by:

  
\_\_\_\_\_  
Arthur Cheng  
Environmental Team Leader

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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, sans-serif font. The text is white and set against a dark, rectangular background that has a slight gradient and a thin white border.

Report No.: 0165/15/ED/0783

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### EXECUTIVE SUMMARY

This Monthly 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" (includes the construction works of Contract No. HY/2013/06 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System" within Contract No. HY/2013/03 works area) (hereafter referred to as "the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR). Contract No. HY/2013/03 was awarded to China Harbour Engineering Co. Limited (construction works of Contract No. HY/2013/06 was awarded to ATAL Technologies Limited within Contract No. HY/2013/03 works area) (hereafter referred to as "the Contractor") and MaterialLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by the Contractor.

Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) 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/K, was issued on 11 April 2016. These documents are available through the EIA Ordinance Register.

Commencement of Contract No. HY/2013/03 took place on 10 April 2015 while the construction works and the EM&A programme of Contract No. HY/2013/03 commenced on 29 August 2015 (commencement of Contract No. HY/2013/06 took place on 14 August 2015 while the construction works and the EM&A programme of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area commenced on 13 September 2016).

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 20<sup>th</sup> Monthly EM&A Report for the Contract which summaries findings of the EM&A programme during the reporting period from 01 April 2017 to 30 April 2017 (includes the findings of the EM&A programme of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area during the reporting period from 01 April 2017 to 30 April 2017) (the "reporting period"). The monthly 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 AMS7 and noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract No. 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 for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) during the reporting period are listed below:

Environmental Site Inspection: 05, 12, 20 and 28 April 2017.

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### **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 shall be referred to 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 AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

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 works conducted during the reporting period and therefore, no ecology monitoring result is reported.

### **Complaint Log**

There were no complaints received in relation to the environmental impact during the reporting period.

### **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.

### **Future Key Issues**

The future key issues to be undertaken in the upcoming month are:

For Contract No. HY/2013/03

1. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
2. Piling at Box Culvert B & Sign Gantry;
3. CUE Construction at Portion B, C & J;
4. Drainage & Sewerage Work, Water Main & Cable Duct at Portion B, H1, H2, J, P, G & A1;
5. Radiation Screen Wall at Portion B, E P, N,M,C;
6. Sign Gantry Footing at Portion B;
7. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;
8. Bridge Works at A1 to A9;
9. Site Foundation Works at Portion K;
10. Cover Walkway at Portion H1 & H2;
11. Box Culvert B at Portion N; Shuttle kiosk & Subway at Portion E; and
12. Marine sediment excavation activities from the land-based works and corresponding disposal at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee.



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For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

1. Conduits and display panel installation at Building 037 and CUE works area.

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## 1. INTRODUCTION

### 1.1 Background

1.1.1 MaterialLab Consultants Limited was commissioned by China Harbour Engineering Co. Limited (also referred to as "the Contractor") to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for Contract No. HY/2013/03 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities" (includes the construction works of Contract No. HY/2013/06 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System" within Contract No. HY/2013/03 works area) ("the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR).

1.1.2 Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) is part of Hong Kong–Zhuhai–Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) which is "Designated Projects", under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (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/K, was issued on 11 April 2016. These documents are available through the EIA Ordinance. The general layout of the Project area is shown in **Appendix A**.

1.1.3 This is the twentieth EM&A report to document the findings of site inspection activities and EM&A programme carried out by the Contractor of Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) from 01 April 2017 to 30 April 2017 (reporting period) under Contract No. HY/2013/03 (from 01 April 2017 to 30 April 2017 for the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) and is submitted to fulfil Condition 5.4 of the EP.

### 1.2 Project Description

1.2.1 The works to be executed under Contract No. HY/2013/03 include the following major items:

- a. Cargo clearance facilities including kiosks for clearance of good vehicles, customs inspection platforms, X-ray building, etc.;
- b. Passenger related facilities including processing kiosks and examination facilities for private cars and coaches, annexure for examination of accompanying passengers of private cars, etc.;
- c. Accommodation/offices for the facilities (like fire station, police station, buildings for Immigration Department [ImmD], Hong Kong Customs and Excise Department [C&ED], Agriculture, Fisheries and Conservation Department [AFCD], Food and Environmental Hygiene Department [FEHD], Department of Health [DofH] etc.) of the Government departments providing services in connection with the HKBCF;
- d. Provision of transport and miscellaneous facilities inside the HKBCF including public transport interchange (PTI), transport drop-off and pick-up areas, vehicle holding areas, passenger queuing areas, road networks, footbridges, fencing, sewerage and drainage systems, sewage treatment plant and treated effluent disposal facilities, water supply system, building services works, electronic system, and traffic control and information system including traffic control and surveillance system (TCSS), etc.;

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- e. Provision of roads connecting the BCF to the Hong Kong Link Road (HKLR), the Tuen Mun – Chek Lap Kok Link (TM-CLKL) and the Hong Kong International Airport (HKIA), expect the part of road works in HKIA entrusted to the HKLR project; and
- f. Reprovisioning of the affected HKIA's facilities, expect those affected by the Automated People Mover (APM) system such as the existing east rescue berth.

1.2.2 The works to be executed under Contract No. HY/2013/06 within Contract No. HY/2013/03 works area include the following major items:

- a. The Automatic Vehicle Clearance Support System amid to increasing traffic flow for Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities;
- b. Responsible for designs and develops a set of tailor-made computer monitoring and control systems to for daily security operation; and
- c. The Clearance Workstations at 72 vehicle clearance kiosks, Customs and Excise's inbound and outbound traffic control centers as well as a Vehicle Tracking System.

### 1.3 Project Organisation

1.3.1 The Project Organisation for Environmental Works of Contract No. HY/2013/03 is shown in **Appendix B**. The contact person and telephone numbers of key personnel for the captioned project are shown in **Table 1.1**:

Table 1.1 Contact Persons and Telephone Numbers of Key Personnel (for Contract No. HY/2013/03)

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	3465 2899
	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	--

1.3.2 The Project Organisation for Environmental Works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area is shown in **Appendix B**. The contact person and telephone numbers of key personnel for the captioned project are shown in **Table 1.2**:

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Table 1.2 Contact Persons and Telephone Numbers of Key Personnel (for Contract No. HY/2013/06 within Contract No. HY/2013/03 works area)

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	3465 2899
	Environmental Site Supervisor	Mr. Ray Yan	5181 8165	3465 2899
Contractor (ATAL Technologies Limited)	Site Agent	Mr. Eric Yim	2565 3355	3162 5217
	Environmental Officer	Mr. W. Li	2565 3137	3162 5217
Environmental Team (MaterialLab Consultants Limited)	Environmental Team Leader (ETL)	Mr. Arthur Cheng	3565 4115	2450 8032
24-hr Complaint Hotline	--	--	6509 0375	--

1.3.3 The Contract HY/2013/03 has commenced on 10 April 2015. The commencement of construction works and the EM&A programme have commenced on 29 August 2015.

1.3.4 The Contract HY/2013/06 has commenced on 14 August 2015. The commencement of construction works and the EM&A programme have commenced on 13 September 2016 within Contract No. HY/2013/03 works area.

#### 1.4 Construction Programme

1.4.1 The construction programme for Contract No. HY/2013/03 (includes the construction works of HY/2013/06 within Contract No. HY/2013/03 works area) are provided in **Appendix C**.

#### 1.5 Construction Works Undertaken during the Reporting Period

1.5.1 The construction works of Contract No. HY/2013/03 commenced on 29 August 2015 (includes the construction works of Contract No. HY/2013/06 commenced on 13 September 2016 within Contract No. HY/2013/03 works area). During this reporting period, the following major site activities were commenced:

##### For Contract No. HY/2013/03

1. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
2. Piling at Box Culvert B & Sign Gantry;
3. CUE Construction at Portion B, C & J;
4. Drainage & Sewerage Work, Water Main & Cable Duct at Portion B, H1, H2, J, P, G & A1;
5. Radiation Screen Wall at Portion B, E P, N,M,C;
6. Sign Gantry Footing at Portion B;
7. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;

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8. Bridge Works at A1 to A9;
9. Site Foundation Works at Portion K;
10. Cover Walkway at Portion H1 & H2;
11. Box Culvert B at Portion N; Shuttle kiosk & Subway at Portion E); and
12. Marine sediment excavation activities from the land-based works and corresponding disposal at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

1. Conceal conduit & services conduit installation at Building 037 and CUE works area.
- 1.5.2 Refer to operation team confirmation and further checking, the reported construction works for box culverts, pumping stations and STP were confirmed land-based for Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area). There were no work activities or construction works at the seafront or in contact with marine water during the reporting period for Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area).

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## 2. AIR QUALITY MONITORING

### 2.1 Monitoring Locations

2.1.1 The air quality 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 AMS7 as part of EM&A programme if these air quality monitoring stations are no longer covered under Contract No. HY/2010/02 and HY/2011/03. **Figure 1** shows the locations of air monitoring stations.

Table 2.1 Air Quality Monitoring Location

Air Monitoring Station	Location
AMS6	Dragonair/CNAC (Group) Building (A80)
AMS7	Hong Kong SkyCity Marriott Hotel

### 2.2 Monitoring Requirements

2.2.1 The monitoring requirements, equipment, parameters, frequency and duration, methodology, schedule, and meteorological information are described in the monthly EM&A Reports prepared for Contract No. HY/2010/02 and HY/2011/03.

2.2.2 The Action and Limit levels for 1-hr TSP and 24-hr TSP are summarized in **Table 2.2**.

Table 2.2 Action and Limit Levels for Air Quality

Monitoring Station	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
<b>1 hour TSP</b>		
AMS6	360	500
AMS7	370	
<b>24 hours TSP</b>		
AMS6	173	260
AMS7	183	

2.2.3 The event and action plan is provided in **Appendix D**.

2.2.4 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 monthly EM&A Report.

### 2.3 Monitoring Results

2.3.1 The monitoring results for AMS6 and AMS7 are reported in the monthly EM&A Reports prepared for Contract No. HY/2011/03 and HY/2010/02 respectively.

2.3.2 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 report prepared by Contract No. HY/2011/03.

2.3.3 There was no Action and Limit Level exceedances of 1-hr TSP level and 24-hr TSP level recorded at station AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

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Report No.: 0165/15/ED/0783

### 3. NOISE MONITORING

#### 3.1 Monitoring Locations

3.1.1 The noise monitoring works for the Contract are covered by Contract No. HY/2010/02 "Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works". The ET of the Contract or another ET of the HZMB project is required to conduct noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract No. HY/2010/02. **Figure 2** shows the locations of noise monitoring stations.

Table 3.1 Construction Noise Monitoring Location

ID No.	Description
NMS2	Seaview Crescent
NMS3B	Site Boundary of Site Office Area at WA2

#### 3.2 Monitoring Requirements

3.2.1 The monitoring requirements, monitoring equipment, monitoring parameters, frequency and duration, monitoring methodology and monitoring schedule are detailed in the monthly EM&A Reports prepared for Contract No. HY/2010/02.

3.2.2 The Action and Limit Levels for construction noise are defined in **Table 3.2**.

Table 3.2 Action and Limit Level for Construction Noise

Monitoring Station	Action Level	Limit Level
<b>For the Time Period 0700-1900 hrs. on Normal Weekdays</b>		
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

#### 3.3 Monitoring Results

3.3.1 The monitoring results for NMS2 and NMS3B are reported in the monthly EM&A Reports prepared for Contract No. HY/2010/02. No noise exceedance was recorded at stations NMS2 and NMS3B by the ET of Contract No. HY/2010/02 during the reporting period.

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### **4. WATER QUALITY MONITORING**

- 4.1 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.
- 4.2 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.



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### **5. ECOLOGY MONITORING**

- 5.1 There was no marine works conducted which 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.
  
- 5.2 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.

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## **6. DISPOSAL OF MARINE SEDIMENT EXTRACTED FROM BORED PILING WORKS**

### **6.1 Background**

6.1.1 After the acceptance of the review of the approved Sediment Quality Report (SQR) for this Project under EPD letter dated 19 August 2015, an approval to dispose the marine sediment extracted from bored piling for this Project was then approved under memo from Secretary, Marine Fill Committee of CEDD dated 20 August 2015 for the disposal of marine sediment extracted from bored piling works. The disposal site allocated to this Project is the Mud Pit CMP Vd of the Confined Marine Sediment Disposal Facility to the East of Sha Chau (ESC) during this reporting period.

6.1.2 No extracted marine sediment was treated using cement solidification/stabilisation (Cement S/S) techniques under Contract No. HY/2013/03 during this reporting period. The marine sediment extracted from this Contract was disposed to the MFC allocated disposal sites directly without treatment during this reporting period. As a practical means, the disposal operation is managed by one contractor who is also responsible for applying dumping permit and its subsequent extension applications from EPD. Contract No. HY/2013/03 has been assigned to coordinate and arrange for disposal of extracted marine sediment from all three Contracts (Contract Nos. HY/2013/02, HY/2013/03 and HY/2013/04).

### **6.2 Dumping Arrangements**

6.2.1 The barge for disposal of marine sediment was morn at the temporary loading and unloading at the east shore of the HKBCF Island, which has been being used by reclamation contractor (Contract No. HY/2010/02) for reclamation activities. In terms of safety consideration and to avoid mixing of sediment between contracts, each dumping date was allocated to one Contract. The quantity of marine sediment disposed on each date was from one Contract.

6.2.2 During dumping, Contractor of Contract No. HY/2013/03 is responsible for transporting the marine sediment from the site area of Contract No. HY/2013/03 to the barge. The estimated quantity of marine sediment in each truck is confirmed by Resident Site Staff of Contract Nos. HY/2013/02, HY/2013/03 and HY/2013/04. The trip tickets for transportation and disposal of marine sediment are collected and checked. Contract No. HY/2013/03 as the dumping permit holder is responsible for reporting to EPD the quantity disposed of as the condition stipulated in the dumping permit. The disposal site allocated to this Project is the Mud Pit CMP Vd of the Confined Marine Sediment Disposal Facility to the East of Sha Chau (ESC) during this reporting period.

### **6.3 Quantity Disposed**

6.3.1 Marine sediment extracted from bored piling from this Contract was disposed to allocated dumping site in April 2017. The summary of marine sediment disposed up to end April 2017 is shown in the following table:

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Table 6.1 Summary of Marine Sediment Disposed to Dumping Site

Month/Year	Quantity disposed (in'000m <sup>3</sup> )			Total
	HY/2013/02	HY/2013/03	HY/2013/04	
Jan 2016	1.272	1.950	0.800	4.022
Feb 2016	2.816	2.328	0.704	5.848
Mar 2016	0.600	2.464	3.942	7.006
Apr 2016	5.128	5.602	5.028	15.758
May 2016	0.000	0.000	0.000	0.000
Jun 2016	1.200	4.584	1.578	7.362
<b>Sub-Total</b>	<b>11.016</b>	<b>16.928</b>	<b>12.052</b>	<b>39.996</b>
Jul 2016	0.728	10.728	3.690	15.146
Aug 2016	1.784	1.544	4.428	7.756
Sep 2016	2.328	6.816	3.888	13.032
Oct 2016	1.096	2.376	5.286	8.758
Nov 2016	0.000	0.000	0.000	0.000
Dec 2016	1.568	4.960	2.538	9.066
Cat L in Dec 2016	0.000	2.792	3.570	6.362
<b>Sub-Total</b>	<b>18.520</b>	<b>46.144</b>	<b>35.452</b>	<b>100.116</b>
Jan 2017	0.000	0.656	6.552	7.208
Feb 2017	0.088	0.264	1.380	1.732
Mar 2017	0.000	0.000	0.000	0.000
Apr 2017	0.624	1.288	0.000	1.912
<b>Total</b>	<b>19,232</b>	<b>48,352</b>	<b>43,384</b>	<b>110,968</b>

Note: All sediments are in Type II disposal method except Cat L (in Type I)

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### 7. ENVIRONMENTAL SITE INSPECTION AND AUDIT

#### 7.1 Site Inspection

7.1.1 Site audits were carried out by ET on weekly basis to monitor the implementation of proper environmental management practices and mitigation measures in the Project site.

7.1.2 The joint site audits for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) were conducted on 05, 12, 20 and 28 April 2017 by the representatives of Engineer, Contractor, ET and IEC (IEC for 28 April 2017).

7.1.3 Particular observations during the site inspection and corrective actions undertaken by the Contractor are described below:

#### For Contract No. HY/2013/03

##### 30 Mar 2017

1. The Contractor was reminded to remove food waste accumulated at Building 033. Subsequently, food waste was removed. The observation was closed on 05 April 2017.
2. The Contractor was reminded to remove the stagnant water accumulated at the drip tray of the chemical container of Building 033. Subsequently, stagnant water at the drip tray was removed. The observation was closed on 05 April 2017.

##### 5 April 2017

1. The Contractor was reminded to increase watering for dust suppression on site. Subsequently, watering was increased for dust suppression. The observation was closed on 12 April 2017.
2. The Contractor was reminded to remove stagnant water accumulated at Building 037. Subsequently, stagnant water was removed. The observation was closed on 12 April 2017.
3. The Contractor was reminded to remove construction waste accumulated at Building 054, 041 and 042. Subsequently, construction waste was removed. The observation was closed on 12 April 2017.

##### 12 April 2017

1. The Contractor was reminded to remove general waste accumulated at CUE works area. Subsequently, general waste was removed. The observation was closed on 20 April 2017.
2. The Contractor was reminded to remove stagnant water accumulated at CUE works area. Subsequently, stagnant water was removed. The observation was closed on 20 April 2017.

##### 20 April 2017

1. The Contractor was reminded to provide drip tray for the chemical containers at Building 037. Subsequently, drip trays were provided. The observation was closed on 28 April 2017.
2. The Contractor was reminded to increase watering for dust suppression on site. Subsequently, watering was increased for dust suppression. The observation was closed on 28 April 2017.

##### 28 April 2017

1. The Contractor was reminded to remove stagnant water accumulated at drip trays at CUE works area. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

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2. The Contractor was reminded to improve housekeeping at Bridge A7. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

05 April 2017

1. Nil findings.

12 April 2017

1. Nil findings.

20 April 2017

1. Nil findings.

28 April 2017

1. Nil findings.

### 7.2 Advice on the Solid and Liquid Waste Management Status

- 7.2.1 The Contractor of Contract No. HY/2013/03 registered as a chemical waste producer for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 7.2.2 The monthly summary of waste flow table for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) are detailed in **Appendix E**.
- 7.2.3 1.288 (in'000m<sup>3</sup>) of excavated marine sediment (from Contract No. HY/2013/03), 0.043 (in'000m<sup>3</sup>) of Inert C & D Wastes and 1.073 (in'000m<sup>3</sup>) of Non-inert C & D Wastes were generated (from Contract No. HY/2013/03) in this reporting period. 0.043(in'000m<sup>3</sup>) of Inert C & D Wastes was disposed as public fill. No Inert C & D Wastes and 0.005 (in tonnes) of Non-inert C & D Wastes were generated (from Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) in this reporting period. 0.000 (in tonnes) paper/cardboard packaging and 0.005 (in tonnes) metals were generated and recycled (from Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) in this reporting period.
- 7.2.4 The excavated marine mud from the land-based works was disposed of at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee. The Contractor of Contract No. HY/2013/03 shall ensure no spilling and overflowing of materials during loading / unloading / transportation is allowed.
- 7.2.5 The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packing, Labelling and Storage of Chemical Waste.
- 7.2.6 Contractor of Contract No. HY/2013/03's site arrangement for disposal of bentonite slurry to Tseung Kwan O Area 137 Fill Bank was checked by ET and formal consent has been obtained from Tseung Kwan O Area 137 Fill Bank for receiving used bentonite slurry generated from Contract No. HY/2013/03.

