



CONTRACT NO: HK/2011/07

WANCHAI DEVELOPMENT PHASE II AND CENTRAL
WANCHAI BYPASS
SAMPLING, FIELD MEASUREMENT AND TESTING WORKS
(STAGE 2)

ENVIRONMENTAL PERMIT NO. EP-356/2009,
FURTHER ENVIRONMENTAL PERMIT NOS. FEP-02/356/2009,
FEP-03/356/2009, FEP-04/356/2009 , FEP-06/356/2009 AND
FEP-07/356/2009

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

- JANUARY 2015 -

CLIENTS:

Civil Engineering and Development
Department

and

Highways Department

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DATE:

13 February 2015

Ref.: AACWBIECEM00_0_6252L.15

13 February 2015

AECOM Asia Company Limited
Engineer's Representative's Office
25 Hung Hing Road,
Causeway Bay,
Hong Kong

By Post and Fax (3912 3010)

Attention: Mr. Peter Poon

Dear Sir,

Re: Wan Chai Development Phase II and Central-Wan Chai Bypass
Monthly Environmental Monitoring and Audit Report (January 2015)
for EP-356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-
06/356/2009 and FEP-07/356/2009

Reference is made to the Environmental Team's submission of the captioned Updated Monthly Environmental Monitoring and Audit (EM&A) Report for January 2015 received by e-mail on 13 February 2015 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permits.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,



David Yeung
Independent Environmental Checker

c.c.	HyD	Mr. Bond Chow	by Fax: 2714 5289
	CEDD	Mr. Jason Cheung	by Fax: 2577 5040
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TABLE OF CONTENTS

EXECUTIVE SUMMARY 4

1. INTRODUCTION..... 11

1.1 Scope of the Report 12

1.2 Structure of the Report..... 12

2. PROJECT BACKGROUND..... 14

2.1 Background 14

2.2 Scope of the Project and Site Description 14

2.3 Division of the Project Responsibility 15

2.4 Project Organization and Contact Personnel..... 16

3. STATUS OF REGULATORY COMPLIANCE 20

3.1 Status of Environmental Licensing and Permitting under the Project..... 21

4. MONITORING REQUIREMENTS..... 30

4.1 Noise Monitoring 33

4.2 Air Monitoring 34

4.3 Water Quality Monitoring..... 37

5. MONITORING RESULTS 42

5.1 Noise Monitoring Results 42

5.2 Real-time Noise Monitoring..... 44

5.3 Air Monitoring Results 45

5.4 Water Monitoring Results..... 46

5.5 Waste Monitoring Results 55

6. COMPLIANCE AUDIT 59

6.1 Noise Monitoring 62

6.2 Real-time noise Monitoring 62

6.3 Air Monitoring 62

6.4 Water Quality Monitoring..... 63

6.5 Review of the Reasons for and the Implications of Non-compliance..... 64

6.6 Summary of action taken in the event of and follow-up on non-compliance 64

7. CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS 64

8. ENVIRONMENTAL SITE AUDIT..... 65

9. COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION 67

10. CONCLUSION 71

LIST OF TABLES

Table I *Summary of Water Quality Monitoring Exceedances in Reporting Month*

Table II *Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month*

Table 2.1 *Schedule 2 Designated Projects under this Project*

Table 2.2 *Details of Individual Contracts under the Project*

Table 2.3 *Contact Details of Key Personnel*

Table 3.1 *Summary of the current status on licences and/or permits on environmental protection pertinent to the Project*

Table 3.2 *Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01*

Table 3.3 *Summary of submission status under FEP-02/356/2009 Condition*

Table 3.4 *Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02*

Table 3.5 *Summary of submission status under FEP-03/356/2009 Condition*

Table 3.6 *Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15*

Table 3.7 *Summary of submission status under FEP-04/356/2009 Condition*

Table 3.8 *Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/19*

Table 3.9 *Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08*

Table 3.10 *Summary of submission status under EP-356/2009 & FEP-06/356/2009 Condition*

Table 3.11 *Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08*

Table 3.12 *Summary of submission status under EP-356/2009 and FEP-07/356/2009 Condition*

Table 4.1 *Noise Monitoring Station*

Table 4.2 *Real Time Noise Monitoring Station*

Table 4.3 *Air Monitoring Station*

Table 4.4 *Marine Water Quality Stations for Water Quality Monitoring*

Table 4.5 *Marine Water Quality Monitoring Frequency and Parameters*

Table 4.6 *Marine Water Quality Stations for Enhanced Water Quality Monitoring*

Table 5.1 *Noise Monitoring Station for Contract nos. HK/2009/01, HK/2009/02*

Table 5.2 *Noise Monitoring Station for Contract no. HY/2009/15*

Table 5.3 *Noise Monitoring Station for Contract no. HY/2009/19*

Table 5.4 *Noise Monitoring Station for Contract no. HY/2010/08*

Table 5.5 *Real Time Noise Monitoring Station for Contract no. HY/2009/19*

Table 5.6 *Air Monitoring Station for Contract no. HK/2009/01*

Table 5.7 *Air Monitoring Station for Contract no. HK/2009/02*

Table 5.8 *Air Monitoring Station for Contract no. HY/2009/15*

Table 5.9 *Air Monitoring Stations for Contract no. HY/2009/19*

Table 5.10 *Air Monitoring Stations for Contract no. HK/2012/08*

Table 5.11 *Air Monitoring Stations for Contract no. HY/2010/08*

Table 5.12 *Water Monitoring Stations for contracts with respect to remaining DP3 work areas after the completion of DP5 & DP6 in 2012 and intake diversion in 2013*

Table 5.13 *Water Monitoring Stations for Contract no. HK/2009/01*

Table 5.14 *Water Monitoring Stations for Contract no. HK/2009/02*

Table 5.15 *Water Monitoring Stations for Contract no. HK/2012/08*

Table 5.16 *Water Monitoring Stations for Contract no. HY/2009/15*

Table 5.17 *Summary of Water Quality Monitoring Exceedances in Reporting Month*

Table 5.18 *Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month*

Table 5.19 *Details of Waste Disposal for Contract no. HK/2009/01*

Table 5.20 *Details of Waste Disposal for Contract no. HK/2009/02*

Table 5.21 *Details of Waste Disposal for Contract no. HY/2009/15*

Table 5.22 *Details of Waste Disposal for Contract no. HY/2009/19*

Table 5.23 *Details of Waste Disposal for Contract no. HK/2012/08*

Table 5.24 *Details of Waste Disposal for Contract no. HY/2010/08*

Table 8.1 *Summary of Environmental Inspections for Contract no. HK/2009/01*

Table 8.2	<i>Summary of Environmental Inspections for Contract no. HK/2009/02</i>
Table 8.3	<i>Summary of Environmental Inspections for Contract no. HY/2009/15</i>
Table 8.4	<i>Summary of Environmental Inspections for Contract no. HY/2009/19</i>
Table 8.5	<i>Summary of Environmental Inspections for Contract no. HK/2012/08</i>
Table 8.6	<i>Summary of Environmental Inspections for Contract no. HY/2010/08</i>
Table 9.1	<i>Cumulative Statistics on Complaints</i>
Table 9.2	<i>Cumulative Statistics on Successful Prosecutions</i>
Table 10.1	<i>Construction Activities and Recommended Mitigation Measures in Coming Reporting Month</i>

LIST OF FIGURES

Figure 2.1	<i>Project Layout</i>
Figure 2.2	<i>Project Organization Chart</i>
Figure 4.1	<i>Locations of Environmental Monitoring Stations</i>

LIST OF APPENDICES

Appendix 3.1	<i>Environmental Mitigation Implementation Schedule</i>
Appendix 4.1	<i>Action and Limit Level</i>
Appendix 4.2	<i>Copies of Calibration Certificates</i>
Appendix 5.1	<i>Monitoring Schedule for Reporting Month and Coming month</i>
Appendix 5.2	<i>Noise Monitoring Results and Graphical Presentations</i>
Appendix 5.3	<i>Air Quality Monitoring Results and Graphical Presentations</i>
Appendix 5.4	<i>Water Quality Monitoring Results and Graphical Presentations</i>
Appendix 5.5	<i>Real-time Noise Monitoring Results and Graphical Presentations</i>
Appendix 6.1	<i>Event Action Plans</i>
Appendix 6.2	<i>Summary for Notification of Exceedance</i>
Appendix 9.1	<i>Complaint Log</i>
Appendix 10.1	<i>Construction Programme of Individual Contracts</i>

EXECUTIVE SUMMARY

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – [January 2015](#) for the Project of Wan Chai Development Phase II and Central-Wanchai Bypass under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009. This report presents the environmental monitoring findings and information recorded during the period [December 2014 to January 2015](#). The cut-off date of reporting is at 27th of each reporting month.

Construction Activities for the Reported Period

- ii. During this reporting period, the major work activities for Contract no. HK/2009/01 included:
- [IHS for rock trimming works for cross harbour water main](#)
- iii. During this reporting period, the major work activities for Contract no. HK/2009/02 included:
- [Works of covered walkway](#)
 - [Drainage work](#)
 - [ABWF work](#)
 - [Dredging and Reclamation at WCR3](#)
- iv. During this reporting period, the major work activities for Contract no. HY/2009/15 included:
- [Temporary reclamation at TPCWAW](#)
 - [Maintenance dredging](#)
 - [Reinstatement of existing bermstone and seawall at TS4](#)
 - [Installation of seawall blocks and backfilling works for formation of TZ5](#)
- v. During this reporting period, the major work activities for Contract no. HY/2009/19 included:
- [Nil](#)
- vi. During this reporting period, the major work activities for Contract no. HK/2012/08 included:
- [ELS for box culvert L at Lung King Street](#)
 - [Placing of levelling stones](#)
 - [Dry dock construction](#)
 - [Installation of caisson seawall](#)
 - [Filling works](#)
- vii. During this reporting period, the major work activities for Contract no. HY/2010/08.
- [Rock filling works](#)
 - [Dredging works](#)
 - [Seawall blocks installation](#)
 - [Sheet piling works, welding & struts installation works at Outfall Q](#)

- D-wall construction works

Noise Monitoring

- viii. No action or limit level exceedance was recorded in this reporting month.
- ix. Noise monitoring during daytime and restricted hour were conducted at the stations M1a, M2b, M3a, M4b, M5b and M6 on a weekly basis in the reporting month.

Real-time Noise Monitoring

- x. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.
- xi. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.
- xii. 24-hour real time noise monitoring was conducted at RTN2a – Hong Kong Electric Centre. No project related exceedance was recorded in the reporting month.

Air Quality Monitoring

- xiii. Due to electricity interruption, the following 24hr TSP monitoring events were rescheduled in the reporting month,
24hr TSP monitoring at CMA3a was rescheduled from 27 January 2015 to 28 January 2015.
- xiv. With respect to the area handover, the air quality monitoring station CMA5a at Children Playgrounds opposite to the Pedestrian Plaza was relocated to the Pedestrian Plaza on 3 December 2014. The station reference and location ID of the air quality monitoring station CMA5a was updated as CMA5b and Pedestrian Plaza respectively
- xv. Due to extension of site boundary by contractor of HY/2009/19, location of air monitoring station CMA1b – Oil Street Community Liaison Centre has been finely adjusted on 21 April 2012.
- xvi. The location ID of air monitoring station CMA1b was updated as Oil Street Site Office in April 2013.
- xvii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA1b – Oil Street Site Office; CMA2a – Causeway Bay Community Center; CMA3a – CWB PRE Site Office Area; CMA4a – Society for the Prevention of Cruelty to Animals; CMA5a – Children Garden opposite to Pedestrian Plaza.

Water Quality Monitoring

- xviii. Due to malfunctioning of the intake transfer pump and resulting unavailability of seawater supply to Windsor House cooling intake pump house at the designated water tank, the water quality monitoring at monitoring station C7 was cancelled on 8 Jan 2015 during flood tide and

- ebb tide.
- xix. As informed by CWB RSS, the operation of the diverted Windsor House cooling intake was commenced on 20 Dec 2014 and the water quality monitoring at monitoring station C7 for Windsor House Cooling water intake was resumed on 22 Dec 2014.
- xx. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.
- xxi. With respect to the commencement of marine dredging works at WCR3 under contract HK/2009/02. The respective water quality monitoring station C1 were associated with HK/2009/01 and HK/2009/02.
- xxii. As confirmed by CWB RSS, the operation of the pump station for Windsor House Cooling Water was suspended from 22 Oct 2014 for the Windsor House intake cooling intake scheme and temporary supply of freshwater from WSD water mains was provided to cooling water intake The water quality monitoring for the respective cooling water intake at WQM station C7 was temporarily suspended from 22 Oct 2014.
- xxiii. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- xxiv. As confirmed by WDII RSS and IEC, the cross harbor dredging works have completed since 16 March 2012 while the dredging works for submarine outfall pipeline has completed since 29 November 2011, considering current construction stage and dredging Scenario, the water quality monitoring at stations WSD9 and WSD17 was temporarily suspended since 8 September 2014 flood tide.
- xxv. [Action and Limit level of water quality monitoring was transited from wet season to dry season from 1 October 2014.](#)
- xxvi. With respect to the switching over of cooling water intake location, the water quality monitoring at the relocated intake station RW21-P789 under HK/2009/02 was commenced since 29 July 2013 and monitoring station C5e and C5w were temporarily suspended and switched over to monitoring station RW21-P789 on 29 July 2013 due to suspension of pump house operation.
- xxvii. As advised by WDII RSS, the water quality monitoring for WSD21 pump station with respect to HK/2009/02 was switched over to the relocated location since 12 March 2014. According to the EM&A Manual, the water quality monitoring station WSD21 was relocated to station RW21-P789 and the water quality monitoring at station WSD21 was temporarily suspended since 12 March 2014.
- xxviii. With respect to the commencement of marine dredging works under contract HY/2010/08. The respective water quality monitoring station C7 were associated with HY/2009/15 and HY/2010/08.
- xxix. With respect to the commencement of marine dredging works under contract HK/2012/08/ The respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08 Since September 2013.
- xxx. WQM events on 22 April 2013 at monitoring stations C2, C3, C4e and C4w were temporarily suspended. Upon confirmation with WDII RSS and the IEC, water quality monitoring at relocated intakes monitoring location P1, P3, P4 and P5 were commenced since 24 April 2013.

- xxxi. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.
- xxxii. As confirmed by CWB RSS, the marine piling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.
- xxxiii. RSS confirmed that all Type III Dredging works under HK/2009/01 have been completed since Oct 2012.
- xxxiv. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.
- xxxv. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3, 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.
- xxxvi. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.
- xxxvii. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others remain unchanged.
- xxxviii. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration. Water quality monitoring at WSD10 and WSD15 was temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;
- xxxix. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and it was completed on 6 February 2012.
- xl. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Centre (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.
- xli. Water quality monitoring at C8 and C9 have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 12.

Table I Summary of Water Quality Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	0	1	0	0	0	0	0	0	0	0
	P1	0	0	0	0	0	0	0	0	0	0	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	0	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	0	0	0
HK/2009/02	RW21-P789	0	0	0	0	0	0	0	0	0	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	1	0	0	0	0	0	0	0	0

- Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.
- WSD9 and WSD17 were implemented with respect to HK/2009/02 from 8 Feb 2012.
 - 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012.
 - C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
 - C8 & C9 was temporary suspended on 30 March 2013 due to the marine works for Contract no. HY/2009/19 had been completed on 4 March 2013
 - WSD7 and WSD20 water quality monitoring were temporarily suspended from 27 Apr 2012.
 - C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013
 - C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
 - WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
 - Maintenance responsibility of silt screen C1, WSD19, P3, P4 and P5 are under Contract HK/2009/01.
 - WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
 - Water quality monitoring for Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the diversion scheme and was resumed since 22 December 2014.
 - The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

- xlii. There were no action level and 1 limit level exceedance of turbidity recorded in the reporting month. Investigation found that the exceedance was not related to Project works. The details of recorded exceedances can be referred to the **Section 6.4**.
- xliii. Enhanced DO monitoring at 4 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period. The action and limit level exceedances of water quality monitoring are summarized in **Table II**.

Table II Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood		Mid-ebb	
		DO		DO	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	C7	0	0	0	0
	Ex-WPCWA SW	0	0	0	0
	Ex-WPCWA SE	0	0	0	1
Total		0	0	0	1

- xliv. There were no action level exceedances and 1 limit level exceedance of enhanced dissolved oxygen recorded in this reporting month. Investigation found that the exceedance was not related to the Project works. The details of the recorded exceedances can be referred to the **Section 6.4**.
- xlv. In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored.
- xlvi. With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013.
- xlvii. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- xlviii. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.

Complaints, Notifications of Summons and Successful Prosecutions

- xlx. One environmental complaint was received in this reporting month.
 - i. A public complaint regarding air quality impact referred by EPD was received by ET on 27 January 2015 (EPD Case Ref.: H05/RS/00001725-15 dated 27 January 2015) and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015.
 - ii. According to the relevant site records, breaking of seawall blocks and D-wall, concreting, grouting and drilling works and reclamation/ backfilling works were conducted under HY/2009/15 at TPCWAW. Dust mitigation measures including spraying haul road with water,

- covering bagged cement with tarpaulin, providing three sided and top covering for grouting stations and water spraying to dusty activities such as breaking works were implemented by the Contractor of HY/2009/15 near the concerned location on 21 January 2015.
- iii. Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place.
 - liii. In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a , no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants.
 - liv. As such, the site condition under Contract HY/2009/15 at the concerned location was considered to be generally satisfactory and no non-conformity related to cumulative air quality impact was observed. Nevertheless, in view of the public concern, the contractor was reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public.

Site Inspections and Audit

- iv. The Environmental Team (ET) conducted weekly site inspections for Contract nos. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08 under EP no. EP-356/2009 in the reporting month. Major observations and recommendations made during the audit sessions were rectified by the Contractors. No non-conformance was identified during the site inspections.
- lvi. Construction works under HK/2010/06 was confirmed completed and the respective work area under FEP-05/356/2009 was handover and inspected under HK/2012/08 from 22 September 2014 onwards.

Future Key Issues

- lvii. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

[Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC](#)

- Nil

[Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East](#)

- Seawall caisson fabrication at PRC
- Placing of levelling stones near the seawall trench

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- Temporary reclamation at TPCWAW
- Reinstatement of existing bermstone and seawall at TS4
- Installation of seawall blocks and backfilling works for formation of TZ5
- Reinstatement of existing seawall at TPCWAE

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- Nil

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- ELS for box culvert L at Lung King Street
- Dry dock construction
- Filling works

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- Rock filling works
- Dredging works
- D-wall construction works

1 Introduction

1.1 Scope of the Report

- 1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-014/2001).
- 1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.3 of EM&A Manual and “*Environmental Monitoring and Audit Requirements*” under Particular Specification Section 27.
- 1.1.3. This report documents the finding of EM&A works for Environmental Permit no. EP-356/2009, Further Environmental Permit no. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 during the period of [December 2014 to January 2015](#). The cut-off date of reporting is at 27th of each reporting month.

1.2 Structure of the Report

- Section 1** **Introduction** – details the scope and structure of the report.
- Section 2** **Project Background** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- Section 3** **Status of Regulatory Compliance** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.
- Section 4** **Monitoring Requirements** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.
- Section 5** **Monitoring Results** – summarizes the monitoring results obtained in the reporting period.
- Section 6** **Compliance Audit** – summarizes the auditing of monitoring results, all exceedances environmental parameters.
- Section 7** **Cumulative Construction Impact due to the Concurrent Projects** – summarizes the relevant cumulative construction impact due to the concurrent activities of the concurrent Projects.



- Section 8** **Environmental Site Audit** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.
- Section 9** ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution
- Section 10** ***Conclusion***

2 Project Background

2.1 Background

- 2.1.1. “Wan Chai Development phase II and Central-Wan Chai Bypass” and “Central-Wan Chai Bypass and Island Eastern Corridor Link” (hereafter called “the Project”) are Designed Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001) and Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) have been approved on 31 August 2001 and 11 December 2008 respectively.
- 2.1.2. The key purpose of Wan Chai Development Phase II (WDII) is to provide land at Wan Chai North and North Point for construction of the Central-Wan Chai Bypass and Island Eastern Corridor Link (CWB). Land formed under the project will be developed as a world-class waterfront promenade joining that at the new Central waterfront for public enjoyment.
- 2.1.3. There is a compelling and present need for the CWB to provide relief to the very congested east-west Connaught Road Central/Harcourt Road / Gloucester Road Corridor (the Corridor) which is currently operating beyond its capacity. The CWB will provide relief to the existing congestion along the Corridor and cater for the anticipated growth of traffic on Hong Kong Island. Without the CWB and its access roads, there will not be sufficient capacity to serve the heavy traffic demands at both strategic and local levels.

2.2 Scope of the Project and Site Description

- 2.2.1. The Project is located mainly in Wan Chai North, Causeway Bay and North Point, and is demarcated by Gloucester Road and Victoria Park Road to the south, Fenwick Pier Street to the west and Tong Shui Road Interchange to the east, as shown in **Figure 2.1**.
- 2.2.2. The study area encompasses existing developments along the Wan Chai, Causeway Bay and North Point shorelines. Major land uses include the Hong Kong Convention & Exhibition Centre (HKCEC) Extension, the Wan Chai Ferry Pier, the ex-Wan Chai Public Cargo Working Area (ex-PCWA), the Royal Hong Kong Yacht Club (RHKYC), the Police Officers’ Club, the Causeway Bay Typhoon Shelter (CBTS) and commercial and residential developments.
- 2.2.3. The scope of the Project comprises:
- Land formation for key transport infrastructure and facilities, including the Trunk Road (i.e. CWB) and the associated slip roads for connection to the Trunk Road and for through traffic from Central to Wan Chai and Causeway Bay. The land formed for the above transport infrastructure will provide opportunities for the development of an attractive waterfront promenade for the enjoyment of the public
 - Reprovisioning / protection of the existing facilities and structures affected by the land formation works mentioned above
 - Extension, modification, reprovisioning or protection of existing storm water drainage outfalls, sewerage outfalls and watermains affected by the revised land use and land formation works mentioned above

- Upgrading of hinterland storm water drainage system and sewerage system, which would be rendered insufficient by the land formation works mentioned above
- Provision of the ground level roads, flyovers, footbridges, necessary transport facilities and the associated utility services
- Construction of the new waterfront promenade, landscape works and the associated utility services
- The Trunk Road (i.e. CWB) within the study area and the associated slip roads for connection to the Trunk Road.

2.2.4. The project also contains various Schedule 2 DPs that, under the EIAO, require Environmental Permits (Eps) to be granted by the DEP before they may be either constructed or operated. **Table 2.1** summarises the five individual DPs under this Project. [Figure 2.1](#) shows the locations of these Schedule 2 DPs.

Table 2.1 Schedule 2 Designated Projects under this Project

Item	Designated Project	EIAO Reference	Reason for inclusion
DP1	Central-Wanchai Bypass (CWB) including its road tunnel and slip roads	Schedule 2, Part I, A.1 and A.7	Trunk road and road tunnel more than 800 m in length
DP2	Road P2 and other roads which are classified as primary/district distributor roads	Schedule 2, Part I, A.1	Primary / district distributor roads
DP3	Reclamation works including associated dredging works	Schedule 2, Part I, C.1 and C.12	Reclamation more than 5 ha in size and a dredging operation less than 100 m from a seawater intake point
DP5	Wan Chai East Sewage Outfall	Schedule 2, Part I, F.5 and F.6	Submarine sewage pipelines with a total diameter more than 1,200 mm and include a submarine sewage outfall
DP6	Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui	Schedule 2, Part I, C.12	A dredging operation less than 100 m from a seawater intake point

2.3 Division of the Project Responsibility

2.3.1. Due to the multi-contract nature of the Project, there are a number of contracts sub-dividing the whole works area into different work areas to be commenced. Contractors of individual contracts will be required by the EP holder to apply Further Environmental Permits (FEP) such that the impact monitoring stations are sub-divided accordingly to facilitate the implementation of EM&A programme and to streamline the EM&A reporting for individual FEP holders correspondingly.

2.3.2. The details of individual contracts are summarized in **Table 2.2**.

Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong Kong Convention and Exhibition Centre	DP3, DP6	23 July 2010
		DP1, DP2	25 August 2011
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East	DP3, DP5	5 July 2010
		DP1	26 April 2011
HY/2009/11	Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation	DP3	17 March 2010 (Completed)
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP3	10 November 2010
		DP1	13 July 2011
HK/2010/06	Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011 (Completed)
04/HY/2006	Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street	DP1	September 2010 (Completed)
HY/2009/17	Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works.	DP1	5 October 2010 (Completed)
HY/2009/18	Central – Wan Chai Bypass (CWB) – Central Interchange	DP1	21 April 2011
HY/2009/19	Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link	DP1	24 March 2011
HK/2012/08	Wan Chai Development Phase II Central-Wan Chai Bypass at Wan Chai West	DP1,DP2, DP3	10 March 2014
HY/2010/08	Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)	DP1, DP2, DP3	21 March 2013
HY/2011/08	Central-Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning	DP1	8 October 2014

2.4 Project Organization and Contact Personnel

- 2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.
- 2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in **Figure 2.2**. Key personnel and contact particulars are summarized in **Table 2.3**.

