

MATERIALAB CONSULTANTS LIMITED

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Report No.: 0165/15/ED/0615

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT (Rev. 4)

October 2016

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/0615

Prepared by: Sandra Pang

Reviewed by: Bong Yu

Certified by:

A handwritten signature in black ink, appearing to be "AR", written over a horizontal line.

Arthur Cheng
Environmental Team Leader

9 December 2016

By Fax (3468 2076) and By Post

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

Attention: Mr. Michael Tovey

Dear Sir,

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

**Contract No. HY/2013/03 – HZMB HKBCF – Vehicle Clearance Plazas and
Ancillary Buildings and Facilities
Monthly Environmental Monitoring & Audit Report for October 2016**

Reference is made to the Environmental Team's submission of Monthly Environmental Monitoring & Audit Report for October 2016 (Rev. 4) certified by the ET Leader (ET's ref.: "MCL/ED/0714/2016/C" dated 9 December 2016) and provided to us via e-mail on 9 December 2016.

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.

To ensure Conditions 5.4 and 5.5 of the EP can be satisfied, it is reminded that the ET Leader shall review the progress and programme of the works to check that relevant environmental laws have not been violated, and that any foreseeable potential for violating laws can be prevented and relevant Contractor(s) shall regularly copy relevant statutory and associated documents to the ET Leader so that checking can be carried out as per Section 15.2.3 and 15.2.4 of the approved EM&A manual respectively.

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)

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Internal: DY, YH, ENPO Site

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Date 09 December 2016

Our Ref. MCL/ED/0714/2016/C

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

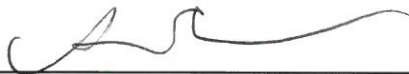
Dear Sir,

**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 October 2016 (Rev.4) for your verification.

Should you require further information, please do not hesitate to contact our Miss Scarlet Cheng at 3565 4156 or the undersigned at 3565 4115.

Yours faithfully,
for and on behalf of
MATERIALAB CONSULTANTS LIMITED



Arthur Cheng
Environmental Team Leader

AC/by

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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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 14th Monthly EM&A Report for the Contract which summaries findings of the EM&A programme during the reporting period from 01 October 2016 to 31 October 2016 (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 October 2016 to 31 October 2016) (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: 06, 13, 27 and 28 October 2016.

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Environmental site inspection of 21 October 2016 was cancelled due to hoisting of typhoon signal no. 8 on 21 October 2016 and re-scheduled to 28 October 2016.

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. Site Investigation at Portion G & N;
2. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
3. Piling at Portion C, STP, Area G (Bridge A1 & A9), Box Culvert B & C;
4. CUE Construction at Portion B, C & J;
5. Drainage & Sewerage Work at Portion B, H1, H2, J, P, G & A1;
6. Radiation Screen Wall and 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 D at Portion A1; 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. Conduit duct laying at CUE Kiosk.

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1. INTRODUCTION

1.1 Background

1.1.1 Materialab 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 fourteenth 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 October 2016 to 31 October 2016 (reporting period) under Contract No. HY/2013/03 (from 01 October 2016 to 31 October 2016 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

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- system including traffic control and surveillance system (TCSS), etc.;
- 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 (Materialab 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. Site Investigation at Portion G & N;
2. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
3. Piling at Portion C, STP, Area G (Bridge A1 & A9), Box Culvert B & C;
4. CUE Construction at Portion B, C & J;
5. Drainage & Sewerage Work at Portion B, H1, H2, J, P, G & A1;

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6. Radiation Screen Wall and 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 D at Portion A1; 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. Conduit duct laying at CUE Kiosk.
- 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 was 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 (µg/m³)	Limit Level (µg/m³)
1 hour TSP		
AMS6	360	500
AMS7	370	
24 hours TSP		
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 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.

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

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

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

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 exceedances were 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.

Report No.: 0165/15/ED/0615

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 sites allocated to this Project are the Mud Pit CMP2 of the Confined Marine Sediment Disposal Facility to the South of The Brothers (or at the East of Sha Chau). As advised by CEDD in the memo dated 19 February 2016, from 00:00 on 22 March 2016 onward, the disposal space at CMP2 of the South of The Brothers is closed and all disposal of contaminated sediment is to be carried out at CMP Vd to the East of Sha Chau (ESC).

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 October 2016. The summary of marine sediment disposed up to end October 2016 is shown in the following table:

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Report No.: 0165/15/ED/0615

Table 6.1 Summary of Marine Sediment Disposed to Dumping Site

Month/Year	Quantity disposed (in'000m ³)			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
Sub-Total	11.016	16.928	12.052	39.996
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
Total	16.952	38.392	29.344	84.688

Report No.: 0165/15/ED/0615

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 (site audit of 21 October 2016 was cancelled due to hoisting of typhoon signal no. 8 on 21 October 2016 and re-scheduled to 28 October 2016).
- 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 06, 13, 27 and 28 October 2016 by the representatives of Engineer, Contractor, ET and IEC (IEC for 28 October 2016).
- 7.1.3 Particular observations during the site inspection and corrective actions undertaken by the Contractor are described below:

For Contract No. HY/2013/0328 Sep 2016

1. CHEC was reminded to increase watering for dust suppression on site. Subsequently, watering was increased for dust suppression on site. The observation was closed on 06 October 2016.

06 Oct 2016

1. CHEC is reminded to maintain good housekeeping on site (Building 041). Subsequently, good housekeeping was maintained on site (Building 041). The observation was closed on 13 October 2016.

13 Oct 2016

1. CHEC was reminded to remove the stagnant water accumulated at the lifting holes of the precast concretes on site. Subsequently, stagnant water was removed at the lifting holes of the precast concretes on site. The observation was closed on 27 October 2016.

21 Oct 2016

1. Site inspection was cancelled due to hoisting of typhoon signal no. 8 on 21 Oct 2016 and re-scheduled to 28 Oct 2016.

27 Oct 2016

1. CHEC is reminded to maintain proper housekeeping on site (CUE works area). Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.
2. CHEC is reminded to remove stagnant water on site (CUE works area). Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

28 Oct 2016

1. CHEC was reminded to increase watering for dust suppression on site. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.
2. CHEC was reminded to clear the stagnant water accumulated at Building 037. 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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3. CHEC was reminded to remove the general refuse accumulated at Building 037. 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

06 Oct 2016

1. Nil findings.

13 Oct 2016

1. Nil findings.

21 Oct 2016

1. Site inspection was cancelled due to hoisting of typhoon signal no. 8 on 21 Oct 2016 and re-scheduled to 28 Oct 2016.

27 Oct 2016

1. Nil findings.

28 Oct 2016

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 2.376 (in'000m³) of excavated marine sediment (from Contract No. HY/2013/03), 0.379 (in'000m³) of Inert C & D Wastes and 0.332 (in'000m³) of Non-inert C & D Wastes were generated (from Contract No. HY/2013/03) in this reporting period. No Inert C & D Wastes and 0.002 tonnes of paper/cardboard packaging 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

Report No.: 0165/15/ED/0615

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**.

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 October 2016 would be provided to ER, ETL, IEC/ENPO for checking within the month of November 2016.

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, one 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 November 2016:

For Contract No. HY/2013/03

1. Site Investigation at Portion G & N;
2. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
3. Piling at Portion C, STP, Area G (Bridge A1 & A9), Box Culvert B & C;
4. CUE Construction at Portion B, C & J;
5. Drainage & Sewerage Work at Portion B, H1, H2, J, P, G & A1;
6. Radiation Screen Wall and 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 D at Portion A1; 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. Conduit duct laying at CUE Kiosk.

8.2 Environmental Site Inspection Schedule for the Coming Month

8.2.1 The tentative schedule for weekly site inspections for November 2016 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 06, 13, 27 and 28 October 2016 (site inspection of 21 October 2016 was cancelled due to hoisting of typhoon signal no. 8 on 21 October 2016 and re-scheduled to 28 October 2016). 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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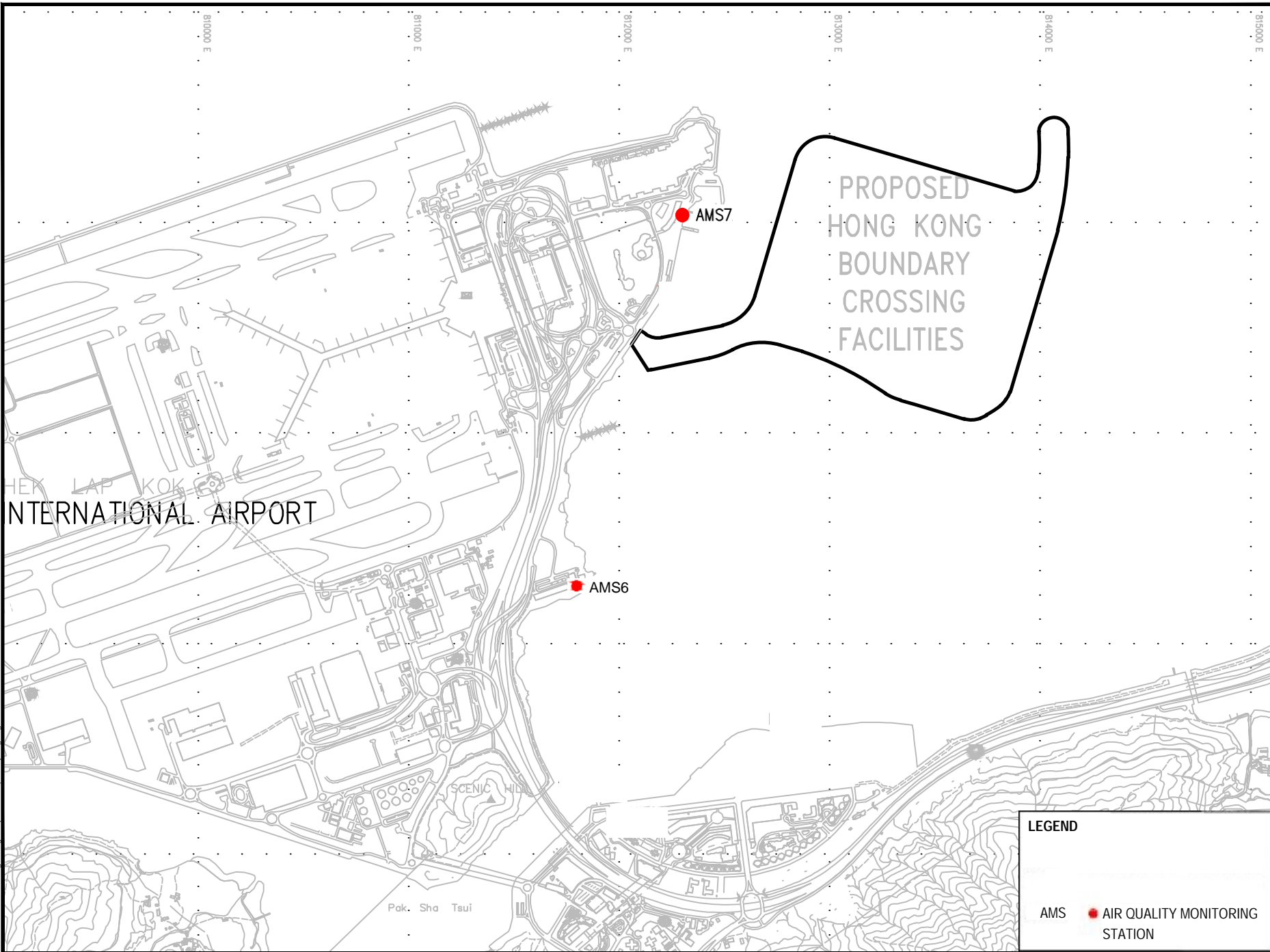
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Figure 1

Air Quality Monitoring Stations



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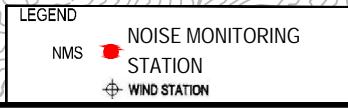
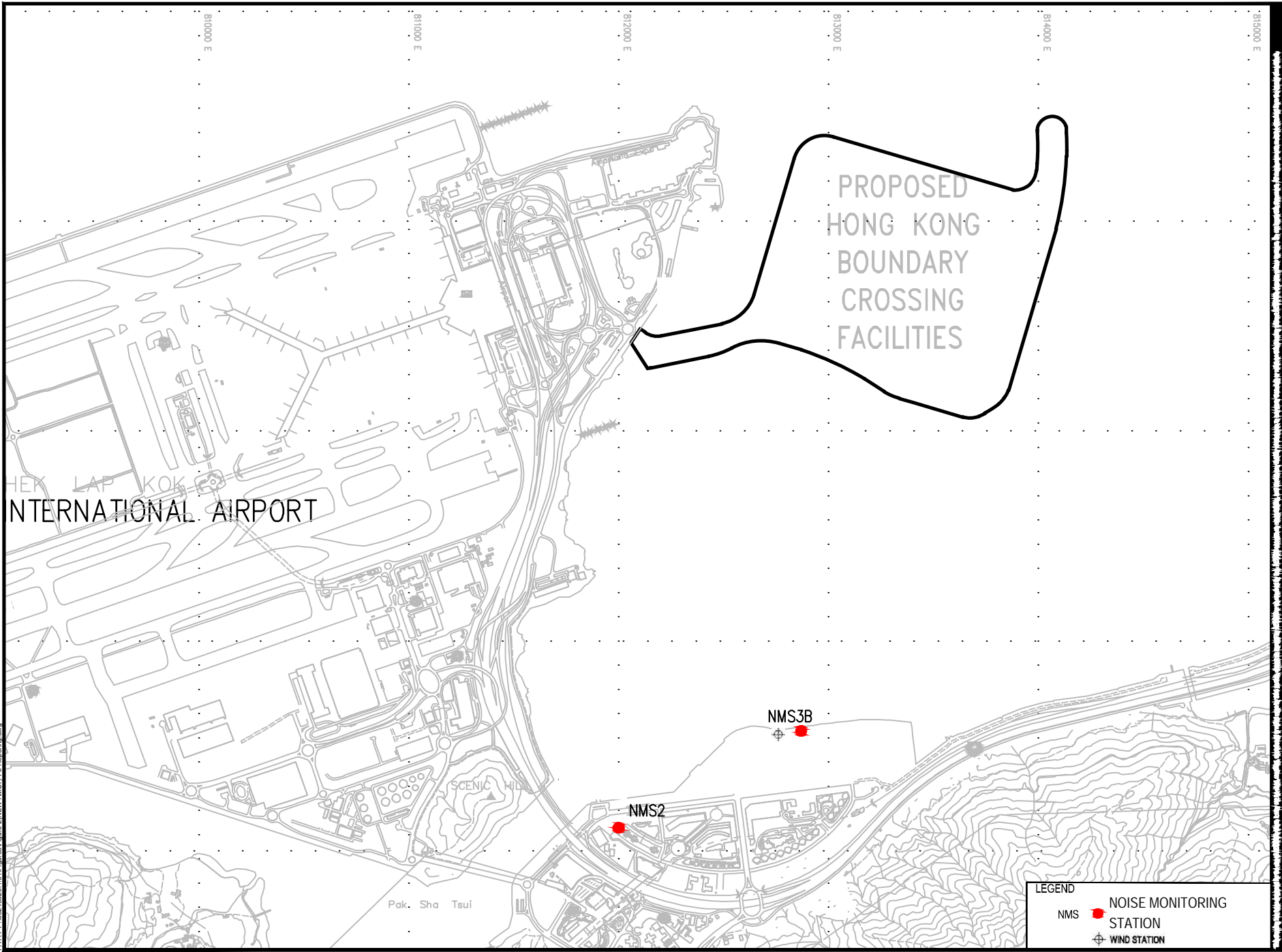
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Figure 2

Noise Monitoring Stations



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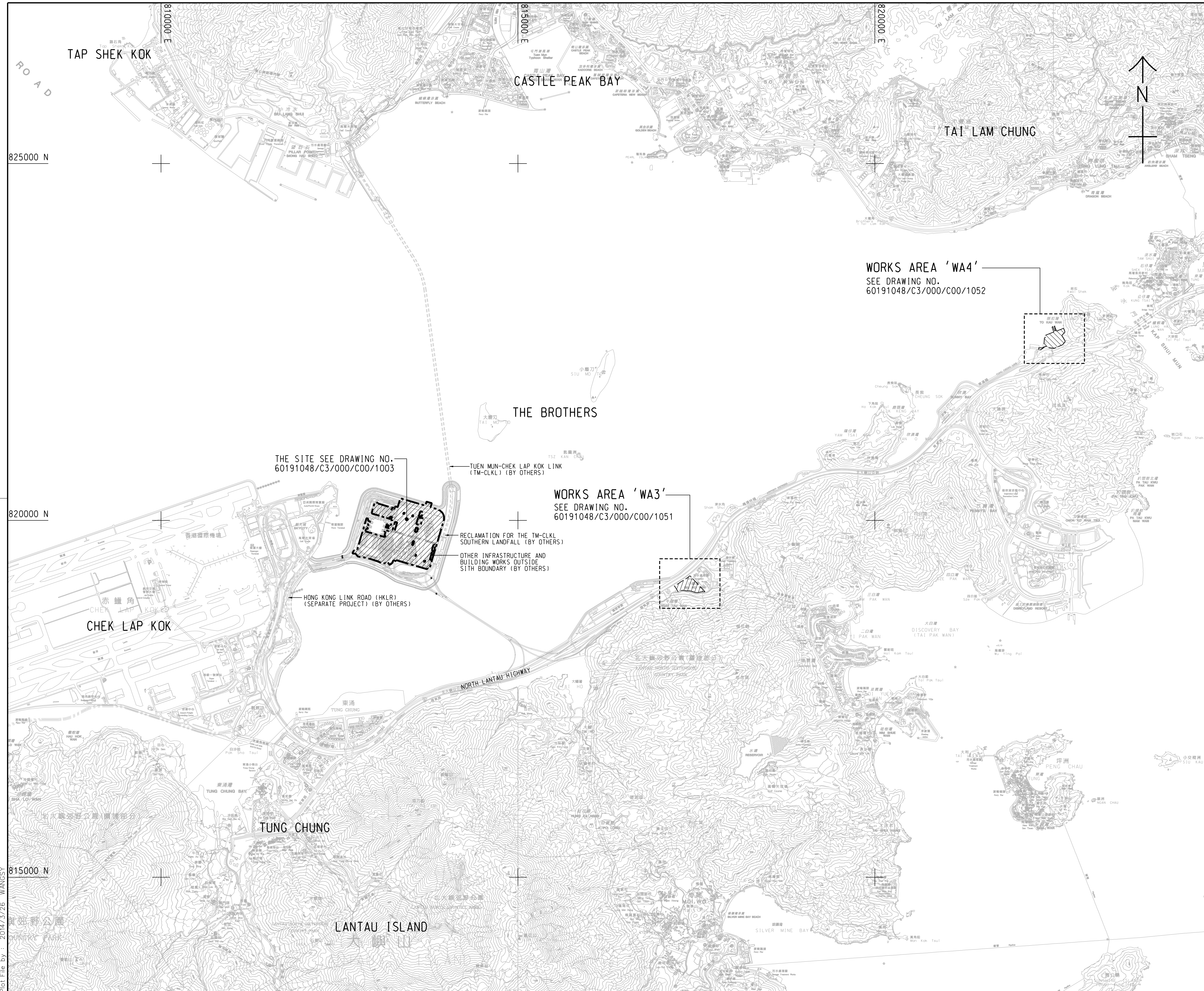
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Appendix A

Location of Works Areas



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

LEGEND:

- SITE BOUNDARY
- WORKS AREA

WORKS AREA 'WA4'
SEE DRAWING NO.
60191048/C3/000/C00/1052

WORKS AREA 'WA3'
SEE DRAWING NO.
60191048/C3/000/C00/1051

THE SITE SEE DRAWING NO.
60191048/C3/000/C00/1003

TUEN MUN-CHEK LAP KOK LINK
(TM-CKLK) (BY OTHERS)

RECLAMATION FOR THE TM-CKLK
SOUTHERN LANDFALL (BY OTHERS)

OTHER INFRASTRUCTURE AND
BUILDING WORKS OUTSIDE
SITE BOUNDARY (BY OTHERS)

HONG KONG LINK ROAD (HKLR)
(SEPARATE PROJECT) (BY OTHERS)

- TENDER DRAWING		BSC	SCI	MAR. 14
REV. 修訂	DESCRIPTION 內容摘要	B.C. 審核	C.C. 校對	DATE 日期

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

SITE LOCATION PLAN

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

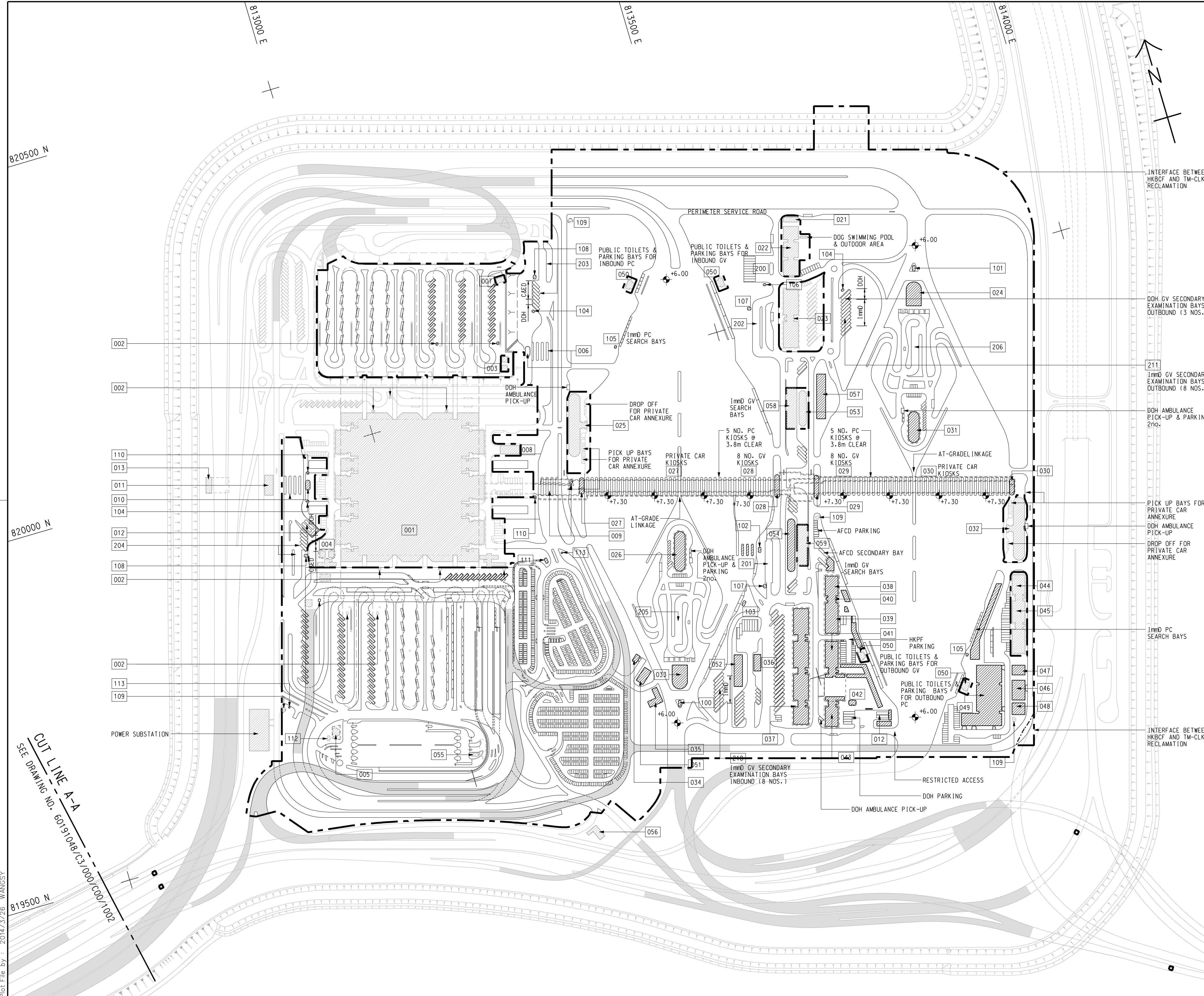
DRG.NO. 60191048/C3/000/C00/1000
圖紙編號

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

DRAWN BY 繪圖	STATUS 階段
WSY	

SCALE 比例 A1 1 : 25000
DIMENSIONS ARE IN 尺寸單位 METRES
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Plot File by : 2014/3/26 WANGSY



NOTE:

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

LEGEND:

- SITE BOUNDARY
- VIADUCT
- BUILDING/FACILITIES

INTERFACE BETWEEN HKBCF AND TM-CLKL RECLAMATION

DOH GV SECONDARY EXAMINATION BAYS OUTBOUND (3 NOS.)