### 7.3 Environmental Licenses and Permits

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7.3.1 The valid environmental licenses and permits for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) during the reporting period are summarized in **Appendix F**. The Contractor of Contract No. HY/2013/06 was advised to register as a chemical waste producer when chemical waste is expected to generate for the foreseeable future from the operations (For Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation).

### 7.4 Implementation Status of Environmental Mitigation Measures

7.4.1 In response to the site audit findings, the Contractor carried out corrective actions.

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

7.4.3 Implementation status of Regular Marine Travel Route Plan (RMTRP) was checked by ET. Training of marine travel route for marine vessels operator was given to relevant staff and relevant records were kept properly. The marine traffic records and geographical plots of all the vessels tracks to demonstrate the conformance of the vessel to the proposed route in April 2017 would be provided to ER, ETL, IEC/ENPO for checking within the month of May 2017.

7.4.4 With respect to condition 3.26A of EP-353/2009/K approved by EPD on 11 April 2016, the numbers and operating periods of floating grout production facilities and floating concrete batching plants on-site to review on the compliance to this EP condition were checked. Under Contract No. HY/2013/03, no floating concrete batching plant was operated on-site during the reporting period.

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

7.5.1 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 report prepared by Contract No. HY/2011/03.

7.5.2 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

7.5.3 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.

7.5.4 There was no marine works conducted during the reporting period and therefore, no relevant monitoring result is reported.

7.5.5 There was no marine works conducted during the reporting period and therefore, no ecology monitoring result is reported.

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

7.6.1 There were no complaints received in relation to the environmental impact during the reporting period. The details of cumulative statistics of Environmental Complaints are provided in **Appendix H**.

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- 7.6.2 There was no notification for summons or prosecutions received in relation to the environmental impact during this reporting period.
- 7.6.3 Statistics on environmental complaints, notifications of summons and successful prosecutions are provided in **Appendix H**.

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### 8. FUTURE KEY ISSUES

#### 8.1 Construction Programme for the Coming Months

8.1.1 As informed by the Contractor, the following are the major construction activities anticipated in May 2017:

##### For Contract No. HY/2013/03

1. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
2. Piling at Box Culvert B & Sign Gantry;
3. CUE Construction at Portion B, C & J;
4. Drainage & Sewerage Work, Water Main & Cable Duct at Portion B, H1, H2, J, P, G & A1;
5. Radiation Screen Wall at Portion B, E P, N,M,C;
6. Sign Gantry Footing at Portion B;
7. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;
8. Bridge Works at A1 to A9;
9. Site Foundation Works at Portion K;
10. Cover Walkway at Portion H1 & H2;
11. Box Culvert B at Portion N; Shuttle kiosk & Subway at Portion E; and
12. Marine sediment excavation activities from the land-based works and corresponding disposal at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee.

##### For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

1. Conduits and display panel installation at Building 037 and CUE works area.

#### 8.2 Environmental Site Inspection Schedule for the Coming Month

8.2.1 The tentative schedule for weekly site inspections for May 2017 is provided in **Appendix I**.



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### 9. CONCLUSIONS

- 9.1 Commencement of Contract No. HY/2013/03 took place on 10 April 2015. The commencement date for construction works and the EM&A programme of Contract No. HY/2013/03 commenced on 29 August 2015 (commencement of Contract No. HY/2013/06 took place on 14 August 2015. The commencement date for construction works and the EM&A programme of Contract No. HY/2013/06 commenced on 13 September 2016 within Contract No. HY/2013/03 works area).
- 9.2 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 report prepared by Contract No. HY/2011/03.
- 9.3 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 9.4 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.
- 9.5 There was no marine works conducted during the reporting period and therefore, no water quality impact monitoring result is reported.
- 9.6 There was no marine works conducted during the reporting period and therefore, no ecology monitoring result is reported.
- 9.7 Environmental site inspections were carried out on 05, 12, 20 and 28 April 2017. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site inspections.
- 9.8 There were no complaints received in relation to the environmental impact during the reporting period.
- 9.9 There were no notifications of summons or prosecutions received during the reporting period.

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### **Figure 1**

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



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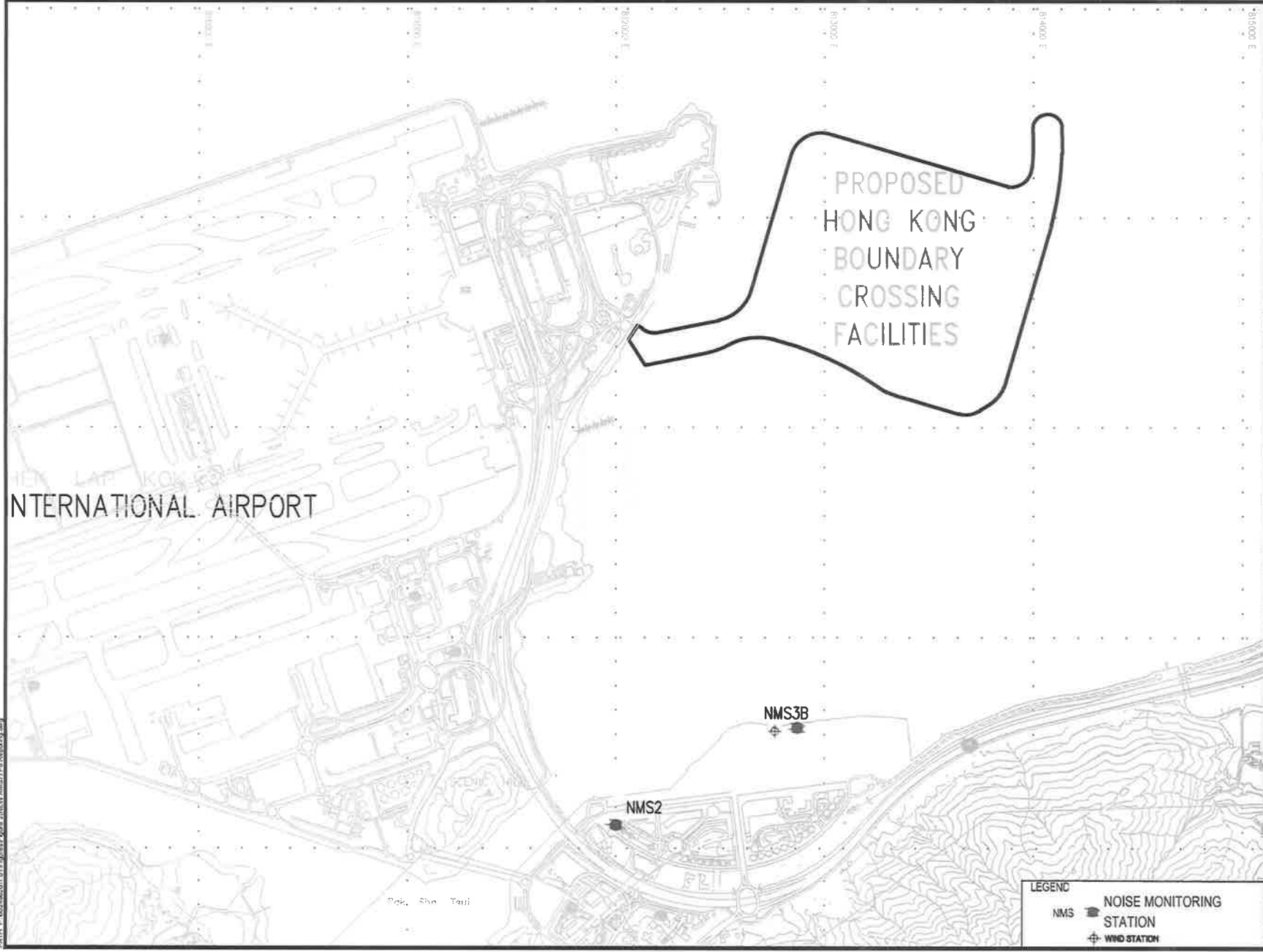


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### **Figure 2**

### **Noise Monitoring Stations**



**LEGEND**

- NMS  NOISE MONITORING STATION
-  WIND STATION

HONG KONG - ZHUHAI - MACAO BRIDGE  
 HONG KONG BOUNDARY CROSSING FACILITIES  
 - RECLAMATION WORKS

AIR QUALITY AND NOISE  
 MONITORING STATIONS  
 FOR HKBCF

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### **Appendix A**

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











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### **Appendix B**

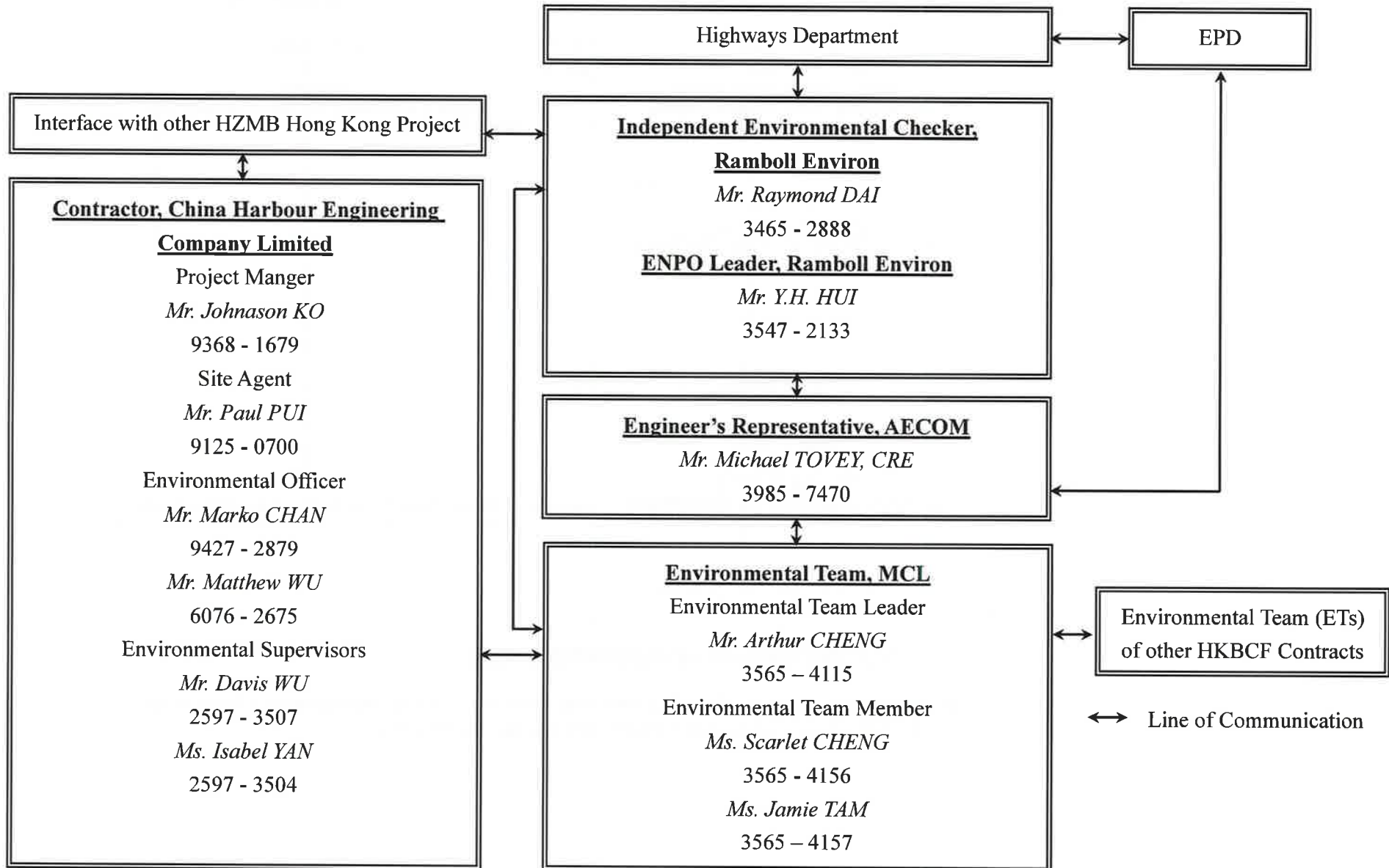
#### **Project Organization for Environmental Works**

# CHINA HARBOUR ENGINEERING COMPANY LIMITED



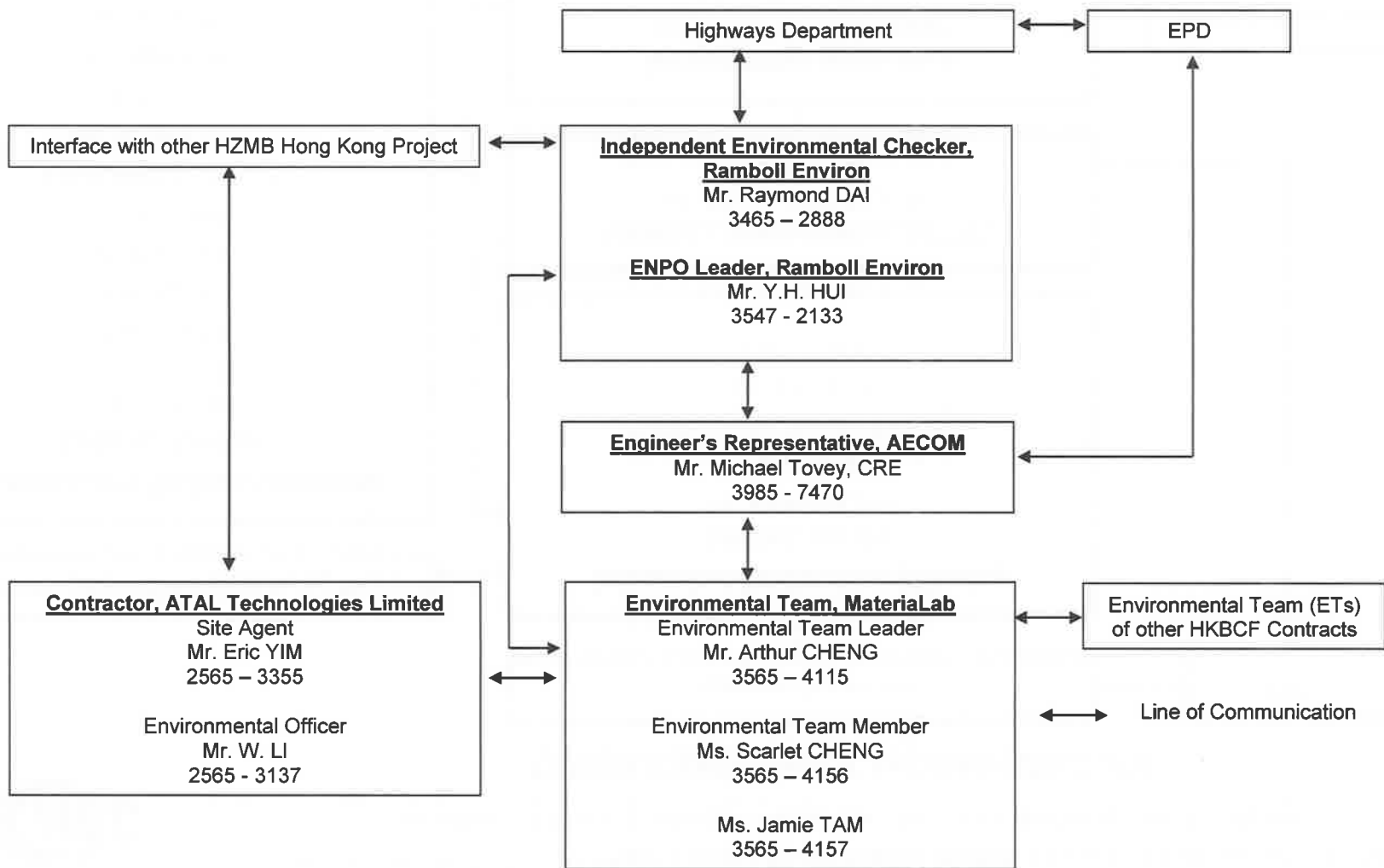
Contract No. HY/2013/03 Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing  
Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities

## Projects Organization for Environmental Works



Contract No. HY/2013/06 (within Contract No. HY/2013/03 works area)  
 Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System

**Projects Organization for Environmental Works**



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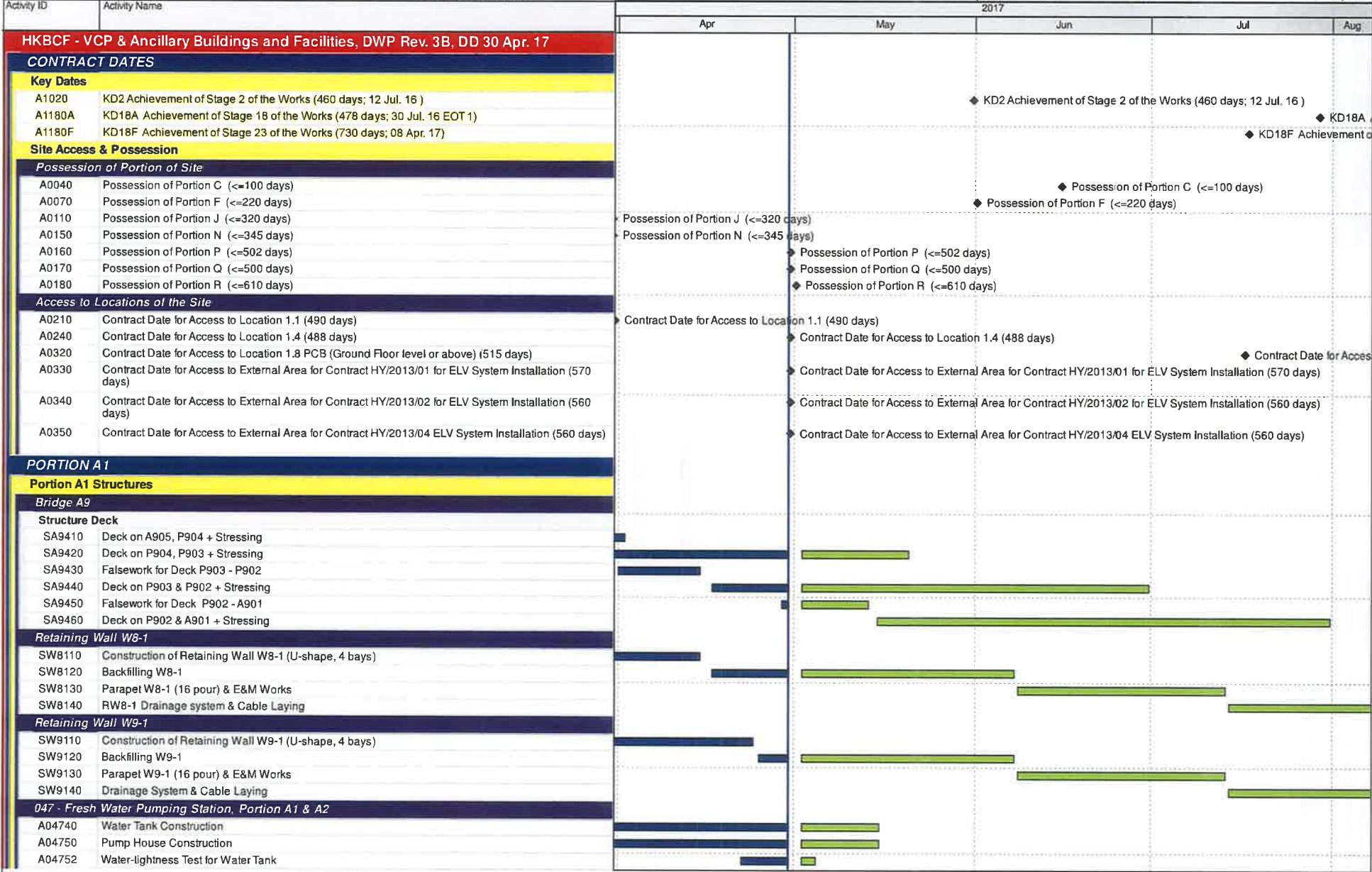
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### **Appendix C**

