

#### Ref.: HYDHZMBEEM00\_0\_3746L.16

12 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. Darrel Kingan

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/2013/01 – HZMB HKBCF – Passenger Clearance Building Monthly Environmental Monitoring & Audit Report No. 15 for December 2015

Reference is made to the Environmental Team's submission of the Monthly Environmental Monitoring & Audit Report No. 15 for December 2015 (Revision 2) certified by the ET Leader (ET's ref.: "5126871/19.10/OC058/SO/LL" dated 12 January 2016) and provided to us via e-mail on 12 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

Ronger

Raymond Dai Independent Environmental Checker

c.c.

HyD HyD Atkins LCWJV Mr. Matthew Fung Ms. Lowell Chiu Ms. Sharifah Or Mr. Gary Wong (By Fax: 3188 6614) (By Fax: 3188 6614) (By Fax: 2890 6343) (By Fax: 3621 0180)

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

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# **ATKINS**

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Your ref. 5126871/19.10/OC058/SO/LL

Date: 12 January 2016

By Post and e-mail (Donald.lp@lcwjv.com)

Leighton – Chun Wo Joint Venture 39/F Sun Hung Kai Centre 30 Harbour Road Hong Kong

Attn: Mr. Donald Ip

Dear Mr. Ip,

#### Contract No. HY/2013/01 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Certification of Monthly EM&A Report No. 15

Atkins China Limited certifies, in the capacity of Environmental Team Leader, that the Monthly EM&A Report No. 15 for December 2015 (Revision 2), in principle, conforms the requirements provided in Condition 5.4 of the Environmental Permit No. EP-353/2009/I.

Yours faithfully, for and on behalf of Atkins China Limited

Sharifah OR Environmental Team Leader

cc.

- 1. AECOM Mr. Darrel Kingan (By Fax.: 3468 2076)
- 2. ENPO/IEC Mr. Raymond Dai & Mr. Y.H. Hui (By Fax.: 3465 2899)



### Contract No. HY/2013/01

Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building

## Monthly EM&A Report No. 15 (Covering the Period from 1 December 2015 to 31 December 2015)

11 January 2016

**Revision 2** 

Main Contractor



**Environmental Team** 





#### Contents

#### **Executive Summary**

1	Introduction	1
1.1	Basic Project Information	1
1.2	Project Organisation	2
1.3	Construction Programme	2
1.4	Construction Works Undertaken During the Reporting Period	2
2	Air Quality Monitoring	4
2.1	Monitoring Locations	4
2.2	Monitoring Requirements	
2.3	Monitoring Results	
3	Noise Monitoring	6
3.1	Monitoring Locations	6
3.2	Monitoring Requirements	
3.3	Monitoring Results	
4	Environmental Site Inspection and Audit	7
4.1	Site Inspection	7
4.2	Advice on the Solid and Liquid Waste Management Status	8
4.3	Environmental Licenses and Permits	8
4.4	Implementation Status of Environmental Mitigation Measures	8
4.5	Summary of Exceedance of the Environmental Quality Performance Limit	
4.6	Summary of Complaints, Notification of Summons and Successful Prosecution	8
5	Future Key Issues	9
5.1	Construction Programme for the Coming Months	9
5.2	Environmental Site Inspection Schedule for the Coming Month	
6	Conclusions	10
6.1	Conclusions	10



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

### Figures

Figure 2.1Location of Air Quality Monitoring StationsFigure 3.1Location of Noise Monitoring Stations

### Appendices

- Appendix A Location of Works Areas
- Appendix B Project Organization for Environmental Works
- Appendix C Construction Programme
- Appendix D Event and Action Plan
- Appendix E Waste Flow Table
- Appendix F Environmental Licenses and Permits
- Appendix G Implementation Schedule for Environmental Mitigation Measures (EMIS)
- Appendix H Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions
- Appendix I Environmental Site Inspection Schedule



#### Executive Summary

This monthly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract HY/2013/01 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) – Passenger Clearance Building (hereafter referred to as "the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR). The Contract was awarded to Leighton – Chun Wo Joint Venture (hereafter referred to as "the Contractor") and Atkins China Limited was appointed as the Environmental Team (ET) by the Contractor.

The Contract is part of Hong Kong – Zhuhai – Macao Bridge HKBCF which is a "Designated Project", under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499) and Environmental Impact Assessment (EIA) Report (Register No. AEIAR-145/2009) was prepared for the Project. The current Environmental Permit (EP) No. EP-353/2009/I for HKBCF was issued on 17 July 2015. These documents are available through the EIA Ordinance Register. Site preparation works of the Contract started on 26 September 2014 and the construction works of the Contract commenced on 6 October 2014.

Atkins China Limited 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 to the Contract.

This is the fifteenth monthly EM&A Report for the Contract which summarizes findings of the EM&A works during the reporting period from 1 December 2015 to 31 December 2015.

#### **Environmental Monitoring and Audit Progress**

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 Nos. HY/2010/02 and HY/2011/03. However, this is subject to ENPO's final decision on which ET should carry out the monitoring work at these stations.

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

Environmental Site Inspection: 2, 9, 16, 23 and 30 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 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 NMS2 and NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

#### 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 Change

Air Quality Monitoring Locations, AMS7A, was relocated back to its original location (AMS7-Hong Kong SkyCity Marriott Hotel) on 30 December 2015. The relocation of air quality monitoring location, AMS7A, back to AMS7 was approved by EPD on 21 December 2015.





#### Future Key Issues

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

- Bulk Excavation at WA1;
- Pile Cropping at WA1;
- Tie Beams at WA1;
- Pile Capping at WA1;
- Base Slab Construction at WA1;
- Waterproofing at WA1;
- Tower Crane Erection at WA1;
- Southern Drop off Area Pile Capping & Column at WA1;
- Column and Wall Construction at WA1;
- Suspended Slab Construction at WA1;
- Seawater Pump House Socket H-pile works at WA1;
- Marine Mud Treatment at WA1;
- Backfilling at WA1;
- Mega Column Construction at WA1;
- Bulk Excavation at Box Culvert at WA1;
- RC works at Box Culvert and CUE at WA1;
- Bored Pilling Works at Box Culvert at WA1;
- Cut Platform Construction at Box Culvert at WA1; and
- Formwork and falsework stripping at WA1.



Introduction

#### 1.1 Basic Project Information

- 1.1.1 This monthly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract HY/2013/01 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities Passenger Clearance Building (hereafter referred to as "the Contract") for the Highways Department of Hong Kong Special Administrative Region. The Contract was awarded to Leighton Chun Wo Joint Venture (hereafter referred to as "the Contractor") and Atkins China Limited was appointed as the Environmental Team (ET) by the Contractor.
- 1.1.2 The Contract is part of Hong Kong Zhuhai Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) which is a "Designated Project", under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499). An Environmental Impact Assessment (EIA) Report (Register No. AEIAR-145/2009) was prepared for the Project. The current Environmental Permit (EP) No. EP-353/2009/I for HKBCF was issued on 17 July 2015. These documents are available through the EIA Ordinance Register. Site preparation work of the Contract started on 26 September 2014 and the construction works of the Contract Appendix A.
- 1.1.3 The proposed works under this Contract comprise the following:
  - Construction of Passenger Clearance Building (PCB) including architectural and builders works, structural steel roof and reinforced concrete frames, basement, piled foundations, aluminium roof, curtain wall facades, building services and electrical and mechanical works;
  - Installation of district cooling system including seawater cooling intake pumping station, seawater intake and discharge water pipelines work; Installation of Chilled water cooling pipelines system, heat exchanger and chilled pumping system;
  - Construction of transport and associated facilities connecting to the PCB entailing the Emergency Vehicular Access, an at-grade mainland side drop-off area, an Hong Kong side elevated drop-off deck and 8 numbers of footbridge links;
  - Construction of a public toilet, 6 numbers of C&ED observation booths, a generator set building and a refuse storage & material recovery chamber;
  - Construction of a section of 70m common utilities enclosure and staff subway and civil provisions for associated electrical and mechanical works;
  - Construction of drainage, sewerage, fresh water & flushing water supply and utilities & service works;
  - Construction of civil provisions, including draw pits & ducting for Traffic Control and Surveillance System (TCSS) and Extra Low Voltage System (ELV);
  - Construction of box culvert A;
  - Construction of 2 numbers of vehicular bridge abutments at mainland side pickup area earthmound;
  - Construction of geotechnical works including top up the existing earth mound from +11.5mPD to the finished level as stated in the Contract, reinforced earth slope and fill slopes and special backdrop manhole at mainland side pick up area earthmound;
  - Landscape hardworks and softworks; and
  - Other works which are shown on the Drawings or specified in the Specification or which may be ordered in accordance with the Contract.
- 1.1.4 This is the fifteenth Monthly EM&A Report for the Contract which summarizes the audit findings of the EM&A programme during the reporting period from 1 December 2015 to 31 December 2015.





#### 1.2 Project Organisation

1.2.1 The project organization structure and lines of communication with respect to the on-site environmental management structure is shown in **Appendix B**. The key personnel contact names and numbers are summarized in **Table 1-1**.

#### Table 1-1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Engineer or Engineer's Representative (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Darrel Kingan	3958 7339	3468 2076
Environmental Project Office / Independent Environmental Checker (Ramboll Environ	Environmental Project Office Leader	Y. H. Hui	3465 2888	3465 2899
Hong Kong Limited)	Independent Environmental Checker	Raymond Dai	3465 2888	3465 2899
Contractor	Project Manager	Gary Wong	3973 0488	3621 0180
(Leighton – Chun Wo Joint Venture)	Environmental Officer	Donald Ip	6461 8635	3621 0180
Environmental Team (Atkins China Limited)	Environmental Team Leader	Sharifah Or	2972 1802	2890 6343
24 hours complaint hotline			3958 7300	

#### 1.3 Construction Programme

1.3.1 A copy of the Contractor's construction programme is provided in **Appendix C**.

#### 1.4 Construction Works Undertaken During the Reporting Period

- 1.4.1 A summary of the construction activities undertaken during this reporting period is shown below:
  - Bulk Excavation at WA1;
  - Pile Cropping at WA1;
  - Tie Beams at WA1;
  - Pile Capping at WA1;
  - Base Slab Construction at WA1;
  - Waterproofing at WA1;
  - Tower Crane Erection at WA1;
  - Southern Drop off Area Pile Capping & Column at WA1;
  - Column and Wall Construction at WA1;
  - Suspended Slab Construction at WA1;
  - Seawater Pump House Socket H-pile works at WA1;
  - Marine Mud Treatment at WA1;





- Backfilling at WA1;
- Mega Column Construction at WA1;
- Bulk Excavation at Box Culvert at WA1;
- RC works at Box Culvert at WA1;
- Bored Pilling Works at Box Culvert at WA1; and
- Cut Platform Construction at Box Culvert at WA1.



#### 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.
- 2.1.2 The permission to carry out impact air quality monitoring work at AMS7 (Hong Kong SkyCity Marriott Hotel) was not granted after 31 January 2015. The air quality monitoring location (AMS7) was relocated to a nearby air sensitive receiver, Chu Kong Air-Sea Union Transportation Co. Ltd, from 5 February 2015. The alternative location was approved by EPD on 5 February 2015. The baseline and action/limit level for air quality as derived from the baseline monitoring data recorded at Hong Kong SkyCity Marriott Hotel was adopted for the alternative air quality location.
- 2.1.3 The ET of the Contract or another ET of the HZMB project is required to conduct 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 Nos. HY/2010/02 and HY/2011/03. **Figure 2.1** shows the locations of the air monitoring stations.

	ID	Location Description	
AMS 6 <sup>(1)</sup> Dragonair/CNAC (Group) Building		Dragonair/CNAC (Group) Building	
	AMS 7A <sup>(1)</sup>	Chu Kong Air-Sea Union Transportation Co. Ltd. <sup>(2)</sup>	

 Table 2-1
 Construction Dust Monitoring Locations

Remark:

- (1) The ET of this Contract should conduct impact air quality monitoring at the AMS listed in the table as part of EM&A programme according to the latest notification from ENPO when the monitoring station(s) is/are no longer covered by another ET of the HZMB project.
- (2) The original monitoring location was at Hong Kong SkyCity Marriott Hotel (AMS7). As the permission to carry out air quality monitoring at Hong Kong SkyCity Marriott Hotel was not granted after 31 January 2015, the monitoring location was relocated to Chu Kong Air-Sea Union Transportation Co. Ltd. (AMS7A) from 5 February 2015 to 30 December 2015. The alternative monitoring location at Chu Kong Air-Sea Union Transportation Co. Ltd. was approved by EPD on 5 February 2015. However, AMS7A was relocated back to its original location (AMS7-Hong Kong SkyCity Marriott Hotel) on 30 December 2015. The relocation of air quality monitoring location, AMS7A, back to AMS7 was approved by EPD on 21 December 2015.

#### 2.2 Monitoring Requirements

- 2.2.1 The monitoring requirements, monitoring equipment, monitoring parameters, frequency and duration, monitoring methodology, monitoring schedule, meteorological information are detailed in the monthly EM&A Reports prepared for Contract Nos. HY/2010/02 and HY/2011/03.
- 2.2.2 The Action and Limit Levels for 1-hr TSP and 24-hr TSP are provided in **Table 2.2** and **Table 2.3**, respectively.

Monitoring Station	Action Level, µg/m <sup>3</sup>	Limit Level, µg/m³	
AMS 6 – Dragonair / CNAC (Group) Building (HKIA)	360		
AMS 7A - Chu Kong Air-Sea Union Transportation Co. Ltd.	370	500	

 Table 2-2
 Action and Limit Levels for 1-hour TSP





 Table 2-3
 Action and Limit Levels for 24-hour TSP

Monitoring Station	Action Level, µg/m <sup>3</sup>	Limit Level, µg/m³
AMS 6 – Dragonair / CNAC (Group) Building (HKIA)	173	
AMS 7A - Chu Kong Air-Sea Union Transportation Co. Ltd.	183	260

- 2.2.3 The event and action plan is provided in **Appendix D**.
- 2.2.4 If exceedance(s) at these station(s) 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 Nos. 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 AMS7A recorded by the ET of Contract No. HY/2010/02 during the reporting period.



#### 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 impact noise monitoring at NMS2 and NMS3B as part of EM&A programme if these noise monitoring stations are no longer covered under Contract No. HY/2010/02. **Figure 3.1** shows the locations of noise monitoring stations.

#### Table 3-1 Construction Noise Monitoring Locations

ID	Location Description
NMS2 <sup>(1)</sup>	Seaview Crescent
NMS3B <sup>(1)(2)</sup>	Site Boundary of Site Office Area at Works Area WA2

Remarks:

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

#### 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 Nos. 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

Parameter	Action Level	Limit Level	
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received	75 dB(A)*	

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.

\* Limit level is 70 dB(Å) for schools and 65 dB(Å) during school examination period.

- 3.2.3 The event and action plan is provided in **Appendix D**.
- 3.2.4 If exceedance(s) at these station(s) 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.

#### 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.





#### Environmental Site Inspection and Audit

#### 4.1 Site Inspection

- 4.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. During the reporting period, site inspections were carried out on 2, 9, 16, 23 and 30 December 2015.
- 4.1.2 Particular observations during the site inspections and corrective actions undertaken by the Contractor are described in **Table 4.1**.

Date of Audit	Observations	Actions Taken by Contractor / Recommendation	Date of Observations Closed	
25 Nov 2015	1. Rubbish was found along the pedestrian walkway and around the general refuse bins adjacent to the sub-contractor's container office.	1. Rubbish was cleared along the pedestrian walkway and around the general refuse bins adjacent to the sub-contractor's container office.	2 December 2015	
2 December 2015	1. Garbage was scattered on the ground.	1. The garbage was cleaned up on the ground.	9 December 2015	
9 December 2015	1. Construction waste and refuse were scattered on the ground.	1. The construction waste and refuse were cleaned up on the ground.	16 December 2015	
	2. No drain plug was provided for the tray which was used to store chemical drums.	<ol> <li>A drain plug was provided for the tray.</li> </ol>	16 December 2015	
16 December 2015 No particular environmental issue was recorded during the site inspection		Nil	Nil	
23 December 2015	<ol> <li>Chemical drums were not labelled in English and Chinese near Tower Crane TC6 at WA1.</li> </ol>	1.The chemical drums were labelled in English and Chinese near tower crane TC6 at WA1.	30 December 2015	
	2. A chemical container was found without drip tray in box culvert at WA1.	2. The chemical container was removed in box culvert at WA1.	30 December 2015	
30 December 2015 1. Refuse was scattered on the ground near a site office.		1. <i>The Contractor was recommended to</i> tidy up the site.	Follow-up actions undertaken by the Contractor will be inspected during the next site inspections.	

#### Table 4-1 Summary of Environmental Site Inspections

4.1.3 The Contractor has rectified observations as identified during environmental site inspections within this reporting month. The follow-up actions for observation issued for the last site inspection will be checked in the upcoming site inspection and reported in the next reporting period.





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

- 4.2.1 The Contractor registered as a chemical waste producer for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 4.2.2 Excavated marine sediment was generated and treated using cement solidification/stabilization (Cement S/S) techniques during the reporting period. Some treated marine sediment was left and stored on site during the reporting period and will be reused for Contract No. HY/2010/02.
- 4.2.3 The monthly summary of waste flow table is detailed in **Appendix E**.
- 4.2.4 The Contractor was reminded that chemical waste should be properly treated and stored temporarily in designated chemical waste storage areas on site in accordance with the Code of Practise on the Packaging, Labelling and Storage of Chemical Wastes.

#### 4.3 Environmental Licenses and Permits

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

#### 4.4 Implementation Status of Environmental Mitigation Measures

- 4.4.1 In response to the site audit findings, the Contractors carried out corrective actions.
- 4.4.2 The Contractor conducts watering on all exposed soil within the Contract site and associated works areas 8 times per day when construction activities are being undertaken.
- 4.4.3 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix G**. Most of the necessary mitigation measures were implemented properly.
- 4.5 Summary of Exceedance of the Environmental Quality Performance Limit
- 4.5.1 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.
- 4.5.2 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 4.5.3 There was no Action and Limit Level exceedance for noise recorded at NMS2 and NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 4.6 Summary of Complaints, Notification of Summons and Successful Prosecution
- 4.6.1 There were no complaints received in relation to the environmental impact during the reporting period. No notification of summons and prosecution was received during the reporting period.
- 4.6.2 Statistics on environmental complaints, notifications of summons and successful prosecutions are summarized in **Appendix H**.





5 Future Key Issues

#### 5.1 Construction Programme for the Coming Months

5.1.1 As informed by the Contractor, the major construction activities for January 2016 are summarized in **Table 5.1**.

Site Area	Description of Activities			
WA1	Bulk Excavation at WA1			
WA1	Pile Cropping at WA1			
WA1	Tie Beams at WA1			
WA1	Pile Capping at WA1			
WA1	Base Slab Construction at WA1			
WA1	Waterproofing at WA1			
WA1	Tower Crane Erection at WA1			
WA1	Southern Drop off Area Pile Capping & Column at WA1			
WA1	Column and Wall Construction at WA1			
WA1	Suspended Slab Construction at WA1			
WA1	Seawater Pump House Socket H-pile works at WA1			
WA1	Marine Mud Treatment at WA1			
WA1	Backfilling at WA1			
WA1	Mega Column Construction (WA1)			
WA1	Bulk Excavation at Box Culvert (WA1)			
WA1	RC works at Box Culvert (WA1)			
WA1	Bored Pilling Works at Box Culvert (WA1)			
WA1	Cut Platform Construction at Box Culvert (WA1)			
WA1	Formwork and falsework stripping (WA1)			

5.2 Environmental Site Inspection Schedule for the Coming Month

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



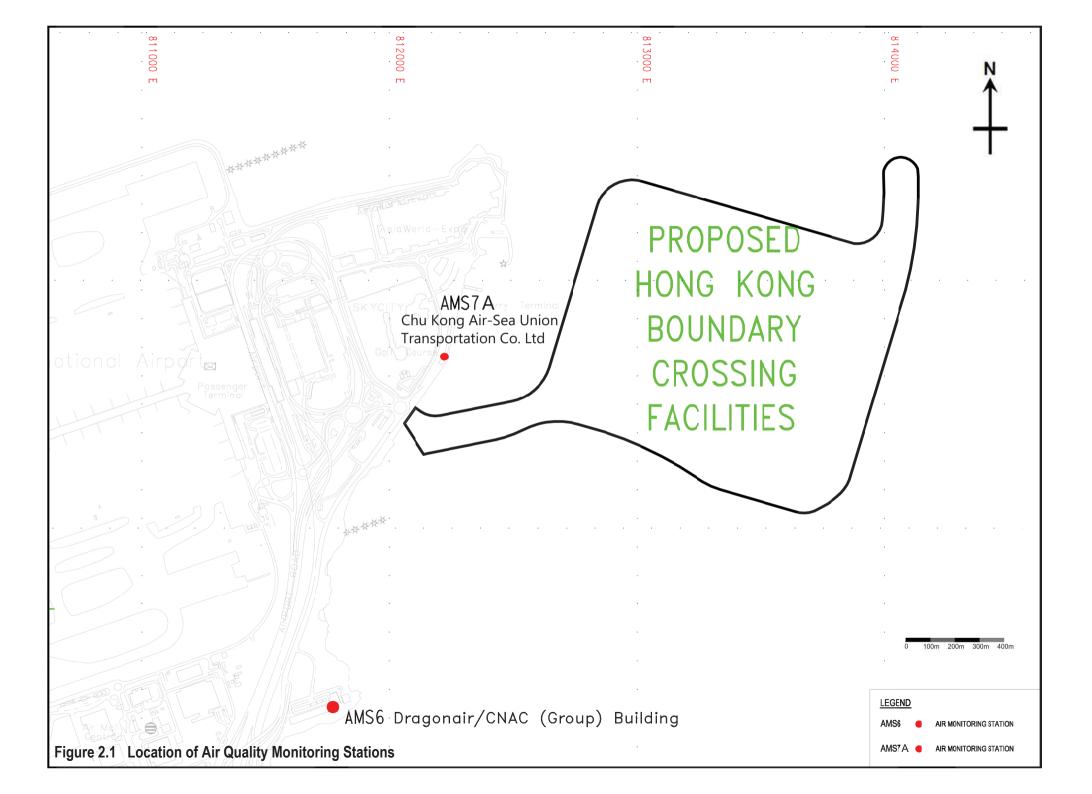
#### 6 Conclusions

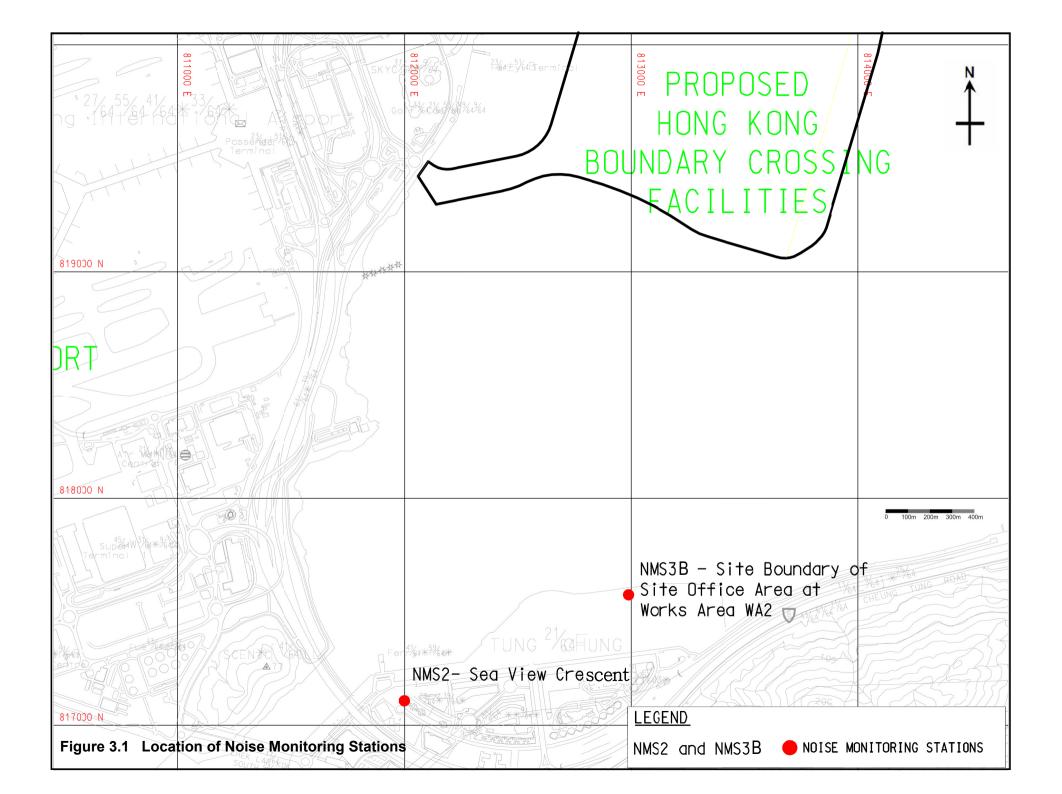
#### 6.1 Conclusions

- 6.1.1 The site preparation work of the Contract started on 26 September 2014 and the construction works of the Contract commenced on 6 October 2014. The fifteenth Monthly EM&A Report summarizes findings of the EM&A works during the reporting period from 1 December 2015 to 31 December 2015.
- 6.1.2 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.
- 6.1.3 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 6.1.4 There was no Action and Limit Level exceedance for noise recorded at NMS2 and NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 6.1.5 An environmental site inspection was carried out on 2, 9, 16, 23 and 30 December 2015. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.
- 6.1.6 There were no complaints received in relation to the environmental impact during the reporting period.
- 6.1.7 No notification of summons and successful prosecution was received during the reporting period.



