



中國港灣工程有限責任公司

香港代表： 振華工程有限公司

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

Date : 14 January 2016

Our Ref : CHEC300/OUT/2016/01/04.05/004200

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

Attn : Mr. Michael Tovey
The Engineer's Representative

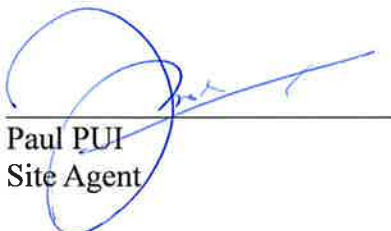
Dear Sir,

Contract No. HY/2013/03
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities
EP Condition 5.4 – Monthly EM&A Report (January 2015)

Pursuant to the Condition 5.4 of the EP-353/2009/I, we are pleased to submit one soft copy and three copies of the certified Monthly EM&A Report (Rev.1) for December 2015 for your on-ward submission.

Thank you for your kind attention.

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



Paul PUI
Site Agent

JK/PP/FH/MC/mhk

Encl. 

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MaterialLab

Report No.: 0165/15/ED/0249

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

December 2015

Client: China Harbour Engineering Co., Ltd.
Project: Contract No. HY/2013/03
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing Facilities -
Vehicle Clearance Plazas and
Ancillary Buildings and Facilities

Report No.: 0165/15/ED/0249

Prepared by: Sandra Pang

Reviewed by: Bong Yu

Certified by:


Arthur Cheng
Environmental Team Leader

13 January 2016

By Fax (3468 2076) and By Post

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

Attention: Mr. Michael Tovey

Dear Sir,

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

**Contract No. HY/2013/03 – HZMB HKBCF – Vehicle Clearance Plazas and
Ancillary Buildings and Facilities
Monthly Environmental Monitoring & Audit Report for December 2015**

Reference is made to the Environmental Team's submission of Monthly Environmental Monitoring & Audit Report for December 2015 (Rev. 1) certified by the ET Leader (ET's ref.: "MCL/ED/0018/2016/C" dated 13 January 2016) and provided to us via e-mail on 13 January 2016.

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

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

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



Raymond Dai
Independent Environmental Checker

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

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

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Date 13 January 2016
Our Ref. MCL/ED/0018/2016/C

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

BY HAND

Attn.: Mr. Raymond Dai, IEC

Dear Sir,

**EP Condition 5.4 – Monthly 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/I) for the captioned contract, we are pleased to submit the certified Monthly EM&A Report for December 2015 (Rev.1) for your verification.

Should you require further information, please do not hesitate to contact our Ms Sandra Pang 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/sp

Encl.

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

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EXECUTIVE SUMMARY

This 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" (hereafter referred to as "the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR). The Contract was awarded to China Harbour Engineering Co. Limited (hereafter referred to as "the Contractor") and MaterialLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by the Contractor.

The Contract is part of the "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities" (HZMB HKBCF) Project which is a "Designated Project" under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and for which an EIA Report (Register No. AEIAR-145/2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP-353/2009/I, was issued on 17 July 2015. These documents are available through the EIA Ordinance Register.

Commencement of the Contract took place on 10 April 2015 while the construction works and the EM&A programme of this Contract commenced on 29 August 2015.

MaterialLab Consultants Limited (MCL) has been appointed by the Contractor to implement the Environmental Monitoring & Audit (EM&A) programme for the Contract in accordance with the Updated EM&A Manual for HKBCF (Version 1.0) and will be providing environmental team services for the Contract.

This is the 4th Monthly EM&A Report for the Contract which summaries findings of the EM&A programme during the reporting period from 1 December 2015 to 31 December 2015 (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 AMS7A 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 during the reporting period are listed below:

Environmental Site Inspection: 3, 10, 17, 23 and 31 December 2015.

Breaches of Action and Limit Levels

Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 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 AMS7A 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.

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

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

Complaint Log

There 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:

- Site Investigation at Portion A1 & J;
- Piling work at A1, A6, A7a & STP;
- Building at Portion A1; and
- CUE Construction at Portion B.

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1. INTRODUCTION

1.1 Background

- 1.1.1 MaterialLab Consultants Limited was commissioned by China Harbour Engineering Co. Limited (also referred to as "the Contractor") to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for Contract No. HY/2013/03 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities" ("the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR).
- 1.1.2 The Contract 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/I, was issued on 17 July 2015. 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 forth EM&A report to document the findings of site inspection activities and EM&A programme carried out by the Contractor from 1 December 2015 to 31 December 2015 (reporting period) under Contract No. HY/2013/03 and is submitted to fulfil Condition 5.4 of the EP.

1.2 Project Description

- 1.2.1 The works to be executed under this Contract include the following major items:
- Cargo clearance facilities including kiosks for clearance of good vehicles, customs inspection platforms, X-ray building, etc.;
 - Passenger related facilities including processing kiosks and examination facilities for private cars and coaches, annexure for examination of accompanying passengers of private cars, etc.;
 - 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;
 - Provision of transport and miscellaneous facilities inside the HKBCF including public transport interchange (PTI), transport drop-off and pick-up areas, vehicle holding areas, passenger queuing areas, road networks, footbridges, fencing, sewerage and drainage systems, sewage treatment plant and treated effluent disposal facilities, water supply system, building services works, electronic system, and traffic control and information system including traffic control and surveillance system (TCSS), etc.;
 - 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
 - Reprovisioning of the affected HKIA's facilities, expect those affected by the Automated People Mover (APM) system such as the existing east rescue berth.

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1.3 Project Organisation

1.3.1 The Project Organisation for Environmental Works 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

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

1.3.2 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.

1.4 Construction Programme

1.4.1 The construction programme is provided in **Appendix C**.

1.5 Construction Works Undertaken during the Reporting Period

1.5.1 The construction works of this Contract commenced on 29 August 2015. During this reporting period, the following major site activities were commenced:

- Site Investigation at Portion A1, A2 & G;
- Piling at Portion A1, A6, A7a;
- Building & Drainage at Portion A1; and
- CUE Construction at Portion B.

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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 AMS7A 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. The relocation of air monitoring station AMS7A (Chu Kong Air-Sea Union Transportation Co. Ltd.) back to the original location AMS7 (Hong Kong SkyCity Marriott Hotel) was approved by EPD. The relocation was completed in 30 December 2015 and the air monitoring at AMS7 will start from January 2016.

Table 2.1 Air Quality Monitoring Location

Air Monitoring Station	Location
AMS6	Dragonair/CNAC (Group) Building (A80)
AMS7A	Chu Kong Air-Sea Union Transportation Co. Ltd.
AMS7	Hong Kong SkyCity Marriott Hotel

2.2 Monitoring Requirements

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

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

Table 2.2 Action and Limit Levels for Air Quality

Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
1 hour TSP		
AMS6	360	500
AMS7A	370	
AMS7	370	
24 hours TSP		
AMS6	173	260
AMS7A	183	
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 AMS7A are reported in the monthly EM&A Reports prepared for Contract No. HY/2011/03 and HY/2010/02 respectively.

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- 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 AMS7A 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, no marine transportation and operation impacted to the ecology during the reporting period and therefore, no relevant monitoring result is reported. However, ET of the Contract shall closely monitor on the status of marine works, which shall conduct monitoring when marine works commence in the future.
- 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, marine transportation or operation.

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6. ENVIRONMENTAL SITE INSPECTION AND AUDIT

6.1 Site Inspection

- 6.1.1 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.
- 6.1.2 The joint site audits were conducted on 3, 10, 17, 23 and 31 December 2015 by the representatives of Engineer, Contractor, ET and IEC (IEC for 23 December 2015).
- 6.1.3 Particular observations during the site inspection and corrective actions undertaken by the Contractor are described below:

20 November 2015

1. CHEC was reminded that good housekeeping practice shall be maintained on site. Subsequently, good housekeeping practice was maintained on site. The observation was closed on 3 December 2015.
2. CHEC was reminded that stagnant water was found in manhole. Subsequently, Manhole was filled. The observation was closed on 3 December 2015.
3. CHEC was reminded that construction materials and stagnant water were found in the wells of rooftop. Subsequently, Construction Materials and stagnant water were removed in the wells of rooftop. The observation was closed on 3 December 2015.

23 November 2015

1. CHEC was reminded to fully cover the tarpaulin sheets properly for the exposed earth slope at CUE's works area. Subsequently, the exposed earth slope was fully covered with tarpaulin sheets properly at CUE's works area. The observation was closed on 3 December 2015.