1mm0 GV SECONDARY EXAMINATION BAYS OUTBOUND (8 NOS.)

DOH AMBULANCE PICK-UP & PARKING 2no.

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

1mm0 PC SEARCH BAYS

INTERFACE BETWEEN HKBCF AND TM-CLKL RECLAMATION

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

Plot File by : 2014/3/26 WANGSY

- TENDER DRAWING		BWC SCI	MAR. 14
REV. 修改	DESCRIPTION 内容摘要	D.C. 核准	DATE 日期

路政署 HIGHWAYS DEPARTMENT
港珠澳大桥香港工程管理处
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

Figure 1-1
Current Layout Plan

SHEET 1 OF 2

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

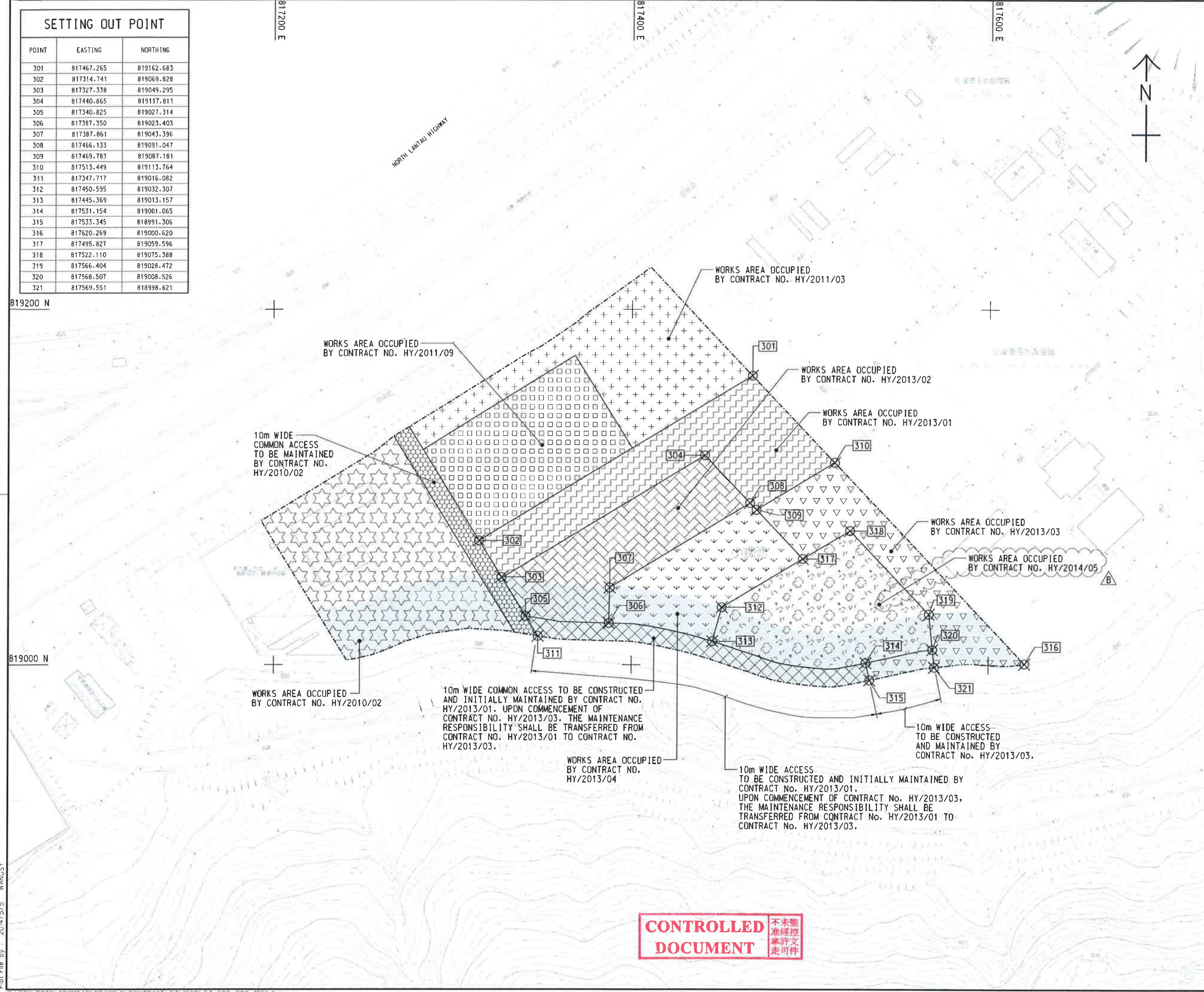
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 圖紙編號

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

DRAWN BY 繪圖	STATUS 階段
WSY	初步

SCALE 比例 A1 1 : 2500
 DIMENSIONS ARE IN 尺寸單位 METRES
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SETTING OUT POINT		
POINT	EASTING	NORTHING
301	817467.265	819162.683
302	817314.741	819069.828
303	817327.338	819049.295
304	817440.865	819117.811
305	817340.825	819027.314
306	817387.350	819023.403
307	817387.861	819043.396
308	817466.133	819091.047
309	817469.783	819087.181
310	817513.449	819113.764
311	817347.717	819016.082
312	817450.595	819032.307
313	817445.369	819013.157
314	817531.154	819001.065
315	817533.345	818991.306
316	817620.269	819000.620
317	817495.827	819059.596
318	817522.110	819075.388
319	817566.404	819028.472
320	817568.507	819008.526
321	817569.551	818998.621



NOTES:

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

LEGEND:

	WORKS AREA BOUNDARY
	PORTION 3.1
	PORTION 3.2
	PORTION 3.3
	PORTION 3.4
	PORTION 3.5
	PORTION 3.6
	PORTION 3.7
	PORTION 3.8
	PORTION 3.9
	PORTION 3.10
	NON-BUILDING AREA 8200m ² (WHOLE)

FOR CONSTRUCTION

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

HONG KONG HIGHWAYS DEPARTMENT
 香港路政署
 香港、珠海、澳門大橋工程管理局
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

WORKS AREA WA3

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

DRG. NO. 60191048/C3/000/C00/1051C
 圖紙編號

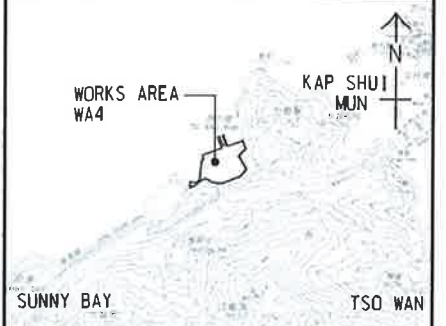
DESIGNED BY 設計	CONTRACT NO. 合約編號	A. BY APPROVED 審核人
BWCW	HY/2013/03	TKH
DRAWN BY 圖則	STATUS 圖則	
WSY	WORKING DRAWING	
SCALE 比例		
A1 : 1000		
DIMENSIONS ARE IN 尺寸單位		
METRES		

CONTROLLED DOCUMENT 不准未經核准修改
 不准未經核准修改
 不准未經核准修改

Plot File by 2014/5/5 WANGSY

SETTING OUT POINT

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



LOCATION PLAN
SCALE 1 : 25000

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

LEGEND:

	WORKS AREA BOUNDARY
	PORTION 4.1
	PORTION 4.2
	PORTION 4.3
	PORTION 4.4
	PORTION 4.5
	PORTION 4.6
	PORTION 4.7
	PORTION 4.8
	PORTION 4.9

CONTROLLED DOCUMENT

FOR CONSTRUCTION

REV. NO.	DESCRIPTION	DATE	BY	CHECKED
C	WORKING DRAWING	MAY. 15	BWCW	SCI
B	TENDER ADDENDUM NO. 2	MAY. 14	BWCW	SCI
A	TENDER ADDENDUM NO. 1	APR. 14	BWCW	SCI
-	TENDER DRAWING	MAR. 14	BWCW	SCI

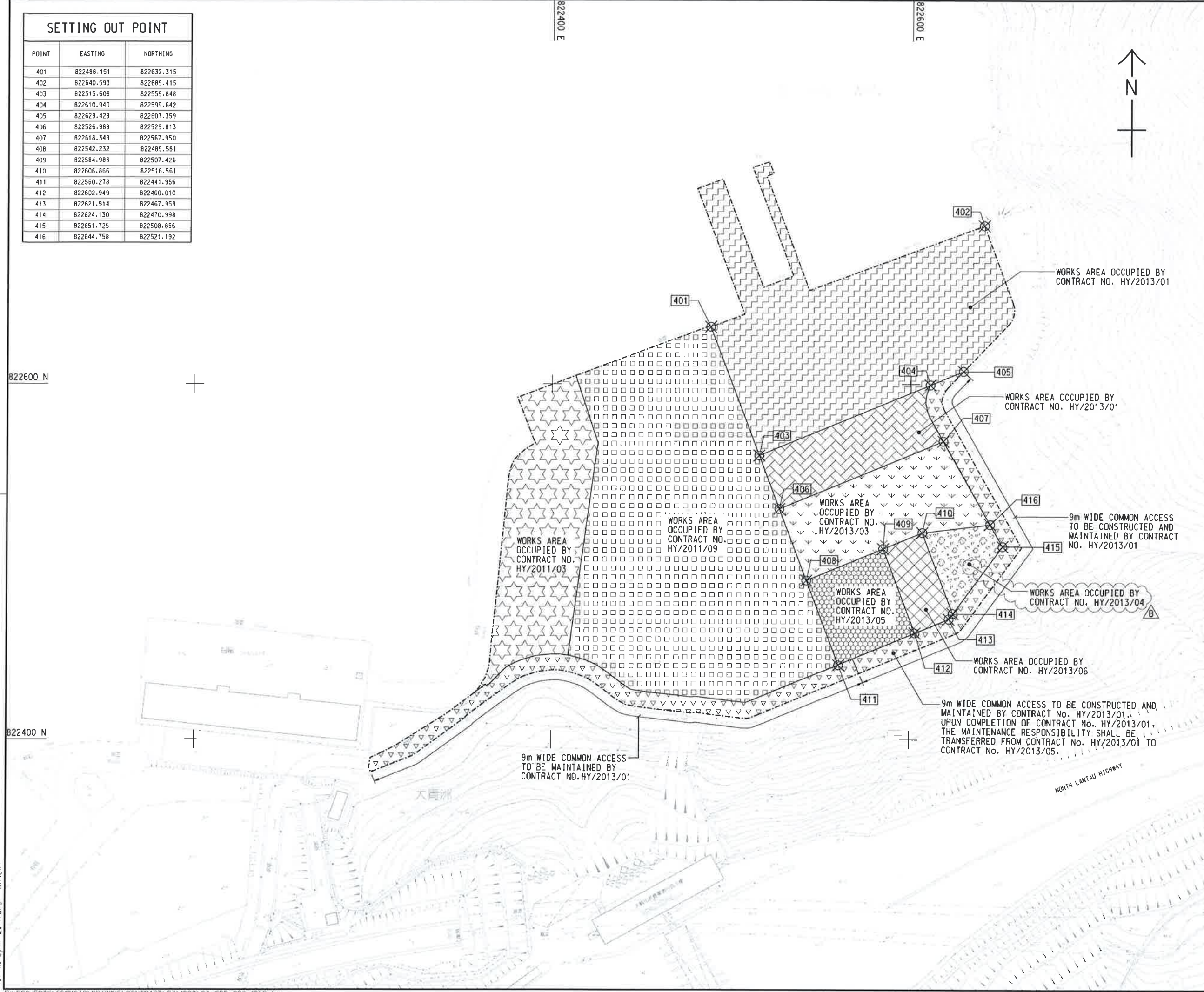
HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

WORKS AREA WA4

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

DRG. NO. 60191048/C3/000/C00/1052C

DESIGNED BY BWCW	CONTRACT NO. HY/2013/03	APPROVED BY TKH
DRAWN BY WSY	STATUS WORKING DRAWING	
SCALE A1 1 : 1000	COPYRIGHT RESERVED	



Plot File by: 2014/5/5 WANGSY

MATERIALAB CONSULTANTS LIMITED

Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
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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.

Report No.: 0165/15/ED/0615

Appendix B

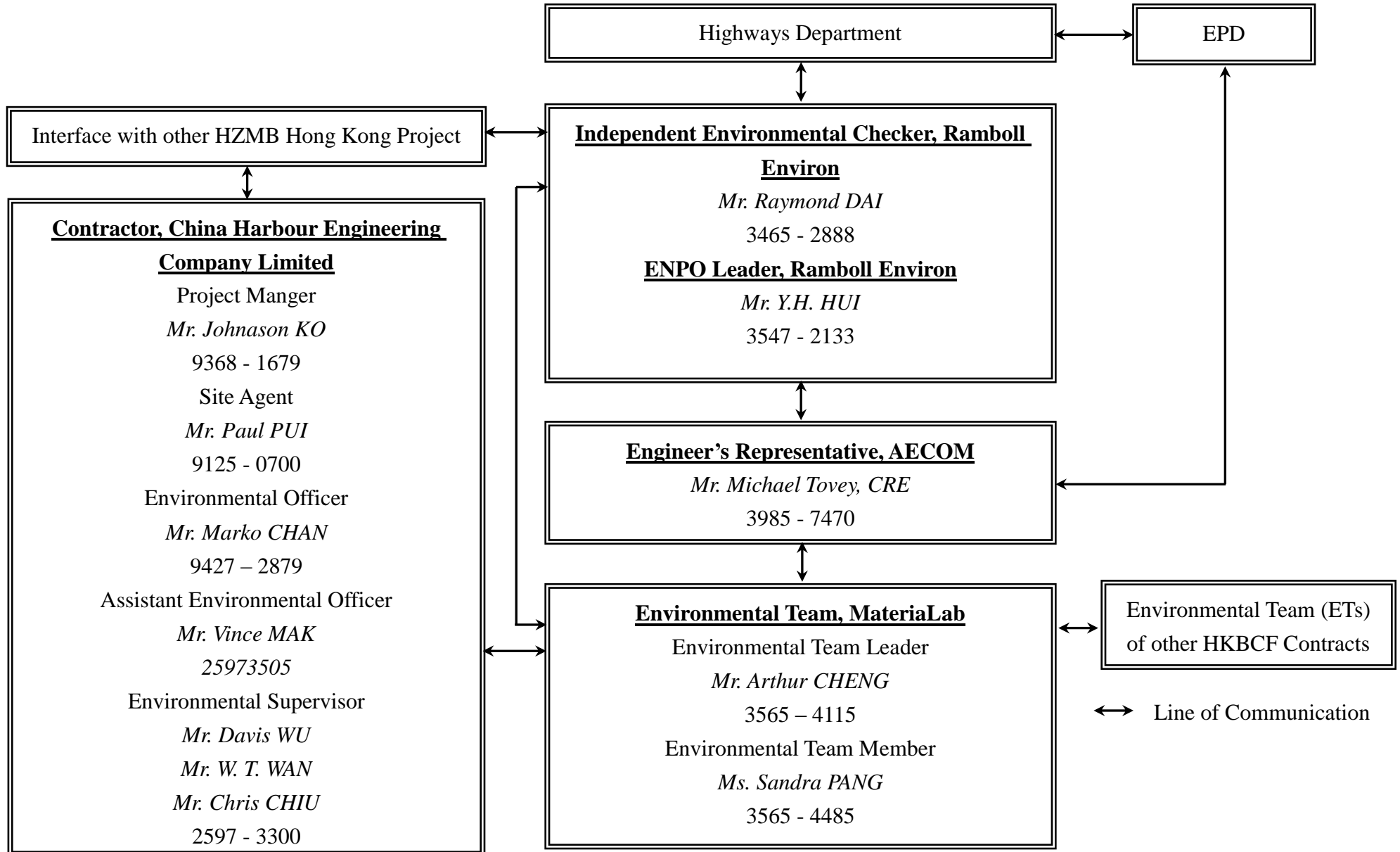
Project Organization for Environmental Works

CHINA HARBOUR ENGINEERING COMPANY LIMITED



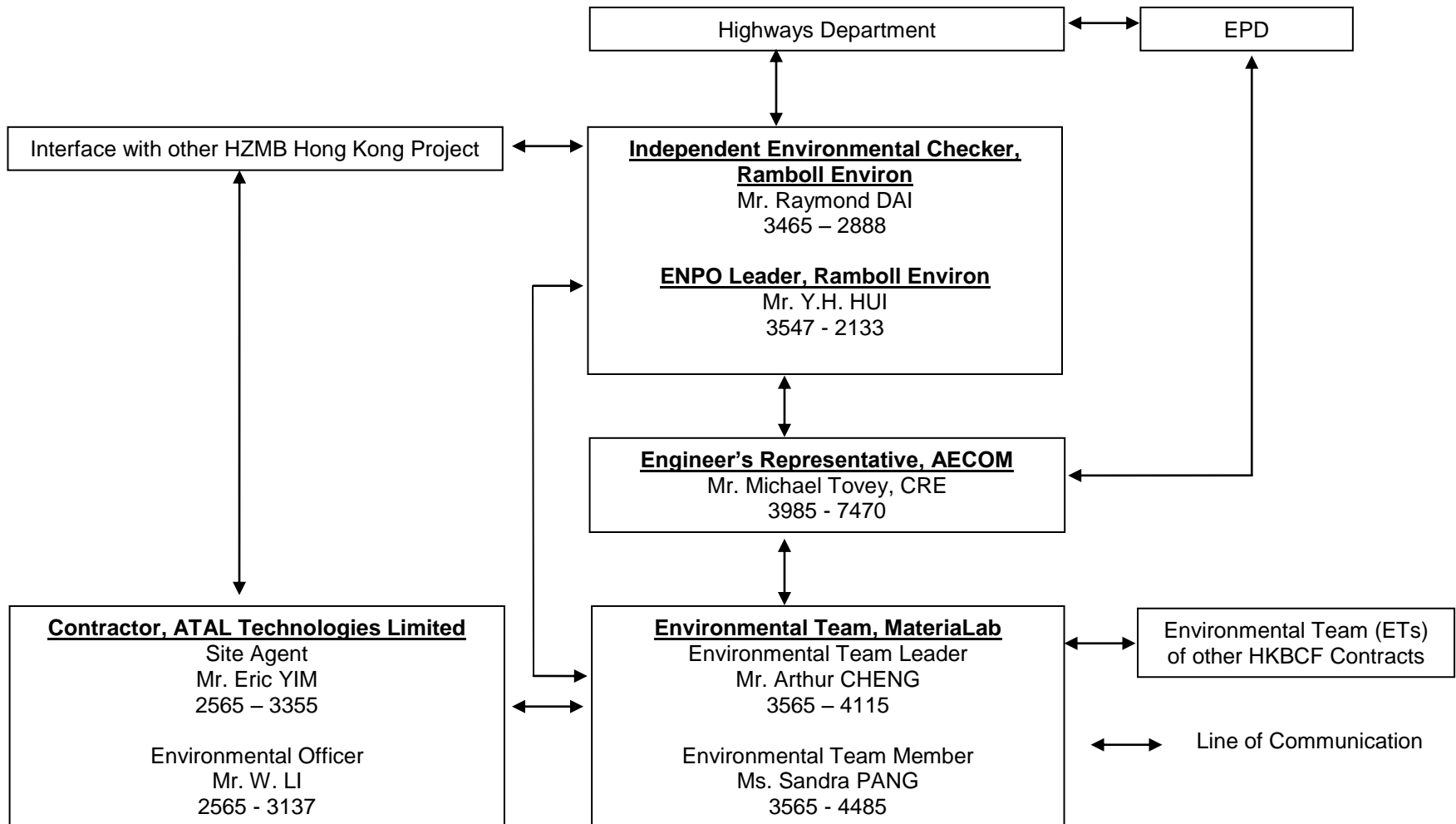
Contract No. HY/2013/03 Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities

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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Report No.: 0165/15/ED/0615

Appendix C

Construction Programme

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017					
								Oct	Nov	Dec	Jan	Feb	Jan	Feb				
HKBCF - VCP & Ancillary Buildings and Facilities, DWP Rev. 3, DD 31 Oct. 16																		
CONTRACT DATES																		
Key Dates																		
A1150	KD15 Achievement of Stage 14 of the Works (548 days; 08 Oct. 16)	0	0	0%		13-Dec-16*	-66										◆ KD15 Achievement of Stage 14 of the Works (5	
A1320	KD32 Achievement of Section IV(b) of the Works (646 days; 15 Jan. 17)	0	0	0%		14-Jan-17*	1										◆ KD32 Achievement c	
A1330	KD33 Achievement of Section IV(c) of the Works (646 days; 15 Jan. 17)	0	0	0%		14-Jan-17*	1										◆ KD33 Achievement c	
Site Access & Possession																		
Possession of Portion of Site																		
A0030	Possession of Portion B (<=100 days)	0	0	0%		31-Oct-16*	-470										◆ Possession of Portion B (<=100 days)	
A0040	Possession of Portion C (<=100 days)	0	0	0%		01-Jan-17*	-533										◆ Possession of Portion C (<=100	
A0050	Possession of Portion D (<=220 days)	0	0	100%		11-Oct-16 A											◆ Possession of Portion D (<=220 days)	
A0070	Possession of Portion F (<=220 days)	0	0	0%		01-Jan-17*	-413										◆ Possession of Portion F (<=220	
A0080	Possession of Portion G (<=225 days)	0	0	100%		14-Oct-16 A											◆ Possession of Portion G (<=225 days)	
A0110	Possession of Portion J (<=320 days)	0	0	0%		31-Oct-16*	-312										◆ Possession of Portion J (<=320 days)	
A0150	Possession of Portion N (<=345 days)	0	0	0%		31-Oct-16*	-225										◆ Possession of Portion N (<=345 days)	
A0160	Possession of Portion P (<=502 days)	0	0	0%		31-Oct-16*	-68										◆ Possession of Portion P (<=502 days)	
A0170	Possession of Portion Q (<=500 days)	0	0	0%		31-Oct-16*	-70										◆ Possession of Portion Q (<=500 days)	
A0180	Possession of Portion R (<=610 days)	0	0	0%		01-Jan-17*	-199										◆ Possession of Portion R (<=610	
Access to Locations of the Site																		
A0210	Contract Date for Access to Location 1.1 (490 days)	0	0	0%		31-Oct-16*	-269										◆ Contract Date for Access to Location 1.1 (490 days)	
A0220	Contract Date for Access to Location 1.2 (405 days)	0	0	0%		31-Oct-16*	-165										◆ Contract Date for Access to Location 1.2 (405 days)	
A0230	Contract Date for Access to Location 1.3 (488 days)	0	0	0%		31-Oct-16*	-136										◆ Contract Date for Access to Location 1.3 (488 days)	
A0240	Contract Date for Access to Location 1.4 (488 days)	0	0	0%		31-Oct-16*	-136										◆ Contract Date for Access to Location 1.4 (488 days)	
A0250	Contract Date for Access to Location 1.5 (580 days)	0	0	0%		09-Nov-16*	0										◆ Contract Date for Access to Location 1.5 (580 days)	
A0280	Contract Date for Access to Location 1.7A (610 days)	0	0	0%		09-Dec-16*	0										◆ Contract Date for Access to Location 1.7A (610 day	
A0290	Contract Date for Access to Location 1.7B (610 days)	0	0	0%		09-Dec-16*	0										◆ Contract Date for Access to Location 1.7B (610 day	
A0300	Contract Date for Access to Location 1.7C (610 days)	0	0	0%		09-Dec-16*	0										◆ Contract Date for Access to Location 1.7C (610 day	
A0310	Contract Date for Access to Location 1.8 PCB (Basement level up to ground floor slab) (395 days)	0	0	0%		31-Oct-16*	-175										◆ Contract Date for Access to Location 1.8 PCB (Basement level up to ground floor sl	
A0320	Contract Date for Access to Location 1.8 PCB (Ground Floor level or above) (515 days)	0	0	0%		31-Oct-16*	-55										◆ Contract Date for Access to Location 1.8 PCB (Ground Floor level or above) (515 d	
A0330	Contract Date for Access to External Area for Contract HY/2013/01 for ELV System Installation (570 days)	0	0	0%		31-Oct-16*	0										◆ Contract Date for Access to External Area for Contract HY/2013/01 for ELV System	
A0340	Contract Date for Access to External Area for Contract HY/2013/02 for ELV System Installation (560 days)	0	0	0%		31-Oct-16*	-10										◆ Contract Date for Access to External Area for Contract HY/2013/02 for ELV System	
A0350	Contract Date for Access to External Area for Contract HY/2013/04 ELV System Installation (560 days)	0	0	0%		31-Oct-16*	-10										◆ Contract Date for Access to External Area for Contract HY/2013/04 ELV System Inst	
Section/Stage Subject to Excision																		
A0770	Contract Date for Section VI (650 days, latest date when the Engineer may order)	0	0	0%	18-Jan-17*		0										◆ Contract Date for	
A0780	Contract Date for Section VII (650 days, latest date when the Engineer may order)	0	0	0%	18-Jan-17*		0										◆ Contract Date for	
PRELIMINARY																		
Precast Yard for Bridge Segement																		
A0630	Segment Manufacture	300	102	66%	17-Jun-16 A	04-Mar-17	111											