# **FIGURES**

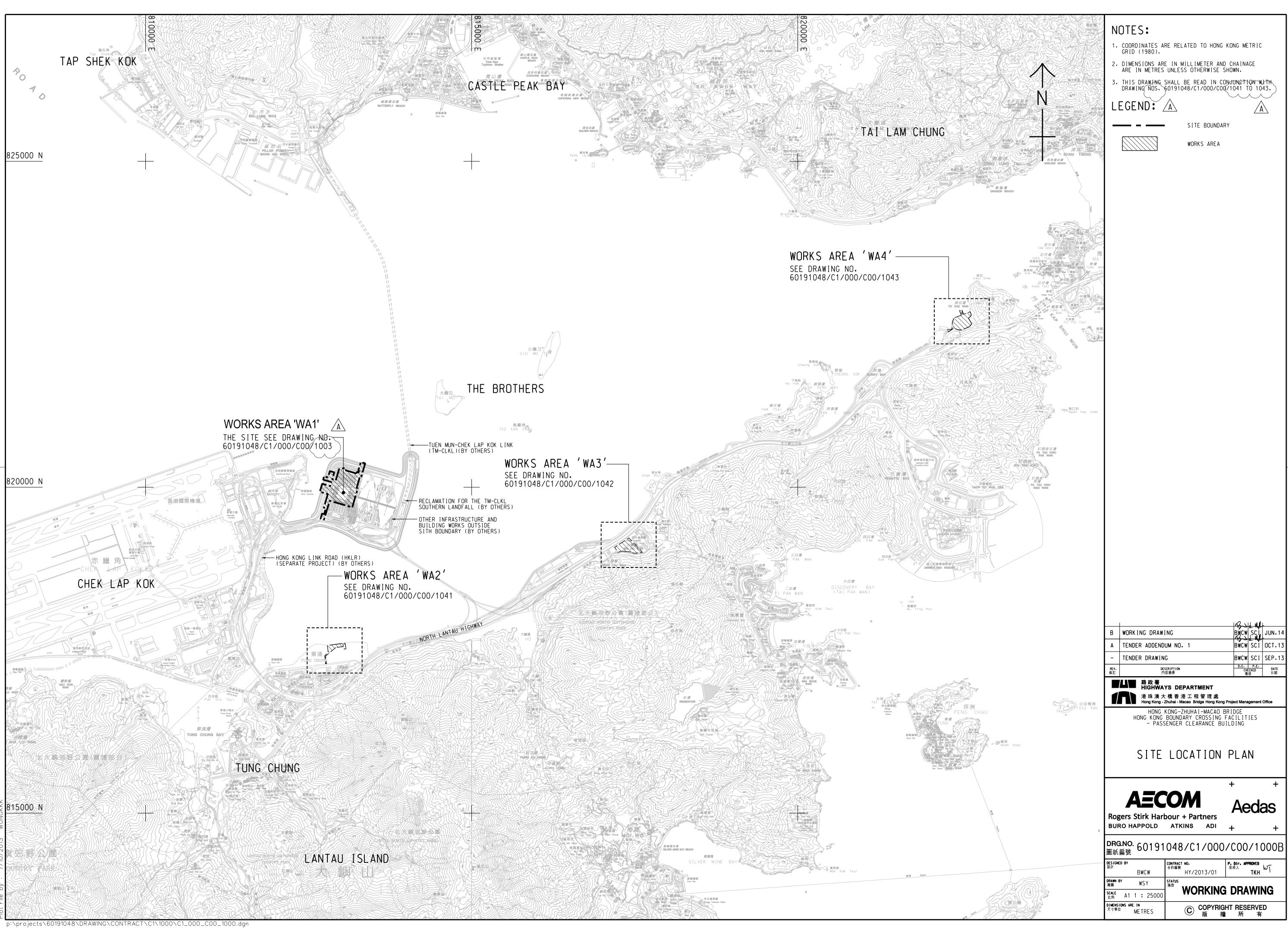


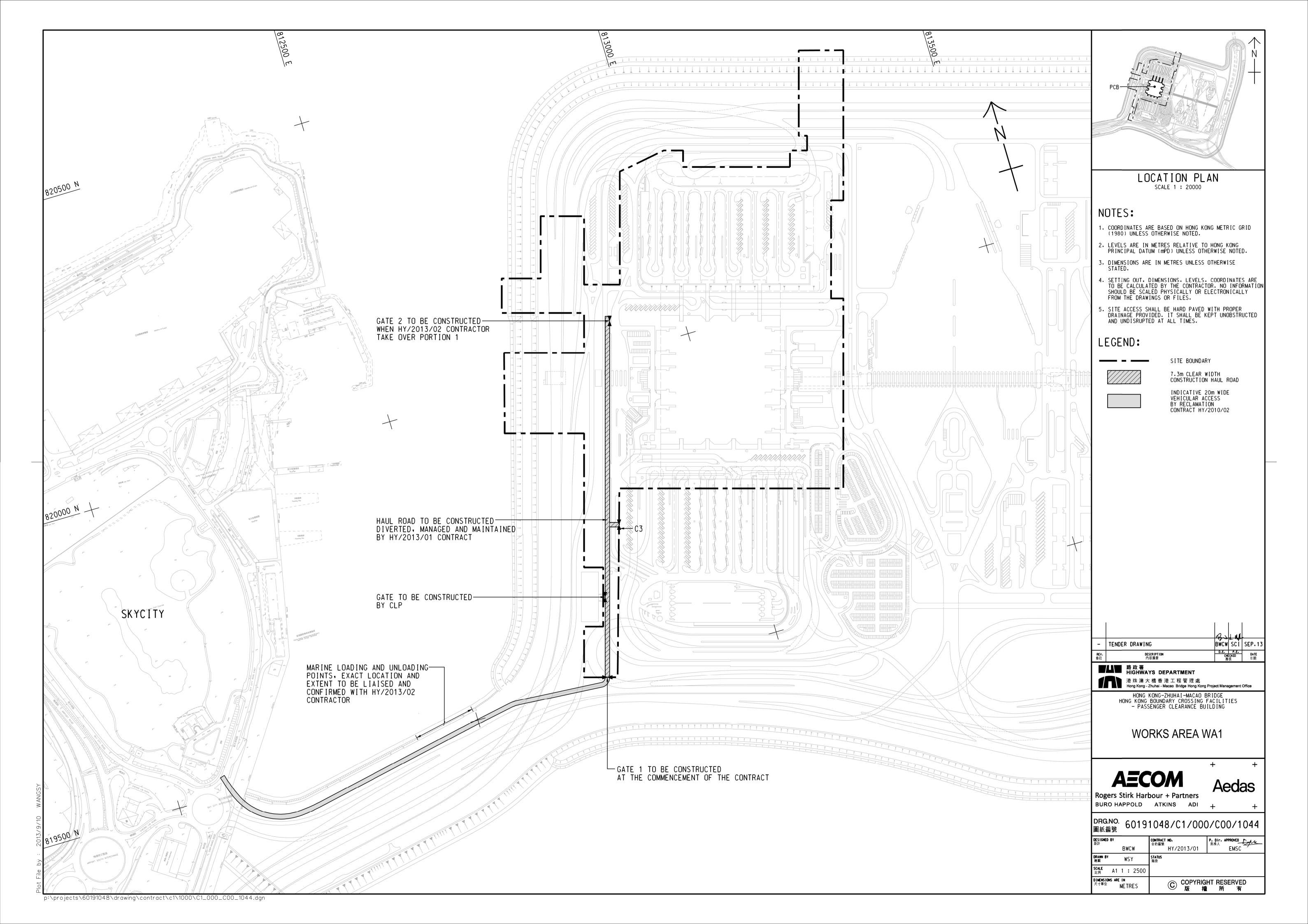


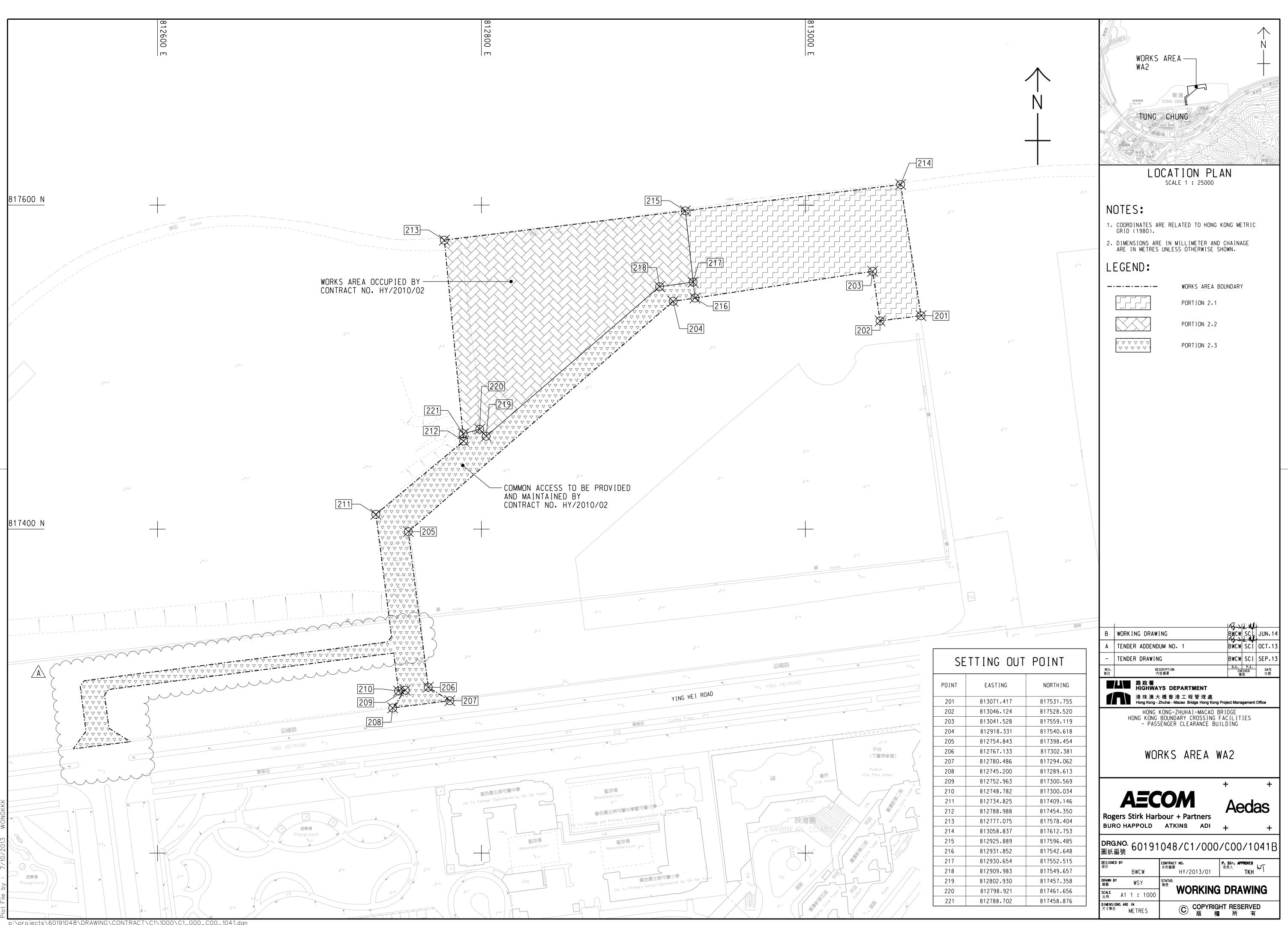




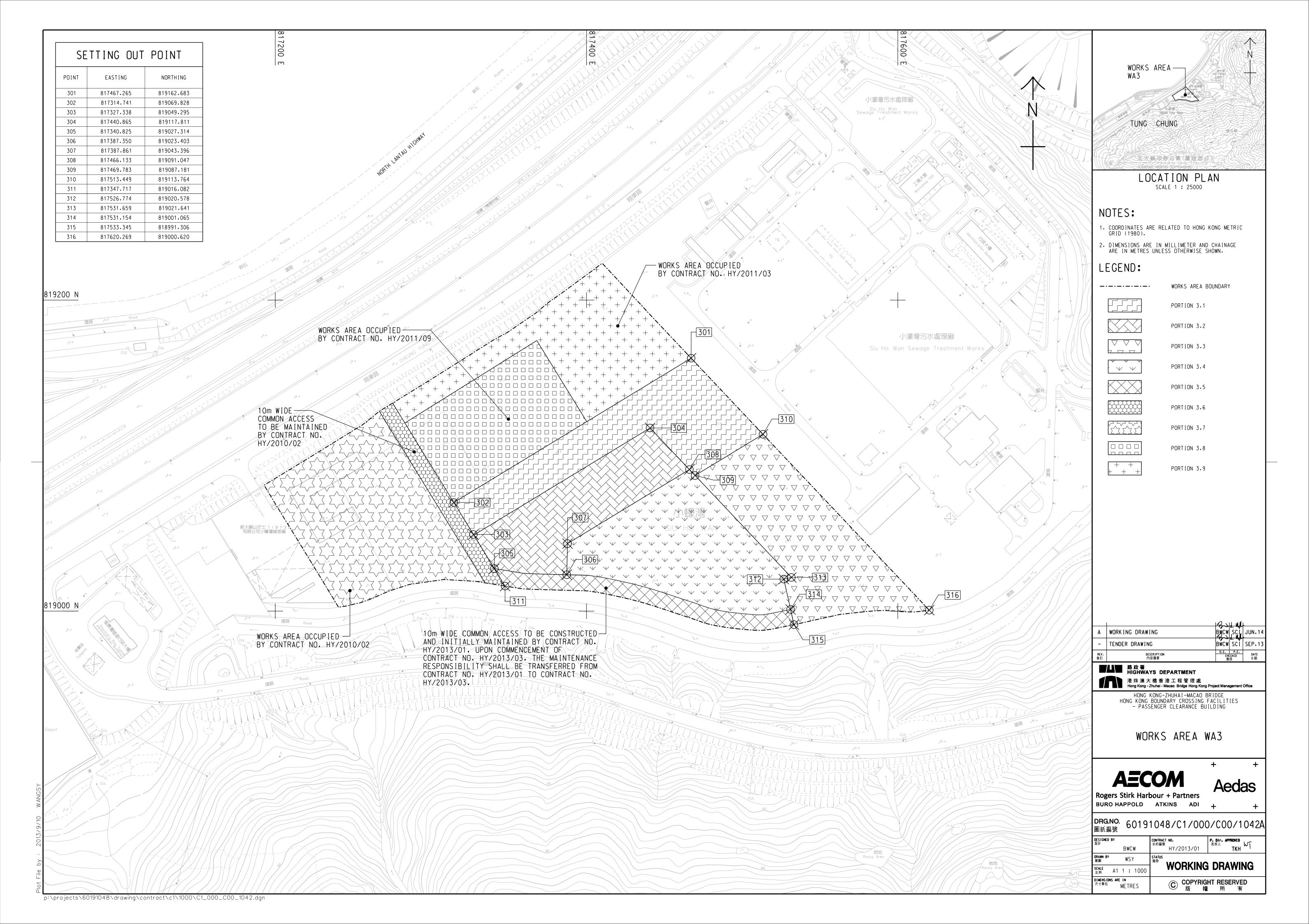
Location of Works Areas

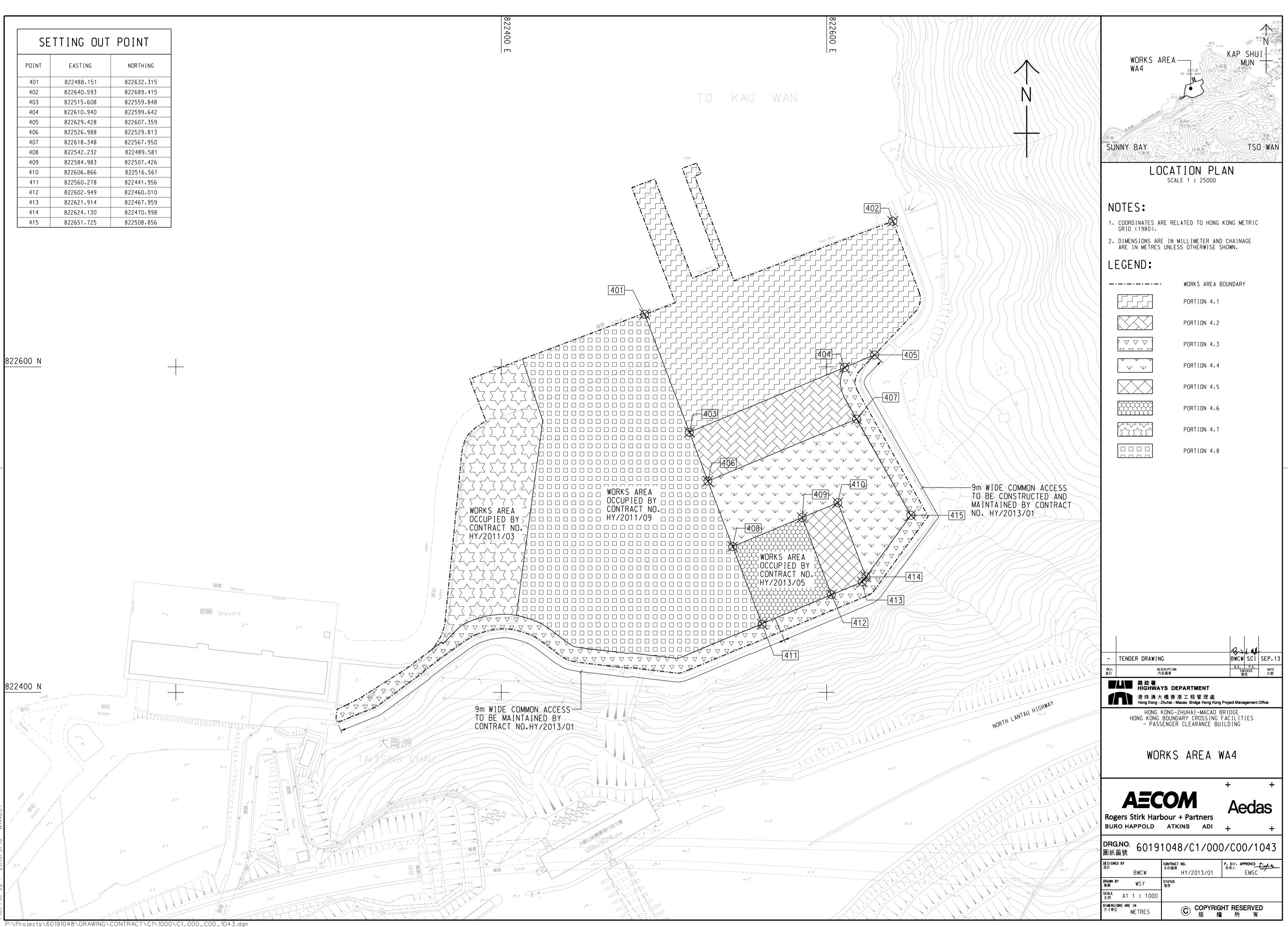






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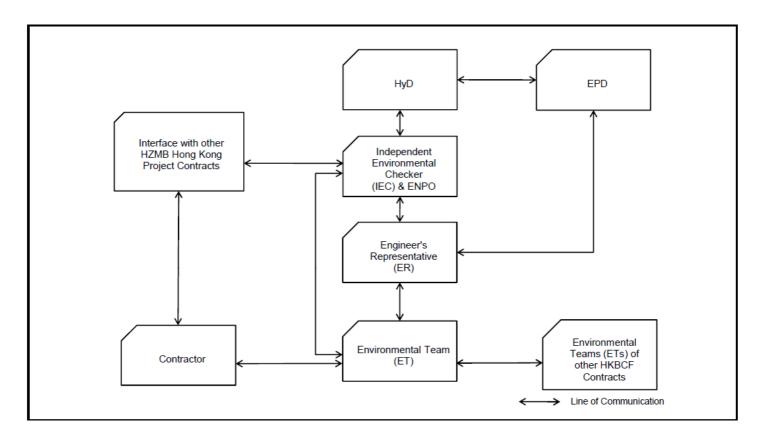
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# **APPENDIX B**