3 December 2015

1. CHEC was reminded for temporary stockpiling of untreated marine mud shall be lined with impermeable sheeting, bunded and with proper leachate control measurers implemented at Portion A. Subsequently, the temporary stockpiling of untreated marine mud was removed at Portion A. The observation was closed on 10 December 2015.

10 December 2015

1. CHEC was reminded to remove stagnant water within site boundary. Subsequently, stagnant water was removed properly within site boundary. The observation was closed on 17 December 2015.
2. CHEC was reminded to maintain good housekeeping practice at CUE. Subsequently, house keeping performance was improved at CUE. The observation was closed on 17 December 2015.
3. CHEC was reminded to replace drip tray for the generator at CUE. Subsequently, the generator was removed from CUE. The observation was closed on 17 December 2015.
4. CHEC was reminded for temporary stockpiling of untreated marine mud shall be lined with impermeable sheeting, bunded and with proper leachate control measurers implemented at CUE. Subsequently, the temporary stockpiling of untreated marine mud was removed and the piling works previously conducted at CUE was completed. The observation was closed on 17 December 2015.

17 December 2015

1. CHEC was reminded to supplement the details of the CNP at CUE. Subsequently, the details of the CNP were supplemented at CUE. The observation was closed on 23 December 2015.

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23 December 2015

1. CHEC was reminded to provide drip tray for chemical storage at CUE works area. Subsequently, chemical storage was removed at CUE works area. The observation was closed on 31 December 2015.
2. CHEC was reminded to provide a new drip tray with adequate size for generator at CUE works area. Subsequently, a new drip tray with adequate size was provided for generator at CUE works area. The observation was closed on 31 December 2015.

31 December 2015

1. CHEC was reminded to remove the construction wastes accumulated in the tray at CUE works area. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.
2. CHEC was reminded to remove the stagnant water accumulated at CUE works area. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

6.2 Advice on the Solid and Liquid Waste Management Status

- 6.2.1 The Contractor registered as a chemical waste producer for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 6.2.2 The monthly summary of waste flow table is detailed in **Appendix E**.
- 6.2.3 There was no Inert C & D Materials and 0.044 (in'000m³) of Non-inert C & D Wastes and no excavated marine sediment generated in this reporting period. Excavated marine sediment (if any) will be treated using cement solidification/stabilisation (Cement S/S) techniques and will be reused onsite for either backfilling or landscaping (e.g. berm material).
- 6.2.4 If off-site disposal is required, the excavated marine mud from the land-based works shall be disposed of at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee or other locations as agreed by the Director. The Contractor shall ensure no spilling and overflowing of materials during loading / unloading / transportation is allowed.
- 6.2.5 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.

6.3 Environmental Licenses and Permits

- 6.3.1 The valid environmental licenses and permits during the reporting period are summarized in **Appendix F**.

6.4 Implementation Status of Environmental Mitigation Measures

- 6.4.1 In response to the site audit findings, the Contractor carried out corrective actions.
- 6.4.2 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.

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Report No.: 0165/15/ED/0249

6.5 Summary of Exceedance of the Environmental Quality Performance Limit

- 6.5.1 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.
- 6.5.2 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 6.5.3 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.
- 6.5.4 There was no marine works conducted during the reporting period and therefore, no relevant monitoring result is reported.
- 6.5.5 There was no marine transportation and operation during the reporting period and therefore, no ecology monitoring result is reported.

6.6 Summary of Complaints, Notification of Summons and Successful Prosecution

- 6.6.1 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**.
- 6.6.2 There was no notification for summons or prosecutions received in relation to the environmental impact during this reporting period.
- 6.6.3 Statistics on environmental complaints, notifications of summons and successful prosecutions are provided in **Appendix H**.

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7. FUTURE KEY ISSUES

7.1 Construction Programme for the Coming Months

7.1.1 As informed by the Contractor, the following are the major construction activities anticipated in January 2016:

- Site Investigation at Portion A1 & J;
- Piling work at A1, A6, A7a & STP;
- Building at Portion A1; and
- CUE Construction at Portion B.

7.2 Environmental Site Inspection Schedule for the Coming Month

7.2.1 The tentative schedule for weekly site inspections for January 2016 is provided in **Appendix I**.

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8. CONCLUSIONS

- 8.1 Commencement of the Contract took place on 10 April 2015. The commencement date for construction works and the EM&A programme of the Contract commenced on 29 August 2015.
- 8.2 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.
- 8.3 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 8.4 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.
- 8.5 There was no marine works conducted during the reporting period and therefore, no water quality impact monitoring result is reported.
- 8.6 There was no marine transportation and operation during the reporting period and therefore, no ecology monitoring result is reported.
- 8.7 Environmental site inspections were carried out on 3, 10, 17, 23 and 31 December 2015. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site inspections.
- 8.8 There were no complaints received in relation to the environmental impact during the reporting period.
- 8.9 There were no notifications of summons or prosecutions received during the reporting period.

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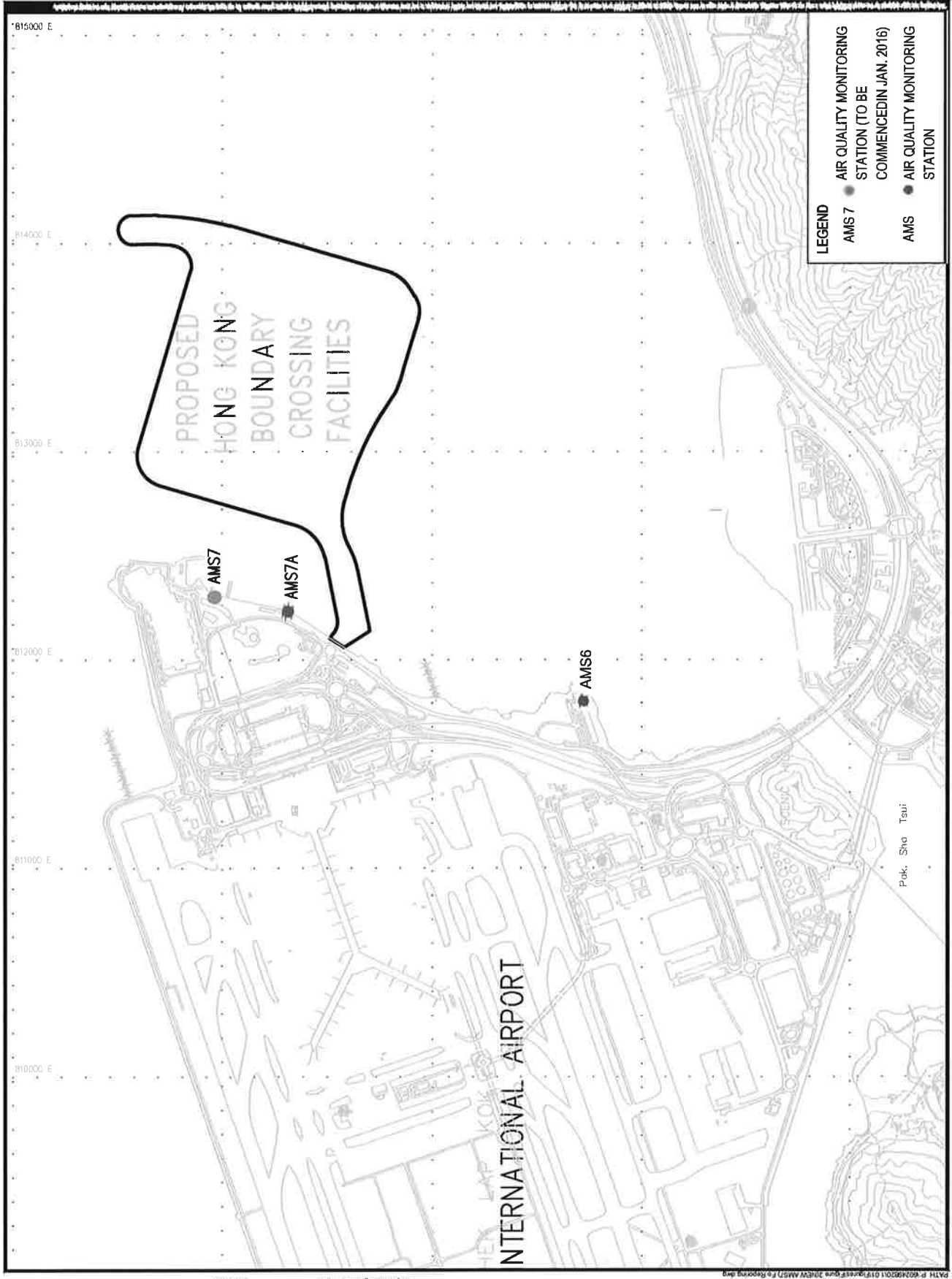
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Figure 1