Table 2.3 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax
AECOM	Engineer's Representative for WDII	Principal Resident Engineer	Mr. Frankie Fan	2587 1778	2587 1877
	Engineer's Representative for CWB	Principal Resident Engineer	Mr. Peter Poon	3912 3388	3912 3010
Chun Wo – Leader Joint Venture	Contractor under Contract no. HK/2009/01	Joint Venture Board Representative	Mr. Simon Liu	9304 8355	2587 1878
		Deputy Site Agent	Mr. Andy Yu	9648 4896	
		Construction Manager	Mr. Terry Wong	9757 9846	
		Construction Manager	Mr. Wyman Wong	9627 2467	
		Construction Manager	Mr. Kenneth Chan	9160 3850	
		Senior Environmental Engineer	Ms. Wendy Ng	9803 0057	
		Assistant Environmental Engineer	Miss. Connie Chan	6157 7057	
Chun Wo – CRGL Joint Venture	Contractor under Contract no. HK/2009/02	Project Manager	Mr. Alfred Leung	3658-3022	2827 9996
		Quality & Environmental Manager	Mr. C.P. Ho	9191 8856	
China State Construction Engineering (HK) Ltd.	Contractor under Contract no. HY/2009/15	Project Director	K C Cheung	3557 6399	2566 2192
		Site Manager	J H Chen	3557 6368	
		Project Manager	Andrew Wong	3557 6358	
		Contractor's Representative	Gene Cheung	3557 6395	
		Senior Project Manager	Eddie Tang	35576452	
		Environmental Officer	Andy Mak	3557 6347	
Chun Wo – CRGL – MBEC Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Mr. Rayland Lee	3758 8879	
		Site Agent	Mr. Eric Yip	252902068	
		Environmental Engineer	Mr. Calvin Leung	9286 9208	
		Environmental Manager / Environmental Officer	Mr. M.H. Isa	9884 0810	



Party	Role	Post	Name	Contact No.	Contact Fax
		Construction Manager (Marine)	William Luk	9610 1101	
		Construction Manager (Land)	Patrick Cheung	9643 3012	
		Construction Manager (Land)	Eric Fong	6191 9337	
		Operation Manager (Land)	Yung Kwok Wah	9834 1010	
China State-Leader JV	Contractor under Contract no. HK/2012/08	Project Director	Andrew Tse	9137 1811	2877 1522
		Project Manager	Victor Wu	9193 8871	
		Deputy Project Manager	George Cheung	9268 1918	
		Site Agent	Paul Lui	9095 7922	
		Environmental Officer	James Ma	9130 9549	
		Environmental Supervisor	Ching Man, Chan	6050 4919	
China State	Contractor under Contract no. HY/2010/08	Project Director	Cheung Kit Cheung	3557 6399	2566 8061
		Project Manager	Chan Ying Lun	3418 3001	
		Deputy Project Manager	Chris Leung	3467 4299	
		Site Agent	Dave Chan	3467 4277	
		Environmental Officer	C.M. Wong	3557 6464	
		Environmental Supervisor	Desmond Ho Tsz Ho	3557 6466	
Leighton Joint Venture	Contractor under Contract no. HY/2011/08	Project Manager	Paul Evans	2823 1111	21406799
		Site Agent	Colman Wong	9730 0806	
		Environmental Officer	David Hung	9765 6161	
		Environmental Supervisor	Penny Yiu	2214 7738	
ENVIRON Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.4.3. For Contract no. HK/2009/01, the principal work activities in this reporting month included:

- IHS for rock trimming works for cross harbour water main

2.4.4. For Contract no. HK/2009/02, the principal work activities in this reporting month included:

- Works of covered walkway
- Drainage work
- ABWF work
- Dredging and Reclamation at WCR3

2.4.5. For Contract no. HY/2009/15, the principal work activities in this reporting month included:

- Temporary reclamation at TPCWAW
- Maintenance dredging
- Reinstatement of existing bermstone and seawall at TS4
- Installation of seawall blocks and backfilling works for formation of TZ5

2.4.6. For Contract no. HY/2009/19, the principal work activity in this reporting month included:

- Nil

2.4.7. For Contract no. HK/2012/08, the principal work activity in this reporting month included:

- ELS for box culvert L at Lung King Street
- Placing of levelling stones
- Dry dock construction
- Installation of caisson seawall
- Filling works

2.4.8. For Contract no. HY/2010/08, no principal work activities this reporting month.

- Rock filling works
- Dredging works
- Seawall blocks installation
- Sheet piling works, welding & struts installation works at outfall Q
- D-wall construction works

2.4.9. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- Nil

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East

- Dredging and Reclamation at WCR3
- Placing of levelling stone near the seawall trench

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- Temporary reclamation at TPCWAW
- Reinstatement of existing bermstone and seawall at TS4
- Installation of seawall blocks and backfilling works for formation of TZ5
- Reinstatement of existing seawall at TPCWAE

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- Nil

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- ELS for box culvert L at Lung King Street
- Dry dock construction
- Filling works

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- Rock filling works
- Seawall blocks installation
- D-wall construction works

3 Status of Regulatory Compliance

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in **Table 3.1**.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-356/2009	30 Jul 2009	Valid
Environmental Permit	EP-364/2009	17 Aug 2009	Superseded
Environmental Permit	EP-364/2009/A	4 Aug 2010	Superseded
Environmental Permit	EP-364/2009/B	20 Sep 2012	Superseded
Environmental Permit	EP-364/2009/C	11 Jul 2014	Valid
Environmental Permit	EP-376/2009	13 Nov 2010	Valid
Further Environmental Permit	FEP-01/356/2009	18 Feb 2010	Surrendered
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	Valid
Further Environmental Permit	FEP-05/356/2009	24 Mar 2011	Surrendered
Further Environmental Permit	FEP-01/364/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-02/364/2009	21 Apr 2010	Valid
Further Environmental Permit	FEP-03/364/2009	12 Jul 2010	Surrendered
Further Environmental Permit	FEP-04/364/2009/A	14 Oct 2010	Surrendered
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Valid
Further Environmental Permit	FEP-06/364/2009/A	22 Nov 2010	Valid
Further Environmental Permit	FEP-07/364/2009/B	20 Sep 2012	Valid
Further Environmental Permit	FEP-08/364/2009/A	15 Jun 2012	Surrendered
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	Valid
Further Environmental Permit	FEP-07/356/2009	26 July 2013	Valid
Further Environmental Permit	FEP-10/364/2009/B	26 July 2013	Valid
Further Environmental Permit	FEP-11/362/2009/B	2 May 2014	Valid

3.1.2. Due to the multi-contract nature of the Project, the status of permits and/or licences under the individual contract(s) are presented as below:

Contract no. HK/2010/06 – Wan Chai Development Phase II – Central – Wan Chai Bypass over MTR Tsuen Wan Line under FEP-05/356/2009

3.1.3. The construction works were completed and the FEP-05/356/2009 was surrendered by the Contractor on 3 October 2014.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

3.1.4. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/01 under FEP-02/356/2009 are shown in **Table 3.2** and **Table 3.3**.

Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	N/A	Valid
	FEP-02/364/2009	21 Apr 2010	N/A	Valid
Notification of Works Under APCO	313088	06 Jan 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0765-14	30 Jul 2014	15 Aug 2014 to 14 Feb 2015	Valid
	GW-RS0875-14	21 Aug 2014	23 Aug 2014 to 21 Feb 2015	Valid
	GW-RS1056-14	29 Sept 2014	8 Oct 2014 to 7 April 2015	Valid
	GW-RS1274-14	17 Nov 2014	17 Nov 2014 to 16 May 2015	Valid
	GW-RS1051-14	29 Sept 2014	9 Oct 2014 to 8 April 2015	Valid
	GW-RS1222-14	05 Nov 2014	08 Nov 2014 to 07 May 2015	Valid
	GW-RS1309-14	24 Nov 2014	26 Nov 2014 to 25 May 2015	Valid
	GW-RS1472-14	2 Jan 2015	22 Jan 2015 to 21 Jul 2015	Valid
Discharge Licence	WT00018110-2014	6 Jan 2014	31 Mar 2015	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	WT00006220-2010	18 Mar 2010	31 Mar 2015	Superseded by WT0010110-2014
	WT00009641-2011	24 Jul 2011	31 Jul 2016	Valid
Billing account under Waste Disposal Ordinance	7010069	21 Jan 2010	N/A	Valid
Registration as a Chemical Waste Producer	WPN5213-134-C3585-01	21 Jan 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal)	EP/MD/15-092	14 Jan 2015	16 Jan 2015 to 15 Feb 2015	Valid

Table 3.3 Summary of submission status under FEP-02/356/2009 Condition

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	13 Apr 2010
Condition 2.7	Works Schedule and Location Plan	8 Apr 2010
Condition 2.8	Silt Curtain Deployment Plan (Rev. 5)	24 Aug 2012
	Silt Curtain Deployment Plan (Rev. 4)	12 July 2012
	Silt Curtain Deployment Plan (Rev. 3)	27 June 2012
	Silt Curtain Deployment Plan	19 Apr 2010
Condition 2.9	Silt Screen Deployment Plan (Rev. 7)	21 Nov 2014
	Silt Screen Deployment Plan (Rev. 6)	20 Aug 2014
	Silt Screen Deployment Plan (Rev.5)	24 Jul 2013
	Silt Screen Deployment Plan (Rev.4)	15 Nov 2012
	Silt Screen Deployment Plan	19 Apr 2010
Conditions 2.8 and 2.9	Supplementary Document on Silt Curtain and Silt Screen Deployment Plan	19 Jul 2010

EP Condition	Submission	Date of Submission
	Report on Field Testing for Silt Curtain	26 Aug 2010
	Report on Field Testing for Silt Curtain (Rev. A)	15 Nov 2010
Condition 2.12(d)	Alternative Proposal on Concurrent Dredging for Sewage Pipeline and Cross Harbour Water Mains	15 Apr 2011
Condition 2.17	Noise Management Plan	23 Apr 2010
Condition 2.18	Landscape Plan (Erection of Decorative Screen Hoarding along Construction Site around Hong Kong Exhibition and Convention Centre)	15 May 2010
	Landscape Plan (Night-time Lighting)	22 Oct 2010
	Landscape Plan (Rev. B)	15 Nov 2010
Condition 1.12	Notification of Commencement Date	20 Jun 2011
Condition 2.6 to 2.8	Management Organization, Works Schedule and Location Plan	18 May 2011
Condition 2.9	Silt Screen Deployment Plan	10 Jun 2011
Condition 2.18	Landscape Plan	31 Oct 2013

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- 3.1.5. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/02 under FEP-03/356/2009 are shown in **Table 3.4** and **Table 3.5**.

Table 3.4 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	N/A	Valid
	FEP-01/364/2009	24 Mar 2010	N/A	Valid
Notification of Works Under APCO	313962	2 Feb 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling	GW-RS0637	26 Jun 2014	2 Jul 2014 to 1 Jan 2015	Expired

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
equipment	GW-RS0742-14	25 Jul 2014	15 Aug 2014 to 14 Feb 2015	Valid
	GW-RS0745-14	25 Jul 2014	14 Aug 2014 to 13 Feb 2015	Valid
	GW-RS0840-14	18 Aug 2014	23 Aug 2014 to 12 Feb 2015	Valid
	GW-RS0889-14	29 Aug 2014	20 Sep 2014 to 19 Mar 2015	Valid
	GW-RS0910-14	29 Aug 2014	20 Sep 2014 to 19 Mar 2015	Valid
	GW-RS0965-14	12 Sep 2014	14 Sep 2014 to 11 Mar 2015	Valid
	GW-RS0970-14	12 Sep 2014	12 Sep 2014 to 9 Mar 2015	Valid
	GW-RS0946-14	10 Sep 2014	25 Sep 2014 to 24 Mar 2015	Valid
	GW-RS1060-14	30 Sep 2014	3 Oct 2014 to 25 Mar 2015	Valid
	GW-RS1061-14	30 Sep 2014	2 Oct 2014 to 28 Mar 2015	Valid
	GW-RS1110-14	13 Oct 2014	17 Oct 2014 to 16 Apr 2015	Valid
	GW-RS1109-14	13 Oct 2014	18 Oct 2014 to 17 Apr 2015	Valid
	GW-RS1148-14	21 Oct 2014	23 Oct 2014 to 9 Apr 2015	Valid
	GW-RS1189-14	31 Oct 2014	22 Nov 2014 to 21 May 2015	Valid
	GW-RS1190-14	31 Oct 2014	17 Nov 2014 to 16 May 2015	Valid
	GW-RS1192-14	31 Oct 2014	7 Nov 2014 to 6 May 2015	Valid
	GW-RS1199-14	31 Oct 2014	7 Nov 2014 to 6 May 2015	Valid
	GW-RS1208-14	31 Oct 2014	16 Nov 2014 to 3 May 2015	Valid
	GW-RS1218-14	5 Nov 2014	7 Nov 2014 to 2 May 2015	Valid
	GW-RS1321-14	21 Nov 2014	24 Nov 2014 to 16 May 2015	Valid
	GW-RS1442-14	24 Dec 2014	27 Dec 2014 to 23 Jun 2015	Valid
	GW-RS1425-14	23 Dec 2014	25 Dec 2014 to 21 Jun 2015	Valid
GW-RS0066-15	21 Jan 2015	23 Jan 2015 to 15 Jul 2015	Valid	

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS0085-15	27 Jan 2015	14 Feb 2015 to 13 Aug 2015	Valid
	GW-RS0014-15	7 Jan 2015	8 Jan 2015 to 1 Jul 2015	Valid
	GW-RS0098-15	30 Jan 2015	1 Feb 2015 to 28 Jul 2015	Valid
Discharge Licence	WT00006249-2010	22 Mar 2010	31 Mar 2015	Valid
	WT00006436-2010	15 Apr 2010	30 Apr 2015	Valid
	WT00006673-2010	14 May 2010	31 Mar 2015	Cancelled
	WT00006757-2010	28 May 2010	31 May 2015	Valid
	WT00007129-2010	28 July 2010	31 Jul 2015	Valid
	WT00008982-2011	26 Apr 2011	30 April 2016	Valid
	WT00009691-2011	1 Aug 2011	31 July 2016	Valid
Billing Account under Waste Disposal Ordinance (Land)	7010255	10 Feb 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance (Marine)	7011496	6 Oct 2010	N/A	Valid
Registration as Chemical Waste Producer (Wan Chai)	WPN5213-135-C3 593-01	10 Mar 2010	N/A	Valid
Registration as Chemical Waste Producer (TKO 137)	WPN5213-839-C3 593-02	22 Sep 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-046	24 Jun 2014	1 Jul 2014 to 31 Dec 2014	Expired
	EP/MD/15-181	29 Dec 2014	1 Jan 2015 to 30 Jun 2015	Valid
Dumping Permit (Type 2 – Confined Marine Disposal)	EP/MD/15-182	19 Dec 2014	23 Dec 2014 to 22 Jan 2015	Expired
	EP/MD15-204	21/01/2015	23 Jan 2015 to 22 Feb 2015	Valid

Table 3.5 Summary of submission status under FEP-03/356/2009 Condition

EP Condition	Submission	Date of Submission
Condition 1.12	Commencement Date of Construction of Marine Works	8 April 2010
Condition 2.6	Management Organization of Main Construction Companies	10 April 2010
Condition 2.7	Works Schedule and Location Plans	8 April 2010
Condition 2.8	Silt Curtain Deployment Plan (Revision A)	20 April 2010
	Silt Curtain Deployment Plan (Revision B)	25 May 2010

EP Condition	Submission	Date of Submission
	Silt Curtain Deployment Plan (Revision C)	14 Jun 2010
	Silt Curtain Deployment Plan (Revision H)	15 Feb 2011
	Silt Curtain Deployment Plan (Revision I)	17 Nov 2011
	Silt Curtain Deployment Plan (Revision J)	15 Feb 2012
	Silt Curtain Deployment Plan (Revision K)	3 May 2012
	Silt Curtain Deployment Plan (Revision L)	25 Oct 2012
	Silt Curtain Deployment Plan (Revision M)	30 Nov 2012
Condition 2.9	Silt Screen Deployment Plan	21 April 2010
	Supplementary Information for Existing WSD Salt Water Intakes at Quarry Bay and Sai Wan Ho	5 Oct 2010
	Silt Screen Deployment Plan (Revision B)	15 Feb 2012
	Silt Screen Deployment Plan (Revision C)	3 May 2012
	Silt Screen Deployment Plan (Revision D)	10 Dec 2012
Condition 2.17	Noise Management Plan	6 May 2010
Condition 2.18	Landscape Plan (Decorative Screen Hoarding)	11 May 2010
	Landscape Plan (Control of Night Time Lighting)	2 June 2010
	Landscape Plan (Combined Version)	20 July 2011
	Landscape Plan (Combined Version)	5 Aug 2011
-----	Acknowledge of Submission	22 Aug 2011

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 3.1.6. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2009/15 under EP-356/2009 are shown in **Table 3.6** and **Table 3.7**.

Table 3.6 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	N/A	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Notification of Works Under APCO	321822	24 Sep 2010	N/A	Valid
Construction Noise Permit (CNP) for concreting works at Eastern Breakwater of CBTS	GW-RS1306-14	21 Nov 2014	27 Nov 2014 to 26 May 2015	Valid
Construction Noise Permit (CNP) for D-wall cutting and seawall removal works at TS4/ME4	GW-RS0721-14	16 Jul 2014	18 Jul 2014 to 15 Jan 2015	Expired
Construction Noise Permit (CNP) for seawall removal works at TS4/ME4	GW-RS0021-15	13 Jan 2015	16 Jan 2015 to 15 Jul 2015	Valid
Construction Noise Permit (CNP) for maintenance dredging	GW-RS1183-14	31 Oct 2014	1 Nov 2014 to 30 Apr 2015	Valid
Construction Noise Permit (CNP) for reclamation and SI works at TPCWAW	GW-RS0944-14	8 Sep 2014	8 Sep 2014 to 7 Mar 2015	Cancelled
Construction Noise Permit (CNP) for reclamation and d-wall works at Ex-PCWA	GW-RS1454-14	24 Dec 2014	26 Dec 2014 to 22 Jun 2015	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C116 9-35	15 Nov 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance	7011553	30 Sep 2010	27 Sep 2010 to 27 Jan 2016	Valid
Billing Account under Waste Disposal Ordinance (Disposal by Vessel)	7011761	7 Oct 2014	17 Oct 2014 to 16 Jan 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-063	16 Jul 2014	28 Jul 2014 to 27 Jan 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal(Dedicated Site) and Type 2 – Confined Marine Disposal)	EP/MD/15-171	10 Dec 2014	15 Dec 2014 to 14 Jan 2015	Expired
	EP/MD/15-197	8 Jan 2015	15 Jan 2015 to 14 Feb 2015	Valid

Table 3.7 Summary of submission status under FEP-04/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	30 Sep 2010
	Amendment for Management Organization of Main Construction Companies	16 May 2011
Condition 2.7	Works Schedule and Location Plans	27 Oct 2010

FEP Condition	Submission	Date of Submission
	Amendment for Works Schedule and Location Plans	12 Nov 2010
Condition 2.8	Silt Curtain Deployment Plan	30 Nov 2010
	Amendment for Silt Curtain Deployment Plan	24 Feb 2011
	Amendment for Silt Curtain Deployment Plan	11 May 2011
	Amendment for Silt Curtain Deployment Plan	11 Sep 2012
	Amendment for Silt Curtain Deployment Plan	30 Oct 2012
Condition 2.9	Silt Screen Deployment Plan	19 Oct 2010
	Amendment for Silt Screen Deployment Plan	18 Feb 2011
	Amendment for Silt Screen Deployment Plan	15 Jun 2011
Condition 2.18	Proposal for the Removal of Odorous Sediment and Slime	13 Jan 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	8 Mar 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	2 Aug 2011
Condition 2.21	Landscape Plan	18 Feb 2011
Condition 2.23	Noise Management Plan	20 Oct 2010
	Amendment for Noise Management Plan	27 Jan 2011

3.1.7. Implementation status of the recommended mitigation measures during this reporting period is presented in **Appendix 3.1**.

Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

3.1.8. Summary of the current status on licences and/or permits on environmental protection pertinent for contract no. HY/2009/19 is shown in **Table 3.8**

Table 3.8 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/19

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period / Expiry date	Status
Further Environmental Permit	FEP-07/364/2009/B	20 Sep 2012	Granted	Valid
Notification of Works Under APCO	326160	24 Jan 2011	Notified	Valid
Construction Noise Permit (CNP) (For Portion Vi Marine)	GW-RS1339-14	2 Dec 2014	30-May-15	Valid
Discharge License (Sea)	WT00010865-2011	03 Nov 2011	30-Nov-16	Valid
C&D Waste Disposal	7012306	10 Feb 2011	Registered	-
Vessel Disposal	7013285	21 July 2011	Registered	-
Registration as Chemical Waste Producer	5213-151-C3654-01	24 Mar 2011	Registered	-

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

3.1.9. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2012/08 under EP-356/2009 are shown in **Table 3.9** and **Table 3.10**.

Table 3.19 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	8 Mar 2013	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	18 Jul 2017	Valid
Water Discharge Licence	WT00018223-2014	28 Jan 2014	31 Jan 2019	Valid
Construction Noise Permit	GW-RS0966-14	12 Sep 2014	27 Sep 2014 to 26 Mar 2015	Valid
	GW-RS0930-14	8 Sep 2014	10 Sep 2014 to 8 Mar 2015	Valid
	GW-RS0919-14	5 Sep 2014	7 Sep 2014 to 4 Mar 2015	Valid
	PP-RS0023-14	18 Sep 2014	20 Sep 2014 to 17 Mar 2015	Valid
	GW-RS1006-14	19 Sep 2014	1 Oct 2014 to 31 Mar 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-039	1 Jul 2014	31 Dec 2014	Expired

Table 3.10 Summary of submission status under EP-356/2009 and FEP-06/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (Rev. 3)	Submitted on 25 Nov 2013 was returned to CSLJV by EPD.
Condition 2.9	Silt Screen Deployment Plan (Rev. 2)	Generally in order as commented by EPD on 19 Sep 2013
Condition 2.23	Noise Management Plan (Rev. 2)	Generally in order as commented by EPD on 15 Aug 2013

FEP Condition	Submission	Date of Submission
Condition 2.24	Landscape Plan (Rev. 3)	Generally in order as commented by EPD on 31 Oct 2013

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

3.1.10. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2010/08 under EP-356/2009 are shown in Table 3.11 and Table 3.12.

Table 3.11 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-07/356/2009	26 Jul 2013	NA	Valid
	FEP-10/364/2009/B	26 Jul 2013	NA	Valid
Notification of Works Under APCO	357176	2 Apr 2013	NIL	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C11 69-44	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance	7017170	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance (Dumping by Vessel)	7020947	22 Dec 2014	NIL	Valid.
Water Discharge Licence	WT00016561-2013	9 Jul 2013	31 Jul 2018	Valid
Construction Noise Permit	GW-RS0701-14	4 Jul 2014	5 Jul 2014 to 31 Dec 2014	Expired
	GW-RS1259-14	7 Nov 2014	9 Nov 2014 to 3 May 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	EP/MD/15-172	5 Jan 2014	7 Feb 2015	Valid
	EP/MD/15-215	3 Feb 2015	7 Mar 2015	Valid
Dumping Permit (Type 3) – Special Treatment	EP/MD/15-160	6 Dec 2014	31 Dec 2014	Expired
	EP/MD/15-194	5 Jan 2014	5 Feb 2015	Valid

Table 3.12 Summary of submission status under EP-356/2009 and FEP-07/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (rev03)	24 Dec 2014
Condition 2.9	Silt Screen Deployment Plan (rev01)	29 Nov 2013
Condition 2.23	Noise Management Plan (rev02)	25 Mar 2014
Condition 2.24	Landscape Plant (rev04)	23 Sep 2014

Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

- 4.1.1. The noise monitoring stations for the Project are listed and shown in **Table 4.1** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Station

Station	Description
M1a	Harbour Road Sports Centre
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

REAL-TIME NOISE MONITORING STATIONS

- 4.1.2. The real-time noise monitoring stations for the Project are listed and shown in **Table 4.2** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.
- 4.1.3. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.
- 4.1.4. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

Table 4.2 Real Time Noise Monitoring Station

District	Station	Description
North Point	RTN2	Oil Street Community Liaison Centre
North Point	RTN2a	Electric Centre

- Real time noise monitoring results and graphical presentation during night time period are for information only.
- RTN2 had been relocated to RTN2a since 5 Oct 2012

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.5. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{eq} (30 minutes) shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time

periods, L_{eq} (5 minutes) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L10 and L90 shall also be obtained for reference.

4.1.6. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:

- One set of measurements between 0700 and 1900 hours on normal weekdays.

4.1.7. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

MONITORING EQUIPMENT

4.1.8. As referred to in the Technical Memorandum TM issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

4.1.9. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air monitoring stations for the Project are listed and shown in **Table 4.3** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.3 Air Monitoring Station

Station ID	Monitoring Location	Description
CMA1b	Oil Street Site Office**	North Point
CMA2a	Causeway Bay Community Centre	Causeway Bay
CMA3a	CWB PRE Site Office *	Causeway Bay
CMA4a	Society for the Prevention of Cruelty to Animals	Wan Chai
CMA5b	Pedestrian Plaza***	Wan Chai
CMA6a	WDII PRE Site Office *	Wan Chai

Remarks*: As per the ENPC meeting in March 2011, the monitoring stations CMA3a – Future CWB site office at Wanchai Waterfront Promenade was renamed as remark.

Remarks**: The location ID of monitoring station CMA1b was updated as “Oil Street Site Office” in April 2013.

Remarks***: The station ID and monitoring location was updated in December 2014 with respect to monitoring station relocation.

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six-days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

- 4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:
- 0.6 – 1.7 m³ per minute adjustable flow range;
 - equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
 - installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
 - capable of providing a minimum exposed area of 406 cm²;
 - flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
 - equipped with a shelter to protect the filter and sampler;
 - incorporated with an electronic mass flow rate controller or other equivalent devices;
 - equipped with a flow recorder for continuous monitoring;
 - provided with a peaked roof inlet;
 - incorporated with a manometer;
 - able to hold and seal the filter paper to the sampler housing at horizontal position;
 - easily changeable filter; and
 - capable of operating continuously for a 24-hour period.
- 4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC

shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

LABORATORY MEASUREMENT / ANALYSIS

- 4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.
- 4.2.8. An alternative non-HOKLAS accredited laboratory was set-up for carrying out the laboratory analysis, the laboratory equipment was approved by the ER on 8 February 2011 and the measurement procedures were witnessed by the IEC. Any measurement performed by the laboratory was demonstrated to the satisfaction of the ER and IEC. IEC shall regularly audit the measurement performed by the laboratory to ensure the accuracy of measurement results.
- 4.2.9. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24-hours and be pre-weighed before use for the sampling.
- 4.2.10. After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.
- 4.2.11. All the collected samples shall be kept in a good condition for 6 months before disposal.

IMPACT MONITORING FOR ODOUR PATROL

- 4.2.12. Odour patrols along the shorelines of Causeway Bay Typhoon Shelter and ex-Wan Chai Public Cargo Working Area when there is temporary reclamation in Causeway Bay Typhoon Shelter and/or in the ex-Wan Chai Public Cargo Working Area, or when there is dredging of the odorous sediment and slime at the south-western corner of the Causeway Bay Typhoon Shelter. Odour patrols will be carried out at bi-weekly intervals during July, August and September by a qualified person of the ET who shall:
 - be at least 16 years of age;
 - be free from any respiratory illnesses; and
 - not be allowed to smoke, eat, drink (except water) or use chewing gum or sweets 30 min
 - before and during odour patrol
- 4.2.13. Odour patrol shall be conducted by independent trained personnel / competent persons patrolling and sniffing around the shore as shown in **Figure 4.1** to detect any odour at the concerned hours (afternoon is preferred for higher daily temperature).
- 4.2.14. The qualified person will use the nose (olfactory sensor) to sniff odours at different locations. The main odour emission sources and the areas to be affected by the odour nuisance will be identified.