Project Organization for Environmental Works









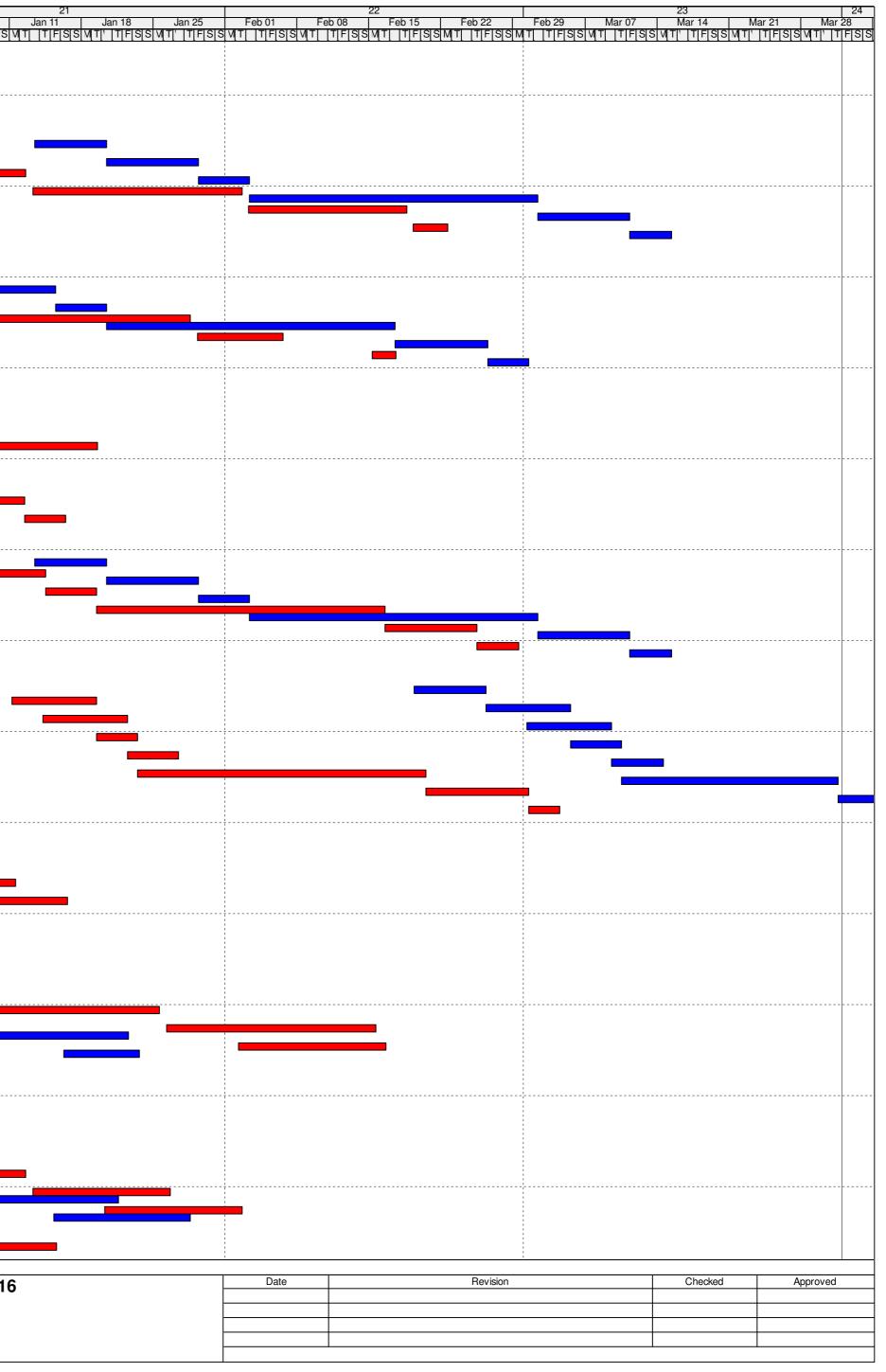
**Construction Programme** 

D Activity Name	Original Duration	Forecast Start	Forecast Finish	20 30 Dec 07 Dec 14 Dec 21 Dec 28 Jan 04 FSISMTT TFSISMTT TFISISMTT TFISISMTT TFISISM
/2013/01 HKZMB HKBCF - PCB - 3MRP - November	175	03-Aug-15 A	25-Apr-16	
DNSTRUCTION	175	03-Aug-15 A	25-Apr-16	
assenger Clearance Building	152	13-Oct-15 A	25-Apr-16	
arthwork	89	30-Nov-15 A	06-Apr-16	
Ilk Excavation (to -3.845 -1.495mPD)	89	30-Nov-15 A	06-Apr-16	
outh - 161230m <sup>3</sup> /est - 86,369m <sup>3</sup>	37 37	30-Nov-15 A 30-Nov-15 A	02-Jan-16 A 02-Jan-16 A	
NO	24	30-Nov-15 A	12-Dec-15 A	
PCB-02-29330 PCB - Excavation for Basement Zone A2	12	30-Nov-15 A	12-Dec-15 A	
CB-02-29340 PCB - Excavation for Basement Zone A3	12	08-Dec-15 A	12-Dec-15 A	
B-02-29360 PCB - Excavation for Basement Zone B2	13 12	11-Dec-15 A 11-Dec-15 A	02-Jan-16 A 02-Jan-16 A	
CB-02-29370 PCB - Excavation for Basement Zone B3	12	22-Dec-15 A	02-Jan-16 A	
tre - 120,090m <sup>3</sup>	44	19-Jan-16	17-Mar-16	
tre - 120,090m³           B-02-29500         PCB - Excavation for Basement (20,015m³) Zone C3 EAST	44 12	19-Jan-16 19-Jan-16	17-Mar-16 02-Feb-16	
B-02-31570 PCB - Excavation for Basement (20,015m <sup>3</sup> ) Zone C3 WEST	12	03-Mar-16	17-Mar-16	
h - 94,824m³	89	11-Dec-15 A	06-Apr-16	
st - 47,412m <sup>3</sup>	56	11-Dec-15 A	26-Feb-16	
CB-02-31580PCB - Excavation for Basement (23,706m³) Zone E3 EastCB-02-29650PCB - Excavation for Basement (23,706m³) Zone E3 West	14	11-Dec-15 A 04-Feb-16	05-Jan-16 26-Feb-16	
est - 47,412m <sup>3</sup>	60	19-Jan-16	06-Apr-16	
PCB-02-31590 PCB - Excavation for Basement (23,706m <sup>3</sup> ) Zone W3 Stage A	14	19-Jan-16	04-Feb-16	
PCB-02-29740 PCB - Excavation for Basement (23,706m <sup>3</sup> ) Zone W3 Stage B	14	19-Mar-16	06-Apr-16	
Caps and Tie Beam Construction	152	13-Oct-15 A	25-Apr-16	
ement Tie Beams & Pile Caps le E1	152 36	13-Oct-15 A 02-Nov-15 A	25-Apr-16	
4	24	28-Nov-15 A	24-Dec-15 A	
-02-32050 BS04 Double Slab	11	01-Dec-15 A	15-Dec-15 A	
PCB - Basement Ext Walls BS04 West	6	28-Nov-15 A	15-Dec-15 A	
B-02-32270 PCB - Backfill behind Basement Ext Walls BS04 South	6 36	19-Dec-15 A 02-Nov-15 A	24-Dec-15 A 17-Dec-15 A	
3-02-32070 BS06 Double Slab Walls	4	02-Dec-15 A	12-Dec-15 A	
02-32080 BS06 Double Slab	4	07-Dec-15 A	12-Dec-15 A	
2-32260 PCB - Basement Ext Walls BS06 West	6	07-Dec-15 A	15-Dec-15 A	
02-32060 Columns above BS06 E2	9 75	02-Nov-15 A 13-Oct-15 A	17-Dec-15 A 18-Jan-16	
E2	74	13-Oct-15 A	16-Jan-16	
3-02-32110 BS11 Double Slab	4	01-Dec-15 A	08-Dec-15 A	
CB-02-32090 Columns above BS11	6	13-Oct-15 A	04-Jan-16	
B-02-23070 PCB - Basement Ext Walls BS11	12 19	04-Jan-16 01-Dec-15 A	16-Jan-16 18-Jan-16	
CB-02-32120 Columns above BS12	7	01-Dec-15 A	08-Jan-16	
CB-02-32130 BS12 Double Slab Walls	4	09-Jan-16	13-Jan-16	
CB-02-23080 PCB - Basement Ext Walls BS12	12	04-Jan-16	16-Jan-16	
B-02-32140 BS12 Double Slab	4	14-Jan-16 01-Dec-15 A	18-Jan-16 06-Jan-16	
10     CB-02-32160   BS10 Double Slab Walls	4	07-Dec-15 A	12-Dec-15 A	
CB-02-32170 BS10 Double Slab	4	07-Dec-15 A	12-Dec-15 A	
CB-02-23060 PCB - Basement Ext Walls BS10	12	02-Dec-15 A	28-Dec-15 A	
B-02-32150 Columns above BS10	10 52	01-Dec-15 A 07-Dec-15 A	06-Jan-16 22-Feb-16	
ne W1 502	27	07-Dec-15 A 07-Dec-15 A	16-Jan-16	
CB-02-32220 Columns above BS02	6	07-Dec-15 A	06-Jan-16	
B-02-21770 PCB - Basement Ext Walls to BS02	12	04-Jan-16	16-Jan-16	
D3 Stage 1 CB-02-32310 Excavation to BF03 Stage 1	23	07-Dec-15 A 07-Dec-15 A	12-Jan-16	
B-02-32310     Excavation to BF03 Stage 1       B-02-29420     Pile Cropping to BF03 Stage 1	6	10-Dec-15 A	16-Dec-15 A 17-Dec-15 A	
CB-02-29430     Pile Caps & Tie Beams to BF03 Stage 1	8	23-Dec-15 A	07-Jan-16	
CB-02-29450 Backfilling to Tie Beams to BF03 Stage 1	4	08-Jan-16	12-Jan-16	
F01 Stage 1	19	07-Dec-15 A	07-Jan-16	
CB-02-29380 Pile Cropping to BF01 Stage 1	6	07-Dec-15 A	10-Dec-15 A	
Actual Work				3MRP - Progress to 04-Jan-1
<ul> <li>3MRP BAR</li> <li>Actual Work</li> <li>Remaining Work</li> <li>Critical Remaining Work</li> <li>Milestone</li> </ul>				<b>3MRP - Progre</b> Pag

					08-Jan-16 17:02
21		22		23	24
Jan 11   Jan 18   Jan 25 MT  T  F S S M T ' T  F S S M T ' T  F S S	Feb 01 Fe MT  TFSSMT	eb 08	Feb 29 Mar 07 SMT TFSSVT TFS	Mar 14 M S VI[T]'  T]F[S S M[T]'	24 1ar 21   Mar 28  T F S S V T '  T F S S
<b>_</b>					
_					
6	Date	Revisio	n	Checked	Approved

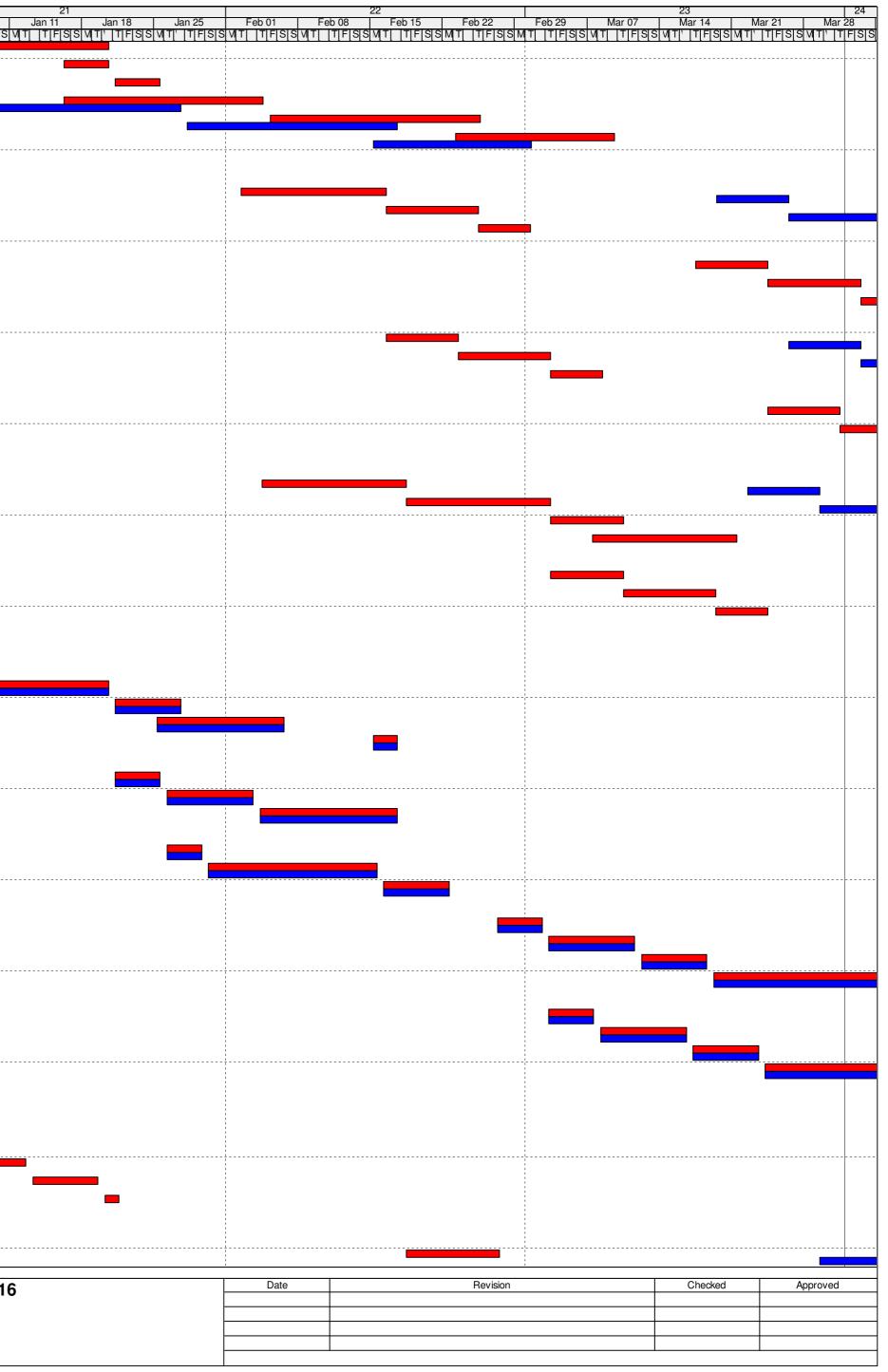
	Activity Name	Original Duration	Forecast Start	Forecast Finish	20 30 Dec 07 Dec 14 Dec 21 Dec 28 Jan 04 51 Dec 14 Jan 1
PCB-02-29390	Pile Caps & Tie Beams to BF01a Stage 1	8	10-Dec-15 A	27-Dec-15 A	
PCB-02-32810	Pile Caps & Tie Beams to BF01b Stage 1	8	10-Dec-15 A	31-Dec-15 A	
PCB-02-29410	Backfilling to Tie Beams to BF01a Stage 1	4	04-Jan-16	07-Jan-16	
PCB-02-32820	Backfilling to Tie Beams to BF01b Stage 1	4	04-Jan-16	07-Jan-16	
BF03 Stage 2		38	14-Dec-15 A	22-Feb-16	
PCB-02-31610	Pile Cropping to BF03 Stage 2	6	14-Dec-15 A	18-Dec-15 A	
PCB-02-31700	Pile Caps & Tie Beams to BF03 Stage 2	8	23-Dec-15 A	07-Jan-16	
	Backfilling to Tie Beams to BF03 Stage 2	4	08-Jan-16	12-Jan-16	
	PCB - Base Slab (GL0.2 to 1.2) H - 336m <sup>3</sup> Pour BS03	18	13-Jan-16	02-Feb-16	
	PCB - Basement Ext Walls to BS03 (Rqd for BS25)	8	03-Feb-16	18-Feb-16	
	PCB - Backfilling to Ground Level at Basement Ext Walls BS03	3	19-Feb-16	22-Feb-16	
BF01 Stage 2		48	12-Dec-15 A	17-Feb-16	
	Pile Cropping to BF01c & d Stage 2	6	12-Dec-15 A	17-Dec-15 A	
	Pile Caps & Tie Beams to BF01 Stage 2	8	15-Dec-15 A	31-Dec-15 A	
	Backfilling to Tie Beams to BF01 Stage 2 PCB - Base Slab (GL4.2 to 5.2) H - 301m <sup>3</sup> Pour BS01	4	04-Jan-16	07-Jan-16 28-Jan-16	
	PCB - Base Slab (GL4.2 to 5.2) H - 30 m Pour BS01 PCB - Basement Ext Walls to BS01 (Rgd for BS25)	18	08-Jan-16 29-Jan-16	06-Feb-16	
	PCB - Backfilling to Ground Level at Basement Ext Walls BS01	8	15-Feb-16	17-Feb-16	
	FCB - Backlinning to Ground Leveral basement Ext waits BS01	73	25-Nov-15 A	04-Mar-16	
Zone W2 BS08		40	25-Nov-15 A	19-Jan-16	
	Pile Caps & Tie Beams to BF08 Mega Pile Cap Gridline E-F West	12	25-Nov-15 A	04-Dec-15 A	
	Columns above BS08	6	23-100-15 A 24-Dec-15 A	04-Dec-15 A 08-Jan-16	
	PCB - Basement Ext Walls to BS08	12	06-Jan-16	19-Jan-16	
BF09 Stage 1		21	14-Dec-15 A	16-Jan-16	
-	Pile Cropping to BF09 Stage 1	6	14-Dec-15 A	17-Dec-15 A	
	Pile Caps & Tie Beams to BF09 Stage 1	8	04-Jan-16	12-Jan-16	
	Backfilling to Tie Beams to BF09 Stage 1	4	12-Jan-16	16-Jan-16	
BF09 Stage 2		44	15-Dec-15 A	29-Feb-16	
-	Pile Cropping to BF09 Stage 2	6	15-Dec-15 A	05-Jan-16	
PCB-02-31720	Pile Caps & Tie Beams to BF09 Stage 2	8	06-Jan-16	14-Jan-16	
PCB-02-31890	Backfilling to Tie Beams to BF09 Stage 2	4	14-Jan-16	19-Jan-16	
PCB-02-21810	PCB - Base Slab Pour BS09 Stage 2	18	19-Jan-16	16-Feb-16	
PCB-02-22910	PCB - Basement Ext Walls BS09	8	16-Feb-16	25-Feb-16	
PCB-02-23270	PCB - Backfilling to Ground Level at Basement Ext Walls BS09	3	25-Feb-16	29-Feb-16	
BS07		47	04-Jan-16	04-Mar-16	
PCB-02-32470	Pile Cropping to BF07	6	04-Jan-16	09-Jan-16	
PCB-02-32480	Pile Caps & Tie Beams to BF07a	8	11-Jan-16	19-Jan-16	
PCB-02-32830	Pile Caps & Tie Beams to BF07b	8	14-Jan-16	22-Jan-16	
PCB-02-32490	Backfilling to Tie Beams to BF07a	4	19-Jan-16	23-Jan-16	
	Backfilling to Tie Beams to BF07b	4	22-Jan-16	27-Jan-16	
	PCB - Base Slab Pour BS07	18	23-Jan-16	20-Feb-16	
	PCB - Basement Ext Walls to BS07	8	20-Feb-16	01-Mar-16	
	PCB - Backfilling to Ground Level at Basement Ext Walls BS07	3	01-Mar-16	04-Mar-16	
Zone C1		47	30-Nov-15 A	16-Feb-16	
BS17		29	30-Nov-15 A	16-Jan-16	
	PCB - Base Slab (GL3.2 to 4.2) F-E.5 - 522m <sup>3</sup> Pour BS17	17	30-Nov-15 A	05-Dec-15 A	
	Columns above BS17	8	21-Dec-15 A	11-Jan-16	
	PCB - Basement Ext Walls BS17 (Rqd for BS26)	12	04-Jan-16	16-Jan-16	
BS18 PCB-02-22530	Pile Caps & Tie Beams to BF18a	47	03-Dec-15 A 03-Dec-15 A	16-Feb-16 16-Dec-15 A	
	Pile Caps & Tie Beams to BF18b	10	10-Dec-15 A	17-Dec-15 A	
	Backfilling to Tie Beams to BF18a	4	21-Dec-15 A	05-Jan-16	
	Backfilling to Tie Beams to BF18b	4	21-Dec-15 A	05-Jan-16	
	PCB - Base Slab (GL1.2 to 2.2) F-E.5 - 561m <sup>3</sup> Pour BS18	17	06-Jan-16	25-Jan-16	
	PCB - Basement Ext Walls BS18	17	26-Jan-16	15-Feb-16	
	Columns above BS18	7	02-Feb-16	16-Feb-16	
Zone C2		78	27-Nov-15 A	09-Mar-16	
BS15		53	27-Nov-15 A	02-Feb-16	
	Backfilling to Tie Beams to BF15a	4	27-Nov-15 A	14-Dec-15 A	
	Backfilling to Tie Beams to BF15b	4	27-Nov-15 A	14-Dec-15 A	
	Pile Caps & Tie Beams to BF15c	14	27-Nov-15 A	26-Dec-15 A	
	Backfilling to Tie Beams to BF15c	4	04-Jan-16	07-Jan-16	
	PCB - Base Slab (GL3.2 to 4.2) G-F - 538m <sup>3</sup> Pour BS15	17	14-Dec-15 A	12-Jan-16	
	PCB - Basement Ext Walls BS15 (Rqd for BS27)	12	13-Jan-16	26-Jan-16	
	Columns above BS15	12	20-Jan-16	02-Feb-16	
PCB-02-23020			-		
PCB-02-23020		56	16-Dec-15 A	09-Mar-16	
PCB-02-23020 PCB-02-32200 BS16	Pile Caps & Tie Beams to BF16a	56 14	16-Dec-15 A 28-Dec-15 A	09-Mar-16 15-Jan-16*	

Critical Remaining Work ♦ ♦ Milestone



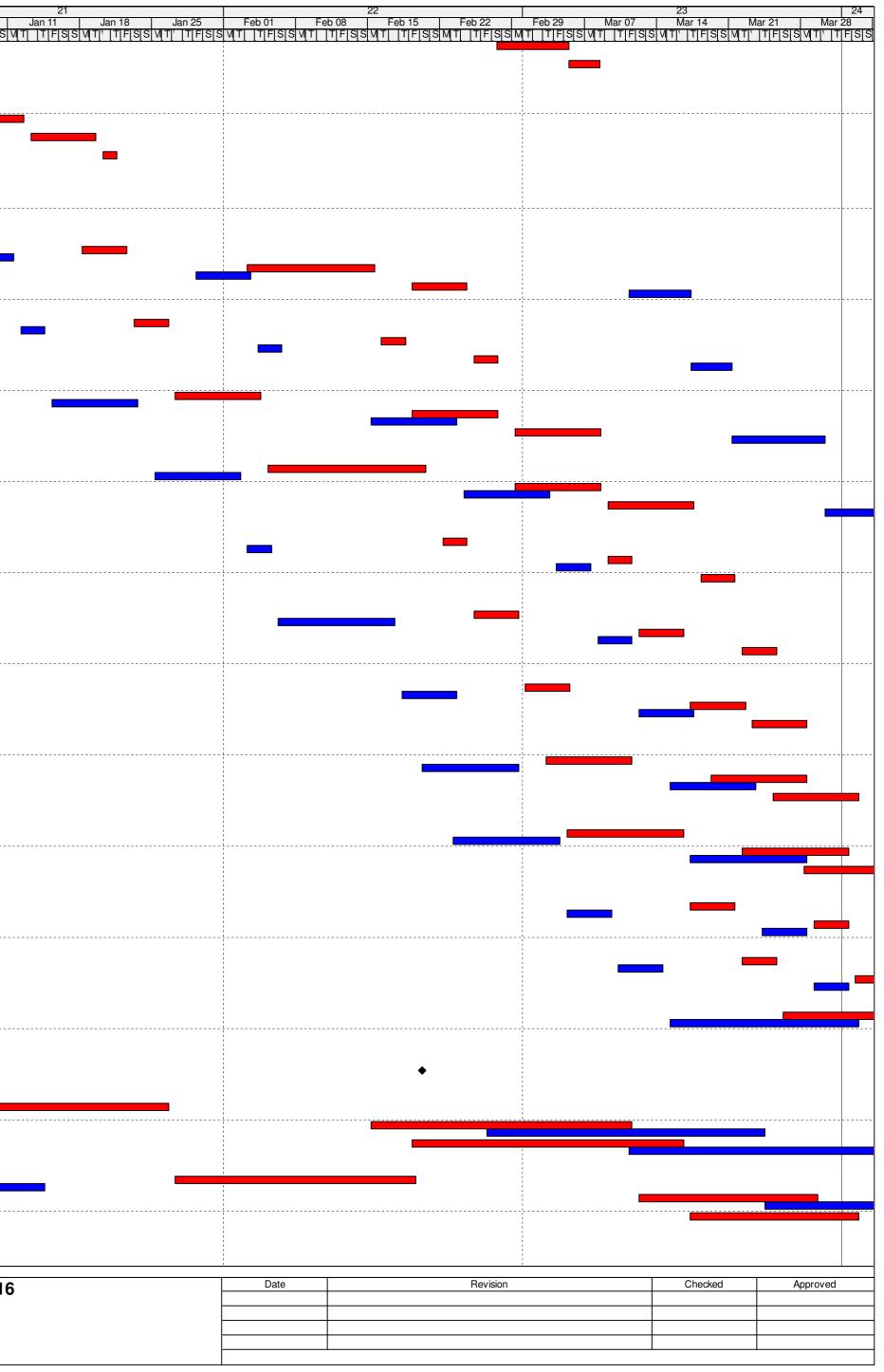
ID	Activity Name	Original Duration	Forecast Start	Forecast Finish	20 30 Dec 07 Dec 14 Dec 21 Dec 28 Jan 04
PCB-02-32780	Pile Caps & Tie Beams to BF16b	14	16-Dec-15 A	20-Jan-16	
PCB-02-32790	Backfilling to Tie Beams to BF16a	4	16-Jan-16	20-Jan-16	
PCB-02-32800	Backfilling to Tie Beams to BF16b	4	21-Jan-16	25-Jan-16	
	PCB - Base Slab (GL4.2 to 5.2) F-E.5 - 565m <sup>3</sup> Pour BS16	17	16-Jan-16	04-Feb-16	
	PCB - Basement Ext Walls BS16	12	05-Feb-16	25-Feb-16	
	Columns above BS16	14	23-Feb-16	09-Mar-16	
ne C3 F13 Stage 1		64	02-Feb-16 02-Feb-16	25-Apr-16 01-Mar-16	
	Pile Cropping to BF13 Stage 1	18 6	02-Feb-16 02-Feb-16	16-Feb-16	
	Pile Caps & Tie Beams to BF13 Stage 1	8	16-Feb-16	25-Feb-16	
	Backfilling to Tie Beams to BF13 Stage 1	4	25-Feb-16	01-Mar-16	
13 Stage 2		32	17-Mar-16	25-Apr-16	
-	Pile Cropping to BF13 Stage 2	6	17-Mar-16	24-Mar-16	
CB-02-31730	Pile Caps & Tie Beams to BF13 Stage 2	8	24-Mar-16	02-Apr-16	
CB-02-21780	PCB - Base Slab (GL2.2 to 3.2) G-F - 547m <sup>3</sup> Pour BS13	18	02-Apr-16	25-Apr-16	
14 Stage 1		18	16-Feb-16	08-Mar-16	
CB-02-32590	Pile Cropping to BF14 Stage 1	6	16-Feb-16	23-Feb-16	
CB-02-29560	Pile Caps & Tie Beams to BF14 Stage 1	8	23-Feb-16	03-Mar-16	
CB-02-32620	Backfilling to Tie Beams to BF14 Stage 1	4	03-Mar-16	08-Mar-16	
F14 Stage 2		14	24-Mar-16	11-Apr-16	
PCB-02-32600	Pile Cropping to BF14 Stage 2	6	24-Mar-16	31-Mar-16	
PCB-02-31740	Pile Caps & Tie Beams to BF14 Stage 2	8	31-Mar-16	11-Apr-16	
ne W3		36	04-Feb-16	24-Mar-16	
S20		33	04-Feb-16	21-Mar-16	
	Pile Cropping to BF20	6	04-Feb-16	18-Feb-16	
	Pile Caps & Tie Beams to BF20 Mega Pile Cap Gridline C-D West	12	18-Feb-16	03-Mar-16	
	Columns above BS20	6	03-Mar-16	10-Mar-16	
	PCB - Basement Ext Walls to BS20	12	07-Mar-16	21-Mar-16	
F21 Stage 1		18	03-Mar-16	24-Mar-16	
	Pile Cropping to BF21 Stage 1	6	03-Mar-16	10-Mar-16	
	Pile Caps & Tie Beams to BF21 Stage 1	8	10-Mar-16	19-Mar-16	
	Backfilling to Tie Beams to BF21 Stage 1	4	19-Mar-16 02-Jan-16 A	24-Mar-16	
one E3 S23		79 31	02-Jan-16 A	14-Apr-16 17-Feb-16	
	Pile Cropping to BF23 Mega Pile Cap	4	02-Jan-16 A	06-Jan-16	
	Pile Caps & Tie Beams to BF02 Mega Pile Cap and Base Slab Gridline H-G W	12	02-Jan-16 A	20-Jan-16	
	Columns above BS02	6	21-Jan-16	27-Jan-16	
	PCB - Basement Ext Walls to BS02	12	25-Jan-16	06-Feb-16	
	PCB - Backfilling to Ground Level at Basement Ext Walls BS23	3	15-Feb-16	17-Feb-16	
22 Stage 1		18	21-Jan-16	17-Feb-16	
	Pile Cropping to BF22 Mega Pile Cap Stage 1	4	21-Jan-16	25-Jan-16	
PCB-02-29680	Pile Caps & Tie Beams to BF22 Stage 1	8	26-Jan-16	03-Feb-16	
PCB-02-32430	Waterproofing and Backfilling to Tie Beams to BF09 Stage 1	6	04-Feb-16	17-Feb-16	
BS24 Stage 1		18	26-Jan-16	22-Feb-16	
PCB-02-32400	Pile Cropping to BF24 Mega Pile Cap Stage 1	4	26-Jan-16	29-Jan-16	
PCB-02-29690	Pile Caps & Tie Beams to BF24 Stage 1	8	30-Jan-16	15-Feb-16	
PCB-02-32440	Waterproofing and Backfilling to Tie Beams to BF09 Stage 1	6	16-Feb-16	22-Feb-16	
S22 Stage 2		36	27-Feb-16	09-Apr-16	
PCB-02-32420	Pile Cropping to BF22 Mega Pile Cap Stage 2	4	27-Feb-16	02-Mar-16	
	Pile Caps & Tie Beams to BF22 Stage 2	8	03-Mar-16	11-Mar-16	
	Waterproofing and Backfilling to Tie Beams to BF09 Stage 1	6	12-Mar-16	18-Mar-16	
	PCB - Base Slab (GL4.2 to 5.2) D.5-C.5 - 508m <sup>3</sup> Pour BS22	18	19-Mar-16	09-Apr-16	
BS24 Stage 2		36	03-Mar-16	14-Apr-16	
	Pile Cropping to BF24 Mega Pile Cap Stage 2	4	03-Mar-16	07-Mar-16	
	Pile Caps & Tie Beams to BF24 Stage 2	8	08-Mar-16	16-Mar-16	
	Waterproofing and Backfilling to Tie Beams to BF09 Stage 1	6	17-Mar-16	23-Mar-16	
	PCB - Base Slab (GLGL0.2 to 1.2) C.5-B.5 - 508m <sup>3</sup> Pour BS24	18	24-Mar-16	14-Apr-16	
ower Cranes	;	65	30-Nov-15 A	08-Mar-16	
ower Crane No.	.5 - SOUTH MIDDLE	6	30-Nov-15 A	10-Dec-15 A	
	PCB(A1) - Erect Tower Crane TC5	6	30-Nov-15 A	10-Dec-15 A	
	.2 - NORTH MIDDLE	16 8	04-Jan-16	21-Jan-16	
Tower Crane No.	PCP(A1) Construct Toward Crops Factors TOO		04-Jan-16	12-Jan-16	
Fower Crane No. PCB-02-22160	PCB(A1) - Construct Tower Crane Footings TC2 PCB(A1) - Erect Tower Crane TC2			10. lon 10	<i>\////////////////////////////////////</i>
Fower Crane No. PCB-02-22160 PCB-02-22170	PCB(A1) - Erect Tower Crane TC2	6	13-Jan-16	19-Jan-16	
Tower Crane No.           PCB-02-22160           PCB-02-22170           PCB-02-22180	PCB(A1) - Erect Tower Crane TC2 PCB(A1) - Dismantle Tower Crane TC2	6 2	13-Jan-16 20-Jan-16	21-Jan-16	
Fower Crane No.           PCB-02-22160           PCB-02-22170           PCB-02-22180           PCB-02-22190	PCB(A1) - Erect Tower Crane TC2 PCB(A1) - Dismantle Tower Crane TC2 PCB(A1) - Tower Crane in Use TC2	6 2 8	13-Jan-16 20-Jan-16 13-Jan-16	21-Jan-16 21-Jan-16	
Fower Crane No.           PCB-02-22160           PCB-02-22170           PCB-02-22180           PCB-02-22190           Fower Crane No.	PCB(A1) - Erect Tower Crane TC2 PCB(A1) - Dismantle Tower Crane TC2	6 2	13-Jan-16 20-Jan-16	21-Jan-16	