Actual Work
 Remaining Work
 Critical
◆ Milestone

THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
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31-Oct-16	3MRP updated as of 30 Oct. 2016	ZJ	

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017			
								Oct	Nov	Dec	Jan	Feb	Jan	Feb		
PORTION A1																
Portion A1 Structures																
Bridge A9																
Bored Pile																
SA9120	Bored pile for A9 Bridge, 10 no.	70	27	61.43%	17-May-16 A	30-Nov-16	34									
SA9140	Pile testing	7	7	0%	31-Oct-16	07-Nov-16	34									
Pile Cap																
SA9210	Cap - A905	30	30	0%	08-Nov-16	12-Dec-16	72									
SA9220	Cap - P904	30	30	0%	08-Nov-16	12-Dec-16	77									
SA9230	Cap - P903	30	30	0%	08-Nov-16	12-Dec-16	34									
SA9240	Cap - P902	30	30	0%	08-Nov-16	12-Dec-16	34									
SA9250	Cap - A901	30	30	0%	08-Nov-16	12-Dec-16	75									
Pier & Abutment																
SA9310	Abutment A905	30	30	0%	13-Dec-16	19-Jan-17	72									
SA9320	Pier P904	25	25	0%	13-Dec-16	13-Jan-17	77									
SA9330	Pier P903	25	25	0%	13-Dec-16	13-Jan-17	34									
SA9340	Pier P902	25	25	0%	13-Dec-16	13-Jan-17	34									
SA9350	Abutment A901	30	30	0%	13-Dec-16	19-Jan-17	75									
Structure Deck																
SA9400	Falsework for Deck A905 - P904	14	14	0%	20-Jan-17	08-Feb-17	72									
SA9430	Falsework for Deck P903 - P902	14	14	0%	14-Jan-17	02-Feb-17	34									
Retaining Wall W8-1																
SW8110	Construction of Retaing Wall W8-1 (U-shape, 4 bays)	80	76	5%	19-Sep-16 A	02-Feb-17	125									
Retaining Wall W9-1																
SW9110	Construction of Retaining Wall W9-1 (U-shape, 4 bays) (+PL Test)	80	76	5%	19-Sep-16 A	02-Feb-17	147									
Box Culvert D																
Box Culvert D Construction																
SD0140	Box Culvert D Construction (Stage 1, Bay 33 - 35)	50	0	100%	17-May-16 A	15-Oct-16 A										
SD0150	Box Culvert D Construction (Stage 2, Bay 36 - 38)	50	4	92%	27-Jul-16 A	03-Nov-16	162									
SD0160	Box Culvert D Construction (Stage 3, Bay 39 - 42)	50	12	76%	08-Aug-16 A	12-Nov-16	99									
SD0170	Box Culvert D Construction (Stage 4, Bay 19 - 21 & 24 - 32)	75	68	10%	08-Aug-16 A	20-Jan-17	99									
SD0180	Box Culvert D Backfilling	75	75	0%	20-Jan-17	26-Apr-17	99									
047 - Fresh Water Pumping Station, Portion A1 & A2																
A04720	Excavation + Blinding	12	12	0%	31-Oct-16	12-Nov-16	-184									
A04730	Pile Testing	7	7	0%	14-Nov-16	21-Nov-16	-184									
A04740	Water Tank Construction	58	58	0%	22-Nov-16	03-Feb-17	-184									
049 - Sewage Treatment Plant, Portion A1 & A2																
A04946	Excavation to 0.0mPD/+4.9mPD	10	9	10%	19-Sep-16 A	09-Nov-16	-151									
A04948	Pile Testing	14	0	100%	10-Oct-16 A	24-Oct-16 A										
A04950	Sheet Piling as ELS1 for Equalization Tanks	40	12	70%	29-Sep-16 A	12-Nov-16	-151									

- Actual Work
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THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017				
								Oct	Nov	Dec	Jan	Feb	Jan	Feb			
A04960	Sheet Piling as ELS2 for Sludge Holding Tanks	20	20	0%	26-Oct-16 A	22-Nov-16	600										
B04960	ELS1 + Blinding for Equalization Tanks	14	3	78.57%	20-Oct-16 A	02-Nov-16	-151										
B04970	Constructing Base Slab for Equalization Tanks	15	15	0%	03-Nov-16	19-Nov-16	-86										
B04980	Backfilling + Removing 3rd Strut of ELS1	6	6	0%	21-Nov-16	26-Nov-16	-86										
B04990	Constructing Wall Stem for Equalization Tanks	27	27	0%	28-Nov-16	30-Dec-16	-86										
C04910	Water-tightness Test for Equalization Tanks	12	12	0%	31-Dec-16	14-Jan-17	-86										
C04920	Backfilling + Removal of ELS1	10	10	0%	16-Jan-17	26-Jan-17	-86										
C04930	ELS2 + Blinding for Equalization Tanks	10	10	0%	03-Nov-16	14-Nov-16	-151										
C04940	Constructing Base Slab of Equalization Tanks	20	20	0%	15-Nov-16	07-Dec-16	-151										
C04950	Backfilling + Removal Strut of ELS2	5	5	0%	08-Dec-16	13-Dec-16	-151										
C04960	Constructing Wall Stem of Sludge Holding Tanks	20	20	0%	14-Dec-16	09-Jan-17	-151										
C04970	Water-tightness Test for Sludge Holding Tanks	12	12	0%	10-Jan-17	23-Jan-17	-151										
C04990	Backfilling + Removal of ELS2	12	12	0%	24-Jan-17	09-Feb-17	-151										
D04910	ELS3 w/struts + Blinding for MBR Tanks	5	5	5%	29-Sep-16 A	04-Nov-16	-153										
D04920	Constructing Base Slab for MBR Tanks	30	30	0%	04-Nov-16	09-Dec-16	-153										
D04930	Constructing Wall Stem for MBR Tanks	25	25	0%	09-Dec-16	11-Jan-17	-153										
D04940	Water-tightness Test for MBR Tanks	12	12	0%	11-Jan-17	25-Jan-17	-153										
D04950	Backfilling + Removal of ELS3	12	12	0%	25-Jan-17	11-Feb-17	-153										
D04955	Excavation + Blinding for Ground Slab, Transformer Room	20	0	100%	11-Oct-16 A	18-Oct-16 A											
D04960	Constructing Ground Slab for Transformer Room	25	19	23%	19-Oct-16 A	22-Nov-16	-130										
D04970	Transformer Room Construction	30	30	0%	22-Nov-16	29-Dec-16	-130										
D04980	BS + E&M for Transformer Room to CLP (KD7)	25	25	0%	29-Dec-16	01-Feb-17	-130										
Completion of Fire Services Installation and Equipment (FCD)																	
F04950	Provision of Approved Building Plans by the Engineer	0	0	0%		31-Oct-16	9										
Waterworks Ordinance (WSD)																	
G04910	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		31-Oct-16	-12										
G04920	Submission of WWO46 - Part I & II (Inside Services)	24	24	0%	01-Nov-16	28-Nov-16	-12										
Portion A1 Buildings																	
012 - DOH Disinsection Area and Store Room 1, at Portion A1																	
A01250	Finishing	80	64	20%	27-Aug-16 A	16-Jan-17	62										
A01260	BS for Office Accomodation (Stage 8)	73	58	20%	29-Aug-16 A	10-Jan-17	-12										
A01270	BS + E&M for Office Accomodation (Stage 9)	80	80	0%	10-Jan-17	21-Apr-17	-12										
A01280	Other BS + E&M Installation	150	150	0%	31-Oct-16	06-May-17	46										
036 - Weigh Station																	
A03665	External Wall Plaster & Tile	75	37	50.67%	02-May-16 A	12-Dec-16	136										
A03670	BS for Office Accomodation (Stage 8)	90	0	100%	13-Jan-16 A	08-Oct-16 A											
A03680	BS + E&M for Office Accomodation (Stage 9)	90	52	42.22%	10-Oct-16 A	31-Dec-16	74										
A03690	Other BS + E&M Installation	183	74	59.56%	02-Nov-15 A	27-Jan-17	174										
B03620	WWO 46 Part I & II Submission	0	0	0%	21-Nov-16		140										

■ Actual Work
■ Remaining Work
■ Critical
◆ Milestone

THREE MONTH ROLLING PROGRAMME

VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

Page 3 of 21

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016			2017	
								Oct	Nov	Dec	Jan	Feb
B03640	Plumbing Inspection by WSD	75	75	0%	05-Jan-17	06-Apr-17	119					
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)												
A03738	DDA Submission/Approval for Curtain Wall/Metal Roof/Alum. Cladding	75	23	69.33%	30-Jun-16 A	25-Nov-16	36					
A03740	Steel Frame Structure Installation	90	90	0%	31-Oct-16	18-Feb-17	2					
A03742A	Mock-up Sample for Curtain Wall	50	50	0%	26-Nov-16	26-Jan-17	36					
A03742B	Mock-up Sample for Cladding	50	50	0%	26-Nov-16	26-Jan-17	36					
A03742C	Mock-up Sample for Mesh Screen Wall (SS41) & Balustrade	25	25	0%	31-Oct-16	28-Nov-16	75					
A03742D	Mock-up Sample for Painted Concrete Wall	25	3	88%	01-Aug-16 A	29-Nov-16	197					
A03742F	Mock-up Sample for External Wall Tiling	25	25	0%	31-Oct-16	28-Nov-16	123					
A03744	Curtain Wall/Metal Roof/Aluminium Cladding Installation	100	100	0%	27-Jan-17	03-Jun-17	150					
A03746	Blockwall Laying	100	50	50%	02-Jul-16 A	29-Dec-16	50					
A03748	Wall/Ceiling Plastering/Tiling	100	50	50%	29-Jul-16 A	27-Jan-17	50					
A03752	Floor Screed/Tiling	100	100	0%	31-Oct-16	02-Mar-17	48					
A03760	BS for Office Accomodation (Stage 8)	88	52	40.91%	03-Oct-16 A	31-Dec-16	-75					
A03770	BS + E&M for Office Accomodation (Stage 9)	90	90	0%	03-Jan-17	25-Apr-17	-16					
A03780	BS + E&M for AVCSS Works (KD18A)	52	0	100%	26-Sep-16 A	15-Oct-16 A						
A03785	BS + E&M for AVCSS Cabling (KD18B)	68	52	23.53%	17-Oct-16 A	31-Dec-16	-62					
A03790	Other BS + E&M Installation	235	221	5.96%	17-Oct-16 A	31-Jul-17	-4					
B03720	WVO 46 Part I & II Submission	0	0	0%	21-Nov-16		57					
041 Fire Station Cum Ambulance Depot												
A04110	Substructure	84	0	100%	13-Jun-16 A	30-Sep-16 A						
A04120	Super Structure, G/F to 1/F	80	27	66.25%	09-Jul-16 A	30-Nov-16	-92					
A04122	Super Structure, 1/F to 2/F (incl. parapet wall and planter wall)	80	52	35%	17-Oct-16 A	31-Dec-16	-92					
A04124	DDA Submission/Approval for Cladding & Curtain Wall	60	28	53.33%	01-Sep-16 A	01-Dec-16	71					
A04126	Cladding & Curtain Wall Installation (incl. steel & metal works)	100	100	0%	02-Dec-16	05-Apr-17	71					
A04132	Blockworks	60	60	0%	03-Jan-17	16-Mar-17	-90					
A04133	Ceiling & Wall Plastering/Wall Tiling	60	60	0%	17-Jan-17	30-Mar-17	-90					
A04140	BS for Office Accomodation (Stage 8)	85	85	0%	03-Jan-17	19-Apr-17	-92					
A04160	Other BS + E&M Installation	156	156	0%	03-Jan-17	15-Jul-17	87					
B04120	WVO 46 Part I & II Submission	0	0	0%	21-Nov-16		27					
042 Drill Tower												
A04250	Super Structure	69	0	100%	05-May-16 A	25-Oct-16 A						
A04260	Finishing	80	80	0%	26-Oct-16 A	07-Feb-17	46					
A04270	BS for Office Accomodation (Stage 8)	65	65	0%	26-Oct-16 A	17-Jan-17	-23					

- █ Actual Work
- █ Remaining Work
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**THREE MONTH ROLLING PROGRAMME
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								Oct	Nov	Dec	Jan	Feb	Jan	Feb		
A04280	BS + E&M for Office Accomodation (Stage 9)	84	84	0%	18-Jan-17	05-May-17	-23									
A04290	Other BS + E&M Installation	160	160	0%	14-Nov-16	02-Jun-17	97									
043 DOH Office + Store Room																
A04330	Super Structure	60	26	56.67%	27-May-16 A	29-Nov-16	-43									
A04340	Water Tanks for F.S./Sprinkler Pump Room	120	120	0%	30-Nov-16	29-Apr-17	-20									
A04360	DDA Submission for Cladding & Curtain Wall	75	0	100%	01-Sep-16 A	31-Oct-16 A										
A04370	Cladding & Curtain Wall Installation (incl. steel & metal works)	125	125	0%	31-Dec-16	07-Jun-17	81									
A04380	BS for Office Accomodation (Stage 8)	69	69	0%	30-Nov-16	24-Feb-17	-43									
B04310	Other BS + E&M Installation	170	170	0%	19-Dec-16	20-Jul-17	408									
B04330	Stainless Steel Mesh Installation	100	100	0%	30-Nov-16	01-Apr-17	131									
B04340	Metal Windows/Louvres/Doors/Railing etc. installation	136	136	0%	30-Nov-16	20-May-17	95									
B04350	Blockworks	50	50	0%	30-Nov-16	02-Feb-17	37									
B04360	Wall Plastering/Tiling	50	50	0%	30-Dec-16	02-Mar-17	37									
C04310	C/S Wall Plastering	48	48	0%	30-Nov-16	27-Jan-17	159									
C04340	WVO 46 Part I & II Submission	0	0	0%	21-Nov-16		21									
052 - Transforms (Zone 4)																
A05235	Energisation by CLP	50	10	80%	24-Feb-16 A	10-Nov-16	62									
A05240	BS + E&M Installation (KD9)	66	0	100%	02-Nov-15 A	29-Oct-16 A										
A05250	Ceiling/Wall Painting Finish & Floor Screed	100	26	74%	31-May-16 A	29-Nov-16	0									
A05260	External Wall Plaster & Wall (KD10)	100	100	0%	30-Nov-16	01-Apr-17	0									
A05270	Main Switch/L.V. Switch Board Installation	50	50	0%	30-Nov-16	02-Feb-17	50									
A05280	Genset Installation	60	60	0%	16-Dec-16	02-Mar-17	65									
Completion of Fire Services Installation and Equipment (FCD)																
F05240	Provision of Approved Building Plans by the Engineer	0	0	0%		31-Oct-16	141									
Waterworks Ordinance (WSD)																
G05210	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		31-Oct-16	7									
105 IMMD Guard Booth, Portion A1 (Mock Up)																
B10500	Shop Drawings & Material Submission	69	69	0%	31-Oct-16	07-Jan-17	-85									
B10510	Excavation + Blinding	5	5	0%	27-Jan-17	04-Feb-17	-86									
Facade Envelop Structure Installation																
B10580	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	84									
B10590	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	84									
External Works for Portion A1																
Drainage Works																
ED0020	Drainage Works (773m & 34MHs), Stage 1 (Western)	100	10	90%	16-Sep-15 A	10-Nov-16	-223									
ED0030	Sewerage (300m & 9MHs), Stage 1 (Western)	100	10	90%	04-Jan-16 A	10-Nov-16	-223									
ED5590	Drainage Works (774m & 35MHs), Stage 2 (Middle)	100	100	0%	11-Nov-16	14-Mar-17	-223									
ED5600	Sewerage (300m & 9MHs), Stage 2 (Middle)	100	100	0%	11-Nov-16	14-Mar-17	-223									
Waterpipe Laying																

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

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017	
								Oct	Nov	Dec	Jan	Feb		
EW5010	Fresh Water Main Laying (700 m), Stage 1 (Western)	75	68	10%	13-Oct-16 A	20-Jan-17	-231	[Actual Work]						
EW6010	Flushing Water Main Laying (322 m), Stage 1 (Western)	75	68	10%	13-Oct-16 A	20-Jan-17	-231	[Actual Work]						
EW6020	Fresh Water Main Laying (700 m), Stage 2 (Middle)	75	75	0%	20-Jan-17	26-Apr-17	-231						[Actual Work]	
EW6030	Flushing Water Main Laying (322 m), Stage 2 (Middle)	75	75	0%	20-Jan-17	26-Apr-17	-231						[Actual Work]	
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting														
EU5260	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV	200	200	0%	19-Nov-16	27-Jul-17	-18			[Actual Work]				
PORTION A2														
Portion A2 Structures														
048 - Reclaimed Water Pumping Station, Portion A2														
A04830	Sheet Piling as ELS for Basement 1	12	12	0%	31-Oct-16	12-Nov-16	-198		[Actual Work]					
A04840	Pile testing	7	7	0%	14-Nov-16	21-Nov-16	-198		[Actual Work]					
A04850	Excavation + Blinding for Basement 1	20	20	0%	22-Nov-16	14-Dec-16	-198			[Actual Work]				
A04860	Basement 1 Construction	40	40	0%	15-Dec-16	06-Feb-17	-198			[Actual Work]				
Retaining Wall W9-2														
SW9210	Construction of Retaining Wall W9-2 (U-shape, 6 bay)	120	120	0%	31-Oct-16	25-Mar-17	-216		[Actual Work]					
External Works for Portion A2														
Drainage Works														
A2S010	Initial Survey	6	6	0%	31-Oct-16	05-Nov-16	-138		[Actual Work]					
PORTION B														
Portion B Structures														
Retaining Wall W7-2														
S70870	Construction of Retaining Wall W7-2 (L-shape, 1 bays)	25	25	0%	14-Nov-16	12-Dec-16	181		[Remaining Work]					
S70890	RW7-2 Backfilling	30	30	0%	28-Dec-16	04-Feb-17	170			[Remaining Work]				
Retaining Wall W6-1														
S62050	Construction of Retaining Wall W6-1 (L-shape, 4bays)	80	48	40%	12-Jul-16 A	24-Dec-16	165	[Actual Work]					[Remaining Work]	
S62060	RW6-1 Backfilling	30	30	0%	28-Dec-16	04-Feb-17	165			[Remaining Work]				
Bay 4 - 19 of CUE/Staff Subway														
C02760	Internal Finishes & Cable Containment (KD1)	100	27	73%	01-Aug-16 A	30-Nov-16	-220	[Actual Work]						
C02770	BS + E&M Installation for AVCSS (Stage 1)	100	52	48%	22-Aug-16 A	31-Dec-16	-220	[Actual Work]						
C02780	Chilled Water Pipe (CUE) installation	50	50	0%	03-Jan-17	04-Mar-17	221					[Remaining Work]		
Bay 20 - 24 of CUE/Staff Subway														
C02820	Bay 20 - 24 Construction - Base Slab	63	52	17.46%	25-Feb-16 A	31-Dec-16	-269	[Actual Work]						
C02830	Bay 20 - 24 Construction - Wall + Top Slab	100	74	26%	03-May-16 A	02-Feb-17	-269	[Actual Work]						
C02840	Internal Finishes & Cable Containment (KD1)	75	75	0%	30-Nov-16	03-Mar-17	-269			[Actual Work]				
C02850	BS + E&M Installation for AVCSS (Stage 1)	75	75	0%	30-Nov-16	03-Mar-17	-269			[Actual Work]				
C02860	Chilled Water Pipe (CUE) installation	50	50	0%	20-Jan-17	22-Mar-17	206					[Remaining Work]		
Bay 25 - 29 of CUE/Staff Subway														
C02920	Bay 25 -29 Construction - Base Slab	28	27	3.57%	03-May-16 A	30-Nov-16	-270	[Actual Work]						