4.2.15. The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:

- 0 – Not detected. No odour perceived or an odour so weak that it cannot be easily characterized or described;
- 1 – Slight Identifiable odour, and slight chance to have odour nuisance;
- 2 – Moderate Identifiable odour, and moderate chance to have odour nuisance;
- 3 – Strong Identifiable, likely to have odour nuisance;
- 4 – Extreme Severe odour, and unacceptable odour level.

4.2.16. The findings including odour intensity, odour nature and possible odour sources, and also the local wind speed and direction at each location will be recorded. In addition, some relevant meteorological and tidal data such as daily average temperature, and daily average humidity, on that surveyed day will be obtained from the Hong Kong Observatory Station for reference. The Action and Limit levels for odour patrol are shown in **Appendix 6.1**.

4.2.17. The qualified odour patrol member has individual n-butanol thresholds complied with the requirement of European Standard Method of Air Quality – Determination of Odour Concentration by Dynamic Olfactometry (EN13725) in the range of 20 to 80 ppb.

4.3 Water Quality Monitoring

4.3.1. The EIA Report has identified that the key water quality impact would be associated with the dredging works during the construction phase. Marine water quality monitoring for dissolved oxygen (DO), suspended solid (SS) and turbidity is therefore recommended to be carried out at selected WSD flushing water intakes. The impact monitoring should be carried out during the proposed dredging works to ensure the compliance with the water quality standards.

4.3.2. The updated EM&A Manual for EP-356/2009 (Version in March 2011) is approval by EPD on 29 April 2011. As such, the Action Level and Limit Level for the wet season (April – September) will be effected and applied to the water quality monitoring data from 30 April 2011.

Water Quality Monitoring Stations

4.3.3. It is proposed to monitor the water quality at 1 WSD salt water intakes and 9 cooling water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations of the Project are shown in **Table 4.4** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.4 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
C7	Windsor House	837193.7	816150.0
P1	HKCEC Phase I	835774.7	816179.4

Station Ref.	Location	Easting	Northing
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake	836268.0	816020.0

WATER QUALITY PARAMETERS

- 4.3.4. Monitoring of dissolved oxygen (DO), turbidity and suspended solids (SS) shall be carried out at WSD flushing water intakes and cooling water intakes. DO and Turbidity are measured in-situ while SS is determined in laboratory.
- 4.3.5. In association with the water quality parameters, other relevant data shall also be measured, such as monitoring location/position, time, sampling depth, water temperature, pH, salinity, dissolved oxygen (DO) saturation, weather conditions, sea conditions, tidal stage, and any special phenomena and work underway at the construction site etc.

SAMPLING PROCEDURES AND MONITORING EQUIPMENT

- 4.3.6. The interval between two sets of monitoring should not be less than 36 hours except where there are exceedances of Action and/or Limit Levels, in which case the monitoring frequency will be increased. **Table 4.5** shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.

Table 4.5 Marine Water Quality Monitoring Frequency and Parameters

Activities	Monitoring Frequency ¹	Parameters ²
During the 4-week baseline monitoring period	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
During marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
After completion of marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity

Notes:

- 1. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
- 2. Turbidity should be measured in situ whereas SS should be determined by laboratory.

DISSOLVED OXYGEN AND TEMPERATURE MEASURING EQUIPMENT

- 4.3.7. The instrument should be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and use a DC power source. It should be capable of measuring:
- a dissolved oxygen level in the range of 0-20 mg/l and 0-200% saturation
 - a temperature of 0-45 degree Celsius
- 4.3.8. It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary. (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).
- 4.3.9. Should salinity compensation not be build-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

TURBIDITY MEASUREMENT INSTRUMENT

- 4.3.10. The instrument should be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. Hach model 2100P or an approved similar instrument).

SAMPLER

- 4.3.11. A water sampler comprises a transparent PVC cylinder, with a capacity of not less than 2 litres, and can be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Kahlsico Water Sampler or an approved similar instrument).

SAMPLE CONTAINER AND STORAGE

- 4.3.12. Water samples for suspended solids measurement should be collected in high-density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. as soon as possible after collection for analysis.

WATER DEPTH DETECTOR

- 4.3.13. A portable, battery-operated echo sounder shall be used for the determination of water depth at each designated monitoring station. This unit can either be handheld or affixed to the bottom of the workboat, if the same vessel is to be used throughout the monitoring programme.

SALINITY

- 4.3.14. A portable salinometer capable of measuring salinity in the range of 0-40 ppt shall be provided for measuring salinity of the water at each of monitoring location.

MONITORING POSITION EQUIPMENT

- 4.3.15. A hand-held or boat-fixed type digital Global Positioning System (GPS) with waypoint bearing indication or other equivalent instrument of similar accuracy shall be provided and used during

monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

CALIBRATION OF IN-SITU INSTRUMENTS

- 4.3.16. All in-situ monitoring instrument shall be checked, calibrated and certified by a laboratory accredited under HOKLAS or equivalent before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.
- 4.3.17. For the on site calibration of field equipment by the ET, the BS 127:1993, "Guide to Field and on-site test methods for the analysis of waters" should be observed.
- 4.3.18. Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.
- 4.3.19. Current calibration certificates of equipments are presented in [Appendix 4.2](#).

LABORATORY MEASUREMENT / ANALYSIS

- 4.3.20. Analysis of suspended solids has been carried out in a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd. Water samples of about 1L shall be collected at the monitoring stations for carrying out the laboratory SS determination. The SS determination work shall start within 24 hours after collection of the water samples. The SS determination shall follow APHA 19ed or equivalent methods subject to the approval of IEC and EPD.

ENHANCED WATER QUALITY MONITORING IN THE EX-WAN CHAI PUBLIC CARGO WORKING AREA AND THE CAUSEWAY BAY TYPHOON SHELTER

- 4.3.21. The enhanced water quality monitoring and audit programme is to avoid aggravation of odour nuisance from seawater arising from temporary reclamation in the ex-Wan Chai Public Cargo Working Area and the Causeway Bay Typhoon Shelter.
- 4.3.22. Dissolved oxygen monitoring at the intakes C6 and C7 in Causeway Bay Typhoon Shelter when there is temporary reclamation in Causeway Bay Typhoon Shelter and at the south-western and south-eastern corners of the ex-Wan Chai Public Cargo Working Area. The proposed water quality monitoring stations of the Project are shown in **Table 4.6** and [Figure 4.1](#).

Table 4.6 Marine Water Quality Stations for Enhanced Water Quality Monitoring

Station	Location
C6	Excelsior Hotel
C7	Windsor House
Ex-WPCWA-SW	South-western of the ex-Wan Chai Public Cargo Working Area
Ex-WPCWA-SE	South-eastern of the ex-Wan Chai Public Cargo Working Area

- Water quality monitoring for Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the diversion scheme.

- Enhanced DO monitoring stations (Ex-PCWA SW and Ex-PCWA SE) was finely adjusted to the PCWAE since 7 November 2014.
- 4.3.23. The monitoring of dissolved oxygen are to be carried out 3 days per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).

DAILY SS MONITORING AND 24 HOURS TURBIDITY MONITORING SYSTEM

- 4.3.24. During dredging of the sediment at the south-western corner of the Causeway Bay Typhoon Shelter, daily monitoring of suspended solids and 24 hour monitoring of turbidity at the cooling water intakes (C6 and C7) shall be conducted.
- 4.3.25. The 24 hours monitoring of turbidity at the cooling water intakes (C6 and C7) shall be established by setting up a continuous water quality monitoring station in front of the intakes during the dredging activities. The monitoring system include the turbidity sensor and data logger which is capable of data capturing at every 5 minutes. The data shall be downloaded daily and compared with the Action and Limit level determined during the baseline water quality monitoring at the cooling water intake locations.

ADDITIONAL DISSOLVED OXYGEN MONITORING FOR CULVERT L WATER DISCHARGE FLOW

- 4.3.26. In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored.
- 4.3.27. With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013
- 4.3.28. The monitoring of dissolved oxygen are to be carried out once per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).

5. Monitoring Results

5.0.1. The environmental monitoring will be implemented based on the division of works areas of each designed project managed under different contracts with separate FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in **Figure 2.1** and **Figure 4.1**. The monitoring results are presented in according to the Individual Contract(s).

5.0.2. In the reporting month, the concurrent contracts are as follows:

- Contract no. HK/2009/01 – Wan Chai Development Phase II – Central-Wan Chai Bypass at Hong Kong Convention and Exhibition Centre; and
- Contract no. HK/2009/02 Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai East
- Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)
- Contract no. HY/2009/19- Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
- Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West
- Contract no. HY/2010/08 – Central- Wanchai Bypass Tunnel (Slip Road 8 Section)

5.0.3. The environment monitoring schedules for reporting month and coming month are presented in **Appendix 5.1**.

5.1 Noise Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC, Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

5.1.1. The proposed division of noise monitoring stations are summarized in **Table 5.1** below.

Table 5.1 Noise Monitoring Station for Contract nos. HK/2009/01 and HK/2009/02

Station	Description
M1a	Harbour Road Sports Centre

5.1.2. No action or limit level exceedance was recorded in this reporting month.

5.1.3. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

5.1.4. The noise monitoring for HY/2009/15 was commenced on 10 November 2010. The proposed division of noise monitoring stations are summarized in **Table 5.2** below.

Table 5.2 Noise Monitoring Station for Contract no. HY/2009/15

Station	Description
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station

5.1.5. No action or limit level exceedance was recorded in this reporting month.

5.1.6. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

5.1.7. The proposed division of noise monitoring stations are summarized in **Table 5.3** below.

Table 5.3 Noise Monitoring Station for Contract no. HY/2009/19

Station	Description
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

5.1.8. No action or limit level exceedance was recorded in this reporting month.

5.1.9. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2010/08-Central-Wanchi Bypass Tunnel (Slip Road 8 Section)

5.1.10. The proposed division of noise monitoring stations are summarized in **Table 5.4** below.

Table 5.4 Noise Monitoring Station for Contract no. HY/2010/08

Station	Description
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station

- 5.1.11. No action or limit level exceedance was recorded in this reporting month.
- 5.1.12. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2.**

5.2 Real-time Noise Monitoring

Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.2.1 As the marine-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.
- 5.2.2 The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.
- 5.2.3 The major work activities for Contract no. HY/2009/11 was confirmed substantial complete by RSS on 4 January 2012. The construction site was handed over to contractor HY/2009/19 on 31 December 2011 and the FEP-01/356/2009 was surrendered on 22 Oct 2012.
- 5.2.4 Real-time noise monitoring at FEHD Hong Kong Transport Section Whitfield Depot commenced external wall renovation since 1 June 2012

Table 5.5 Real Time Noise Monitoring Station for Contract no. HY/2009/19

District	Station	Description
North Point	RTN2a	Electric Centre

- *Real time noise monitoring results and graphical presentation during night time period are for information only.*
- *RTN2 had been relocated to RTN2a since 5 Oct 2012*
- *RTN1 monitoring had been finished on 28 Nov 2012*

- 5.2.5 Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 10 and 14 January 2015 in the reporting month. After checking with Contractor of HY/2009/19, bored piling works were conducted at the concerned location during the recorded period and mitigation measures including erection of temporary noise blanket was implemented by Contractor. As the exceedances were non-continuous, the exceedances were considered to be non-Project related and contributed by nearby IEC traffic.
- 5.2.6 Details of real time noise monitoring results and graphical presentation can be referred to **Appendix 5.5.**

5.3 Air Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 5.3.1. Air monitoring was commenced on 1 April 2011 in response to the commencement of the land-filling work for Contract no. HK/2009/01. The proposed divisions of air monitoring stations are summarized in **Table 5.6** below. No exceedance was recorded in the reporting month.

Table 5.6 Air Monitoring Stations for Contract no. HK/2009/01

Station	Description
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE Site Office

- 5.3.2. One limit level exceedance was recorded at CMA5b on 27 January 2015 during 24hr TSP monitoring in the reporting month.
- 5.3.3. After investigation, it was found that the high ambient air pollutant concentration was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.
- 5.3.4. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3.**

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- 5.3.5. Air monitoring was commenced in mid-January 2011 for the land-filling work for Contract no. HK/2009/02. The proposed division of air monitoring stations are summarized in **Table 5.7** below. No exceedance was recorded in the reporting month.

Table 5.7 Air Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

- 5.3.6. One action level exceedance was recorded at CMA4a on 27 January 2015 during 24hr TSP monitoring in the reporting month.
- 5.3.7. After investigation, it was found that the high ambient air pollutant concentration was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.
- 5.3.8. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3.**

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

5.3.9. Air monitoring was commenced on 15 March 2011 for the land filling work for Contract no. HY/2009/15. The proposed division of air monitoring stations are summarized in **Table 5.8** below.

Table 5.8 Air Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

5.3.10. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

5.3.11. The proposed division of air monitoring stations are summarized in **Table 5.9** below. No exceedance was recorded in the reporting month.

Table 5.9 Air Monitoring Stations for Contract no. HY/2009/19

Station	Description
CMA1b	Oil Street Site Office
CMA2a	Causeway Bay Community Centre

5.3.12. One action level exceedance was recorded at CMA1b and one action level exceedance was recorded at CMA2a on 27 January 2015 during 24hr TSP monitoring in the reporting month.

5.3.13. After investigation, it was found that the high ambient air pollutant concentration was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.

5.3.14. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai West

5.3.15. The proposed division of air monitoring stations are summarized in **Table 5.10** below. No exceedance was recorded in the reporting month.

Table 5.10 Air Monitoring Stations for Contract no. HK/2012/08

Station	Description
CMA5b	Pedestrian Plaza

5.3.16. One limit level exceedance was recorded at CMA5b on 27 January 2015 during 24hr TSP monitoring in the reporting month.

5.3.17. After investigation, it was found that the high ambient air pollutant concentration was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.

5.3.18. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2010/08- Central-Wanchai Bypass Tunnel (Slip Road 8 Section)

5.3.19. The proposed division of air monitoring stations are summarized in **Table 5.11** below. No exceedance was recorded in the reporting month.

Table 5.11 Air Monitoring Stations for Contract no. HY/2010/08

Station	Description
CMA3a	CWB PRE Site Office

5.3.20. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

5.4 Water Monitoring Results.

5.4.1. Due to malfunctioning of the intake transfer pump and resulting unavailability of seawater supply to Windsor House cooling intake pump house at the designated water tank, the water quality monitoring at the monitoring station C7 was cancelled on 8 Jan 2015 during flood tide and ebb tide.

5.4.2. As informed by CWB RSS, the operation of the diverted Windsor House cooling intake was commenced on 20 Dec 2014 and the water quality monitoring at monitoring station C7 for Windsor House Cooling water intake was resumed on 22 Dec 2014

5.4.3. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO

- monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.
- 5.4.4. With respect to the commencement of marine dredging works at WCR3 under contract HK/2009/02. The respective water quality monitoring station C1 were associated with HK/2009/01 and HK/2009/02.
- 5.4.5. As confirmed by CWB RSS, the operation of the pump station for Windsor House Cooling Water was suspended from 22 Oct 2014 for the Windsor House intake cooling intake scheme and temporary supply of freshwater from WSD water mains was provided to cooling water intake. The water quality monitoring for the respective cooling water intake at WQM station C7 was temporarily suspended from 22 Oct 2014.
- 5.4.6. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- 5.4.7. As confirmed by WDII RSS and IEC, the cross harbour dredging works have completed since 16 March 2012 while the dredging works for submarine outfall pipeline has completed since 29 November 2011, considering current construction stage and dredging Scenario, the water quality monitoring at stations WSD9 and WSD17 was temporarily suspended since 8 September 2014 flood tide.
- 5.4.8. [Action and Limit level of water quality monitoring was transited from wet season to dry season from 1 October 2014.](#)
- 5.4.9. With respect to the switching over of cooling water intake location, the water quality monitoring at the relocated intake station RW21-P789 under HK/2009/02 was commenced since 29 July 2013 and monitoring station C5e and C5w were temporarily suspended and switched over to monitoring station RW21-P789 on 29 July 2013 due to suspension of pump house operation.
- 5.4.10. As advised by WDII RSS, the water quality monitoring for WSD21 pump station with respect to HK/2009/02 was switched over to the relocated location since 12 March 2014. According to the EM&A Manual, the water quality monitoring station WSD21 was relocated to station RW21-P789 and the water quality monitoring at station WSD21 was temporarily suspended since 12 March 2014.
- 5.4.11. With respect to the commencement of marine dredging works under contract HY/2010/08. The respective water quality monitoring station C7 were associated with HY/2009/15 and HY/2010/08.
- 5.4.12. With respect to the commencement of marine dredging works under contract HK/2012/08/ The respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08 Since September 2013.
- 5.4.13. WQM events on 22 April 2013 at monitoring stations C2, C3, C4e and C4w were temporarily suspended. Upon confirmation with WDII RSS and the IEC, water quality monitoring at relocated intakes monitoring location P1, P3, P4 and P5 were commenced since 24 April 2013.

- 5.4.14. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.
- 5.4.15. As confirmed by CWB RSS, the marine piling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.
- 5.4.16. RSS confirmed that all Type III Dredging works under HK/2009/01 have been completed since Oct 2012.
- 5.4.17. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.
- 5.4.18. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3, 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.
- 5.4.19. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.
- 5.4.20. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others remain unchanged.
- 5.4.21. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration. Water quality monitoring at WSD10 and WSD15 was temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;
- 5.4.22. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and it was completed on 6 February 2012.
- 5.4.23. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Centre (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine

adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.

5.4.24. Water quality monitoring at C8 and C9 have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 12.

Table 5.12 Water Monitoring Stations for contracts with respect to remaining DP3 work areas after the completion of DP5 & DP6 in 2012 and intake diversion in 2013

Contract No.	Remaining DP3 and work area(s)	Relevant Water Monitoring Stations,	Division of WQM w.r.t tentative works commenced / to be commenced
HK/2009/01	WCR3	C1 ¹	Apr 2013
HK/2009/02	WCR3, WCR4, TWCR4	RW21-P789 ¹ , C1 ¹	Apr 2013
HK/2012/08	HKCEC2W, HKCEC2E	WSD19, P1 ³ , P3 ³ , P4 ³ , P5 ³	Aug 2013
HY/2009/15	TCBR2, TCBR3, TCBR1W, TPCWAE, TPCWAW	C6 ⁴ , C7, Ex-WPCWA SW, Ex-WPCWA SE (plus enhanced DO monitoring)	Nov 2010
HY/2010/08	TCBR3, TCBR4	C6 ⁴ , C7 (plus enhanced DO monitoring)	Mar 2014

Remarks:

-The water monitoring stations for WSD19, P1, P3, P4, P5 shall be associated with Contract No. HK/2009/01 prior to their transition to Contract HK/2012/08.

-4 intakes (re-provisioned Wanchai WSD intake, Great Eagle Centre, China Resources Centre & Sun Hung Kai Centre constructed adjacent to each other) taken as a single group for silt screen protection and monitoring.

-Re-provisioned intake reference: P1: HKCEC Phase 1; P3: APA, P4: Shui On; P5: Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)

-Enhanced DO Monitoring at C6 since the intake abandon in May 2011.

- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

5.4.25. Water monitoring for Contract no. HK/2009/01 was commenced on 23 July 2010. The proposed division of water monitoring stations are summarized in **Table 5.13** below.

Table 5.13 Water Monitoring Stations for Contract no. HK/2009/01

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0

Remarks:

- The water monitoring stations for the dredging works under Contract No. HK/2009/01 should also include WSD9, WSD17, WSD 21 and C5 if water quality monitoring at these locations have not been carried out by others. Similarly, the water monitoring stations for the dredging works under Contract No. HK/2009/02 should also include WSD7, WSD9, WSD17, WSD 19, C1, C2, C3 and C4 if water quality monitoring at these locations have not been carried out by others.
- WSD7 and WSD20 water quality monitoring were temporarily suspended since 27 Apr 2012.
- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013

Contract no. HK/2009/02 - Wan Chai Development Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

5.4.26. Water monitoring for Contract no. HK/2009/02 was commenced on 8 July 2010. The proposed division of water monitoring stations are summarized in **Table 5.14** below.

Table 5.14 Water Monitoring Stations for Contract no. HK/2009/02

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/WSD Wanchai salt water intake	836268.0	816020.0

Remarks:

- The water monitoring stations for the dredging works under Contract No. HK/2009/01 should also include WSD9, WSD17, WSD 21 and C5 if water quality monitoring at these locations have not been carried out by others. Similarly, the water monitoring stations for the dredging works under Contract No. HK/2009/02 should also include WSD7, WSD9, WSD17, WSD 19, C1, C2, C3 and C4 if water quality monitoring at these locations has not been carried out by others.
- Water quality monitoring at WSD9 and WSD 17 was implemented with respect to HK/2009/02 from 8 Feb 2012.
- C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
- WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

Contract no. HK/2012/08 - Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

5.4.27. Water monitoring for Contract no. HK/2012/08 was commenced on 5 March 2013. The proposed division of water monitoring stations are summarized in **Table 5.15** below.

Table 5.15 Water Monitoring Stations for Contract no. HK/2012/08

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Intake			

Station Ref.	Location	Easting	Northing
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 5.4.28. As the removal of reclamation work of TS1 at CBTS has been completed, all procedures have been rectified and complied with the conditions set in EP-356/2009 and FEP-04/356/2009.
- 5.4.29. Due to the commencement of the maintenance dredging on 10 November 2010, water quality monitoring for Contract no. HY/2009/15 was commenced on 9 November 2010. The proposed division of water monitoring stations are summarized in Table 5.15 below.
- 5.4.30. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.

Table 5.16 Water Monitoring Stations for Contract no. HY/2009/15

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C7	Windsor House	837193.7	816150.0

Remarks:

- The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.
- Water quality monitoring for Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the diversion scheme.
- [Water quality monitoring for Windsor House Cooling \(Station Ref: C7\) was resumed since 22 December 2014.](#)

Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.4.31. Due to the commencement of the marine bored piling on 28 Jan 2012, water quality monitoring for Contract no. HY/2009/19 was commenced on 28 Jan 2012. The proposed division of water monitoring stations are summarized in Table 5.16 below.
- 5.4.32. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.

- 5.4.33. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Center (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.
- 5.4.34. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.
- 5.4.35. As per the meeting with the representative of Excelsior Hotel and World Trade Centre on 17 May 2011, they confirmed that the seawater intake for The Excelsior was no longer in use and replaced by the connected permanent water supply from WSD pipelines since 11 January 2011. Thus, the impact water quality monitoring for the cooling intake - C6 was terminated effective from 26 May 2011.
- 5.4.36. 24 hours monitoring of turbidity at the cooling water intakes at C7 was conducted. With respect to the seawall collapsing at TS4 on 17 November 2011, the 24 hours turbidity monitoring and was kept in November 2011. Since the reinstating the seawall was completed on 13 January 2012 and no any water deterioration was performed, 24 hour turbidity monitoring was then suspended on 27 January 2012.
- 5.4.37. Water monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in **Appendix 5.4**.

Table 5.17 Summary of Water Quality Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	0	1	0	0	0	0	0	0	0	0
	P1	0	0	0	0	0	0	0	0	0	0	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	0	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	0	0	0
HK/2009/02	RW21-P789	0	0	0	0	0	0	0	0	0	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	1	0	0	0	0	0	0	0	0

- Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.
- WSD9 and WSD17 were implemented with respect to HK/2009/02 from 8 Feb 2012.
 - 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 were completed on 6 Feb 2012.
 - C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
 - C8 & C9 was temporary suspended on 30 March 2013 due to the marine works for Contract no. HY/2009/19 had been completed on 4 March 2013
 - WSD7 and WSD20 were temporarily suspended from 27 Apr 2012
 - C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013
 - C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
 - WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
 - Maintenance responsibility of silt screen C1, WSD19, P3, P4 and P5 are under Contract HK/2009/01.
 - WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
 - Water quality monitoring for Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the diversion scheme and was resumed since 22 December 2014.
 - The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area

5.4.38. There were no action level and 1 limit level exceedance of turbidity recorded in the reporting month. Investigation found that the exceedance was not related to Project works. The details of recorded exceedances can be referred to the **Section 6.4**.

5.4.39. Enhanced DO monitoring at 4 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period. The action and limit level exceedances of water quality monitoring are summarized in **Table 5.18**.

Table 5.18 Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood		Mid-ebb	
		DO		DO	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	C7	0	0	0	0
	Ex-WPCWA SW	0	0	0	0
	Ex-WPCWA SE	0	0	0	1
Total		0	0	0	1

- 5.4.40. There were no action level exceedance and 1 limit level exceedance of enhanced dissolved oxygen recorded in this reporting month. Investigation found that the exceedance was not related to the Project works. The details of the recorded exceedances can be referred to the [Section 6.4](#).
- 5.4.41. In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored. Details of additional DO monitoring results can be referred in [Appendix 5.4](#).
- 5.4.42. With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013
- 5.4.43. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.

5.5 Waste Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

5.5.1. No inert C&D waste and non- inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.19**.

Table 5.19 Details of Waste Disposal for Contract no. HK/2009/01

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	62116.405	TKO137, TM38
Inert C&D materials recycled, m ³	NIL	5856.5	N/A
Non-inert C&D materials disposed, m ³	NIL	1673.69	SENT Landfill
Non-inert C&D materials recycled, kg	NIL	203993	N/A
Chemical waste disposed, kg	NIL	10250	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk Volume)	97428.2 (Bulk Volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	NIL (Bulk Volume)	52250 (Bulk Volume)	East of Cha Chau
Dredged Sediment Requiring Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers	NIL (Bulk Volume)	6773 (Bulk Volume)	East of Cha Chau

5.5.2. There were no marine sediment Type 1- Open Sea Disposal and no marine sediments Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East

- 5.5.3. No inert C&D waste and Non-inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.20**.

Table 5.20 Details of Waste Disposal for Contract no. HK/2009/02

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	276075.1	TKO137 / TM 38
Inert C&D materials recycled, m ³	NIL	18161	N/A
Non-inert C&D materials disposed, m ³	NIL	1515.103	SENT Landfill
Non-inert C&D materials recycled, m ³	N/A	N/A	N/A
Chemical waste disposed, kg	NIL	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m ³ *	530	238488 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	1239	150052 (Bulk volume)	East of Sha Chau

* Remarks: Contractor clarified the quantity of marine sediment – type 1 open sea disposal for December 2014 reporting month was 20771m³, hence the cumulative quantity is updated in January 2015 reporting month.