♦ ♦ Milestone

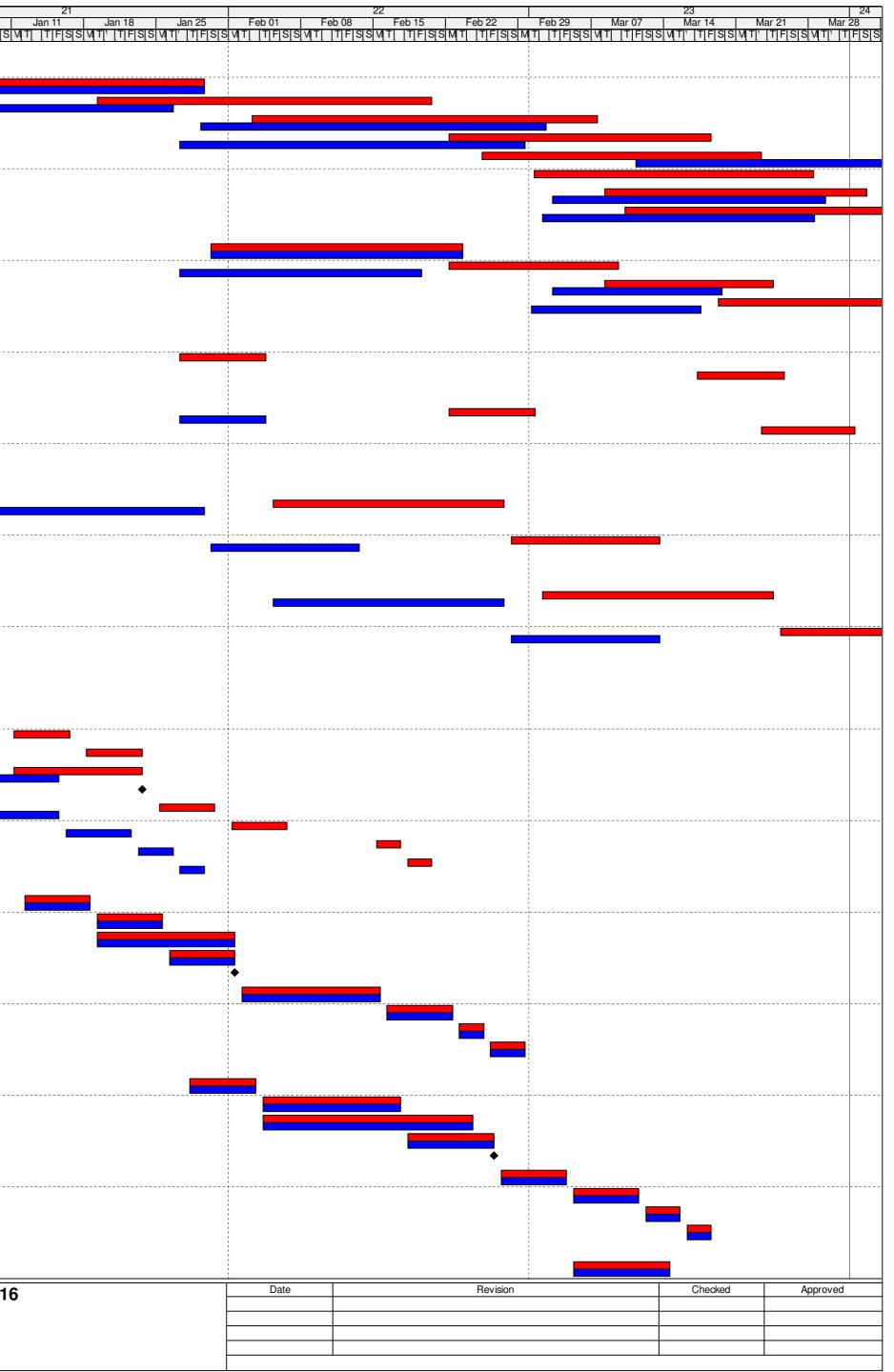


	Activity Name	Original Duration	Forecast Start	Forecast Finish	80 Dec 07 Dec 14 Dec 21 Dec 2 F[S[S[V]]T[]T[F[S[S[V]]T]]T[F[S[S[V]]T]]T[F[S[S[V]]T]]T	
PCB-02-22200	PCB(A1) - Erect Tower Crane TC1	6	27-Feb-16	05-Mar-16		
PCB-02-22220	PCB(A1) - Dismantle Tower Crane TC1	2	05-Mar-16	08-Mar-16		
PCB-02-22230	PCB(A1) - Tower Crane in Use TC1	8	27-Feb-16 04-Jan-16	08-Mar-16 21-Jan-16		
PCB-02-22130	o.3 - NORTH EAST PCB(A1) - Construct Tower Crane Footings TC3	8	04-Jan-16	12-Jan-16	<u> </u>	
PCB-02-22120	PCB(A1) - Erect Tower Crane TC3	6	13-Jan-16	19-Jan-16		
PCB-02-22140	PCB(A1) - Dismantle Tower Crane TC3	2	20-Jan-16	21-Jan-16		
PCB-02-22150	PCB(A1) - Tower Crane in Use TC3	8	13-Jan-16	21-Jan-16	7	
Superstructu	ire	98	23-Nov-15 A	15-Apr-16		
Ground Floor F	Foundations South	70	18-Jan-16	15-Apr-16		
Excavation for	r Service Troughs	27	18-Jan-16	24-Feb-16		
PCB-02-24870	PCB - Excavation for Service Trench BS26	5	18-Jan-16	22-Jan-16		
PCB-02-24880	PCB - Excavation for Service Trench BS27	5	03-Feb-16	15-Feb-16		
PCB-02-24450	PCB - Excavation for Service Trench BS25	5	19-Feb-16	24-Feb-16		
PCB-02-24920	Trench Base slab         PCB - Waterproofing Trench Base Slab B26	25	23-Jan-16 23-Jan-16	27-Feb-16 26-Jan-16		
PCB-02-24890	PCB - Waterproofing Trench Base Slab B27	3	16-Feb-16	18-Feb-16		
PCB-02-24910	PCB - Waterproofing Trench Base Slab B25	3	25-Feb-16	27-Feb-16		
Service Troug	h Slabs	30	27-Jan-16	08-Mar-16		
PCB-02-21960	PCB - Service Trench Base Slab (GL4.2 to 5.2) H-G - 134m <sup>3</sup> Pour BS26	8	27-Jan-16	04-Feb-16		
PCB-02-21940	PCB - Service Trench Base Slab (GL4.2 to 5.2) H - 72m <sup>3</sup> Pour BS27	8	19-Feb-16	27-Feb-16		
PCB-02-21950	PCB - Service Trench Base Slab (GL4.2 to 5.2) H - 134m <sup>3</sup> Pour BS25	8	29-Feb-16	08-Mar-16		
Service Troug		30	05-Feb-16	17-Mar-16		
PCB-02-22980	PCB - Basement Ext Walls to BS26	8	05-Feb-16	20-Feb-16		
PCB-02-23000	PCB - Basement Ext Walls to BS27	8	29-Feb-16	08-Mar-16		
PCB-02-22990 Waterproofing	PCB - Basement Ext Walls to BS25	8	09-Mar-16 22-Feb-16	17-Mar-16 21-Mar-16		
PCB-02-24980	PCB - Waterproofing to BS26 Walls	3	22-Feb-16	24-Feb-16		
PCB-02-24960	PCB - Waterproofing to BS27 Walls	3	09-Mar-16	11-Mar-16		
PCB-02-24970	PCB - Waterproofing to BS25 Walls	3	18-Mar-16	21-Mar-16		
Backfilling beh	hind Service Trough Walls	26	25-Feb-16	25-Mar-16		
PCB-02-23430	PCB - Backfilling to Ground Level at Basement Ext Walls BS26	4	25-Feb-16	29-Feb-16		
PCB-02-23440	PCB - Backfilling to Ground Level at Basement Ext Walls BS27	4	12-Mar-16	16-Mar-16		
PCB-02-23320	PCB - Backfilling to Ground Level at Basement Ext Walls BS25	4	22-Mar-16	25-Mar-16		
_	Pile Caps and Beams	24	01-Mar-16	28-Mar-16		
PCB-02-24940	PCB - Excavate Pile caps and Beams GF03	5	01-Mar-16	05-Mar-16		
PCB-02-24950 PCB-02-24930	PCB - Excavate Pile caps and Beams GF04 PCB - Excavate Pile caps and Beams GF01	5	17-Mar-16 23-Mar-16	22-Mar-16 28-Mar-16		
Pile Cropping		27	03-Mar-16	02-Apr-16		
PCB-02-23550	Pile Cropping to GF03	8	03-Mar-16	11-Mar-16		
PCB-02-23580	Pile Cropping to GF04	8	19-Mar-16	28-Mar-16		
PCB-02-23490	Pile Cropping to GF01	8	25-Mar-16	02-Apr-16		
Pile Capping		29	05-Mar-16	08-Apr-16		
PCB-02-23560	Pile Caps and Tie Beams to GF03	10	05-Mar-16	16-Mar-16		
PCB-02-23590	Pile Caps and Tie Beams to GF04	10	22-Mar-16	01-Apr-16		
PCB-02-23500	Pile Caps and Tie Beams to GF01	10	28-Mar-16	08-Apr-16		
Water Proofing PCB-02-24790	9 Waterproofing Pile Caps and Tie Beams to GF03	14	17-Mar-16 17-Mar-16	01-Apr-16 21-Mar-16		
PCB-02-24790 PCB-02-24800	Waterproofing Pile Caps and Tie Beams to GF03	4	29-Mar-16	01-Apr-16		
	Top Level of Ground Beams (+5.0mPD Generally)	14	22-Mar-16	07-Apr-16		
PCB-02-23570	Backfilling to Tie Beams to GF03	4	22-Mar-16	25-Mar-16		
PCB-02-23600	Backfilling to Tie Beams to GF04	4	02-Apr-16	07-Apr-16		
Ground Slabs		17	26-Mar-16	15-Apr-16		
PCB-02-21520	Construct Ground Floor Base Slab GS21 - 916m <sup>3</sup>	17	26-Mar-16	15-Apr-16		
Ground Floor S	Slabs (+5.450mPD)	90	23-Nov-15 A	06-Apr-16		
SOUTH - Gridl		88	23-Nov-15 A	02-Apr-16		
	Earliest Commencement of ABWF/MEP in Basement SOUTH EAST	0	20-Feb-16			
Suspended Slab		73	23-Nov-15 A	16-Mar-16		
	Construct Ground Floor Suspended Slab Pour GS03 - 237m <sup>3</sup> Construct Ground Floor Suspended Slab Pour GS01 - 81m <sup>3</sup>	23	23-Nov-15 A 15-Feb-16	26-Jan-16 11-Mar-16		
	Construct Ground Floor Suspended Slab Pour GS01 - 81m <sup>9</sup> Construct Ground Floor Suspended Slab Pour GS02 - 182m <sup>3</sup>	23	19-Feb-16	16-Mar-16		
	Suspended Slabs	52	27-Jan-16	02-Apr-16		
	Cure & Strip Ground Floor Suspended Slab Pour GS03	15	27-Jan-16	19-Feb-16		
PCB-02-21590	Cure & Strip Ground Floor Suspended Slab Pour GS01	15	12-Mar-16	29-Mar-16	V/////////////////////////////////////	
PCB-02-21600	Cure & Strip Ground Floor Suspended Slab Pour GS02	15	17-Mar-16	02-Apr-16		
MIDDLE - Grid	lline G-E	74	04-Jan-16	06-Apr-16		
PCB-AB-A0040	Earliest Commencement of ABWF/MEP in Basement MIDDLE WEST	0	04-Jan-16			•
				1		
3MRP BAR					3MRP - Progress	s to 04-Jan-

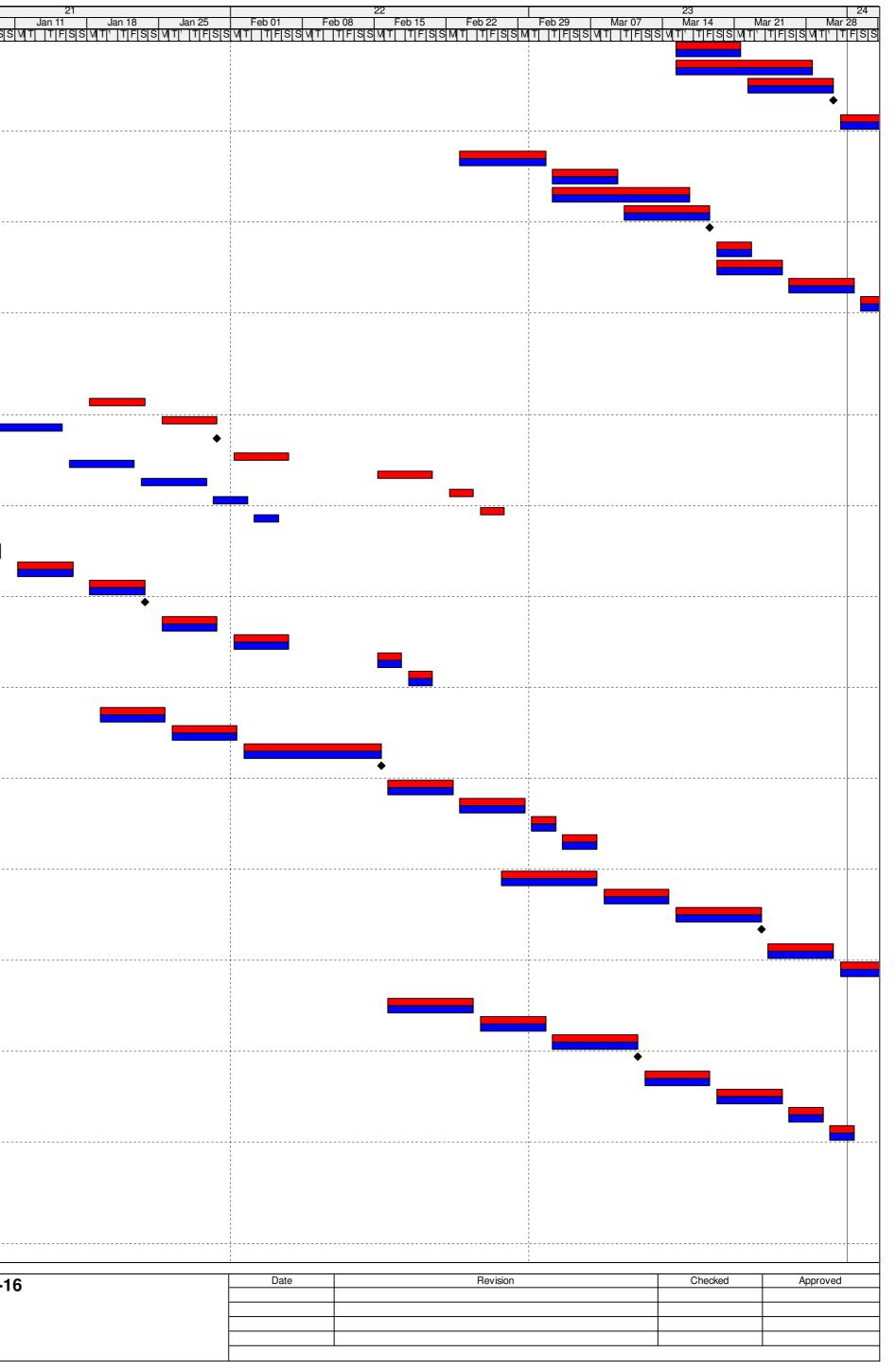
♦ ♦ Milestone



D	Activity Name	Original Duration	Forecast Start	Forecast Finish	20 30 Dec 07 Dec 14 Dec 21 Dec 28 FSISINITI TIFISISINITI TIFISISINITI TIFISISINITI
PCB-AB-A0030	Earliest Commencement of ABWF/MEP in Basement MIDDLE EAST	0	04-Jan-16		
Suspended Slat		74	04-Jan-16	06-Apr-16	
	Construct Ground Floor Suspended Slab Pour GS05 - 160m <sup>3</sup>	23	04-Jan-16	29-Jan-16	
PCB-02-25130 PCB-02-21390	Construct Ground Floor Suspended Slab Pour GS07 - 186m <sup>3</sup> Construct Ground Floor Suspended Slab Pour GS11 - 186m <sup>3</sup>	23	19-Jan-16 03-Feb-16	20-Feb-16 07-Mar-16	
PCB-02-21330	Construct Ground Floor Suspended Slab Four GS12 - 215m <sup>3</sup>	23	22-Feb-16	18-Mar-16	
PCB-02-21360	Construct Ground Floor Suspended Slab Pour GS06 - 186m <sup>3</sup>	23	25-Feb-16	23-Mar-16	
PCB-02-21350	Construct Ground Floor Suspended Slab Pour GS04 - 160m <sup>3</sup>	23	01-Mar-16	28-Mar-16	
PCB-02-21420	Construct Ground Floor Suspended Slab Pour GS13 - 184m <sup>3</sup>	23	08-Mar-16	02-Apr-16	
PCB-02-21400	Construct Ground Floor Suspended Slab Pour GS10 - 200m <sup>3</sup>	23	10-Mar-16	06-Apr-16	
Cure and Strip S	Suspended Slabs	51	30-Jan-16	06-Apr-16	
	Cure & Strip Ground Floor Suspended Slab Pour GS07	15	30-Jan-16	23-Feb-16	
PCB-02-32630	Cure & Strip Ground Floor Suspended Slab Pour GS05	15	22-Feb-16	09-Mar-16	
PCB-02-32670	Cure & Strip Ground Floor Suspended Slab Pour GS11	15	08-Mar-16	24-Mar-16	
PCB-02-32660	Cure & Strip Ground Floor Suspended Slab Pour GS12	15	19-Mar-16	06-Apr-16	
Columns to Me	zzanine Slab (+10.250mPD)	51	27-Jan-16	01-Apr-16	
SOUTH - Gridl	ine J-G	45	27-Jan-16	25-Mar-16	
PCB-02-20730	Construct Columns to Mezz Floor MS04	8	27-Jan-16*	04-Feb-16	
PCB-02-20720	Construct Columns to Mezz Floor MS01	8	17-Mar-16	25-Mar-16	
MIDDLE - Grid	line G-E	35	22-Feb-16	01-Apr-16	
PCB-02-20780	Construct Columns to Mezz Floor MS05	8	22-Feb-16	01-Mar-16	
PCB-02-20770	Construct Columns to Mezz Floor MS02	8	23-Mar-16	01-Apr-16	
	r Slabs (+10.250mPD)	64	05-Feb-16	08-Apr-16	
SOUTH - Gridl		38	05-Feb-16	13-Mar-16	
Suspended Slab		23	05-Feb-16	27-Feb-16	
	Construct Mezzanine Floor Slab Cabin Pour MS04 - 325m <sup>3</sup>	23	05-Feb-16	27-Feb-16	
Cure and Strip	O and Ohio Managina Flags Ohio Ophia Para MO24	15	28-Feb-16	13-Mar-16	
	Cure & Strip Mezzanine Floor Slab Cabin Pour MS04	15	28-Feb-16	13-Mar-16	
MIDDLE - Grid		38 23	02-Mar-16 02-Mar-16	08-Apr-16 24-Mar-16	
Suspended Slat	Construct Mezzanine Floor Slab Pour MS05 - 327m <sup>3</sup>	23	02-Mar-16	24-Mar-16	
Cure and Strip		15	25-Mar-16	08-Apr-16	
•	Cure & Strip Mezzanine Floor Slab Pour MS05	15	25-Mar-16	08-Apr-16	
		75	04-Jan-16	07-Apr-16	
ridline K					
iridline K - R	C Works (5 Mega Columns)	75	04-Jan-16	07-Apr-16	
<5 (to +19.0mP	•	36	04-Jan-16	20-Feb-16	
PCB-02-26620	Construct Pile Cap (Gridline K) - K5	6	04-Jan-16*	09-Jan-16	
PCB-02-26630	Construct Column Head (1st Lift) - K5	6	11-Jan-16	16-Jan-16	
PCB-ZZ-4660	PCB - Mega Columns K 2nd Lift - K5	6	18-Jan-16	23-Jan-16	
PCB-02-30510	Construct Tie Beams between J-K5	12	11-Jan-16	23-Jan-16	
PCB-ZZ-4670	Installation of CHS Cast in	0	05 100 10	23-Jan-16	
PCB-ZZ-4920	PCB - Mega Columns K 3rd Lift - K5	6	25-Jan-16	30-Jan-16	
PCB-ZZ-4930 PCB-ZZ-4910	PCB - Mega Columns K Taper Lift - K5	6	01-Feb-16	06-Feb-16 17-Feb-16	
PCB-22-4910 PCB-02-26640	Minimum Curing 3d of K5 PCB - Backfilling up to Ground Level - K5	3	15-Feb-16 18-Feb-16	20-Feb-16	
		36	12-Jan-16	20-Feb-16 29-Feb-16	
<pre>K4 (to +19.0mP PCB-02-26580</pre>	Construct Pile Cap (Gridline K) - K4	6	12-Jan-16*	18-Jan-16	
PCB-02-26590	Construct Column Head (1st Lift) - K4	6	19-Jan-16	25-Jan-16	
PCB-02-30550	Construct Tie Beams between J-K4	12	19-Jan-16	01-Feb-16	
PCB-ZZ-4640	PCB - Mega Columns K 2nd Lift - K4	6	26-Jan-16	01-Feb-16	
PCB-ZZ-5040	Installation of CHS Cast in	0		01-Feb-16	
PCB-ZZ-4960	PCB - Mega Columns K 3rd Lift - K4	6	02-Feb-16	15-Feb-16	
PCB-ZZ-4970	PCB - Mega Columns K Taper Lift - K4	6	16-Feb-16	22-Feb-16	
PCB-ZZ-4900	Minimum Curing 3d of K4	3	23-Feb-16	25-Feb-16	
PCB-02-26600	PCB - Backfilling up to Ground Level - K4	3	26-Feb-16	29-Feb-16	
(3 (to +19.0mP		38	28-Jan-16	18-Mar-16	
PCB-02-26540	Construct Pile Cap (Gridline K) - K3	6	28-Jan-16*	03-Feb-16	
PCB-02-26550	Construct Column Head (1st Lift) - K3	6	04-Feb-16	17-Feb-16	
PCB-02-32890	Construct Tie Beams between J-K4	12	04-Feb-16	24-Feb-16	
PCB-ZZ-4620	PCB - Mega Columns K 2nd Lift - K3	8	18-Feb-16	26-Feb-16	
PCB-ZZ-5050	Installation of CHS Cast in	0		26-Feb-16	
PCB-ZZ-4980	PCB - Mega Columns K 3rd Lift - K3	6	27-Feb-16	04-Mar-16	
PCB-ZZ-4990	PCB - Mega Columns K Taper Lift - K3	6	05-Mar-16	11-Mar-16	
PCB-ZZ-4890	Minimum Curing 3d of K3	3	12-Mar-16	15-Mar-16	
PCB-02-26560	PCB - Backfilling up to Ground Level - K3	3	16-Mar-16	18-Mar-16	
<1 (to +19.0mP	D)	28	05-Mar-16	07-Apr-16	
PCB-02-2125	Construct Pile Cap (Gridline K) - K1	8	05-Mar-16*	14-Mar-16	
	· · · · · · · · · · · · · · · · · · ·				3MRP - Progress to 04
3MRP BAR				1	
<ul><li>3MRP BAR</li><li>Actual Work</li></ul>					
	k				Page 5 of 9