- █ Actual Work
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								Oct	Nov	Dec	Jan	Feb		
C02930	Bay 25 - 29 Construction - Wall + Top Slab	100	52	48%	04-Jul-16 A	31-Dec-16	-270	[Gantt bar: Oct to Dec 2016]						
C02960	Internal Finishes & Cable Containment (KD1)	75	75	0%	01-Dec-16	04-Mar-17	-270	[Gantt bar: Dec 2016 to Mar 2017]						
C02970	BS + E&M Installation for AVCSS (KD1)	75	75	0%	01-Dec-16	04-Mar-17	-270	[Gantt bar: Dec 2016 to Mar 2017]						
C02980	Chilled Water Pipe (CUE) installation	50	50	0%	21-Jan-17	23-Mar-17	205						[Gantt bar: Jan to Mar 2017]	
Portion B Buildings														
027/028 Inbound Kiosks & 029 Outbound Kiosks														
A02700	Submission & Approval for Steel Works	98	26	73.47%	01-Apr-16 A	29-Nov-16	-179	[Gantt bar: Apr to Nov 2016]						
A02710	Pre-fabrication for the Steel Kiosks	100	50	50%	01-Aug-16 A	29-Dec-16	-179	[Gantt bar: Aug to Dec 2016]						
A02715	Mock up for Steel Kiosks	100	27	73%	01-Aug-16 A	30-Nov-16	-154	[Gantt bar: Aug to Nov 2016]						
A02718	Mock up for Goods Vehicle Canopy	25	25	0%	02-Nov-16	30-Nov-16	-101		[Gantt bar: Nov 2016]					
A02720	Super structure	100	75	25%	17-Sep-16 A	04-Mar-17	-181	[Gantt bar: Sep 2016 to Mar 2017]						
A02730	Construction of Subway Entrance	25	25	0%	05-Sep-16 A	31-Dec-16	-26	[Gantt bar: Sep 2016 to Dec 2016]						
A02740	Construction of Subway Toilets	25	25	0%	03-Jan-17	03-Feb-17	-26					[Gantt bar: Jan to Feb 2017]		
A02780	BS + E&M for AVCSS Works (KD18A)	54	54	0%	29-Dec-16	06-Mar-17	-181					[Gantt bar: Dec 2016 to Mar 2017]		
027/028 Inbound Kiosks & 029 Outbound Kiosks, Section IX, Subject to Excision														
B02740	Pre-fabrication for the Steel Kiosks	100	50	50%	01-Aug-16 A	29-Dec-16	-26	[Gantt bar: Aug to Dec 2016]						
B02750	Super structure	96	50	47.92%	17-Oct-16 A	01-Apr-17	-52		[Gantt bar: Oct 2016]				[Gantt bar: Apr 2017]	
B02760	BS + E&M for AVCSS Works (KD18C)	84	84	0%	28-Dec-16	10-Apr-17	-52					[Gantt bar: Dec 2016 to Apr 2017]		
026 Inbound IMM and DOH Secondary Screening Building														
A02630	Super Structure	75	63	16%	16-Feb-16 A	14-Jan-17	-117	[Gantt bar: Feb 2016 to Jan 2017]						
A02640	Finishing	150	150	0%	16-Jan-17	21-Jul-17	5					[Gantt bar: Jan to Jul 2017]		
A02650	Contractor's Design Submission for SS Mesh Screen & Approval	100	100	0%	16-Jan-17	22-May-17	5					[Gantt bar: Jan to May 2017]		
A02660	Contractor's Design Submission for Aluminium Cladding & Approval	50	50	0%	16-Jan-17	17-Mar-17	5					[Gantt bar: Jan to Mar 2017]		
A02670	BS for Office Accommodation (Stage 8)	90	90	0%	16-Jan-17	10-May-17	-117					[Gantt bar: Jan to May 2017]		
A02690	Other BS + E&M Installation	180	171	5%	01-Feb-16 A	02-Sep-17	-2	[Gantt bar: Feb 2016 to Sep 2017]						
054 Inbound Fixed X-ray Building														
A05455	Superstructure, 1/F to 2/F (incl. parapet wall and planter wall)	35	0	100%	20-Jun-16 A	04-Oct-16 A		[Gantt bar: Jun to Oct 2016]						
A05460	Finishing	150	75	50%	02-Jul-16 A	01-Feb-17	-39	[Gantt bar: Jul 2016 to Feb 2017]						
A05467	Energisation by CLP	75	75	0%	03-Oct-16 A	01-Feb-17	78					[Gantt bar: Oct 2016 to Feb 2017]		
A05470	BS for Office Accommodation (Stage 8)	90	52	42.22%	05-Oct-16 A	31-Dec-16	-16	[Gantt bar: Oct 2016 to Dec 2016]						
A05490	Other BS + E&M Installation	180	171	5%	08-Feb-16 A	01-Jun-17	69	[Gantt bar: Feb 2016 to Jun 2017]						
B05410	Lift Installation	75	75	0%	02-Dec-16	06-Mar-17	25					[Gantt bar: Dec 2016 to Mar 2017]		
Completion of Fire Services Installation and Equipment (FCD)														
F05440	Provision of Approved Building Plans by the Engineer	0	0	0%		31-Oct-16	102						[Gantt bar: Oct 2016]	

█ Actual Work
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THREE MONTH ROLLING PROGRAMME
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

31-Oct-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017				
								Oct	Nov	Dec	Jan	Feb	Jan	Feb			
Waterworks Ordinance (WSD)																	
G05410	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		31-Oct-16	8										
038 AFCD Office																	
A03820	Substructure	24	2	91.67%	22-Sep-16 A	01-Nov-16	-202										
A03830	Super Structure; G/F to 1/F	45	45	0%	02-Nov-16	23-Dec-16	-130										
A03840	Super Structure; 1/F to 2/F (incl. parapet and planter wall)	45	45	0%	24-Dec-16	21-Feb-17	-130										
039 Police Main Building																	
A03920	Substructure	70	12	82.86%	03-Sep-16 A	12-Nov-16	-262										
A03930	Super Structure; G/F to 1/F	75	75	0%	14-Nov-16	15-Feb-17	-262										
040 Incident Control Tower																	
A04020	Substructure	14	14	0%	31-Oct-16	15-Nov-16	606										
A04040	Super Structure	97	97	0%	02-Nov-16	01-Mar-17	-202										
Facade Cladding System																	
B04010	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	23										
B04020	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	23										
Glass Wall																	
C04010	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	51										
C04020	Fabrication of Glass Wall	60	60	0%	05-Dec-16	18-Feb-17	51										
102 HKPF UVSS Monitor Room																	
A10210	Substructure (Raft Foundation)	45	0	100%	24-Sep-16 A	05-Oct-16 A											
A10220	Super Structure	45	0	100%	06-Oct-16 A	31-Oct-16 A											
A10230	Finishing (False Ceiling) (KD9)	70	70	0%	31-Oct-16	23-Jan-17	-18										
A10240	BS for Office Accomodation (Stage 8)	80	80	0%	31-Oct-16	07-Feb-17	-34										
A10270	Other BS + E&M Installation	150	150	0%	18-Nov-16	25-May-17	74										
Metal Canopy and Roof Installation																	
B10210	Shop Drawing Submission and Approval	30	0	100%	03-Oct-16 A	31-Oct-16 A											
B10212	Fabrication of MC/R	60	60	0%	31-Oct-16	11-Jan-17	28										
B10220	Casted-in Items Installation	40	40	0%	12-Jan-17	02-Mar-17	28										
103 Police Inspection Post																	
A10310	Excavation + Blinding	5	0	100%	25-Oct-16 A	31-Oct-16 A											
A10330	Raft Foundation	20	20	0%	31-Oct-16	22-Nov-16	-94										
A10340	Super Structure (Roof Slabs)	40	40	0%	23-Nov-16	11-Jan-17	-94										
A10350	Finishing (False Ceiling) (KD9)	60	60	0%	12-Jan-17	25-Mar-17	-68										
A10360	BS for Office Accomodation (Stage 8)	80	80	0%	12-Jan-17	22-Apr-17	-94										
HPL Composite Panel Cladding System																	
B10310	Shop Drawing Submission and Approval	30	30	0%	24-Dec-16	03-Feb-17	61										
057 Transformers (Zone 2)																	
A05730	Superstructure	104	52	50%	20-Aug-16 A	31-Dec-16	-306										
A05740	Finishing	90	90	0%	03-Jan-17	25-Apr-17	-16										
A05750	BS + E&M for Tx Room to CLP (Stage 4)	90	90	0%	03-Jan-17	25-Apr-17	-306										
A05760	BS for Office Accomodation (Stage 8)	70	70	0%	03-Jan-17	28-Mar-17	-70										
A05780	Other BS + E&M Installation	130	130	0%	21-Jan-17	04-Jul-17	56										

■ Actual Work
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

31-Oct-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017				
								Oct	Nov	Dec	Jan	Feb	Jan	Feb			
Completion of Fire Services Installation and Equipment (FCD)																	
F05740	Provision of Approved Building Plans by the Engineer	0	0	0%		31-Oct-16	54										
Waterworks Ordinance (WSD)																	
G05710	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		31-Oct-16	7										
107 - C&ED Mobile X-ray Operation Office (Cargo), Portion B																	
C10710	Excavation + Blinding	7	0	100%	24-Oct-16 A	31-Oct-16 A											
C10720	Raft Foundation	32	32	0%	31-Oct-16	06-Dec-16	-112										
C10730	Superstructure (Roof Slabs)	62	62	0%	07-Dec-16	23-Feb-17	-112										
113 - Field Kiosk for Access Control, Portion B																	
B11310	Excavation + Blinding	7	0	100%	31-Aug-16 A	30-Sep-16 A											
B11320	Raft Foundation	32	2	93.75%	03-Oct-16 A	01-Nov-16	-161										
B11330	Superstructure (Roof Beams & Slabs)	60	60	0%	02-Nov-16	13-Jan-17	-161										
B11340	Finishing	130	130	0%	14-Jan-17	26-Jun-17	131										
B11350	BS for Office Accomodation (Stage 8)	70	70	0%	14-Jan-17	10-Apr-17	-80										
External Works for Portion B																	
Works in Location 1.7A																	
BB1480	ELV Works & T&C in Location 1.7A	125	125	0%	10-Dec-16	18-May-17	0										
Works in Location 1.7B																	
BB1490	ELV Works & T&C in Location 1.7B	125	125	0%	10-Dec-16	18-May-17	0										
Drainage Works																	
ED1540	Drainage Works (1130m & 60 MHs), Stage 1 (S/W)	90	0	100%	17-Dec-15 A	31-Oct-16	-17										
ED3580	Sewerage (275m & 8MHs), Stage 1 (S/W)	90	1	98.89%	02-Jan-16 A	31-Oct-16	-18										
ED5650	Drainage Works (1130m & 60MHs), Stage 2 (S/E)	90	25	72.22%	01-Mar-16 A	28-Nov-16	27										
ED5660	Sewerage (300m & 8MHs), Stage 2 (S/E)	90	25	72.22%	01-Mar-16 A	28-Nov-16	27										
ED5670	Drainage Works (1130m & 60MHs), Stage 3 (N/W)	90	90	0%	29-Nov-16	20-Mar-17	27										
ED5680	Sewerage (300m & 8MHs), Stage 3 (N/W)	90	90	0%	29-Nov-16	20-Mar-17	27										
Waterpipe Laying																	
EW1550	Fresh Water Main Laying (472m), Stage 1 (S/W)	60	15	75%	24-Sep-16 A	21-Nov-16	-18										
EW1560	Flushing Water Main Laying (460m), Stage 1 (S/W)	60	15	75%	24-Sep-16 A	21-Nov-16	-18										
EW6080	Fresh Water Main Laying (500m), Stage 2 (S/E)	90	90	0%	22-Nov-16	13-Mar-17	-18										
EW6090	Flushing Water Main Laying (460m), Stage 2 (S/E)	90	90	0%	22-Nov-16	13-Mar-17	-18										
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting																	
EU5300	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV	300	270	10%	24-Sep-16 A	30-Sep-17	-18										
Roadworks																	
ER1640	Subbase (10000 ton), Stage 1 (N/W)	75	75	0%	31-Oct-16	01-Feb-17	-20										
ER3590	Bitumen Pavement (14000 ton), Stage 1 (N/W)	75	75	0%	28-Nov-16	01-Mar-17	-20										
ER3600	Rigid Pavement (594 m3), Footpath & EVA, Stage 1 (N/W)	75	75	0%	28-Nov-16	01-Mar-17	-20										
Sign Gantry ADS 306A & ADS 306B																	

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								Oct	Nov	Dec	Jan	Feb
ES5240	Fabrication & Delivery of Sign Gantrys to Site	250	221	11.6%	30-Sep-16 A	31-Jul-17	2					
PORTION C												
Portion C Buildings												
010 - Inbound Coach Kiosk & Staff Subway Entrance												
A01010	Substructure and Staircase Construction	75	75	0%	03-Jan-17	03-Apr-17	-327					
009 - Staff Subway Entrance (Bay 0 - 3) & Shuttle Bus Kiosks												
A00930	Constructing Wall + Top Slab of Bay 0 -3	50	0	100%	20-Jun-16 A	11-Oct-16 A						
A00940	Finishing	50	27	46%	17-Oct-16 A	30-Nov-16	-285					
A00950	BS + E&M for AVCSS works (KD 1)	50	27	46%	17-Oct-16 A	30-Nov-16	-285					
A00960	Chilled Water Pipe Installation (CUE)	50	50	0%	30-Dec-16	02-Mar-17	26					
B00910	Substructure and Staircase Construction (Portion B&C)	50	50	0%	12-Oct-16 A	29-Dec-16	-285					
B00920	Kiosk Superstructure	75	75	0%	30-Dec-16	31-Mar-17	-285					
012 - DOH Disinsection Area and Store Room 1, at Portion C												
B01210	Excavation & Blinding	10	10	0%	03-Jan-17	13-Jan-17	-188					
B01220	Raft Foundation	20	20	0%	14-Jan-17	09-Feb-17	-188					
104 - DOH Secondary Screening Station, at Portion C												
A10420	Excavation & Blinding	5	5	0%	03-Jan-17	07-Jan-17	-110					
A10430	Substructure	35	35	0%	09-Jan-17	21-Feb-17	-110					
Facade Cladding System												
A10460	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	2					
A10465	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	2					
108 C&ED Mobile X-ray Machine Operation Office, Portion C												
A10805	Excavation & Blinding	5	5	0%	03-Jan-17	07-Jan-17	-244					
A10810	Raft Foundation	25	25	0%	09-Jan-17	09-Feb-17	-244					
HPL Composite Panel Cladding System												
A10800	Shop Drawing Submission and Approval	30	30	0%	03-Jan-17	09-Feb-17	56					
110 IMMD Guard Booth (Type 2) East												
A11020	Excavation & Blinding	5	5	0%	09-Jan-17	13-Jan-17	-105					
A11030	Substructure	25	25	0%	14-Jan-17	15-Feb-17	-105					
Facade Envelop Structure Installation												
A11040	Shop Drawing Submission and Approval	30	30	0%	03-Jan-17	09-Feb-17	56					
110 IMMD Guard Booth (Type 2) West												
C11010	Excavation & Blinding	5	5	0%	14-Jan-17	19-Jan-17	85					
111 Field Kiosk for Carpark Operator												
A11120	Excavation & Blinding	5	5	0%	03-Jan-17	07-Jan-17	-156					
A11130	Raft Foundation	25	25	0%	14-Jan-17	15-Feb-17	-161					
HPL Composite Panel Cladding System												
B11110	Shop Drawing Submission and Approval	30	30	0%	03-Jan-17	09-Feb-17	56					
113 - Field Kiosk for Access Control, Portion C												
C11310	Excavation & Blinding	5	5	0%	03-Jan-17	07-Jan-17	-165					
C11320	Raft Foundation	30	30	0%	09-Jan-17	15-Feb-17	-165					
External Works for Portion C												
Works in Location 1.2, 1.8 & 011 - Emergency Generator Building												
BB1440	Works & T&C in Location 1.2	90	90	0%	31-Oct-16	18-Feb-17	143					
BB1460	ELV System Installation for Contract HY/2013/01	50	50	0%	31-Oct-16	29-Dec-16	273					

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017	
								Oct	Nov	Dec	Jan	Feb		
Drainage Works														
B00040	Initial Survey	4	4	0%	03-Jan-17	06-Jan-17	-271							
SG2400	Drainage Works (400m & 18MHs), Stage 1 (Eastern)	75	75	0%	07-Jan-17	08-Apr-17	-271							
SG3610	Sewerage (90m & 2MHs), Stage 1 (Eastern)	75	75	0%	07-Jan-17	08-Apr-17	-271							
PORTION D														
Portion D Building														
113 - Field Kiosk for Access Control, Portion D														
C11350	Excavation & Blinding	5	0	100%	26-Sep-16 A	30-Sep-16 A								
C11360	Raft Foundation	30	12	60%	03-Oct-16 A	12-Nov-16	-149							
C11370	Superstructure (Roof Beams & Slabs)	60	60	0%	14-Nov-16	25-Jan-17	-46							
C11380	Finishing	130	130	0%	26-Jan-17	08-Jul-17	121							
D11340	BS for Office Accomodation (Stage 8)	70	70	0%	02-Dec-16	28-Feb-17	-46							
External Works for Portion D														
Drainage Works														
B00050	Initial Survey	6	0	100%	17-Oct-16 A	22-Oct-16 A								
SG3640	Drainage Works (361m & 14MHs)	100	100	0%	14-Nov-16	16-Mar-17	-149							
SG3760	Sewerage (121m & 6MHs)	100	100	0%	14-Nov-16	16-Mar-17	-149							
Waterpipe Laying														
SW3650	Fresh Water Main Laying (108m)	100	100	0%	12-Dec-16	18-Apr-17	-149							
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting														
B11480	ELV System Installation for Contract HY/2013/02	61	61	0%	31-Oct-16	12-Jan-17	262							
SU5350	Duct & Cable Laying for TCSS & Lighting	100	100	0%	12-Dec-16	18-Apr-17	-149							
Works of Car Park Management System at Location 1.5, 1.6A & 1.6B														
SR5540	Works & T&C for Car Park Management System at Location 1.5	97	97	0%	10-Nov-16	09-Mar-17	0							
Roadworks														
SR3740	Subbase (261 ton)	100	100	0%	12-Jan-17	18-May-17	85							
PORTION E														
Portion E Building														
006 - Shuttle Bus Kiosk & Staff Subway Entrance, at Portion E & M														
A00610	ELS + Blinding for Subway	12	12	0%	31-Oct-16	12-Nov-16	-249							
A00620	Constructing base of Subway	25	25	0%	14-Nov-16	12-Dec-16	-249							
A00630	Constructing wall stem + top slab of Subway	40	40	0%	13-Dec-16	03-Feb-17	-249							
External Works for Portion E														
Drainage Works														
B00060	Initial Survey	6	0	100%	24-Oct-16 A	31-Oct-16 A								
PORTION F														
External Works for Portion F														
Drainage Works														
B00070	Initial Survey	6	6	0%	03-Jan-17	09-Jan-17	-175							
SG3930	Drainage Works (122m & 9MHs)	80	80	0%	10-Jan-17	20-Apr-17	-175							
SG4050	Sewerage (70m & 3MHs)	80	80	0%	10-Jan-17	20-Apr-17	-175							
PORTION G, H1 & H2														
Portion G Structures														

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								Oct	Nov	Dec	Jan	Feb	Jan	Feb	
Box Culvert C															
Steel H Pile															
SC0260	Box C - 67 nos. of driven H pile, Stage 1	12	0	100%	08-Sep-16 A	30-Sep-16 A									
SC0270	Box C - 38 nos. of driven H pile, Stage 2	9	0	100%	30-Sep-16 A	29-Oct-16 A		█							
SC0280	Box C - 54 nos. of driven H pile, Stage 3	11	11	0%	31-Oct-16 A	11-Nov-16	57		█						
Box Culvert Structure															
SC0310	Box C - Branch Construction	45	45	0%	12-Nov-16	06-Jan-17	57		█						
SC0320	Box C - Branch Backfilling	30	30	0%	07-Jan-17	14-Feb-17	57					█			
SC0380	Box C - Construction of Main Body	150	150	0%	12-Nov-16	19-May-17	384		█						
Bridge A1															
Bored Pile															
SA1130	Bore pile for other 2 nos. (A106)	24	0	100%	29-Aug-16 A	08-Oct-16 A		█							
SA1140	Pile Testing	7	7	0%	31-Oct-16	07-Nov-16	65		█						
Pile Cap															
SA1210	Cap - A106	30	30	0%	08-Nov-16	12-Dec-16	65		█						
Pier & Abutment															
SA1310	Abutment A106	30	30	0%	13-Dec-16	19-Jan-17	65			█					
Structure Deck															
SA1420	Deck on P103 & P104 + Stressing	60	0	100%	29-Aug-16 A	17-Oct-16 A		█							
SA1440	Deck on P102, P103 + Stressing	60	0	100%	09-Aug-16 A	22-Oct-16 A		█							
SA1450	Falsework for Deck P101, P102	14	14	0%	03-Jan-17	18-Jan-17	80					█			
SA1460	Deck on P101, P102 + Stressing	60	60	0%	19-Jan-17	01-Apr-17	80						█		
SA1470	Falsework for Deck P104, P105	14	0	100%	17-Oct-16 A	31-Oct-16 A		█							
SA1480	Deck on P104, P105 + Stressing	60	60	0%	31-Oct-16	11-Jan-17	85		█						
SA1490	Falsework for Deck P105, A106	14	14	0%	20-Jan-17	08-Feb-17	65						█		
Bridge A2															
Structure Deck															
SA2440	Deck on P202, P203, P601 + Stressing	60	0	100%	15-Aug-16 A	27-Oct-16 A		█							
SA2450	Falsework for Deck P201 - P202	14	14	0%	03-Jan-17	18-Jan-17	94					█			
SA2460	Deck on P201 & P202 + Stressing	60	60	0%	19-Jan-17	01-Apr-17	94						█		
Bridge A3															
Bored Pile															
SA3160	Pile Testing for P304a/b	7	7	0%	31-Oct-16	07-Nov-16	-3		█						
Pile Cap															
SA3220	Cap - P304a/b	30	30	0%	08-Nov-16	12-Dec-16	-3		█						
SA3240	Cap - P303	30	0	100%	03-Oct-16 A	20-Oct-16 A		█							
SA3250	Cap - A305	30	30	0%	31-Oct-16	03-Dec-16	29		█						
Pier & Abutment															
SA3320	Pier P304a, P304b	25	25	0%	13-Dec-16	13-Jan-17	-3			█					
SA3330	Abutment A305	30	30	0%	14-Jan-17	21-Feb-17	-3						█		
SA3340	Pier P302	25	0	100%	03-Sep-16 A	03-Oct-16 A		█							

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017			
								Oct	Nov	Dec	Jan	Feb	Jan	Feb		
SA3350	Pier P303	25	17	32%	24-Oct-16 A	18-Nov-16	37									
Structure Deck																
SA3410	Falsework for Deck P301 - P302	14	14	0%	31-Oct-16	15-Nov-16	44									
SA3420	Deck on P301 - P302 + Stressing	75	75	0%	16-Nov-16	17-Feb-17	58									
SA3430	Falsework for Deck P302 - P303	14	14	0%	24-Nov-16	09-Dec-16	37									
SA3440	Deck on P302 - P303 + Stressing	75	75	0%	10-Dec-16	14-Mar-17	37									
Bridge A4																
Bored Pile																
SA4130	Pile Testing	7	7	0%	31-Oct-16	07-Nov-16	-10									
Pile Cap																
SA4210	Cap - P401	30	30	0%	08-Nov-16	12-Dec-16	-10									
SA4220	Cap - P402	30	30	0%	13-Dec-16	19-Jan-17	-10									
Pier & Abutment																
SA4310	Pier P401	25	25	0%	13-Dec-16	13-Jan-17	-5									
SA4320	Pier P402	25	25	0%	20-Jan-17	21-Feb-17	-10									
Structure Deck																
SA4410	Falsework for Deck P502b, P401	14	14	0%	14-Jan-17	02-Feb-17	6									
Bridge A5																
Bored Pile																
SA5150	Pile Testing for A503 & P506	6	0	100%	03-Oct-16 A	08-Oct-16 A										
Pile Cap																
SA5210	Cap - P504	30	0	100%	19-Sep-16 A	12-Oct-16 A										
SA5220	Cap - P505	30	0	100%	19-Sep-16 A	07-Oct-16 A										
SA5230	Cap - P503	30	30	0%	31-Oct-16	03-Dec-16	-15									
SA5240	Cap - P506	30	6	80%	24-Oct-16 A	05-Nov-16	-238									
SA5250	Cap - A501	30	30	0%	31-Oct-16	03-Dec-16	53									
SA5260	Cap - P502a/b	30	30	0%	31-Oct-16	03-Dec-16	13									
Pier & Abutment																
SA5310	Pier P504	25	14	44%	13-Oct-16 A	15-Nov-16	-201									
SA5320	Pier P505	25	12	52%	08-Oct-16 A	12-Nov-16	-244									
SA5330	Pier P503	25	25	0%	05-Dec-16	05-Jan-17	-15									
SA5340	Pier P506	25	25	0%	14-Nov-16	12-Dec-16	-244									
SA5350	Pier P507	35	12	65.71%	23-Sep-16 A	12-Nov-16	-231									
SA5360	Pier P502a/b	25	25	0%	05-Dec-16	05-Jan-17	13									
SA5370	Abutment A501	30	30	0%	05-Dec-16	11-Jan-17	53									
Structure Deck																
SA5410	Falsework for Deck P504 - P505	14	14	0%	16-Nov-16	01-Dec-16	-201									
SA5420	Deck on P504, P505 + Stressing	90	90	0%	02-Dec-16	23-Mar-17	-201									
SA5450	Falsework for Deck P505 - P506	14	14	0%	30-Dec-16	16-Jan-17	-244									
SA5460	Deck on P505, P506 + Stressing	75	75	0%	17-Jan-17	21-Apr-17	-222									
Bridge A6																
Pile Cap																