- 5.5.4. There were marine sediment Type 1 – Open Sea Disposal and Type 1 Open Sea Disposal & Type 2 – Confined Marine Disposal disposed in this reporting month.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 5.5.5. No Inert C&D waste and no non- inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.21**

Table 5.21 Details of Waste Disposal for Contract no. HY/2009/15

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Inert C&D materials	NIL	141579.2	Tuen Mun Area 38	NIL

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
disposed, m ³	NIL	65216	TKO137 FB	NIL
Inert C&D materials recycled, m ³	NIL	304	ex-PCWA	NIL
	NIL	111.9	TS4	NIL
Non-inert C&D materials disposed, m ³	NIL	252.2	SENT Landfill	NIL
Non-inert C&D materials recycled, kg	NIL	299361.5	N/A	NIL
Chemical waste disposed, kg	NIL	8,200	N/A	NIL
Marine Sediment (Type 1 – Open Sea Disposal), m ³	10520 (Bulk Volume)	125208 (Bulk Volume)	Cheung Chau South	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	3714 (Bulk Volume)	287285 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers) m ³	NIL (Bulk Volume)	12640 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1W / Maintenance dredging
Marine Sediment (Type 2 – Confined Marine Disposal), m ³	NIL	9350 (Bulk Volume)	East of Sha Chau	Dredging from Eastern Breakwater of CBTS
Marine Sediment (Type 1 – Open Sea Disposal) , m ³	NIL (Bulk Volume)	600 (Bulk Volume)	East Sha Chau / South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 2– Confined Marine Disposal) , m ³	NIL (Bulk Volume)	14,780 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynehetic	NIL (Bulk Volume)	2,760 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Containers) , m3				

- 5.5.6. There were Type 1 Open Sea Disposal and Type 1 Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

Contract no. HY/2009/19 –Central- WanChai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.5.7. No inert C&D waste and non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.22**.

Table 5.22 Details of Waste Disposal for Contract no. HY/2009/19

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	355921.04	TM38
Inert C&D materials recycled, m ³	NIL	59367	N/A
Non-inert C&D materials disposed, m ³	NIL	1068.6	N/A
Non-inert C&D materials recycled, kg	NIL	333.14	N/A
Chemical waste disposed, L	NIL	2.12	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL	162	South Cheung Chau
Marine Sediment (Type 2 – Confined Marine Disposal) , m ³	NIL	681	East Sha Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	NIL	4976.00	

- 5.5.8. There was no marine sediment Type1- Open Sea Disposal and there was no Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated were disposed in this reporting month.

Contract no. HK/2012/08 –Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- 5.5.9. There was Inert C&D waste and no non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.23**.

Table 5.23 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	7	1800	TM38
Inert C&D materials recycled, m ³	NIL	NIL	N/A
Non-inert C&D materials disposed, m ³	NIL	315	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk volume)	31759 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	NIL (Bulk volume)	108485 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

5.5.10. No Marine Sediment Type 1 – Open Sea Disposal and no marine sediment Type 1 – Open Sea Disposal (Delicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

5.5.11. No Inert C&D waste and non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.24**

Table 5.24 Details of Waste Disposal for Contract no. HY/2010/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	NIL	N/A
Inert C&D materials recycled, m ³	NIL	NIL	N/A
Non-inert C&D materials disposed, m ³	NIL	NIL	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal)	NIL	54580	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	2900	27760	Brothers Island
Marine Sediment (Type 3 – Special Treatment)	4000	7780	Brothers Island



5.5.12. There was no Type 1 – Open Sea Disposal disposed in this reporting month. There were Type 3 – Special Treatment and Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

6. Compliance Audit

- 6.0.1. The Event Action Plan for construction noise, air quality and water quality are presented in Appendix 6.1.

6.1 Noise Monitoring

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 6.1.1 No exceedance was recorded in the reporting month.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- 6.1.2 No exceedance was recorded in the reporting month.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 6.1.3 No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 6.1.4 No exceedance was recorded in the reporting month.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Raod 8 Section)

- 6.1.5 No exceedance was recorded in the reporting month.

6.2 Real-time noise Monitoring

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 6.2.1 Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 10 and 14 January 2015 in the reporting month. After checking with Contractor of HY/2009/19, bored piling works were conducted at the concerned location during the recorded period and mitigation measures including erection of temporary noise blanket was implemented by Contractor. As the exceedances were non-continuous, the exceedances were considered to be non-Project related and contributed by nearby IEC traffic.

6.3 Air Monitoring

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 6.3.1 One limit level exceedances were recorded at CMA5b- Pedestrian Plaza on 21 January 2015 during 24hr TSP monitoring in the reporting month. Ambient air pollutant concentration was considered as the contribution to air quality impact. As such, the exceedances were concluded as non-project related.

- Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel)
- 6.3.2 One action level exceedances were recorded at CMA4a- Pedestrian Plaza on 21 January 2015 during 24hr TSP monitoring in the reporting month. Ambient air pollutant concentration was considered as the contribution to air quality impact. As such, the exceedances were concluded as non-project related.
- Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)
- 6.3.3 No exceedance was recorded in the reporting month.
- Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
- 6.2.1. One action level exceedance was recorded at CMA1b- Oil street site office and one action level exceedance was recorded at CMA2a – Causeway Bay Community Centre on 21 January 2015 during 24hr TSP monitoring in the reporting month. Ambient air pollutant concentration was considered as the contribution to air quality impact. As such, the exceedances were concluded as non-project related.
- Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West
- 6.2.2. One limit level exceedances were recorded at CMA5b- Pedestrian Plaza on 21 January 2015 during 24hr TSP monitoring in the reporting month. Ambient air pollutant concentration was considered as the contribution to air quality impact. As such, the exceedances were concluded as non-project related.
- Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Raod 8 Section)
- 6.2.3. No exceedance was recorded in the reporting month.
- 6.4 Water Quality Monitoring**
- Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC
- 6.4.1 No exceedance was recorded in this reporting month.
- Contract no. HK/2012/08 –Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West.
- 6.4.2 No exceedance was recorded in this reporting month.
- Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East
- 6.4.3 No exceedance was recorded in this reporting month.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 6.4.4 There were one DO exceedance at Ex-WPCWA SE recorded on 23 January 2015. No odour nuisance was noted during DO monitoring.
- 6.4.5 After checking with Contractor, no marine works were conducted at Ex-WPCWA on 23 January 2015. Upstream discharge at the concerned location were consistently observed. In view of no marine activities were conducted, it was considered the exceedances were not related to Project.

Contract no. HY/2009/19- Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 6.4.6 No exceedance was recorded in this reporting month.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- 6.4.7 There one turbidity exceedance recorded at WSD19 monitoring station on 23 January 2015.
- 6.4.8 After checking with contractor, despite formation of rockbound was conducted on 23 January 2015, Contractor's mitigation measures including the use of silt curtain was generally in place and silt screen at monitoring station was generally in order. In view of the exceedance was not continuous, it was considered the exceedance was not related to Project.

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- 6.4.9 No exceedance was recorded in this reporting month.

6.5 Review of the Reasons for and the Implications of Non-compliance

- 6.5.1 There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.
- 6.5.2 No non-compliances from monitoring was recorded in the reporting month.

6.6 Summary of action taken in the event of and follow-up on non-compliance

- 6.6.1 There was no particular action taken since no non-compliance was recorded from the site audits in the reporting period.

7. Cumulative Construction Impact due to the Concurrent Projects

- 7.0.1. According to Condition 3.4 of the EP-356/2009, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III, Central-Wanchai Bypass and Island Eastern Corridor Link projects.
- 7.0.2. According to the Final EM&A Report of Central Reclamation Phase III (CRIII) for Contract HK 12/02, the major construction activities were completed by end of January 2014 and no construction activities were undertaken thereafter and the water quality monitoring was completed in October 2011 and no Project-related exceedance was recorded for air and noise monitoring. It can be concluded that cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was insignificant.
- 7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area, Diaphragm wall construction, pipe pile wall construction, removal of rock armour, and socket H piling works were performed in January 2015 reporting month. As no project related exceedance were recorded during the reporting period, cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was considered as insignificant.
- 7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were marine works at HKCEC areas, tunnel works and Wan Chai Ferry Pier demolition works at Wan Chai East and dredging works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and road works at Central Interchange, land base bored piling works and ELS works at Victoria Park, segment launching works and tunnel works at North Point area. Marine-based construction activities were seawall construction and filling works at EX-PCWA and seawall construction and filling works at TS3 at Causeway Bay Typhoon Shelter in the reporting month.
- 7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.

8. Environmental Site Audit

8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08. No non-conformance was identified during the site audits.

8.0.2. Four site inspections for Contract no. HK/2009/01 were conducted on 31 December 2014, 7, 16 and 22 January 2015 in reporting month. Results of these inspections and outcomes are summarized in **Table 8.1**.

Table 8.1 Summary of Environmental Inspections for Contract no. HK/2009/01

Item	Date	Observations	Action taken by Contractor	Outcome
141231_01	31-Dec-14	Drip tray shall be provided for oil container at Stage 2.	Drip tray was provided for oil container at Stage 2.	Completion as observed on 7 Jan 2015.
150107_01	7-Jan-15	Hole of Drip tray shall be covered at Stage 2.	The hole of drip tray was covered at Stage 2.	Completion as observed on 16 Jan 2015.
150122_01	22-Jan-15	Oil Stain on the ground shall be clean and treated at Stage 2.	Oil stain was cleaned at Stage 2.	Completion as observed on 28 Jan 2015.

8.0.3. Four site inspections for Contract no. HK/2009/02 were carried out on 2, 8, 14 and 21 January 2015 in reporting month. Results of these inspections and outcomes are summarized in **Table 8.2**.

Table 8.2 Summary of Environmental Inspections for Contract no. HK/2009/02

Item	Date	Observations	Action taken by Contractor	Outcome
150102_01	2-Jan-15	Drip tray shall be provided for oil containers at WCR2 Portion 2	Drip tray was provided for oil containers at Portion 2	Completion as observed on 8 Jan 2015
150108_01	8-Jan-15	Drip tray shall be provided for oil containers at Portion 3&4	Drip tray was provided for oil containers at Portion 3&4.	Completion as observed on 14 Jan 2015
150114_01	14-Jan-15	Drip tray shall be provided for oil containers.	Drip tray was provided for oil containers	Completion as observed on 21 Jan 2015
150114_02	14-Jan-15	Tarpaulin sheet shall be provided between land and hopper barge to prevent falling down of materials into the sea at Portion 3 & 4	Tarpaulin sheeting was provided for excavated material transfer.	Completion as observed on 21 Jan 2015

8.0.4. Five site inspections for Contract no. HY/2009/15 were carried out on 30 December 2014, 6, 13, 20 and 27 January 2015 in reporting month. The results of these inspections and outcomes are summarized in **Table 8.3**.

Table 8.3 Summary of Environmental Inspections for Contract no. HY/2009/15

Item	Date	Observations	Action taken by Contractor	Outcome
150113_1	13-Jan-2015	Wastewater treatment shall be properly connected to prevent direct discharge of untreated water into nearby water (EX-PCWA)	Wastewater treatment unit functioned properly no further direct discharge was observed.	Completion as observed on 20 Jan 2015
150127_1	27-Jan-2015	Provide maintenance and cleaning of the drainage and provide silt trap to prevent contaminated discharge to nearby water. Floating scum shall be cleaned (EX-PCWA)	Maintenance and cleaning of the drainage was provided	Completion as observed on 3 Feb 2015

8.0.5. Four site inspections for Contract no. HY/2009/19 were carried out on 31 December 2014, 7, 14 and 21 January 2015 in reporting month. No particular finding was observed in the reporting month.

8.0.6. Five site inspections for Contract no. HK/2012/08 were carried out on 30 December 2014, 6, 13, 20 and 27 January 2015 in this reporting period. The results of these inspections and outcomes are summarized in **Table 8.5**

Table 8.5 Summary of Environmental Inspections for Contract no. HK/2012/08

Item	Date	Observations	Action taken by Contractor	Outcome
141230_01	30-Dec-14	Drip tray shall be provided for oil container at Portion 2.	Oil container was taken away	Completion as observed on 6 Jan 2015
150106_01	6-Jan-15	Provide drip tray or better storage to oil container	Oil container were placed on a drip tray.	Completion as observed on 13 Jan 2015
150113_01	13-Jan-15	Drip tray shall be provided for oil containers at Portion 2	Oil containers were taken away and disposed at Portion 2.	Completion as observed on 20 Jan 2015
150113_02	13-Jan-15	Breaker shall be covered with acoustic material to mitigate construction noise at Portion 2.	Breaker were covered with acoustic material at Portion 2.	Completion as observed on 20 Jan 2015
150120_01	20-Jan-15	Drip tray shall be provided for oil container at Portion 1A.	Oil container was taken away and disposed at Portion 1A.	Completion as observed on 27 Jan 2015

8.0.7. Four site inspections for Contract no. HY/2010/08 were carried out on 31 December 2014, 9, 15 and 22 January 2015 in this reporting period. The results of these inspections and outcomes are summarized in **Table 8.6**

Table 8.6 Summary of Environmental Inspections for Contract no. HY/2010/08

Item	Date	Observations	Action taken by Contractor	Outcome
150109_1	9-Jan-15	Provide three sides and top cover to mixing station (TS3)	Three side and top cover was provided to grouting station	Completion as observed on 5 Feb 2015
150115_1	15-Jan-15	Critically check the condition and integrity of silt curtain and impermeable barrier, any damage section or gap shall be rectified immediately to avoid muddy dispersion in nearby water (TS3)	The condition of the silt curtain and impermeable barrier was improved.	Completion as observed on 22 Jan 2015
150115_2	15-Jan-15	Frame type silt curtain shall be provided to rock placing works for seawall construction to prevent dispersion of particulates (TS3)	Frame type silt curtain was provided	Completion as observed on 22 Jan 2015
150115_3	15-Jan-15	Provide drip trap to chemical containers (TS3)	Chemical waste container have been removed	Completion as observed on 29 Jan 2015
150122_1	22-Jan-15	Drainage facilities shall be provided to prevent direct surface runoff into nearby waters (TS3)	Additional wastewater treatment plant was provided	Completion as observed on 29 Jan 2015

9. Complaints, Notification of Summons and Prosecution

- 9.0.1. One environmental complaint was received in the reporting month.
- 9.0.2. A public complaint regarding air quality impact referred by EPD was received by ET on 27 January 2015 (EPD Case Ref.: H05/RS/00001725-15 dated 27 January 2015) and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015.
- 9.0.3. According to the relevant site records, breaking of seawall blocks and D-wall, concreting, grouting and drilling works and reclamation/ backfilling works were conducted under HY/2009/15 at TPCWAW. Dust mitigation measures including spraying haul road with water, covering bagged cement with tarpaulin, providing three sided and top covering for grouting stations and water spraying to dusty activities such as breaking works were implemented by the Contractor of HY/2009/15 near the concerned location on 21 January 2015.
- 9.0.4. Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place. In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a, no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants.
- 9.0.5. As such, the site condition under Contract HY/2009/15 at the concerned location was considered to be generally satisfactory and no non-conformity related to cumulative air quality impact was observed. Nevertheless, in view of the public concern, the contractor was reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public.
- 9.0.6. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 9.1**
- 9.0.7. Cumulative statistic on complaints and successful prosecutions are summarized in **Table 9.1** and **Table 9.2** respectively.

Table 9.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
Commencement works (Mar 2010) to last reporting month	34
January 2015	1
Total	35

Table 9.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	-	0	0

10. Conclusion

- 10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.
- 10.0.2. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others were remains unchanged.
- 10.0.3. As the marine-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.
- 10.0.4. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.
- 10.0.5. Water quality monitoring at WSD10 and WSD15 will be temporary suspended while water quality monitoring at WSD9 and WSD17 were implemented with respect to HK/2009/02 for the water quality monitoring scheduled on 8 Feb 12 onwards;
- 10.0.6. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.
- 10.0.7. Water quality monitoring at C8 & C9 was temporary suspended on 30 March 2013 due to the marine works for Contract no. HY/2009/19 had been completed on 4 March 2013, and conclude if any water deterioration had been identified during the 4-week water quality monitoring.
- 10.0.8. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Centre (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.
- 10.0.9. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.

- 10.0.10. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3, 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.
- 10.0.11. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui- DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration.
- 10.0.12. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in **Table 10.1**.

Table 10.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting Month

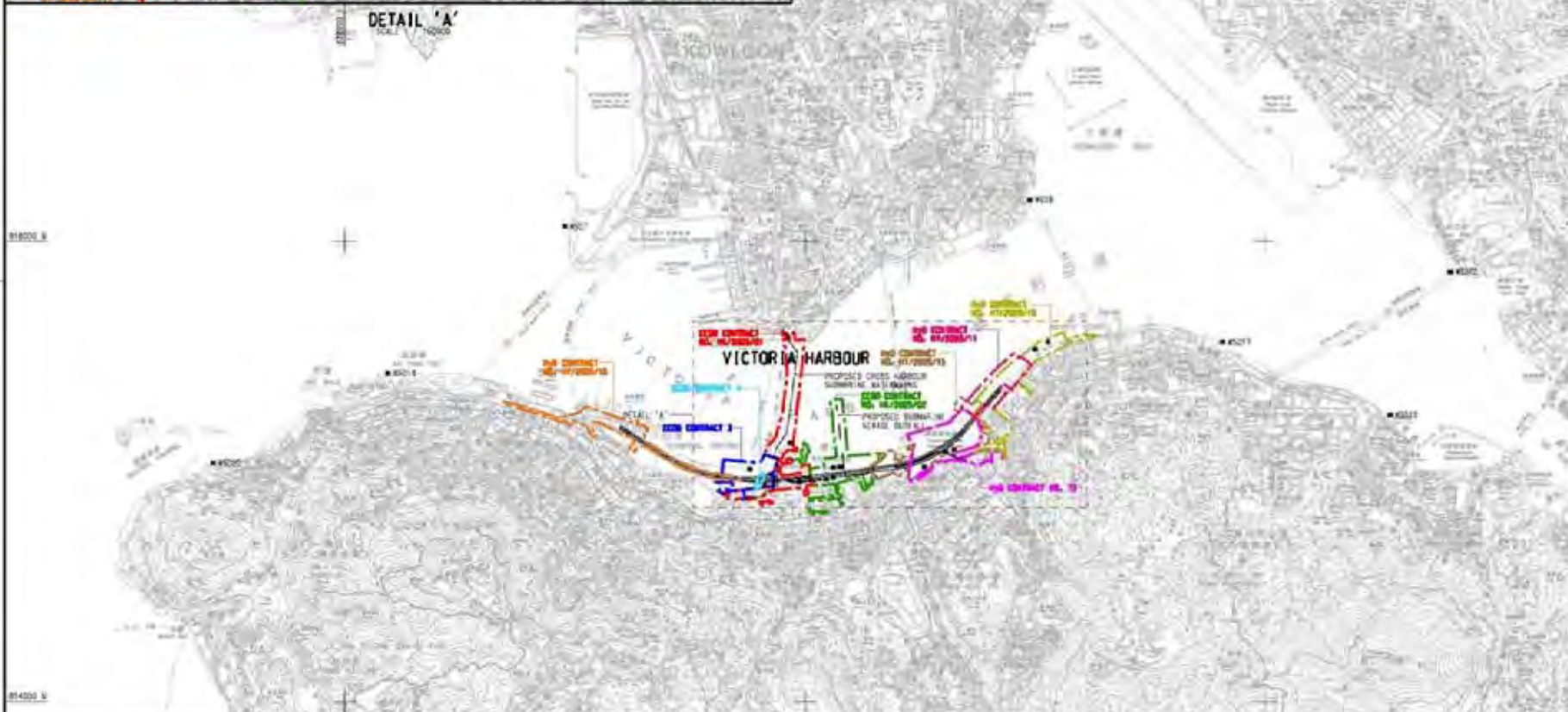
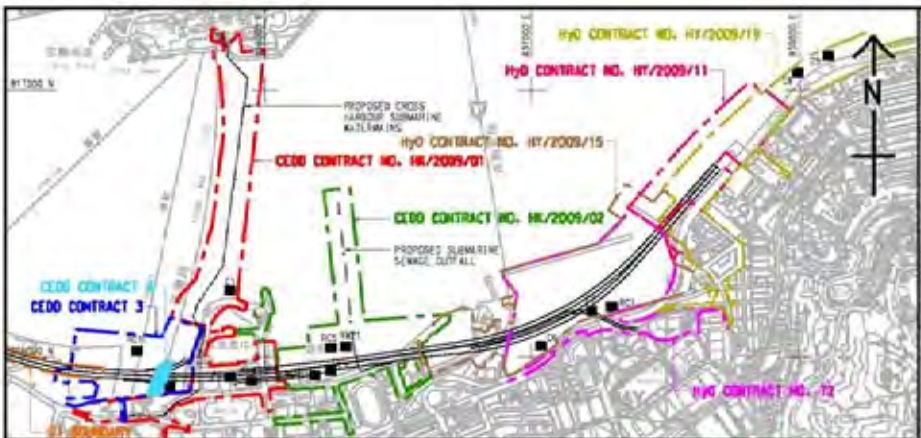
Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2009/01	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil
HK/2009/02	<ul style="list-style-type: none"> Seawall caisson fabrication at PRC Placing of levelling stones near the seawall trench 	<ul style="list-style-type: none"> To well maintain the mechanical equipment/ machineries to avoid abnormal noise nuisance and dark smoke emission To conform the installation and setting as in the silt screen and silt curtain deployment plan Daily visual inspection of silt screen and silt curtain to ensure its operation properly Review silt screen deployment and silt curtain deployment and resubmit associate plans to EPD Implement silt screen and silt curtain in accordance with the associated plans submitted to EPD.
HY/2009/15	<ul style="list-style-type: none"> Temporary reclamation at TPCWAW Reinstatement of existing bermstone and seawall at TS4 Installation of seawall blocks and backfilling works for formation of TZ5 Reinstatement of existing seawall at TPCWE 	<ul style="list-style-type: none"> Daily visual inspection of silt screen and silt curtain to ensure its operation properly Implement silt curtain in accordance with the associated plans submitted to EPD.

Contract No.	Key Construction Works	Recommended Mitigation Measures
HY/2009/19	<ul style="list-style-type: none"> • Nil 	<ul style="list-style-type: none"> • To space out noisy equipment and position as far as possible from sensitive receiver.
HK/2012/08	<ul style="list-style-type: none"> • ELS for box culvert L at Lung King Street • Dry dock construction • Filling works 	<ul style="list-style-type: none"> • To conform the installation and setting as in the silt screen and silt curtain deployment plan • To space out noisy equipment and position as far as possible from sensitive receiver. • Daily visual inspection of silt screen and silt curtain to ensure its operation properly
HY/2010/08	<ul style="list-style-type: none"> • Rock filling works • Seawall blocks installation • D-wall construction works 	<ul style="list-style-type: none"> • To conform the installation and setting as in the silt screen and silt curtain deployment plan • Daily visual inspection of silt screen and silt curtain to ensure its operation properly



Figure 2.1

Project Layout



- LEGEND:**
- WATER QUALITY MONITORING STATIONS
- COOLING WATER INTAKES**
- 01 WONG KONG CONVENTION AND EXHIBITION CENTRE EXTENSION
 - 02 TELECOM HOUSE AND ACADEMY 1 ON PEARLMAN AVENUE / SAITLWAY CENTRE
 - 03 WONG KONG CONVENTION AND EXHIBITION CENTRE PHASE 1
 - 04 WAN CHAI TOWER AND GREAT WALL CENTRE
 - 05 SUN HANG KAI CENTRE
 - 06 PROPOSED EXHIBITION STATION / WORLD TRADE CENTRE
 - 07 WINDSOR HOUSE
 - 08 CITY SQUARE
 - 09 PROVIDENT CENTRE
 - 102 PROPOSED HERPA EXTENSION
 - 103 SUN HANG KAI CENTRE / REPRODUCTION
 - 107 WINDSOR HOUSE / TEMPORARY REPRODUCTION
- WSD SALT WATER INTAKE**
- #201 WAN CHAI
 - #401 WAN CHAI REPRODUCTION
 - #501 CEMILION SQUARE
 - #601 SA BAY
 - #6210 CHA KANG LINC
 - #6215 SA BAY RD
 - #6217 CLARITY BAY
 - #6219 SWIRE WAREHOUSE
 - #6220 GENESEE TOWER

DESIGNATED PROJECT'S TOP	WORK CONTRACT	DESIGNATED PROJECT NUMBER	COMPLETION / COMMENCEMENT
SP1 - CENTRAL WAN CHAI STYASS WORKS INCLUDING 15 ROAD TUNNEL AND SLOPE ROADS	CEOD CONTRACT NO. HL/2009/01	SP1 - SP3 - SP6	APRIL 2010
SP2 - ROAD P2 AND OTHER ROADS (PRIMARY & DISTRICT DISTRIBUTION ROADS)	CEOD CONTRACT NO. HL/2009/02	SP1 - SP3 - SP5	APRIL 2010
SP3 - PERMANENT AND TEMPORARY ROAD MAINTENANCE WORKS INCLUDING ASSOCIATED DRAINAGE WORKS IN WAN CHAI DEVELOPMENT PHASE 11 - WSD11 AREA	CEOD CONTRACT 3	SP1 - SP3	END 2011
SP4 - TEMPORARY BRIDGE-SHELTER 1 (SP4 NOT TO BE IMPLEMENTED)	CEOD CONTRACT 4	SP1 - SP3	END 2011
SP5 - WAN CHAI EAST SEWAGE DUCT/FALL	CEOD CONTRACT 5	SP3	2010
SP6 - DISCREET FOR THE CROSS-HARBOUR WATER MAINS	HYD CONTRACT NO. HY/2009/11	SP3	18 AUGUST 2010
	HYD CONTRACT NO. HY/2009/15	SP1 - SP3	SEPTEMBER 2010
	HYD CONTRACT NO. HY/2009/16	SP1	OCTOBER 2010
	HYD CONTRACT NO. HY/2009/18	SP1	NOVEMBER 2010
	HYD CONTRACT 12	SP1 - SP3	MID 2010



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Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II, PHASE CENTRE - SANITARY AND SEWERAGE WORKS (STAGE 1) AND TESTING WORKS (STAGE 1)

LOCATIONS OF WATER QUALITY MONITORING STATIONS

AECOM

PROJECT NUMBER: **60041297/C5/SK001**

DATE: 2010	SCALE: 1:10000	DATE: 2010	SCALE: 1:10000
BY: [Signature]	BY: [Signature]	BY: [Signature]	BY: [Signature]
CHECKED: [Signature]	CHECKED: [Signature]	CHECKED: [Signature]	CHECKED: [Signature]

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- NOTES:**
1. SETTING OUT COORDINATES REFER DRG. No. 60095653/NP/1601.
 2. THE CONTRACTOR SHALL KEEP OPEN AND PROVIDE ACCESS (PEDESTRIAN AND TRAFFIC) TO THE PUBLIC AT ALL TIMES DURING THE PERIOD OF THE CONTRACTOR'S OCCUPATION OF DIL STREET. THE CONTRACTOR SHALL MAINTAIN THIS PORTION OF SITE IN A CLEAN, PASSABLE AND SAFE STATE AT ALL TIMES.
 3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. No. 60095653/NP/1652.