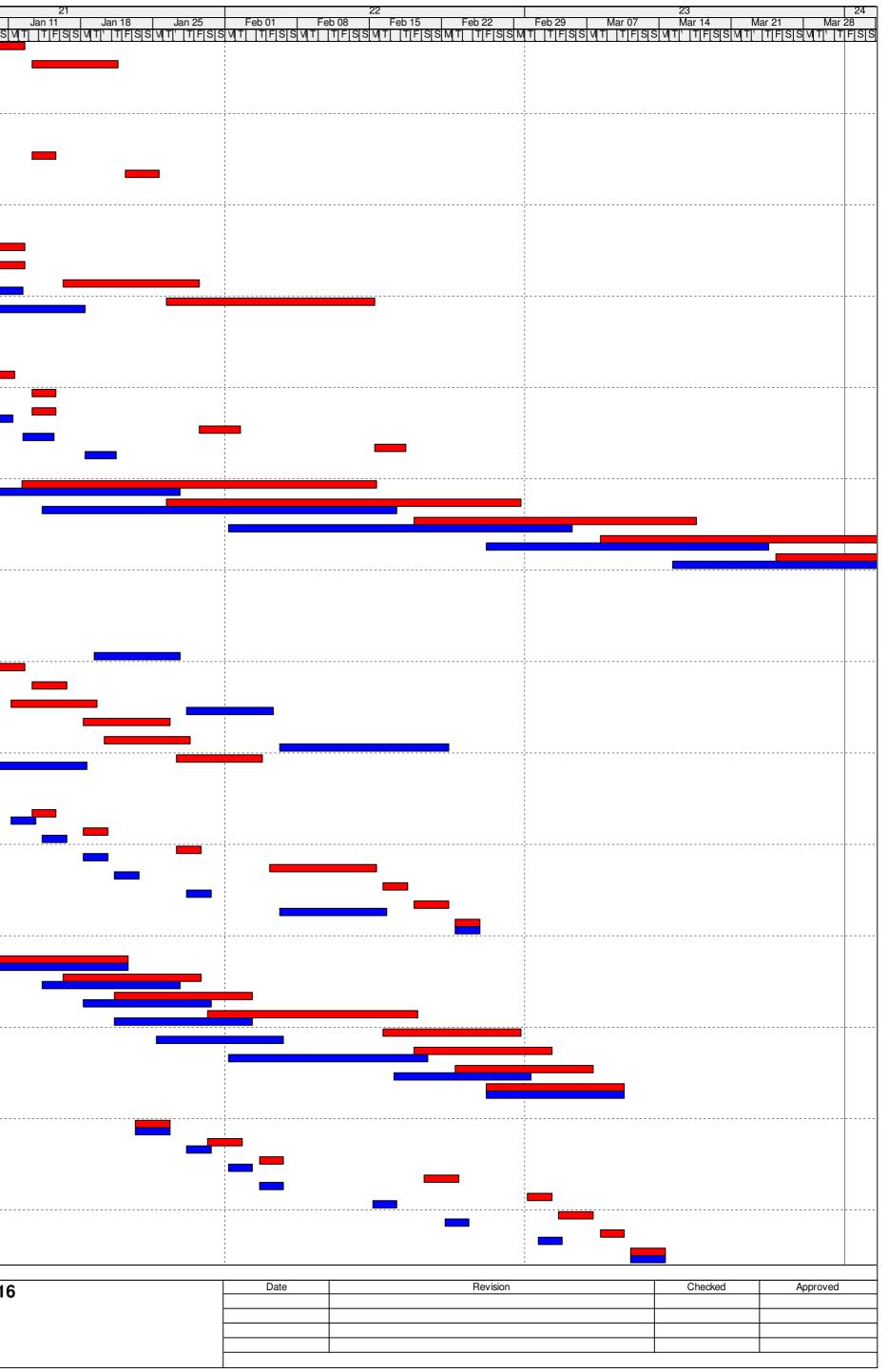


PCB-02-30520         Cor           PCB-ZZ-4110         PCB           PCB-ZZ-5090         Inst           PCB-ZZ-5100         PCB           K2 (to +19.0mPU)         PCB-02-26510           PCB-02-26510         Cor           PCB-02-30530         Cor           PCB-02-30530         Cor           PCB-02-30530         Cor           PCB-02-30530         Cor           PCB-2Z-5120         Inst           PCB-ZZ-5130         PCB           PCB-2Z-5140         PCB           PCB-02-26520         PCB           PCB-02-26420         Cor <b>Gridline J - RCU</b> Y <b>J5 (to +19.0mPD</b> Cor           PCB-02-26450         Cor           PCB-02-26470         Cor           PCB-2Z-4580         PCB           PCB-2Z-4950         PCB           PCB-2Z-4950         PCB           PCB-2Z-4950         PCB           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-2Z-4950         PCB           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-2Z-4820         Min	anstruct Column Head (1st Lift) - K1 onstruct Tie Beams - J-K1 CB - Mega Columns K 2nd Lift - K1 stallation of CHS Cast in CB - Mega Columns K 3rd Lift - K1 onstruct Pile Cap (Gridline K) - K2 onstruct Column Head (1st Lift) - K2 onstruct Tie Beams - J-K2 CB - Mega Columns K 2nd Lift - K2 stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 <b>Vorks (5 Mega Columns)</b> onstruct Pile Caps - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 CB - Backfilling up to Ground Level - J5 CB - Backfillin	6         12         8         0         6         37         8         6         12         8         0         3         6         3         6         3         6         3         6         3         6         6         3         75         36         6         6         6         3         75         36         6         6         3         36         6         3         3         3         36	15-Mar-16 15-Mar-16 22-Mar-16 31-Mar-16 23-Feb-16 23-Feb-16* 03-Mar-16 03-Mar-16 10-Mar-16 10-Mar-16 19-Mar-16 26-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 25-Jan-16 22-Feb-16 22-Feb-16	21-Mar-16 28-Mar-16 30-Mar-16 07-Apr-16 02-Mar-16 02-Mar-16 09-Mar-16 16-Mar-16 18-Mar-16 18-Mar-16 22-Mar-16 22-Mar-16 01-Apr-16 01-Apr-16 07-Apr-16 07-Apr-16 07-Apr-16 07-Apr-16 07-Apr-16 02-Jan-16 30-Jan-16 30-Jan-16 30-Jan-16	
PCB-02-30520         Cor           PCB-ZZ-4110         PCB           PCB-ZZ-5090         Inst           PCB-ZZ-5100         PCB           K2 (to +19.0mPU)         PCB-02-26510           PCB-02-26510         Cor           PCB-02-30530         Cor           PCB-02-30530         Cor           PCB-02-30530         Cor           PCB-02-30530         Cor           PCB-2Z-5120         Inst           PCB-ZZ-5130         PCB           PCB-2Z-5140         PCB           PCB-02-26520         PCB           PCB-02-26420         Cor <b>Gridline J - RCU</b> Y <b>J5 (to +19.0mPD</b> Cor           PCB-02-26450         Cor           PCB-02-26470         Cor           PCB-2Z-4580         PCB           PCB-2Z-4950         PCB           PCB-2Z-4950         PCB           PCB-2Z-4950         PCB           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-2Z-4950         PCB           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-2Z-4820         Min	onstruct Tie Beams - J-K1 CB - Mega Columns K 2nd Lift - K1 stallation of CHS Cast in CB - Mega Columns K 3rd Lift - K1 onstruct Pile Cap (Gridline K) - K2 onstruct Column Head (1st Lift) - K2 onstruct Tie Beams - J-K2 CB - Mega Columns K 2nd Lift - K2 stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 <b>Works (5 Mega Columns)</b> onstruct Pile Caps - J5 onstruct Pile Caps - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 cB - Backfilling up to Ground Level - J5 cB - Backfilling up to Ground Level - J5 cB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Pile Caps - J4	12         8         0         6         37         8         6         12         8         0         3         6         3         6         3         6         6         6         6         6         6         6         6         6         6         6         6         6         6         6         33         36	15-Mar-16 22-Mar-16 31-Mar-16 23-Feb-16* 03-Mar-16 03-Mar-16 10-Mar-16 19-Mar-16 26-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 25-Jan-16 25-Jan-16 22-Feb-16	28-Mar-16 30-Mar-16 07-Apr-16 02-Mar-16 09-Mar-16 16-Mar-16 18-Mar-16 18-Mar-16 22-Mar-16 01-Apr-16 01-Apr-16 07-Apr-16 07-Apr-16 02-Jan-16A 23-Jan-16 30-Jan-16 30-Jan-16 20-Feb-16 20-Feb-16	
PCB-ZZ-5090         Inst.           PCB-ZZ-5100         PCB           K2 (to +19.0mPU         Cor           PCB-02-26500         Cor           PCB-02-26510         Cor           PCB-02-30530         Cor           PCB-2Z-4600         PCB           PCB-ZZ-4600         PCB           PCB-ZZ-4880         Min           PCB-ZZ-5120         Inst.           PCB-ZZ-5130         PCB           PCB-2Z-5140         PCB           PCB-02-26520         PCB           PCB-02-26520         PCB <b>Gridline J - RC VI Grid</b> PCB-02-26460         Cor           PCB-02-26470         Cor           PCB-2Z-4980         PCB           PCB-ZZ-4980         PCB           PCB-ZZ-4980         PCB           PCB-2Z-4980         PCB           PCB-2Z-4980         PCB           PCB-2Z-4980         PCB           PCB-2Z-6430         Cor           PCB-2Z-6430         Cor           PCB-2Z-6430         Cor           PCB-2Z-5070         Inst.           PCB-ZZ-5030         PCB           PCB-ZZ-5030         PCB	b. T. S. Stallation of CHS Cast in   CB - Mega Columns K 3rd Lift - K1   construct Pile Cap (Gridline K) - K2   construct Column Head (1st Lift) - K2   construct Tie Beams - J-K2   CB - Mega Columns K 2nd Lift - K2   cstallation of CHS Cast in   nimum Curing 3d of K2   CB - Mega Columns K 3rd Lift - K2   CB - Mega Columns K 3rd Lift - K2   CB - Mega Columns K 3rd Lift - K2   CB - Mega Columns K Taper Lift - K2   CB - Backfilling up to Ground Level - K2   Morks (5 Mega Columns J 2nd Lift - J5   callation of CHS Cast in   construct Pile Caps - J5   construct Column Head (1st Lift) - J5   CB - Mega Columns J 2nd Lift - J5   callation of CHS Cast in   CD - Mega Columns J 2nd Lift - J5   callation of CHS Cast in   CB - Mega Columns J 2nd Lift - J5   callation of CHS Cast in   CB - Mega Columns J 3rd Lift - J5   callation of CHS Cast in   CB - Mega Columns J Taper Lift - J5   callation of J5   CB - Mega Columns J Taper Lift - J5   callation up to Ground Level - J5	0 6 37 8 6 12 8 0 3 6 6 3 3 75 75 36 6 6 3 3 75 75 36 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	31-Mar-16 23-Feb-16* 23-Feb-16* 03-Mar-16 03-Mar-16 10-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 18-Jan-16 25-Jan-16 25-Jan-16 15-Feb-16 15-Feb-16 22-Feb-16	30-Mar-16 07-Apr-16 02-Mar-16 09-Mar-16 16-Mar-16 18-Mar-16 18-Mar-16 22-Mar-16 22-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-5100       PCB         K2 (to +19.0mPU)       Corr         PCB-02-26500       Corr         PCB-02-26510       Corr         PCB-02-30530       Corr         PCB-2Z-4600       PCB         PCB-ZZ-5120       Inst.         PCB-ZZ-5130       PCB         PCB-ZZ-5140       PCB         PCB-2Z-5140       PCB         PCB-02-26520       PCB <b>Gridline J - RC VI Gridline J - RC VI J5 (to +19.0mPU Corr</b> PCB-02-26460       Corr         PCB-02-26470       Corr         PCB-2Z-4580       PCB         PCB-2Z-4580       PCB         PCB-2Z-49400       PCB         PCB-2Z-4950       PCB         PCB-2Z-495	CB - Mega Columns K 3rd Lift - K1  Denstruct Pile Cap (Gridline K) - K2 Denstruct Column Head (1st Lift) - K2 Denstruct Tie Beams - J-K2 CB - Mega Columns K 2nd Lift - K2 Stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K Taper Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2  Denstruct Pile Caps - J5 Denstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 Stallation of CHS Cast in CB - Mega Columns J Taper Lift - J5 Denstruct Pile Caps - J4 Denstruct Column Head (1st Lift) - J4 Denstruct Column Head (1st Lift) - J4 Denstruct Pile Caps - J4 Denstruct Pile Caps - J4 Denstruct Column Head (1st Lift) - J4 Denstruct Pile Caps - J4 Denstruct Column Head (1st Lift) - J4 Denstruct Col	6         37         8         6         12         8         0         3         6         3         6         6         3         6         6         6         6         6         6         6         6         6         6         6         6         6         6         6         6         6         33         33         33         36	23-Feb-16 23-Feb-16* 03-Mar-16 03-Mar-16 10-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 15-Feb-16 22-Feb-16	07-Apr-16 06-Apr-16 02-Mar-16 16-Mar-16 18-Mar-16 18-Mar-16 22-Mar-16 22-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 30-Jan-16 30-Jan-16 20-Feb-16	
K2 (to +19.0mPD)         PCB-02-26500       Cor         PCB-02-30530       Cor         PCB-02-30530       Cor         PCB-02-30530       Cor         PCB-2Z-4600       PCB         PCB-ZZ-5120       Inst         PCB-ZZ-5130       PCB         PCB-ZZ-5140       PCB         PCB-22-6520       PCB         PCB-02-26520       PCB         Gridline J - RC V       V         J5 (to +19.0mPU       Cor         PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-02-26470       Cor         PCB-2Z-4930       PCB         PCB-2Z-4940       PCB         PCB-2Z-4950       Inst         PCB-2Z-4950       PCB         PCB-02-26480       PCB         PCB-2Z-4950       Inst         PCB-2Z-4950       Cor         PCB-2Z-4820       Min         PCB-02-26430       Cor         PCB-02-26430       Cor         PCB-02-26430       Cor         PCB-2Z-5070       Inst         PCB-ZZ-5070       Inst         PCB-ZZ-5030       PCB         PCB-ZZ-5030       PCB	An and the second secon	37         8         6         12         8         0         3         6         3         6         3         6         3         6         3         75         36         6         6         6         6         6         6         6         6         6         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3          36	23-Feb-16 23-Feb-16* 03-Mar-16 03-Mar-16 10-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 15-Feb-16 22-Feb-16	06-Apr-16 02-Mar-16 09-Mar-16 16-Mar-16 18-Mar-16 22-Mar-16 22-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-02-26500         Cor           PCB-02-26510         Cor           PCB-02-30530         Cor           PCB-02-30530         Cor           PCB-ZZ-4600         PCB           PCB-ZZ-5120         Inst           PCB-ZZ-5130         PCB           PCB-ZZ-5130         PCB           PCB-ZZ-5140         PCB           PCB-ZZ-5140         PCB           PCB-02-26520         PCB           Gridline J - RC         W           J5 (to +19.0mPD)         PCB           PCB-02-26470         Cor           PCB-02-26470         Cor           PCB-ZZ-4980         PCB           PCB-ZZ-4980         PCB           PCB-ZZ-4940         PCB           PCB-226480         PCB           PCB-226480         Cor           PCB-226480         PCB           PCB-02-26480         PCB           PCB-02-26480         PCB           PCB-02-26490         Cor           PCB-02-26490         PCB           PCB-02-26490         Cor           PCB-02-26490         Cor           PCB-02-26490         Cor           PCB-02-26490         Cor           PC	Anstruct Column Head (1st Lift) - K2 Anstruct Tie Beams - J-K2 CB - Mega Columns K 2nd Lift - K2 Stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 <b>Works (5 Mega Columns)</b> Anstruct Pile Caps - J5 Denstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J	8         6         12         8         0         3         6         3         75         75         36         6         6         6         6         6         6         6         6         6         33         34         6         6         6         33         33         33	23-Feb-16* 03-Mar-16 03-Mar-16 10-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	02-Mar-16 09-Mar-16 16-Mar-16 18-Mar-16 22-Mar-16 22-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 07-Apr-16 02-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-02-26510         Cor           PCB-02-30530         Cor           PCB-ZZ-4600         PCB           PCB-ZZ-5120         Inst           PCB-ZZ-5130         PCB           PCB-ZZ-5130         PCB           PCB-ZZ-5130         PCB           PCB-ZZ-5140         PCB           PCB-02-26520         PCB <b>Gridline J - RCV Gridline J - RCV J5 (to +19.0mPD</b> Cor           PCB-02-26460         Cor           PCB-02-26470         Cor           PCB-2Z-4580         PCB           PCB-ZZ-4950         Inst           PCB-ZZ-4950         PCB           PCB-22-6480         PCB           PCB-02-26420         Cor           PCB-22-4950         PCB           PCB-02-26420         Cor           PCB-22-4950         PCB           PCB-02-26420         Cor           PCB-02-26420         Cor           PCB-02-26420         Cor           PCB-2Z-4560         PCB           PCB-2Z-5070         Inst           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-5030         PCB	Anstruct Column Head (1st Lift) - K2 Anstruct Tie Beams - J-K2 CB - Mega Columns K 2nd Lift - K2 Stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 <b>Works (5 Mega Columns)</b> Anstruct Pile Caps - J5 Denstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J	6 12 8 0 3 6 6 3 75 75 36 6 6 6 6 6 6 6 6 6 6 6 6 6	03-Mar-16 03-Mar-16 10-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 15-Feb-16 22-Feb-16	09-Mar-16 16-Mar-16 18-Mar-16 22-Mar-16 25-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 20-Feb-16	
PCB-02-30530         Cor           PCB-ZZ-4600         PCB           PCB-ZZ-5120         Inst           PCB-ZZ-5130         PCB           PCB-ZZ-5140         PCB           PCB-ZZ-5140         PCB           PCB-ZZ-5140         PCB           PCB-02-26520         PCB           Gridline J - RC V         V           J5 (to +19.0mPD)         PCB-02-26460           PCB-02-26470         Cor           PCB-02-26470         Cor           PCB-2Z-4580         PCB           PCB-ZZ-4940         PCB           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-02-26480         PCB           PCB-02-26480         PCB           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-02-26420         Cor           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-2Z-5070         Inst           PCB-ZZ-5070         Inst           PCB-ZZ-5030         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Min           PCB-ZZ-5030         PCB	onstruct Tie Beams - J-K2 CB - Mega Columns K 2nd Lift - K2 stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 Works (5 Mega Columns) onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Pile Caps - J4	12         8         0         3         6         3         75         36         6         6         6         6         6         6         6         6         6         6         75         36         6         33         3         3         3         36	03-Mar-16 10-Mar-16 19-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 15-Feb-16 22-Feb-16	16-Mar-16 18-Mar-16 22-Mar-16 22-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-4600         PCI           PCB-ZZ-5120         Inst.           PCB-ZZ-5130         PCB           PCB-ZZ-5130         PCB           PCB-ZZ-5140         PCB           PCB-ZZ-5140         PCB           PCB-02-26520         PCB           Gridline J - RC         W           J5 (to +19.0mPU         PCB           PCB-02-26460         Cor           PCB-2Z-4580         PCB           PCB-2Z-4580         PCB           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-226480         Mini           PCB-226480         Cor           PCB-226480         Cor           PCB-226480         Cor           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-22-4560         PCB           PCB-22-6430         Cor           PCB-22-6430         Cor           PCB-ZZ-5070         Inst           PCB-ZZ-5030         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini	CB - Mega Columns K 2nd Lift - K2 stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 Works (5 Mega Columns) onstruct Pile Caps - J5 onstruct Pile Caps - J5 CB - Mega Columns J 2nd Lift - J5 Stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	8 0 3 6 6 3 7 5 75 75 36 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 3 3 3 3 3 3 6	10-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 15-Feb-16 22-Feb-16	18-Mar-16         18-Mar-16         22-Mar-16         25-Mar-16         01-Apr-16         06-Apr-16         07-Apr-16         27-Feb-16         02-Jan-16 A         23-Jan-16         30-Jan-16         30-Jan-16         06-Feb-16         20-Feb-16	
PCB-ZZ-5120       Inst.         PCB-ZZ-4880       Mini         PCB-ZZ-5130       PCB         PCB-02-26520       PCB <b>Gridline J</b> - RCV <b>Gridline J Gridline J</b> - RCV <b>Gridline J DCB</b> -02-26460       Cor         PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-02-26470       Cor         PCB-2Z-4580       PCB         PCB-ZZ-4950       PCB         PCB-22-6480       PCB         PCB-02-26480       PCB         PCB-22-4950       Cor         PCB-02-26480       PCB         PCB-02-26480       PCB         PCB-02-26430       Cor         PCB-02-26420       Cor         PCB-02-26430       Cor         PCB-02-26430       Cor         PCB-02-26430       Cor         PCB-2Z-5070       Inst.         PCB-ZZ-5020       PCB         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Mini         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Mini	stallation of CHS Cast in nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 Works (5 Mega Columns) onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Pile Caps - J4	0 3 6 6 3 75 75 75 36 6 6 6 6 6 6 6 6 6 6 6 3 3 3 3 3	19-Mar-16 19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 17-Dec-15A 01-Feb-16 15-Feb-16 22-Feb-16	18-Mar-16 22-Mar-16 25-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-4880       Mini         PCB-ZZ-5130       PCB         PCB-02-26520       PCB <b>Gridline J - RC W Gridline J - RC W J5 (to +19.0mPD</b> PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-22-4580       PCB         PCB-ZZ-4580       PCB         PCB-ZZ-4940       PCB         PCB-22-6480       PCB         PCB-02-26480       PCB         PCB-02-26480       PCB         PCB-02-26430       Cor         PCB-02-26430       Cor         PCB-22-5070       Inst         PCB-ZZ-5020       PCB         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Mini         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Mini	nimum Curing 3d of K2 CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 <b>Vorks (5 Mega Columns)</b> onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J 7aper Lift - J5	3         6         3         75         75         36         6         6         6         6         6         6         6         3         3         3         3         3         3         3         36	19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	22-Mar-16 25-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-5130         PCB           PCB-ZZ-5140         PCB           PCB-02-26520         PCB           Gridline J - RC W         JS           Gridline J - RC W         JS           J5 (to +19.0mPU)         Cor           PCB-02-26460         Cor           PCB-02-26470         Cor           PCB-02-26470         Cor           PCB-2Z-4580         PCB           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-02-26480         PCB           PCB-02-26480         Cor           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-ZZ-4560         PCB           PCB-2Z-5070         Inst           PCB-ZZ-5030         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini	CB - Mega Columns K 3rd Lift - K2 CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 Works (5 Mega Columns) onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 cB - Mega Columns J Taper Lift - J5 cB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	6 6 3 75 75 36 6 6 6 6 6 6 6 3 3 3 3 3 3 6	19-Mar-16 26-Mar-16 02-Apr-16 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	25-Mar-16 01-Apr-16 06-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-5140         PCB           PCB-02-26520         PCB           Gridline J - RC V         Gridline J - RC V           J5 (to +19.0mPD-         Corr           PCB-02-26460         Corr           PCB-02-26470         Corr           PCB-02-26470         Corr           PCB-02-26470         Corr           PCB-02-26470         Corr           PCB-2Z-4580         PCB           PCB-ZZ-4580         PCB           PCB-ZZ-4940         PCB           PCB-2Z-4940         PCB           PCB-2Z-4950         PCB           PCB-02-26480         PCB           PCB-02-26480         PCB           PCB-02-26430         Corr           PCB-2Z-4950         Corr           PCB-02-26430         Corr           PCB-2Z-5070         Inst           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         Mini	CB - Mega Columns K Taper Lift - K2 CB - Backfilling up to Ground Level - K2 <b>Works (5 Mega Columns)</b> onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 CB - Mega Columns J Taper Lift - J5 cB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	6 3 75 75 36 6 6 6 6 6 6 0 6 6 3 3 3 3 3 3	26-Mar-16 02-Apr-16 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	01-Apr-16 06-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-02-26520         PCB           Gridline J - RC         W           J5 (to +19.0mPD)         Cor           PCB-02-26460         Cor           PCB-02-26470         Cor           PCB-2Z-4580         PCB           PCB-ZZ-4580         PCB           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-02-26480         Mini           PCB-02-26480         Cor           PCB-02-26480         Cor           PCB-02-26480         Cor           PCB-02-26430         Cor           PCB-02-26430         Cor           PCB-2Z-4560         PCB           PCB-2Z-5070         Inst           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini	CB - Backfilling up to Ground Level - K2 <b>Works (5 Mega Columns)</b> onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	3 75 75 36 6 6 6 6 6 6 6 6 6 3 3 3 3 3 3 6	02-Apr-16 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	06-Apr-16 07-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
Gridline J - RC         Gridline J - RC         J5 (to +19.0mPD)         PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-02-26470       Cor         PCB-2Z-4580       PCB         PCB-ZZ-4940       PCB         PCB-ZZ-4950       PCB         PCB-ZZ-4950       PCB         PCB-ZZ-4950       PCB         PCB-2Z-4950       PCB         PCB-2Z-4950       PCB         PCB-02-26480       PCB         J4 (to +19.0mPD)       PCB         PCB-02-26420       Cor         PCB-02-26430       Cor         PCB-2Z-4560       PCB         PCB-ZZ-5070       Inst         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Mini         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Mini         PCB-2Z-4830       Mini	Works (5 Mega Columns) Instruct Pile Caps - J5 Instruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 Istallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 CB - Mega Columns J Taper Lift - J5 Inimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 Instruct Pile Caps - J4 Instruct Column Head (1st Lift) - J4	75 75 36 6 6 6 6 6 6 6 6 6 3 3 3 3 3 3 6	17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	07-Apr-16 07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
Gridline J - RC W         J5 (to +19.0mPD)         PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-02-26470       PCB         PCB-2Z-4580       PCB         PCB-ZZ-4940       PCB         PCB-ZZ-4940       PCB         PCB-ZZ-4950       PCB         PCB-ZZ-4950       PCB         PCB-2Z-4820       Min         PCB-02-26480       PCB         J4 (to +19.0mPD)       Cor         PCB-02-26430       Cor         PCB-2Z-4560       PCB         PCB-2Z-4560       PCB         PCB-ZZ-5070       Inst         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Min         PCB-ZZ-4830       Min         PCB-ZZ-4830       Min	onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	75 36 6 6 0 0 6 6 3 3 3 36	17-Dec-15 A 17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	07-Apr-16 27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
Gridline J - RC W         J5 (to +19.0mPD)         PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-02-26470       PCB         PCB-2Z-4580       PCB         PCB-ZZ-4940       PCB         PCB-ZZ-4940       PCB         PCB-ZZ-4950       PCB         PCB-ZZ-4950       PCB         PCB-2Z-4820       Min         PCB-02-26480       PCB         J4 (to +19.0mPD)       Cor         PCB-02-26430       Cor         PCB-2Z-4560       PCB         PCB-2Z-4560       PCB         PCB-ZZ-5070       Inst         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Min         PCB-ZZ-4830       Min         PCB-ZZ-4830       Min	onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	36         6         6         0         6         3         3         36	17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
J5 (to +19.0mPD)         PCB-02-26460       Cor         PCB-02-26470       Cor         PCB-ZZ-4580       PCB         PCB-ZZ-4940       PCB         PCB-ZZ-4940       PCB         PCB-ZZ-4950       PCB         PCB-ZZ-4950       PCB         PCB-ZZ-4820       Mini         PCB-02-26480       PCB         J4 (to +19.0mPD)       Cor         PCB-02-26420       Cor         PCB-02-26430       Cor         PCB-2Z-4560       PCB         PCB-ZZ-5070       Inst         PCB-ZZ-5030       PCB         PCB-ZZ-4830       Mini         PCB-ZZ-4830       Mini	onstruct Pile Caps - J5 onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	36         6         6         0         6         3         3         36	17-Dec-15 A 17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	27-Feb-16 02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-02-26460         Corr           PCB-02-26470         Corr           PCB-02-26470         Corr           PCB-ZZ-4580         PCB           PCB-ZZ-4940         PCB           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-ZZ-4950         PCB           PCB-ZZ-4950         PCB           PCB-2Z-4950         PCB           PCB-02-26480         PCB           J4 (to +19.0mPD)         PCB-02-26420           PCB-02-26420         Corr           PCB-02-26430         Corr           PCB-2Z-5070         Inst.           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         Mini	onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	6 6 0 6 6 3 3 3 3 3	17-Dec-15 A 18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	02-Jan-16 A 23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-02-26470         Cor           PCB-ZZ-4580         PCB           PCB-ZZ-5060         Inst           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-ZZ-4820         Mini           PCB-02-26480         PCB           J4 (to +19.0mPD)         PCB-02-26420           PCB-02-26420         Cor           PCB-2Z-4560         PCB           PCB-2Z-5070         Inst           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         PCB	onstruct Column Head (1st Lift) - J5 CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	6 6 0 6 3 3 3 3 36	18-Jan-16 25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	23-Jan-16 30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-4580         PCB           PCB-ZZ-5060         Inst.           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-ZZ-4820         Minit           PCB-02-26480         PCB           J4 (to +19.0mPD)         PCB-02-26420           PCB-02-26420         Cor           PCB-2Z-4560         PCB           PCB-ZZ-4560         PCB           PCB-ZZ-5070         Inst.           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Minit           PCB-2Z-4830         PCB	CB - Mega Columns J 2nd Lift - J5 stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 construct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	6 0 6 3 3 3 3 36	25-Jan-16 01-Feb-16 15-Feb-16 22-Feb-16	30-Jan-16 30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-5060         Inst.           PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-ZZ-4820         Mini           PCB-02-26480         PCB           J4 (to +19.0mPD)         PCB-02-26420           PCB-02-26420         Corr           PCB-02-26430         Corr           PCB-02-26430         PCB           PCB-2Z-5070         Inst.           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         PCB	stallation of CHS Cast in CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 construct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	0 6 3 3 3 36	01-Feb-16 15-Feb-16 22-Feb-16	30-Jan-16 06-Feb-16 20-Feb-16	
PCB-ZZ-4940         PCB           PCB-ZZ-4950         PCB           PCB-ZZ-4820         Mini           PCB-02-26480         PCB           J4 (to +19.0mPD)         Cor           PCB-02-26420         Cor           PCB-02-26430         Cor           PCB-22-4560         PCB           PCB-ZZ-4560         PCB           PCB-ZZ-5070         Inst           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         PCB	CB - Mega Columns J 3rd Lift - J5 CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	6 6 3 3 3 36	15-Feb-16 22-Feb-16	06-Feb-16 20-Feb-16	
PCB-ZZ-4950         PCB           PCB-ZZ-4820         Mini           PCB-02-26480         PCB           J4 (to +19.0mPD)         Corr           PCB-02-26420         Corr           PCB-02-26430         Corr           PCB-02-26430         Corr           PCB-02-26430         Corr           PCB-ZZ-4560         PCB           PCB-ZZ-5070         Inst.           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-02-26440         PCB	CB - Mega Columns J Taper Lift - J5 nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	6 3 3 3 36	15-Feb-16 22-Feb-16	20-Feb-16	K/////////////////////////////////////
PCB-ZZ-4820         Mini           PCB-02-26480         PCB           J4 (to +19.0mPD)         Cor           PCB-02-26420         Cor           PCB-02-26430         Cor           PCB-2Z-4560         PCB           PCB-ZZ-5070         Inst           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         PCB	nimum Curing 3d of J5 CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	3 3 36	22-Feb-16		
PCB-02-26480         PCB           J4 (to +19.0mPD)         Cor           PCB-02-26420         Cor           PCB-02-26430         Cor           PCB-22-4560         PCB           PCB-ZZ-4560         PCB           PCB-ZZ-5070         Inst.           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-02-26440         PCB	CB - Backfilling up to Ground Level - J5 onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	3 36		01 Eab 10	
J4 (to +19.0mPD)           PCB-02-26420         Cor           PCB-02-26430         Cor           PCB-ZZ-4560         PCB           PCB-ZZ-5070         Inst           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         PCB	onstruct Pile Caps - J4 onstruct Column Head (1st Lift) - J4	36	25-Feb-16	24-Feb-16	
PCB-02-26420         Cor           PCB-02-26430         Cor           PCB-ZZ-4560         PCB           PCB-ZZ-5070         Inst.           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-ZZ-4830         PCB	onstruct Column Head (1st Lift) - J4			27-Feb-16	
PCB-02-26430         Cor           PCB-ZZ-4560         PCE           PCB-ZZ-5070         Inst           PCB-ZZ-5020         PCE           PCB-ZZ-5030         PCE           PCB-ZZ-4830         Mini           PCB-02-26440         PCE	onstruct Column Head (1st Lift) - J4	-	04-Jan-16	20-Feb-16	
PCB-ZZ-4560         PCB           PCB-ZZ-5070         Inst.           PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-02-26440         PCB		6	04-Jan-16*	09-Jan-16	
PCB-ZZ-5070         Inst           PCB-ZZ-5020         PCE           PCB-ZZ-5030         PCE           PCB-ZZ-4830         Mini           PCB-02-26440         PCE		6	11-Jan-16	16-Jan-16	
PCB-ZZ-5020         PCB           PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-02-26440         PCB	CB - Mega Columns J 2nd Lift - J4	6	18-Jan-16	23-Jan-16	
PCB-ZZ-5030         PCB           PCB-ZZ-4830         Mini           PCB-02-26440         PCB	stallation of CHS Cast in	0		23-Jan-16	
PCB-ZZ-4830 Mini PCB-02-26440 PCE	CB - Mega Columns J 3rd Lift - J4	6	25-Jan-16	30-Jan-16	
PCB-02-26440 PCE	CB - Mega Columns J Taper Lift - J4	6	01-Feb-16	06-Feb-16	
PCB-02-26440 PCE	nimum Curing 3d of J4	3	15-Feb-16	17-Feb-16	
	CB - Backfilling up to Ground Level - J4	3	18-Feb-16	20-Feb-16	
J3 (to +19.0mPD)		36	19-Jan-16	07-Mar-16	
	onstruct Pile Caps - J3	6	19-Jan-16*	25-Jan-16	
PCB-02-26390 Cor	onstruct Column Head (1st Lift) - J3	6	26-Jan-16	01-Feb-16	
PCB-ZZ-4540 PCE	CB - Mega Columns J 2nd Lift - J3	6	02-Feb-16	15-Feb-16	
PCB-ZZ-5080 Inst	stallation of CHS Cast in	0		15-Feb-16	
PCB-ZZ-5000 PCE	CB - Mega Columns J 3rd Lift - J3	6	16-Feb-16	22-Feb-16	
PCB-ZZ-5010 PCE	CB - Mega Columns J Taper Lift - J3	6	23-Feb-16	29-Feb-16	
PCB-ZZ-4840 Min	nimum Curing 3d of J3	3	01-Mar-16	03-Mar-16	
PCB-02-26400 PCE	CB - Backfilling up to Ground Level - J3	3	04-Mar-16	07-Mar-16	
J1 (to +19.0mPD)		34	27-Feb-16	07-Apr-16	
	onstruct Pile Caps - J1	8	27-Feb-16*	07-Mar-16	
	onstruct Column Head (1st Lift) - J1	6	08-Mar-16	14-Mar-16	
	CB - Mega Columns J 2nd Lift - J1	8	15-Mar-16	23-Mar-16	
	stallation of CHS Cast in	0		23-Mar-16	
	CB - Mega Columns J 3rd Lift - J1	6	24-Mar-16	30-Mar-16	
	CB - Mega Columns J Taper Lift - J1	6	31-Mar-16	07-Apr-16	
J2 (to +19.0mPD)		40	16-Feb-16	01-Apr-16	
_ ·	onstruct Pile Caps - J2	8	16-Feb-16*	24-Feb-16	
	onstruct Column Head (1st Lift) - J2	6	25-Feb-16	02-Mar-16	
	CB - Mega Columns J 2nd Lift - J2	8	03-Mar-16	11-Mar-16	
	stallation of CHS Cast in	0		11-Mar-16	
	CB - Mega Columns J 3rd Lift - J2	6	12-Mar-16	11-Mar-16 18-Mar-16	
	CB - Mega Columns J Taper Lift - J2	6	12-Mar-16	25-Mar-16	
	nimum Curing 3d of J2	6	26-Mar-16	25-Mar-16 29-Mar-16	
	-	-			
	CB - Backfilling up to Ground Level - J2	3	30-Mar-16	01-Apr-16	
Southern Drop	p-Off Area	171	03-Aug-15 A	22-Apr-16	
Southern Drop o	off Area - Pile Caps	171	03-Aug-15 A	22-Apr-16	
Southern Drop Off		158	03-Aug-15 A	22-Apr-16	
	DA - EAST - Break down and make good piles to cut off level (+2.075mPD) (;	48	03-Aug-15 A	07-Jan-16	
Pile Caps		79	17-Aug-15 A	21-Jan-16	
	DA - EAST - Construct Pile Caps Stage 4 (DC10,25,40) (to +4.0mPD)	8	17-Aug-15 A	10-Dec-15 A	
	$2.2 \pm 0.51$ construct no cupo stago $+ (DO10, 20, 70)$ (10 $+ 0.000$ D)	0		10 000 10 A	······
3MRP BAR					3MRP - Progress to 04-
Actual Work					
Remaining Work					Page 6 of 9
Critical Remaining W	Nork				5