#### **Construction Programme**



- Actual Work
- Remaining Work
- Critical
- ◆ Milestone

**THREE MONTH ROLLING PROGRAMME**  
**VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**

Date	Revision	Checked	Approved
28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ	
31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ	
30-Apr-17	3MRP updated as of 30 Apr. 2017	ZJ	

**HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities**

02-May-17

Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
A04760	Parapet Wall at Roof Slab & Fishing					
A04770	BS installation + E&M (Degree 2)					
A04780	BS installation + E&M (Degree 3)					
A04790	T&C for BS & Pumps					
<b>Test &amp; Commission</b>						
B04730	Submission & Issue of WW046 IV, V (Inside Services & FS)					
B04740	WSD Inspection					
<b>049 - Sewage Treatment Plant, Portion A1 &amp; A2</b>						
B04990	Constructing Wall Stem for Equalization Tanks					
C04910	Water-tightness Test for Equalization Tanks					
D04985	Energisation by CLP					
D04990	Other Ground Slab Construction					
E04910	Other Superstructure Construction					
E04940	BS for Office Accommodations (KD9) (Degree 2)					
<b>T&amp;C and Statutory Inspection</b>						
F04910	Essential T&C (FSI)					
F04950	Submission & Issue of WW046 IV, V (Inside Services & FS)					
F04960	WSD Inspection					
G04910	Discharge Licence Application					
<b>Portion A1 Buildings</b>						
<b>012 - DOH Disinsection Area and Store Room 1, at Portion A1</b>						
A01250	Finishing					
A01270	BS + E&M for Office Accommodation (Stage 9) (Degree 3)					
A01280	Other BS + E&M Installation					
A01285	DG Application					
<b>Test &amp; Commission</b>						
C01210	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
C01220	Submission & Issue of WW046 IV, V (Inside Services & FS)					
C01250	OP Application & TPIDC Inspection					
<b>036 - Weigh Station</b>						
A03680	BS + E&M for Office Accommodation (Stage 9)					
A03690	Other BS + E&M Installation					
B03610	T&C for BS & Pumps					
<b>Test &amp; Commission</b>						
B03630	Submission & Issue of WW046 IV, V (Inside Services & FS)					
B03640	Form 314 & 501 submission					
B03650	WSD Inspection					
B03660	FSD Inspection					
B03670	BEE0 Stage II & Accessor Certification Submission					
B03680	OP Application & TPIDC Inspection					
<b>037 C&amp;ED Tower Cum Inbound Cargo Examination Building (Portion A1 &amp; B)</b>						
A03742C	Mock-up Sample for Mesh Screen Wall (SS41) & Balustrade					
A03744	Curtain Wall/Metal Roof/Aluminium Cladding Installation					
A03752	Floor Screed/Tiling					
A03756	Window/Door Frame Installation					
A03758	Paint Finish					
A03770	BS + E&M for AVCSS Cabling (KD18B)					
A03780	BS for Office Accommodation (KD9)					
A03785	BS for Office Accommodation (KD10)					
A03790	Other BS + E&M Installation					

- █ Actual Work
- █ Remaining Work
- █ Critical
- ◆ Milestone

**THREE MONTH ROLLING PROGRAMME  
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**

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28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ	
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Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
<b>Test &amp; Commission</b>						
B03710	T&C for BS & Pumps					
B03730	Submission & Issue of WW046 IV, V (Inside Services & FS)					
B03750	Form 314 & 501 submission					◆ Form 314 &
B03760	Lift Inspection by EMSD					
B03770	WSD Inspection					
B03780	FSD Inspection					
B03790	Beam Plus Monthly Submission & Issue					
<b>041 Fire Station Cum Ambulance Depot</b>						
A04126	Cladding & Curtain Wall Installation (incl. steel & metal works)					
A04133	Wall Plastering/Wall Tiling					
A04134	Floor Screeding/Tiling/Vinyl Tiles					
A04135	Ceiling/Wall Painting					
A04137	False Ceiling Installation					
A04140	BS for Office Accomodation (Stage 8)					
A04150	BS + E&M for Office Accomodation (Stage 9)					
A04160	Other BS + E&M Installation					
A04170	External Finishing					
A04180	C/S Plastering/Tiling					
<b>Test &amp; Commission</b>						
B04110	T&C for BS & Pumps					
B04120	Submission & Issue of WW046 I, II, III (Inside services & FS)					
B04130	Submission & Issue of WW046 IV, V (Inside Services & FS)					
B04140	Form 314 & 501 submission					◆ Form 314 & 501 submiss
B04150	Form LE5 Submission to EMSD					◆ Form LE5 Submission to EMSD
C04130	Beam Plus Monthly Submission & Issue					
C04140	BEE0 Stage II & Accessor Certification Submission					
<b>042 Drill Tower</b>						
A04260	Finishing					
A04270	BS for Office Accomodation (Stage 8)					
A04280	BS + E&M for Office Accomodation (Stage 9)					
A04290	Other BS + E&M Installation					
<b>Test &amp; Commission</b>						
B04210	BEE0 Stage II & Accessor Certification Submission					
B04220	T&C for BS Pumps					
B04230	WSD Inspection					
B04240	FSD Inspection					
B04250	OP Application & TPIDC Inspection					
<b>043 DOH Office + Store Room</b>						
A04370	Cladding & Curtain Wall Installation (incl. steel & metal works)					
A04380	BS for Office Accomodation (Stage 8)					
A04390	BS + E&M for Office Accomodation (Stage 9)					
B04310	Other BS + E&M Installation					
B04330	Stainless Steel Mesh Installation					
B04340	Metal Windows/Louvres/Doors/Railing etc. installation					
B04350	Blockworks					
B04360	Wall Plastering/Tiling					
B04370	Floor Screeding/Tiling					
B04380	False Ceiling Installation & Painting					
B04390	Carpentry (Wooden Doors/Partition/Lockers/Etc.)					

Actual Work  
 Remaining Work  
 Critical  
 ◆ Milestone

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**VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**  
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Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
C04310	C/S Wall Plastering					
C04320	Paint Finishing to Walls					
<b>Test &amp; Commission</b>						
C04330	T&C for BS & Pumps					
C04340	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
C04350	Submission & Issue of WW046 IV, V (Inside Services & FS)					
C04360	Form 2 Submission					
C04370	Form 314 & 501 submission					
C04380	DG application					
D04310	WSD Inspection					
D04350	BEEC Stage II & Accessor Certification Submission					
<b>052 - Transforms (Zone 4)</b>						
A05235	Energisation by CLP					
A05270	Main Switch/L.V. Switch Board Installation					
<b>T&amp;C and Statutory Inspection</b>						
B05210	T&C for BS & Pumps					
B05230	DG Inspection					
B05270	Non-Essential T&C (Non-FSI)					
B05280	OP Application & TPIDC Inspection					
<b>Completion of Fire Services Installation and Equipment (FCD)</b>						
C05210	Approved Building Plans					
<b>105 IMM D Guard Booth, Portion A1 (Mock Up)</b>						
B10510	Excavation + Blinding					
B10520	Substructure (Raft Foundation)					
B10530	On Grade Ground Slab					
B10540	Finishing					
B10550	BS for Office Accommodations (KD9)					
B10560	BS + E&M for Office Accommodation (KD10)					
B10570	Other BS + E & M Installation					
<b>Facade Envelop Structure Installation</b>						
B10580	Shop Drawing Submission and Approval					
B10590	Fabrication of F/C System					
C10510	Casted-in Items Installation					
C10520	Steel Frame Installation					
<b>210 - ImmD GV Secondary Examination Bays Inbound</b>						
ER5830	Construction of the Area and Access to the Interface Contractor					
<b>External Works for Portion A1</b>						
<b>Drainage Works</b>						
ED5590	Drainage Works (774m & 35MHs), Stage 2 (Middle)					
ED5600	Sewerage (300m & 9MHs), Stage 2 (Middle)					
ED5610	Drainage Works (773m & 34MHs), Stage 3 (Eastern)					
ED5620	Sewerage (269m & 7MHs), Stage 3 (Eastern)					
<b>Waterpipe Laying</b>						
EW5010	Fresh Water Main Laying (700 m), Stage 1 (Western)					
EW6010	Flushing Water Main Laying (322 m), Stage 1 (Western)					
EW6020	Fresh Water Main Laying (700 m), Stage 2 (Middle)					
EW6030	Flushing Water Main Laying (322 m), Stage 2 (Middle)					
EW6040	Fresh Water Main Laying (260 m), Stage 3 (Eastern)					
EW6050	Flushing Water Main Laying (323m), Stage 3 (Eastern)					
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #000080; border: 1px solid black;"></span> Actual Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black;"></span> Remaining Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF0000; border: 1px solid black;"></span> Critical</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%;"></span> Milestone</li> </ul>	<p><b>THREE MONTH ROLLING PROGRAMME</b></p> <p><b>VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES</b></p> <p>Page 4 of 21</p>	<table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>28-Feb-17</td> <td>3MRP updated as of 28 Feb. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>31-Mar-17</td> <td>3MRP updated as of 31 Mar. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>30-Apr-17</td> <td>3MRP updated as of 30 Apr. 2017</td> <td>ZJ</td> <td></td> </tr> </tbody> </table>	Date	Revision	Checked	Approved	28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ		31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ		30-Apr-17	3MRP updated as of 30 Apr. 2017	ZJ	
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Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
EU5260	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5270	Duct & Cable Laying for TCSS & Lighting					
<b>Roadworks</b>						
ER1520	Subbase (8500 ton), Stage 1 (Western)					
ER3540	Bitumen Pavement (10000 ton), Stage 1 (Western)					
ER3550	Rigid Pavement (900 m3), Footpath & EVA, Stage 1 (Western)					
<b>Road Furniture</b>						
ER0800	ELV Installation					
<b>PORTION A2</b>						
<b>Portion A2 Structures</b>						
<b>046 - Refuse Collection Point, Portion A2</b>						
A04610	Raft Foundation					
A04620	Superstructure w/2 water tank					
A04630	BS for Office Accommodations (Stage 8) (KD9)					
A04660	Other BS + E&M Installation					
<b>Test &amp; Commission</b>						
B04620	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
B04630	Submission & Issue of WW046 IV, V (Inside Services & FS)					
<b>048 - Reclaimed Water Pumping Station, Portion A2</b>						
B04810	Superstructure Construction					
B04820	BS for Office Accommodations (Stage 8) (KD9)					
B04830	BS + E&M for Office Accommodation (Stage 9) (KD10)					
B04840	Other BS + E&M Installation					
<b>Test &amp; Commission</b>						
B04850	T&C for BS & Pumps & SWT					
B04860	DG Application					
B04880	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
<b>Retaining Wall W9-2</b>						
SW9210	Construction of Retaining Wall W9-2 (U-shape, 6 bay)					
SW9220	Backfilling for Retaining Wall W9-2					
<b>External Works for Portion A2</b>						
<b>Drainage Works</b>						
ED5630	Drainage Works (228m & 15MHs)					
ED5640	Sewerage (322m & 9MHs)					
<b>Waterpipe Laying</b>						
EW6060	Fresh Water Main Laying (336m)					
EW6070	Flushing Water Main Laying (91m)					
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
EU5280	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5290	Duct & Cable Laying for TCSS & Lighting					
<b>Road Furniture</b>						
ER2340	ELV Installation					
<b>PORTION B</b>						
<b>Portion B Structures</b>						
<b>Retaining Wall W7-2</b>						
S70890	Retaining Wall W7-2 Backfilling					
S70910	C3-S8 Slopeworks					
S70970	Retaining Wall W7-2 Parapet (2 pour) & E&M Works					
S70980	Retaining Wall W7-2 Drainage System & Cable Laying					

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**HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities**

02-May-17

Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
<b>Retaining Wall W6-1</b>						
S62060	Retaining Wall W6-1 Backfilling		█			
S62070	Retaining Wall W6-1 Parapet (8 pour) & E&M Works		█	█		
S62080	Retaining Wall W6-1 Drainage System & Cable Laying			█	█	
S62210	Retaining Wall W6-1 Bituminous Paving (347 ton) (KD25)					█
<b>Bay 25 - 29 of CUE/Staff Subway</b>						
C02960	Internal Finishes & Cable Containment (KD1)		█	█		
C02970	BS + E&M Installation for AVCSS (KD1)		█	█		
<b>Portion B Buildings</b>						
<b>027 028 Inbound Kiosks &amp; 029 Outbound Kiosks</b>						
A02720	Superstructure		█	█		
A02730	Construction of Subway Entrance		█	█		
A02740	Construction of Subway Toilets				█	█
A02750	Finishing				█	█
A02760	BS for Office Accomodation (Stage 8)				█	█
A02780	BS + E&M for AVCSS Works (KD18A)		█	█		
A02790	BS + E&M for AVCSS Cabling (KD18B)		█	█		
B02720	Other BS + E&M Installation				█	█
<b>Test &amp; Commission</b>						
B02830	Submission & Issue of WW046 IV, V (Inside Services & FS)				█	
<b>027 028 Inbound Kiosks &amp; 029 Outbound Kiosks, Section IX. Subject to Excision</b>						
B02740	Pre-fabrication for the Steel Kiosks					
B02750	Superstructure		█	█		
B02760	BS + E&M for AVCSS Works (KD18C)		█	█		
B02770	BS + E&M for AVCSS Works (KD18D)		█	█		
B02780	BS + E&M for allowing users to move in furniture (KD18E)				█	█
<b>026 Inbound IMMD and DOH Secondary Screening Building</b>						
A02640	Finishing				█	█
A02650	Contractor's Design Submission for SS Mesh Screen & Approval				█	█
A02660	Contractor's Design Submission for Aluminium Cladding & Approval				█	█
A02670	BS for Office Accomodation (Stage 8)				█	█
A02680	BS + E&M for Office Accomodation (Stage 9)				█	█
A02690	Other BS + E&M Installation				█	█
<b>Test &amp; Commission</b>						
B02630	Submission & Issue of WW046 IV, V (Inside Services & FS)		█			
B02650	TC for BS & Pumps				█	█
B02690	Lift Inspection by EMSD				█	█
<b>054 Inbound Fixed X-ray Building</b>						
A05460	Finishing				█	█
A05467	Energisation by CLP				█	█
A05470	BS for Office Accomodation (Stage 8)				█	█
A05480	BS + E&M for Office Accomodation (Stage 9)				█	█
A05490	Other BS + E&M Installation				█	█
<b>T&amp;C and Statutory Inspection for Zone 4a</b>						
B05420	T&C for BS & Pumps				█	█
B05440	Lift Inspection by EMSD				█	█
<b>Waterworks Ordinance (WSD)</b>						
G05410	Approval Letter and approved Drawings					
<b>038 AFCD Office</b>						
A03850	Finishing + Curtain Wall Installation				█	█

◆ Approval Letter and approved Drawings

█ Actual Work  
█ Remaining Work  
█ Critical  
◆ Milestone

**THREE MONTH ROLLING PROGRAMME**  
**VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**  
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Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
A03870	BS for Office Accomodation (Stage 8)		[Red bar]			
A03880	BS + E&M for Office Accomodation (Stage 9)		[Green bar]			
A03890	Other BS + E&M Installation		[Green bar]			
<b>Test &amp; Commission</b>						
B03810	T&C for BS & Pumps		[Green bar]			
B03830	Submission & Issue of WW046 I, II, III (Inside Services & FS)		[Green bar]			
C03820	Form 2 Submission		◆ Form 2 Submission			
C03860	BEE0 Stage II & Accessor Certification Submission				[Green bar]	
<b>039 Police Main Building</b>						
A03940	Finishing + Curtain Wall Installation		[Green bar]			
A03950	BS for Office Accomodation (Stage 8), & for TCSS works (KD14)		[Green bar]			
A03960	BS + E&M for Office Accomodation (Stage 9)		[Green bar]			
A03970	Other BS + E&M Installation		[Green bar]			
<b>Test &amp; Commission</b>						
B03920	Submission & Issue of WW046 I, II, III (Inside Services & FS)		[Green bar]			
B03930	Submission & Issue of WW046 IV, V (Inside Services & FS)				[Green bar]	
B03940	BEE0 Stage II & Accessor Certification Submission				[Green bar]	
B03950	Beam Plus Monthly Submission & Issue		[Green bar]			
C03950	Form 2 Submission		◆ Form 2 Submission			
C03970	T&C for BS & Pumps			[Green bar]		
<b>040 Incident Control Tower</b>						
A04050	Finishing (KD9)		[Green bar]			
A04060	BS for Office Accomodation (Stage 8), & for TCSS works (KD14)		[Red bar]			
A04070	BS + E&M for Office Accomodation (Stage 9)				[Green bar]	
<b>Facade Cladding System</b>						
B04020	Fabrication of F/C System		[Green bar]			
B04030	Casted-in Items Installation		[Green bar]			
B04040	Steel Frame Installation		[Green bar]			
B04050	Cladding Panel Installation				[Green bar]	
<b>Glass Wall</b>						
C04020	Fabrication of Glass Wall		[Green bar]			
C04030	Casted-in Items Installation		[Green bar]			
C04040	Steel Frame Installation				[Green bar]	
<b>Test &amp; Commission</b>						
D04030	T&C for BS & Pumps				[Green bar]	
D04040	Form 2 Submission				◆ Form 2 Submission	
<b>102 HKPF UVSS Monitor Room</b>						
A10230	Finishing (False Ceiling) (KD9)		[Green bar]			
A10240	BS for Office Accomodation (Stage 8)		[Green bar]			
A10260	BS + E&M for Office Accomodation (Stage 9)		[Green bar]			
A10270	Other BS + E&M Installation		[Green bar]			
C10210	WWO 46 Part I, II, III Submission (inside Service + FS)		◆ WWO 46 Part I, II, III Submission (inside Service + FS)			
C10240	FSI Form 314 & 501 Submission				◆ FSI Form 3	
<b>Metal Canopy and Roof Installation</b>						
B10212	Fabrication of MC/R		[Green bar]			
B10220	Casted-in Items Installation		[Green bar]			
B10230	Steel Frame Installation		[Green bar]			
B10240	Glass panel, metal cladding panel installation				[Green bar]	
<b>103 Police Inspection Post</b>						
A10350	Finishing (False Ceiling) (KD9)		[Green bar]			