Air Quality Monitoring Stations



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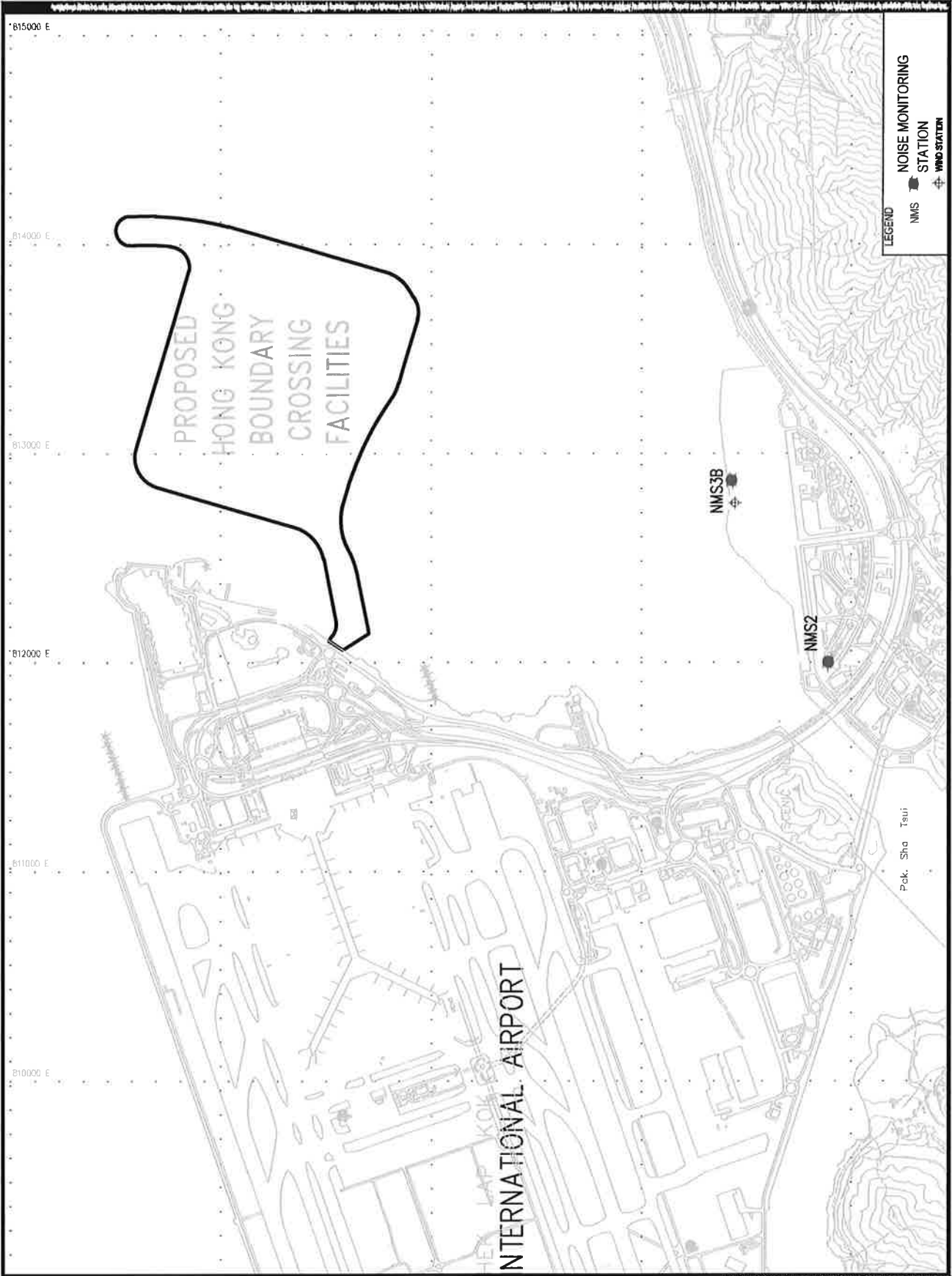
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Figure 2
Noise Monitoring Stations



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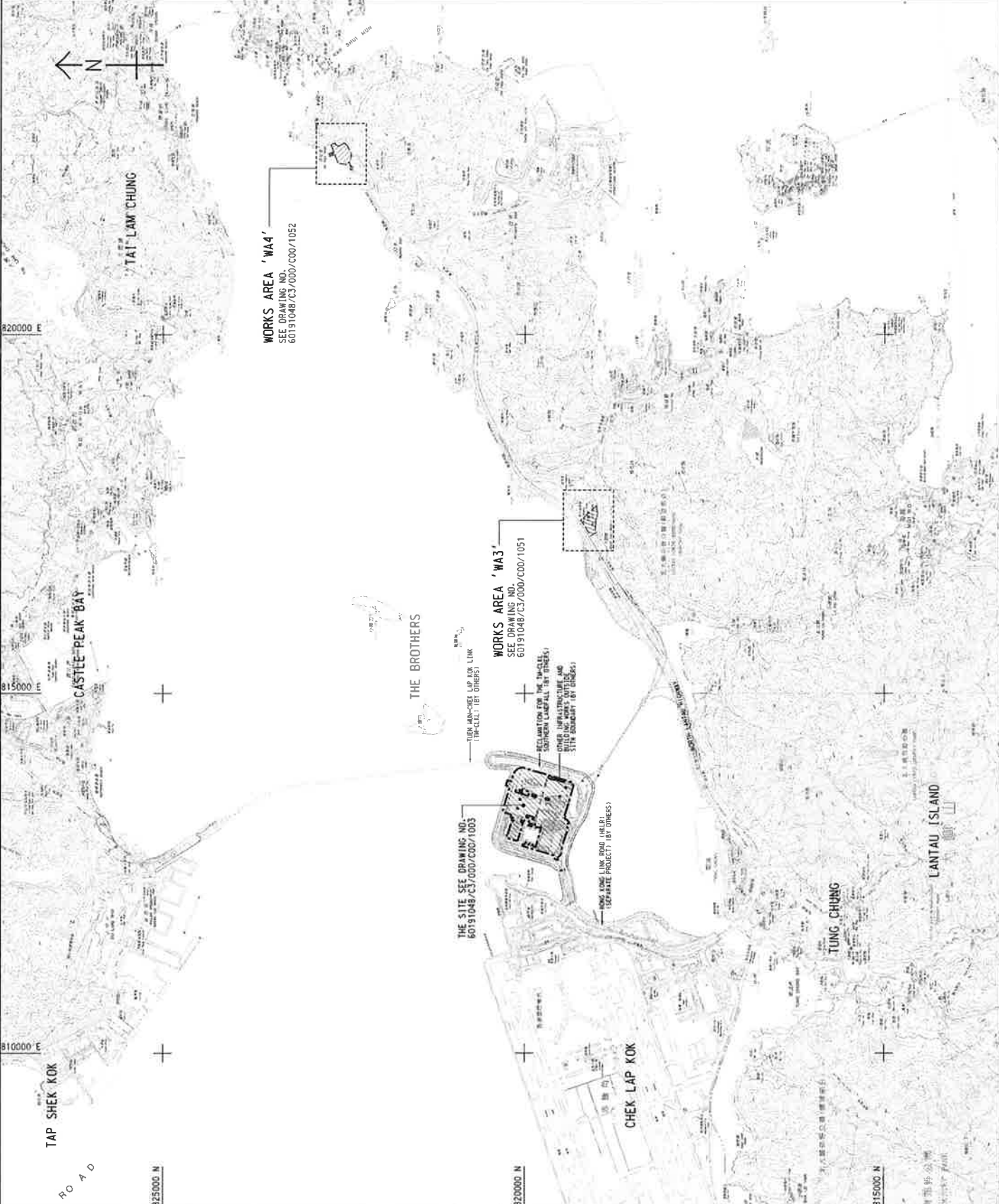
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Appendix A

Location of Works Areas



NOTES:

1. COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1983).
2. DIMENSIONS ARE IN MILLIMETER AND CHANGE ARE IN METERS UNLESS OTHERWISE SHOWN.
3. DRAWING IS FOR INFORMATION ONLY. THE DRAWING DOES NOT TAKE INTO ACCOUNT ANY CHANGES TO THE SITE.