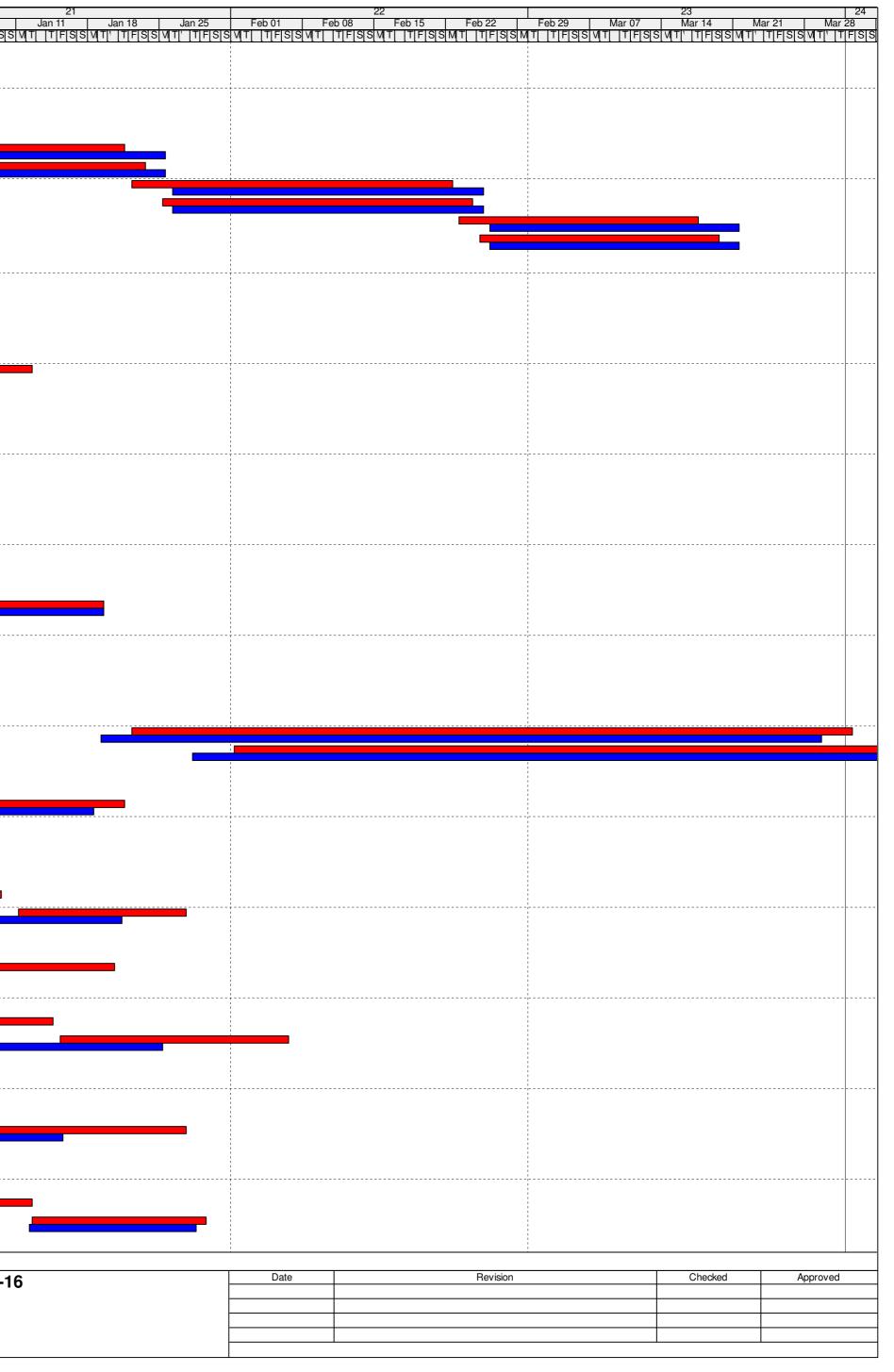
)	Activity Name	Original Duration	Forecast Start	Forecast Finish	20 30 Dec 07 Dec 14 Dec 21 Dec 28 FISISINT TIFISISINT TIFISISINT TIFISISINT
PCB-16-1770	DoA - EAST - Construct Pile Caps Stage 6 (DC14,29,44) (to +4.0mPD)	8	04-Jan-16	12-Jan-16	
PCB-16-1780	DoA - EAST - Construct Pile Caps Stage 7 (DC15,30,45) (to +4.0mPD)	8	13-Jan-16 23-Nov-15 A	21-Jan-16 25-Jan-16	
Column 1st Li PCB-16-1690	DoA - EAST - Construct Column Kickers Stage 3 (DC41,42 & 43)	3	10-Dec-15 A	15-Dec-15 A	
PCB-16-1710	DoA - EAST - Construct Column Kickers Stage 4 (DC10,25,40)	3	23-Nov-15 A	04-Jan-16	
PCB-16-1720	DoA - EAST - Construct Column Kickers Stage 5 (DC9,24,39)	3	23-Nov-15 A	04-Jan-16	
PCB-16-2070	DoA - EAST - Construct Column Kickers Stage 6 (DC14,29,44)	3	13-Jan-16*	15-Jan-16	
PCB-16-2080	DoA - EAST - Construct Column Kickers Stage 7 (DC15,30,45)	3	22-Jan-16*	25-Jan-16	
Columns, Pier	rs and Bearings	58	26-Nov-15 A	15-Feb-16	
PCB-16-1620	DoA - EAST - Construct Columns Stage 2 (to +11mPD) (DC26,27 & 28)	12	26-Nov-15 A	23-Dec-15 A	
PCB-16-1630	DoA - EAST - Construct Columns Stage 3 (to +11mPD) (DC41,42 & 43)	12	22-Dec-15 A	07-Jan-16	
PCB-16-1640	DoA - EAST - Construct Columns Stage 4 (to +11mPD) (DC10,25,40)	12	07-Dec-15 A	12-Jan-16	
PCB-16-1650	DoA - EAST - Construct Columns Stage 5 (to +11mPD) (DC9,24,39)	12	08-Dec-15 A	12-Jan-16	
PCB-16-2170	DoA - EAST - Construct Columns Stage 6 (to +11mPD) (DC14,29,44)	12	16-Jan-16*	29-Jan-16	
PCB-16-2180	DoA - EAST - Construct Columns Stage 7 (to +11mPD) (DC15,30,45)	12	26-Jan-16*	15-Feb-16	
Backfilling		34	04-Jan-16	18-Feb-16	
PCB-16-1800	DoA - EAST - Backfilling to Pile Caps Stage 1 (to +5.5mPD) (DC11,12 & 13)	3	04-Jan-16*	06-Jan-16	
PCB-16-1810	DoA - EAST - Backfilling to Pile Caps Stage 2 (to +5.5mPD) (DC26,27 & 28)	3	04-Jan-16	06-Jan-16	
PCB-16-1820 PCB-16-1830	DoA - EAST - Backfilling to Pile Caps Stage 3 (to +5.5mPD) (DC41,42 & 43) DoA - EAST - Backfilling to Pile Caps Stage 4 (to +5.5mPD) (DC10,25,40)	3	08-Jan-16 13-Jan-16	11-Jan-16 15-Jan-16	
PCB-16-1830 PCB-16-1850	DoA - EAST - Backfilling to Pile Caps Stage 4 (to +5.5mPD) (DC10,25,40) DoA - EAST - Backfilling to Pile Caps Stage 5 (to +5.5mPD) (DC9,24,39)	3	13-Jan-16 13-Jan-16	15-Jan-16 15-Jan-16	
PCB-16-1850 PCB-16-1860	DoA - EAST - Backilling to Pile Caps Stage 5 (to +5.5mPD) (DC9,24,39) DoA - EAST - Backfilling to Pile Caps Stage 6 (to +5.5mPD) (DC14,29,44)	3	29-Jan-16	02-Feb-16	
PCB-16-1865	DOA - EAST - Backlining to File Caps Stage 8 (to +5.5mPD) (DC14,29,44) DoA - EAST - Backfilling to File Caps Stage 7 (to +5.5mPD) (DC15,30,45)	3	15-Feb-16	18-Feb-16	
	,9,8,7 - Early Construction	81	12-Jan-16	22-Apr-16	
PCB-16-490	DoA - Complete Decking Works to Bay 11	24	12-Jan-16	15-Feb-16	
PCB-16-520	DoA - Complete Decking Works to Bay 12	24	26-Jan-16	29-Feb-16	
PCB-16-540	DoA - Complete Decking Works to Bay 9	24	19-Feb-16	17-Mar-16	
PCB-16-580	DoA - Complete Decking Works to Bay 10	24	08-Mar-16	05-Apr-16	
PCB-16-615	DoA - Complete Decking Works to Bay 7	24	25-Mar-16	22-Apr-16	
Southern Drop	o Off Area - West	138	22-Sep-15 A	14-Mar-16	
PCB-16-1450	DoA - WEST - Break down piles to cut off level (+2.075mPD) (21 No)	36	22-Sep-15 A	07-Jan-16	
Pile Caps		60	25-Nov-15 A	04-Feb-16	
PCB-16-1460	DoA - WEST - Construct Pile Caps Stage 8 (to +4.0mPD) (DC6,7,8)	6	25-Nov-15 A	05-Jan-16	
PCB-16-1910	DoA - WEST - Construct Pile Caps Stage 13 (to +4.0mPD) (DC36,37,38)	8	14-Dec-15 A	09-Jan-16	
PCB-16-1870	DoA - WEST - Construct Pile Caps Stage 9 (to +4.0mPD) (DC21,22,23)	5	26-Nov-15 A	12-Jan-16	
PCB-16-1880	DoA - WEST - Construct Pile Caps Stage 10 (to +4.0mPD) (DC3,4,5)	4	13-Jan-16	16-Jan-16	
PCB-16-1920	DoA - WEST - Construct Pile Caps Stage 14 (to +4.0mPD) (DC18,19,20)	8	11-Jan-16	19-Jan-16	
PCB-16-1890	DoA - WEST - Construct Pile Caps Stage 11 (to +4.0mPD) (DC2,17,32)	8	18-Jan-16	26-Jan-16	
PCB-16-1930	DoA - WEST - Construct Pile Caps Stage 15 (to +4.0mPD) (DC33,34,35)	8	20-Jan-16	28-Jan-16	
PCB-16-1900	DoA - WEST - Construct Pile Caps Stage 12 (to +4.0mPD) (DC1,16,31)	8	27-Jan-16	04-Feb-16 25-Feb-16	
Column 1st Li PCB-16-1470	DoA - WEST - Construct Kickers Stage 8 (to +7.294mPD) (DC6,7,8)	38	06-Jan-16 06-Jan-16*	08-Jan-16	
PCB-16-1470 PCB-16-1475	DoA - WEST - Construct Rickers Stage 9 (to +7.294mPD) (DC6,7,6) DoA - WEST - Construct Kickers Stage 9 (to +7.294mPD) (DC21,22,23)	3	13-Jan-16*	15-Jan-16	
PCB-16-1940	DoA - WEST - Construct Kickers Stage 10 (to +7.294mPD) (DC3,4,5)	3	18-Jan-16	20-Jan-16	
PCB-16-1950	DoA - WEST - Construct Kickers Stage 11 (to +7.294mPD) (DC2,17,32)	3	27-Jan-16	29-Jan-16	
PCB-16-2090	DoA - WEST - Construct Kickers Stage 12 (to +7.294mPD) (DC1,16,31)	3	05-Feb-16	15-Feb-16	
PCB-16-2100	DoA - WEST - Construct Kickers Stage 13 (to +7.294mPD) (DC36,37,38)	3	16-Feb-16	18-Feb-16	
PCB-16-2110	DoA - WEST - Construct Kickers Stage 14 (to +7.294mPD) (DC18,19,20)	3	19-Feb-16	22-Feb-16	
PCB-16-2120	DoA - WEST - Construct Kickers Stage 15 (to +7.294mPD) (DC33,34,35)	3	23-Feb-16	25-Feb-16	
	rs and Bearings	47	09-Jan-16	10-Mar-16	
PCB-16-1490	DoA - Construct Columns Stage 8 (to +11mPD) (DC6,7,8)	12	09-Jan-16	22-Jan-16	
PCB-16-1495	DoA - Construct Columns Stage 9 (to +11mPD) (DC21,22,23)	12	16-Jan-16	29-Jan-16	
PCB-16-1610	DoA - Construct Columns Stage 10 (to +11mPD) (DC3,4,5)	12	21-Jan-16	03-Feb-16	
PCB-16-1615	DoA - Construct Columns Stage 11 (to +11mPD) (DC21,22,23)	12	30-Jan-16	19-Feb-16	
PCB-16-1625	DoA - Construct Columns Stage 12 (to +11mPD) (DC3,4,5)	12	16-Feb-16	29-Feb-16	
PCB-16-2140	DoA - Construct Columns Stage 13 (to +11mPD) (DC36,37,38)	12	19-Feb-16	03-Mar-16	
PCB-16-2150	DoA - Construct Columns Stage 14 (to +11mPD) (DC18,19,20)	12	23-Feb-16	07-Mar-16	
PCB-16-2160	DoA - Construct Columns Stage 15 (to +11mPD) (DC33,34,35)	12	26-Feb-16	10-Mar-16	
Backfilling		38	23-Jan-16	14-Mar-16	
PCB-16-1465	DoA - WEST - Backfilling to Pile Caps Stage 8 (to +4.0mPD) (DC6,7,8)	3	23-Jan-16	26-Jan-16	
PCB-16-1476	DoA - WEST - Backfilling to Pile Caps Stage 9 (to +4.0mPD) (DC21,22,23)	3	30-Jan-16	02-Feb-16	
PCB-16-1480	DoA - WEST - Backfilling to Pile Caps Stage 10 (to +4.0mPD) (DC36,37,38)	3	04-Feb-16	06-Feb-16	
PCB-16-1985	DoA - WEST - Backfilling to Pile Caps Stage 11 (to +4.0mPD) (DC2,17,32)	3	20-Feb-16	23-Feb-16	
PCB-16-1990	DoA - WEST - Backfilling to Pile Caps Stage 12 (to +4.0mPD) (DC1,16,31)	3	01-Mar-16	03-Mar-16	
	DoA - WEST - Backfilling to Pile Caps Stage 13 (to +4.0mPD) (DC36,37,38)	3	04-Mar-16	07-Mar-16	
PCB-16-2000	DoA - WEST - Backfilling to Pile Caps Stage 14 (to +4.0mPD) (DC18,19,20)	3	08-Mar-16	10-Mar-16	
PCB-16-2040			44 14-0 40		
	DoA - WEST - Backfilling to Pile Caps Stage 15 (to +4.0mPD) (DC33,34,35)	3	11-Mar-16	14-Mar-16	
PCB-16-2040 PCB-16-2050		3	11-Mar-16	14-Mar-16	
PCB-16-2040		3	11-Mar-16	14-Mar-16	3MRP - Progress to 04-