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

31-Oct-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017			
								Oct	Nov	Dec	Jan	Feb	Jan	Feb		
SA6270	Cap - A607/711	40	0	100%	30-Jun-16 A	30-Sep-16 A										
Pier & Abutment																
SA6370	Abutment A607	30	12	60%	03-Oct-16 A	12-Nov-16	-66									
Structure Deck																
SA6400	Falsework for Deck P601, P602	14	0	100%	17-Oct-16 A	25-Oct-16 A										
SA6410	Deck on P601, P602 + Stressing	36	6	83.33%	26-Oct-16 A	05-Nov-16	-129									
SA6420	Falsework for Deck P602, P603	14	0	100%	17-Oct-16 A	25-Oct-16 A										
SA6430	Deck on P602, P603 + Stressing	36	6	83.33%	26-Oct-16 A	05-Nov-16	-129									
SA6450	Falsework for Deck P603 - P604	14	14	0%	14-Nov-16	29-Nov-16	-129									
SA6460	Deck on P603, P604 + Stressing	36	36	0%	30-Nov-16	13-Jan-17	-129									
SA6470	Falsework for Deck P604, P605	14	14	0%	12-Dec-16	29-Dec-16	-129									
SA6480	Deck on P604, P605 + Stressing	36	36	0%	30-Dec-16	14-Feb-17	-129									
SA6490	Falsework for Deck P605, P606	14	14	0%	26-Jan-17	14-Feb-17	-129									
Bridge A7a, A7b, A7c																
Bored Pile																
SA7160	Bore Piling for A701, P702 - P705, 10 Nr.	42	0	100%	20-Nov-15 A	24-Oct-16 A										
SA7230	Pile Testing for A701, P702, P703	7	7	0%	04-Nov-16	11-Nov-16	22									
Pile Cap																
SA7360	Cap for P702	30	30	0%	12-Nov-16	16-Dec-16	22									
SA7370	Cap for P703	30	30	0%	12-Nov-16	16-Dec-16	47									
SA7380	Cap for A701	30	30	0%	12-Nov-16	16-Dec-16	72									
Pier & Abutment																
SA7540	Pier P704	25	0	100%	10-Sep-16 A	17-Oct-16 A										
SA7550	Pier P705	25	4	84%	07-Sep-16 A	03-Nov-16	59									
SA7560	Pier P702	25	25	0%	17-Dec-16	18-Jan-17	22									
SA7570	Pier P703	25	25	0%	19-Jan-17	20-Feb-17	22									
SA7650	Abutment A711	30	12	60%	03-Oct-16 A	12-Nov-16	-66									
Structure Deck																
SA7720	Deck on P706, P707 & P712 (Bridge A7b) + Stressing	95	12	87.37%	01-Sep-16 A	12-Nov-16	-174									
SA7730	Falsework for Deck P705 - P706	15	15	0%	07-Nov-16	23-Nov-16	108									
SA7740	Deck on P705 & P706 (Bridge A7a) + Stressing	36	36	0%	24-Nov-16	07-Jan-17	124									
SA7750	Falsework for Deck P704, P705	14	14	0%	08-Dec-16	23-Dec-16	108									
SA7770	Deck on P704 & P705 (Bridge A7a) + Stressing	36	36	0%	28-Dec-16	11-Feb-17	124									
SA7850	Falsework for Deck P707, P708 (A7c)	14	14	0%	21-Nov-16	06-Dec-16	-174									
SA7860	Deck on P707, P708 (Bridge A7c) + Stressing	75	75	0%	07-Dec-16	10-Mar-17	-174									
SA7940	Parapet for Bridge A7b (8 pour) & E&M Works	50	50	0%	14-Nov-16	13-Jan-17	249									
Bridge A8																
Pile Cap																
SA8210	Cap - Abutment A804	30	0	100%	19-Sep-16 A	12-Oct-16 A										
Pier & Abutment																

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								Oct	Nov	Dec	Jan	Feb	Jan	Feb
SA8310	Abutment A804	30	12	60%	13-Oct-16 A	12-Nov-16	142	█	█					
SA8320	Pier P802	25	0	100%	03-Oct-16 A	31-Oct-16 A		█						
SA8330	Pier P803	25	12	52%	03-Oct-16 A	12-Nov-16	77	█	█					
Structure Deck														
SA8410	Falsework for Deck P801, P802	14	14	0%	31-Oct-16	15-Nov-16	49		█					
SA8420	Deck on P802, P802 + Stressing	75	75	0%	16-Nov-16	17-Feb-17	49			█	█	█	█	█
SA8430	Falsework for Deck P802, P803	14	14	0%	16-Dec-16	04-Jan-17	49				█			
SA8440	Deck on P802, P803 + Stressing	75	75	0%	05-Jan-17	06-Apr-17	49					█		
Retaining Walls W1-1, W3-1, W5-1 & W7-1														
Retaining Wall W3-1														
SW3130	Bored Pile for W3-1, 16 Nr.	101	81	20%	12-Oct-16 A	14-Feb-17	-16	█	█	█	█	█	█	█
Retaining Wall W5-1														
SW5010	Construction of Retaining Wall W5-1 (L-shape, 5 bays)	100	100	0%	12-Jan-17	18-May-17	53					█		
Portion G Buildings														
002 - C&ED Observation Guard Booth No.1, Portion H1														
C00220	Excavation + Blinding	5	5	0%	03-Jan-17*	07-Jan-17	-151						█	
C00230	Raft Foundation	30	30	0%	09-Jan-17	15-Feb-17	-151						█	█
002 - C&ED Observation Guard Booth No. 2, Portion H2														
E00210	Excavation + Blinding	5	5	0%	03-Jan-17*	07-Jan-17	-151						█	
E00220	Raft Foundation	30	30	0%	09-Jan-17	15-Feb-17	-151						█	█
033 Inbound Private Car Exam Building														
A03330	Finishing	90	81	10%	10-Oct-16 A	08-Feb-17	-130	█	█	█	█	█	█	█
A03360	External Works	70	70	0%	31-Oct-16	23-Jan-17	56		█	█	█	█	█	█
A03370	BS for Office Accomodation (Stage 8)	70	60	15%	01-Sep-16 A	11-Jan-17	-8	█	█	█	█	█	█	█
A03380	BS + E&M for Office Accomodation (Stage 9)	70	70	0%	11-Jan-17	07-Apr-17	-4						█	█
A03390	Other BS + E&M Installation	130	130	0%	31-Oct-16	07-Apr-17	73		█	█	█	█	█	█
Glass Canopy Installation														
B03305	Fabrication of Glass Canopy	60	60	0%	31-Oct-16	11-Jan-17	-89		█	█	█	█	█	█
B03350	Casted-in Items Installation	40	40	0%	12-Jan-17	02-Mar-17	-89						█	█
Aluminium Metal Canopy														
B03315	Fabrication of F/C System	60	60	0%	31-Oct-16	11-Jan-17	98		█	█	█	█	█	█
B03320	Casted-in Items Installation	50	50	0%	12-Jan-17	14-Mar-17	98						█	█
034 Satellite RCP South														
A03440	Super Structure (Roof Beams & Slabs)	40	0	100%	22-Sep-16 A	18-Oct-16 A		█						
A03450	Finishing	60	54	10%	19-Oct-16 A	04-Jan-17	-61	█	█	█	█	█	█	█
A03460	BS for Office Accomodation (Stage 8)	59	53	10%	18-Oct-16 A	04-Jan-17	-1	█	█	█	█	█	█	█
A03470	BS + E&M for Office Accomodation (Stage 9)	70	70	0%	04-Jan-17	30-Mar-17	3						█	█
A03480	Other BS + E&M Installation	130	130	0%	05-Nov-16	13-Apr-17	150		█	█	█	█	█	█
S S Facade Greenery System														
B03410	Shop Drawing Submission for Approval	30	30	0%	31-Oct-16	03-Dec-16	68		█	█	█	█	█	█
B03415	Fabrication of SS F/G System	60	60	0%	05-Dec-16	18-Feb-17	68						█	█

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31-Oct-16

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								Oct	Nov	Dec	Jan	Feb				
035 - Sewage Pumping Station, Portion G																
A03560	ELS + Blinding for Wet Well	10	10	0%	12-Sep-16 A	10-Nov-16	-151									
A03570	Constructing of Base Slab of Wet Well	20	20	0%	11-Nov-16	03-Dec-16	-151									
A03580	Constructing of Wall Stem of Wet Well	25	25	0%	05-Dec-16	05-Jan-17	-151									
A03590	Water-tightness Test for Wet Wells	12	12	0%	06-Jan-17	19-Jan-17	-151									
B03510	Backfilling + Removal of ELS	10	10	0%	20-Jan-17	03-Feb-17	-151									
051 Transformers (Zone 5)																
A05150	Finishing	60	30	50%	16-May-16 A	03-Dec-16	-91									
A05165	Energisation by CLP	75	27	64%	27-Jun-16 A	30-Nov-16	70									
A05170	BS for Office Accommodations (KD9)	115	27	76.52%	02-Jul-16 A	30-Nov-16	-16									
A05180	BS + E&M for Office Accommodation (KD10)	115	115	0%	01-Dec-16	25-Apr-17	-16									
A05190	Other BS + E & M Installation	150	122	18.67%	22-Feb-16 A	28-Mar-17	31									
Completion of Fire Services Installation and Equipment (FCD)																
F05140	Provision of Approved Building Plans by the Engineer	0	0	0%		31-Oct-16	51									
Waterworks Ordinance (WSD)																
G05120	Submission of WWO46 - Part I & II (Inside Services)	6	6	0%	31-Oct-16	05-Nov-16	49									
100 Inbound Traffic Control Kiosk																
A10040	Super Structure (Roof Beams & Slabs)	67	0	100%	15-Sep-16 A	24-Oct-16 A										
A10050	Finishing	45	43	5%	25-Oct-16 A	19-Dec-16	-156									
A10070	BS + E&M for AVCSS Works (KD18A)	86	77	10%	25-Oct-16 A	04-Feb-17	-156									
HPL Composite Panel Cladding System																
B10010	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	28									
B10015	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	28									
112 Field Kiosk for Taxi Queuing Area																
A35210	Foundation	15	0	100%	03-Oct-16 A	25-Oct-16 A										
A35220	Structure	30	27	10%	26-Oct-16 A	30-Nov-16	166									
A35230	Finishing	45	45	0%	01-Dec-16	25-Jan-17	251									
B11520	BS + E & M Installation	130	130	0%	01-Dec-16	15-May-17	166									
External Works for Portion G, H1 & H2																
ELV Works within Portion H2 in the Hong Kong Side PTI																
EU1550	ELV Works within Portion H2 in the Hong Kong Side PTI (KD19)	200	200	0%	13-Jan-17	15-Sep-17	-172									
Works within Portion H1 & H2 except the ELV Works in the Hong Kong Side PTI																
EU1560	Drainage & Sewerage Works within Portion H1 & H2 in the Hong Kong Side PTI (KD20)	178	89	50%	03-May-16 A	17-Feb-17	-246									
All Works within the Boundary defined in Drawing No. 60191048/C3/000/C00/1050																
BEU1570	Drainage & Sewerage Works (incl. CLP) within the Boundary defined in Drawing No. 60191048/C3/000/1050	178	89	50%	03-May-16 A	17-Feb-17	-251									
Drainage Works																

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017	
								Oct	Nov	Dec	Jan	Feb		
AS0080	Initial Survey	12	0	100%	15-Oct-16 A	29-Oct-16 A								
ED4070	Drainage Works (6954m & 393MHs)	120	96	20%	03-May-16 A	17-Jul-17	-174							
ED4190	Sewerage (437m & 12MHs)	120	108	10%	03-May-16 A	03-Jul-17	-162							
Sign Gantry DS40, DS41 & DS75														
ES0020	Sign Gantry DS40 Pre-bored H Piling, 12 Nr.	30	30	0%	31-Oct-16	03-Dec-16	113							
ES0040	Sign Gantry DS41 Driven Piling 4 Nr.	7	7	0%	31-Oct-16	07-Nov-16	196							
ES0080	Testing for Pre-bored H Piling	50	50	0%	30-Dec-16	02-Mar-17	123							
ES0180	Fabrication & Delivery of Sign Gantrys to Site	250	196	21.6%	03-Oct-16 A	30-Jun-17	27							
Canopy and Covered Walkway														
CC1310	Shop drawing, Approved & Fabrication	150	150	0%	31-Oct-16	06-May-17	3							
PORTION J														
Portion J Structure														
Bay 30 - 41 of CUE/Staff Subway (Portion J)														
B03040	Bay 30 - 33 Construction - Base Slab	28	11	60%	30-Apr-16 A	12-Nov-16	-253							
B03050	Bay 30 - 33 Construction - Wall + Top Slab	100	75	25%	17-Oct-16 A	01-Feb-17	-253							
B03210	ELS + blinding (Bay 34 - 41) (8 bay)	55	0	100%	29-Aug-16 A	28-Oct-16 A								
B03220	Bay 34 - 39 Construction - Base Slab	75	75	0%	31-Oct-16 A	01-Feb-17	-246							
B03230	Bay 34 - 39 Construction - Wall + Top Slab, Staircase	75	75	0%	21-Nov-16	22-Feb-17	-246							
B03240	Bay 40 - 41 Construction - Base Slab	75	75	0%	03-Nov-16	04-Feb-17	-250							
B03250	Bay 40 - 41 Construction - Wall + Top Slab, Staircase	75	75	0%	25-Nov-16	27-Feb-17	-250							
030 Outbound Private Car & GV Kiosks														
A03010	Submission & Approval for Steel Works	60	0	100%	01-Apr-16 A	30-Sep-16 A								
A03020	Pre-fabrication for the Steel Kiosks	84	84	0%	31-Oct-16	11-Feb-17	-180							
030 Outbound Kiosks, Section IX, Subject to Excision														
C03010	Submission & Approval for Steel Works	100	0	100%	01-Apr-16 A	30-Sep-16 A								
C03020	Pre-fabrication for the Steel Kiosks	84	84	0%	31-Oct-16	11-Feb-17	-94							
Portion J Buildings														
024 Outbound Private Car Exam Building														
A02400	Excavation + Blinding	10	10	0%	05-Nov-16	16-Nov-16	-145							
A02410	Raft Foundation	30	30	0%	17-Nov-16	21-Dec-16	-145							
A02420	Super Structure	40	40	0%	22-Dec-16	13-Feb-17	-145							
Glass Canopy Installation														
B02410	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	-94							
B02415	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	-94							
Aluminium Metal Canopy														
B02450	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	-79							
B02455	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	-79							
031 Outbound IMMD and DOH Secondary Screen Building														
A03100	Excavation + Blinding (+ PL Test)	10	0	100%	19-Sep-16 A	30-Sep-16 A								

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								Oct	Nov	Dec	Jan	Feb	Jan	Feb
A03110	Raft Foundation	35	0	100%	03-Oct-16 A	31-Oct-16 A								
A03140	Super Structure	89	89	0%	31-Oct-16	17-Feb-17	-69							
060 - Single Storey Support Building Associated with Buildings 044 & 045														
A06000	Excavation + Blinding	9	9	0%	04-Jan-17*	13-Jan-17	-251							
A06010	Raft Foundation (Traper)	25	25	0%	14-Jan-17	15-Feb-17	-251							
A06040	Excavation + Blinding (Strip part)	15	15	0%	14-Jan-17	03-Feb-17	-156							
Waterworks Ordinance (WSD)														
G06020	Submission of WWO46 - Part I & II (Inside Services)	6	6	0%	13-Dec-16	19-Dec-16	13							
061 Telecom Building														
A06120	Excavation + Blinding	5	5	0%	31-Oct-16	04-Nov-16	-88							
A06130	Raft Foundation	25	25	0%	05-Nov-16	03-Dec-16	-88							
A06140	Super Structure	40	40	0%	05-Dec-16	23-Jan-17	-88							
A06150	Finishing (KD9)	60	60	0%	24-Jan-17	07-Apr-17	-78							
A06160	BS for Office Accommodations (KD9)	70	70	0%	24-Jan-17	22-Apr-17	-88							
Aluminium Metal Canopy														
B06110	Shop Drawing Submission and Approval	30	30	0%	24-Dec-16	03-Feb-17	81							
101 Outbound Traffic Control Kiosk														
A10100	Excavation + Blinding	5	5	0%	31-Oct-16	04-Nov-16	-183							
A10110	Raft Foundation	13	13	0%	05-Nov-16	19-Nov-16	-183							
A10130	Super Structure (Roof Beams & Slabs)	30	30	0%	21-Nov-16	24-Dec-16	-183							
A10140	Finishing	45	45	0%	28-Dec-16	22-Feb-17	50							
A10150	BS + E&M for AVCSS Works (KD18A)	60	60	0%	28-Dec-16	11-Mar-17	-183							
A10160	BS + E&M for AVCSS Cabling (KD18B)	68	68	0%	28-Dec-16	21-Mar-17	-126							
A10170	BS for Office Accommodations (KD9)	70	70	0%	28-Dec-16	23-Mar-17	-66							
A10190	Other BS + E & M Installation	130	130	0%	17-Jan-17	28-Jun-17	129							
HPL Composite Panel Cladding System														
B10110	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	103							
B10120	Fabrication of HPL Cladding	60	60	0%	05-Dec-16	18-Feb-17	103							
External Works for Portion J														
Works in Location 1.7B														
EU1500	ELV Works & T&C in Location 1.7B	125	125	0%	10-Dec-16	18-May-17	0							
Works in Location 1.7C														
EU1530	ELV Works & T&C in Location 1.7C	125	125	0%	10-Dec-16	18-May-17	0							
Drainage Works														
ED4220	Drainage Works (1700m & 86MHs), Stage 1 (Northern)	150	108	28%	25-Apr-16 A	11-Mar-17	-15							
ED4340	Sewerage (425m & 11MHs), Stage 1 (Northern)	150	108	28%	01-Jun-16 A	11-Mar-17	-15							
Waterpipe Laying														
EW4230	Fresh Water Main Laying (770m), Stage 1 (Northern)	100	100	0%	07-Dec-16	10-Apr-17	-15							
EW4240	Flushing Water Main Laying (431m), Stage 1 (Northern)	100	100	0%	07-Dec-16	10-Apr-17	-15							
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting														
EU5420	Duct & Cable Laying for Utilities/Telecom	180	180	0%	03-Jan-17	12-Aug-17	-15							
EU5430	Duct & Cable Laying for TCSS & Lighting	180	180	0%	03-Jan-17	12-Aug-17	-15							
Sign Gantry DS104														
ES0140	Sign Gantry DS104 P-bored Piling, 8 Nr.	30	30	0%	05-Dec-16	11-Jan-17	113							
ES5140	Submission and approval for Sign Gantry	60	0	100%	01-Sep-16 A	31-Oct-16 A								

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								Oct	Nov	Dec	Jan	Feb	Jan	Feb
ES5150	Fabrication & Delivery of Sign Gantrys to Site	200	200	0%	31-Oct-16	06-Jul-17	23							
PORTION K, L, M, S & T														
Portion M Buildings														
108 - C&ED Mobile X-ray Operation Office, Portion M														
HPL Composite Panel Cladding System														
C10810	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	62							
C10820	Fabrication of HPL Cladding	60	60	0%	05-Dec-16	18-Feb-17	62							
104 DOH Screening Station, at Portion M														
Facade Envelop Structure Installation														
D10450	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	107							
D10455	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	107							
External Works														
Additional Works (Filling & RE Slope), SA1														
ED3120	Approval of RE Slope by GEO/AECOM	86	52	39.53%	19-Sep-16 A	31-Dec-16	18							
ED3210	C1 Contractor to Completed cooling mains at east Portion (Stage1)	0	0	0%		31-Oct-16	72							
ED3220	Removal of Access & Form another Temp. Access for Cooling Main	12	12	0%	31-Oct-16	12-Nov-16	59							
ED3230	C1 Contractor to Completed cooling mains at east Portion (Stage 2)	0	0	0%		31-Dec-16	74							
ED3260	Consolidation of fill at the Platform	61	46	25%	16-Sep-16 A	15-Dec-16	-148							
ED3270	Remove surcharge at the edge of Platform (North, Portion S, KD32)	21	21	0%	19-Dec-16*	14-Jan-17	-126							
ED3280	Remove surcharge at the Platform (East, Portion T, KD33)	21	21	0%	19-Dec-16*	14-Jan-17	-126							
ED3310	C1 Contractor to Complete Footbridge Supports at the South Portion	0	0	0%		02-Nov-16*	-260							
ED3320	Fill Platform from +11.5PD to near PCB (South)	24	24	0%	03-Nov-16	30-Nov-16	-212							
ED3330	Add surcharge to Platform at +14.5mPD near PCB (South)	18	18	0%	01-Dec-16	21-Dec-16	-212							
ED3340	Consolidation of fill at the Platform (South)	61	61	0%	22-Dec-16	20-Feb-17	-255							
ED3410	C2 Contractor to complete abutment at the North (2 nos.)	0	0	0%		02-Nov-16*	0							
ED3420	Fill Slope around C2 abutments	50	50	0%	03-Nov-16	03-Jan-17	10							
Construction of Slopes														
ED3430	Construction of fill slope (Stage 1) (East)	46	46	0%	03-Jan-17	28-Feb-17	59							
ED3510	Footing for the Planter Wall, RE slope (West)	12	12	0%	03-Jan-17	16-Jan-17	18							
ED3520	Construct RE slope (West)	75	75	0%	17-Jan-17	21-Apr-17	18							
ED3550	Construction of fill slope (North)	83	83	0%	03-Jan-17	13-Apr-17	22							
Drainage Works														
ED4370	Drainage Works (1477m & 81MHs), Stage 1 (Eastern)	100	100	0%	16-Jan-17	22-May-17	0							
ED4490	Sewerage (78m & 2MHs), Stage 1 (Eastern)	100	100	0%	16-Jan-17	22-May-17	0							
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting														
EU5450	Duct & Cable Laying for TCSS & Lighting	50	50	0%	16-Jan-17	17-Mar-17	-126							
Canopy and Covered Walkway														
CC1400	Shop drawing, Approved & Fabrication	150	75	50%	03-Oct-16 A	01-Feb-17	63							

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017		
								Oct	Nov	Dec	Jan	Feb	Jan	Feb	
Portion N Structure															
Box Culvert B															
Bored Pile															
SB0550	Loading Test	12	0	100%	19-Sep-16 A	03-Oct-16 A									
SB0560	Install H-piles	25	25	0%	24-Oct-16 A	28-Nov-16	-123								
SB0590	Box B - Bore Pile (20 nos.)	144	144	0%	02-Nov-16	29-Apr-17	0								
Box Culvert Structure															
SB0710	Box B - Construction (Stage 1)	75	75	0%	29-Nov-16	02-Mar-17	-123								
SB0715	Handover from RC (1/11/16)	0	0	0%		01-Nov-16*	0								
SB0722	Box B - Temporary Works for Construction of Outfall Structure	120	120	0%	02-Nov-16	28-Mar-17	59								
Portion N Buildings															
104 DOH Screening Station, at Portion N															
Facade Envelop Structure Installation															
D10410	Shop Drawing Submission and Approval	30	30	0%	15-Nov-16	19-Dec-16	105								
D10415	Fabrication of F/C System	60	60	0%	20-Dec-16	06-Mar-17	105								
106 C&ED Detention Area Guard Booth															
A10600	Excavation + Blinding	5	5	0%	31-Oct-16	04-Nov-16	-100								
A10610	Structure (Raft Foundation)	20	20	0%	05-Nov-16	28-Nov-16	-100								
A10640	Finishing	45	45	0%	29-Nov-16	23-Jan-17	-16								
E10640	BS for Office Accommodations (KD9)	70	70	0%	29-Nov-16	24-Feb-17	-43								
E10660	Other BS + E & M Installation	130	130	0%	17-Dec-16	01-Jun-17	2								
Facade Envelop Structure Installation															
B10610	Shop Drawing Submission and Approval	30	30	0%	30-Dec-16	07-Feb-17	58								
107 C&ED Mobile X-ray Operation Office, Portion N															
A10700	Excavation + Blinding	5	5	0%	05-Nov-16	10-Nov-16	-85								
A10710	Substructure (Raft Foundation)	25	25	0%	29-Nov-16	29-Dec-16	-100								
A10740	Super Structure	35	35	0%	30-Dec-16	13-Feb-17	-100								
External Works for Portion N															
Works in Location 1.7A															
EU1540	ELV Works & T&C in Location 1.7A	125	125	0%	10-Dec-16	18-May-17	0								
Drainage Works															
AS0150	Initial Survey	12	12	0%	31-Oct-16	12-Nov-16	-175								
ED4620	Drainage Works (964m & 56MHs), Stage 1 (Southern)	75	75	0%	14-Nov-16	15-Feb-17	-24								
ED4650	Sewerage (383m & 12MHs), Stage 1 (Southern)	75	75	0%	14-Nov-16	15-Feb-17	-24								
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting															
EU5470	Duct & Cable Laying for TCSS & Lighting	125	125	0%	13-Dec-16	20-May-17	-175								
PORTION P															
Portion Structure															
Retaining Wall RW1															
RW1110	Construction of Retaining Wall RW1 (U-shape, 5 bays)	100	100	0%	31-Oct-16	02-Mar-17	128								
Portion P Buildings															
105 IMMD Guard Booth, Portion P															
Facade Envelop Structure Installation															
A10560	Shop Drawing Submission and Approval	30	30	0%	31-Oct-16	03-Dec-16	92								
A10565	Fabrication of F/C System	60	60	0%	05-Dec-16	18-Feb-17	92								