LEGEND:



PROJECT NO.	60191048
DATE	14/11/2013
SCALE	1:25000
DRAWN BY	HY2013/03
CHECKED BY	HY2013/03
DATE	14/11/2013
PROJECT NO.	60191048
DATE	14/11/2013
SCALE	1:25000
DRAWN BY	HY2013/03
CHECKED BY	HY2013/03
DATE	14/11/2013

TRAFFIC ENGINEERING DEPARTMENT
 ROAD WORKS CONTRACTS DIVISION
 ROAD WORKS CONTRACTS DIVISION
 ROAD WORKS CONTRACTS DIVISION
 ROAD WORKS CONTRACTS DIVISION

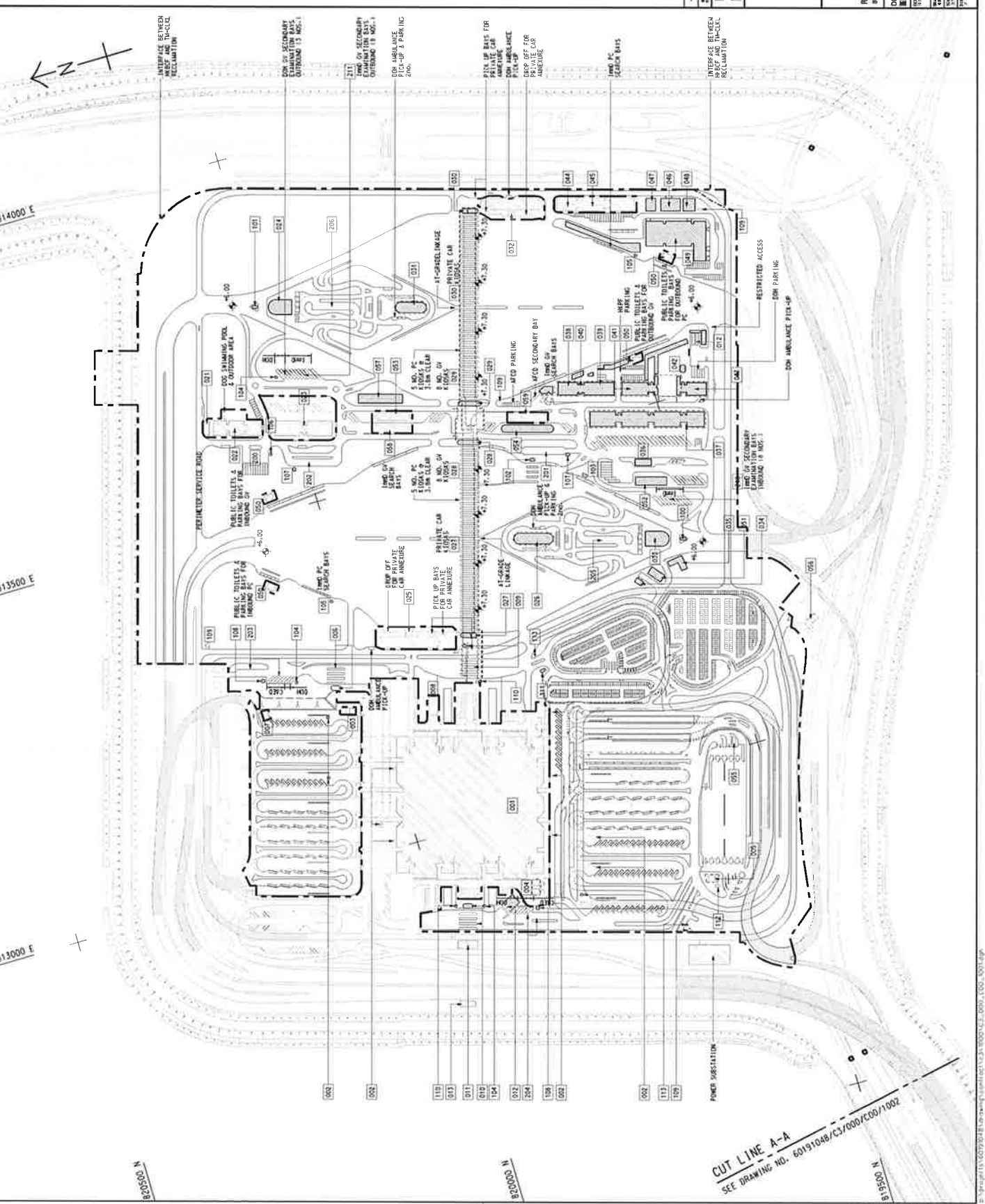
SITE LOCATION PLAN

AECOM
 Rogers Stark Harbour + Partners
 BUNO HAPFOLD ATKINS ADI +

PROJECT NO.	60191048
DATE	14/11/2013
SCALE	1:25000
DRAWN BY	HY2013/03
CHECKED BY	HY2013/03
DATE	14/11/2013
PROJECT NO.	60191048
DATE	14/11/2013
SCALE	1:25000
DRAWN BY	HY2013/03
CHECKED BY	HY2013/03
DATE	14/11/2013

NOTE:
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. 60191048/C3/000/COO/1002.

LEGEND:
 - - - - - SITE BOUNDARY
 - - - - - VIADUCT
 [Hatched Area] BUILDING/FACILITIES



- TENDER DRAWING	
SHEET 1 OF 2	
DATE	MAR. 14
DRAWN BY	XXX
CHECKED BY	XXX
APPROVED BY	XXX

TRANSIT HIGHWAYS DEPARTMENT
 1000 HIGHWAY 103, SHERBROOKE, QUEBEC, CANADA
 TEL: 819-873-7670 FAX: 819-873-3855
 WWW.THD.GOV.QC.CA

Figure 1-1
Current Layout Plan
SHEET 1 OF 2

AECOM **Aedas**

Rogers Stik Harbour + Partners
 5000 Boulevard Atanas ADI

DRGNO. 60191048/C3/000/COO/1001

PROJECT NO.	60191048	DATE	14/03/2014
CLIENT	TRANSIT	SCALE	AS SHOWN
CHECKED BY	MSY	DATE	14/03/2014
DRAWN BY	XXX	DATE	14/03/2014
UNITS: METRES		© COPYRIGHT RESERVED	

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

POINT	SETTING OUT POINT	
	EASTING	NORTHING
301	817467.255	819162.653
302	817314.141	819085.829
303	817327.238	819095.296
304	817440.655	819117.811
305	817440.625	819027.314
306	817387.253	819021.423
307	817387.861	819045.296
308	817466.123	819091.041
309	817465.753	819087.181
310	817332.499	819173.704
311	817547.717	819216.082
312	817450.535	819032.707
313	817445.285	819033.157
314	817531.158	819091.003
315	817531.545	818951.205
316	817620.259	819000.620
317	817495.877	819095.596
318	817522.110	819075.288
319	817546.404	819024.472
320	817546.507	819008.528
321	817569.551	818999.621

B19200 N

B17600 E

B17400 E

B17200 E

B19000 N

Part File by 2014/5/5 WINDSY

CONTROLLED DOCUMENT

LOCATION PLAN
SCALE 1 : 2500

NOTES:

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- DIMENSIONS ARE IN MILLIMETER AND CHANGE 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 (EQUIV. TABLET)

FOR CONSTRUCTION

FOR CONSTRUCTION

C	WORKING DRAWING	DATE: 2013/10/15	NO: 10/15
B	TRACKER APPROVAL NO. 2	DATE: 2013/10/14	NO: 10/14
A	TRACKER APPROVAL NO. 1	DATE: 2013/09/14	NO: 09/14
-	TRACKER DRAWING	DATE: 2013/09/14	NO: 09/14
0	APPROVAL	DATE: 2013/09/14	NO: 09/14