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Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
A10360	BS for Office Accomodation (Stage 8)					
A10370	BS + E&M for Office Accomodation (Stage 9)					
A10380	Other BS + E&M Installation					
C10320	WVO 46 Part I, II, III Submission (inside Service + FS)					
<b>HPL Composite Panel Cladding System</b>						
B10320	Fabrication of HPL Cladding					
B10330	Casted-in Items Installation					
B10340	Steel Frame Installation					
<b>057 Transformers (Zone 2)</b>						
A05740	Finishing					
A05755	Energisation by CLP					
A05760	BS for Office Accomodation (Stage 8)					
A05770	BS + E&M for Office Accomodation (Stage 9)					
A05780	Other BS + E&M Installation					
<b>T&amp;C and Statutory Inspection for Zone 2a &amp; 2b</b>						
C05700	T&C for BS & Pumps					
F05700	Essential T&C (FSI)					
F05710	Non-Essential T&C (Non-FSI)					
<b>Completion of Fire Services Installation and Equipment (FCD)</b>						
F05740	Provision of Approved Building Plans by the Engineer					
F05750	Application for FSI Inspection (FSI/501) c/w FSI Plan (FSI/314)					
F05760	Provision of Direct Link for Fire Alarm System by Chubb					
F05770	FSI Inspection (2 Trials)					
<b>DG License &amp; EPD Generator Approval</b>						
G05710	Approval Letter and approved Drawings					
G05730	DG Inspection					
<b>107 - C&amp;ED Mobile X-ray Operation Office (Cargo), Portion B</b>						
C10740	Finishing					
C10750	BS for Office Accomodation (Stage 8)					
C10760	BS + E&M for Office Accomodation (Stage 9)					
C10770	Other BS + E&M Installation					
C10780	T&C for BS & Pumps					
<b>113 - Field Kiosk for Access Control, Portion B</b>						
B11330	Superstructure (Roof Beams & Slabs)					
B11340	Finishing					
B11350	BS for Office Accomodation (Stage 8)					
B11370	Other BS + E&M Installation					
B11380	T&C for BS & Pumps					
<b>201 - Inbound Cargo Mobile X-ray Operation Area</b>						
ER5740	Radiation Screen Wall Construction					
ER5850	Construction of the Area and Access to the Interface Contractor					
<b>205 - Inbound Private Car Mobile X-ray Operation Area</b>						
ER5750	Radiation Screen Wall Construction					
ER5860	Construction of the Area and Access to the Interface Contractor					
<b>External Works for Portion B</b>						
<b>Works in Location 1.7A</b>						
BB1480	ELV Works & T&C in Location 1.7A					
<b>Works in Location 1.7B</b>						
BB1490	ELV Works & T&C in Location 1.7B					
<b>Drainage Works</b>						

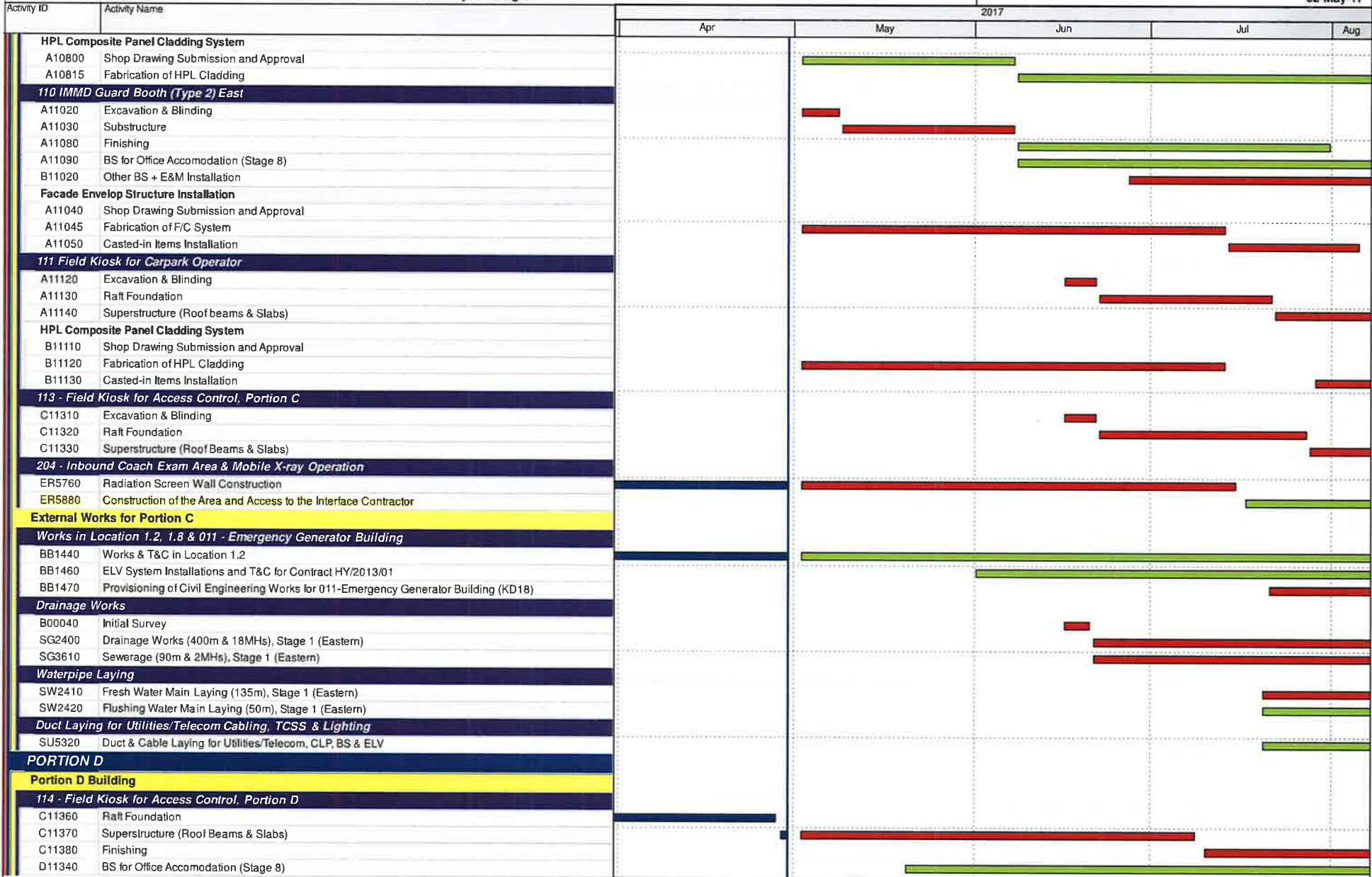
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Milestone		30-Apr-17	3MRP updated as of 30 Apr. 2017	ZJ	

Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
ED5670	Drainage Works (1130m & 60MHs), Stage 3					
ED5680	Sewerage (300m & 8MHs), Stage 3					
ED5690	Drainage Works (1130m & 60MHs), Stage 4					
ED5700	Sewerage (300m & 82MHs), Stage 4					
<b>Waterpipe Laying</b>						
EW6080	Fresh Water Main Laying (500m), Stage 2					
EW6090	Flushing Water Main Laying (460m), Stage 2					
EW6100	Fresh Water Main Laying (1000m), Stage 3					
EW6110	Flushing Water Main Laying (931m), Stage 3					
EW6190	Chilled Water Pipe Laying in Portion B (external)					
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
EU5300	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5310	Duct & Cable Laying for TCSS & Lighting					
EU5550	ELV Installation					
<b>Roadworks</b>						
ER1640	Subbase (10000 ton), Stage 1 (NW)					
ER3590	Bitumen Pavement (14000 ton), Stage 1 (NW)					
ER3600	Rigid Pavement (594 m3), Footpath & EVA, Stage 1 (NW)					
ER5590	Subbase (11000 ton), Stage 2 (N/E)					
ER5600	Bitumen Pavement (15000 ton), Stage 2 (N/E)					
ER5610	Rigid Pavement (594 m3), Footpath & EVA, Stage 2 (N/E)					
ER5620	Subbase (11000 ton), Stage 3 (S/W)					
<b>Road Furniture</b>						
ER1620	Road Furniture					
<b>Sign Gantry ADS 306A &amp; ADS 306B</b>						
ES5240	Fabrication & Delivery of Sign Gantries to Site					
<b>PORTION C</b>						
<b>Portion C Buildings</b>						
<b>010 - Inbound Coach Kiosk &amp; Staff Subway Entrance</b>						
A01010	Substructure and Staircase Construction					
<b>009 - Staff Subway Entrance (Bay 0 - 3) &amp; Shuttle Bus Kiosks</b>						
B00920	Kiosk superstructure					
B00930	BS + E&M for AVCSS works (KD18A)					
B00940	BS + E&M for AVCSS Cabling (KD18B)					
<b>012 - DOH Disinsection Area and Store Room 1, at Portion C</b>						
B01210	Excavation & Blinding					
B01220	Raft Foundation					
B01230	Superstructure					
<b>104 - DOH Secondary Screening Station, at Portion C</b>						
<b>Facade Cladding System</b>						
A10460	Shop Drawing Submission and Approval					
A10465	Fabrication of F/C System					
<b>108 C&amp;ED Mobile X-ray Machine Operation Office, Portion C</b>						
A10805	Excavation & Blinding					
A10810	Raft Foundation					
A10840	Superstructure (Roof Beams & Slabs)					
A10850	Finishing					
A10860	BS for Office Accomodation (Stage 8)					
A10890	Other BS + E&M Installation					

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #000080; border: 1px solid black;"></span> Actual Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black;"></span> Remaining Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF0000; border: 1px solid black;"></span> Critical</li> <li><span style="display: inline-block; width: 0; height: 0; border-left: 5px solid transparent; border-right: 5px solid transparent; border-bottom: 8px solid black;"></span> Milestone</li> </ul>	<b>THREE MONTH ROLLING PROGRAMME</b> <b>VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES</b> Page 9 of 21	<table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>28-Feb-17</td> <td>3MRP updated as of 28 Feb. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>31-Mar-17</td> <td>3MRP updated as of 31 Mar. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>30-Apr-17</td> <td>3MRP updated as of 30 Apr. 2017</td> <td>ZJ</td> <td></td> </tr> </tbody> </table>	Date	Revision	Checked	Approved	28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ		31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ		30-Apr-17	3MRP updated as of 30 Apr. 2017	ZJ	
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**HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities**

02-May-17



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Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
D11360	Other BS + E&M Installation					
<b>External Works for Portion D</b>						
<i>Drainage Works</i>						
SG3640	Drainage Works (361m & 14MHs)					
SG3760	Sewerage (121m & 6MHs)					
<i>Waterpipe Laying</i>						
SW3650	Fresh Water Main Laying (108m)					
<i>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</i>						
SU5340	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
SU5350	Duct & Cable Laying for TCSS & Lighting					
SU5640	Access date to Telephone Companies					
<i>Roadworks</i>						
SR3740	Subbase (261 ton)					
SR3770	Bitumen Pavement (619 ton)					
<b>PORTION E</b>						
<b>006 - Shuttle Bus Kiosk &amp; Staff Subway Entrance, at Portion E &amp; M</b>						
A00630	Constructing wall stem + top slab of Subway					
A00640	Backfilling					
A00650	Constructing Ground Slab					
A00660	Constructing Kiosk (4 Nr.)					
A00670	Constructing Subway Entrance					
A00690	BS + E&M for AVCSS works (KD18B)					
B00640	Other BS + E&M Installation					
<b>External Works for Portion E</b>						
<i>Drainage Works</i>						
SG3780	Drainage Works (99m & 5MHs)					
SG3900	Sewerage (38m & 1 MH)					
<i>Waterpipe Laying</i>						
SW3790	Fresh Water Main Laying (45m)					
SW3800	Flushing Water Main Laying (25m)					
<i>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</i>						
SU5360	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
SU5370	Duct & Cable Laying for TCSS & Lighting					
<i>Roadworks</i>						
SR3880	Subbase (1659 ton)					
<b>PORTION F</b>						
<b>External Works for Portion F</b>						
<i>Drainage Works</i>						
B00070	Initial Survey					
SG3930	Drainage Works (122m & 9MHs)					
SG4050	Sewerage (70m & 3MHs)					
<i>Waterpipe Laying</i>						
SW3940	Fresh Water Main Laying (205m)					
<i>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</i>						
SU5380	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
SU5390	Duct & Cable Laying for TCSS & Lighting					
<b>PORTION G, H1 &amp; H2</b>						
<b>Portion G Structures</b>						

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		Apr	May	Jun	Jul	Aug
<b>Box Culvert C</b>						
<b>Box Culvert Structure</b>						
SC0310	Box C - Branch Construction					
SC0320	Box C - Branch Backfilling					
SC0380	Box C - Construction of Main Body					
SC0390	Box C - Back filling					
<b>Bridge A1</b>						
<b>Structure Deck</b>						
SA1450	Falsework for Deck P101, P102					
SA1460	Deck on P101, P102 + Stressing					
SA1510	Deck on P105, A106 + Stressing					
SA1520	Parapet (42 pour), E&M works & installation of DS38 & DS39					
<b>Bridge A2</b>						
<b>Structure Deck</b>						
SA2450	Falsework for Deck P201 - P202					
SA2460	Deck on P201 & P202 + Stressing					
SA2470	Parapet (36 pour), E&M Works & installation of DS49					
<b>Bridge A3</b>						
<b>Structure Deck</b>						
SA3460	Deck on P303, P304a/P304b + Stressing					
SA3480	Deck on P304a, A305 + Stressing					
SA3510	Parapet (56 pour), E&M Works & installation of DS51					
<b>Bridge A4</b>						
<b>Structure Deck</b>						
SA4420	Deck on P502b, P401 + Stressing					
SA4440	Deck on P401, P402 + Stressing					
SA4460	Deck on P304b, P401, P402 + Stressing					
SA4470	Parapet (35 pour), E&M Works					
<b>Bridge A5</b>						
<b>Structure Deck</b>						
SA5480	Deck on P502a, P502b & P503 + Stressing					
SA5520	Deck on P506 & P507 + Stressing					
SA5540	Deck on A501 & P502a + Stressing					
SA5550	Falsework for Deck P507 - P508a, P508b					
SA5560	Deck on P507 & P508a, P508b + Stressing					
SA5580	Parapet (65 pour), E&M Works installation of ADS 304A					
<b>Bridge A6</b>						
<b>Structure Deck</b>						
SA6480	Deck on P604, P605 + Stressing					
SA6530	Deck on P606 & A607 + Stressing					
SA6540	Parapet (50 pour) & E&M Works					
<b>Bridge A7a, A7b, A7c</b>						
<b>Structure Deck</b>						
SA7790	Deck on P703, P704 (Bridge A7a) + Stressing					
SA7820	Deck on P702, P703 (Bridge A7 a) + Stressing					
SA7830	Falsework for Deck A701, P702					
SA7840	Deck on A701, P702 (Bridge A7a) + Stressing					
SA7940	Parapet for Bridge A7b (8 pour) & E&M Works					
SA7950	Parapet for Bridge A7c (38 pour) & E&M Works					
SA7960	Parapet for Bridge A7a (48 pour) & E&M Works					

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SA7980	Bituminous Paving for A7c (400 ton)(KD25)					
SA7990	Bituminous Paving for A7a (400 ton) (KD25)					
<b>Bridge A8</b>						
<b>Structure Deck</b>						
SA8460	Deck on P803, A804 + Stressing					
SA8470	Parapet (26 Pour) & E&M works					
<b>Retaining Walls W1-1, W3-1, W5-1 &amp; W7-1</b>						
<b>Retaining Wall W1-1</b>						
SW1110	Construction of Retaining Wall W1-1 (L-shape, 4 bays)					
SW1120	Retaining Wall W1-1 Backfilling					
<b>Retaining Wall W3-1</b>						
SW3150	Construction of Retaining Wall W3-1 (U-shape, 4 bays)					
SW3160	Backfilling W3-1					
<b>Retaining Wall W5-1</b>						
SW5010	Construction of Retaining Wall W5-1 (L-shape, 5 bays)					
<b>Retaining Wall W7-1</b>						
SW7110	Construction of Retaining Wall W7-1 (U-shape, 4 bays)					
<b>Portion G Buildings</b>						
<b>002 - C&amp;ED Observation Guard Booth No. 1, Portion H1</b>						
C00220	Excavation + Blinding					
C00230	Raft Foundation					
C00240	Superstructure					
<b>002 - C&amp;ED Observation Guard Booth No. 2, Portion H1</b>						
E00210	Excavation + Blinding					
E00220	Raft Foundation					
E00230	Superstructure					
<b>033 Inbound Private Car Exam Building</b>						
A03330	Finishing					
A03360	External Works					
A03370	BS for Office Accomodation (Stage 8)					
A03380	BS + E&M for Office Accomodation (Stage 9)					
A03390	Other BS + E&M Installation					
C03310	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
<b>Glass Canopy Installation</b>						
B03305	Fabrication of Glass Canopy					
B03360	Steel Frame Installation					
<b>Aluminium Metal Canopy</b>						
B03315	Fabrication of F/C System					
B03320	Casted-in Items Installation					
B03330	Steel Frame Installation					
B03340	Aluminium Cladding Installation					
<b>034 Satellite RCP South</b>						
A03450	Finishing					
A03460	BS for Office Accomodation (Stage 8)					
A03470	BS + E&M for Office Accomodation (Stage 9)					
A03480	Other BS + E&M Installation					
<b>Test &amp; Commission</b>						
C03420	Submission & Issue of WW046 IV, V (Inside Services & FS)					
C03430	Form 314 & 501 submission					
C03440	T&C for BS & Pumps					

◆ Form 314 & 501 submission

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		Apr	May	Jun	Jul	Aug
C03450	WSD Inspection					
C03460	FSD Inspection					
C03470	OP Application & TPIDC Inspection					
<b>S S Facade Greenery System</b>						
B03415	Fabrication of SS F/G System					
B03420	Casted-in Items Installation					
B03430	Steel Frame Installation					
<b>035 - Sewage Pumping Station, Portion G</b>						
A03590	Water-tightness Test for Wet Wells					
B03540	Constructing Basement Wall & G/F Slab					
B03550	Water-tightness Test for Inlet Chamber					
B03560	Superstructure works					
B03570	Backfilling					
B03580	BS for Office Accommodations (KD9)					
B03590	BS + E&M for Office Accommodation (KD10)					
C03510	Other BS + E & M Installation					
<b>Test &amp; Commission</b>						
C03530	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
C03550	Form 314 & 501 submission					
<b>051 Transformers (Zone 5)</b>						
A05150	Finishing					
A05165	Energisation by CLP					
A05170	BS for Office Accommodations (KD9)					
A05180	BS + E&M for Office Accommodation (KD10)					
A05190	Other BS + E & M Installation					
<b>T&amp;C and Statutory Inspection for Zone 5</b>						
C05120	T&C for BS & Pumps					
C05130	Essential T&C (FSI)					
C05140	Non-Essential T&C (Non-FSI)					
<b>100 Inbound Traffic Control Kiosk</b>						
A10050	Finishing					
A10070	BS + E&M for AVCSS Works (KD18A)					
B10060	BS + E&M for AVCSS Cabling (KD18B)					
B10070	BS for Office Accommodations (KD9)					
B10090	Other BS + E & M Installation					
C10010	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
C10030	Form 314 & 501 submission					
C10040	T&C for BS & Pumps SWT					
<b>HPL Composite Panel Cladding System</b>						
B10015	Fabrication of F/C System					
B10020	Casted-in Items Installation					
<b>112 Field Kiosk for Taxi Queuing Area</b>						
A11240	Finishing					
A11250	BS + E & M Installation					
A11260	T&C for BS & Pumps SWT					
<b>External Works for Portion G, H1 &amp; H2</b>						
<b>ELV Works within Portion H2 in the Hong Kong Side PTI</b>						
EU1550	ELV Works within Portion H2 in the Hong Kong Side PTI (KD19)					
<b>Works within Portion H1 &amp; H2 except the ELV Works in the Hong Kong Side PTI</b>						
EU1560	Drainage & Sewerage Works within Portion H1 & H2 in the Hong Kong Side PTI (KD20)					