♦ ♦ Milestone



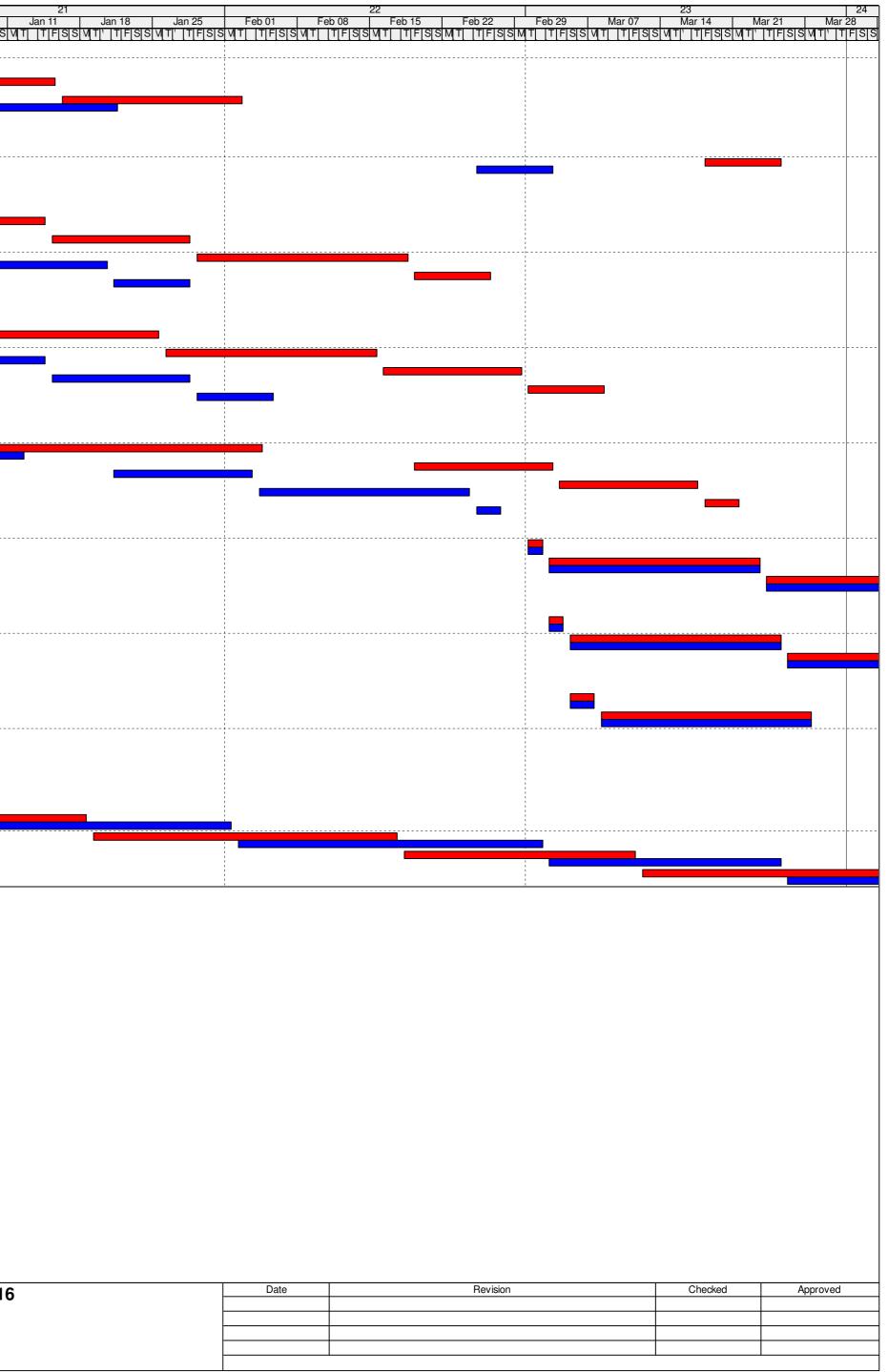
		Duration			30
ox Culver	t A	164	19-Sep-15 A	12-Apr-16	
ored Piling		75	01-Dec-15 A	19-Mar-16	
	t Box Culvert A (8 Piles)	75	01-Dec-15 A	19-Mar-16	
PCB-02-31300	BCA (A2W) - Bored Pile BP44	21	01-Dec-15 A	21-Dec-15 A	
PCB-02-32850	BCA (A2W) - Bored Pile BP48	21	04-Dec-15 A	24-Dec-15 A	
PCB-02-32860	BCA (A2W) - Bored Pile BP50	21	15-Dec-15 A	21-Jan-16	
PCB-02-31970	BCA (A2W) - Bored Pile BP46	21	28-Dec-15 A	23-Jan-16	
PCB-02-32870	BCA (A2W) - Bored Pile BP47	21	22-Jan-16	22-Feb-16	
PCB-02-31960	BCA (A2W) - Bored Pile BP45	21	25-Jan-16	24-Feb-16	
PCB-02-32880	BCA (A2W) - Bored Pile BP49	21	23-Feb-16	17-Mar-16	
PCB-02-31980	BCA (A2W) - Bored Pile BP43	21	25-Feb-16	19-Mar-16	
C Structure	S	164	19-Sep-15 A	12-Apr-16	
ortion A1 & A	2 East	164	19-Sep-15 A	12-Apr-16	
East		52	19-Nov-15 A	19-Jan-16	
Bay 2		15	03-Dec-15 A	13-Dec-15 A	
PCB-XX-830	Complete wall and Top Slab Bay 2	15	03-Dec-15 A	13-Dec-15 A	
Bay 4		15	03-Dec-15 A	12-Jan-16	
PCB-XX-740	Complete wall and Top Slab Bay 4	15	03-Dec-15 A	12-Jan-16*	······································
Bay 5		34	19-Nov-15 A	28-Dec-15 A	
PCB-XX-0630	Complete Bay 5 Baseslab	7	19-Nov-15 A	05-Dec-15 A	
PCB-XX-0640	Complete wall and Top Slab Bay 5	15	11-Dec-15 A	28-Dec-15 A	
Bay 6		15	24-Nov-15 A	11-Dec-15 A	
PCB-XX-1070	Complete wall and Top Slab Bay 6	15	24-Nov-15 A	11-Dec-15 A	
Bay 7	Complete Day 7 Desceleb	21	04-Dec-15 A 04-Dec-15 A	05-Jan-16	
PCB-XX-1020	Complete Bay 7 Baseslab	9		15-Dec-15 A	
PCB-XX-1030	Complete wall and Top Slab Bay 7	15	17-Dec-15 A	05-Jan-16*	
Bay 8 PCB-XX-990	Complete wall and Top Slab Bay 8	15 15	10-Dec-15 A 10-Dec-15 A	18-Dec-15 A 18-Dec-15 A	
Bay 9	Complete wall and Top Slab bay 8	34	11-Dec-15 A	19-Jan-16	
PCB-XX-940	Complete Bay 9 Baseslab	8	11-Dec-15 A	23-Dec-15 A	
PCB-XX-940 PCB-XX-950	Complete wall and Top Slab Bay 9	15	28-Dec-15 A	19-Jan-16	
Bay 10	Complete wai and Top Stab Day 5	32	26-Nov-15 A	23-Dec-15 A	
PCB-XX-900	Complete Bay 10 Baseslab	7	26-Nov-15 A	11-Dec-15 A	
PCB-XX-910	Complete bay to basesiab Complete wall and Top Slab Bay 10	15	12-Dec-15 A	23-Dec-15 A	
West		164	19-Sep-15 A	12-Apr-16	
Stage 3		164	19-Sep-15 A	12-Apr-16	
PCB-09-1620	BCA (A1) Excavation (150m) (Bays 11 to 18)	30	19-Sep-15 A	14-Dec-15 A	
PCB-09-1180	BCA (A1) Remove Sheetpile and make good (300m) (Bays 11 to 18)	55	22-Jan-16	01-Apr-16	
PCB-09-1170	BCA (A1) Backfilling to Ground Level (150m) (Bays 11 to 18)	55	01-Feb-16	12-Apr-16	
Bay 11	1	16	21-Dec-15 A	21-Jan-16	
PCB-XX-1100	Complete Bay 11 Baseslab	12	21-Dec-15 A	04-Jan-16*	
PCB-XX-1110	Complete wall and Top Slab Bay 11	15	05-Jan-16	21-Jan-16*	
Bay 12		31	09-Dec-15 A	07-Jan-16	
PCB-XX-1140	Complete Bay 12 Baseslab	12	09-Dec-15 A	21-Dec-15 A	
PCB-XX-1150	Complete wall and Top Slab Bay 12	15	28-Dec-15 A	07-Jan-16*	
Bay 13		33	09-Dec-15 A	27-Jan-16	
PCB-XX-1180	Complete Bay 13 Baseslab	10	09-Dec-15 A	09-Jan-16*	
PCB-XX-1190	Complete wall and Top Slab Bay 13	15	11-Jan-16	27-Jan-16*	
Bay 14		30	11-Dec-15 A	20-Jan-16	
PCB-XX-1220	Complete Bay 14 Baseslab	10	11-Dec-15 A	30-Dec-15 A	
PCB-XX-1230	Complete wall and Top Slab Bay 14	15	04-Jan-16	20-Jan-16*	
Bay 15		39	03-Dec-15 A	06-Feb-16	
PCB-XX-1250	Complete Pile Caps to Bay 15	3	03-Dec-15 A	10-Dec-15 A	
PCB-XX-1260	Complete Bay 15 Baseslab	10	04-Jan-16	14-Jan-16*	
PCB-XX-1270	Complete wall and Top Slab Bay 15	20	15-Jan-16	06-Feb-16*	
Bay 16		35	05-Dec-15 A	27-Jan-16	
PCB-XX-1280	Complete Blinding to Bay 16	1	05-Dec-15 A	11-Dec-15 A	
PCB-XX-1290	Complete Pile Caps to Bay 16	3	14-Dec-15 A	16-Dec-15 A	
PCB-XX-1300	Complete Bay 16 Baseslab	8	28-Dec-15 A	07-Jan-16	
PCB-XX-1310	Complete wall and Top Slab Bay 16	17	08-Jan-16 09-Dec-15 A	27-Jan-16* 29-Jan-16	
Bay 17 PCB-XX-1320	Complete Blinding to Bay 17	34		29-Jan-16 15-Dec-15 A	
PCB-XX-1320 PCB-XX-1330	Complete Pile Caps to Bay 17	1 4	09-Dec-15 A 16-Dec-15 A	15-Dec-15 A 24-Dec-15 A	
PCB-XX-1330 PCB-XX-1340	Complete Pile Caps to Bay 17 Complete Bay 17 Baseslab	8	04-Jan-16	24-Dec-15 A 12-Jan-16*	
PCB-XX-1340 PCB-XX-1350	Complete Bay 17 Basesiab Complete wall and Top Slab Bay 17	15	12-Jan-16	29-Jan-16*	
		25	23-Dec-15 A	02-Feb-16	
Bay 18					

3MRP BAR	3MRP - Progress to 04-Jan-
Actual Work	-
Remaining Work	Page 8 of 9
Critical Remaining Work	Ũ
<ul><li>♦ Milestone</li></ul>	



Activity ID	Activity Name	Original Duration	Forecast Start	Forecast Finish	20 80 Dec 07 Dec 14 Dec 21 Dec 28 Jan 04
PCB-XX-1360	Complete Blinding to Bay 18	1	23-Dec-15 A	28-Dec-15 A	
PCB-XX-1370	Complete Pile Caps to Bay 18	3	28-Dec-15 A	04-Jan-16*	
	Complete Bay 18 Baseslab	10	05-Jan-16	15-Jan-16	
	Complete wall and Top Slab Bay 18	15	16-Jan-16	02-Feb-16*	
Common Ut	ilities Enclosure	134	19-Oct-15 A	09-Apr-16	
PCB-9A-130	CUE - Excavation and ELS for Common Utilities Enclosure Bay 1-3	10	19-Oct-15 A	02-Jan-16 A	
PCB-9A-170	CUE - Backfilling and Compaction to Bay 1-3	7	18-Mar-16*	25-Mar-16	
Bay 3		68	24-Nov-15 A	26-Feb-16	
PCB-9A-190	CUE - Blinding Bay 3	2	24-Nov-15 A	30-Dec-15 A	
PCB-9A-280	CUE - Construct Base Slab of Bay 3	14	16-Dec-15 A	14-Jan-16	
PCB-9A-290	CUE - Construct external/internal walls to Bay 3	12	15-Jan-16	28-Jan-16	
PCB-9A-300	CUE - Construct Top slab of Bay 3	12	29-Jan-16	18-Feb-16	
PCB-9A-310	CUE - Curing and Waterproofing to Bay 3	7	19-Feb-16	26-Feb-16	
Bay 2		65	07-Dec-15 A	08-Mar-16	
PCB-9A-490	CUE - Blinding Bay 2	2	07-Dec-15 A	30-Dec-15 A	
PCB-9A-240	CUE - Construct Base Slab of Bay 2	39	18-Dec-15 A	25-Jan-16	
PCB-9A-250	CUE - Construct external/internal walls to Bay 2	12	26-Jan-16	15-Feb-16	
PCB-9A-260	CUE - Construct Top slab of Bay 2	12	16-Feb-16	29-Feb-16	
PCB-9A-270	CUE - Apply Waterproofing to Bay 2	7	01-Mar-16	08-Mar-16	
Bay 1		70	07-Dec-15 A	21-Mar-16	
	CUE - Blinding Bay 1	2	07-Dec-15 A	11-Dec-15 A	
	CUE - Construct Base Slab of Bay 1	22	18-Dec-15 A	04-Feb-16	/</td
PCB-9A-330	CUE - Construct external/internal walls to Bay 1	12	19-Feb-16	03-Mar-16	
PCB-9A-340	CUE - Construct Top slab of Bay 1	12	04-Mar-16	17-Mar-16	
PCB-9A-350	CUE - Apply Waterproofing to Bay 1	3	18-Mar-16	21-Mar-16	
Bay 4		32	01-Mar-16	07-Apr-16	
PCB-9A-210	CUE - Blinding Bay 4	2	01-Mar-16*	02-Mar-16	
	CUE - Construct Base Slab of Bay 4	18	03-Mar-16	23-Mar-16	
PCB-9A-370	CUE - Construct external/internal walls to Bay 4	12	24-Mar-16	07-Apr-16	
Bay 5		32	03-Mar-16	09-Apr-16	
	CUE - Blinding Bay 5	2	03-Mar-16	04-Mar-16	
	CUE - Construct Base Slab of Bay 5	18	05-Mar-16	25-Mar-16	
	CUE - Construct external/internal walls to Bay 5	12	26-Mar-16	09-Apr-16	
		20	05-Mar-16	28-Mar-16	
Bay 6 PCB-9A-230					
	CUE - Blinding Bay 6 CUE - Construct Base Slab of Bay 6	2	05-Mar-16 08-Mar-16	07-Mar-16 28-Mar-16	
		18	08-101ar-16 04-Dec-15 A	28-Mar-16 05-Apr-16	
Seawater Pu	<del></del>	88	04-Dec-15 A	05-Apr-16	
PCB-13A-0500	Assumed Commencement of Seawater Pumpstation	0	04-Dec-15 A		
Piling		88	04-Dec-15 A	05-Apr-16	
PCB-13A-110	SWP - Prebored socket H-piles (1 to 10) x 2 rigs	20	04-Dec-15 A	21-Dec-15 A	
PCB-13A-500	SWP - Prebored socket H-piles (11 to 20) x 2 rigs	20	15-Dec-15 A	18-Jan-16	
PCB-13A-510	SWP - Prebored socket H-piles (21 to 30) x 2 rigs	20	19-Jan-16	17-Feb-16	
PCB-13A-520	SWP - Prebored socket H-piles (31 to 40) x 2 rigs	20	18-Feb-16	11-Mar-16	
PCB-13A-720	SWP - Prebored socket H-piles (41 to 50) x 2 rigs	20	12-Mar-16	05-Apr-16	

3MRP BAR	3MRP - Progress to 04-Jan-1
Actual Work	Page 9 of 9
Critical Remaining Work	rage 9 01 9
<ul> <li>♦ Milestone</li> </ul>	





## **APPENDIX D**

**Event and Action Plan** 

## Event/Action Plan for Air Quality

	EVENT		ACTI	ON	
		ET	IEC	ER	CONTRACTOR
	CTION LEVEL			1	
1.	Exceedance for one sample	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform IEC and ER;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method.</li> </ol>	1. Notify Contractor.	<ol> <li>Rectify any unacceptable practice;</li> <li>Amend working methods if appropriate.</li> </ol>
2.	Exceedance for two or more consecutive samples	<ol> <li>Identify source;</li> <li>Inform IEC and ER;</li> <li>Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>Repeat measurement s to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Discuss with IEC and Contractor on remedial actions required;</li> <li>If exceedance continues, arrange meeting with IEC and ER;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>Supervise Implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Ensure remedial measures properly implemented.</li> </ol>	<ol> <li>Submit proposals for remedial to ER within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Amend proposal if appropriate.</li> </ol>

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

EVENT	ACTION						
	ET	IEC	ER	CONTRACTOR			
	<ol> <li>Notify IEC and Contractor;</li> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Report the results of investigation to the IEC, ER and Contractor;</li> <li>Discuss with the Contractor and formulate remedial measures;</li> <li>Increase monitoring frequency to check mitigation effectiveness.</li> </ol>		notification of failure in writing; 2. Notify Contractor;	<ol> <li>Submit noise mitigation proposals to IEC;</li> <li>Implement noise mitigation proposals.</li> </ol>			
Limit Level	<ol> <li>Inform IEC, ER, EPD and Contractor;</li> <li>Identify source;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency;</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>Inform IEC, ER and EPD the causes and actions taken for the exceedances;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>Ensure remedial measures properly implemented;</li> <li>If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control;</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>			



# **APPENDIX E**

Waste Flow Table

Name of Department: Highways Department

Contract No.: HY/2013/01



#### Monthly Summary Waste Flow Table for 2015

	Ac	tual Quantitie	s of Inert C&D	) Materials Ge	nerated Mont	hly	Actual Quantities of C&D Wastes Generated Monthly				
Month	a.Total Quantity Generated (see Note 8)	b. Hard Rock and Large Broken Concrete (see Note 9)	c. Reused in the Contract	d. Reused in Other Projects (see Note 12)	e. Disposed as Public Fill (see Note 10)	f. Imported Fill	g. Metals (see Note 5)	h. Paper / Cardboard Packaging (see Note 5)	i. Plastics (see Note 3) (see Note 5)	j. Chemical Waste	k. Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
January	24.799	0.000	0.000	12.018	12.781	0.000	29.910	0.314	0.000	1.440	0.044
February	12.073	0.000	0.000	5.159	6.914	0.000	20.850	0.473	0.003	0.000	0.022
March	15.990	0.000	0.000	4.489	11.501	0.000	90.810	0.673	0.000	2.400	0.047
April	7.596	0.000	0.000	1.606	5.990	0.000	79.070	0.669	0.000	0.000	0.066
May	14.012	0.000	3.608	6.521	3.883	0.000	8.630	0.000	0.000	2.560	0.048
June	58.988	0.000	0.010	56.981	1.997	0.000	154.600	0.586	0.000	0.000	0.057
Sub-total	133.458	0.000	3.618	86.774	43.066	0.000	383.870	2.715	0.003	6.400	0.284
July	28.566	0.000	0.000	27.504	1.062	0.000	49.660	0.912	0.000	0.000	0.044
August	40.872	2.038	0.000	37.956	2.916	0.000	58.210	0.840	0.000	1.120	0.103
September (11)	72.653	2.109	0.000	70.353	2.300	0.000	78.240	1.764	0.000	0.000	0.074
October	57.852	1.492	0.000	56.196	1.656	0.000	67.420	0.000	0.000	0.000	0.114
November	21.599	1.106	0.000	20.493	1.106	0.000	78.570	0.906	0.000	0.000	0.266
December	16.867	0.233	0.000	16.299	0.568	0.000	93.680	0.952	0.000	0.000	0.113
Total	371.867	6.978	3.618	315.575	52.674	0.000	809.650	8.089	0.003	7.520	0.998

Total C&D waste generated = a+b+f+g+h+i+j+k

Total C&D waste generated (excluded excavated material) = g+h+i+j+k

Total C&D waste recycled = c+d+g+h+i

% of recycled C&D waste = (Total C&D waste generated - Total C&D waste recycled) / Total C&D waste generated

Name of Department: Highways Department

#### Contract No.: HY/2013/01



#### Notes: (1) The performance target are given in PS Clause 6(14).

- (2) The waste flow table shall also include C&D materials that are not specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (4) The Contractor shall also submit the latest forecast of the amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m<sup>3</sup>.
- (5) All recyclable materials, including metals, paper / cardboard packaging, plastics, etc. will be collected by registered collector for recycling.