HONG KONG HIGHWAYS DEPARTMENT

WORKS AREA WA3

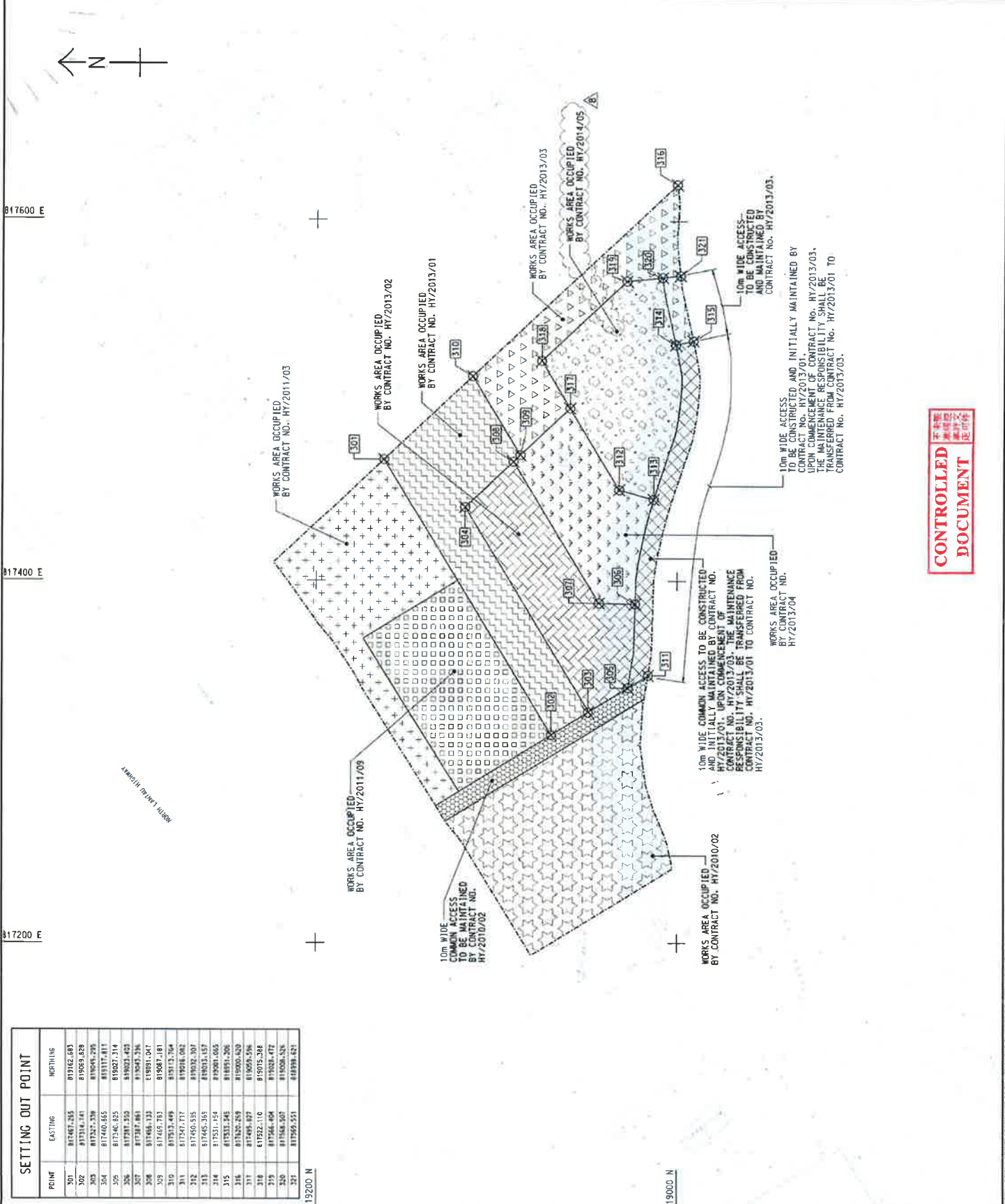
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Rogers Stark Harbour + Partners
BURO HAPPAOLD ATRINB ADI

WORKING DRAWING

DRAWING NO: 60191048/C3/000/C00/C00/1051C

DATE: 2013/10/15	SCALE: 1:2500
DATE: 2013/10/15	SCALE: 1:2500
DATE: 2013/10/15	SCALE: 1:2500
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DATE: 2013/10/15	SCALE: 1:2500
DATE: 2013/10/15	SCALE: 1:2500
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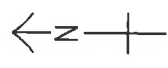
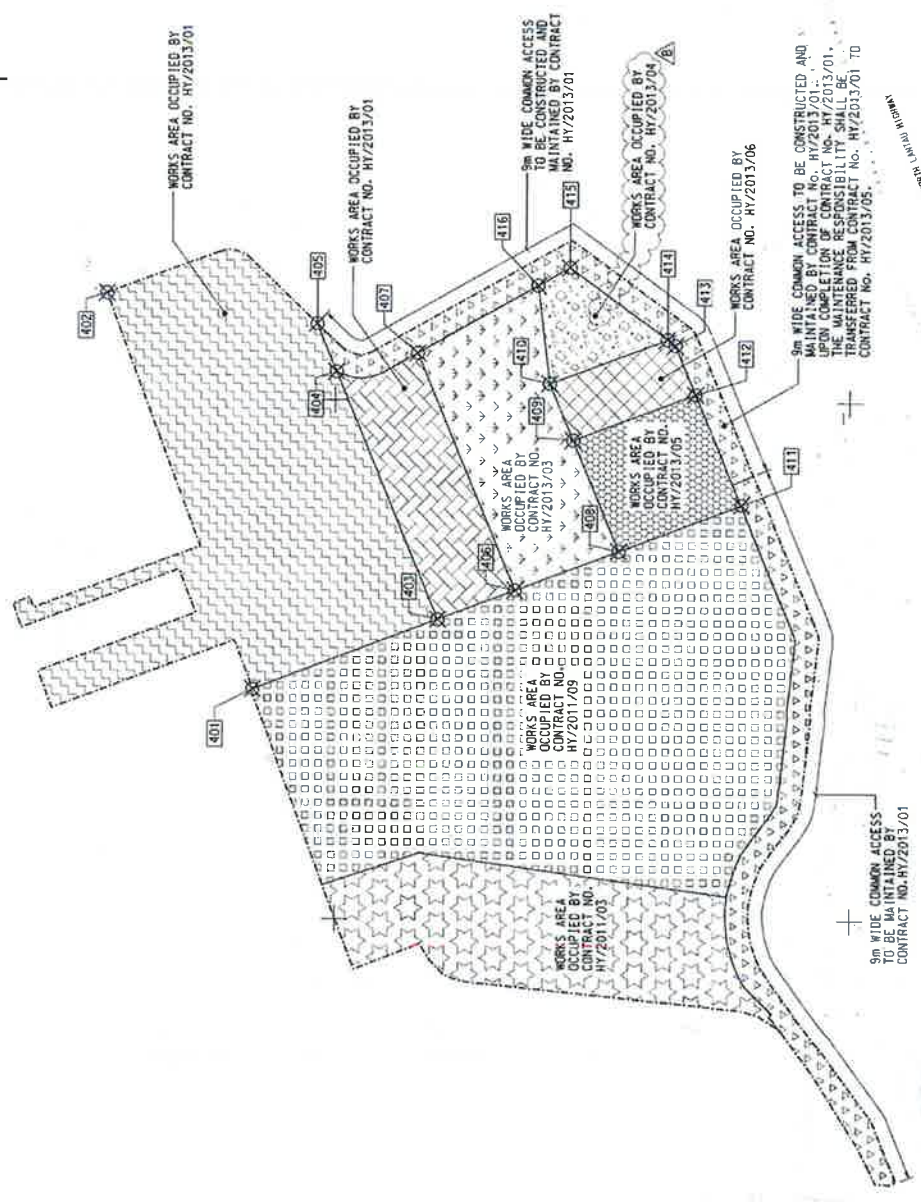
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POINT	EASTING	NORTHING
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402	822490.253	822489.415
403	822515.603	822559.848
404	822510.940	822591.442
405	822581.428	822507.253
406	822526.393	822529.813
407	822516.248	822561.250
408	822542.242	822491.281
409	822584.983	822567.443
410	822602.278	822514.261
411	822602.278	822441.258
412	822602.278	822460.010
413	822602.278	822467.253
414	822604.750	822470.298
415	822581.725	822526.413
416	822441.258	822511.192

822600 E

822400 E

822600 N

822400 N



WORKS AREA WAA

KAP SHUI MUN

SUNNY BAY

TSO MAN

LOCATION PLAN

SCALE 1 : 25000

NOTES:

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- ALL DIMENSIONS ARE IN METRES AND CHINAISE METRES UNLESS OTHERWISE STATED.