LEGEND:

[Dotted Pattern]	PORTION NPR1	[Cross-hatch Pattern]	PORTION NPR4
[Diagonal Hatch Pattern]	PORTION NPR2	[Vertical Line Pattern]	PORTION NPR5
[Horizontal Line Pattern]	PORTION NPR3	[Stair-step Pattern]	PORTION NPR6
[Diagonal Hatch Pattern]	PORTION NPR4	[Wavy Line Pattern]	PORTION NPR7
[Diagonal Hatch Pattern]	PORTION NPR5	[Wavy Line Pattern]	PORTION NPR8
[Diagonal Hatch Pattern]	PORTION NPR6	[Wavy Line Pattern]	PORTION NPR9

B	WORKING DRAWING	DEC 09
A	TENDER ADDENDUM NO. 1	DEC 09
-	TENDER DRAWING	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK
CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

PORTION OF SITE

SHEET 1 OF 2

AECOM

DRGNO.	60095653/NP/1651B
DESIGNED BY	TTF
CHECKED BY	CJH
DATE	AT 17 1000
SCALE	AS SHOWN
WORKING DRAWING	
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LOCATION PLAN
SCALE 1 : 5000

- NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
 2. THE RESTRICTION ZONE IS THIS DRAWING WILL COME INTO EFFECT AFTER THE OPERATION OF THE GOVERNMENT HULLING AT EIP/D/D/16 LAST.

LEGEND:

- CONTRACT BOUNDARY
- WORKING RESTRICTION ZONE
- NAVIGATION AND MOORING RESTRICTION ZONE
- WORKING BARGE, NAVIGATION AND MOORING RESTRICTION ZONE

TENDER ADDENDUM NO. 4	SEP 25, 2009
TENDER ADDENDUM NO. 1	SEP 25, 2009
TENDER DRAWING	SEP 25, 2009

CEDD 土木工程發展署
Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II -
KONG KONG CONVENTION AND EXHIBITION CENTRE
**RESTRICTED ZONE FOR
CONSTRUCTION VESSELS**
(Contract no: HK/2009/01)

AECOM

DRGNO. 圖號	60041297/C1/100/10108
DATE 日期	16/2009/01
SCALE 比例尺	AS 1:8000
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INSET 'A'
SCALE 1:1000

CENTRAL DISTRICT



CUT LINE B-B
SEE AT DRAWING NO. A00025/C1/100/1006

HONG KONG CONVENTION AND EXHIBITION CENTRE

HKCEC (Western Part)

HKCEC (Middle Part)

HKCEC (Eastern Part)

EIA-141/2007
DP3

IMP	COORDINATES	
	EASTING	NORTHING
041	85996.526	818105.708
042	85997.417	818104.468
043	85982.943	818079.206
044	85982.543	818086.581
045	85994.818	818085.259
046	85995.504	818085.814
046	85995.797	818081.208
047	85994.956	818082.441
048	85980.846	818075.887
049	85981.347	818073.258
050	85976.828	818066.814
051	85984.478	818080.846
052	85975.226	818089.254
053	85973.504	818077.897
054	85983.827	818084.764
055	85983.745	818070.883
056	85989.071	818078.764
056-1	85985.679	818078.873
056-2	85982.468	818078.765
056-3	85987.248	818182.758
057	85983.403	818181.878
058	85978.498	818087.198
058	85978.504	818085.818
059	85978.507	818120.164
060	85980.881	818184.554
062	85982.434	818171.812
063	85983.504	818280.788
064	85983.818	818276.307

IMP	COORDINATES	
	EASTING	NORTHING
065	85988.903	818413.438
066	85984.000	818413.614
067	85982.816	818413.240
068	85989.515	818413.882
069	85982.110	818414.000
070	85987.289	818413.880
071	85991.050	818413.270
072	85988.415	818407.187
072-1	85955.589	818106.587
073	85984.435	818385.890
074	85989.797	818374.107
075	85984.185	818383.148
076	85988.298	818388.000
077	85988.906	818382.880
078	85988.439	818374.038
079	85984.638	818351.015
080	85984.635	818328.880
081	85983.417	818308.182
082	85983.882	818378.148
083	85987.025	818354.084
084	85986.473	818352.444
085	85982.342	818348.751
086	85984.499	818348.925
087	85984.196	818348.388
088	85982.512	818348.142
089	85989.981	818425.898
090	85987.838	818437.198



KEY PLAN
SCALE 1:10000

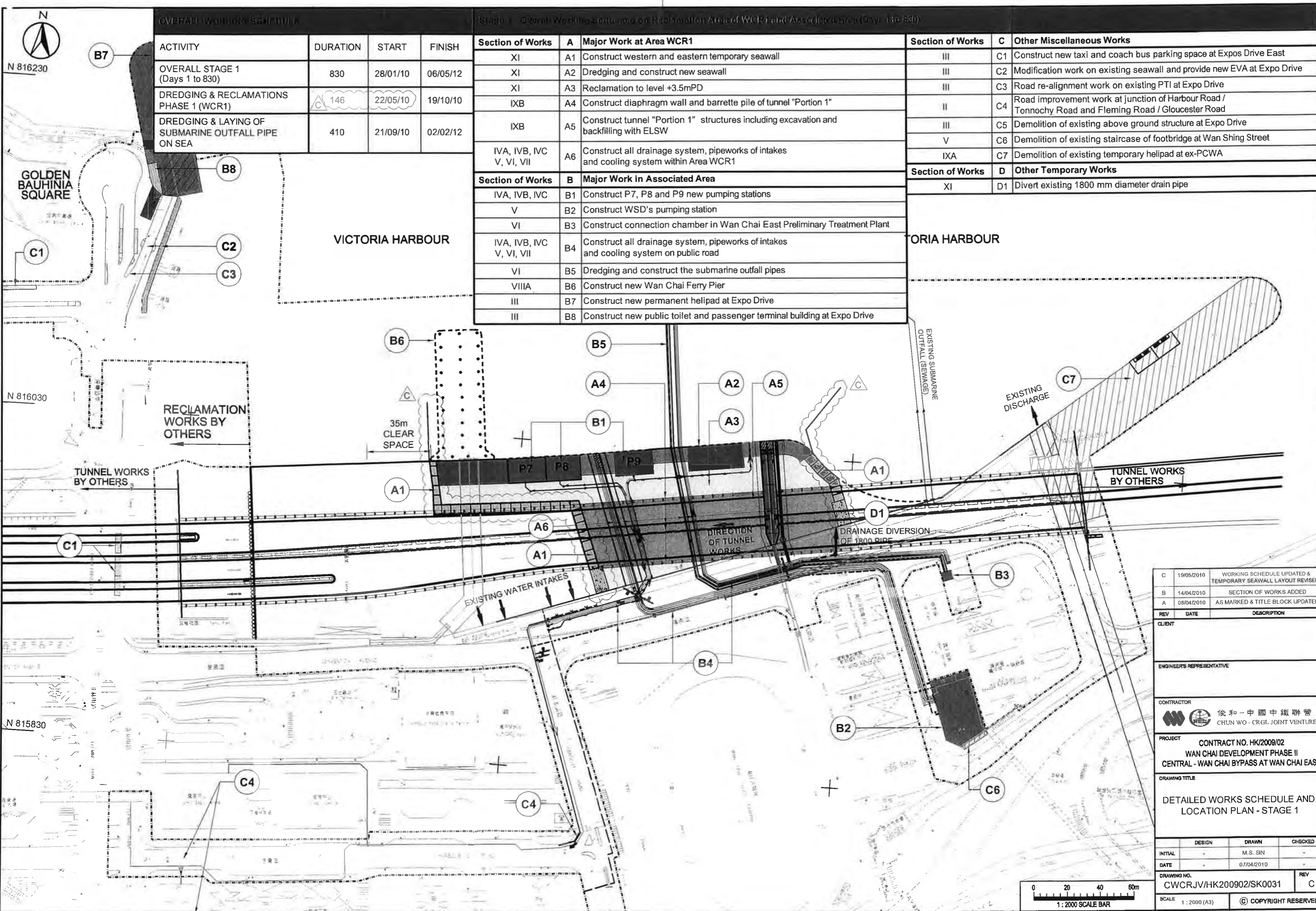
NOTE:
1. FOR NOTES & LEGEND, REFER TO DRAWING NO. A00025/C1/100/1006.

IMP	COORDINATES	
	EASTING	NORTHING
01	859875.205	818222.551
02	85975.271	818282.299
03	85944.561	818284.825
04	85941.020	818281.014
05	85982.492	818295.522
06	85983.584	818281.612
07	85986.585	818281.197
08	85988.191	818281.147
09	85988.433	818282.241
090	85983.082	818281.050
091	85985.389	818288.075
092	85987.486	818288.027
093	85985.468	818284.817
094	85988.433	818281.122
095	85984.285	818288.593
096	85985.195	818285.525
097	85988.191	818284.441
098	85986.085	818288.816
099	85981.421	818280.587
100	85982.537	818282.881
101	859815.285	818274.484
102	859813.182	818284.245
103	859827.086	818288.074
104	85978.984	818283.670
105	859815.280	818288.251
106	859801.667	818282.286
107	85984.025	818283.896
108	85980.818	818284.245
109	85981.525	818280.180
110	85983.781	818288.687
111	85983.216	818288.470
112	859824.142	818282.117
113-1	859821.081	818284.882
113-2	859828.290	818284.700
114	85982.428	818282.056
115	859808.187	818281.280
116-1	859824.812	818288.085
116-2	859824.747	818282.055
117	85988.850	818281.194
118	859818.190	818288.057
119	859828.810	818283.285
120	859818.906	818281.080
121	859825.682	818281.512

C	TENDER ADDENDUM NO.4	SHEN JYL DEP 08
B	TENDER ADDENDUM NO.2	SHEN JYL DEP 08
A	TENDER ADDENDUM NO.1	SHEN JYL DEP 08
-	TENDER DRAWING	SHEN JYL DEP 08
01	REVISION	SHEN JYL DEP 08


土木工程發展署
 Civil Engineering and Development Department
WAN CHAI DEVELOPMENT PHASE II
 WAN CHAI DEVELOPMENT PHASE II -
 CENTRAL AND WEST DISTRICTS
 HONG KONG CONVENTION AND EXHIBITION CENTRE
SITE BOUNDARY SETTING OUT PLAN
 (Contract no. HK/2009/01)

AECOM
 DRGNO. 60041297/C1/100/1006C
 SHEET NO. 01
 DATE: 08/2009/01
 SCALE: AS SHOWN
 DRAWN BY: JYL
 CHECKED BY: JYL
 APPROVED BY: JYL
 PROJECT NO.: HK/2009/01
 CONTRACT NO.: HK/2009/01
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OVERALL WORKING SCHEDULE

ACTIVITY	DURATION	START	FINISH
OVERALL STAGE 1 (Days 1 to 830)	830	28/01/10	06/05/12
DREDGING & RECLAMATIONS PHASE 1 (WCR1)	146	22/05/10	19/10/10
DREDGING & LAYING OF SUBMARINE OUTFALL PIPE ON SEA	410	21/09/10	02/02/12

Stage 1 - Overall Working Schedules on Reclamation Area of WCR1 and Associated Area (Days 1 to 830)

Section of Works	A	Major Work at Area WCR1
XI	A1	Construct western and eastern temporary seawall
XI	A2	Dredging and construct new seawall
XI	A3	Reclamation to level +3.5mPD
IXB	A4	Construct diaphragm wall and barrette pile of tunnel "Portion 1"
IXB	A5	Construct tunnel "Portion 1" structures including excavation and backfilling with ELSW
IVA, IVB, IVC, V, VI, VII	A6	Construct all drainage system, pipeworks of intakes and cooling system within Area WCR1
Section of Works	B	Major Work in Associated Area
IVA, IVB, IVC	B1	Construct P7, P8 and P9 new pumping stations
V	B2	Construct WSD's pumping station
VI	B3	Construct connection chamber in Wan Chai East Preliminary Treatment Plant
IVA, IVB, IVC, V, VI, VII	B4	Construct all drainage system, pipeworks of intakes and cooling system on public road
VI	B5	Dredging and construct the submarine outfall pipes
VIIIA	B6	Construct new Wan Chai Ferry Pier
III	B7	Construct new permanent heliport at Expo Drive
III	B8	Construct new public toilet and passenger terminal building at Expo Drive

Section of Works	C	Other Miscellaneous Works
III	C1	Construct new taxi and coach bus parking space at Expos Drive East
III	C2	Modification work on existing seawall and provide new EVA at Expo Drive
III	C3	Road re-alignment work on existing PTI at Expo Drive
II	C4	Road improvement work at junction of Harbour Road / Tonnochy Road and Fleming Road / Gloucester Road
III	C5	Demolition of existing above ground structure at Expo Drive
V	C6	Demolition of existing staircase of footbridge at Wan Shing Street
IXA	C7	Demolition of existing temporary heliport at ex-PCWA
Section of Works	D	Other Temporary Works
XI	D1	Divert existing 1800 mm diameter drain pipe

REV	DATE	DESCRIPTION
C	19/05/2010	WORKING SCHEDULE UPDATED & TEMPORARY SEAWALL LAYOUT REVISED
B	14/04/2010	SECTION OF WORKS ADDED
A	08/04/2010	AS MARKED & TITLE BLOCK UPDATED

CLIENT
ENGINEER'S REPRESENTATIVE

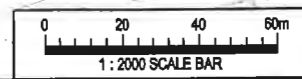
CONTRACTOR

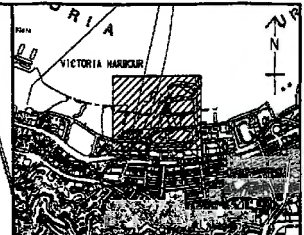
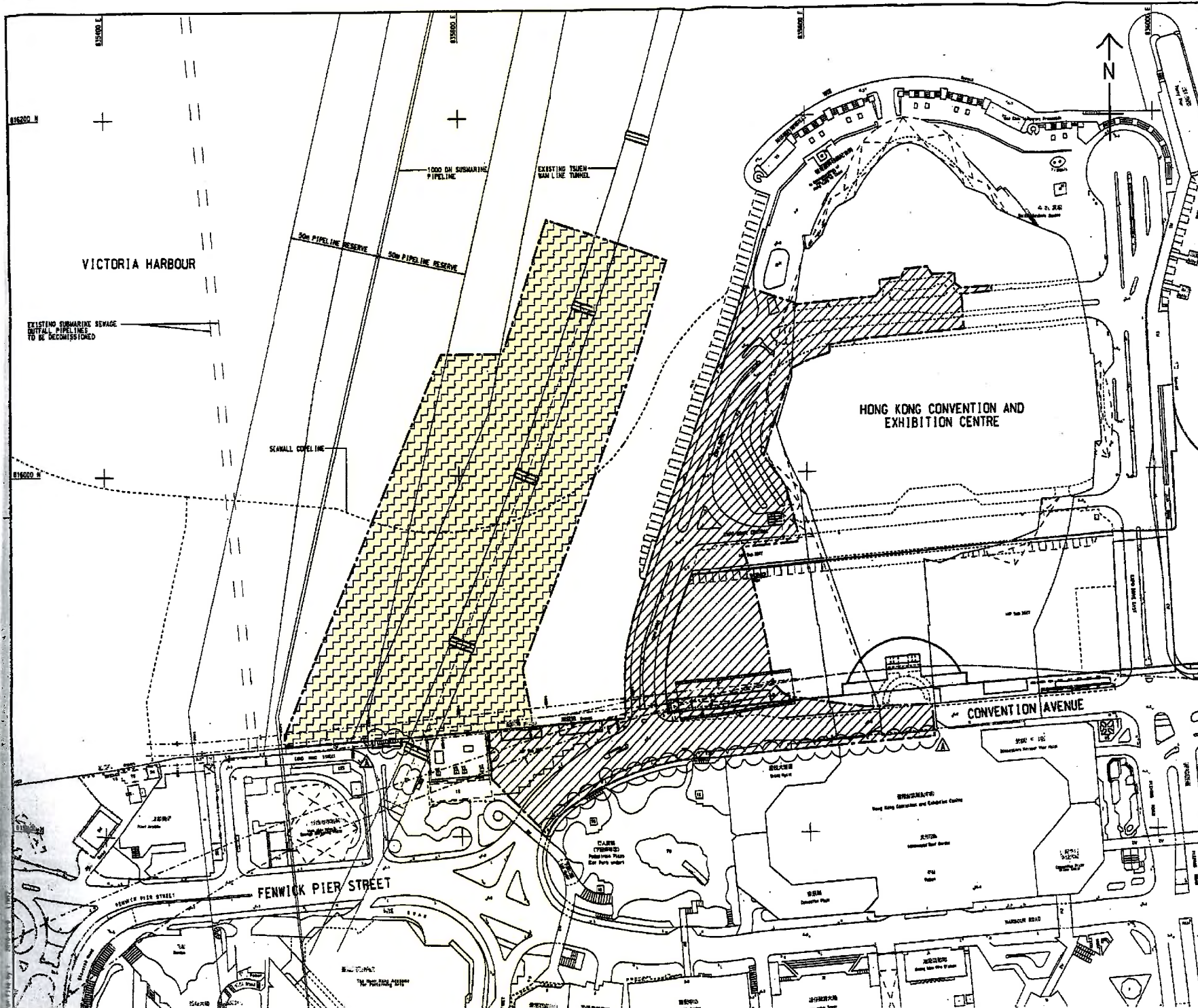
 俊和-中國中鐵聯營
 CHUN WO - CRGL JOINT VENTURE

PROJECT
 CONTRACT NO. HK/2009/02
 WAN CHAI DEVELOPMENT PHASE II
 CENTRAL - WAN CHAI BYPASS AT WAN CHAI EAST

DRAWING TITLE
 DETAILED WORKS SCHEDULE AND
 LOCATION PLAN - STAGE 1

DESIGN	DRAWN	CHECKED
INITIAL	M.S. SIN	
DATE	07/04/2010	
DRAWING NO.	CWCRJV/HK200902/SK0031	REV C
SCALE	1:2000 (A3)	© COPYRIGHT RESERVED





KEY PLAN
SCALE 1 : 20000

- NOTES:**
- COORDINATES ARE BASED ON HONG KONG METRIC GRID (1980) UNLESS OTHERWISE NOTED.
 - LEVELS ARE IN METRES RELATIVE TO HONG KONG PRINCIPAL DATUM (1985) UNLESS OTHERWISE NOTED.
 - DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
 - SETTING OUT DIMENSIONS, LEVELS, COORDINATES ARE TO BE CALCULATED BY THE CONTRACTOR. NO INFORMATION SHOULD BE SCALED PHYSICALLY OR ELECTRONICALLY FROM THE DRAWINGS OR FILES.
 - SITE BOUNDARY SETTING OUT POINTS SHALL REFER TO DRAWING NO. 60041297/C4/100/1201.

LEGEND:

- SITE BOUNDARY
- PORTION 1
- PORTION 2 (DELAY POSSESSION)

TENDER ADDENDUM NO.1	SWH JYL OCT 10
TENDER DRAWING	SWH JYL SEP 10

CDP 土木工務發展局
Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II
WAN CHAI DEVELOPMENT PHASE II -
CENTRAL-WAN CHAI STAFFS OVER MTR TSUEN WAN LINE

PORTIONS OF THE SITE
(Contract HK/2010/06)

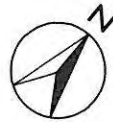
AECOM

DRAWING NO.	60041297/C4/100/1301A
DATE	10/2010/06
SCALE	AS SHOWN
PROJECT	AS SHOWN
DESIGNER	AS SHOWN
CHECKED	AS SHOWN
APPROVED	AS SHOWN

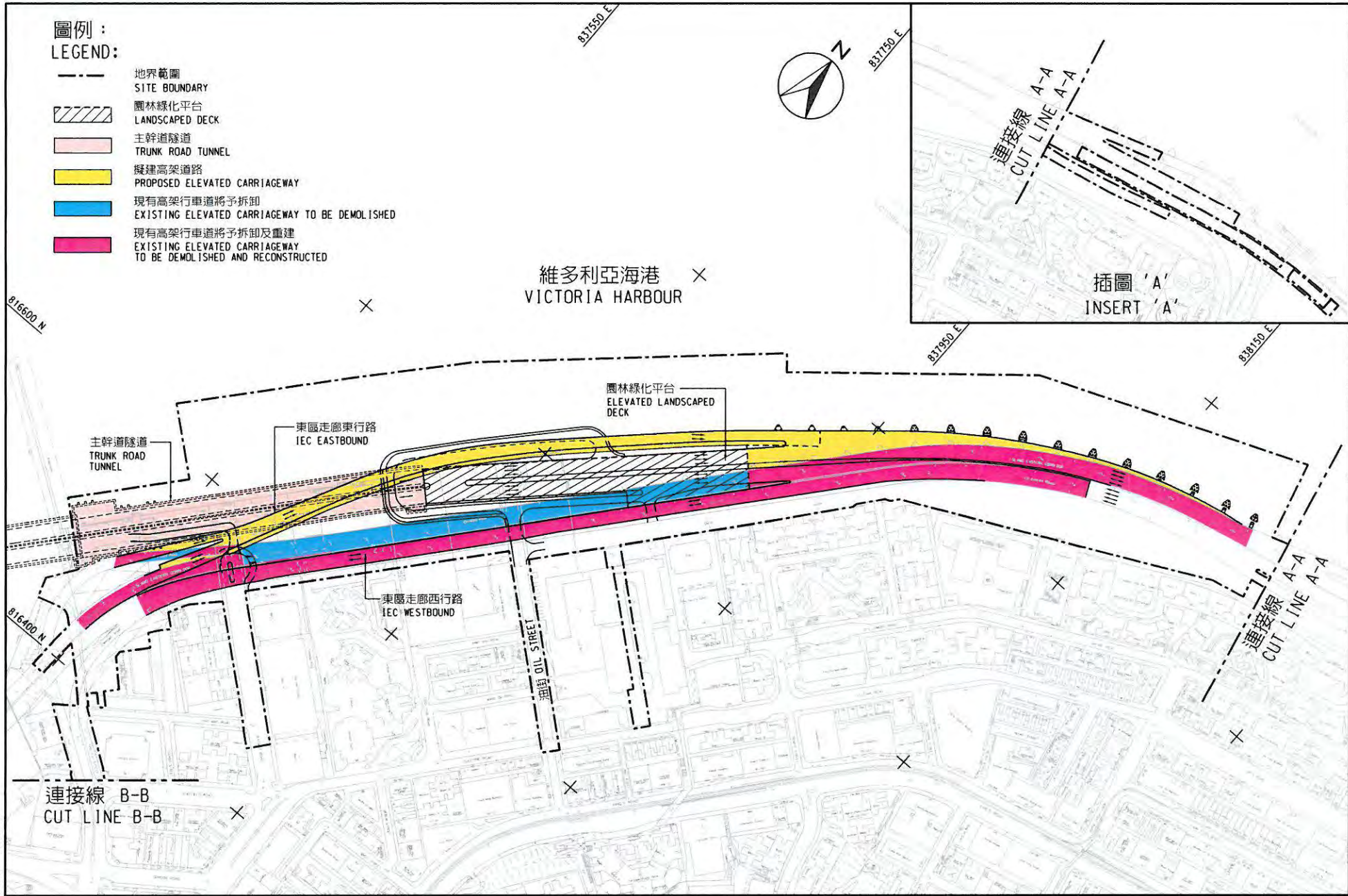
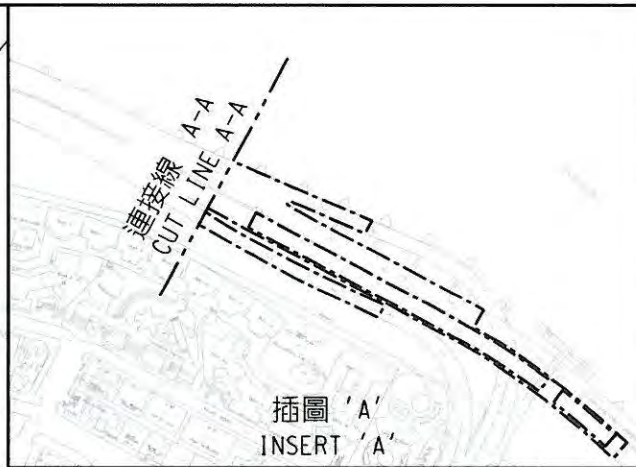
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圖例：
LEGEND:

-  地界範圍
SITE BOUNDARY
-  園林綠化平台
LANDSCAPED DECK
-  主幹道隧道
TRUNK ROAD TUNNEL
-  擬建高架道路
PROPOSED ELEVATED CARRIAGEWAY
-  現有高架行車道將予拆卸
EXISTING ELEVATED CARRIAGEWAY TO BE DEMOLISHED
-  現有高架行車道將予拆卸及重建
EXISTING ELEVATED CARRIAGEWAY TO BE DEMOLISHED AND RECONSTRUCTED



維多利亞海港 ×
VICTORIA HARBOUR



合約編號 HY/2009/19 - 中環灣仔繞道 - 北角段隧道及東區走廊連接路

CONTRACT NO. HY/2009/19 - CENTRAL-WAN CHAI BYPASS - TUNNEL (NORTH POINT SECTION) AND ISLAND EASTERN CORRIDOR LINK

SCALE 1 : 3000

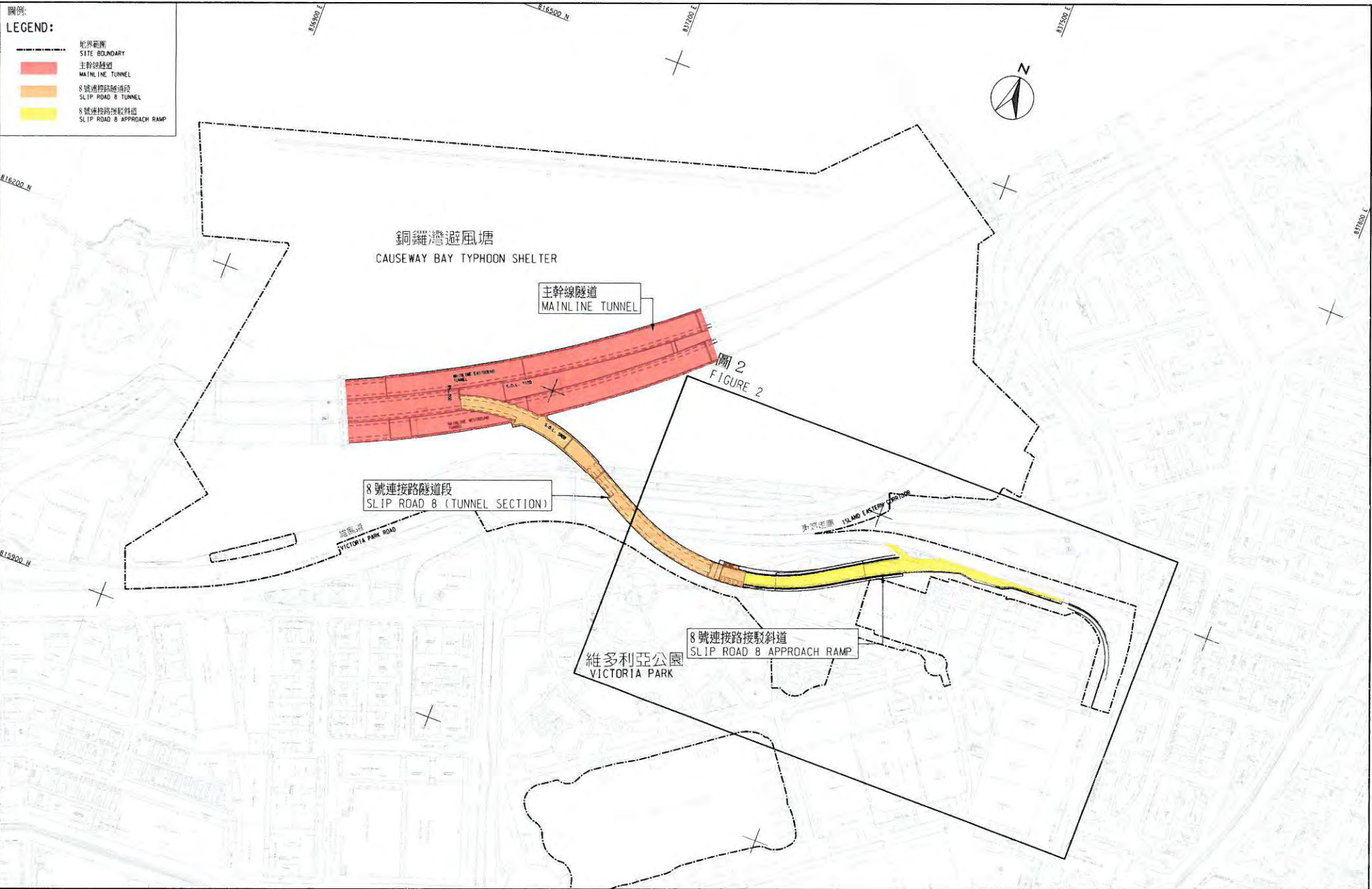


圖1- 合約編號 HY/2010/08 中環灣仔繞道-8號連接路段隧道

SCALE 1 : 3000

FIGURE 1 - CONTRACT NO. HY/2010/08 - CENTRAL - WAN CHAI BYPASS - TUNNEL (SLIP ROAD 8 SECTION)

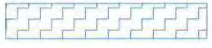
港口
HONG KONG PORT



LEGEND:



WORKS AREA



DREDGING AREA FOR
MITIGATION OF ODOUR(DP3)



SITE BOUNDARY



中環繞路工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGR. (HONG KONG) LTD.