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<b>All Works within the Boundary defined in Drawing No. 60191048/C3/000/C00/1050</b>						
BEU1570	Drainage & Sewerage Works (incl. CLP) within the Boundary defined in Drawing No. 60191048/C3/000/1050		[Red bar from May to Jul]			
BEU1580	Roadworks within the Boundary defined in Drawing No. 60191048/C3/000/1050, excluding Portion H1 & H2 & Bridges (KD24)				[Red bar from Jul to Aug]	
<b>Waterpipe Laying</b>						
EW4080	Fresh Water Main Laying (1689m)		[Green bar from May to Aug]			
EW4090	Flushing Water Main Laying (411m)		[Green bar from May to Aug]			
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
EU5410	Duct & Cable Laying for TCSS & Lighting				[Green bar from Jul to Aug]	
EU5560	ELV Installation		[Red bar from Jun to Aug]			
<b>Roadworks</b>						
ER4170	Subbase (17045 ton)			[Red bar from Jun to Aug]		
ER4200	Bitumen Pavement (24549 ton)			[Red bar from Jun to Aug]		
ER4210	Rigid Pavement (514 m3), Footpath & EVA			[Red bar from Jun to Aug]		
<b>Road Furniture</b>						
ER4150	Road Furniture				[Red bar from Jul to Aug]	
<b>Sign Gantry DS40, DS41 &amp; DS75</b>						
ES0080	Testing for Pre-bored H Piling		[Green bar from May to Aug]			
ES0180	Fabrication & Delivery of Sign Gantrys to Site		[Green bar from May to Aug]			
<b>Canopy and Covered Walkway</b>						
CC1310	Shop drawing, Approved & Fabrication		[Green bar from May to Aug]			
CC1320	Footing		[Green bar from May to Aug]			
CC1330	Steel Frame Installation				[Green bar from Jul to Aug]	
<b>PORTION J</b>						
<b>Portion J Structure</b>						
<b>Bay 30 - 41 of CUE/Staff Subway (Portion J)</b>						
B03260	Internal Finishes & Cable Containment (KD2)		[Red bar from May to Jul]			
<b>030 Outbound Private Car &amp; GV Kiosks</b>						
A03020	Pre-fabrication for the Steel Kiosks		[Red bar from May to Jun]			
A03030	Superstructure (Incl. Entrance & Toilet)		[Red bar from Jun to Aug]			
A03050	Finishing				[Green bar from Jul to Aug]	
A03060	BS + E&M for AVCSS Works (KD18B)				[Red bar from Jul to Aug]	
A03070	BS for Office Accommodations (KD9)				[Green bar from Jul to Aug]	
A03090	Other BS + E & M Installation		[Green bar from Jun to Aug]			
<b>Portion J Buildings</b>						
<b>024 Outbound Private Car Exam Building</b>						
A02420	Superstructure		[Green bar from May to Aug]			
A02430	Finishing (KD9)		[Green bar from May to Aug]			
A02440	BS for Office Accommodations (KD18F)		[Green bar from May to Aug]			
A02450	BS + E&M for Office Accommodation (KD18G)			[Green bar from Jun to Aug]		
A02460	Other BS + E & M Installation (KD31)		[Green bar from May to Aug]			
<b>Test &amp; Commission</b>						
D02410	Submission & Issue of WW046 I, II, III (Inside Services & FS)		[Green bar from May to Jun]			
<b>Glass Canopy Installation</b>						
B02415	Fabrication of F/C System		[Green bar from May to Jun]			
B02420	Casted-in Items Installation		[Green bar from Jun to Aug]			
B02430	Steel Frame Installation				[Green bar from Jul to Aug]	
B02440	Glass Panel Installation				[Green bar from Aug to Sep]	

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<b>Aluminium Metal Canopy</b>						
B02455	Fabrication of F/C System	█				
B02460	Casted-in Items Installation	█				
B02470	Steel Frame Installation		█			
B02480	Aluminium Cladding Installation (KD31)		█			
<b>031 Outbound IMMD and DOH Secondary Screen Building</b>						
A03140	Superstructure	█				
A03150	Finishing (KD31)		█			
A03160	BS for Office Accommodations (KD18F)		█			
A03170	BS + E&M for Office Accommodation (KD18G)		█			
A03180	Other BS + E & M Installation (KD31)		█			
<b>Test &amp; Commission</b>						
C03120	Submission & Issue of WW046 I, II, III (Inside Services & FS)		█			
C03170	T&C for BS & Pumps				█	
<b>060 - Single Storey Support Building Associated with Buildings 044 &amp; 045</b>						
A06025	Finishing		█			
A06050	Superstructure (other than transformer room) Construction	█				
A06055	Energisation by CLP		█			
A06060	BS for Office Accommodation (Stage 10) (KD11)		█			
A06080	Other BS + E&M Installation		█			
<b>T&amp;C and Statutory Inspection for Zone 3a</b>						
B06020	BEE0 Stage II & Accessor Certification Submission		█			
B06030	T&C for BS & Pumps		█			
B06060	Essential T&C (FSI)				█	
B06070	Non-Essential T&C (Non-FSI)				█	
B06080	OP Application & TPIDC Inspection				█	
<b>Waterworks Ordinance (WSD)</b>						
G06020	Submission of WWO46 - Part I & II (Inside Services)		█			
<b>DG License &amp; EPD Generator Approval</b>						
G06000	DG Application		█			
<b>061 Telecom Building</b>						
A06150	Finishing (KD9)		█			
A06160	BS for Office Accommodations (KD9)		█			
A06170	BS + E&M for Office Accommodation (KD10)		█			
A06180	Other BS + E & M Installation		█			
<b>Aluminium Metal Canopy</b>						
B06115	Fabrication of Aluminium Cladding	█				
B06120	Casted-in Items Installation		█			
B06130	Steel Frame Installation		█			
B06140	Aluminium Cladding Installation		█			
<b>101 Outbound Traffic Control Kiosk</b>						
A10130	Superstructure (Roof Beams & Slabs)	█				
A10140	Finishing		█			
A10150	BS + E&M for AVCSS Works (KD18A)		█			
A10160	BS + E&M for AVCSS Cabling (KD18B)		█			
A10170	BS for Office Accommodations (KD9)		█			
A10180	BS + E&M for Office Accommodation (KD10)		█			
A10190	Other BS + E & M Installation		█			
C10110	Submission of WWO46 - Part I & II (Inside Services)		█			
<b>HPL Composite Panel Cladding System</b>						

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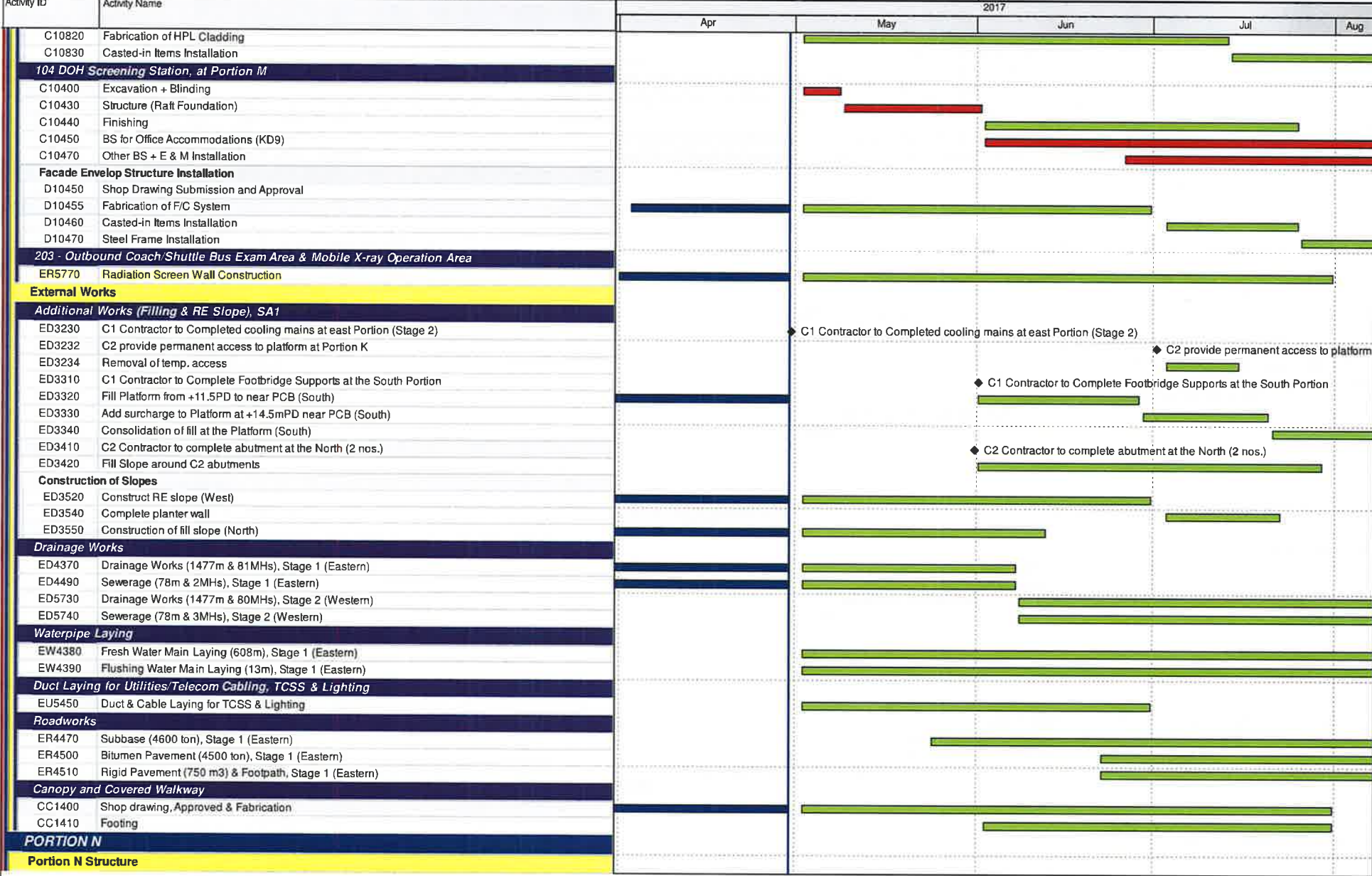
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B10110	Shop Drawing Submission and Approval					
B10120	Fabrication of HPL Cladding					
B10130	Casted-in Items Installation					
<b>206 - Outbound Private Car Mobile X-ray Operation Area</b>						
ER5780	Radiation Screen Wall Construction					
ER5800	Construction of the Area and Access to the Interface Contractor					
<b>External Works for Portion J</b>						
<b>Works in Location 1.7B</b>						
EU1500	ELV Works & T&C in Location 1.7B					
<b>Works in Location 1.7C</b>						
EU1530	ELV Works & T&C in Location 1.7C					
<b>Drainage Works</b>						
ED4220	Drainage Works (1700m & 86MHs), Stage 1					
ED4340	Sewerage (425m & 11MHs), Stage 1					
ED5710	Drainage Works (1697m & 85MHs), Stage 2					
ED5720	Sewerage (425m & 12MHs), Stage 2					
<b>Waterpipe Laying</b>						
EW4230	Fresh Water Main Laying (1541m)					
EW4240	Flushing Water Main Laying (862m)					
SW8290	Chilled Water Pipe Laying in Portion C (external)					
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
EU5570	ELV Installation					
<b>Roadworks</b>						
ER4320	Subbase (15400 ton), Stage 1					
ER4350	Bitumen Pavement (20000 ton), Stage 1					
ER4360	Rigid Pavement (173 m3), Footpath & EVA, Stage 1					
<b>Sign Gantry DS104</b>						
ES0140	Sign Gantry DS104 P-bored Piling, 8 Nr.					
ES5130	Testing for P-bored Piles					
ES5150	Fabrication & Delivery of Sign Gantry to Site					
<b>PORTION K, L, M, S &amp; T</b>						
<b>Portion K Building</b>						
<b>002 - C&amp;ED Observation Guard Booth No. 1, Portion K</b>						
A00210	Excavation + Blinding					
A00220	Raft Foundation					
A00230	Superstructure					
<b>002 - C&amp;ED Observation Guard Booth No. 2, Portion K</b>						
B00210	Excavation + Blinding					
B00220	Raft Foundation					
B00230	Superstructure					
<b>Portion M Buildings</b>						
<b>108 - C&amp;ED Mobile X-ray Operation Office, Portion M</b>						
B10800	Excavation + Blinding					
B10810	Substructure (raft Foundation)					
B10840	Superstructure (Roof beams & Slabs)					
B10850	Finishing					
B10860	BS for Office Accommodations (KD9)					
B10880	Other BS + E & M Installation					
<b>HPL Composite Panel Cladding System</b>						

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #004a99; border: 1px solid black;"></span> Actual Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #92d050; border: 1px solid black;"></span> Remaining Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #cc0000; border: 1px solid black;"></span> Critical</li> <li><span style="display: inline-block; width: 0; height: 0; border-left: 5px solid transparent; border-right: 5px solid transparent; border-bottom: 8px solid black;"></span> Milestone</li> </ul>	<p><b>THREE MONTH ROLLING PROGRAMME</b>  <b>VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES</b></p> <p>Page 17 of 21</p>	<table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>28-Feb-17</td> <td>3MRP updated as of 28 Feb. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>31-Mar-17</td> <td>3MRP updated as of 31 Mar. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>30-Apr-17</td> <td>3MRP updated as of 30 Apr. 2017</td> <td>ZJ</td> <td></td> </tr> </tbody> </table>	Date	Revision	Checked	Approved	28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ		31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ		30-Apr-17	3MRP updated as of 30 Apr. 2017	ZJ	
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**HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities** 02-May-17



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**HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities**

02-May-17

Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
<b>Box Culvert B</b>						
<b>Bored Pile</b>						
SB0590	Box B - Foundation: Revised as pre-bored H-Piles					
<b>Box Culvert Structure</b>						
SB0720	Box B - Construction (Stage 2)					
SB0722	Box B - Temporary Works for Construction of Outfall Structure					
SB0730	Box B - Outfall Structure					
SB0750	Box B - Backfilling					
<b>Portion N Buildings</b>						
<b>104 DOH Screening Station, at Portion N</b>						
C10405	Excavation + Blinding (+ PL Test)					
C10410	Structure (Raft Foundation)					
C10420	Finishing					
E10410	BS for Office Accommodations (KD9)					
E10430	Other BS + E & M Installation					
<b>Facade Envelop Structure Installation</b>						
D10410	Shop Drawing Submission and Approval					
D10415	Fabrication of F/C System					
D10420	Casted-in Items Installation					
<b>106 C&amp;ED Detention Area Guard Booth</b>						
A10600	Excavation + Blinding					
A10610	Structure (Raft Foundation)					
A10640	Finishing					
E10640	BS for Office Accommodations (KD9)					
E10660	Other BS + E & M Installation					
<b>Facade Envelop Structure Installation</b>						
B10610	Shop Drawing Submission and Approval					
B10615	Fabrication of F/C System					
B10620	Casted-in Items Installation					
B10630	Steel Frame Installation					
<b>107 C&amp;ED Mobile X-ray Operation Office, Portion N</b>						
A10700	Excavation + Blinding					
A10710	Substructure (Raft Foundation)					
A10740	Superstructure					
A10750	Finishing (KD9)					
A10760	Other BS + E & M Installation (KD10)					
<b>HPL Composite Panel Cladding System</b>						
B10710	Shop Drawing Submission and Approval					
B10720	Fabrication of HPL Composite Panel System					
B10730	Casted-in Items Installation					
B10740	Steel Frame Installation					
<b>200 - Inbound/Outbound Vehicle Detection Area</b>						
ER5810	Construction of the Area and Access to the Interface Contractor					
<b>External Works for Portion N</b>						
<b>Works in Location 1.7A</b>						
EU1540	ELV Works & T&C in Location 1.7A					
<b>Drainage Works</b>						
ED4620	Drainage Works (964m & 56MHs), Stage 1 (Southern)					
ED4650	Sewerage (383m & 12MHs), Stage 1 (Southern)					
ED5750	Drainage Works (963m & 55MHs), Stage 2 (Northern)					

- Actual Work
- Remaining Work
- Critical
- Milestone

**THREE MONTH ROLLING PROGRAMME  
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**

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Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
ED5760	Sewerage (383m & 12MHs), Stage 2 (Northern)					
<b>Waterpipe Laying</b>						
EW4530	Fresh Water Main Laying (641m)					
EW4540	Flushing Water Main Laying (413m)					
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
EU5460	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5470	Duct & Cable Laying for TCSS & Lighting					
<b>Roadworks</b>						
ER4620	Subbase (6475 ton)					
ER4650	Bitumen Pavement (10144ton)					
ER4660	Rigid Pavement (183 m3), Footpath & EVA					
<b>PORTION P</b>						
<b>Portion Structure</b>						
<b>Retaining Wall RW1</b>						
RW1110	Construction of Retaining Wall RW1 (U-shape, 5 bays)					
<b>Portion P Buildings</b>						
<b>105 IMMD Guard Booth, Portion P</b>						
A10510	Excavation + Blinding					
A10520	Substructure (Raft Foundation)					
A10530	On Grade Ground Slab					
A10540	Finishing					
E10500	BS for Office Accommodations (KD9)					
E10510	BS + E&M for Office Accommodation (KD10)					
E10520	Other BS + E & M Installation					
<b>Facade Envelop Structure Installation</b>						
A10560	Shop Drawing Submission and Approval					
A10565	Fabrication of F/C System					
A10570	Casted-in Items Installation					
A10580	Steel Frame Installation					
<b>External Works for Portion P</b>						
<b>Drainage Works</b>						
AS0160	Initial Survey					
ED4670	Drainage Works (2957m & 128MHs)					
ED4790	Sewerage (269m & 7MHs)					
<b>Waterpipe Laying</b>						
EW4680	Fresh Water Main Laying (1270m)					
EW4690	Flushing Water Main Laying (455m)					
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
EU5480	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
<b>Roadworks</b>						
ER4770	Subbase (16519 ton)					
ER4800	Bitumen Pavement (23958 ton)					
ER4810	Rigid Pavement (220 m3), Footpath & EVA					
<b>PORTION Q</b>						
<b>External Works for Portion Q</b>						
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
ED5570	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
ED5580	Duct & Cable Laying for TCSS & Lighting					
EU1490	ELV System Installation for Contract HY/2013/04					

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**HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities**