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

C	WORKING DRAWING	REVISED	DATE
B	TEMPER APPROVAL HR. 2	REVISED	DATE
A	TEMPER APPROVAL NO. 1	REVISED	DATE
	TEMPER DRAWING	REVISED	DATE
		REVISED	DATE
		REVISED	DATE

HONG KONG GOVERNMENT DEPARTMENT OF LANDS

香港地政總署

HONG KONG BOUNDARY CROSSING FACILITIES

VEHICLE CLEARANCE PLASAS AND FACILITIES

WORKS AREA WAA

AECOM

Rogers Shirk Harbour + Partners

BURO HAPPOLD ATKINS ADI

DRGNO 6019104B/C3/000/COD/1052C

WORKING DRAWING

圖樣編號

比例 1:1000

圖則編號

圖則名稱

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Appendix B

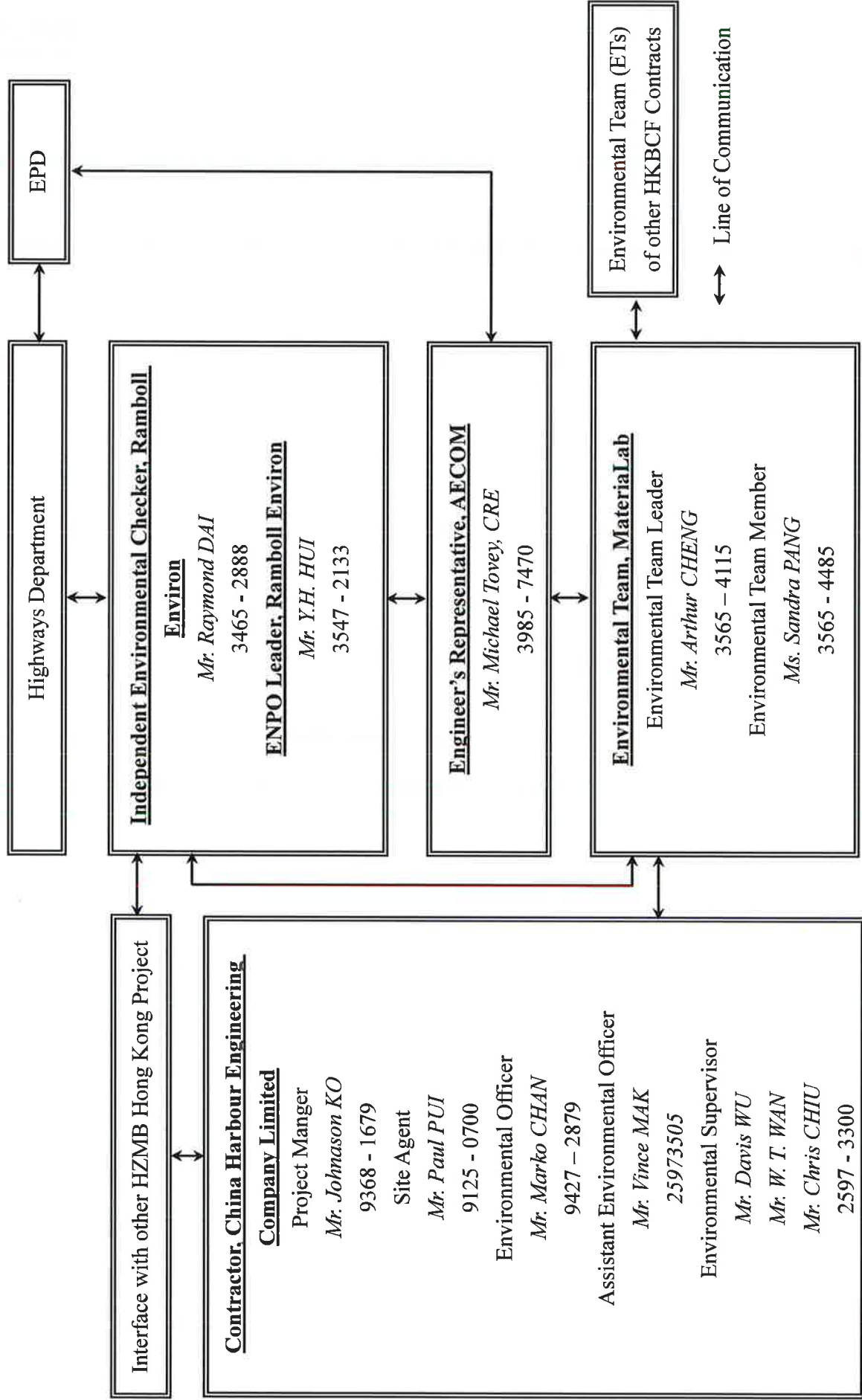
Project Organization for Environmental Works



CHINA HARBOUR ENGINEERING COMPANY LIMITED

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

Projects Organization for Environmental Works



Interface with other HZMB Hong Kong Project

Contractor, China Harbour Engineering

Company Limited

Project Manger

Mr. Johnson KO

9368 - 1679

Site Agent

Mr. Paul PUI

9125 - 0700

Environmental Officer

Mr. Marko CHAN

9427 - 2879

Assistant Environmental Officer

Mr. Vince MAK

25973505

Environmental Supervisor

Mr. Davis WU

Mr. W. T. WAN

Mr. Chris CHIU

2597 - 3300

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Appendix C

Construction Programme

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

Activity ID	Activity Name	Original Duration	Remaining % Complete	Start	Finish	Total Float	2016				04-Jan-16
							2015	Jan	Feb	Mar	
HKBCF - VCP DRMs Programme, (W/P 04), UD 311215											
CONTRACT DATES											
Key Dates											
A1040	KD4 Achievement of Stage 3B of the Works (250 days; 15 Dec. 15)	0	0	0%	23-Jan-16*	-39					◆ KD4 Achievement of Stage 3B of the Works (250 days; 15 Dec. 15)
Site Access & Possession											
Possession of Portion of Site											
A0090	Possession of Portion H1 (<=273 days)	0	0	0%	15-Jan-16*	-8					◆ Possession of Portion H1 (<=273 days)
Section/Stage Subject to Excision											
A0710	Contract Date for Section IA (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*	0					◆ Contract Date for Section IA (273 days, latest date when the Engineer may order)
A0720	Contract Date for Section IB (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*	0					◆ Contract Date for Section IB (273 days, latest date when the Engineer may order)
A0730	Contract Date for Section IIA (345 days, latest date when the Engineer may order)	0	0	0%	19-Mar-16*	0					◆ Contract Date for Section IIA (345 days, latest date when the Engineer may order)
A0740	Contract Date for Section IIB (100 days, latest date when the Engineer may order)	0	0	0%	31-Dec-15*	-166					◆ Contract Date for Section IIB (100 days, latest date when the Engineer may order)
A0750	Contract Date for Section IIC (320 days, latest date when the Engineer may order)	0	0	0%	23-Feb-16*	0					◆ Contract Date for Section IIC (320 days, latest date when the Engineer may order)
A0760	Contract Date for Section III (273 days, latest date when the Engineer may order)	0	0	0%	07-Jan-16*	0					◆ Contract Date for Section III (273 days, latest date when the Engineer may order)
A0810	Contract Date for Section IX (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*	0					◆ Contract Date for Section IX (270 days, latest date when the Engineer may order)
A0820	Contract Date for Section X (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*	0					◆ Contract Date for Section X (270 days, latest date when the Engineer may order)
A0830	Contract Date for Stage 20 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*	0					◆ Contract Date for Stage 20 (270 days, latest date when the Engineer may order)
A0840	Contract Date for Stage 21 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*	0					◆ Contract Date for Stage 21 (270 days, latest date when the Engineer may order)
A0850	Contract Date for Stage 22 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*	0					◆ Contract Date for Stage 22 (270 days, latest date when the Engineer may order)
A0860	Contract Date for Stage 23 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*	0					◆ Contract Date for Stage 23 (270 days, latest date when the Engineer may order)
A0870	Contract Date for Stage 24 (270 days, latest date when the Engineer may order)	0	0	0%	04-Jan-16*	0					◆ Contract Date for Stage 24 (270 days, latest date when the Engineer may order)
PRELIMINARY											
A0610	Mobilization of Plant	70	35	50%	10-Apr-15 A 03-Feb-16*	-280					
Precast Yard for Bridge Segment											
A0620	Engineering Service and Factory Preparation	120	96	20%	01-Dec-15 A 29-Apr-16	-137					
PORTION A1											
Portion A1 Structures											
Bored Pile											
S91010	Predrill SI, 10 nos.	30	0	100%	10-Nov-15 A 04-Dec-15 A						
Box Culvert D											
SD00040	Bored Piling for Box Culvert D 45 nr. (5 no. done)	128	109	15%	05-Oct-15 A 11-Aug-16	-34					

Date	Revision	Checked	Approved
31-Oct-15	Initial Works Programme Rev. 3, 3MRP	ZJ	
30-Nov-15	Initial Works Programme Rev. 3, 3MRP	ZJ	
31-Dec-15	DRMs updated as of 31 Dec. 2015, 3MRP	ZJ	