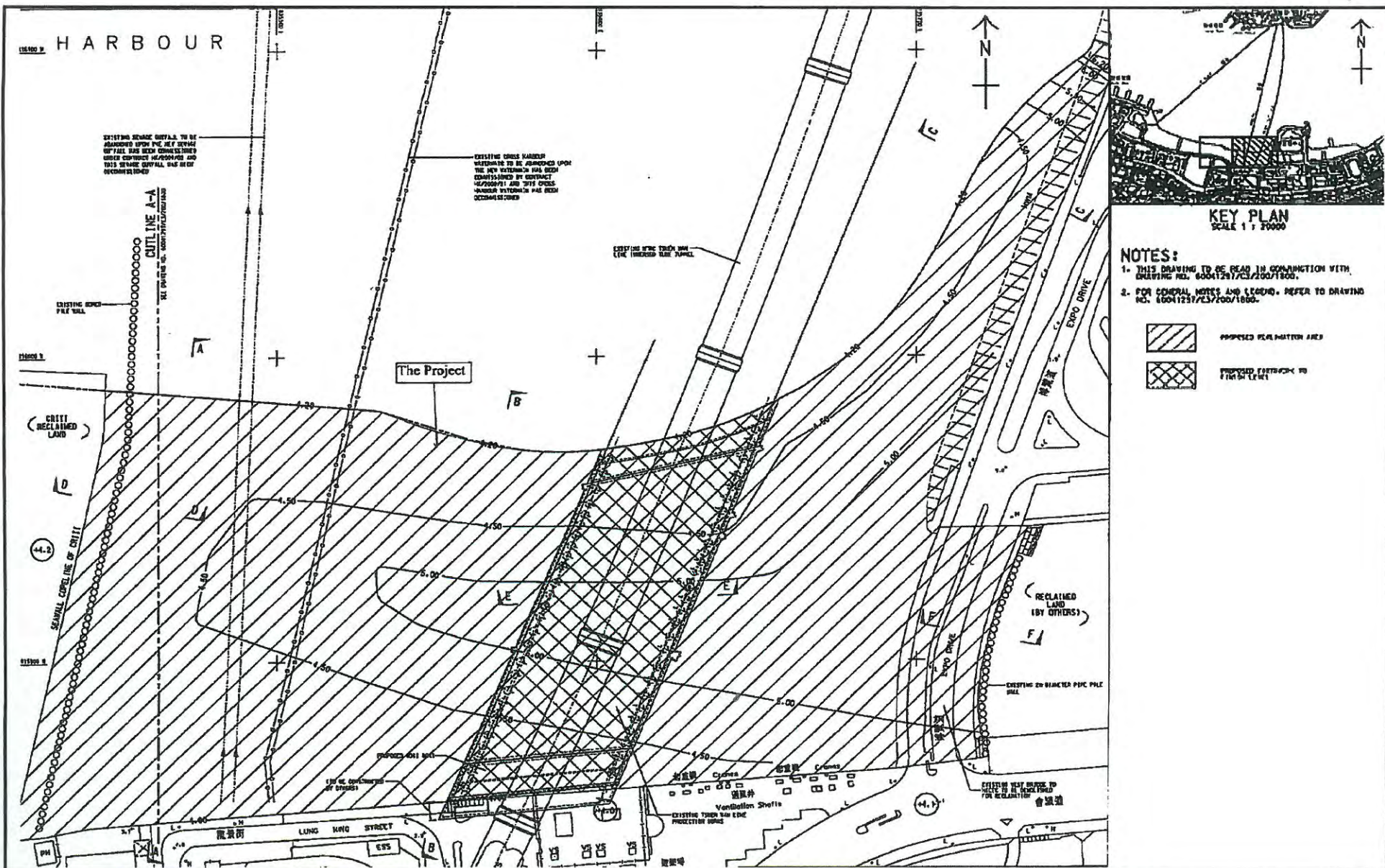
Highways Department
CONTRACT NO. HY/2009/15
CENTRAL-WAN CHAI BYPASS - TUNNEL
(CAUSEWAY BAY TYPHOON
SHELTER SECTION)

TITLE
LOCATION PLAN OF WORKS AREA

DRG. NO.
CWB/EPD/001B

SCALE
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Project Title: Wan Chai Development Phase II – Central Wan Chai Bypass at Wan Chai West (Contract No. HK/2012/08) – Marine Works
工程項目名稱: 灣仔發展計劃第二期 - 中環灣仔繞道-灣仔西段(合約編號:HK/2012/08)-海事工程
Environmental Permit No.: FEP-06/356/2009
環境許可證編號: FEP-06/356/2009

Figure 1b: General Layout of the Project
圖 1b: 工程項目佈局圖

(This figure was prepared based on Figure 1b of Application for Further Environmental Permit (Application No.: FEP 145/2013))
 (本圖是根據申請新的環境許可證(申請書編號 FEP-145/2013) 圖 1b 編製)





Figure 2.2

Project Organization Chart



Project Organization Chart

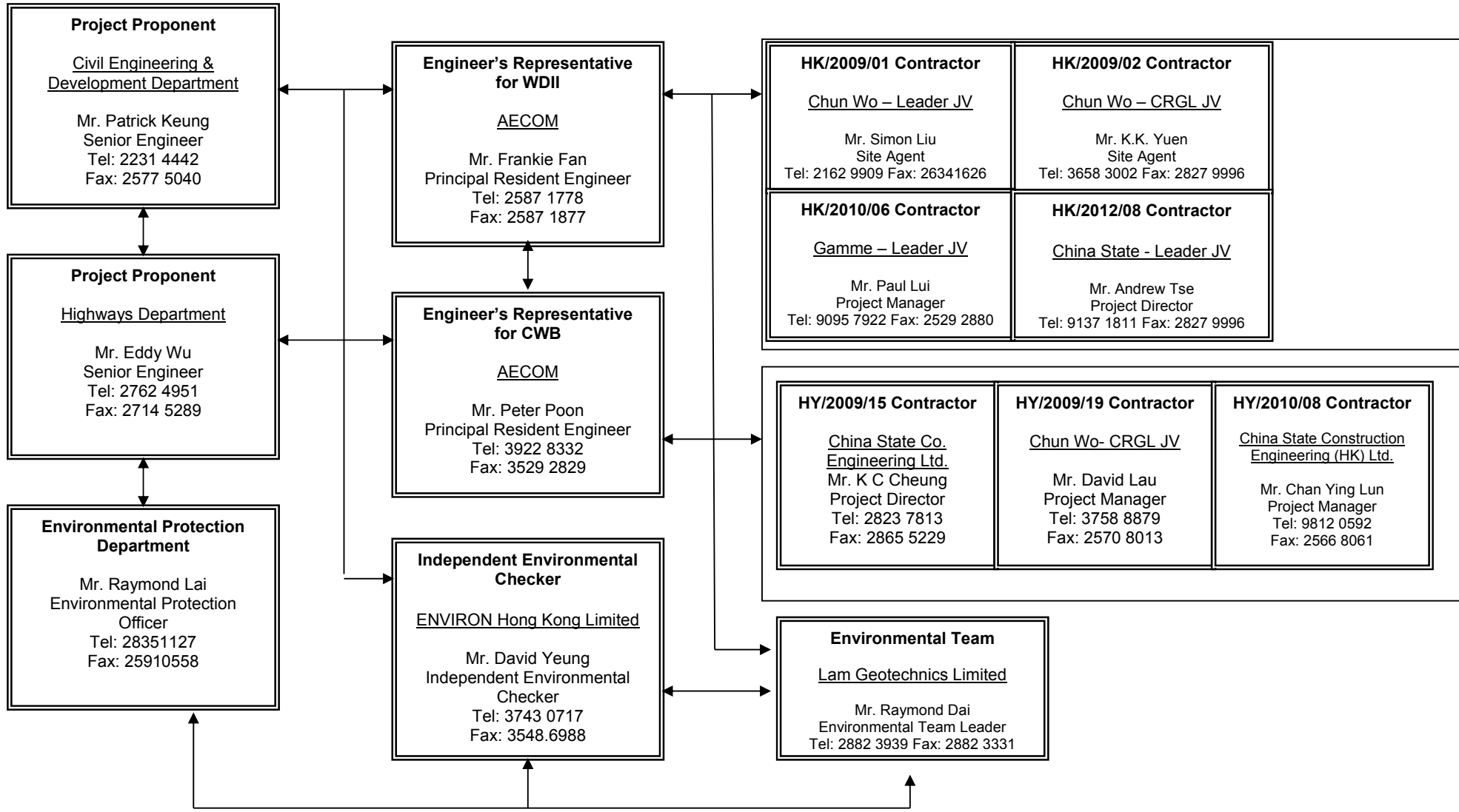
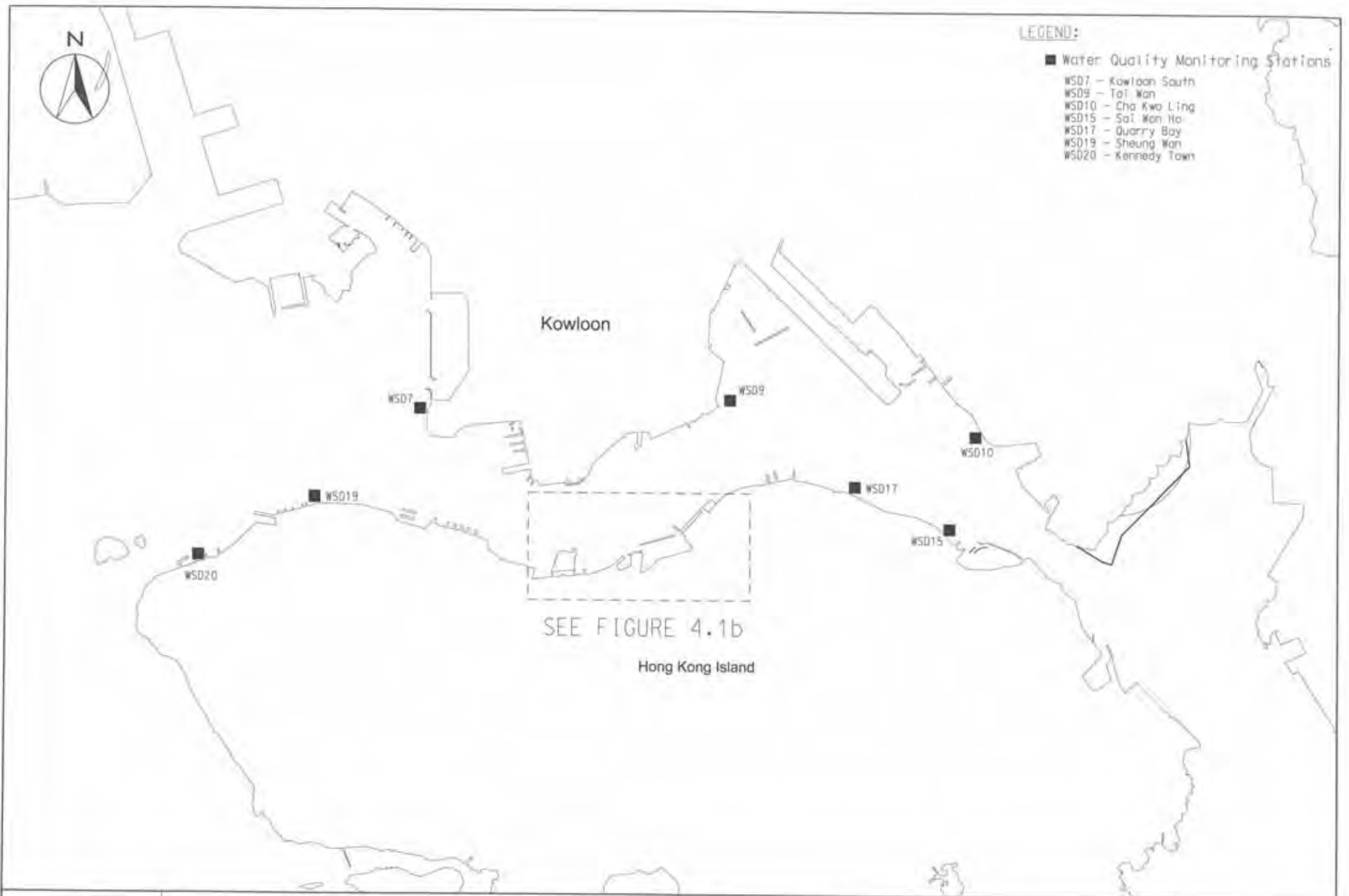
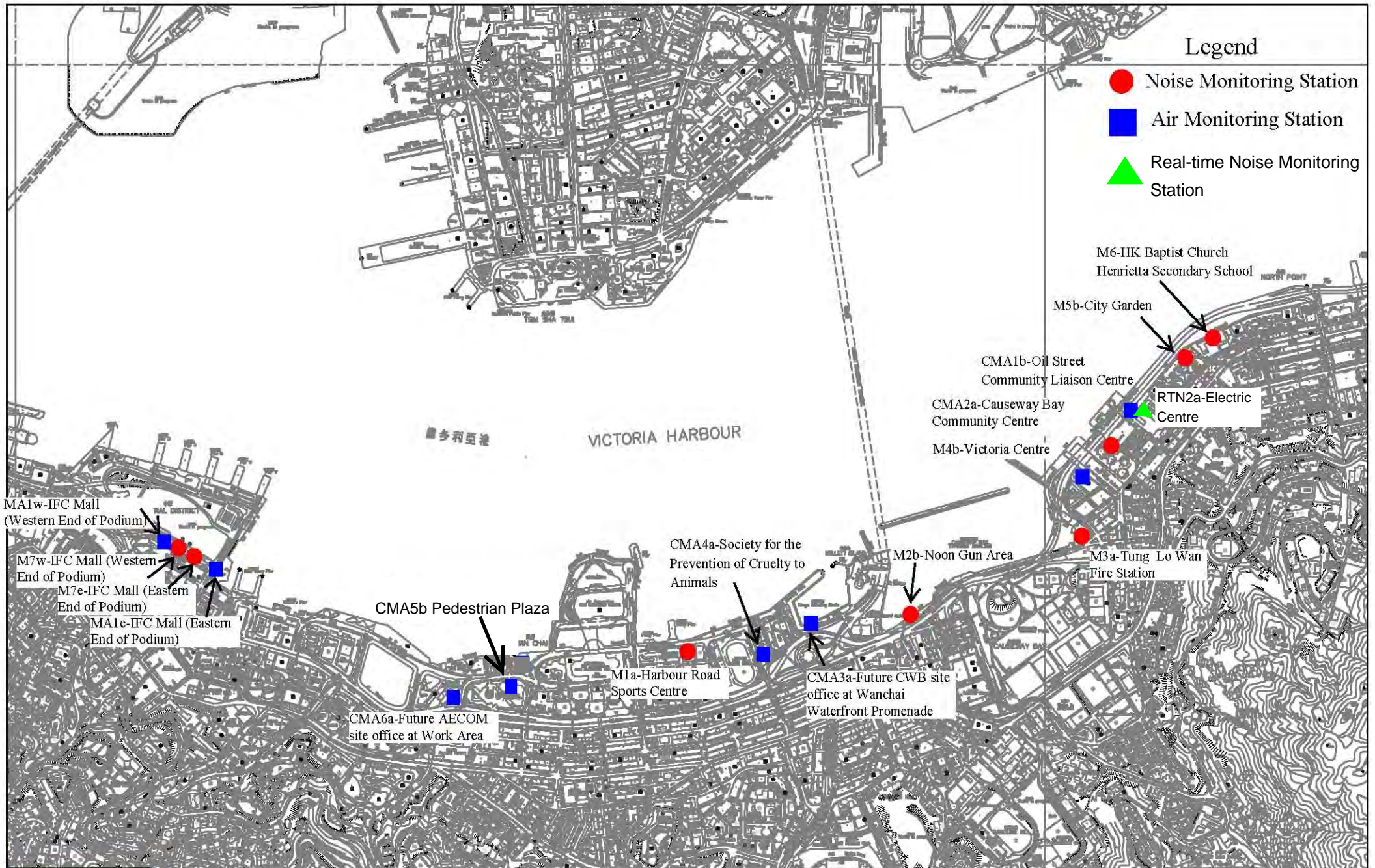