#### (6) Conversion factors for reporting purpose:

- in-situ: rock = 2.5 tonnes/m<sup>3</sup>; soil = 2.0 tonnes/m<sup>3</sup>
- excavated: rock = 2.0 tonnes/m<sup>3</sup>; soil = 1.8 tonnes/m<sup>3</sup>; broken concrete and bitumen = 2.4 tonnes/m<sup>3</sup>
- C&D Waste = 0.9 tonnes/m<sup>3</sup>; bentonite slurry = 2.8 tonnes/m<sup>3</sup>

Diesel density: 0.8kg/l

- (7) Numbers are rounded off to the nearest three decimal places.
- (8) The "Total Quantity Generated" equals to the sum of "Reuse in the Contract", "Reuse in Other Projects" and "Disposed as Public Fill".
- (9) The "Hard Rock and Large Broken Concrete" were disposed as public fill.
- (10) The amount in "Disposed as Public Fill" included the "Hard Rock and Large Broken Concrete" disposed as public fill.
- (11) The actual quantity of Metals (Item g) and Paper/Cardboard Packaging (Item h) generated from the Contractor in September 2015 have been updated according to the latest information provided by the Contractor in October 2015.
- (12) The item d "Reused in Other Project" includes the quantities of treated excavated sediment, sand, etc. Other project refers to Contract No. HY/2010/02.

page 2

a. Estimated Volume of Month Marine Sediment Generated (m <sup>3</sup> )		b. Estimated Volume of Accumulated Treated Marine Sediment (m <sup>3</sup> )	c. Reused in the Contract (m³)	d. Estimated Volume of Reused Marine Sediment in Other Project (m <sup>3</sup> ) <sup>(2)</sup>	e. Estimated Volume of Treated Marine Sediment Stored on Site (Unused) (m <sup>3</sup> )
Jan 2015	5,516	11,970	0	11,970	0
Feb 2015	3,227	5,159	0	5,159	0
Mar 2015	3,402	4,489	0	4,489	0
Apr 2015	2,716	1,606	0	1,606	0
May 2015	1,120	3,496	0	3,496	0
June 2015	539	2,841	0	1,641	1,200
July 2015	0	0	0	0	1,200
Aug 2015	0	0	0	0	1,200
Sept 2015	0	0	0	0	1,200
Oct 2015	50	55	0	0	1,255
Nov 2015	0	0	0	0	1,255
Dec 2015	399	500	0	0	1,755
Total	16,969	30,116	0	28,361	1755 <sup>(1)</sup>

#### Monthly Summary of Marine Sediment for 2015

Note: (1) It presents the quantity of unused treated marine sediment stored on site during the reporting month.

(2) Other project refers to Contract No. HY/2010/02.



# **APPENDIX F**

**Environmental Licenses and Permits** 

Environmental License/ Permits /Notification Register

### Contract HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities - Passenger Clearance Building

	-						Date : Decer	nber 2015	
ltem No.	Permit/License or RegistrationApplicationWork AreaDateReference		Application Application Permi Work Date Reference Description		Permit/License/ Registration Number	Issue/Start Date	Expiry Date	Issuing Office	Remark
1	All Areas	29 Jul 13	N/A	Environmental Permit to construct the Passenger Clearance Building and associated works of the Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities	EP-353/2009/G	06 Aug 13	N/A	EPD	Superseded by EP-353/2009/H
2	All Areas	16 Jan 15	N/A	Environmental Permit to construct the Passenger Clearance Building and associated works of the Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities	EP-353/2009/H	19 Jan 15	N/A	EPD	Superseded by EP-353/2009/I
3	All Areas	30 Jun 15	N/A	Environmental Permit to construct the Passenger Clearance Building and associated works of the Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities	EP-353/2009/I	17 Jul 15	N/A	EPD	
4	All Areas	29 Apr 14	H2620-LTR-EPD- AU-000006	Billing Account for disposal of construction waste	Billing Account No.: 7019944	16 May 14	N/A	EPD	
5	РСВ	30 Apr 14	H2620-LTR- EPD- 000002	<u>Notification</u> that notifiable works are anticipated to commence (Form NA).	Acknowledge Receipt Ref. No. 373961	05 May 14	N/A	EPD	



Environmental License/ Permits /Notification Register

#### Contract HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities - Passenger Clearance Building

				1	1		Date : Decer	nber 2015	
ltem No.	Permit/License or Registration Application			Permit/License/ Notification/	Permit/License/	Issue/Start Date	Expiry Date	Issuing Office	Remark
NO.	Work Area	Date	Reference	Registration Description	Registration Number	Date	Date		
6	WA2	30 Apr 14	H2620-LTR- EPD- 000003	Notification that notifiable works are anticipated to commence (Form NA).	Acknowledge Receipt Ref. No. 373956	05 May 14	N/A	EPD	
7	WA3	30 Apr 14	H2620-LTR-EPD- AU-000001	Notification that notifiable works are anticipated to commence (Form NA).	Acknowledge Receipt Ref. No. 373962	05 May 14	N/A	EPD	
8	РСВ	30 May 14	H2620-LTR-EPD- AU-000020	Registration as Chemical Waste Producer for disposal of spent batteries, used Iubrication oil and surplus paint at PCB area	WPN: 5213-951-L2846-01	08 Jul 14	N/A	EPD	
9	PCB	23 Jun 14	In H2620-LTR- EPD-000017	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS0683-14	03 Jul 14	29 Dec 14	EPD	Superseded by GW-RS0908-14

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Environmental License/ Permits /Notification Register

### Contract HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities - Passenger Clearance Building

	-						Date : Decer	nber 2015	
ltem No.	Work	mit/License Applic Date	or Registration ation Reference	Permit/License/ Notification/ Registration Description	Permit/License/ Registration Number	Issue/Start Date	Expiry Date	Issuing Office	Remark
	Area	2410		Decemption					
10	WA2	02 Jul 14	H2620-LTR-LCJ- AU-000280	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out ER Office construction works from 19:00 to 23:00. (Non-designated area)	GW-RS0715-14	17 Jul 14	15 Jan 15	EPD	Superseded by GW-RS1034-14
11	WA3	02 Jul 14	H2620-LTR-LCJ- AU-000324	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out construction of JV site office from 19:00 to 23:00. (Non-designated)	GW-RS0716-14	17 Jul 14	15 Jan 15	EPD	Expired
12	PCB	23 Jun 14	H2620-LTR- EPD- 000527	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS0908-14	03 Sep 14	22 Dec 14	EPD	Superseded by GW-RS1044-14
13	PCB	29 Sep 14	H2620-LTR-EPD- AU-000034	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS1044-14	29 Sep 14	24 Dec 14	EPD	Superseded by GW-RS1300-14

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### Contract HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities - Passenger Clearance Building

					-		Date : Decer	nber 2015	
ltem No.	Work	mit/License Applic Date	or Registration ation Reference	Permit/License/ Notification/ Registration Description	Permit/License/ Registration Number	Issue/Start Date	Expiry Date	Issuing Office	Remark
14	Area WA2	12 Sep 14	H2620-LTR-EPD- AU-000032	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out ER Office construction works from 19:00 to 23:00. (Non-designated area)	GW-RS1034-14	29 Sep 14	28 Mar 15	EPD	Expired
15	WA4	17 Oct 14	H2620-LTR-EPD- AU-000036	<b><u>CNP</u></b> for the use of powered mechanical equipment from 19:00 to 23:00. (Non-designated area)	GW-RW0814-14	20 Oct 14	19 Apr 15	EPD	Expired and replaced by GW- RW0171-15
16	PCB	03 Nov 14	H2620-LTR-EPD- AU-000040	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS1300-14	17 Nov 14	16 Feb 15	EPD	Superseded by GW-RS0087-15
17	PCB	12 Jan 15	H2620-LTR-EPD- AU-000046	<b>CNP</b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS0087-15	26 Jan 15	25 Apr 15	EPD	Superseded by GW-RS0308-15

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Environmental License/ Permits /Notification Register

### Contract HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities - Passenger Clearance Building

	-				-		Date : Decer	nber 2015	
Item	Per	mit/License Applic	or Registration ation	Permit/License/ Notification/ Registration	Permit/License/	Issue/Start	Expiry	Issuing Office	Remark
No.	Work Area	Date	Reference	Description	Registration Number	Date	Date		
18	PCB	12 Mar 15	H2620-LTR-EPD- AU-000051	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS0308-15	26 Mar 15	25 Jun 15	EPD	Superseded by GW-RS0476-15
19	РСВ	31 Jul 14	H2620-LTR-EPD- AU-000038	Water Discharge License for construction works on PCB island	WT00020335-2014	13 Nov 14	30 Nov 19	EPD	
20	WA4	27 Mar 15	H2620-LTR-EPD- AU-000054	<b><u>CNP</u></b> for the use of powered mechanical equipment from 19:00 to 23:00. (Non-designated area)	GW-RW0171-15	20 Apr 15	19 Oct 15	EPD	Superseded by GW-RW0351-15
21	PCB	15 Apr 15	H2620-LTR-EPD- AU-000057	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS0476-15	01 May 15	31 Jul 15	EPD	Superseded by GW-RS0685-15

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Environmental License/ Permits /Notification Register

### Contract HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities - Passenger Clearance Building

	•			-			Date : Decer	nber 2015	
ltem No.	Per Work Area	mit/License o Applic Date	or Registration ation Reference	Permit/License/ Notification/ Registration Description	Permit/License/ Registration Number	Issue/Start Date	Expiry Date	Issuing Office	Remark
22	PCB	09 Jun 15	H2620-LTR-EPD- AU-000063	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS0685-15	01 Jul 15	30 Sep 15	EPD	Superseded by GW-RS0877-15
23	WA4	29 Jun 15	H2620-LTR-EPD- AU-000066	<b><u>CNP</u></b> for the use of powered mechanical equipment from 19:00 to 23:00. (Non-designated area)	GW-RW0351-15	17 Jul 15	12 Jan 16	EPD	
24	PCB	27 Jul 15	H2620-LTR-EPD- AU-000069	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS0877-15	10 Aug 15	09 Nov 15	EPD	Superseded by GW-RS1016-15
25	PCB	02 Sep 15	H2620-LTR-EPD- AU-000072	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out pre- drill and bore piling works from 19:00 to 23:00 and 23:00 to 07:00. (Non- designated area)	GW-RS1016-15	18 Sep 15	17 Dec 15	EPD	Superseded by GW-RS1195-15



Environmental License/ Permits /Notification Register

### Contract HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities - Passenger Clearance Building

				1	1		Date : Decer	nber 2015	
Item	Per	mit/License Applic	or Registration ation	Permit/License/ Notification/	Permit/License/	Issue/Start	Expiry	Issuing Office	Remark
No.	Work Area	Date	Reference	Registration Description	Registration Number	Date	Date		
26	РСВ	22 Oct 15	H2620-LTR-EPD- AU-000075	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area)	GW-RS1195-15	9 Nov 15	8 Feb 16	EPD	Superseded by GW-RS1444-15
27	РСВ	17 Dec 15	H2620-LTR-EPD- AU-000076	<b><u>CNP</u></b> for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area)	GW-RS1444-15	31 Dec15	30 Mar 16	EPD	

Contract HV/2013/01 – Hong Kong Zhubai and N





# **APPENDIX G**

Implementation Schedule for Environmental Mitigation Measures (EMIS)

#### Contract No. HY/2013/01 – Hong Kong Zhuhai and Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building

Implementation Schedule for Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Air Quality								
S5.5.6.1	A1	<ol> <li>The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation</li> </ol>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	To control the dust impact to within the HKAQO and TM- EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 µgm <sup>-3</sup> and 260 µgm <sup>-3</sup> , respectively)	V
S5.5.6.2	A2	<ol> <li>Proper watering of exposed spoil should be undertaken throughout the construction phase:</li> <li>Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;</li> <li>Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones.</li> <li>The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;</li> <li>Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing tackes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;</li> </ol>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	To control the dust impact to within the HKAQO and TM- EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 μgm <sup>-3</sup> and 260 μgm <sup>-3</sup> , respectively)	V

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	for the measures to achieve?	Implementation Status
S5.5.6.2	A2	<ul> <li>When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;</li> <li>The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;</li> <li>Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;</li> <li>Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;</li> <li>Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding;</li> <li>Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;</li> </ul>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	To control the dust impact to within the HKAQO and TM- EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 µgm <sup>-3</sup> and 260 µgm <sup>-3</sup> , respectively)	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S5.5.6.2	A2	<ul> <li>Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;</li> <li>Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and</li> <li>Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.</li> </ul>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	To control the dust impact to within the HKAQO and TM- EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 µgm <sup>-3</sup> and 260 µgm <sup>-3</sup> , respectively)	V
S5.5.6.4	A3	The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.	Control construction dust	Contractor	All construction sites	Construction stage	To control the dust impact	1
S5.5.6.5	A4	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.	Control construction dust	Engineer	All construction sites	Design Stage	Air Pollution Control (Construction Dust) Regulation	V
S5.5.6.5	A5	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period.	Contractor	Selected representative dust monitoring station	Construction stage	<ul> <li>Air Pollution Control (Construction Dust) Regulation</li> <li>To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 µgm<sup>-3</sup> and 260 µgm<sup>-3</sup>, respectively)</li> </ul>	√ (The dust monitoring works under EM&A programme for the Contract are covered by Contract No. HY/2010/02 and Contract No. HY/2011/03.)

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S5.5.7.1	A6	<ul> <li>The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant:</li> <li>Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system;</li> <li>All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP;</li> <li>Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system;</li> <li>The materials which may generate airborne dusty emissions should be wetted by water spray system;</li> <li>All receiving hoppers should be enclosed on three sides up to 3m above unloading point;</li> <li>All conveyor transfer points should be totally enclosed;</li> <li>All access and route roads within the premises should be paved and wetted; and</li> <li>Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body.</li> </ul>	Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period.	Contractor	Selected representative dust monitoring station	Construction stage	<ul> <li>Air Pollution Control (Construction Dust) Regulation</li> <li>To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 µgm<sup>-3</sup> and 260 µgm<sup>-3</sup>, respectively)</li> </ul>	N/A
S5.5.2.7	A7	<ul> <li>The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point:</li> <li>All road surface within the barging facilities will be paved;</li> <li>Dust enclosures will be provided for the loading ramp;</li> <li>Vehicles will be required to pass through designated wheels wash facilities; and</li> <li>Continuous water spray at the loading points.</li> </ul>	Control construction dust	Contractor	All construction sites	Construction stage	Air Pollution Control (Construction Dust) Regulation	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
	-	(Air borne)						
S6.4.10	N1	<ol> <li>Use of good site practices to limit noise emissions by considering the following:</li> <li>only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;</li> <li>machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;</li> <li>plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;</li> <li>mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ol>	Control construction airborne noise by means of good site practices	Contractor	All construction sites	Construction stage	Noise Control Ordinance	
S6.4.11	N2	<ol> <li>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.</li> </ol>	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites	Construction stage	Noise Control Ordinance     Annex 5, TM- EIA	N/A
S6.4.12	N3	<ol> <li>Install movable noise barriers (typically density @14kg/m<sup>2</sup>), acoustic mat or full enclosure close to noisy plants including air compressor, generators, saw.</li> </ol>	Screen the noisy plant items to be used at all construction sites	Contractor	For plant items listed in Appendix 6D of the EIA report at all construction sites	Construction stage	<ul> <li>Noise Control Ordinance</li> <li>Annex 5, TM- EIA</li> <li>75dB(A) for residential premises</li> <li>The movable barrier should achieve at least 5dB(A) and the full enclosure should be</li> </ul>	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
S6.4.13	N4	<ol> <li>Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.</li> </ol>	Reduce the noise levels of plant items	Contractor	For plant items listed in Appendix 6D of the EIA report at all construction sites	stage	<ul> <li>Noise Control Ordinance &amp; its TM</li> <li>Annex 5, TM- EIA</li> </ul>	V
S6.4.14	N5	5) Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction stage	<ul> <li>Noise Control Ordinance</li> <li>Annex 5, TM- EIA</li> </ul>	V
/	N6	6) Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representative noise monitoring station	Construction stage	<ul> <li>Noise Control Ordinance</li> <li>Annex 5, TM- EIA</li> <li>75dB(A) for residential premises</li> </ul>	√ (The noise monitoring works under EM&A programme for the Contract are covered by Contract No. HY/2010/02.)
Sediment		L				1		1
S7.3	S1	<ol> <li>The requirements as recommended in ETWB TC 34/2002 Management of Dredged/Excavated Sediment shall be included in the Particular Specification as appropriate.</li> </ol>	Develop sediment disposal arrangement	Engineer	All construction sites	Design stage	Waste Disposal Ordinance     ETW B TC 34/2002	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Waste Mana	agement (	Construction Waste)						
S8.3.8	WM1	<ul> <li>Construction and Demolition Material The following mitigation measures should be implemented in handling the waste: <ul> <li>Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement;</li> <li>Carry out on-site sorting;</li> <li>Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> <li>Adopt 'Selective Demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible;</li> <li>Implement a trip-ticket system for each works contract to ensure that the disposal of C&amp;D materials are properly documented and verified; and</li> <li>Implement an enhanced Waste Management Plan similar to ETW BTC (Works) No. 19/2005 – "Environmental Management on Construction Sites" to encourage on-site sorting of C&amp;D materials and to minimize their generation during the course of construction.</li> <li>In addition, disposal of the C&amp;D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get its approval before implementation.</li> </ul></li></ul>	Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction stage	Land (Miscellaneous Provisions) Ordinance Waste Disposal Ordinance ETW BTC 19/2005	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
\$8.3.9- \$8.3.11	WM2	<ul> <li><u>C&amp;D Waste</u></li> <li>Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&amp;D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage.</li> <li>The Contractor should recycle as much of the C&amp;D materials as</li> </ul>	Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction stage	<ul> <li>Land (Miscellaneous Provisions) Ordinance</li> <li>Waste Disposal Ordinance</li> <li>ETWB TC 19/2005</li> </ul>	V
		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.						
\$8.2.12- \$8.3.15	WM3	<ul> <li><u>Chemical Waste</u></li> <li>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</li> <li>Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation.</li> <li>The storage area for chemical wastes should be clearly labelled 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</li> </ul>	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	Construction stage	<ul> <li>Waste Disposal (Chemical Waste) General) Regulation</li> <li>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</li> </ul>	
		covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated.						

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
		<ul> <li>Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD.</li> </ul>						V
S8.3.16	WM4	<ul> <li><u>Sewage</u></li> <li>Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state, which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly.</li> </ul>	Proper handling of sewage from worker to avoid odour, pest and litter impacts	Contractor	All construction sites	Construction stage	• Waste Disposal Ordinance	V
S8.3.17	WM5	<ul> <li>General Refuse</li> <li>General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes.</li> <li>A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.</li> <li>Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible.</li> <li>Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor. In addition, waste separation facilities for paper, aluminum cans, plastic bottles etc., should be provided.</li> <li>Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes.</li> </ul>	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Water Qual	lity (Constr	uction Phase)						
S.9.11.1.7	W2	Land Works 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: • wastewater from temporary site facilities should be controlled to	To control construction water quality	Contractor	Land-based works areas	Construction stage	TM-EIAO	√
		<ul> <li>prevent direct discharge to surface or marine waters;</li> <li>sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the W PCO or collected for disposal offsite. The use of soakaways shall be avoided;</li> </ul>						
		<ul> <li>storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks;</li> </ul>						
		<ul> <li>silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm;</li> </ul>						
		<ul> <li>temporary access roads should be surfaced with crushed stone or gravel;</li> </ul>						
		<ul> <li>rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;</li> </ul>						
		<ul> <li>measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system;</li> </ul>						
		<ul> <li>open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms;</li> </ul>						
		<ul> <li>manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers;</li> </ul>						
		<ul> <li>discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system;</li> </ul>	10					

EIA Ref.     Ref     Recommended Mitigation Measures     & Main Concerns to address     the     measures     the       EIA Ref.     Ref     Recommended Mitigation Measures     address     measures?     measures?     measures?     ach	standards for the measures to achieve?	Implementation Status
	TM-EIAO	

EIA Ref.	EM&A Log Ref	Recommended Measures implement the		Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status	
Ecology (C	onstructio	n Phase)						
S10.7	E4	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	Prevent Sedimentation from Land-based works areas	Contractor	Land-based works areas	During construction	TM-Water	V
S10.7	E5	Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time	Prevent disturbance to terrestrial fauna and habitats	Contractor	Land-based works areas	During construction		V
S10.7	E8	<ul> <li>Control vessel speed</li> <li>Skipper training</li> <li>Predefined and regular routes for working vessels; avoid Brother Islands.</li> </ul>	Minimise marine traffic disturbance on dolphins	Contractor	Marine Traffic	During construction		N/A
Fisheries								
S11.7	F4	<ul> <li>Maritime Oil Spill Response Plan (MOSRP);</li> <li>Contingency plan.</li> </ul>	Minimise impacts on marine water quality impacts	Marine Department	HKBCF	During operation		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Landscape	& Visual (	Detailed Design Phase)						
S14.3.3.1	LV1	<ul> <li>General design measures include:</li> <li>Roadside planting and planting along the edge of the HKBCF Island is proposed;</li> <li>Transplanting of mature trees in good health and amenity value where appropriate and reinstatement of areas disturbed during construction by compensatory hydro-seeding and planting;</li> <li>Protection measures for the trees to be retained during construction activities;</li> <li>Optimizing the sizes and spacing of the bridge columns; Finetuning the location of the bridge columns to avoid visually-sensitive locations;</li> <li>Maximizing new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed;</li> <li>Providing planting area around peripheral of HKBCF for tree planting screening effect;</li> <li>Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline;</li> <li>For HKBCF, providing aesthetic architectural design on the related buildings (e.g. similar materials for PCB building facade to Airport buildings, roof planting and subtle materials for other facilities buildings and so on), and the related infrastructure (e.g. parapet planting and transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF; and</li> <li>Fine-tuning the sizes of the structural members to minimize the bulkiness of buildings and adjustment of building arrangement to minimise disturbance to surrounding vegetation in the HKBCF.</li> </ul>	Minimise visual & landscape impact	Detailed designer	HKBCF	Design Stage		N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
Landscape a	& Visual (C	Construction Phase)						
S14.3.3.3	LV2	<ul> <li>Mitigate both Landscape and Visual Impacts</li> <li>G1. Grass-hydroseed bare soil surface and stock pile areas.</li> <li>G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge footbridge to screen bridge and traffic.</li> <li>G3. Not applicable as this is for HKLR.</li> <li>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</li> <li>G5. Vegetation reinstatement and upgrading to disturbed areas</li> <li>G6. Maximizing new tree shrub and other vegetation planting to compensate tree felled and vegetation removed</li> <li>G7. Providing planting area around peripheral of HKBCF for tree planting screening effect;</li> <li>G8. Plant salt-tolerant native and shrubs etc along the planter strip at affected seawall.</li> <li>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 enchance "natural-look" of the new coastline.</li> </ul>	Minimise visual & landscape impact	Contractor	HKBCF	Construction stage		N/A
S14.3.3.3	LV3	Mitigate Visual Impacts           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.						√ for V1. N/A for V2.

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?	Implementation Status
EM&A								
S15.2.2	EM1	An Independent Environmental Checker needs to be employed as per the EM&A Manual.	Control EM&A Performance	Project Proponent	All construction sites		EIAO Guidance Note No.4/2002     TM-EIAO	V
S15.5 - S15.6	EM2	<ol> <li>An Environmental Team needs to be employed as per the EM&amp;A Manual.</li> <li>Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures.</li> <li>An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&amp;A Manual are fully complied with.</li> </ol>	Perform environmental monitoring & auditing	Contractor	All construction sites		EIAO Guidance Note No.4/2002     TM-EIAO	V

Legends:  $\sqrt{}$  = Implemented; X = Not implemented; N/A = Not applicable



# **APPENDIX H**

Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions



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

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



# **APPENDIX I**

Environmental Site Inspection Schedule

				Jan-16			
	Sunday	Monday	Tueday	Wednesday	Thursday	Friday	Saturday
Time						1-Jan	2-Jan
Time	3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan
				Site Inspection			
Time	10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan
				Site Inspection			
Time	17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan
				Site Inspection			
Time	24-Jan	25-Jan	26-Jan	27-Jan	28-Jan	29-Jan	30-Jan
				Site Inspection			
Time	31-Jan						