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								Oct	Nov	Dec	Jan	Feb
External Works for Portion P												
<i>Drainage Works</i>												
AS0160	Initial Survey	6	6	0%	31-Oct-16	05-Nov-16	-55					
<i>Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting</i>												
EU5490	Duct & Cable Laying for TCSS & Lighting (KD15)	24	24	0%	16-Nov-16	13-Dec-16	-55					
PORTION Q												
External Works for Portion Q												
<i>Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting</i>												
ED5570	Duct & Cable Laying for Utilities/Telecom	50	50	0%	07-Nov-16	06-Jan-17	186					
ED5580	Duct & Cable Laying for TCSS & Lighting	34	34	0%	07-Nov-16	15-Dec-16	-53					
EU1490	ELV System Installation for Contract HY/2013/04	50	50	0%	31-Oct-16	29-Dec-16	273					
<i>Roadworks</i>												
AS0170	Initial Survey	6	6	0%	31-Oct-16	05-Nov-16	-53					
ER4920	Subbase (104 ton)	75	75	0%	09-Nov-16	10-Feb-17	186					
ER4950	Bitumen Pavement (215 ton)	75	75	0%	10-Dec-16	14-Mar-17	186					
<i>Railing</i>												
ER4890	Railing	75	75	0%	14-Jan-17	19-Apr-17	186					
<i>Road Furniture</i>												
ER4900	Road Furniture	75	75	0%	14-Jan-17	19-Apr-17	186					
PORTION R												
Portion R Building												
<i>002 - C&ED Observation Guard Booth, Portion R</i>												
D00210	Excavation + Blinding	5	5	0%	03-Jan-17	07-Jan-17	-17					
D00220	Raft Foundation	24	24	0%	09-Jan-17	08-Feb-17	-17					
External Works for Portion R												
<i>Drainage Works</i>												
AS0180	Initial Survey	6	6	0%	03-Jan-17	09-Jan-17	149					
<i>Landscape Works</i>												
A5170	Design and Procurement for Irrigation System	200	77	61.5%	02-Jul-16 A	15-Jan-17	2					
A5180	Installation of Irrigation System	261	261	0%	18-Jan-17	05-Oct-17	0					
A5190	All landscape Soft & Hard Works	317	317	0%	18-Jan-17	30-Nov-17	0					

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						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Hong Kong-Zhuhai_Macao Bridge Hong Kong Boundary Crossir						1266	31-Jul-15 A	30-Jan-19	0												30-Jan-19, H	
Key Dates						901	31-Jul-15 A	30-Jan-18	0												30-Jan-18, Key Dates	
A1000	Acceptance of Contract	0	31-Jul-15 A																			
A1010	Commencement of Works	0	14-Aug-15*		0																	
A1020	Excision of Phase 2 (Section II & III)	365	14-Aug-15	12-Aug-16	0																	
A1120	KD1 (Phase 1 / Section I) (28 Kiosks)	0		24-Jul-17*	0																	
A1470	KD2 (Phase 2 / Section II) (2 Kiosks)	0		02-Oct-17*	0																	
A1480	KD3 (Phase 2 / Section III) (42 Kiosks)	0		30-Jan-18*	0																	
Interface Activities						430	14-Aug-15	16-Oct-16	128												16-Oct-16, Interface Activities	
A6860	Interface Management Plan Submission between C6 and C1	212	14-Aug-15	12-Mar-16	154																	
A6865	Interface Management Plan between C6 and C1 reviewed by Engineer	14	13-Mar-16	26-Mar-16	154																	
A6870	Detailed Interface Document Submission between C6 and C1	30	27-Mar-16	25-Apr-16	154																	
A6875	Detailed Interface Document between C6 and C1 reviewed by Engineer	14	26-Apr-16	09-May-16	154																	
A6880	Interface Management Plan Submission between C6 and C3	262	14-Aug-15	01-May-16	76																	
A6885	Interface Management Plan between C6 and C3 reviewed by Engineer	14	02-May-16	15-May-16	76																	
A6890	Detailed Interface Document Submission between C6 and C3	30	16-May-16	14-Jun-16	76																	
A6895	Detailed Interface Document between C6 and C3 reviewed by Engineer	14	15-Jun-16	28-Jun-16	76																	
A6900	Interface Management Plan Submission between C6 and C8	372	14-Aug-15	19-Aug-16	128																	
A6905	Interface Management Plan between C6 and C8 reviewed by Engineer	14	20-Aug-16	02-Sep-16	128																	
A6910	Detailed Interface Document Submission between C6 and C8	30	03-Sep-16	02-Oct-16	128																	
A6915	Detailed Interface Document between C6 and C8 reviewed by Engineer	14	03-Oct-16	16-Oct-16	128																	
Site and Facility Inspection						424	26-Apr-16	23-Jun-17	586												23-Jun-17, Site and Facility Inspection	
A4730	Pre Site and Facility Inspection by Contractor at Location 1 - Deg1	7	26-Apr-16*	02-May-16	154																	
A4740	Joint Site and Facility Inspection with Interface Contractor at Location 1 - Deg1	7	03-May-16	09-May-16	154																	
A4760	Pre Site and Facility Inspection by Contractor at Location 2 - Deg1	7	25-Jun-16*	01-Jul-16	94																	
A4770	Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg1	7	02-Jul-16*	08-Jul-16	94																	
A4772	Pre Site and Facility Inspection by Contractor at Location 2 - Deg2	7	14-Aug-16*	20-Aug-16	122																	
A4774	Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg2	7	21-Aug-16	27-Aug-16	122																	
A4775	Joint Site and Facility Inspection with Interface Contractor at Location 2 for Server Installation	7	21-Aug-16*	27-Aug-16	122																	
A4780	Pre Site and Facility Inspection by Contractor at Location 3 - Deg1	7	03-Sep-16*	09-Sep-16	87																	
A4790	Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg1	7	10-Sep-16	16-Sep-16	87																	
A4800	Pre Site and Facility Inspection by Contractor at Location 3 - Deg2	7	31-Jan-17*	06-Feb-17	0																	
A4810	Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg2	7	07-Feb-17	13-Feb-17	0																	
A4820	Pre Site and Facility Inspection by Contractor at Location 3a - Deg1	7	03-Sep-16*	09-Sep-16	115																	
A4830	Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg1	7	10-Sep-16	16-Sep-16	115																	
A4840	Pre Site and Facility Inspection by Contractor at Location 3a - Deg2	7	22-Nov-16*	28-Nov-16	70																	
A4850	Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg2	7	29-Nov-16	05-Dec-16	70																	
A4851	Joint Site and Facility Inspection with Interface Contractor at Location 3a for Server Installation	7	29-Nov-16*	05-Dec-16	119																	
A4860	Pre Site and Facility Inspection by Contractor at Location 4 - Deg1	7	11-Jan-17*	17-Jan-17	20																	
A4870	Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg1	7	18-Jan-17	24-Jan-17	20																	
A4880	Pre Site and Facility Inspection by Contractor at Location 4 - Deg2	7	10-Jun-17*	16-Jun-17	586																	
A4890	Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg2	7	17-Jun-17	23-Jun-17	586																	
A4891	Pre Site and Facility Inspection by Contractor at Location 4a - Deg1	7	11-Jan-17*	17-Jan-17	41																	

Programme No.: HZMB-DWP Data Date: 14-Aug-15	<ul style="list-style-type: none"> 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)		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>14-Nov-16</td> <td>Rev.: 0</td> <td>WC</td> <td>LC</td> </tr> </table>	Date	Revision	Checked	Approved	14-Nov-16	Rev.: 0	WC	LC
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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015					2016				2017				2018				2019	
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
						<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>A4892 Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg1</p> <p>A4900 Pre Site and Facility Inspection by Contractor at Location 4a - Deg2</p> <p>A4910 Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg2</p> <p>A4920 Pre Site and Facility Inspection by Contractor at Location 5 - Deg1</p> <p>A4930 Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg1</p> <p>A4940 Pre Site and Facility Inspection by Contractor at Location 5 - Deg2</p> <p>A4950 Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg2</p> <p>A4960 Pre Site and Facility Inspection by Contractor at Location 6 - Deg1</p> <p>A4970 Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg1</p> <p>A4980 Pre Site and Facility Inspection by Contractor at Location 6 - Deg2</p> <p>A4990 Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg2</p> <p>A5000 Pre Site and Facility Inspection by Contractor at Location 7 - Deg1</p> <p>A5010 Joint Site and Facility Inspection with Interface Contractor at Location 7 - Deg1</p> <p>A5020 Pre Site and Facility Inspection by Contractor at Location 8 - Deg1</p> <p>A5030 Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg1</p> <p>A5040 Pre Site and Facility Inspection by Contractor at Location 8 - Deg2</p> <p>A5050 Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg2</p> <p>A5060 Pre Site and Facility Inspection by Contractor at Location 9 - Deg1</p> <p>A5070 Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg1</p> <p>A5080 Pre Site and Facility Inspection by Contractor at Location 9 - Deg2</p> <p>A5090 Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg2</p> <p>A5100 Pre Site and Facility Inspection by Contractor at Location 10 - Deg1</p> <p>A5110 Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg1</p> <p>A5120 Pre Site and Facility Inspection by Contractor at Location 10 - Deg2</p> <p>A5130 Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg2</p> <p>A5140 Pre Site and Facility Inspection by Contractor at Location 11 - Deg1</p> <p>A5150 Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg1</p> <p>A5160 Pre Site and Facility Inspection by Contractor at Location 11 - Deg2</p> <p>A5170 Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg2</p> <p>A5180 Pre Site and Facility Inspection by Contractor at Location 12 - Deg1</p> <p>A5190 Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg1</p> <p>A5200 Pre Site and Facility Inspection by Contractor at Location 12 - Deg2</p> <p>A5210 Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg2</p> <p>A5220 Pre Site and Facility Inspection by Contractor at Location 13 - Deg1</p> <p>A5230 Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg1</p> <p>A5240 Pre Site and Facility Inspection by Contractor at Location 13 - Deg2</p> <p>A5250 Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg2</p> <p>A5260 Pre Site and Facility Inspection by Contractor at Location 14 - Deg1</p> <p>A5270 Joint Site and Facility Inspection with Interface Contractor at Location 14 - Deg1</p> <p>A5300 Pre Site and Facility Inspection by Contractor at Location 15 - Deg1</p> <p>A5310 Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg1</p> <p>A5320 Pre Site and Facility Inspection by Contractor at Location 15 - Deg2</p> <p>A5330 Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg2</p> <p>A5340 Pre Site and Facility Inspection by Contractor at Location 16 - Deg1</p> <p>A5350 Joint Site and Facility Inspection with Interface Contractor at Location 16 - Deg1</p> </div> <div style="width: 30%;"> <p>Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 4a - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 5 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 5 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 6 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 6 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 7 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 7 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 8 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 8 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 9 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 9 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 10 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 10 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 11 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 11 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 12 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 12 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 13 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 13 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 14 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 14 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 15 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg1</p> <p>Pre Site and Facility Inspection by Contractor at Location 15 - Deg2</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg2</p> <p>Pre Site and Facility Inspection by Contractor at Location 16 - Deg1</p> <p>Joint Site and Facility Inspection with Interface Contractor at Location 16 - Deg1</p> </div> </div>																		

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						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2																		
																									3															
A5360	Pre Site and Facility Inspection by Contractor at Location 16 - Deg2	7	22-Nov-16*	28-Nov-16	161												█	█	█	█	█	█																		
A5370	Joint Site and Facility Inspection with Interface Contractor at Location 16 - Deg2	7	29-Nov-16	05-Dec-16	161												█	█	█	█	█	█																		
A5375	Pre Site and Facility Inspection by Contractor at Location 17 - Deg1	7	17-Nov-16*	23-Nov-16	145												█	█	█	█	█	█																		
A5378	Joint Site and Facility Inspection with Interface Contractor at Location 17 - Deg1	7	24-Nov-16*	30-Nov-16	145												█	█	█	█	█	█																		
A5380	Pre Site and Facility Inspection by Contractor at Location 17 - Deg2	7	31-Jan-17*	06-Feb-17	77													█	█	█	█	█																		
A5390	Joint Site and Facility Inspection with Interface Contractor at Location 17 - Deg2	7	07-Feb-17	13-Feb-17	77													█	█	█	█	█																		
A5395	Pre Site and Facility Inspection by Contractor at Location 18 - Deg1	7	24-May-17*	30-May-17	7														█	█	█	█	█																	
A5396	Joint Site and Facility Inspection with Interface Contractor at Location 18 - Deg1	7	31-May-17	06-Jun-17	7														█	█	█	█	█																	
A5400	Pre Site and Facility Inspection by Contractor at Location 18 - Deg2	7	31-May-17*	06-Jun-17	7														█	█	█	█	█																	
A5410	Joint Site and Facility Inspection with Interface Contractor at Location 18 - Deg2	7	07-Jun-17	13-Jun-17	7														█	█	█	█	█																	
A5420	Pre Site and Facility Inspection by Contractor at Location 19 - Deg1	7	31-Jan-17*	06-Feb-17	0														█	█	█	█	█																	
A5430	Joint Site and Facility Inspection with Interface Contractor at Location 19 - Deg1	7	07-Feb-17	13-Feb-17	0														█	█	█	█	█																	
A5440	Pre Site and Facility Inspection by Contractor at Location 19 - Deg2	7	31-Jan-17*	06-Feb-17	35														█	█	█	█	█																	
A5450	Joint Site and Facility Inspection with Interface Contractor at Location 19 - Deg2	7	07-Feb-17	13-Feb-17	35														█	█	█	█	█																	
A5470	Pre Site and Facility Inspection by Contractor at Inbound Vehicle Clearance Plaza	7	31-Jan-17*	06-Feb-17	0														█	█	█	█	█																	
A5480	Joint Site and Facility Inspection with Interface Contractor at Inbound Vehicle Clearance Plaza	7	07-Feb-17	13-Feb-17	0														█	█	█	█	█																	
A5490	Pre Site and Facility Inspection by Contractor at Outbound Vehicle Clearance Plaza	7	03-Mar-17*	09-Mar-17	1														█	█	█	█	█																	
A5550	Joint Site and Facility Inspection with Interface Contractor at Outbound Vehicle Clearance Plaza	7	10-Mar-17	16-Mar-17	1														█	█	█	█	█																	
Access Dates		410	10-May-16	24-Jun-17	586																																			
		<div style="display: flex; align-items: center;"> <div style="width: 60%;"></div> <div style="width: 30%; text-align: right;"> <p>24-Jun-17, Access Dates</p> <ul style="list-style-type: none"> ◆ Location 1(PCB (001) Basement)-Deg1 (270d), 10-May-16* ◆ Location 1(PCB (001) ELV Room (Grid Line E3))-Deg1 (270d), 10-May-16* ◆ Location 2(PCB (001) First Floor Main Server Room)-Deg1 (330d), 09-Jul-16* ◆ Location 2(PCB (001) First Floor Main Server Room)-Deg2 (380d), 28-Aug-16* ◆ Location 2(PCB (001) First Floor Main Server Room) - For Server Installation, 28-Aug-16* ◆ Location 2(PCB (001) Ground Floor ELV Room (Grid Line E3)) - Deg1 (330d), 09-Jul-16* ◆ Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD5)) - Deg1 (330d), 09-Jul-16* ◆ Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD5)) - Deg2 (380d), 28-Aug-16* ◆ Location 3(Inbd Cargo Exam Bldg (037) MDF Room)-Deg1 (400d), 17-Sep-16* ◆ Location 3(Inbd Cargo Exam Bldg (037) ELV Room)-Deg1 (400d), 17-Sep-16* ◆ Location 3(Inbd Cargo Exam Bldg (037) Platform Control Room)-Deg1 (400d), 17-Sep-16* ◆ Location 3(Inbd Cargo Exam Bldg (037) Platform Control Room)-Deg2 (500d), 14-Feb-17* ◆ Location 3(Inbd Cargo Exam Bldg (037) Inspector Offices 128,129,130,131,128,129,140,141)-Deg1 (400d), 17-Sep-16* ◆ Location 3(Inbd Cargo Exam Bldg (037) Inspector Offices 128,129,130,131,128,129,140,141)-Deg2 (500d), 14-Feb-17* ◆ Location 3a(Inbd Cargo Exam Bldg ROCARS Room)-Deg1 (-), 17-Sep-16* ◆ Location 3a(Inbd Cargo Exam Bldg ROCARS Room)-Deg2 (480d), 06-Dec-16* ◆ Location 3a(Inbd Cargo Exam Bldg Main Server Room)-Deg1 (-), 17-Sep-16* ◆ Location 3a(Inbd Cargo Exam Bldg Main Server Room)-Deg2 (480d), 06-Dec-16* ◆ Location 3a(Inbd Cargo Exam Bldg Main Server Room) - For Server installation, 06-Dec-16* ◆ Location 4(Outbd Cargo Exam Bldg (023))-Deg1 (530d), 25-Jan-17* ◆ Location 4(Outbd Cargo Exam Bldg (023))-Deg2 (680d), 24-Jun-17* ◆ Location 4a(Outbd Cargo Exam Bldg (023))-Deg1 (-), 25-Jan-17* </div> </div>																																						

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



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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015		2016				2017				2018				2019		
						Q2	Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A1162	Location 4a(Outbd Cargo Exam Bldg (023))-Deg2 (630d)	0	05-May-17*		0																	
A1170	Location 5(Common Utility Enclosure & Staff Subway)-Deg1 (320d)	0	29-Jun-16*		76																	
A1180	Location 5(Common Utility Enclosure & Staff Subway)-Deg2 (-)	0	16-Nov-16*		121																	

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Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing
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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015				2016				2017				2018				2019	
						Q2	Q3	Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A1390	Location 16(Outbd Traffic Control Kiosk (101))-Deg1 (400d)	0	17-Sep-16*		227													◆ Location 16(Outbd Traffic Control Kiosk (101))-Deg1 (400d), 17-Sep-16*					
A1400	Location 16(Outbd Traffic Control Kiosk (101))-Deg2 (480d)	0	06-Dec-16*		161													◆ Location 16(Outbd Traffic Control Kiosk (101))-Deg2 (480d), 06-Dec-16*					
A1410	Location 17(Inbd Private Car Exam Bldg(033))-Deg1 (-)	0	01-Dec-16*		145													◆ Location 17(Inbd Private Car Exam Bldg(033))-Deg1 (-), 01-Dec-16*					
A1420	Location 17(Inbd Private Car Exam Bldg(033))-Deg2 (550d)	0	14-Feb-17*		77													◆ Location 17(Inbd Private Car Exam Bldg(033))-Deg2 (550d), 14-Feb-17*					
A1430	Location 18(Outbd Private Car Exam Bldg(024))-Deg1 (-)	0	14-Jun-17*		0													◆ Location 18(Outbd Private Car Exam Bldg(024))-Deg1 (-), 14-Jun-17*					
A1440	Location 18(Outbd Private Car Exam Bldg(024))-Deg2 (670d)	0	14-Jun-17*		7													◆ Location 18(Outbd Private Car Exam Bldg(024))-Deg2 (670d), 14-Jun-17*					
A1450	Location 19(DOH Cargo Clearance Bldg(043))-Deg1 (-)	0	14-Feb-17*		0													◆ Location 19(DOH Cargo Clearance Bldg(043))-Deg1 (-), 14-Feb-17*					
A1460	Location 19(DOH Cargo Clearance Bldg(043))-Deg2 (550d)	0	14-Feb-17*		35													◆ Location 19(DOH Cargo Clearance Bldg(043))-Deg2 (550d), 14-Feb-17*					
A1461	Underground Ducting between Inbd Cargo Exam Bldg (037) and DOH Cargo Clearance Bldg (043) and CUE	0	29-Jun-16*		167					◆				◆				◆ Underground Ducting between Inbd Cargo Exam Bldg (037) and DOH Cargo Clearance Bldg (043) an					
A1462	Underground Ducting between Inbd Cargo Exam Bldg (037) and Inbd Vehicle Clearance Plaza	0	29-Jun-16*		228					◆				◆				◆ Underground Ducting between Inbd Cargo Exam Bldg (037) and Inbd Vehicle Clearance Plaza, 29-Jun-16*					
A1463	Underground Ducting between CUE and Outbd Car Exam Bldg (023)	0	29-Jun-16*		230					◆				◆				◆ Underground Ducting between CUE and Outbd Car Exam Bldg (023), 29-Jun-16*					
A1464	Underground Ducting Between Outbd Cargo Exam Bldg (023) and Outbd Vehicle Clearance Plaza	0	29-Jun-16*		262					◆				◆				◆ Underground Ducting Between Outbd Cargo Exam Bldg (023) and Outbd Vehicle Clearance Plaza, 29-Jun-16*					
A1465	Underground Ducting between CUE and Outbd Vehicle Clearance Plaza	0	29-Jun-16*		262					◆				◆				◆ Underground Ducting between CUE and Outbd Vehicle Clearance Plaza, 29-Jun-16*					
A1466	Underground Ducting between CUE and Inbd P. Car Annex (025) and Shuttle Bus Kiosks (006)	0	13-Aug-16*		145					◆				◆				◆ Underground Ducting between CUE and Inbd P. Car Annex (025) and Shuttle Bus Kiosks (006), 13-Aug-16*					
A1467	Underground Ducting between PCB(001) and Inbd Coach Kiosks(010)	0	13-Aug-16*		105					◆				◆				◆ Underground Ducting between PCB(001) and Inbd Coach Kiosks(010), 13-Aug-16*					
A1468	Underground Ducting between CUE and Outbd PCA (032)	0	13-Aug-16*		219					◆				◆				◆ Underground Ducting between CUE and Outbd PCA (032), 13-Aug-16*					
A1478	Inbound Vehicle Clearance Plaza (Assume same as Location 3)	0	14-Feb-17*		0													◆ Inbound Vehicle Clearance Plaza (Assume same as Location 3), 14-Feb-17*					
A1488	Outbound Vehicle Clearance Plaza (Assume same as Location 4 degree 1 + 51 day)	0	17-Mar-17*		1													◆ Outbound Vehicle Clearance Plaza (Assume same as Location 4 degree 1 + 51 day), 17-Mar-17, Interfaces/Provisions					
Interfaces Provisions		31	14-Feb-17	17-Mar-17	36																		
A7000	Inbound VID foundation and mounting structure (assume same as Access date of Inbound Vehicle Clearance Plaza)	0	14-Feb-17*		0													◆ Inbound VID foundation and mounting structure (assume same as Access date of Inbound Vehicle Clearance Plaza), 14-Feb-17*					
A7010	Inbound VTS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza)	0	14-Feb-17*		16													◆ Inbound VTS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza), 14-Feb-17*					
A7020	Inbound TLS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza)	0	14-Feb-17*		24													◆ Inbound TLS foundation and mounting poles (assume same as Access date of Inbound Vehicle Clearance Plaza), 14-Feb-17*					
A7030	Outbound VID foundation and mounting structure (assume same as Access date of Outbound Vehicle Clearance Plaza)	0	17-Mar-17		1													◆ Outbound VID foundation and mounting structure (assume same as Access date of Outbound Vehicle Clearance Plaza), 17-Mar-17, Interfaces/Provisions					
A7040	Outbound VTS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza)	0	17-Mar-17		17													◆ Outbound VTS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza), 17-Mar-17					
A7050	Outbound TLS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza)	0	17-Mar-17		36													◆ Outbound TLS foundation and mounting poles (assume same as Access date of Outbound Vehicle Clearance Plaza), 17-Mar-17					
WA4 Site Erection & Servicing		92	14-Aug-15	14-Nov-15	1174													▶ 14-Nov-15; WA4 Site Erection & Servicing;					
A1740	Possession of Site	0	14-Aug-15*		1230					◆				◆				◆ Possession of Site, 14-Aug-15*					
A1750	Method Statement & Drawing	42	14-Aug-15	24-Sep-15	1224					■				■				■ Method Statement & Drawing					
A1760	Place Order to prepare materials	31	14-Aug-15	13-Sep-15	1230					■				■				■ Place Order to prepare materials					
A1770	Review, revise and approve method statement	14	25-Sep-15*	08-Oct-15	1209					■				■				■ Review, revise and approve method statement					
A1780	Equipment mobilization and construction material delivered to the site	1	25-Oct-15*	25-Oct-15	1193					■				■				■ Equipment mobilization and construction material delivered to the site					
A1790	Set up the alignment and level of the u-channel	1	14-Sep-15	14-Sep-15	1234					■				■				■ Set up the alignment and level of the u-channel					
A1800	Trial pit excavation	1	14-Sep-15	14-Sep-15	1234					■				■				■ Trial pit excavation					
A1801	Excavation for chain-link fence footing	5	14-Sep-15	18-Sep-15	1230					■				■				■ Excavation for chain-link fence footing					
A4540	Underground Utility detection	1	28-Oct-15*	28-Oct-15	1190					■				■				■ Underground Utility detection					
A4550	Delivery of asphalt and fencing materials	1	30-Oct-15*	30-Oct-15	1188					■				■				■ Delivery of asphalt and fencing materials					
A4560	Trimming and leveling soil surface for paving asphalt material	2	02-Nov-15*	03-Nov-15	1184					■				■				■ Trimming and leveling soil surface for paving asphalt material					
A4570	Remove the vegetation and lose material on the soil surface by backhoe	2	02-Nov-15*	03-Nov-15	1184					■				■				■ Remove the vegetation and lose material on the soil surface by backhoe					
A4580	Set out the alignment and level of the u-channel	1	02-Nov-15*	02-Nov-15	1185					■				■				■ Set out the alignment and level of the u-channel					