Figure 4.1

Locations of Monitoring Stations



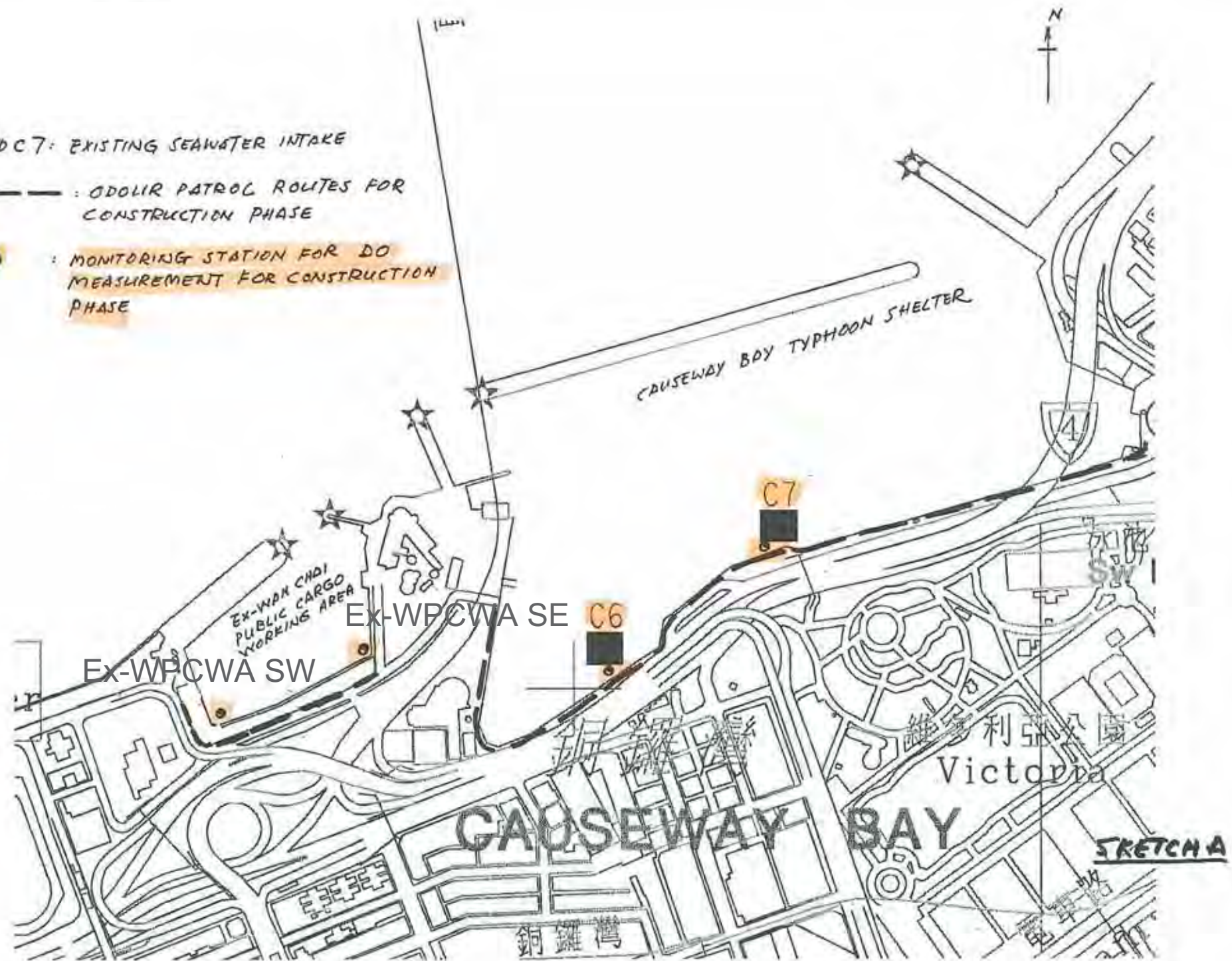


Location plan of Environmental Monitoring Stations

C6 AND C7: EXISTING SEAWATER INTAKE

— : ODOLIR PATROL ROUTES FOR CONSTRUCTION PHASE

● : MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE

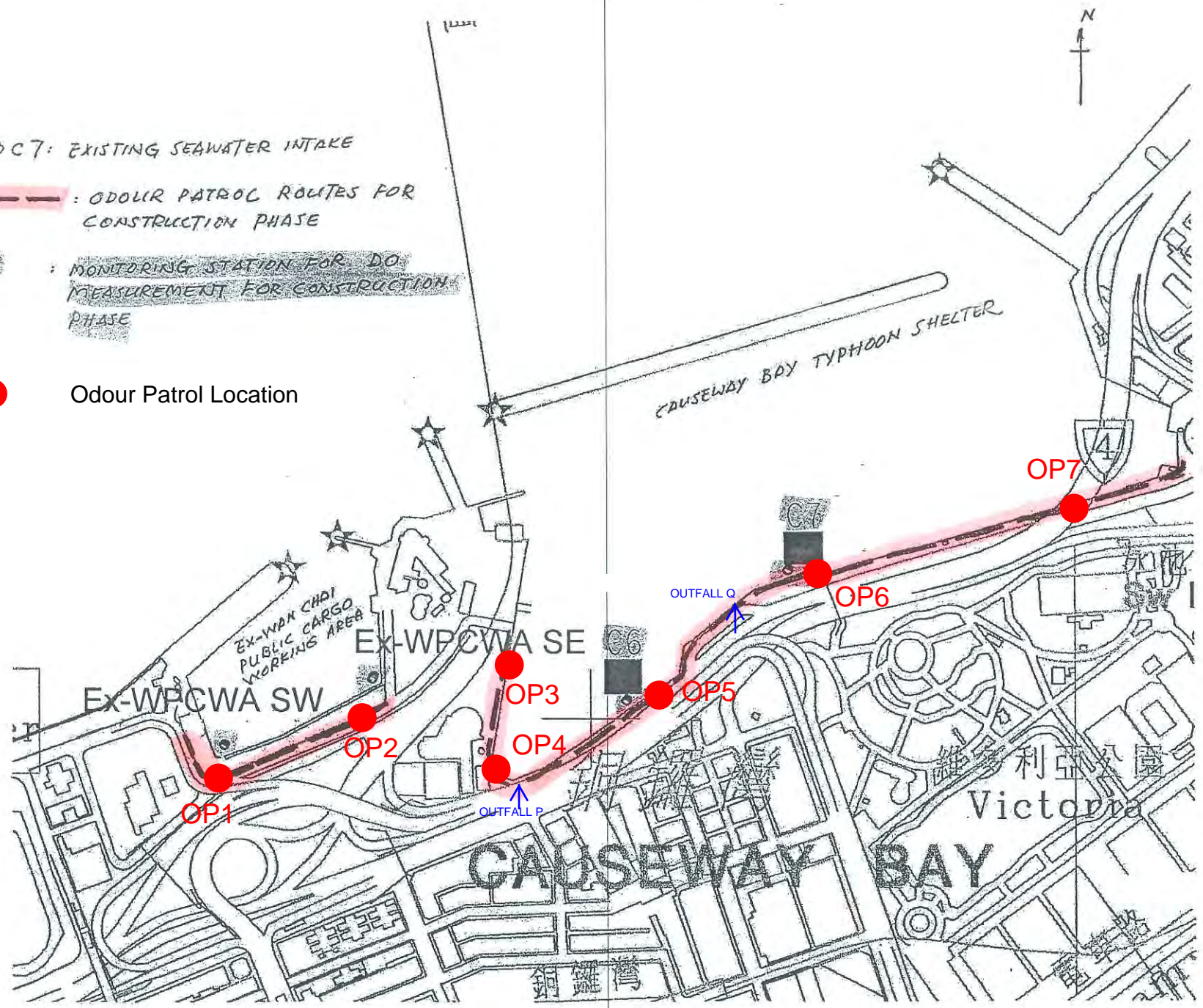


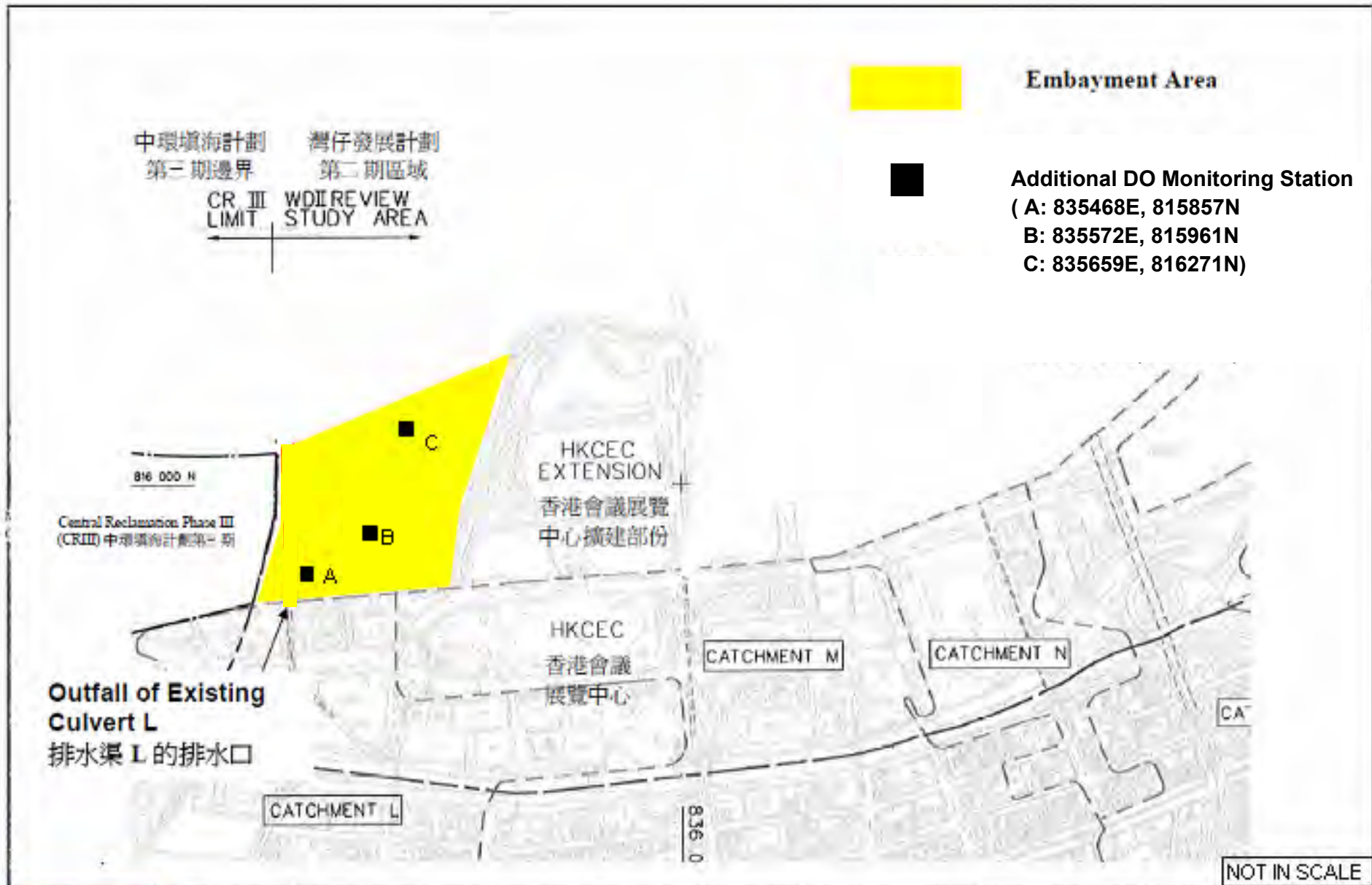
C6 AND C7: EXISTING SEAWATER INTAKE

--- : ODOR PATROL ROUTES FOR CONSTRUCTION PHASE

⊙ : MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE

● Odour Patrol Location

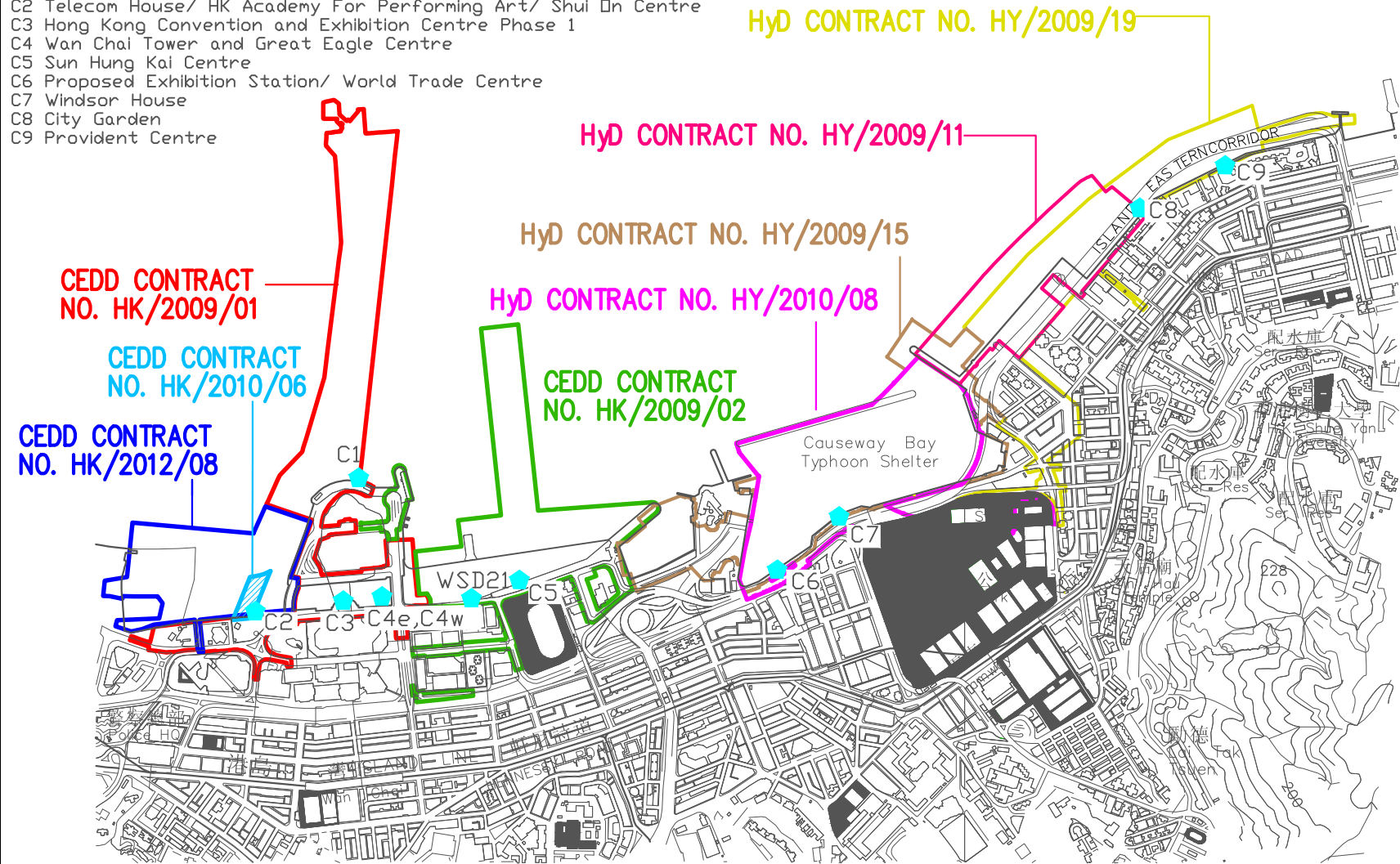




Location Plan of Additional Dissolved Oxygen Monitoring Stations for Culvert L Water Discharge Flow

Legend

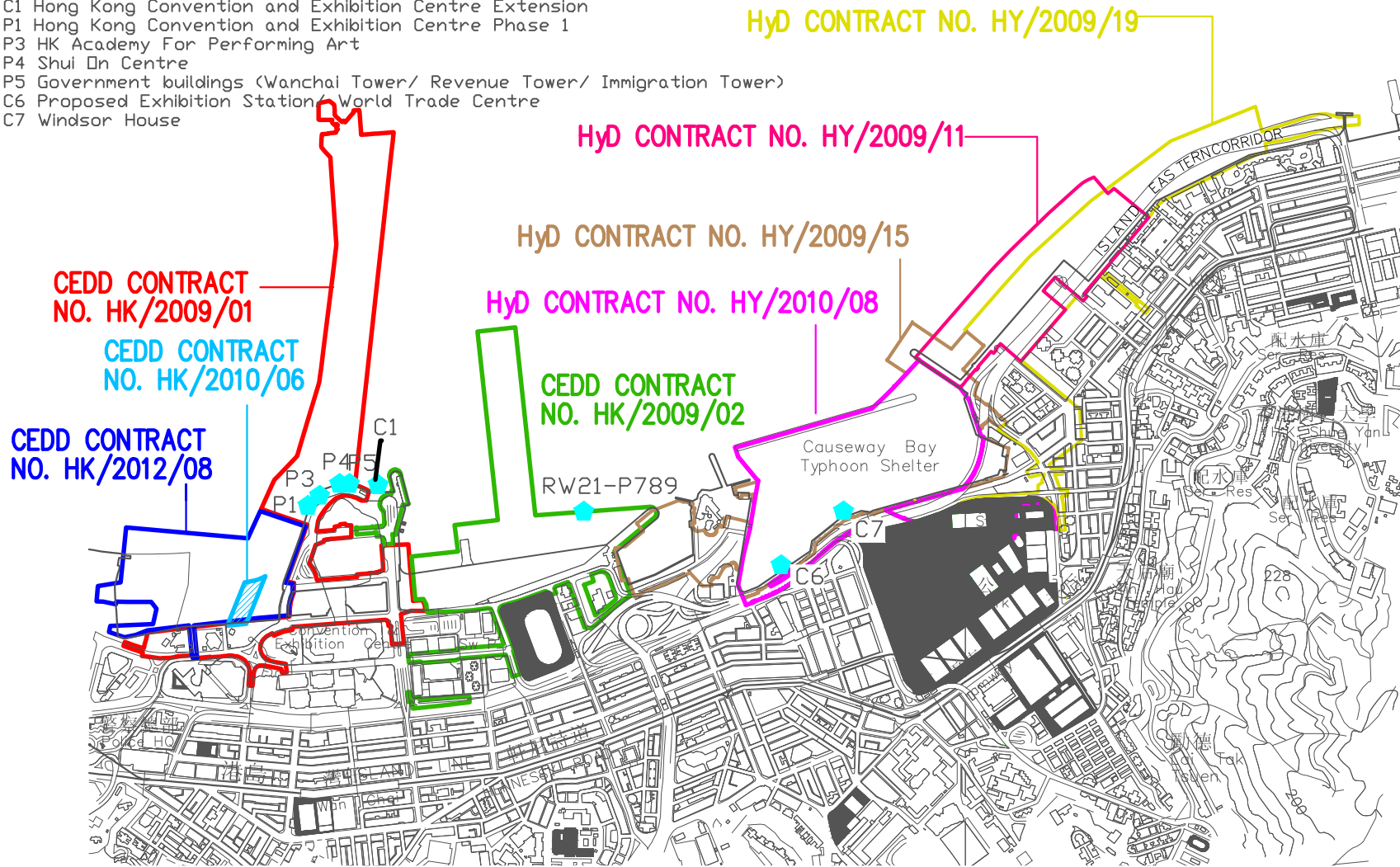
- ◆ Water Quality Monitoring Stations
- C1 Hong Kong Convention and Exhibition Centre Extension
- C2 Telecom House/ HK Academy For Performing Art/ Shui On Centre
- C3 Hong Kong Convention and Exhibition Centre Phase 1
- C4 Wan Chai Tower and Great Eagle Centre
- C5 Sun Hung Kai Centre
- C6 Proposed Exhibition Station/ World Trade Centre
- C7 Windsor House
- C8 City Garden
- C9 Provident Centre



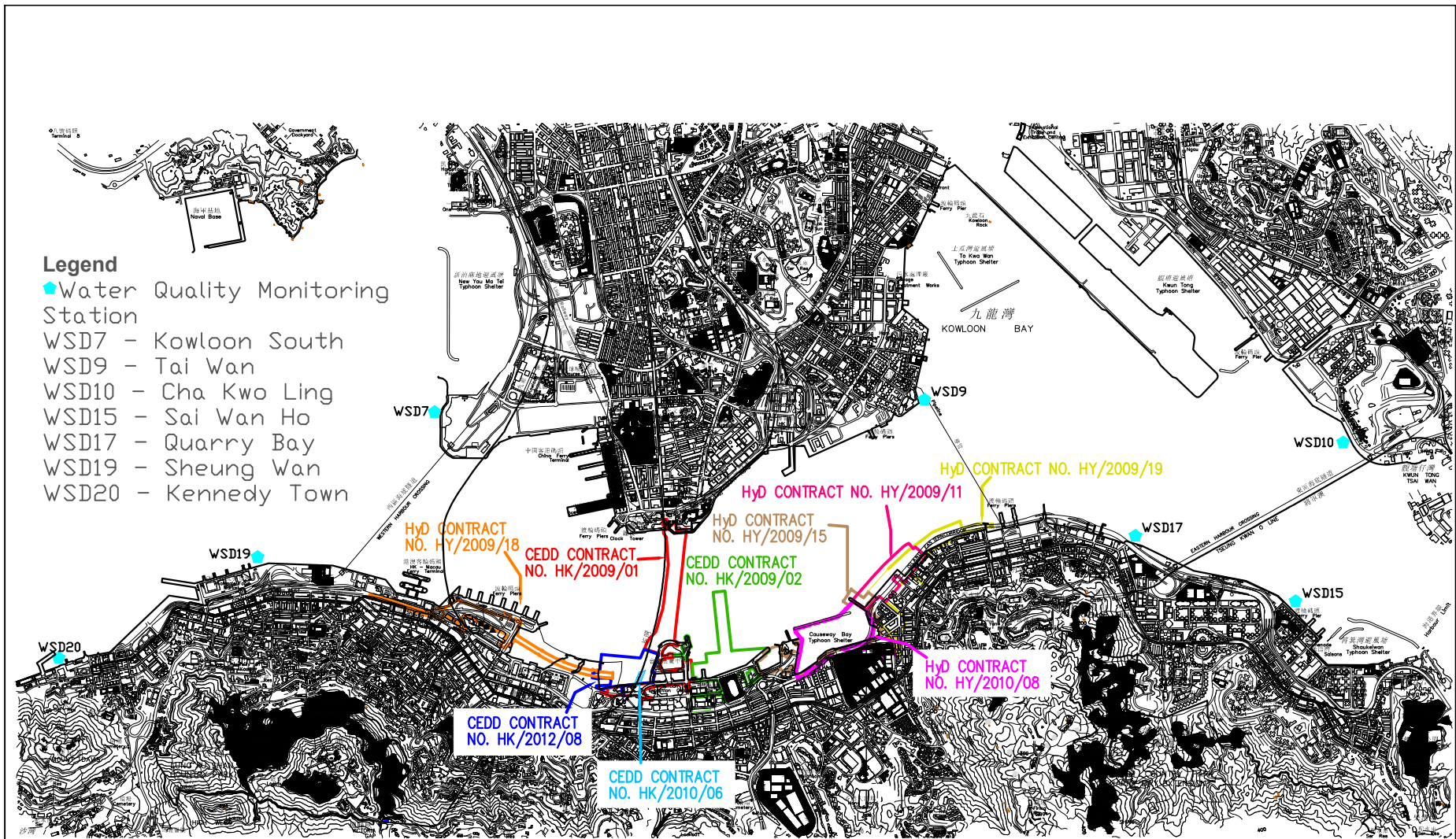
LOCATIONS OF WATER QUALITY MONITORING STATIONS

Legend

- ◆ Water Quality Monitoring Stations
- RW21-P789 (Wanchai WSD intake/ Great Eagle Centre/ China Resources Centre/ Sun Hung Kai Centre)
- C1 Hong Kong Convention and Exhibition Centre Extension
- P1 Hong Kong Convention and Exhibition Centre Phase 1
- P3 HK Academy For Performing Art
- P4 Shui On Centre
- P5 Government buildings (Wanchai Tower/ Revenue Tower/ Immigration Tower)
- C6 Proposed Exhibition Station/ World Trade Centre
- C7 Windsor House



LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF WATER QUALITY MONITORING STATIONS

Legend

- Additional □ Monitoring Station

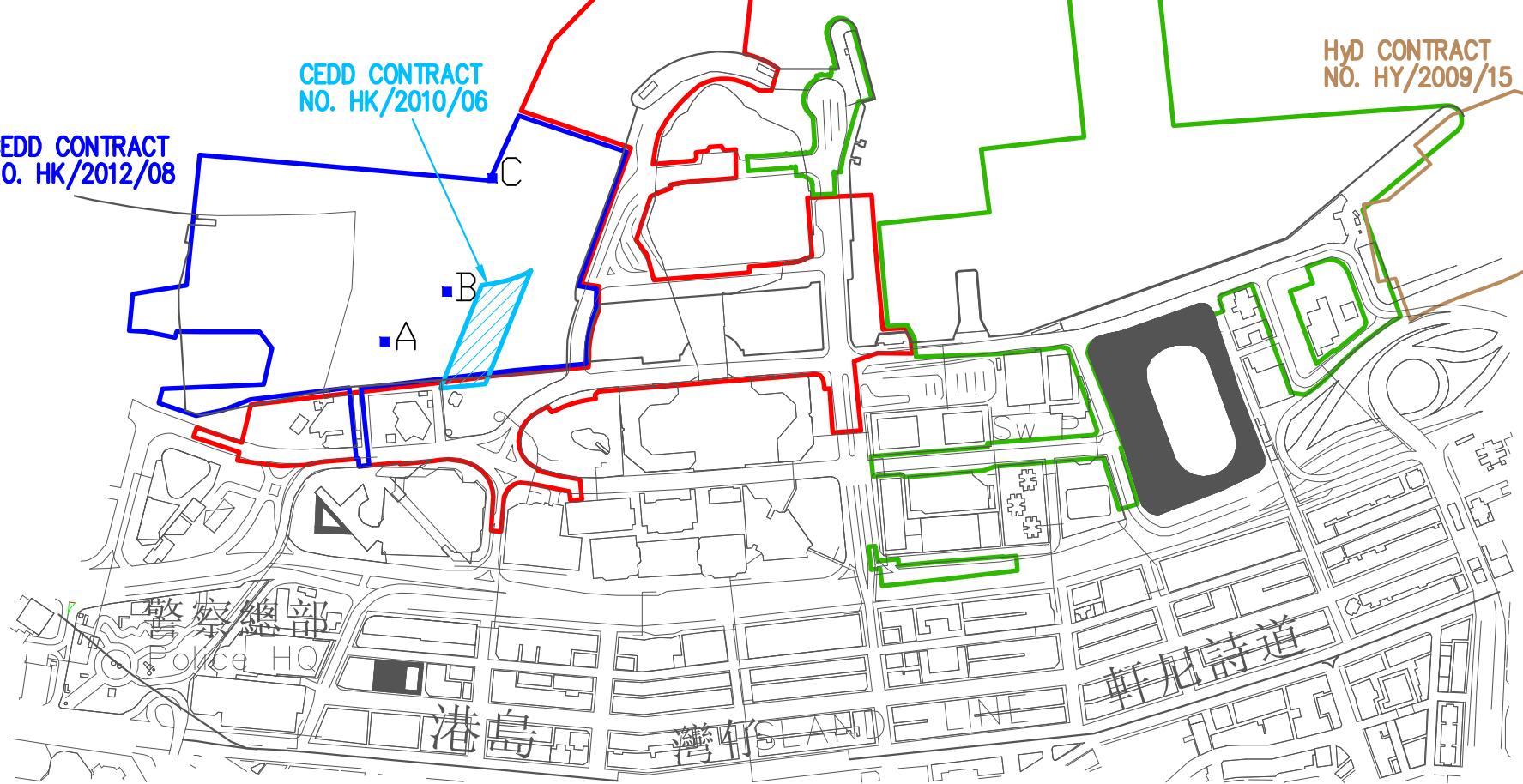
CEDD CONTRACT
NO. HK/2012/08

CEDD CONTRACT
NO. HK/2010/06

CEDD CONTRACT
NO. HK/2009/01

CEDD CONTRACT
NO. HK/2009/02

HyD CONTRACT
NO. HY/2009/15



LOCATIONS OF ADDITIONAL DISSOLVED OXYGEN MONITORING STATIONS FOR CULVERT L WATER DISCHARGE FLOW



Appendix 3.1

Environmental Mitigation Implementation Schedule

Environmental Mitigation Implementation Schedule

Implementation Schedule for Air Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
<i>For the Whole Project</i>								
S3.6.5	Four times a day watering of the work site with active operations.	Work site / during construction	Contractor		√			EIAO-TM
S3.8.1	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. <ul style="list-style-type: none"> Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition; Watering during excavation and material handling; Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; and Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. 	Work site / during construction	Contractor		√			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.5.6	For the dredging activities carried out in the vicinity of Police Officers' Club, the dredging operation will be restricted to only 1 small close grab dredger to minimise the odour impact during the dredging activity. The dredging rate should be reduced as much as practicable for the area in close proximity to the Police Officers' Club. The sediments contain highly contaminated mud which may be disposed with the use of geosynthetic containers (details shall refer to Section 6), grab dredger has to be used for filling up the geosynthetic containers on barges. the dredging rate for the removal of the sediments at the south-west corner of the typhoon shelter shall be slowed down or restricted to specific non-popular hours in weekdays when it is necessary during construction.	Corner of CBTS/implementation of harbour-front enhancement	CEDD ¹		√			EIAO-TM
S3.8.8	Carry out dredging at the corner of CBTS to remove the sediment and clean the slime attached on the CBTS shoreline seawall	Corner of CBTS & CBTS shoreline seawall/implementation of harbour-front enhancement	CEDD ²		√			EIAO-TM
Operation Phase								
<i>For the Whole Project</i>								

¹ CEDD will identify an implementation agent.

² CEDD will identify an implementation agent.

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.10.2	Monthly (from July to September) monitoring of odour impacts, for a period of 5 years, is proposed during the operational phase of the Project to ascertain the effectiveness of the Enhancement Package over time, and to monitor any on-going odour impacts at the ASRs.	Planned ASRs (CBTS Breakwater)/First 5-year period of operation phase	CEDD ¹			√		EIAO-TM
For DPI – CWB (Within the Project Boundary)								
S3.6.53 – S3.6.54	The design parameters of the East and Central Ventilation Buildings as set in Tables 3.10 and 3.11	East and Central Ventilation Buildings / During operation of the Trunk Road	HyD			√		
S3.10.2	Air quality monitoring for the operation performance of the East Ventilation Building and associated East Vent Shaft will be conducted.	East Vent Shaft / During operation of the East Ventilation Building and associated East Vent Shaft	HyD			√		EIAO-TM

- Des - Design, C - Construction, O – Operation, and Dec – Decommissioning

Table A13.2 Implementation Schedule for Noise Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.9.4	<p>Good Site Practice:</p> <ul style="list-style-type: none"> Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program. Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program. Mobile plant, if any, shall be sited as far away from NSRs as possible. Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum. Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities. 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
<i>For DP1 – CWB (Within the Project Boundary)</i>								

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.3 – S4.8.5	<p>Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks:</p> <ul style="list-style-type: none"> Slip road 8 tunnel Construction of diaphragm wall and substructures of the tunnel approach ramp Excavation Construction of slabs Backfill Demolition and construction of substructures for the IEC Demolition works of existing piers and crossheads of the marine section of the existing IEC <p>Use of PME grouping for the following tasks:</p> <ul style="list-style-type: none"> At-grade road construction Substructure for IECL connection 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
<i>For DP2 – WDII Major Roads (Road P2)</i>								
S4.8.3 – S4.8.4	<p>Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks:</p> <ul style="list-style-type: none"> Temporary road diversion Resurfacing At-grade roadwork 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
<i>For DP3 – Reclamation Works</i>								
S4.8.3 – S4.8.4	<p>Use of quiet powered mechanical equipment for the following task:</p> <ul style="list-style-type: none"> Filling behind seawall Seawall construction 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For DP5 – Wan Chai East Sewage Outfall								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: <ul style="list-style-type: none"> Submarine pipelines (marine section) Use of quiet powered mechanical equipment and movable noise barrier for the following tasks: <ul style="list-style-type: none"> Installation of a new pipeline (land section) 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: <ul style="list-style-type: none"> Submarine pipelines (marine section) 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Operation Phase								
For DP1 – CWB (Within the Project Boundary)								

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.14 – S4.8.18	<ul style="list-style-type: none"> For Existing NSRs about 235m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC about 230m length of noise semi-enclosure with transparent panel covering the main carriageways (eastbound and westbound) of the CWB and IEC about 135m length of 5.5m high cantilevered noise barrier with 3m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 95m length of 5.5m high cantilevered noise barrier with 1m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 350m length of 3.5m high vertical noise barrier with transparent panel on the eastbound slip road to the IEC low noise road surfacing for the trunk road (except tunnel section and beneath the landscaped deck at the eastern portal area) with speed limit of 70 km/hour For Future/Planned NSRs	Near North Point / Before commencement of operation of road project In between the Electric Centre (next to City Garden) and CDA(1) site / Before occupation of Planned NSRs in CDA and CDA(1) sites.	HyD	√	√	√		EIAO-TM
					√	√#		

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> The openable windows of the temple, if any, should be orientated so as to avoid direct line of sight to the existing Victoria Park Road as far as practicable. 	Near Causeway Bay Fire Station / During detailed design of the re-provisioned Tin Hau Temple	Project Proponent for the re-provisioned Tin Hau Temple	√				

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Only the steel frame for this section of noise semi-enclosure would be erected in advance during the construction of the westbound slip road.