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

- Actual Work
- Remaining Work
- Critical
- Milestone

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015	2016	04-Jan-16
049 - Sewage Treatment Plant, Portion A1 & A2										
A04930	Approval of Rockhead & Foundation	7	0	100%	21-Dec-15A	28-Dec-15A		Dec		
A04940	Bored Piling (39 Nt.)	148	147	0.68%	29-Dec-15A	02-Jul-16	-179			
Portion A1 Buildings										
036 - Weigh Station										
A03630	Super Structure	90	9	90%	06-Oct-15A	12-Apr-16	91			
A03690	Other BS + E&M Installation	180	162	10%	02-Nov-15A	14-Nov-16	163			
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)										
A03710	Excavation	14	0	100%	07-Oct-15A	30-Nov-15A				
A03720	Substructure	50	25	50%	13-Oct-15A	30-Apr-16	-192			
A03790	Other BS + E&M Installation	235	230	2%	15-Dec-15A	15-Jul-17	-31			
052 - Transforms (Zone 4)										
A05220	Superstructure	64	0	100%	21-Sep-15A	30-Nov-15A				
A05230	Fitting out works in Tx Room to CLP (KD4)	55	20	63.64%	02-Nov-15A	23-Jan-16	-31			
A05235	Energisation by CLP	50	50	0%	25-Jan-16	29-Mar-16	298			
A05240	BS Installation (KD9)	66	53	20%	02-Nov-15A	05-Mar-16	228			
A05250	Finishing (KD10)	87	78	10%	14-Dec-15A	09-Apr-16	228			
External Works for Portion A1										
Drainage Works										
SG0020	Drainage Works (4210m & 76MHs)	250	248	1%	16-Sep-15A	21-Apr-17	-104			
PORTION B										
Portion B Structures										
027 - Staff Subway										
C02710	ELS + Blind (Seg. 8-19) (12 Bay)	47	38	20%	27-Oct-15A	17-Feb-16	-42			
C02720	Seg. 8-13 Construction - Base Slab	21	19	10%	03-Nov-15A	22-Jan-16	-5			
C02730	Seg. 8-13 Construction - Wall + Top Slab	30	30	0%	15-Dec-15A	04-Feb-16	0			
C02740	Seg. 14-19 Construction - Base Slab	21	21	0%	31-Dec-15	25-Jan-16	-16			
C02750	Seg. 14-19 Construction - Wall + Top Slab	30	30	0%	20-Jan-16	26-Feb-16	-16			
C02760	Internal Finishes & Cable Containment (KD1)	30	30	0%	05-Feb-16	14-Mar-16	5			
C02770	BS + E&M Installation for ACVSS (Stage 1)	30	30	0%	24-Feb-16	01-Apr-16	1			
029 - Staff Subway										
C02910	ELS + Blind (Seg. 28-36) (12 Bay)	40	40	0%	17-Feb-16	08-Apr-16	-42			
C02920	Seg. 28-32 Construction - Base Slab	22	22	0%	09-Mar-16	08-Apr-16	-42			
C02940	Seg. 33-36 Construction - Base Slab	21	21	0%	09-Mar-16	07-Apr-16	-42			
Portion B Buildings										
027/028 Inbound Kiosks & 029 Outbound Kiosks										

THREE MONTH ROLLING PROGRAMME

VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

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Date	Revision	Checked	Approved
31-Oct-15	Initial Works Programme Rev. 3. 3MRP	ZJ	
30-Nov-15	Initial Works Programme Rev. 3. 3MRP	ZJ	
31-Dec-15	DRMs updated as of 31 Dec. 2015. 3MRP	ZJ	

█ Actual Work
█ Remaining Work
█ Critical
◆ Milestone

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

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2015				2016						
								Dec	Jan	Feb	Mar	Apr	Jan	Feb	Mar	Apr		
A02700	Submission & Approval for Steel Works	50	50	0%	31-Dec-15	02-Mar-16	-88											
A02710	Pre-fabrication for the Steel Kiosks	100	100	0%	03-Mar-16	06-Jul-16	-88											
B02702B	Inbound Kiosks & 029 Outbound Kiosks, Section IX, Subject to Excision																	
B02730	Submission & Approval for Steel Works	75	75	0%	04-Jan-16	07-Apr-16	25											
External Works for Portion B																		
Drainage Works																		
B00030	Initial Survey	12	0	100%	07-Dec-15 A	16-Dec-15 A												
SG1540	Drainage Works (7812m & 168MHs)	300	297	1%	17-Dec-15 A	29-Mar-17	-120											
PORTION C																		
Portion C Buildings																		
010 - Inbound Coach Kiosk & Staff Subway Entrance																		
A01010	Substructure and Staircase Construction	60	60	0%	22-Mar-16	05-Jun-16	-157											
PORTION G, H1 & H2																		
Portion G Structures																		
Box Culvert C																		
Steel H Pile																		
SC0230	Predrill SI for Box Culvert C 9 Nr.	9	0	100%	02-Nov-15 A	04-Dec-15 A												
Bridge A1																		
Bored Pile																		
S10110	Predrill SI, 10 nos.	30	14	53.33%	07-Dec-15 A	16-Jan-16	65											
S10120	Bore pile, 10 nos.	58	58	0%	18-Jan-16	31-Mar-16	65											
Bridge A2																		
Bored Pile																		
S21410	Bore pile + P301 + P601, (6 + 4) Nr., 5 no. done	73	37	50%	26-Nov-15 A	16-Feb-16	-92											
S21820	Pile Testing	7	7	0%	26-Feb-16	05-Mar-16	100											
Pile Cap																		
S21850	Cap - Pier P205	30	30	0%	05-Mar-16	14-Apr-16	100											
Bridge A5																		
Bored Pile																		
S52620	Predrill SI for others 4 nos.	6	0	100%	01-Dec-15 A	17-Dec-15 A												
Bridge A6																		
Bored Pile																		
S63510	Bore pile for P606, A607/A711, 6 Nr.	46	46	0%	31-Dec-15	26-Feb-16	-130											
S63520	Bore pile for other 8 Nr.	58	58	0%	27-Feb-16	10-May-16	-130											
S63720	Pile Testing for 606, A607/A711	7	7	0%	09-Mar-16	16-Mar-16	-99											
S63725	Pile Testing for P601	7	7	0%	29-Feb-16	08-Mar-16	-92											
Pile Cap																		
S63410	Cap - P606, P607/711	40	40	0%	17-Mar-16	07-May-16	-99											
S63420	Cap - P601	30	30	0%	08-Mar-16	15-Apr-16	-92											
Bridge A7a, A7b, A7c																		
Bored Pile																		
S74150	Predrill SI for P701, P702 - P705, 10 Nr.	30	30	0%	31-Dec-15	04-Feb-16	34											

Actual Work	Remaining Work	Critical	Milestone
THREE MONTH ROLLING PROGRAMME			
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES			
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31-Dec-15	DRMs updated as of 31 Dec. 2015, 3MRP	ZJ	

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities 04-Jan-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016				
								Jan	Feb	Mar	Apr	
S74160	Bore Piling for P706, P707, P712, 6 Nr.	44	40	10%	14-Dec-15 A	25-Aug-16	-128					
S74170	Bore Piling for A701, P702 - P705, 10 Nr.	42	38	10%	20-Nov-15 A	24-Sep-16	-116					
Portion G Buildings												
035 - Sewage Pumping Station, Portion G												
A03525	Approval of Rockhead & Founding	14	14	0%	31-Dec-15	16-Jan-16	-16					
A03530	Bored piling (5 nr)	46	46	0%	04-Feb-16	05-Apr-16	-16					
External Works for Portion G, H1 & H2												
Sign Gantry DS40, DS41 & DS75												
SS0010	Sign Gantry DS40 SI Drilling, 3 Nr.	13	0	100%	08-Dec-15 A	19-Dec-15 A						
SS0030	Sign Gantry DS41 SI Drilling, 1 Nr.	13	0	100%	02-Dec-15 A	21-Dec-15 A						
SS0050	Sign Gantry DS75 SI Drilling, 2 Nr.	7	5	28.57%	08-Dec-15 A	06-Jan-16	97					
SS0170	Submission and approval for Sign Gantry	90	90	0%	31-Dec-15	22-Apr-16	-18					
PORTION J												
Portion J Structure												
030 Outbound Private Car & GV Kiosks												
A03010	Submission & Approval for Steel Works	60	60	0%	31-Dec-15	14-Mar-16	-7					
A03020	Pre-fabrication for the Steel Kiosks	84	84	0%	15-Mar-16	28-Jun-16	-7					
030 Outbound Kiosks, Section IX, Subject to Excision												
C03010	Submission & Approval for Steel Works	100	100	0%	04-Jan-16	07-May-16	0					
External Works for Portion J												
Sign Gantry DS104												
SS0130	Sign Gantry DS104 SI Drilling, 2 Nr.	12	3	75%	18-Dec-15 A	04-Jan-16	207					
PORTION N												
Portion N Structure												
Box Culvert B												
Bored Pile												
SB0510	Box B - Predrill SI, 30 nos.	30	14	53.33%	01-Dec-15 A	16-Jan-16	131					
SB0570	Box B - Bore Pile, 30 nos.	85	85	0%	18-Jan-16	04-May-16	131					