02-May-17

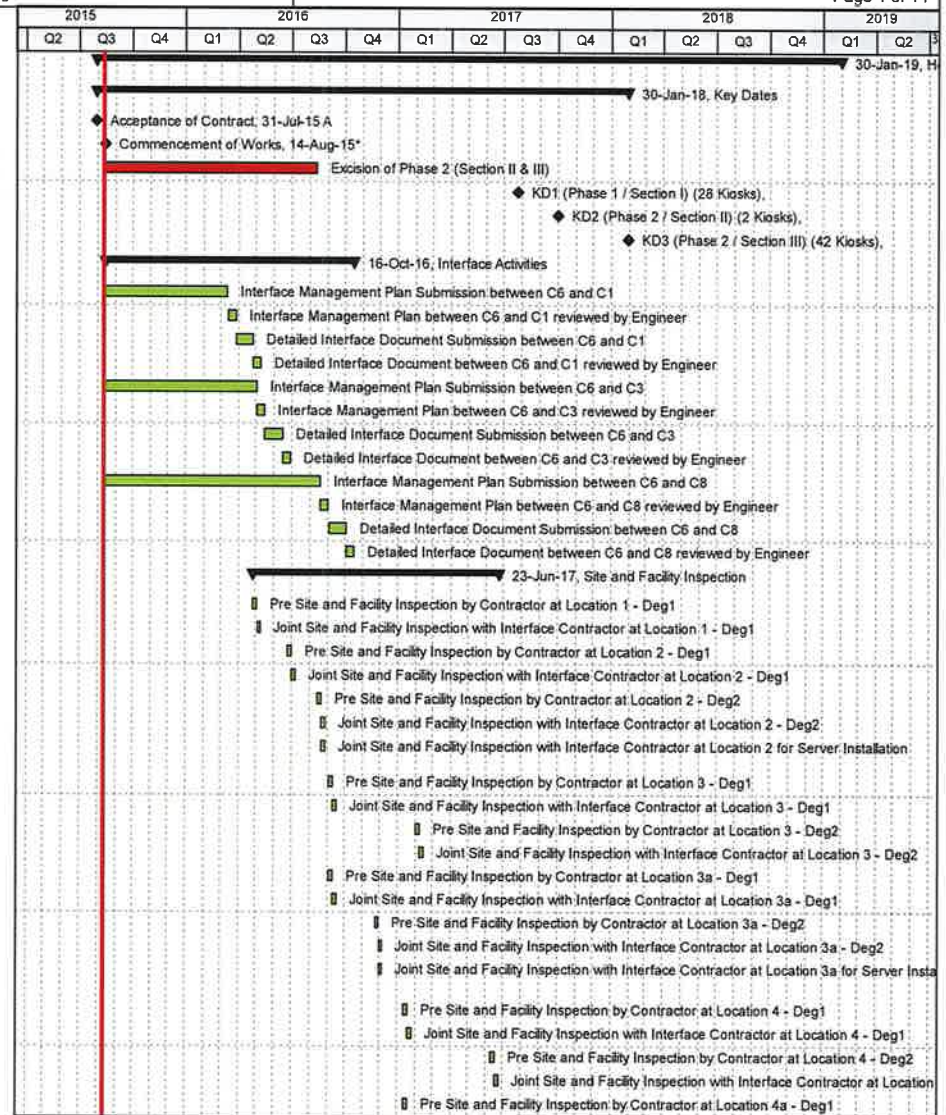
Activity ID	Activity Name	2017				
		Apr	May	Jun	Jul	Aug
<b>Roadworks</b>						
AS0170	Initial Survey					
AS1810	C3-S1 Slope Construction					
AS1820	C3-S2 Slope Construction					
<b>PORTION R</b>						
<b>Portion R Building</b>						
<b>002 - C&amp;ED Observation Guard Booth, Portion R</b>						
D00210	Excavation + Blinding					
D00220	Raft Foundation					
D00230	Superstructure					
D00240	Finishing					
D00250	BS for Office Accommodations (KD9)					
D00260	BS + E&M for Office Accommodation (KD10)					
D00270	Other BS + E & M Installation					
<b>External Works for Portion R</b>						
<b>Drainage Works</b>						
AS0180	Initial Survey					
ED4960	Drainage Works (1040m & 70MHs)					
ED5080	Sewerage (272m & 7MHs)					
<b>Waterpipe Laying</b>						
EW4970	Fresh Water Main Laying (614m)					
EW4980	Flushing Water Main Laying (222m)					
<b>Duct Laying for Utilities/Telecom Cabling, TCSS &amp; Lighting</b>						
EU5500	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5510	Duct & Cable Laying for TCSS & Lighting					
EU5610	ELV Installation					
<b>Roadworks</b>						
ER5060	Subbase (1734 ton)					
<b>Landscape Works</b>						
A5170	Design and Procurement for Irrigation System					

- Actual Work
- Remaining Work
- Critical
- ◆ Milestone

**THREE MONTH ROLLING PROGRAMME  
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**  
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Activity ID	Activity Name
<b>Hong Kong-Zhuhai_Macao Bridge Hong Kong Boundary Crossir</b>	
<b>Key Dates</b>	
A1000	Acceptance of Contract
A1010	Commencement of Works
A1020	Excision of Phase 2 (Section II & III)
A1120	KD1 (Phase 1 / Section I) (28 Kiosks)
A1470	KD2 (Phase 2 / Section II) (2 Kiosks)
A1480	KD3 (Phase 2 / Section III) (42 Kiosks)
<b>Interface Activities</b>	
A6860	Interface Management Plan Submission between C6 and C1
A6865	Interface Management Plan between C6 and C1 reviewed by Engineer
A6870	Detailed Interface Document Submission between C6 and C1
A6875	Detailed Interface Document between C6 and C1 reviewed by Engineer
A6880	Interface Management Plan Submission between C6 and C3
A6885	Interface Management Plan between C6 and C3 reviewed by Engineer
A6890	Detailed Interface Document Submission between C6 and C3
A6895	Detailed Interface Document between C6 and C3 reviewed by Engineer
A6900	Interface Management Plan Submission between C6 and C8
A6905	Interface Management Plan between C6 and C8 reviewed by Engineer
A6910	Detailed Interface Document Submission between C6 and C8
A6915	Detailed Interface Document between C6 and C8 reviewed by Engineer
<b>Site and Facility Inspection</b>	
A4730	Pre Site and Facility Inspection by Contractor at Location 1 - Deg1
A4740	Joint Site and Facility Inspection with Interface Contractor at Location 1 - Deg1
A4760	Pre Site and Facility Inspection by Contractor at Location 2 - Deg1
A4770	Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg1
A4772	Pre Site and Facility Inspection by Contractor at Location 2 - Deg2
A4774	Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg2
A4775	Joint Site and Facility Inspection with Interface Contractor at Location 2 for Server Installation
A4780	Pre Site and Facility Inspection by Contractor at Location 3 - Deg1
A4790	Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg1
A4800	Pre Site and Facility Inspection by Contractor at Location 3 - Deg2
A4810	Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg2
A4820	Pre Site and Facility Inspection by Contractor at Location 3a - Deg1
A4830	Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg1
A4840	Pre Site and Facility Inspection by Contractor at Location 3a - Deg2
A4850	Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg2
A4851	Joint Site and Facility Inspection with Interface Contractor at Location 3a for Server Installation
A4860	Pre Site and Facility Inspection by Contractor at Location 4 - Deg1
A4870	Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg1
A4880	Pre Site and Facility Inspection by Contractor at Location 4 - Deg2
A4890	Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg2
A4891	Pre Site and Facility Inspection by Contractor at Location 4a - Deg1



Programme No.: HZMB-DWP  
Data Date: 14-Aug-15

- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone
- summary

Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Boundary Crossing  
Facilities - Automatic Vehicle  
Clearance Support System (AVCSS)



Date	Revision	Checked	Approved
14-Nov-16	Rev: 0	WC	LC

Contract No.: HY/2013/06		Detail Work Programme												Page 2 of 14				
Activity ID	Activity Name	2015			2016			2017				2018				2019		
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A4892	Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg1																	
A4900	Pre Site and Facility Inspection by Contractor at Location 4a - Deg2																	
A4910	Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg2																	
A4920	Pre Site and Facility Inspection by Contractor at Location 5 - Deg1																	
A4930	Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg1																	
A4940	Pre Site and Facility Inspection by Contractor at Location 5 - Deg2																	
A4950	Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg2																	
A4960	Pre Site and Facility Inspection by Contractor at Location 6 - Deg1																	
A4970	Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg1																	
A4980	Pre Site and Facility Inspection by Contractor at Location 6 - Deg2																	
A4990	Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg2																	
A5000	Pre Site and Facility Inspection by Contractor at Location 7 - Deg1																	
A5010	Joint Site and Facility Inspection with Interface Contractor at Location 7 - Deg1																	
A5020	Pre Site and Facility Inspection by Contractor at Location 8 - Deg1																	
A5030	Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg1																	
A5040	Pre Site and Facility Inspection by Contractor at Location 8 - Deg2																	
A5050	Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg2																	
A5060	Pre Site and Facility Inspection by Contractor at Location 9 - Deg1																	
A5070	Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg1																	
A5080	Pre Site and Facility Inspection by Contractor at Location 9 - Deg2																	
A5090	Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg2																	
A5100	Pre Site and Facility Inspection by Contractor at Location 10 - Deg1																	
A5110	Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg1																	
A5120	Pre Site and Facility Inspection by Contractor at Location 10 - Deg2																	
A5130	Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg2																	
A5140	Pre Site and Facility Inspection by Contractor at Location 11 - Deg1																	
A5150	Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg1																	
A5160	Pre Site and Facility Inspection by Contractor at Location 11 - Deg2																	
A5170	Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg2																	
A5180	Pre Site and Facility Inspection by Contractor at Location 12 - Deg1																	
A5190	Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg1																	
A5200	Pre Site and Facility Inspection by Contractor at Location 12 - Deg2																	
A5210	Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg2																	
A5220	Pre Site and Facility Inspection by Contractor at Location 13 - Deg1																	
A5230	Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg1																	
A5240	Pre Site and Facility Inspection by Contractor at Location 13 - Deg2																	
A5250	Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg2																	
A5260	Pre Site and Facility Inspection by Contractor at Location 14 - Deg1																	
A5270	Joint Site and Facility Inspection with Interface Contractor at Location 14 - Deg1																	
A5300	Pre Site and Facility Inspection by Contractor at Location 15 - Deg1																	
A5310	Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg1																	
A5320	Pre Site and Facility Inspection by Contractor at Location 15 - Deg2																	
A5330	Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg2																	
A5340	Pre Site and Facility Inspection by Contractor at Location 16 - Deg1																	
A5350	Joint Site and Facility Inspection with Interface Contractor at Location 16 - Deg1																	

Programme No.: HZMB-DWP Data Date: 14-Aug-15	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ccc; border: 1px solid #000;"></span> Actual Level of Effort</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #000; border: 1px solid #000;"></span> Actual Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #fff; border: 1px solid #000;"></span> Remaining Work</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #f00; border: 1px solid #000;"></span> Critical Remaining Work</li> <li><span style="display: inline-block; width: 0; height: 0; border-left: 5px solid transparent; border-right: 5px solid transparent; border-bottom: 8px solid #000;"></span> Milestone</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ccc; border: 1px solid #000;"></span> summary</li> </ul>	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS)		Date	Revision	Checked	Approved
				14-Nov-16	Rev: 0	WC	LC



Activity ID	Activity Name	2015		2016				2017				2018				2019		
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A1162	Location 4a(Outbd Cargo Exam Bldg (023))-Deg2 (630d)																	
A1170	Location 5(Common Utility Enclosure & Staff Subway)-Deg1 (320d)																	
A1180	Location 5(Common Utility Enclosure & Staff Subway)-Deg2 (-)																	
A1190	Location 6(Common Utility Enclosure & Staff Subway)-Deg1 (400d)																	
A1200	Location 6(Common Utility Enclosure & Staff Subway)-Deg2 (-)																	
A1210	Location 7(Common Utility Enclosure & Staff Subway)-Deg1 (270d)																	
A1230	Location 8(Inbd Private Car Annex (025))-Deg1 (430d)																	
A1240	Location 8(Inbd Private Car Annex (025))-Deg2 (580d)																	
A1241	Location 8(Inbd Private Car Annex (025) Canopy)-Deg1 (430d)																	
A1242	Location 8(Inbd Private Car Annex (025) Canopy)-Deg2 (580d)																	
A1250	Location 9(Outbd Private Car Annex (032))-Deg1 (520d)																	
A1260	Location 9(Outbd Private Car Annex (032))-Deg2 (660d)																	
A1261	Location 9(Outbd Private Car Annex (032) Canopy)-Deg1 (520d)																	
A1262	Location 9(Outbd Private Car Annex (032) Canopy)-Deg2 (660d)																	
A1270	Location 10(Shuttle Bus Kiosks (006))-Deg1 (480d)																	
A1280	Location 10(Shuttle Bus Kiosks (006))-Deg2 (550d)																	
A1281	Location 10(Shuttle Bus Kiosks (006) Canopy)-Deg1 (480d)																	
A1282	Location 10(Shuttle Bus Kiosks (006) Canopy)-Deg2 (550d)																	
A1290	Location 11(Outbd Coach Kiosks (009))-Deg1 (400d)																	
A1300	Location 11(Outbd Coach Kiosks (009))-Deg2 (480d)																	
A1301	Location 11(Outbd Coach Kiosks (009) Canopy)-Deg1 (400d)																	
A1302	Location 11(Outbd Coach Kiosks (009) Canopy)-Deg2 (480d)																	
A1303	Location 11(Inbd Coach Kiosks (010))-Deg1 (400d)																	
A1304	Location 11(Inbd Coach Kiosks (010))-Deg2 (480d)																	
A1305	Location 11(Inbd Coach Kiosks (010) Canopy)-Deg1 (400d)																	
A1306	Location 11(Inbd Coach Kiosks (010) Canopy)-Deg2 (480d)																	
A1310	Location 12(Inbd Private Car Kiosks(027))-Deg1 (400d)																	
A1311	Location 12(Inbd Private Car Kiosks(027))-Deg2 (480d)																	
A1312	Location 12(Inbd Private Car Kiosks(027) Canopy)-Deg1 (400d)																	
A1313	Location 12(Inbd Private Car Kiosks(027) Canopy)-Deg2 (480d)																	
A1314	Location 12(Inbd GV Kiosks (028))-Deg1 (400d)																	
A1315	Location 12(Inbd GV Kiosks (028))-Deg2 (480d)																	
A1316	Location 12(Inbd GV Kiosks (028) Canopy)-Deg1 (400d)																	
A1317	Location 12(Inbd GV Kiosks (028) Canopy)-Deg2 (480d)																	
A1318	Location 12(Outbd GV Kiosks (029))-Deg1 (400d)																	
A1319	Location 12(Outbd GV Kiosks (029))-Deg2 (480d)																	
A1320	Location 12(Outbd GV Kiosks (029) Canopy)-Deg1 (400d)																	
A1321	Location 12(Outbd GV Kiosks (029) Canopy)-Deg2 (480d)																	
A1330	Location 13(Outbd Private Car Kiosks (030))-Deg1 (480d)																	
A1340	Location 13(Outbd Private Car Kiosks (030))-Deg2 (550d)																	
A1341	Location 13(Outbd Private Car Kiosks (030) Canopy)-Deg1 (480d)																	
A1342	Location 13(Outbd Private Car Kiosks (030) Canopy)-Deg2 (550d)																	
A1350	Location 14(Future-Outbd/Inbd Private Car Kiosks)-Deg1 (610d)																	
A1370	Location 15(Inbd Traffic Control Kiosk (100))-Deg1 (400d)																	
A1380	Location 15(Inbd Traffic Control Kiosk (100))-Deg2 (480d)																	

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		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2									
		◆ Location 16(Outbd Traffic Control Kiosk (101))-Deg1 (400d), 17-Sep-16* ◆ Location 16(Outbd Traffic Control Kiosk (101))-Deg2 (480d), 06-Dec-16* ◆ Location 17(Inbd Private Car Exam Bldg(033))-Deg1 (-), 01-Dec-16* ◆ Location 17(Inbd Private Car Exam Bldg(033))-Deg2 (550d), 14-Feb-17* ◆ Location 18(Outbd Private Car Exam Bldg(024))-Deg1 (-), 14-Jun-17* ◆ Location 18(Outbd Private Car Exam Bldg(024))-Deg2 (670d), 14-Jun-17* ◆ Location 19(DOH Cargo Clearance Bldg(043))-Deg1 (-), 14-Feb-17* ◆ Location 19(DOH Cargo Clearance Bldg(043))-Deg2 (550d), 14-Feb-17* ◆ Underground Ducting between Inbd Cargo Exam Bldg (037) and DOH Cargo Clearance Bldg (043) and CUE ◆ Underground Ducting between Inbd Cargo Exam Bldg (037) and Inbd Vehicle Clearance Plaza, 29-Jun-16* ◆ Underground Ducting between CUE and Outbd Car Exam Bldg (023), 29-Jun-16* ◆ Underground Ducting Between Outbd Cargo Exam Bldg (023) and Outbd Vehicle Clearance Plaza, 29-Jun-16* ◆ Underground Ducting between CUE and Outbd Vehicle Clearance Plaza, 29-Jun-16* ◆ Underground Ducting between CUE and Inbd P. Car Annex (025) and Shuttle Bus Kiosks (006), 13-Aug-16* ◆ Underground Ducting between PCB(001) and Inbd Coach Kiosks(010), 13-Aug-16* ◆ Underground Ducting between CUE and Outbd PCA (032), 13-Aug-16* ◆ Inbound Vehicle Clearance Plaza (Assume same as Location 3), 14-Feb-17* ◆ Outbound Vehicle Clearance Plaza (Assume same as Location 4 degree 1 + 51 day), 17-Mar-17, Interfaces Provisions ◆ Inbound VID foundation and mounting structure (assume same as Access date of Inbound Vehicle Clearance Plaza) ◆ Inbound VTS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza) ◆ Inbound TLS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza) ◆ Outbound VID foundation and mounting structure (assume same as Access date of Outbound Vehicle Clearance Plaza) ◆ Outbound VTS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza) ◆ Outbound TLS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza) ◆ 14-Nov-15, WA4 Site Erection & Servicing ◆ Possession of Site, 14-Aug-15* Method Statement & Drawing Place Order to prepare materials Review, revise and approve method statement Equipment mobilization and construction material delivered to the site Set up the alignment and level of the u-channel Trial pit excavation Excavation for chain-link fence footing Underground Utility detection Delivery of asphalt and fencing materials Trimming and leveling soil surface for paving asphalt material Remove the vegetation and lose material on the soil surface by backhoe Set out the alignment and level of the u-channel																																	
A1390	Location 16(Outbd Traffic Control Kiosk (101))-Deg1 (400d)																																		
A1400	Location 16(Outbd Traffic Control Kiosk (101))-Deg2 (480d)																																		
A1410	Location 17(Inbd Private Car Exam Bldg(033))-Deg1 (-)																																		
A1420	Location 17(Inbd Private Car Exam Bldg(033))-Deg2 (550d)																																		
A1430	Location 18(Outbd Private Car Exam Bldg(024))-Deg1 (-)																																		
A1440	Location 18(Outbd Private Car Exam Bldg(024))-Deg2 (670d)																																		
A1450	Location 19(DOH Cargo Clearance Bldg(043))-Deg1 (-)																																		
A1460	Location 19(DOH Cargo Clearance Bldg(043))-Deg2 (550d)																																		
A1461	Underground Ducting between Inbd Cargo Exam Bldg (037) and DOH Cargo Clearance Bldg (043) and CUE																																		
A1462	Underground Ducting between Inbd Cargo Exam Bldg (037) and Inbd Vehicle Clearance Plaza																																		
A1463	Underground Ducting between CUE and Outbd Car Exam Bldg (023)																																		
A1464	Underground Ducting Between Outbd Cargo Exam Bldg (023) and Outbd Vehicle Clearance Plaza																																		
A1465	Underground Ducting between CUE and Outbd Vehicle Clearance Plaza																																		
A1466	Underground Ducting between CUE and Inbd P. Car Annex (025) and Shuttle Bus Kiosks (006)																																		
A1467	Underground Ducting between PCB(001) and Inbd Coach Kiosks(010)																																		
A1468	Underground Ducting between CUE and Outbd PCA (032)																																		
A1478	Inbound Vehicle Clearance Plaza (Assume same as Location 3)																																		
A1488	Outbound Vehicle Clearance Plaza (Assume same as Location 4 degree 1 + 51 day)																																		
<b>Interfaces Provisions</b>																																			
A7000	Inbound VID foundation and mounting structure (assume same as Access date of Inbound Vehicle Clearance Plaza)																																		
A7010	Inbound VTS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza)																																		
A7020	Inbound TLS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza)																																		
A7030	Outbound VID foundation and mounting structure (assume same as Access date of Outbound Vehicle Clearance Plaza)																																		
A7040	Outbound VTS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza)																																		
A7050	Outbound TLS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza)																																		
<b>WA4 Site Erection &amp; Servicing</b>																																			
A1740	Possession of Site																																		
A1750	Method Statement & Drawing																																		
A1760	Place Order to prepare materials																																		
A1770	Review, revise and approve method statement																																		
A1780	Equipment mobilization and construction material delivered to the site																																		
A1790	Set up the alignment and level of the u-channel																																		
A1800	Trial pit excavation																																		
A1801	Excavation for chain-link fence footing																																		
A4540	Underground Utility detection																																		
A4550	Delivery of asphalt and fencing materials																																		
A4560	Trimming and leveling soil surface for paving asphalt material																																		
A4570	Remove the vegetation and lose material on the soil surface by backhoe																																		
A4580	Set out the alignment and level of the u-channel																																		