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015																				2016				2017				2018				2019	
						Q2					Q3					Q4					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2									
A4590	Installation of fencing post along the site boundary	3	02-Nov-15*	04-Nov-15	1183																																		
A4600	Excavation for underground drainage pipe	1	04-Nov-15*	04-Nov-15	1183																																		
A4610	Evenly spread the asphalt scrap material by backhoe	3	05-Nov-15*	07-Nov-15	1180																																		
A4620	Cast concrete for the u-channel and underground drainage pipe	1	05-Nov-15*	05-Nov-15	1182																																		
A4630	Remove the u-channel framework	1	06-Nov-15*	06-Nov-15	1181																																		
A4640	Installation of chain-link fencing along the site boundary	2	06-Nov-15*	07-Nov-15	1180																																		
A4650	Installation of access doors	1	07-Nov-15*	07-Nov-15	1180																																		
A4660	Excavation for drainage ditch	3	06-Nov-15*	09-Nov-15	1010																																		
A4670	Cast concrete for the drainage ditch	1	10-Nov-15*	10-Nov-15	1177																																		
A4680	Compact the asphalt scrap material	2	09-Nov-15*	10-Nov-15	1177																																		
A4690	Land surveying	1	11-Nov-15*	11-Nov-15	1174																																		
A4700	Inspection of chain-link fencing and access doors	1	12-Nov-15*	12-Nov-15	1174																																		
A4710	Testing of drains	1	13-Nov-15*	13-Nov-15	1174																																		
A4720	Completion of the works	0	14-Nov-15		1174																																		
Detailed Design Specification		365	14-Aug-15	12-Aug-16	0																																		
A1808	Preliminary System Proposal Submission	28	14-Aug-15	10-Sep-15	0																																		
A1809	Engineer's agreement with preliminary system proposal	45	11-Sep-15	25-Oct-15	0																																		
A1810	Draft Detailed Design Specification (DDS) Submission	48	26-Oct-15	12-Dec-15	0																																		
A1814	Draft Hardware Function Design Specification for Computer system and Network system (HFD)	48	26-Oct-15	12-Dec-15	0																																		
A1815	Draft Software Function Design Specification for Computer system and Network system (SFD)	48	26-Oct-15	12-Dec-15	0																																		
A1820	Engineer's Review and Approval for Draft Detailed Design Specification (DDS)	60	13-Dec-15*	10-Feb-16	0																																		
A1823	Engineer's Review and Approval for Draft Hardware FDS for Computer system and Network system (HFD)	60	13-Dec-15*	10-Feb-16	0																																		
A1824	Engineer's Review and Approval for Draft Software FDS for Computer system and Network system (SFD)	60	13-Dec-15*	10-Feb-16	0																																		
A1829	Interface Requirements for CED (LBS, CED IT Server, Metro-Ethernet) and IMMD (AVCS)	29	01-Feb-16*	29-Feb-16	0																																		
A1830	Final DDS Submission (AVCSS,VTS,VIDS)(Phase 1/Section I)	30	01-Mar-16	30-Mar-16	0																																		
A1831	Development of System Security Plan	49	11-Feb-16	30-Mar-16	0																																		
A1840	Engineer's Review and Approval for Final DDS Submission including System Security Plan (AVCSS)(Phase 1/Section I)	30	31-Mar-16	29-Apr-16	0																																		
A1850	Final DDS Submission (AVCSS)(Phase 2/Section II&III)	60	30-Apr-16	28-Jun-16	0																																		
A1860	Engineer's Review and Approval for DDS Submission (AVCSS)(Phase 2/Section II&III)	45	29-Jun-16*	12-Aug-16	0																																		
Construction Design and Management		60	07-May-16	05-Jul-16	52																																		
A6920	Construction Health and Safety Plan Submission	30	07-May-16*	05-Jun-16	52																																		
A6930	Construction Health and Safety Plan reviewed by Engineer	30	06-Jun-16	05-Jul-16	52																																		
Supply/Manufacture Mock-up items		82	30-Apr-16	20-Jul-16	51																																		
A4749	Preparation of Kiosk equipment Mock-up	68	30-Apr-16	06-Jul-16	51																																		
A4750	Installation of Kiosk equipment Mock-up	14	07-Jul-16	20-Jul-16	51																																		
Supply/Manufacture prototypes		60	30-Apr-16	28-Jun-16	0																																		
A2900	Manufacture LED Display Prototype (VID, ODB and XDB)	60	30-Apr-16	28-Jun-16	0																																		
A2910	Manufacture All-In-One Panel Prototype (AIOP)	60	30-Apr-16	28-Jun-16	0																																		
Software Design, Coding and Testing		407	11-Apr-16	22-May-17	0																																		

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						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2					
Coding						270	11-Apr-16	05-Jan-17	0	05-Jan-17, Coding																	
A5460	CCS, SURCON, SYSCON, CDBS Development Stage 1	70	11-Apr-16*	19-Jun-16	0	CCS, SURCON, SYSCON, CDBS Development Stage 1																					
A5500	VTS Development Stage 1	70	11-Apr-16*	19-Jun-16	0	VTS Development Stage 1																					
A5510	VIDS Development Stage 1	64	11-Apr-16*	13-Jun-16	15	VIDS Development Stage 1																					
A5540	CCS, SURCON, SYSCON, CDBS Development Stage 2	170	20-Jul-16	05-Jan-17	0	CCS, SURCON, SYSCON, CDBS Development Stage 2																					
A5580	VTS Development Stage 2	170	20-Jul-16	05-Jan-17	0	VTS Development Stage 2																					
A5590	VIDS Development Stage 2	162	28-Jul-16	05-Jan-17	0	VIDS Development Stage 2																					
Software System Inetgration						388	30-Apr-16	22-May-17	0	22-May-17, Software System Inetgration																	
A5520	Test Plan Documentation Submission	237	30-Apr-16	22-Dec-16	0	Test Plan Documentation Submission																					
A5530	Engineer's Review and Approval for Test Plan Documentation Submission	14	23-Dec-16	05-Jan-17	0	Engineer's Review and Approval for Test Plan Documentation Submission																					
A5600	Software System Integration Test	45	06-Jan-17	19-Feb-17	0	Software System Integration Test																					
A5630	CCS/SYSCON/SURCON/CDBS/VTS/VIDS Software Enhancement	50	20-Feb-17	10-Apr-17	0	CCS/SYSCON/SURCON/CDBS/VTS/VIDS Software Enhancement																					
A5640	Software User Acceptance Test (UAT)	42	11-Apr-17	22-May-17	0	Software User Acceptance Test (UAT)																					
Prototype & Software Simulation Tests						133	30-Apr-16	09-Sep-16	0	09-Sep-16, Prototype & Software Simulation Tests																	
A1910	Prototype Test Document	30	30-Apr-16	29-May-16	6	Prototype Test Document																					
A2130	Engineer's Approval for Testing Document	15	30-May-16	13-Jun-16	6	Engineer's Approval for Testing Document																					
A2920	CCWS with CDBS, SURCON and SYSCON (Software Simulation/ Software Integration Test)	30	20-Jun-16	19-Jul-16	0	CCWS with CDBS, SURCON and SYSCON (Software Simulation/ Software Integration Test)																					
A2930	Vehicle Tracking System (VTS) (Software Simulation/ Software Integration Test)	30	20-Jun-16	19-Jul-16	0	Vehicle Tracking System (VTS) (Software Simulation/ Software Integration Test)																					
A2950	LED Displays (VID, ODB and XDB)	29	29-Jun-16*	27-Jul-16	0	LED Displays (VID, ODB and XDB)																					
A2960	All-In-One Panel (AIOP)	29	29-Jun-16*	27-Jul-16	0	All-In-One Panel (AIOP)																					
A3020	Prototype Testing Report Submission	30	28-Jul-16	26-Aug-16	0	Prototype Testing Report Submission																					
A4350	Engineer's Approval for Prototype Testing Report	14	27-Aug-16	09-Sep-16	0	Engineer's Approval for Prototype Testing Report																					
Procurement - Phase 1 / Section I						242	30-Apr-16	27-Dec-16	0	27-Dec-16, Procurement - Phase 1 / Section I																	
A3070	Procurement of Equipment for Phase 1/Section I	242	30-Apr-16	27-Dec-16	0	Procurement of Equipment for Phase 1/Section I																					
A3080	Procurement of Cable and Accessories for Phase 1 /Section I	122	30-Apr-16	29-Aug-16	0	Procurement of Cable and Accessories for Phase 1 /Section I																					
A3990	Procurement of All Servers and Workstations	242	30-Apr-16	27-Dec-16	0	Procurement of All Servers and Workstations																					
Supply/Manufacture products for FAT						62	10-Sep-16	10-Nov-16	0	10-Nov-16, Supply/Manufacture products for FAT																	
A2980	Supply/Manufacture LED Display (ODB, VID and XDB) for FAT	54	10-Sep-16	02-Nov-16	0	Supply/Manufacture LED Display (ODB, VID and XDB) for FAT																					
A2990	Supply/Manufacture All-In-One Panel (AIOP) for FAT	62	10-Sep-16	10-Nov-16	0	Supply/Manufacture All-In-One Panel (AIOP) for FAT																					
A3000	Supply/Manufacture off-the-shelf equipment for FAT	50	10-Sep-16	29-Oct-16	0	Supply/Manufacture off-the-shelf equipment for FAT																					
Factory Acceptance Test (FAT)						94	10-Sep-16	12-Dec-16	0	12-Dec-16, Factory Acceptance Test (FAT)																	
A2120	FAT Procedure Document	36	10-Sep-16	15-Oct-16	0	FAT Procedure Document																					
A2121	Engineer's Approval for FAT Procedure Document	14	16-Oct-16	29-Oct-16	0	Engineer's Approval for FAT Procedure Document																					
A3050	FAT for Licence Plate Recognition System (LPRS)	2	30-Oct-16	31-Oct-16	0	FAT for Licence Plate Recognition System (LPRS)																					
A3060	FAT for PA/Intercom	2	01-Nov-16	02-Nov-16	0	FAT for PA/Intercom																					
A3090	FAT for ODB	2	03-Nov-16	04-Nov-16	0	FAT for ODB																					
A3100	FAT for XDB	2	03-Nov-16	04-Nov-16	0	FAT for XDB																					
A3110	FAT for VID	2	03-Nov-16	04-Nov-16	0	FAT for VID																					
A3120	FAT for Video Management System (VMS)	2	05-Nov-16	06-Nov-16	0	FAT for Video Management System (VMS)																					
A3130	FAT for Vehicle Tracking System (VTS)	2	07-Nov-16	08-Nov-16	0	FAT for Vehicle Tracking System (VTS)																					
A3140	FAT for Communication Network (CMN)	2	09-Nov-16	10-Nov-16	0	FAT for Communication Network (CMN)																					
A3150	FAT for All-In-One Panel (AIOP)	2	11-Nov-16	12-Nov-16	0	FAT for All-In-One Panel (AIOP)																					
A3160	FAT for AVCSS System Test	2	13-Nov-16	14-Nov-16	0	FAT for AVCSS System Test																					
A4360	FAT Report Submission	14	15-Nov-16	28-Nov-16	0	FAT Report Submission																					

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						Q2	Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A4370	Engineer's Approval for FAT Report Submission	14	29-Nov-16	12-Dec-16	0																	
Supply/Manufacture Equipment		60	13-Dec-16	10-Feb-17	0																	
A6830	Supply/Manufacture LED (ODB, VID and XDB) Display for installation	45	13-Dec-16	26-Jan-17	0																	
A6840	Supply/Manufacture AIOP for installation	60	13-Dec-16	10-Feb-17	0																	
Delivery and Bench Acceptance Test for Phase 1/ Section I		176	30-Aug-16	21-Feb-17	0																	
A6740	Material On-Site for Phase 1/Section I	6	28-Dec-16	02-Jan-17	0																	
A6750	Material Bench Acceptance Test for Phase 1/Section I	5	03-Jan-17	07-Jan-17	0																	
A6850	Cable On-Site for Phase 1/Section I	14	30-Aug-16	12-Sep-16	0																	
A6960	AIOP On-Site for Phase 1/Section I	6	11-Feb-17	16-Feb-17	0																	
A6970	AIOP Bench Acceptance Test for Phase 1/Section I	5	17-Feb-17	21-Feb-17	0																	
A6980	LED (ODB, VID and XDB) On-Site for Phase 1/Section I	5	27-Jan-17	31-Jan-17	0																	
A6990	LED (ODB, VID and XDB) Bench Acceptance Test for Phase 1/Section I	5	01-Feb-17	05-Feb-17	0																	
Installation - Phase 1 / Section I		290	13-Sep-16	29-Jun-17	20																	
Location 1(PCB (001) Basement)		35	11-Oct-16	14-Nov-16	0																	
A3081	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
Location 1(PCB (001) ELV Room (Grid Line E3))		35	11-Oct-16	14-Nov-16	0																	
A3101	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
Location 2(PCB (001) Ground Floor ELV Room (Grid Line E3))		35	11-Oct-16	14-Nov-16	0																	
A3121	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD))		171	11-Oct-16	30-Mar-17	0																	
A2041	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
A2042	Cable Testing	54	15-Nov-16	07-Jan-17	0																	
A2043	Intercom and PA system Installation	65	08-Jan-17	13-Mar-17	0																	
A2044	Intercom and PA system tuning	17	14-Mar-17	30-Mar-17	0																	
Location 2(PCB (001) First Floor Main Server Room)		175	11-Oct-16	03-Apr-17	0																	
A2001	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
A2002	Cable Testing	43	15-Nov-16	27-Dec-16	0																	
A2003	AVCSS Network and Server Installation	49	28-Dec-16	14-Feb-17	0																	
A2004	AVCSS Network and Server Tuning	48	15-Feb-17	03-Apr-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) Inspector Offices 128,129,130,131,128,12)		133	10-Jan-17	22-May-17	0																	
A3241	Cable Laying and termination in Location 3 and Location 3a	35	10-Jan-17	13-Feb-17	0																	
A3242	AVCSS SURCON WS and 55" LCD Installation	28	14-Feb-17	13-Mar-17	0																	
A3243	VTS WS Installation	28	14-Feb-17	13-Mar-17	0																	
A3245	SURCON, WS Tuning	70	14-Mar-17	22-May-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) ELV Room)		28	13-Dec-16	09-Jan-17	0																	
A3210	Cable Laying and termination between Location 3 and CUE	28	13-Dec-16	09-Jan-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) Platform Control Room)		133	10-Jan-17	22-May-17	0																	
A2071	Cable Laying and termination in Location 3 and Location 3a	35	10-Jan-17	13-Feb-17	0																	
A2072	AVCSS SYSCON WS and 55" TV Wall Installation	14	14-Feb-17	27-Feb-17	0																	
A2074	AVCSS SYSCON WS Tuning	84	28-Feb-17	22-May-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) MDF Room)		28	13-Dec-16	09-Jan-17	0																	
A3190	Cable Laying and termination between Location 3 and CUE	28	13-Dec-16	09-Jan-17	0																	
Location 3a(Inbd Cargo Exam Bldg (037) ROCARS Room)		133	10-Jan-17	22-May-17	0																	
A2091	Cable Laying and termination in Location 3 and Location 3a	35	10-Jan-17	13-Feb-17	0																	
A2092	AVCSS SYSCON,SURCON and Intercom Installation	49	14-Feb-17	03-Apr-17	0																	

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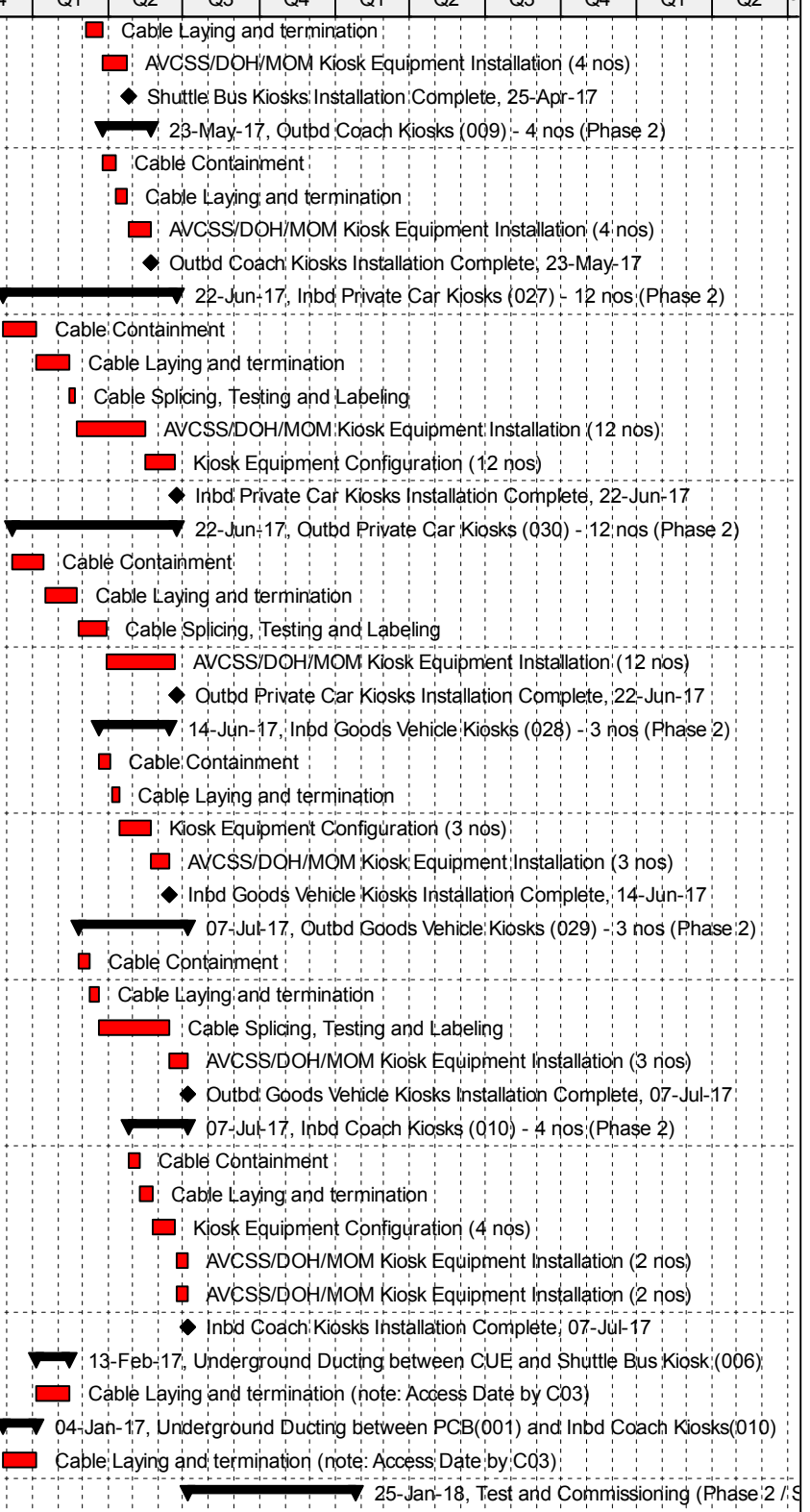
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015				2016				2017				2018				2019	
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A2093	VTS WS Installation	49	14-Feb-17	03-Apr-17	0																		
A2094	VID WS Installation	49	14-Feb-17	03-Apr-17	0																		
A2096	SURCON, SYSCON, WS Tuning	49	04-Apr-17	22-May-17	0																		
Location 3a(Inbd Cargo Exam Bldg Main Server Room)		133	10-Jan-17	22-May-17	0																		
A3330	Cable Laying and termination in Location 3 and Location 3a	35	10-Jan-17	13-Feb-17	0																		
A3340	AVCSS Server Installation	30	04-Apr-17	03-May-17	0																		
A3350	VTS Server Installation	30	04-Apr-17	03-May-17	0																		
A3360	Servers Tuning	19	04-May-17	22-May-17	0																		
Location 4(Outbd Cargo Exam Bldg (023) MDF Room)		21	14-Feb-17	06-Mar-17	0																		
A3410	Cable Laying and termination between CUE and Location 4	21	14-Feb-17	06-Mar-17	0																		
Location 4 and 4a(Outbd Cargo Exam Bldg (023) ROCARS Room)		77	07-Mar-17	22-May-17	0																		
A3370	Cable Laying and termination in Location 4 and 4a	35	07-Mar-17	10-Apr-17	0																		
A3380	AVCSS SYSCON, SURCON and Intercom Installation	14	05-May-17	18-May-17	0																		
A3390	VTS WS Installation	14	05-May-17	18-May-17	0																		
A3400	SYSCON, SURCON, WS Tuning	4	19-May-17	22-May-17	0																		
Location 5(Common Utility Enclosure & Staff Subway)		131	13-Sep-16	21-Jan-17	68																		
A3430	Cable Laying between Location 5 and Location 7	28	13-Sep-16	10-Oct-16	0																		
A3440	Cable Laying between Location 5 and Location 6	28	15-Nov-16	12-Dec-16	0																		
A3480	ODB Switch Installation at EL Room 2-7	14	08-Jan-17	21-Jan-17	68																		
Location 6(Common Utility Enclosure & Staff Subway)		42	15-Nov-16	26-Dec-16	94																		
A3450	Cable Laying between Location 5 and Location 6	28	15-Nov-16	12-Dec-16	0																		
A3490	ODB Switch Installation at EL Room 8-9,11-12	14	13-Dec-16	26-Dec-16	94																		
Location 7(Common Utility Enclosure & Staff Subway)		28	13-Sep-16	10-Oct-16	0																		
A3470	Cable Laying between Location 5 and Location 7	28	13-Sep-16	10-Oct-16	0																		
Location 12(Inbd Private Car Kiosks,GV Kiosks (027,028,029))		195	17-Sep-16	31-Mar-17	0																		
Inbd Private Car Kiosks(027) - 9 nos (Phase 1)		134	11-Oct-16	22-Feb-17	0																		
A2452	Cable Containment in Kiosks	14	11-Oct-16	24-Oct-16	0																		
A2453	Cable Laying and termination	10	25-Oct-16	03-Nov-16	0																		
A2454	Cable Splicing, Testing and Labeling	65	04-Nov-16	07-Jan-17	0																		
A2460	AVCSS/DOH/MOM Kiosk Equipment Installation (9 nos)	45	08-Jan-17	21-Feb-17	0																		
A2470	ODB & XDB installation (9 nos)	16	06-Feb-17	21-Feb-17	0																		
A4380	Inbd Private Car Kiosk Installation Complete	0	22-Feb-17		0																		
Inbd Goods Vehicle Kiosks(028) - 5 nos (Phase 1)		195	17-Sep-16	31-Mar-17	0																		
A2532	Cable Containment in Kiosks	14	17-Sep-16	30-Sep-16	0																		
A2533	Cable Laying and termination	10	01-Oct-16	10-Oct-16	0																		
A2534	Cable Splicing, Testing and Labeling	134	11-Oct-16	21-Feb-17	0																		
A2540	AVCSS/DOH/MOM Kiosk Equipment Installation (5 nos)	37	22-Feb-17	30-Mar-17	0																		
A2550	AIOP Installation (5 nos)	37	22-Feb-17	30-Mar-17	0																		
A2560	ODB & XDB installation (5 nos)	37	22-Feb-17	30-Mar-17	0																		
A4390	Inbd Goods Vehicle Kiosks Installation Complete	0	31-Mar-17		0																		
Outbd Goods Vehicle Kiosks(029) - 5 nos (Phase 1)		147	04-Nov-16	31-Mar-17	0																		
A2572	Cable Containment in Kiosks	14	04-Nov-16	17-Nov-16	0																		
A2573	Cable Laying and termination	10	18-Nov-16	27-Nov-16	0																		
A2574	Cable Splicing, Testing and Labeling	41	28-Nov-16	07-Jan-17	0																		
A2580	AVCSS/DOH/MOM Kiosk Equipment Installation (5 nos)	37	08-Jan-17	13-Feb-17	0																		