Actual Work (Blue bar)

Remaining Work (Green bar)

Critical (Red bar)

Milestone (Diamond)

THREE MONTH ROLLING PROGRAMME

VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

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Appendix D

Event / Action Plan

Appendix D –

Event / Action Plan for Air Quality and Noise Monitoring

Event / Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
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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Appendix E

Waste Flow Table



Monthly Summary of Waste Flow Table for 2015 (year)

Name of Person completing the Record: Marko Chan

Month	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated (in '000m ³)	Broken Concrete (see Note 1) (in '000m ³)	Reused in the Contract (in '000m ³)	Reused in other Projects (in '000m ³)	Disposed as Public Fill (in '000m ³)	Metals (in '000 Kg)	Paper/ cardboard packaging (in '000 Kg)	Plastics (see Note 2) (in '000 Kg)	Chemical Waste (in '000 Kg)	Others, e.g. general refuse (in '000m ³)
Jan										
Feb										
Mar										
Apr	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0
Jun	0.003	0	0	0	0.003	0	0	0	0	0.063
Jul	0.402	0	0	0	0.402	0	0	0	0	0.029
Aug	0.100	0	0	0	0.100	0	0	0	0	0.044
Sept	0	0	0	0	0	0	0	0	0	0.034
Oct	0	0	0	0	0	0	0	0	0	0.024
Nov	0	0	0	0	0	0	0	0	0	0.034
Dec	0	0	0	0	0	0	0	0	0	0.044
Total	0.505	0	0	0	0.505	0	0	0	0	0.272

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

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Appendix F

Environmental Licenses and Permits

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

(update: 02/01/2016)

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/I	HKBCF	30-Jun-15	17-Jul-15	17-Jul-15	Nil	Valid	
2	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	Ref No. 387703	Main Site Area	02-Apr-15	15-Apr-15	15-Apr-15	Nil	Valid	
3	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	Ref No. 387735	Works Area WA3	02-Apr-15	15-Apr-15	15-Apr-15	Nil	Valid	
4	Billing A/C for Construction Waste Disposal Pursuant to Section 6 & 9 of the Waste Disposal (Charges for Disposal of Construction waste) Regulation	A/C No. 7022228	Main Site Area, WA3 & 4	14-Apr-15	06-May-15	06-May-15	Nil	Valid	
5	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	5213-951-C1186-28	Main Site Area	24-Apr-15	01-Jun-15	01-Jun-15	Nil	Valid	
6	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	5213-974-C3597-03	Works Area WA4	24-Apr-15	01-Jun-15	01-Jun-15	Nil	Valid	
7	Water Discharge License Pursuant to Water Pollution Control Ordinance (Cap 358)	WT00022180-2015	Works Area WA3	28-Apr-15	04-Aug-15	03-Aug-15	31-Aug-20	Valid	
8	Water Discharge License Pursuant to Water Pollution Control Ordinance (Cap 358)	WT00022391-2015	Main Site Area	05-May-15	04-Sept-15	04-Sept-15	30-Sept-20	Valid	
9	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0999-15	CUE	28-Aug-15	11-Sept-15	14-Sept-15	10-Dec-15	Superseded By GW-RS1388-15	
10	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1065-15	Portion A1	15-Sept-15	29-Sept-15	30-Sept-15	31-Dec-15	Superseded By GW-RS1388-15	
11	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1203-15	CUE	20-Oct-15	03-Nov-15	02-Nov-15	31-Jan-16	Superseded By GW-RS1388-15	
12	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1315-15	Portion G	12-Nov-15	26-Nov-15	28-Nov-15	28-Feb-16	Valid	

Item	Permit/Licence Registration	Permit No.	Work Area	Application Date	Issue Date	Valid Date		Status	Remark
						From	To		
13	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0029-15	Drill Tower	27-Nov-15	11-Dec-15	14-Dec-15	13-Apr-16	Valid	
14	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1388-15	Main Site Area	02-Dec-15	16-Dec-15	21-Dec-15	18-Mar-16	Valid	
15	Permit issued Under the Dumping at Sea Ordinance	EP/MD/16-121	South of Brothers (CMP2)	26-Oct-15	17-Dec-15	18-Dec-15	17-Jan-16	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 be 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 enclosed system or facility, and any vent or exhaust should 	All construction sites	N/A

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		be fitted with an effective fabric filter or equivalent air pollution control system; and <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	V
S5.5.6.4	A4	4) Engineer to incorporate the controlled measures into the Particular Specification (PS) for the civil work. The PS should also draw the contractor's attention to the relevant latest Practice Notes issued by EPD.	All construction sites	V
S5.5.6.4	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Selected Representative dust monitoring station	V
S5.5.7.1	A6	The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant; <ul style="list-style-type: none"> Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; The materials which may generate airborne dusty emissions should be wetted by water spray system; All receiving hoppers should be enclosed on three sides up to 3m above unloading point; All conveyor transfer points should be totally enclosed; All access and route roads within the premises should be paved and wetted; and Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body 	Selected Representative dust monitoring station	V
S5.5.2.7	A7	The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point: <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	N/A
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; mobile plant should be sited as far away from NSRs as 	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		possible and practicable; <ul style="list-style-type: none"> 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	<u>Construction and Demolition Material</u> The following mitigation measures should be implemented in handling the waste: <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 disposal sites to the Project Proponent and get its approval before implementation 	All construction sites	V
S8.3.9-	WM2	C&D Waste	All	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
S8.3.11		<ul style="list-style-type: none"> • 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. 	construction sites	
S8.3.12-S8.3.15	WM3	<p><u>Chemical Waste</u></p> <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	<p><u>Sewage</u></p> <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	<p><u>General Refuse</u></p> <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 law. • 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 	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<p>paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor.</p> <ul style="list-style-type: none"> • 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>Land Works</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 washing bay and the public road should be surfaced with crushed stone or coarse gravel; • 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 	Land-based works area	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal; <ul style="list-style-type: none"> 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	N/A
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	General design measures include: <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 transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF; and 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. 	HKBCF	V
Landscape & Visual (Construction Phase)				
S14.3.3.3	LV2	Mitigate both Landscape and Visual Impacts <ul style="list-style-type: none"> 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 	HKBCF	N/A

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<p>bridge and traffic.</p> <p>G3. Not applicable as this is for HKLR.</p> <p>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</p> <p>G5. Vegetation reinstatement and upgrading to disturbed areas</p> <p>G6. Maximizing new tree shrub and other vegetation planting to compensate tree felled and vegetation removed</p> <p>G7. Providing planting area around peripheral of HKBCF for tree planting screening effect;</p> <p>G8. Plant salt-tolerant native and shrubs etc along the planter strip at affected seawall.</p> <p>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.</p>		
S14.3.3.3	LV3	<p><u>Mitigate Visual Impacts</u></p> <p>V1. Minimize time for construction activities during construction period.</p> <p>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.</p>	HKBCF	N/A
EM&A				
S15.5.2.2	EM1	An Independent Environmental Checker needs to be employed as per the EM&A Manual	All construction sites	V
S15.5 – S15.6	EM2	<p>1) An Environmental Team needs to be employed as per the EM&A Manual.</p> <p>2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures.</p> <p>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.</p>	All construction sites	V

Legend: V = implemented; x = not implemented; N/A = not applicable

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

Report No.: 0165/15/ED/0249

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

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

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Appendix I

Environmental Site Inspection Schedule

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Report No.: 0165/15/ED/0249

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 December 2015

Dec-2015						
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 Environmental Site Inspection	24	25 Public Holiday	26 Public Holiday
27	28	29	30	31 Environmental Site Inspection		

Tentative Environmental Site Inspection Schedule for January 2016

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