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		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A4590	Installation of fencing post along the site boundary																	
A4600	Excavation for underground drainage pipe																	
A4610	Evenly spread the asphalt scrap material by backhoe																	
A4620	Cast concrete for the u-channel and underground drainage pipe																	
A4630	Remove the u-channel framework																	
A4640	Installation of chain-link fencing along the site boundary																	
A4650	Installation of access doors																	
A4660	Excavation for drainage ditch																	
A4670	Cast concrete for the drainage ditch																	
A4680	Compact the asphalt scrap material																	
A4690	Land surveying																	
A4700	Inspection of chain-link fencing and access doors																	
A4710	Testing of drains																	
A4720	Completion of the works																	
<b>Detailed Design Specification</b>																		
A1808	Preliminary System Proposal Submission																	
A1809	Engineer's agreement with preliminary system proposal																	
A1810	Draft Detailed Design Specification (DDS) Submission																	
A1814	Draft Hardware Function Design Specification for Computer system and Network system (HFD)																	
A1815	Draft Software Function Design Specification for Computer system and Network system (SFD)																	
A1820	Engineer's Review and Approval for Draft Detailed Design Specification (DDS)																	
A1823	Engineer's Review and Approval for Draft Hardware FDS for Computer system and Network system (HFD)																	
A1824	Engineer's Review and Approval for Draft Software FDS for Computer system and Network system (SFD)																	
A1829	Interface Requirements for CED (LBS, CED IT Server, Metro-Ethernet) and IMMDD (AVCS)																	
A1830	Final DDS Submission (AVCSS,VTS,VIDS)(Phase 1/Section I)																	
A1831	Development of System Security Plan																	
A1840	Engineer's Review and Approval for Final DDS Submission including System Security Plan (AVCSS)(Phase 1/Section I)																	
A1850	Final DDS Submission (AVCSS)(Phase 2/Section II&III)																	
A1860	Engineer's Review and Approval for DDS Submission (AVCSS)(Phase 2/Section II&III)																	
<b>Construction Design and Management</b>																		
A6920	Construction Health and Safety Plan Submission																	
A6930	Construction Health and Safety Plan reviewed by Engineer																	
<b>Supply/Manufacture Mock-up items</b>																		
A4749	Preparation of Kiosk equipment Mock-up																	
A4750	Installation of Kiosk equipment Mock-up																	
<b>Supply/Manufacture prototypes</b>																		
A2900	Manufacture LED Display Prototype (VID, ODB and XDB)																	
A2910	Manufacture All-In-One Panel Prototype (AIOP)																	
<b>Software Design, Coding and Testing</b>																		

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<b>Coding</b>		05-Jan-17, Coding																									
A5460	CCS, SURCON, SYSCON, CDBS Development Stage 1	[Red Bar]																									
A5500	VTS Development Stage 1	[Red Bar]																									
A5510	VIDS Development Stage 1	[Red Bar]																									
A5540	CCS, SURCON, SYSCON, CDBS Development Stage 2	[Red Bar]																									
A5580	VTS Development Stage 2	[Red Bar]																									
A5590	VIDS Development Stage 2	[Red Bar]																									
<b>Software System Integration</b>		22-May-17, Software System Integration																									
A5520	Test Plan Documentation Submission	[Red Bar]																									
A5530	Engineer's Review and Approval for Test Plan Documentation Submission	[Red Bar]																									
A5600	Software System Integration Test	[Red Bar]																									
A5630	CCS/SYSCON/SURCON/CDBS/VTS/VIDS Software Enhancement	[Red Bar]																									
A5640	Software User Acceptance Test (UAT)	[Red Bar]																									
<b>Prototype &amp; Software Simulation Tests</b>		09-Sep-16, Prototype & Software Simulation Tests																									
A1910	Prototype Test Document	[Green Bar]																									
A2130	Engineer's Approval for Testing Document	[Green Bar]																									
A2920	CCWS with CDBS, SURCON and SYSCON (Software Simulation/ Software Integration Test)	[Red Bar]																									
A2930	Vehicle Tracking System (VTS) (Software Simulation/ Software Integration Test)	[Red Bar]																									
A2950	LED Displays (VID, ODB and XDB)	[Red Bar]																									
A2960	All-In-One Panel (AIOP)	[Red Bar]																									
A3020	Prototype Testing Report Submission	[Red Bar]																									
A4350	Engineer's Approval for Prototype Testing Report	[Red Bar]																									
<b>Procurement - Phase 1 / Section I</b>		27-Dec-16, Procurement - Phase 1 / Section I																									
A3070	Procurement of Equipment for Phase 1/Section I	[Red Bar]																									
A3080	Procurement of Cable and Accessories for Phase 1 /Section I	[Red Bar]																									
A3990	Procurement of All Servers and Workstations	[Red Bar]																									
<b>Supply/Manufacture products for FAT</b>		10-Nov-16, Supply/Manufacture products for FAT																									
A2980	Supply/Manufacture LED Display (ODB, VID and XDB) for FAT	[Red Bar]																									
A2990	Supply/Manufacture All-In-One Panel (AIOP) for FAT	[Red Bar]																									
A3000	Supply/Manufacture off-the-shelf equipment for FAT	[Red Bar]																									
<b>Factory Acceptance Test (FAT)</b>		12-Dec-16, Factory Acceptance Test (FAT)																									
A2120	FAT Procedure Document	[Red Bar]																									
A2121	Engineer's Approval for FAT Procedure Document	[Red Bar]																									
A3050	FAT for Licence Plate Recognition System (LPRS)	[Red Bar]																									
A3060	FAT for PA/Intercom	[Red Bar]																									
A3090	FAT for ODB	[Red Bar]																									
A3100	FAT for XDB	[Red Bar]																									
A3110	FAT for VID	[Red Bar]																									
A3120	FAT for Video Management System (VMS)	[Red Bar]																									
A3130	FAT for Vehicle Tracking System (VTS)	[Red Bar]																									
A3140	FAT for Communication Network (CMN)	[Red Bar]																									
A3150	FAT for All-In-One Panel (AIOP)	[Red Bar]																									
A3160	FAT for AVCSS System Test	[Red Bar]																									
A4360	FAT Report Submission	[Red Bar]																									

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A4370	Engineer's Approval for FAT Report Submission																	
<b>Supply/Manufacture Equipment</b>																		
A6830	Supply/Manufacture LED (ODB, VID and XDB) Display for installation																	
A6840	Supply/Manufacture AIOP for installation																	
<b>Delivery and Bench Acceptance Test for Phase 1/ Section I</b>																		
A6740	Material On-Site for Phase 1/Section I																	
A6750	Material Bench Acceptance Test for Phase 1/Section I																	
A6850	Cable On-Site for Phase 1/Section I																	
A6960	AIOP On-Site for Phase 1/Section I																	
A6970	AIOP Bench Acceptance Test for Phase 1/Section I																	
A6980	LED (ODB, VID and XDB) On-Site for Phase 1/Section I																	
A6990	LED (ODB, VID and XDB) Bench Acceptance Test for Phase 1/Section I																	
<b>Installation - Phase 1 / Section I</b>																		
<b>Location 1(PCB (001) Basement)</b>																		
A3081	Cable Laying and termination at Location 1 and Location 2																	
<b>Location 1(PCB (001) ELV Room (Grid Line E3))</b>																		
A3101	Cable Laying and termination at Location 1 and Location 2																	
<b>Location 2(PCB (001) Ground Floor ELV Room (Grid Line E3))</b>																		
A3121	Cable Laying and termination at Location 1 and Location 2																	
<b>Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD))</b>																		
A2041	Cable Laying and termination at Location 1 and Location 2																	
A2042	Cable Testing																	
A2043	Intercom and PA system Installation																	
A2044	Intercom and PA system tuning																	
<b>Location 2(PCB (001) First Floor Main Server Room)</b>																		
A2001	Cable Laying and termination at Location 1 and Location 2																	
A2002	Cable Testing																	
A2003	AVCSS Network and Server Installation																	
A2004	AVCSS Network and Server Tuning																	
<b>Location 3(Inbd Cargo Exam Bldg (037) Inspector Offices 128,129,130,131,128,12)</b>																		
A3241	Cable Laying and termination in Location 3 and Location 3a																	
A3242	AVCSS SURCON WS and 55" LCD Installation																	
A3243	VTS WS Installation																	
A3245	SURCON, WS Tuning																	
<b>Location 3(Inbd Cargo Exam Bldg (037) ELV Room)</b>																		
A3210	Cable Laying and termination between Location 3 and CUE																	
<b>Location 3(Inbd Cargo Exam Bldg (037) Platform Control Room)</b>																		
A2071	Cable Laying and termination in Location 3 and Location 3a																	
A2072	AVCSS SYSSCON WS and 55" TV Wall Installation																	
A2074	AVCSS SYSSCON WS Tuning																	
<b>Location 3(Inbd Cargo Exam Bldg (037) MDF Room)</b>																		
A3190	Cable Laying and termination between Location 3 and CUE																	
<b>Location 3a(Inbd Cargo Exam Bldg (037) ROCARS Room)</b>																		
A2091	Cable Laying and termination in Location 3 and Location 3a																	
A2092	AVCSS SYSSCON,SURCON and Intercom Installation																	

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A2093	VTS WS Installation																
A2094	VID WS Installation																
A2096	SURCON, SYSCON, WS Tuning																
<b>Location 3a(Inbd Cargo Exam Bldg Main Server Room)</b>																	
A3330	Cable Laying and termination in Location 3 and Location 3a																
A3340	AVCSS Server Installation																
A3350	VTS Server Installation																
A3360	Servers Tuning																
<b>Location 4(Outbd Cargo Exam Bldg (023) MDF Room)</b>																	
A3410	Cable Laying and termination between CUE and Location 4																
<b>Location 4 and 4a(Outbd Cargo Exam Bldg (023) ROCARS Room)</b>																	
A3370	Cable Laying and termination in Location 4 and 4a																
A3380	AVCSS SYSCON, SURCON and Intercom Installation																
A3390	VTS WS Installation																
A3400	SYSCON, SURCON, WS Tuning																
<b>Location 5(Common Utility Enclosure &amp; Staff Subway)</b>																	
A3430	Cable Laying between Location 5 and Location 7																
A3440	Cable Laying between Location 5 and Location 6																
A3480	ODB Switch Installation at EL Room 2-7																
<b>Location 6(Common Utility Enclosure &amp; Staff Subway)</b>																	
A3450	Cable Laying between Location 5 and Location 6																
A3490	ODB Switch Installation at EL Room 8-9,11-12																
<b>Location 7(Common Utility Enclosure &amp; Staff Subway)</b>																	
A3470	Cable Laying between Location 5 and Location 7																
<b>Location 12(Inbd Private Car Kiosks,GV Kiosks (027,028,029))</b>																	
<b>Inbd Private Car Kiosks(027) - 9 nos (Phase 1)</b>																	
A2452	Cable Containment in Kiosks																
A2453	Cable Laying and termination																
A2454	Cable Splicing, Testing and Labeling																
A2460	AVCSS/DOH/MOM Kiosk Equipment Installation (9 nos)																
A2470	ODB & XDB installation (9 nos)																
A4380	Inbd Private Car Kiosk Installation Complete																
<b>Inbd Goods Vehicle Kiosks(028) - 5 nos (Phase 1)</b>																	
A2532	Cable Containment in Kiosks																
A2533	Cable Laying and termination																
A2534	Cable Splicing, Testing and Labeling																
A2540	AVCSS/DOH/MOM Kiosk Equipment Installation (5 nos)																
A2550	AIOP Installation (5 nos)																
A2560	ODB & XDB installation (5 nos)																
A4390	Inbd Goods Vehicle Kiosks Installation Complete																
<b>Outbd Goods Vehicle Kiosks(029) - 5 nos (Phase 1)</b>																	
A2572	Cable Containment in Kiosks																
A2573	Cable Laying and termination																
A2574	Cable Splicing, Testing and Labeling																
A2580	AVCSS/DOH/MOM Kiosk Equipment Installation (5 nos)																

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A2590	AIOP Installation (5 nos)																	
A2600	ODB & XDB installation (5 nos)																	
A4400	Outbd Goods Vehicle Kiosks Installation Complete																	
<b>Location 13(Outbd Private Car Kiosks (030)) - 9 nos (Phase 1)</b>																		
A3582	Cable Containment in Kiosks																	
A3583	Cable Laying and termination																	
A3584	Cable Splicing, Testing and Labeling																	
A3590	AVCSS/DOH/MOM Kiosk Equipment Installation (9 nos)																	
A3600	ODB & XDB installation (9 nos)																	
A4410	Outbd Private Car Kiosks Installation Complete																	
<b>Location 14(Future-Outbd/Inbd Private Car Kiosks) - 6+6 nos</b>																		
A2441	Cable Laying and termination at ELV Room in CUE																	
<b>Location 15(Inbd Traffic Control Kiosk (100))</b>																		
A3651	Cable Laying and termination																	
A3652	AVCSS SYSCON, SURCON Installation																	
A3660	VTS WS and 55" LCD Installation																	
A3670	SYSCON, SURCON, WS Tuning																	
<b>Location 16(Outbd Traffic Control Kiosk (101))</b>																		
A3701	Cable Laying and termination																	
A3702	AVCSS SYSCON, SURCON Installation																	
A3710	VTS WS and 55" LCD Installation																	
<b>Location 17(Inbd Private Car Exam Bldg(033) Operational Office)</b>																		
A3750	Cable Laying and termination																	
A3760	AVCSS SURCON and 55" LCD Installation																	
A3770	SURCON Tuning																	
<b>Location 18 (Outbd Private Car Exam Bldg(024) Operational Office)</b>																		
A3780	Cable Laying and termination																	
A3790	AVCSS SURCON and 55" LCD Installation																	
<b>Location 19 (DOH Cargo Clearance Bldg(043))</b>																		
A2111	Cable Laying and termination between Location 19 and CUE																	
A2112	Cable Laying in Location 19																	
A2113	PA and Intercom Installation																	
A2123	PA and Intercom Tuning																	
<b>Inbd Vehicle Clearance Plaza - 8 nos VID, 7 nos VTS, 4 nos TLS</b>																		
A4050	Inbound VID cabling from pillar box to VID field equipment																	
A4052	Inbound VTS cabling from pillar box to VTS field equipment																	
A4054	Inbound TLS cabling from pillar box to TLS field equipment																	
A4060	Inbound VID field equipment installation (8 VID)																	
A4062	Inbound VTS field equipment installation (4 RFID + 3 Cameras)																	
A4064	Inbound TLS field equipment installation (4 TLS)																	
A4066	Inbound VID, VTS and TLS field equipment tuning																	
<b>Outbd Vehicle Clearance Plaza - 8 nos VID, 6 nos VTS, 4 nos TLS</b>																		
A4110	Outbound VID cabling from pillar box to VID field equipment																	
A4120	Outbound VTS cabling from pillar box to VTS field equipment																	
A4130	Outbound TLS cabling from pillar box to TLS field equipment																	

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Activity ID	Activity Name	2015																				2016				2017				2018				2019	
		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2									
		Gantt Chart Area (Detailed task scheduling across quarters)																																	
A4140	Outbound VID field equipment installation (8 VID)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A4150	Outbound VTS field equipment installation (3 RFID + 3 Cameras)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A4170	Outbound TLS field equipment installation (4 TLS)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A4180	Outbound VID, VTS and TLS field equipment tuning	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Underground Ducting between Inbd Cargo Exam Bldg (037) and CUE</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A3810	Cable Laying and termination (note: Access Date by C03)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Underground Ducting between Inbd Cargo Exam Bldg (037) and Inbd Vehicle Clea</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A3830	Cable Laying and termination (note: Access Date by C03)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Underground Ducting between CUE and Outbd Car Exam Bldg (023)</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A3850	Cable Laying and termination (note: Access Date by C03)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Underground Ducting Between Outbd Cargo Exam Bldg (023) and Outbd Vehicle I</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A3870	Cable Laying and termination (note: Access Date by C03)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Underground Ducting between CUE and Outbd Vehicle Clearance Plaza</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A3890	Cable Laying and termination (note: Access Date by C03)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>On-Site Test and Commissioning (Phase 1 / Section I)</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2150	Testing & Commissioning Documents Submission (8 weeks before Testings carried out)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2151	Engineer Approval for T&C Document	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2152	Joint Site Inspection for Permanent Power/Tele-communication for Initial on-site testing	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2153	Initial on-site Testing & Commissioning	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Site Acceptance Test (Phase 1 / Section I)</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6601	Interface Readiness CED(LBS, CED IT, Metro-Ethernet) and IMMD (AVS)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6602	SAT for AVCSS	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6603	SAT for Location 18 (AVCSS SURCON and 55" LCD)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6630	SAT Test Document Submission	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6640	Software Manual Documentations Submission	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Security Risk Assessment and Audit</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6800	SRAA (Assessment)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6810	Fix per SRAA Assessment	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A6820	SRAA Audit	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Operability Period Test (Phase 1 / Section I)</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A5610	Joint Site Inspection for utilities, telecom connection and metro ethernet for OPT	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A5620	Operability Period Test (OPT) Phase 1	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A5650	Operability Period Test (OPT) Phase 2	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Completion (Phase 1/Section I)</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2230	AVCSS - Certificate of Completion (Phase 1/Section I)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2231	Certificate of Completion Approval by Engineer	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Training and Document (Phase 1/Section I)</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2180	Training Materials & Documentation Submission	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2190	Operation and Maintenance Training	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Operation (Phase 1/Section I)</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
A2240	Site Operation (Phase 1/Section I)	[Gantt bars for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	
<b>Engineering Support for Phase 1 / Section I</b>		[Summary bar for 2015 Q2-Q4, 2016 Q1-Q4, 2017 Q1-Q4, 2018 Q1-Q4]																																	