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Date	Revision	Checked	Approved									
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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015		2016				2017				2018				2019			
						Q2	Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
A4140	Outbound VID field equipment installation (8 VID)	32	03-Apr-17	04-May-17	0																		
A4150	Outbound VTS field equipment installation (3 RFID + 3 Cameras)	16	11-Apr-17	26-Apr-17	0																		
A4170	Outbound TLS field equipment installation (4 TLS)	8	27-Apr-17	04-May-17	0																		
A4180	Outbound VID, VTS and TLS field equipment tuning	18	05-May-17	22-May-17	0																		
Underground Ducting between Inbd Cargo Exam Bldg (037) and CUE																							
A3810	Cable Laying and termination (note: Access Date by C03)	35	08-Jan-17	11-Feb-17	0																		
Underground Ducting between Inbd Cargo Exam Bldg (037) and Inbd Vehicle Clea																							
A3830	Cable Laying and termination (note: Access Date by C03)	26	12-Feb-17	09-Mar-17	0																		
Underground Ducting between CUE and Outbd Car Exam Bldg (023)																							
A3850	Cable Laying and termination (note: Access Date by C03)	24	10-Mar-17	02-Apr-17	0																		
Underground Ducting Between Outbd Cargo Exam Bldg (023) and Outbd Vehicle C																							
A3870	Cable Laying and termination (note: Access Date by C03)	24	03-Apr-17	26-Apr-17	0																		
Underground Ducting between CUE and Outbd Vehicle Clearance Plaza																							
A3890	Cable Laying and termination (note: Access Date by C03)	26	27-Apr-17	22-May-17	0																		
On-Site Test and Commissioning (Phase 1 / Section I)																							
A2150	Testing & Commissioning Documents Submission (8 weeks before Testings carried out)	30	15-Jan-17*	13-Feb-17	84																		
A2151	Engineer Approval for T&C Document	14	14-Feb-17	27-Feb-17	84																		
A2152	Joint Site Inspection for Permanent Power/Tele-communication for Initial on-site testing	14	17-Mar-17*	30-Mar-17	0																		
A2153	Initial on-site Testing & Commissioning	53	31-Mar-17	22-May-17	0																		
Site Acceptance Test (Phase 1 / Section I)																							
A6601	Interface Readiness CED(LBS, CED IT, Metro-Ethernet) and IMMD (AVS)	36	17-Apr-17*	22-May-17	0																		
A6602	SAT for AVCSS	28	23-May-17	19-Jun-17	0																		
A6603	SAT for Location 18 (AVCSS SURCON and 55" LCD)	5	30-Jun-17	04-Jul-17	0																		
A6630	SAT Test Document Submission	30	20-Jun-17	19-Jul-17	0																		
A6640	Software Manual Documentations Submission	30	20-Jun-17	19-Jul-17	0																		
Security Risk Assessment and Audit																							
A6800	SRAA (Assessment)	9	23-May-17	31-May-17	0																		
A6810	Fix per SRAA Assessment	40	01-Jun-17	10-Jul-17	0																		
A6820	SRAA Audit	9	11-Jul-17	19-Jul-17	0																		
Operability Period Test (Phase 1 / Section I)																							
A5610	Joint Site Inspection for utilities, telecom connection and metro ethernet for OPT	7	13-Jun-17*	19-Jun-17	0																		
A5620	Operability Period Test (OPT) Phase 1	15	20-Jun-17	04-Jul-17	0																		
A5650	Operability Period Test (OPT) Phase 2	15	05-Jul-17	19-Jul-17	0																		
Completion (Phase 1 /Section I)																							
A2230	AVCSS - Certificate of Completion (Phase 1/Section I)	5	20-Jul-17	24-Jul-17	0																		
A2231	Certificate of Completion Approval by Engineer	0		24-Jul-17	0																		
Training and Document (Phase 1 /Section I)																							
A2180	Training Materials & Documentation Submission	30	21-Feb-17*	22-Mar-17	14																		
A2190	Operation and Maintenance Training	110	23-Mar-17	10-Jul-17	14																		
Operation (Phase 1 /Section I)																							
A2240	Site Operation (Phase 1/Section I)	0	25-Jul-17	25-Jul-17	0																		
Engineering Support for Phase 1 / Section I																							
		190	25-Jul-17	30-Jan-18	0																		

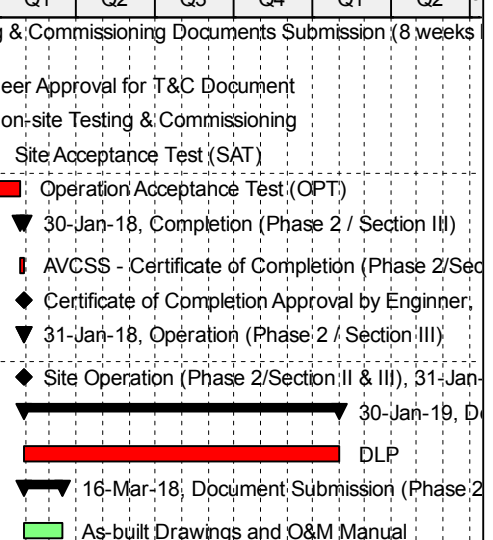
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						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A2623	Cable Laying and termination	20	06-Mar-17	25-Mar-17	0																		
A2630	AVCSS/DOH/MOM Kiosk Equipment Installation (4 nos)	30	26-Mar-17	24-Apr-17	0																		
A4460	Shuttle Bus Kiosks Installation Complete	0	25-Apr-17		0																		
Outbd Coach Kiosks (009) - 4 nos (Phase 2)		58	26-Mar-17	23-May-17	0																		
A2662	Cable Containment	15	26-Mar-17	09-Apr-17	0																		
A2663	Cable Laying and termination	15	10-Apr-17	24-Apr-17	0																		
A2670	AVCSS/DOH/MOM Kiosk Equipment Installation (4 nos)	28	25-Apr-17	22-May-17	0																		
A4470	Outbd Coach Kiosks Installation Complete	0	23-May-17		0																		
Inbd Private Car Kiosks (027) - 12 nos (Phase 2)		208	26-Nov-16	22-Jun-17	0																		
A2742	Cable Containment	40	26-Nov-16	04-Jan-17	0																		
A2743	Cable Laying and termination	40	05-Jan-17	13-Feb-17	0																		
A2744	Cable Splicing, Testing and Labeling	8	14-Feb-17	21-Feb-17	0																		
A2750	AVCSS/DOH/MOM Kiosk Equipment Installation (12 nos)	84	22-Feb-17	16-May-17	0																		
A2760	Kiosk Equipment Configuration (12 nos)	36	17-May-17	21-Jun-17	0																		
A4490	Inbd Private Car Kiosks Installation Complete	0	22-Jun-17		0																		
Outbd Private Car Kiosks (030) - 12 nos (Phase 2)		198	06-Dec-16	22-Jun-17	0																		
A2782	Cable Containment	40	06-Dec-16	14-Jan-17	0																		
A2783	Cable Laying and termination	40	15-Jan-17	23-Feb-17	0																		
A2784	Cable Splicing, Testing and Labeling	35	24-Feb-17	30-Mar-17	0																		
A2790	AVCSS/DOH/MOM Kiosk Equipment Installation (12 nos)	83	31-Mar-17	21-Jun-17	0																		
A4500	Outbd Private Car Kiosks Installation Complete	0	22-Jun-17		0																		
Inbd Goods Vehicle Kiosks (028) - 3 nos (Phase 2)		85	21-Mar-17	14-Jun-17	1																		
A2822	Cable Containment	15	21-Mar-17	04-Apr-17	0																		
A2823	Cable Laying and termination	10	05-Apr-17	14-Apr-17	0																		
A2825	Kiosk Equipment Configuration (3 nos)	38	15-Apr-17	22-May-17	0																		
A2830	AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos)	22	23-May-17	13-Jun-17	0																		
A4510	Inbd Goods Vehicle Kiosks Installation Complete	0	14-Jun-17		1																		
Outbd Goods Vehicle Kiosks (029) - 3 nos (Phase 2)		133	24-Feb-17	07-Jul-17	0																		
A2862	Cable Containment	15	24-Feb-17	10-Mar-17	0																		
A2863	Cable Laying and termination	10	11-Mar-17	20-Mar-17	0																		
A2865	Cable Splicing, Testing and Labeling	86	21-Mar-17	14-Jun-17	0																		
A2870	AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos)	22	15-Jun-17	06-Jul-17	0																		
A4520	Outbd Goods Vehicle Kiosks Installation Complete	0	07-Jul-17		0																		
Inbd Coach Kiosks (010) - 4 nos (Phase 2)		73	25-Apr-17	07-Jul-17	0																		
A2702	Cable Containment	15	25-Apr-17	09-May-17	0																		
A2703	Cable Laying and termination	15	10-May-17	24-May-17	0																		
A2705	Kiosk Equipment Configuration (4 nos)	28	25-May-17	21-Jun-17	0																		
A2710	AVCSS/DOH/MOM Kiosk Equipment Installation (2 nos)	15	22-Jun-17	06-Jul-17	0																		
A2720	AVCSS/DOH/MOM Kiosk Equipment Installation (2 nos)	15	22-Jun-17	06-Jul-17	0																		
A4480	Inbd Coach Kiosks Installation Complete	0	07-Jul-17		0																		
Underground Ducting between CUE and Shuttle Bus Kiosk (006)		40	05-Jan-17	13-Feb-17	0																		
A3970	Cable Laying and termination (note: Access Date by C03)	40	05-Jan-17	13-Feb-17	0																		
Underground Ducting between PCB(001) and Inbd Coach Kiosks(010)		40	26-Nov-16	04-Jan-17	0																		
A3930	Cable Laying and termination (note: Access Date by C03)	40	26-Nov-16	04-Jan-17	0																		
Test and Commissioning (Phase 2 / Section III)		203	07-Jul-17	25-Jan-18	0																		



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A2370	Testing & Commissioning Documents Submission (8 weeks before Testings carried out)	30	30-Aug-17*	28-Sep-17	0																		
A2371	Engineer Approval for T&C Document	14	29-Sep-17	12-Oct-17	0																		
A2373	Initial on-site Testing & Commissioning	98	07-Jul-17	12-Oct-17	0																		
A2380	Site Acceptance Test (SAT)	75	13-Oct-17	26-Dec-17	0																		
A2390	Operation Acceptance Test (OPT)	30	27-Dec-17	25-Jan-18	0																		
Completion (Phase 2 / Section III)		5	26-Jan-18	30-Jan-18	0																		
A2400	AVCSS - Certificate of Completion (Phase 2/Section III)	5	26-Jan-18	30-Jan-18	0																		
A4330	Certificate of Completion Approval by Enginner	0		30-Jan-18	0																		
Operation (Phase 2 / Section III)		0	31-Jan-18	31-Jan-18	365																		
A2420	Site Operation (Phase 2/Section II & III)	0	31-Jan-18		365																		
Defect Liability Period (DLP)		365	31-Jan-18	30-Jan-19	0																		
A2430	DLP	365	31-Jan-18	30-Jan-19	0																		
Document Submission (Phase 2 / Section III)		45	31-Jan-18	16-Mar-18	320																		
A4340	As-built Drawings and O&M Manual	45	31-Jan-18	16-Mar-18	320																		



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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.

Report No.: 0165/15/ED/0615

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
Action Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.

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

Event	Action			
	ET	IEC	ER	Contractor
Limit Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

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

Event / Action Plan for Construction Noise Monitoring

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

Event	Action			
	ET	IEC	ER	Contractor
Limit Level	<ol style="list-style-type: none"> 1. Inform IEC, ER, EPD and Contractor; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

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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 horizontal bars extending to the left and right, creating a stylized, framed effect.

Report No.: 0165/15/ED/0615

Appendix E

Waste Flow Table



Monthly Summary of Waste Flow Table for 2016 (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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 Kg)	(in '000 Kg)	(in '000 Kg)	(in '000 Kg)	(in '000m ³)
Jan	0.000	0	0	0	0.000	0	0.992	0	0	0.073
Feb	0.000	0	0	0	0.000	0	0	0	0	0.093
Mar	0.087	0	0	0	0.087	0	0.392	0	0	0.200
Apr	0.184	0	0	0	0.184	0	0.411	0	0	0.224
May	0.203	0	0	0	0.203	0	0	0	0	0.293
Jun	0.244	0	0	0	0.244	0	0.413	0	0	0.322
Jul	2.429	0	0	0	2.429	0	0.419	0	0	0.312
Aug	0.057	0	0	0	0.057	0	0.340	0	0	0.288
Sept	0.000	0	0	0	0.000	0	0	0	0	0.327
Oct	0.379	0	0	0	0.379	0	0	0	0	0.332
Nov										
Dec										
Total	3.583	0.000	0.000	0.000	3.583	0.000	2.967	0.000	0.000	2.464

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 2016 (year)

Month	Total Quantity of Excavated Marine Sediment Generated in '000m ³	Reused in this contract in '000m ³	Reused in other Projects in '000m ³	Disposed of at CMP in '000m ³
Jan	1.950	0	0	1.950
Feb	2.328	0	0	2.328
Mar	2.464	0	0	2.464
Apr	5.602	0	0	5.602
May	0	0	0	0
Jun	4.584	0	0	4.584
Jul	10.728	0	0	10.728
Aug	1.544	0	0	1.544
Sep	6.816	0	0	6.816
Oct	2.376	0	0	2.376
Nov				
Dec				
Total	38.392	0.000	0.000	38.392

Project name 工程項目名稱 :HKBCF-AVCSS HY/2013/06

Location 工程地點:Artificial Island of HKIAP

Year:2016

Month	Inert C&D Waste disposal 隨性廢物(in tonnes) (see Note 1)						Non-inert C&D Waste disposal / 非隨性廢物 (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.) / 隨性廢物(如泥, 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./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	Est./ 估計數量)	Act./ (實際數量)	
January																			
February																			
March																			
April																			
May																			
June																			
July																			
August																			
September	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.002	0.002	N/A	N/A	0.002	0.002
October	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.002	0.002	N/A	N/A	0.002	0.002
November																			
December																			
Total	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	0.004	0.004	0.000	0.000	0.004	0.004

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⁻³.

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Report No.: 0165/15/ED/0615

Appendix F

Environmental Licenses and Permits

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

(update: 02/11/2016)

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)	WT00022391-2015	Main Site Area	06-May-15	04-Sep-15	04-Sep-15	30-Sep-20	Valid	
9	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0933-16	Main Site Area	18-Aug-16	01-Sep-16	05-Sep-16	31-Dec-16	Valid	
10	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0960-16	Main Site Area	06-Sep-16	15-Sep-16	19-Sep-16	18-Dec-16	Valid	
11	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	
12	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-105	East of Sha Chau (CMP Vd)	15-Sep-16	27-Sep-16	01-Oct-16	31-Oct-16	Valid until 31-Oct-16	

Environmental Permit / Licences Summary for Contract No. HY/2013/06 within the HY/2013/03 site works area

(update: 02/11/2016)

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	

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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
Air Quality				
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"> 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; Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; A stockpile of dusty material should not extend beyond the pedestrian barriers, fencing or traffic cones. 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; 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; 	All construction sites	V
S5.5.6.2	A2	<ul style="list-style-type: none"> 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; 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, 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; 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; 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; Any skip hoist for material transport should be totally enclosed by impervious sheeting; 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 	All construction sites	V
S5.5.6.2	A2	<ul style="list-style-type: none"> 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; Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally 	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"> 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 r part of the construction site where the exposed earth lies 		
S5.5.6.3	A3	3) The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.	All construction sites	√
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	√
S5.5.6.4	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Selected Representative dust monitoring station	√
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"> Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; The materials which may generate airborne dusty emissions should be wetted by water spray system; All receiving hoppers should be enclosed on three sides up to 3m above unloading point; All conveyor transfer points should be totally enclosed; All access and route roads within the premises should be paved and wetted; and Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body 	Selected Representative dust monitoring station	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"> All road surface within the barging facilities will be paved; Dust enclosures will be provided for the loading ramp; Vehicles will be required to pass through designated wheels wash facilities; and Continuous water spray at the loading points 	All construction sites	√
Construction Nose (Air borne)				
S6.4.10	N1	1) Use of good site practices to limit noise emissions by considering the following: <ul style="list-style-type: none"> only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; 	All construction sites	√

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<ul style="list-style-type: none"> mobile plant should be sited as far away from NSRs as possible and practicable; material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 		
S6.4.11	N2	2) Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	All construction sites	V
S6.4.12	N3	3) Install movable noise barriers (typically density@14kg/m acoustic mat or full enclosure close to noisy plants including compressor, generators, saw.	For plant items listed in Appendix 6D of the EIA report at all construction sites	N/A
S6.4.13	N4	4) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.	For plant items listed in Appendix 6D of the EIA report at all construction site	V
S6.4.14	N5	5) Sequencing operation of construction plants where practicable	All construction sites where practicable	V
S5.1	N6	6) Implement a noise monitoring under EM&A programme.	Selected representative noise monitoring station	V
Sediment				
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
Waste Management (Construction Waste)				
S8.3.8	WM1	<p>Construction and Demolition Material</p> <p>The following mitigation measures should be implemented in handling the waste:</p> <ul style="list-style-type: none"> Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; Carry out on-site sorting; Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; and Implement an enhanced Waste Management Plan similar to E7WBTC (Works) No. 19/2005 - "Environmental Management on Construction Sites" to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction. In addition, disposal of the C&D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final 	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&D Waste</u> <ul style="list-style-type: none"> • Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage. • The Contractor should recycle as much of the C&D materials as possible on-site. Public fill and C&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. 	All construction sites	V
S8.2.12- S8.3.15	WM3	<u>Chemical Waste</u> <ul style="list-style-type: none"> • 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. • 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. • 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. • 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. 	All construction sites	V
S8.3.16	WM4	<u>Sewage</u> <ul style="list-style-type: none"> • 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. 	All construction sites	V
S8.3.17	WM5	<u>General Refuse</u> <ul style="list-style-type: none"> • General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. • 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 	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"> • 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. • 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. • Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes. 		
Water Quality (Construction Phase)				
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"> • wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters; • 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; • 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; • 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; • temporary access roads should be surfaced with crushed stone or gravel; • rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities; • measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system; • open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms; • 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; • discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system; 	Land-based works area	V
S9.11.1.7	W2	<ul style="list-style-type: none"> • 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; • wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain; • the section of construction road between the wheel 	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"> • wastewater generated from concreting, plastering, Internal decoration, cleaning work and other similar activities, shall be screened to remove large objects; • 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; • the contractors shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately; • waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance; • 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 • surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system. 		
Ecology (Construction Phase)				
S10.7	E4	<ul style="list-style-type: none"> • 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 	Land-based works areas	V
S10.7	E5	<ul style="list-style-type: none"> • Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time 	Land-based works areas	V
S10.7	E8	<ul style="list-style-type: none"> • Control vessel speed • Skipper training • Predefined and regular routes for working vessels; avoid Brother Islands. 	Marine Traffic	V
Fisheries				
S11.7	F4	<ul style="list-style-type: none"> • Maritime Oil Spill Response Plan (MOSRP); • Contingency plan. 	HKBCF	V
Landscape & Visual (Detailed Design Phase)				
S14.3.3.1	LV1	<p>General design measures include:</p> <ul style="list-style-type: none"> • Roadside planting and planting along the edge of the HKBCF Island is proposed; • 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; • Protection measures for the trees to be retained during construction activities; • Optimizing the sizes and spacing of the bridge columns; • Fine-tuning the location of the bridge columns to avoid visually-sensitive locations; • Providing planting area around peripheral of HKBCF for tree planting screening effect; • Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline; • 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 	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"> • 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. 		
Landscape & Visual (Construction Phase)				
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
EM&A				
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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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

Cumulative Statistics			
Reporting Period	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period	0	0	0
From commencement date of construction to end of reporting month	2	0	0

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

Cumulative Statistics			
Reporting Period	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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Report No.: 0165/15/ED/0615

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 October 2016

Oct-2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Public Holiday
2	3	4	5	6 Environmental Site Inspection	7	8
9	10 Public Holiday	11	12	13 Environmental Site Inspection	14	15
16	17	18	19	20	21 Environmental Site Inspection* (Cancelled)	22
23	24	25	26	27 Environmental Site Inspection	28 Environmental Site Inspection*	29
30	31					

* Environmental site inspection of 21 Oct 2016 was cancelled due to hoisting of typhoon signal no. 8 on 21 Oct 2016 and re-scheduled to 28 Oct 2016

Tentative Environmental Site Inspection Schedule for November 2016

Nov-2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3 Environmental Site Inspection	4	5
6	7	8	9	10 Environmental Site Inspection	11	12
13	14	15	16	17 Environmental Site Inspection	18	19
20	21	22	23	24	25 Environmental Site Inspection	26
27	28	29	30			

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MaterialLab

Report No.: 0165/15/ED/0615

**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 October 2016

Oct-2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Public Holiday
2	3	4	5	6 Environmental Site Inspection	7	8
9	10 Public Holiday	11	12	13 Environmental Site Inspection	14	15
16	17	18	19	20	21 Environmental Site Inspection* (Cancelled)	22
23	24	25	26	27 Environmental Site Inspection	28 Environmental Site Inspection*	29
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