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Activity ID	Activity Name	2015																2016				2017				2018				2019					
		Q2				Q3				Q4				Q1				Q2				Q3				Q4				Q1		Q2			
A4420	Engineering Support for Phase 1/Section I																					Engineering Support for Phase 1/Section I													
<b>Procurement - Phase 2 / Section II</b>																						11-Nov-16; Procurement - Phase 2 / Section II													
A3980	Procurement of Lane Field Equipment for Phase 2/Section II																					Procurement of Lane Field Equipment for Phase 2/Section II													
<b>Delivery and Bench Acceptance Test for Phase 2/Section II</b>																						09-Dec-16; Delivery and Bench Acceptance Test for Phase 2/Section II													
A6760	Material On-site for Phase 2/Section II																					Material On-site for Phase 2/Section II													
A6770	Bench Acceptance Test for Phase 2/Section II																					Bench Acceptance Test for Phase 2/Section II													
<b>Installation - Phase 2 / Section II</b>																						19-Jun-17; Installation - Phase 2 / Section II													
<b>Location 8 (Inbd Private Car Annex (025)) (Phase 2)</b>																						04-Jun-17; Location 8 (Inbd Private Car Annex (025)) (Phase 2)													
A4090	Site Preparation																					Site Preparation													
A4091	Cable Containment in Kiosks																					Cable Containment in Kiosks													
A4093	Cable Laying and termination																					Cable Laying and termination													
A4094	Cable Splicing, Testing and Labeling																					Cable Splicing, Testing and Labeling													
A4096	Mobilization of kiosk equipment																					Mobilization of kiosk equipment													
A4100	AVCSS/DOH/MOM Kiosk Equipment Installation (1 no)																					AVCSS/DOH/MOM Kiosk Equipment Installation (1 no)													
A4430	Inbd Private Car Annex Installation Complete																					Inbd Private Car Annex Installation Complete, 04-Jun-17													
<b>Location 9 (Outbd Private Car Annex (032)) (Phase 2)</b>																						19-Jun-17; Location 9 (Outbd Private Car Annex (032)) (Phase 2)													
A4151	Site Preparation																					Site Preparation													
A4152	Cable Containment in Kiosks																					Cable Containment in Kiosks													
A4153	Cable Laying and termination																					Cable Laying and termination													
A4154	Cable Splicing, Testing and Labeling																					Cable Splicing, Testing and Labeling													
A4156	Mobilization of kiosk equipment																					Mobilization of kiosk equipment													
A4160	AVCSS/DOH/MOM Kiosk Equipment Installation (1 no)																					AVCSS/DOH/MOM Kiosk Equipment Installation (1 no)													
A4440	Outbd Private Car Annex Installation Complete																					Outbd Private Car Annex Installation Complete, 19-Jun-17													
<b>Test and Commissioning (Phase 2 / Section II)</b>																						27-Sep-17; Test and Commissioning (Phase 2 / Section II)													
A2290	Testing & Commissioning Documents Submission																					Testing & Commissioning Documents Submission													
A2291	Engineer Approval for T&C Document																					Engineer Approval for T&C Document													
A2292	Initial on-site Testing & Commissioning																					Initial on-site Testing & Commissioning													
A2300	Site Acceptance Tests (SAT)																					Site Acceptance Tests (SAT)													
A2310	Operability Period Test (OPT)																					Operability Period Test (OPT)													
<b>Completion (Phase 2 / Section II)</b>																						02-Oct-17; Completion (Phase 2 / Section II)													
A2320	AVCSS - Certificate of Completion (Phase 2/Section II)																					AVCSS - Certificate of Completion (Phase 2/Section II)													
A4320	Certificate of Completion Approval by Engineer																					Certificate of Completion Approval by Engineer													
<b>Engineering Support for Phase 2 / Section II</b>																						30-Jan-18; Engineering Support for Phase 2 / Section II													
A4450	Engineering Support for Phase 2/Section II																					Engineering Support for Phase 2/Section II													
<b>Procurement for Phase 2 / Section III</b>																						11-Nov-16; Procurement for Phase 2 / Section III													
A4000	Procurement of Lane Field Equipment for Phase 2/Section III																					Procurement of Lane Field Equipment for Phase 2/Section III													
<b>Delivery and Bench Acceptance Test for Phase 2 / Section III</b>																						25-Nov-16; Delivery and Bench Acceptance Test for Phase 2 / Section III													
A6780	Material On-site for Phase 2/Section III																					Material On-site for Phase 2/Section III													
A6790	Bench Acceptance Test for Phase 2/Section III																					Bench Acceptance Test for Phase 2/Section III													
<b>Installation - Phase 2 / Section III</b>																						07-Jul-17; Installation - Phase 2 / Section III													
<b>Location 10,11,12,13 (Vehicle Clearance Kiosks)</b>																						07-Jul-17; Location 10,11,12,13 (Vehicle Clearance Kiosks)													
Shuttle Bus Kiosks (006) - 4 nos (Phase 2)																						25-Apr-17; Shuttle Bus Kiosks (006) - 4 nos (Phase 2)													
A2522	Cable Containment																					Cable Containment													

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		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A2623	Cable Laying and termination																	
A2630	AVCSS/DOH/MOM Kiosk Equipment Installation (4 nos)																	
A4460	Shuttle Bus Kiosks Installation Complete																	
<b>Outbd Coach Kiosks (009) - 4 nos (Phase 2)</b>																		
A2662	Cable Containment																	
A2663	Cable Laying and termination																	
A2670	AVCSS/DOH/MOM Kiosk Equipment Installation (4 nos)																	
A4470	Outbd Coach Kiosks Installation Complete																	
<b>Inbd Private Car Kiosks (027) - 12 nos (Phase 2)</b>																		
A2742	Cable Containment																	
A2743	Cable Laying and termination																	
A2744	Cable Splicing, Testing and Labeling																	
A2750	AVCSS/DOH/MOM Kiosk Equipment Installation (12 nos)																	
A2760	Kiosk Equipment Configuration (12 nos)																	
A4490	Inbd Private Car Kiosks Installation Complete																	
<b>Outbd Private Car Kiosks (030) - 12 nos (Phase 2)</b>																		
A2782	Cable Containment																	
A2783	Cable Laying and termination																	
A2784	Cable Splicing, Testing and Labeling																	
A2790	AVCSS/DOH/MOM Kiosk Equipment Installation (12 nos)																	
A4500	Outbd Private Car Kiosks Installation Complete																	
<b>Inbd Goods Vehicle Kiosks (028) - 3 nos (Phase 2)</b>																		
A2822	Cable Containment																	
A2823	Cable Laying and termination																	
A2825	Kiosk Equipment Configuration (3 nos)																	
A2830	AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos)																	
A4510	Inbd Goods Vehicle Kiosks Installation Complete																	
<b>Outbd Goods Vehicle Kiosks (029) - 3 nos (Phase 2)</b>																		
A2862	Cable Containment																	
A2863	Cable Laying and termination																	
A2865	Cable Splicing, Testing and Labeling																	
A2870	AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos)																	
A4520	Outbd Goods Vehicle Kiosks Installation Complete																	
<b>Inbd Coach Kiosks (010) - 4 nos (Phase 2)</b>																		
A2702	Cable Containment																	
A2703	Cable Laying and termination																	
A2705	Kiosk Equipment Configuration (4 nos)																	
A2710	AVCSS/DOH/MOM Kiosk Equipment Installation (2 nos)																	
A2720	AVCSS/DOH/MOM Kiosk Equipment Installation (2 nos)																	
A4480	Inbd Coach Kiosks Installation Complete																	
<b>Underground Ducting between CUE and Shuttle Bus Kiosk (006)</b>																		
A3970	Cable Laying and termination (note: Access Date by C03)																	
<b>Underground Ducting between PCB(001) and Inbd Coach Kiosks(010)</b>																		
A3930	Cable Laying and termination (note: Access Date by C03)																	
<b>Test and Commissioning (Phase 2 / Section III)</b>																		

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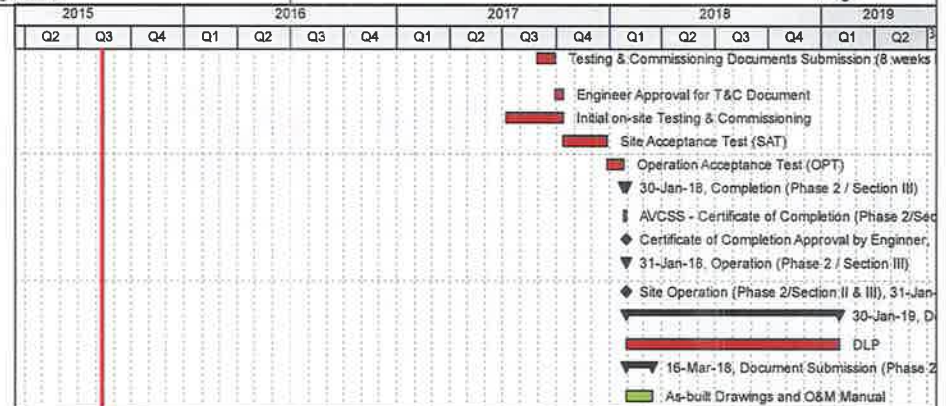
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Activity ID	Activity Name
A2370	Testing & Commissioning Documents Submission (8 weeks before Testings carried out)
A2371	Engineer Approval for T&C Document
A2373	Initial on-site Testing & Commissioning
A2380	Site Acceptance Test (SAT)
A2390	Operation Acceptance Test (OPT)
<b>Completion (Phase 2 / Section III)</b>	
A2400	AVCSS - Certificate of Completion (Phase 2/Section III)
A4330	Certificate of Completion Approval by Engineer
<b>Operation (Phase 2 / Section III)</b>	
A2420	Site Operation (Phase 2/Section II & III)
<b>Defect Liability Period (DLP)</b>	
A2430	DLP
<b>Document Submission (Phase 2 / Section III)</b>	
A4340	As-built Drawings and O&M Manual



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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	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC and ER;</li> <li>3. Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>4. Repeat measurements to confirm findings;</li> <li>5. Increase monitoring frequency to daily;</li> <li>6. Discuss with IEC and Contractor on remedial actions required;</li> <li>7. If exceedance continues, arrange meeting with IEC and ER;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise 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. Ensure remedial measures properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit proposals for remedial to ER within 3 working days of notification;</li> <li>2. Implement the agreed proposals;</li> <li>3. Amend proposal if appropriate.</li> </ol>

Event	Action			
	ET	IEC	ER	Contractor
<b>Limit Level</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Inform ER, Contractor and EPD;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise 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. Ensure remedial measures properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Amend proposal if appropriate.</li> </ol>

Event	Action			
	ET	IEC	ER	Contractor
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Notify IEC, ER, Contractor and EPD;</li> <li>2. Identify source;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness 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. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Ensure remedial measures properly implemented;</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the ER until the exceedances abated.</li> </ol>

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	<ol style="list-style-type: none"> <li>1. Inform IEC, ER, EPD and Contractor;</li> <li>2. Identify source;</li> <li>3. Repeat measurements to confirm findings;</li> <li>4. Increase monitoring frequency;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Inform IEC, ER and EPD the causes and actions taken for the exceedances;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>2. Review Contractors remedial actions whenever necessary to assure their effectiveness 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 properly implemented;</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>



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Report No.: 0165/15/ED/0783

### **Appendix E**

#### **Waste Flow Table**



### Monthly Summary of Waste Flow Table for 2017 (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
		(see Note 1)						(see Note 2)		
(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	0.000	0	0	0	0.000	0	0	0	0	0.580
Feb	0.000	0	0	0	0.000	0	0	0	0	0.585
Mar	0.000	0	0	0	0.000	0	0	0	0	0.999
Apr	0.043	0	0	0	0.043	0	0	0	0	1.073
May										
Jun										
Jul										
Aug										
Sept										
Oct										
Nov										
Dec										
<b>Total</b>	<b>0.043</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.043</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>3.237</b>

Notes:

- (1) Broken concrete for recycling into aggregates.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

## Monthly Summary of Excavated Marine Sediment for 2017 (year)

Month	Total Quantity of Excavated Marine Sediment Generated in '000m <sup>3</sup>	Reused in this contract in '000m <sup>3</sup>	Reused in other Projects in '000m <sup>3</sup>	Disposed of at CMP in '000m <sup>3</sup>
Jan	0.656	0	0	0.656
Feb	0.264	0	0	0.264
Mar	0.000	0	0	0.000
Apr	1.288	0	0	1.288
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
<b>Total</b>	<b>2.208</b>	<b>0.000</b>	<b>0.000</b>	<b>2.208</b>



ATAL Technologies Ltd.

Contract No. HY/2013/06 HKBCF Automatic Vehicle Clearance Support System

Location: Artificial Island of HKIAP (C3 Area)

Ver. 1st  
Date: Apr 2017

Monthly Summary Waste Flow Table for 2017

Month	Inert C&D Waste disposal / 墮性廢物 (in tonnes) (see Note 1)						Non-inert C&D Waste disposal 非墮性廢物 (in tonnes)		Waste to be recycled and returned / 可再循環利用或回收的廢物								Total Quantity Generated 總生產量		
	Reused in the Work Package (e.g. backfilling) 再用於工程 (如回填)		Reused in other Projects 再用於其他工程		Inert Waste (e.g. soil, broken concrete, rubble, fill material etc.) 墮性廢物 (如泥, 石矢頭, 石, 填料等)		Others (e.g. general refuse, broken formwork etc) 其他 (如垃圾, 廢板枋等)		Metals 金屬		Plastic 塑膠		Paper/cardboard packaging 廢紙/包裝紙類		Chemical Waste 化學廢物				
	(b)		(c)		(d)		(e)		(in tonnes)		(in tonnes)		(in tonnes)		(in litre)		(a)=(b+c+d+e)		
	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
<b>April</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.005</b>	<b>0.005</b>
May																			
June																			
July																			
August																			
September																			
October																			
November																			
December																			
<b>Total</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.007</b>	<b>0.007</b>	<b>0.010</b>	<b>0.010</b>	<b>0.000</b>	<b>0.000</b>	<b>0.004</b>	<b>0.004</b>	<b>0.000</b>	<b>0.000</b>	<b>0.007</b>	<b>0.007</b>	

Notes: (1) The quantities of C&D Materials, in tonne, was calculated by multiply the estimated volume, in m3, with the density of the soil, which is 1.5 gcm<sup>-3</sup>.

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### **Appendix F**

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

**Appendix F - Environmental Permit / Licences Summary for Contract No. HY/2013/03**

(update: 10/05/2017)

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/K	HKBCF	24-Mar-16	11-Apr-16	11-Apr-16	Nil	Valid	
2	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	Ref No. 387703	Main Site Area	15-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	15-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	15-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	28-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	28-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	29-Apr-15	04-Aug-15	03-Aug-15	31-Aug-20	Valid	
8	Water Discharge License Pursuant to Water Pollution Control Ordinance (Cap 358)	WT00025384-2016	Main Site Area	09-Mar-16	10-Nov-16	10-Nov-16	30-Sep-20	Valid	
9	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0028-16	Portion A, G, H & N	15-Sep-16	29-Sep-16	03-Oct-16	02-Apr-17	Valid until 02-Apr-17	
10	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1329-16	Main Site Area	09-Dec-16	23-Dec-16	01-Jan-17	30-Apr-17	Valid until 30-Apr-17	
11	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0205-17	Main Site Area	01-Mar-17	15-Mar-17	19-Mar-17	18-Jun-17	Valid	
12	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0008-17	Box Culvert B	06-Apr-17	20-Apr-17	21-Apr-17	19-Jul-17	Valid	
13	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0382-17	Main Site Area	10-Apr-17	25-Apr-17	27-Apr-17	24-Jul-17	Valid	
13	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-190	East of Sha Chau (CMP Vd)	01-Mar-17	17-Mar-17	20-Mar-17	19-Apr-17	Valid until 19-Apr-17	
14	Permit issued Under the Dumping at Sea Ordinance	EP/MD/18-005	East of Sha Chau (CMP Vd)	10-Apr-17	24-Apr-17	25-Apr-17	24-May-17	Valid	
15	Specified Process License for Tar and Bitumen Works	L-15-039(1)	Temporary Asphalt	05-Dec-16	16-Mar-17	16-Mar-17	15-Mar-19	Valid	

	Pursuant to Section 14 of the Air Pollution Control Ordinance		Mixing Facility						
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**Environmental Permit / Licences Summary for Contract No. HY/2013/06 within the HY/2013/03 site works area**

(update: 10/05/2017)

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/K	HKBCF	24-Mar-16	11-Apr-16	11-Apr-16	Nil	Valid	
2	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. 7023015	Main Site Area	07-Aug-15	20-Aug-15	20-Aug-15	Nil	Valid	
3	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	#

# The Contractor of Contract No. HY/2013/06 was advised to register as a chemical waste producer when chemical waste is expected to generate for the foreseeable future from the operations.



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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, sans-serif font. The text is white and is set against a black rectangular background that has a horizontal bar above and below it, creating a stylized, framed effect.

Report No.: 0165/15/ED/0783

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### **Appendix G**

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

**Appendix G – 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 be 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</li> </ul>	All construction sites	N/A

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and <ul style="list-style-type: none"> <li>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</li> </ul>		
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; <ul style="list-style-type: none"> <li>Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system;</li> <li>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;</li> <li>Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system;</li> <li>The materials which may generate airborne dusty emissions should be wetted by water spray system;</li> <li>All receiving hoppers should be enclosed on three sides up to 3m above unloading point;</li> <li>All conveyor transfer points should be totally enclosed;</li> <li>All access and route roads within the premises should be paved and wetted; and</li> <li>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</li> </ul>	Selected Representative dust monitoring station	N/A
S5.5.2.7	A7	The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point: <ul style="list-style-type: none"> <li>All road surface within the barging facilities will be paved;</li> <li>Dust enclosures will be provided for the loading ramp;</li> <li>Vehicles will be required to pass through designated wheels wash facilities; and</li> <li>Continuous water spray at the loading points</li> </ul>	All construction sites	V
<b>Construction Noise (Air borne)</b>				
S6.4.10	N1	1) Use of good site practices to limit noise emissions by considering the following: <ul style="list-style-type: none"> <li>only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;</li> <li>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;</li> <li>plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;</li> </ul>	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<ul style="list-style-type: none"> <li>mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>		
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	V
<b>Waste Management (Construction Waste)</b>				
S8.3.8	WM1	<p><b>Construction and Demolition Material</b></p> <p>The following mitigation measures should be implemented in handling the waste:</p> <ul style="list-style-type: none"> <li>Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement;</li> <li>Carry out on-site sorting;</li> <li>Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> <li>Implement a trip-ticket system for each works contract to ensure that the disposal of C&amp;D materials are properly documented and verified; and</li> <li>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&amp;D materials and to minimize their generation during the course of construction.</li> <li>In addition, disposal of the C&amp;D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final</li> </ul>	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		disposal sites to the Project Proponent and get its approval before implementation		
S8.3.9- S8.3.11	WM2	<u>C&amp;D Waste</u> <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 hoardings 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>	All construction sites	V
S8.2.12- 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</li> </ul>	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<p>law.</p> <ul style="list-style-type: none"> <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 paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor.</li> <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</li> </ul>	Land-based works area	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<p>washing bay and the public road should be surfaced with crushed stone or coarse gravel;</p> <ul style="list-style-type: none"> <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 sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal;</li> <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	V
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</li> </ul>	HKBCF	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF; and <ul style="list-style-type: none"> <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>		
<b>Landscape &amp; Visual (Construction Phase)</b>				
S14.3.3.3	LV2	Mitigate both Landscape and Visual Impacts G1. Grass-hydroseed bare soil surface and stock pile areas. G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge footbridge to screen 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.	HKBCF	N/A
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>				
S15.2.2	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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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, sans-serif font. The text is centered between two thick, horizontal black bars.

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### **Appendix H**

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

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## Appendix H –

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

For Contract No. HY/2013/03

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period	0	0	0
From commencement date of construction to end of reporting month	7	0	0

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

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

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### **Appendix I**

### **Environmental Site Inspection Schedule**

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**Contract No. HY/2013/03**  
**HZMB HKBCF – Vehicle Clearance Plazas and Ancillary Buildings and Facilities**  
**Weekly Environmental Site Inspection Schedule**

**Environmental Site Inspection Schedule for April 2017**

Apr-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5 Environmental Site Inspection	6	7	8
9	10	11	12 Environmental Site Inspection	13	14	15
16	17	18	19	20 Environmental Site Inspection	21	22
23	24	25	26	27	28 Environmental Site Inspection	29
30						

**Tentative Environmental Site Inspection Schedule for May 2017**

May-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5 Environmental Site Inspection	6
7	8	9	10	11 Environmental Site Inspection	12	13
14	15	16	17	18 Environmental Site Inspection	19	20
21	22	23	24	25	26 Environmental Site Inspection	27
28	29	30	31			

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Report No.: 0165/15/ED/0783

**Contract No. HY/2013/06 (within Contract No. HY/2013/03 works area)  
 HZMB HKBCF – Automatic Vehicle Clearance Support System  
 Weekly Environmental Site Inspection Schedule**

**Environmental Site Inspection Schedule for April 2017**

Apr-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5 Environmental Site Inspection	6	7	8
9	10	11	12 Environmental Site Inspection	13	14	15
16	17	18	19	20 Environmental Site Inspection	21	22
23	24	25	26	27	28 Environmental Site Inspection	29
30						

**Tentative Environmental Site Inspection Schedule for May 2017**

May-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5 Environmental Site Inspection	6
7	8	9	10	11 Environmental Site Inspection	12	13
14	15	16	17	18 Environmental Site Inspection	19	20
21	22	23	24	25	26 Environmental Site Inspection	27
28	29	30	31			