Appendix 3.1

Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
<i>For DP3 – Reclamation Works, DP5 (Wan Chai East Sewage Outfall), DP6 (Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui), DP1 – CWB (within the Project Boundary)</i>								
S5.8	A phased reclamation approach is planned for the WDII. Containment of fill within each of the reclamation phases by seawalls is proposed, with the seawall constructed first (above high water mark) with filling carried out behind the completed seawalls. Any gaps that may need to be provided for marine access will be shielded by silt curtains to control sediment plume dispersion away from the site. Filling for seawall construction should be carried out behind the silt curtain	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	Dredging shall be carried out by closed grab dredger for the following works: <ul style="list-style-type: none"> • Seawall construction in all the reclamation areas; • Construction of the CWB Tunnel • Construction of the proposed WSD water mains; and • Construction of the proposed Wan Chai East sewage outfall pipelines. 	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Dredging for the Wan Chai East sewage outfall pipelines shall not be carried out concurrently with the following activities: <ul style="list-style-type: none"> • Dredging along the proposed cross-harbour water mains; • Dredging along the seawall in the Wan Chai Reclamation (WCR) zone (area between HKCEC Extension and PCWA). 	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines																								
				Des	C	O	Dec																									
S5.8	The water body behind the temporary reclamations within the Causeway Bay typhoon shelter shall not be fully enclosed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																								
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between CR111 and HKCEC1, an impermeable barrier, suspended from a floating boom on the water surface and extending down to the seabed, will be erected by the contractor before the HKCEC1 commences. The barrier will channel the stormwater discharge flows from Culvert L to the outside of the embayment. The contractor will maintain this barrier until the reclamation works in HKCEC2W are carried out and the new Culvert L extension is constructed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																								
S5.8, Figure 5.3	The total dredging rates in each of the marine works zones shall not be more than the maximum production rates stated in the table below. These are the production rates without considering the effect of silt curtain.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Reclamation Area</th> <th colspan="2">Maximum Dredging Rate</th> <th rowspan="2">Maximum Dredging Rate (m³ per week)</th> </tr> <tr> <th>m³ per day</th> <th>m³ per hour (for 16 hrs per day)</th> </tr> </thead> <tbody> <tr> <td colspan="4">Dredging along seawall or breakwater</td> </tr> <tr> <td>North Point Shoreline Zone (NPR)</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>Causeway Bay</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>Shoreline Zone</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>PCWA Zone</td> <td>5,000</td> <td>313</td> <td>35,000</td> </tr> </tbody> </table>		Reclamation Area	Maximum Dredging Rate		Maximum Dredging Rate (m ³ per week)	m ³ per day	m ³ per hour (for 16 hrs per day)	Dredging along seawall or breakwater				North Point Shoreline Zone (NPR)	6,000	375	42,000	Causeway Bay	1,500	94	10,500	Shoreline Zone	6,000	375	42,000	PCWA Zone	5,000	313	35,000					
Reclamation Area	Maximum Dredging Rate		Maximum Dredging Rate (m ³ per week)																													
	m ³ per day	m ³ per hour (for 16 hrs per day)																														
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PCWA Zone	5,000	313	35,000																													

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures				Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines																						
							Des	C	O	Dec																							
	<table border="1"> <tr> <td>Wan Chai Shoreline Zone (WCR)</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>HKCEC Shoreline Zone (HKCEC)</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>HKCEC Stage 1 & 3</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>HKCEC Stage 2</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>Cross Harbour Water Mains</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>Wan Chai East Submarine Sewage Pipeline</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> </table> <p>Note: 1,500 m³ per day shall be applied for construction of the western seawall of WCR1.</p>	Wan Chai Shoreline Zone (WCR)	6,000	375	42,000	HKCEC Shoreline Zone (HKCEC)	1,500	94	10,500	HKCEC Stage 1 & 3	6,000	375	42,000	HKCEC Stage 2	1,500	94	10,500	Cross Harbour Water Mains	1,500	94	10,500	Wan Chai East Submarine Sewage Pipeline	1,500	94	10,500								
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Cross Harbour Water Mains	1,500	94	10,500																														
Wan Chai East Submarine Sewage Pipeline	1,500	94	10,500																														
S5.8, Figure 5.3	Dredging along the seawall at WCR1 shall be undertaken initially at 1,500m ³ per day for construction of the western seawall (which is in close proximity of the WSD intake), followed by partial seawall construction at the western seawall (above high water mark) to protect the adjacent intakes as much as possible from further dredging activities.				Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																						
S5.8, Figure 5.3	For dredging within the Causeway Bay typhoon shelter, seawall shall be partially constructed to protect the nearby seawater intakes from further dredging activities. For example, at TCBR1W, the southern and eastern seawalls shall be constructed first (above high water mark) so that the seawater intakes at the inner water would be protected from the impacts from the remaining dredging activities along the northern boundary.				Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																						
S5.8, Figure 5.3	Silt curtains shall be deployed around the closed grab dredgers during seawall dredging and seawall trench filling in the areas of HKCEC, WCR, TCBR and NP.				Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																						
S5.8, Figure 5.3	Silt screens shall be applied to seawater intakes at interim construction stages as stated below:				Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																						
	<table border="1"> <tr> <th>Interim Construction Stage</th> <th>Location of Applications</th> </tr> <tr> <td>Scenario 2A in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA,</td> <td>WSD saltwater intakes at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South Cooling water intakes for Hong Kong Convention and Exhibition Centre Extension, Hong Kong</td> </tr> </table>	Interim Construction Stage	Location of Applications	Scenario 2A in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA,								WSD saltwater intakes at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South Cooling water intakes for Hong Kong Convention and Exhibition Centre Extension, Hong Kong																					
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Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines					
					Des	C	O	Dec						
	<table border="1"> <tr> <td>TBW, NP and Water Mains Zone</td> <td>Convention and Exhibition Centre Phase I, Telecom House / HK Academy for Performing Arts / Shun On Centre, Wan Chai Tower / Revenue Tower / Immigration Tower and Sun Hung Kai Centre</td> </tr> <tr> <td>Scenario 2B in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.</td> <td>WSD saltwater intakes at Sheung Wan, Wan Chai Cooling water intakes for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.</td> </tr> <tr> <td>Scenario 2C in 2011 with concurrent dredging activities at HKCEC and TCBR.</td> <td>WSD saltwater intakes at Sheung Wan and Re-provisioned WSD Wan Chai saltwater intake. Cooling water intakes for MTR South, Excelsior Hotel & World Trade Centre and re-provisioned Windsor House.</td> </tr> </table>	TBW, NP and Water Mains Zone	Convention and Exhibition Centre Phase I, Telecom House / HK Academy for Performing Arts / Shun On Centre, Wan Chai Tower / Revenue Tower / Immigration Tower and Sun Hung Kai Centre	Scenario 2B in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.	WSD saltwater intakes at Sheung Wan, Wan Chai Cooling water intakes for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.	Scenario 2C in 2011 with concurrent dredging activities at HKCEC and TCBR.	WSD saltwater intakes at Sheung Wan and Re-provisioned WSD Wan Chai saltwater intake. Cooling water intakes for MTR South, Excelsior Hotel & World Trade Centre and re-provisioned Windsor House.							
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Scenario 2B in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.	WSD saltwater intakes at Sheung Wan, Wan Chai Cooling water intakes for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.													
Scenario 2C in 2011 with concurrent dredging activities at HKCEC and TCBR.	WSD saltwater intakes at Sheung Wan and Re-provisioned WSD Wan Chai saltwater intake. Cooling water intakes for MTR South, Excelsior Hotel & World Trade Centre and re-provisioned Windsor House.													
S5.8	<p>Other mitigation measures include:</p> <ul style="list-style-type: none"> mechanical grabs, if used, shall be designed and maintained to avoid spillage and sealed tightly while being lifted. For dredging of any contaminated mud, closed watertight grabs must be used; all vessels shall be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; all hopper barges and dredgers shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material; construction activities shall not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water. Barges or hoppers shall not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; and 		Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)					

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain. 							
S5.8	<p>Silt screens are recommended to be deployed at the seawater intakes during the reclamation works period. Installation of silt screens at the seawater intake points may cause a potential for accumulation and trapping of pollutants, floating debris and refuse behind the silt screens and may lead to potential water quality deterioration at the seawater intake points. Major sources of pollutants and floating refuse include the runoff and storm water discharges from the nearby coastal areas. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the impact monitoring results are representative, regular maintenance of the silt screens and refuse collection shall be performed at the monitoring stations at regular intervals on a daily basis. The Contractor shall be responsible for keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.</p>	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	<p>Dredging of contaminated mud is recommended as a mitigation measures for control of operational odour impact from the Causeway Bay typhoon shelter. In recognition of the potential impacts caused by dredging activities close to the seawater intakes, only 1 small close grab dredger shall be operated within the typhoon shelter (for the dredging to mitigate odour impact) at any time to minimize the potential impact. Double silt curtains shall be deployed to fully enclose the closed grab dredger during the dredging operation. In addition, an impermeable barrier, suspended from a floating boom on the water surface and extended down to the seabed, shall be erected to isolate the adjacent intakes as much as possible from dredging activities. For example, if dredging is to be carried out at the southwest corner of the typhoon shelter, physical barriers shall be erected to west of the cooling water intake for Excelsior Hotel so that the intake would be shielded from most of the SS generated from the dredging operation to the west of the intake. For area in close proximity of the cooling water intake point, the dredging rate shall be reduced as much as practicable. Site audit and water quality monitoring shall be carried out at the seawater intakes during the dredging operations. Daily monitoring of SS at the cooling water intake shall be carried out, and 24 hour monitoring of turbidity at the intakes shall be implemented during the dredging activities. If the monitoring results indicate that the dredging operation has caused significant changes in water quality conditions at the seawater intakes, appropriate actions shall be taken to stop the dredging and mitigation measures such as slowing down the dredging rate shall be implemented.</p>	Causeway Bay typhoon shelter/Implementation of harbour-front enhancement.	CEDD ³		√			WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines	
				Des	C	O	Dec		
For the Whole Project									
S5.8	<ul style="list-style-type: none"> Construction Runoff and Drainage use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow; Permanent drainage channels shall incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94; a sediment tank constructed from pre-formed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal; oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor shall have a bypass to prevent flushing during periods of heavy rain; precautions and actions to be taken when a rainstorm is imminent or forecast, and during or after rainstorms. Particular attention shall be paid to the control of any silty surface runoff during storm events; on-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be installed in order to minimise the sediment loading of the effluent prior to discharge; All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge shall be adequately designed for the controlled release of storm flows. All sediment control measures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage shall be reinstated to its original condition when the construction work is finished or the temporary diversion is no longer 	<ul style="list-style-type: none"> Work site / During the construction period 	Contractor		√				ProPECC PN 1/94; WPCO (TM-DSS)

³ CEDD will identify an implementation agent.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p>required.</p> <ul style="list-style-type: none"> All fuel tanks and store areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity. 							
	<ul style="list-style-type: none"> Minimum distances of 100 m shall be maintained between the storm water discharges and the existing or planned WSD flushing water intakes during construction phase. 							
S5.8	<p><i>Sewage from Construction Work Force</i></p> <p>Construction work force sewage discharges on site shall be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage shall be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.</p>	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)
S5.8	<p><i>Floating Debris and Refuse</i></p> <p>Collection and removal of floating refuse shall be performed at regular intervals on a daily basis. The contractor shall be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.</p>	Work site and adjacent water / During the construction period.	Contractor		√			WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	<p><i>Storm Water Discharges</i></p> <p>Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.</p>	Work site and adjacent water / During the design and construction period.	Contractor	√	√			WPCO
Operation Phase								
<i>DPI – CWB (within the Project Boundary)</i>								
S5.8	<p>For the operation of CWB, a surface water drainage system would be provided to collect road runoff. The following operation stage mitigation measures are recommended to ensure road runoff would comply with the TM under the WPCO:</p> <ul style="list-style-type: none"> The drainage from tunnel sections shall be directed through petrol interceptors to remove oil and grease before being discharged to the nearby foul water manholes. Petrol interceptors shall be regularly cleaned and maintained in good working condition. Oily contents of the petrol interceptors shall be properly handled and disposed of, in compliance with the requirements of the Waste Disposal Ordinance. Sewage arising from ancillary facilities of CWB (for examples, car park, 	CWB/During design and operational period	HyD/TD ³	√		√		WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p>control room, ventilation and administration buildings and tunnel portals) shall be connected to public sewerage system. Sufficient capacity in public sewerage shall be made available to the proposed facilities.</p> <ul style="list-style-type: none"> Road drainage shall also be provided with adequately designed silt trap to minimize discharge of silty runoff. The design of the operational stage mitigation measures for CWB shall take into account the guidelines published in ProPECC PN 5/93 "Drainage Plans subject to Comment by the EPD." All operational discharges from the CWB into drainage or sewerage systems are required to be licensed by EPD under the WPCO. 							

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

³ if employ Management, Operation and Maintenance (MOM) Contract

Appendix 3.1

Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
<i>For DP3 – Reclamation Works</i>								
	Marine Sediments							
S6.7.2	The dredged marine sediments would be loaded onto barges, transported to and disposed of at the designated disposal sites at South of Cheung Chau, East of Ninepin, East of Tung Lung Chau, South of Tsing Yi or East of Sha Chau to be allocated by the MFC depending on their level of contamination or at other disposal sites after consultation with the MFC and EPD. In accordance with the ETWB TCW No. 34/2002, the contaminated material must be dredged and transported with great care. The mitigation measures recommended in Section 5 of the EIA Report shall be incorporated. The dredged contaminated sediment must be effectively isolated from the environment upon final disposal and shall be disposed of at the Type 2 confined marine disposal contaminated mud pit.	Work site / During the construction period	Contractor		√			ETWB TCW No. 34/2002
S6.7.3	Based on the biological screening results, the Category H (>10xLCEL) sediment which failed the biological testing would require Type 3 special disposal. The volume of Category H sediment from the Causeway Bay typhoon shelter which would require special disposal arrangements is estimated to be approximately 0.05 Mm ³ . A feasible containment method is proposed whereby the dredged sediments are sealed in geosynthetic containers and, at the disposal site, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping, thereby meeting the requirements for fully confined mud disposal.							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.5	It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, at least 3 months prior to the dredging contract being tendered							
S6.7.6	During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality: <ul style="list-style-type: none"> • Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved. 							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. 							
S6.6.12	<p>Floating Refuse During the construction phase, the project proponent's contractor will be responsible for the collection of any refuse within their works area. Floating booms will be provided on the water surface to confine the refuse from the working barges as well as to avoid the accumulation of pollutants within temporary embayment as mentioned in Table 13.3.</p>	Work site / During the construction period	Contractor		√			
For the Whole Project								

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.7	<p>Good Site Practices Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; training of site personnel in proper waste management and chemical waste handling procedures; provision of sufficient waste disposal points and regular collection for disposal; appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites). 	Work site / During the construction period	Contractor		√			Waste Disposal Ordinance (Cap.354)

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.8	<p><i>Waste Reduction Measures</i></p> <p>Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; to encourage collection of aluminium cans, PET bottles and paper, separate labelled bins shall be provided to segregate these wastes from other general refuse generated by the work force; any unused chemicals or those with remaining functional capacity shall be recycled; use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&D material. prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; proper storage and site practices to minimise the potential for damage or contamination of construction materials; and plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	Work site / During planning and design stage, and construction stage	Contractor	√	√			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.10	<p><i>General Refuse</i></p> <p>General refuse shall be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D material.</p> <p>A collection area shall be provided where wastes can be stored and loaded prior to removal from site. An enclosed and covered area is recommended to reduce the occurrence of 'wind blow' light material.</p>	Work site / During the construction period	Contractor		√			Public Health and Municipal Services Ordinance (Cap. 132)
S6.7.11	<p><i>Chemical Wastes</i></p> <p>After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals shall be collected by a licensed collector for disposal at the CWTF or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p>	Work site / During the construction period	Contractor		√			Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
S6.7.12	<p><i>Construction and Demolition Material</i></p> <p>C&D material shall be sorted on-site into inert C&D material (that is, public fill) and C&D waste. All the suitable inert C&D material shall be broken down to 250 mm in size for reuse as public fill in the WDII reclamation. C&D waste, such as wood, glass, plastic, steel and other metals shall be reused or recycled and, as a last resort, disposed of to landfill. A suitable area shall be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials.</p>	Work site / During the construction period	Contractor		√			ETWB TCW No. 33/2002, 31/2004, 19/2005

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.13	In order to monitor the disposal of public fill and C&D waste at public filling facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker		√			ETWB TCW No. 31/2004
S6.7.14	<p><i>Bentonite Slurry</i></p> <p>The disposal of residual used bentonite slurry shall follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage" and listed as follows:</p> <ul style="list-style-type: none"> If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis. If the used bentonite slurry is intended to be disposed of through the public drainage system, it shall be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the Technical Memorandum of Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters. If the used bentonite slurry is intended to be disposed to public fill reception facilities, it will be mixed with dry soil on site before disposal. 	Work site / During the construction period	Contractor		√			ProPECC PN 1/94

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Appendix 3.1

Table A13.5 Implementation Schedule for Land Contamination

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
<i>For the Whole Project</i>								
S.12.6	<ul style="list-style-type: none"> The contaminated site shall be cleaned up before commencement of site clearance and construction work at the concerned area which may disturb the ground. 	A King Marine / Before commencement of construction activities at A King Marine.	Project proponent for the re-provisioned Tin Hau Temple	√				<p>"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops" published by EPD, HKSAR</p> <p>EPD ProPECC Note No. 3/94</p>
S7.10	<p>During soil remediation works, the Contractor for the excavation works shall take note of the following points for excavation:</p> <ul style="list-style-type: none"> Excavation profiles must be properly designed and executed; In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; Quantities of soil to be excavated must be estimated; It maybe necessary to split quantities of soil according to soil type, degree and nature of contamination. Temporary storage of soil at intermediate depot or on-site 	A King Marine / During soil remediation works	Contractor	√				<p>Air Pollution Control Ordinance</p> <p>Noise Control Ordinance</p> <p>Waste Disposal Ordinance</p> <p>Waste Disposal (Chemical Waste) (General) Regulation</p>

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	maybe required. The storage site shall include protection facilities for leaching into the ground. eg. Liner maybe required.							
	<ul style="list-style-type: none"> Supply of suitable clean backfill materials is needed after excavation. Care must be taken of existing buildings and utilities. Precautions must be taken to control of ground settlement Speed controls for vehicles shall be imposed on dusty site areas. Vehicle wheel and body washing facilities at the site's exit points shall be established and used. <p>The following environmental mitigation measures shall be strictly followed during the operation and/or maintenance of the CS/S facilities:</p>							Water Pollution Control Ordinance

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p><u>Air Quality Mitigation Measures</u></p> <ul style="list-style-type: none"> The loading, unloading, handling, transfer or storage of cement shall be carried out in an enclosed system. The loading, unloading, handling, transfer or storage of other materials which may generate airborne dust emissions such as untreated soil and oversize materials sorted out from the screening plant and stabilized soil stockpiled in the designated handling area, shall be carried out in such a manner to prevent or minimise dust emissions. These materials shall be adequately wetted prior to and during the loading, unloading and handling operations. All practicable measures, including speed controls for vehicles, shall be taken to prevent or minimize the dust emission caused by vehicle movement. Tarpaulin or low permeable sheet shall be put on dusty vehicle loads transported between site locations. 							
	<p><u>Noise Mitigation Measures</u></p> <ul style="list-style-type: none"> The mixing facilities shall be sited as far as practicable to the nearby noise sensitive receivers. Simultaneous operation of mixing facilities and other equipment shall be avoided. Mixing process and other associated material handling activities shall be properly scheduled to minimise potential cumulative noise impact on the nearby noise sensitive receivers. Construction Noise Permit shall be applied for the operation of powered mechanical equipment during restricted hours (if any). 							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p><u>Water Quality Mitigation Measures</u></p> <ul style="list-style-type: none"> Stockpile of untreated soil shall be covered as far as practicable to prevent the contaminated material from leaching out. The leachate shall be discharged following the requirements of WPCO. <p><u>Waste Mitigation Measures</u></p> <ul style="list-style-type: none"> Treated oversize materials will be used as filling material for backfilling within the site. Sorted materials of size smaller than 5 cm will be collected and transferred to the mixing plant for further decontamination treatment. Stabilized soils shall be broken into suitable size for backfilling or reuse on site. A high standard of housekeeping shall be maintained within the mixing plant area. If necessary, there shall be clear and separated areas for stockpiling of untreated and treated materials. 							

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Appendix 3.1

Table A13.6 Implementation Schedule for Marine Ecology

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project - Schedule 3 DP								
S.9.7.2	Alternative design of the Trunk Road constructed in tunnel shall be adopted to avoid permanent reclamation in CBTS and ex-PWCA Basin.	-	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
For DP3 - Reclamation Works								
S.9.7.3	Translocation of those potentially affected coral colonies to the nearby suitable habitats such as Junk Bay is recommended. A detailed translocation plan (including translocation methodology, monitoring of transplanted corals, etc.) should be drafted and approval by AFCD during the detailed design stage of the Project.	Ex-PCWA Basin and along seawall next to a public pier which is about 250 m away from the CBTS	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.4	<p>During dredging and filling operations, a number of mitigation measures to control water quality shall be adopted to confine sediment plume within reclamation area and protect marine fauna in proximity to the reclamation. The mitigation measures include the following:</p> <ul style="list-style-type: none"> • Installation of silt curtains during dredging activities • Use of tightly-closed grab dredger • Reduction of dredging rate • Control of grab descending speed • Construction of leading edges of seawall in the early stages of the reclamation works 	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
	<ul style="list-style-type: none"> • Adoption of multiple-phase construction schedule 							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.6	<p>To minimize potential disturbance impacts on the foraging ardeid population in the CBTS, particularly in the area near the A King Shipyard, appropriate mitigation measures shall be adopted particularly during the construction phase. The following measures are recommended:</p> <ul style="list-style-type: none"> • Use of Quiet Mechanical Plant during the construction phase shall be adopted wherever possible. • Adoption of multiple-phase construction schedule. • General measures to reduce noise generated during the construction phase (see noise impact assessment) shall be effectively implemented. 	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.7	Seawalls shall be constructed in advance around the reclamation areas within the area of the CBTS to screen adjacent feeding ground from construction phase activities, reduce noise disturbance to the associated seabirds and also to restrict access to this habitat adjacent to works areas by ship traffic.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.8	Loss of artificial seawall habitats shall be reinstated by the construction of about 1 km vertical wave absorbing seawall along the coastlines of the new reclamation around the HKCEC and at North Point. The new seawalls are expected to provide large area of hard substrata for settlement and recruitment of intertidal fauna similar to those previously recorded from existing intertidal habitats.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

*Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Appendix 3.1

Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP1 – CWB (Within the Project Boundary)								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP2 – WDII Major Roads (Road P2)								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP3 – Reclamation Works								
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP5 – Wan Chai East Sewage Outfall								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
Operation Phase								
For the Whole Project - Schedule 3 DP								
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM2 Shrub and Climbing Plants to soften proposed structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD/	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD ⁴	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
For DP1 – CWB (Within the Project Boundary)								
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM2 Shrub and Climbing Plants to soften proposed structures	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
For DP2 – WDII Major Roads (Road P2)								

⁴ CEDD will identify an implementation agent

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
For DP3 – Reclamation Works								
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD ⁵	√	√	√		ETWB TCW 2/2004

*Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

⁵ CEDD will identify an implementation agent



Appendix 4.1

Action and Limit Level

Action and Limit Level

Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received.	75 dB(A) ^{Note 1}

Note 1:

- 70dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.
- If works are to be carried out during the restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Action and Limit Level for Air Monitoring

Monitoring Location	1-hour TSP Level in $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	Action Level	Limit Level	Action Level	Limit Level
CMA1b ^{Note 2}	320.1	500	176.7	260
CMA2a	323.4	500	169.5	260
CMA3a ^{Note 2}	311.3	500	171.0	260
CMA4a	312.5	500	171.2	260
CMA5a ^{Note 2}	332.0	500	181.0	260
CMA6a ^{Note 2}	300.1	500	187.3	260

Note 2:

- As per facing owner's rejection in allowing the implementation of long-term air quality impact monitoring at their premises, alternative monitoring stations and justification were proposed for IEC verification and EPD approval.
- The established Action and Limit Levels from the baseline air monitoring will be adopted to the alternative monitoring stations.

Action and Limit Level for Water Monitoring

Parameters	Dry Season		Wet Season	
	Action	Limit	Action	Limit
WSD Salt Water Intake				
SS in mg L^{-1}	13.00	14.43	16.26	19.74
Turbidity in NTU	8.04	9.49	10.01	11.54
DO in mg/L	3.66	3.28	3.17	2.63
Cooling Water Intake				
SS in mg L^{-1}	15.00	22.13	18.42	27.54
Turbidity in NTU	9.10	10.25	11.35	12.71
DO in mg/L	3.36	2.73	3.02	2.44

Remarks:

- Action and Limit Level for the wet season are applied after the EPD approval of Updated EM&A Manual on 29 April 2011.

Action and Limit Levels for Odour Patrol

Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	<ul style="list-style-type: none"> • When two documented complaint are received; or • Odour Intensity of 2 is measured from odour intensity analysis. 	<ul style="list-style-type: none"> • Five or more consecutive genuine documented complaints within a week; or • Odour Intensity of 3 or above is measured from odour intensity analysis.



Appendix 4.2

Copies of Calibration Certificates

**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION****Information supplied by customer:**

CONTACT: DEREK LO **WORK ORDER:** HK1410350
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 2014-11-25
DATE OF ISSUE: 2014-12-02
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203010
Equipment No.:	---
Date of Calibration:	25-Nov-14

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee
Director

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Address: Room 1503, 15/F, Wayson Commercial House, 68-70 Lockhart Road, Wanchai, Hong Kong

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

WORK ORDER: HK1410350
DATE OF ISSUE: 2014-12-02
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203010
Equipment No.:	---
Date of Calibration:	25-Nov-14
Date of next Calibration:	25-Feb-15

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	3.86	-3.5
10	10.2	2.0
40	39.1	-2.3
100	104	4.0
400	412	3.0
1000	994	-0.6
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION****Information supplied by customer:**

CONTACT: DEREK LO **WORK ORDER:** HK1410310
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 9/10/2014
DATE OF ISSUE: 16/10/2014
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203008
Equipment No.:	---
Date of Calibration:	09-Oct-14

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

WORK ORDER: HK1410310
DATE OF ISSUE: 16/10/2014
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203008
Equipment No.:	---
Date of Calibration:	09-Oct-14
Date of next Calibration:	09-Jan-15

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	4.13	3.3
10	10.3	3.0
40	39.8	-0.5
100	101	1.0
400	380	-5.0
1000	980	-2.0
	Tolerance Limit ($\pm\%$)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT: SAM LAM **WORK ORDER:** HK1510001
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 06/01/2015
DATE OF ISSUE: 13/01/2015
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203008
Equipment No.:	---
Date of Calibration:	08/01/2015

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

WORK ORDER: HK1510001
DATE OF ISSUE: 13/01/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203008
Equipment No.:	---
Date of Calibration:	08/01/2015
Date of next Calibration:	08/04/2015

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.01	---
4	3.97	-0.7
10	10.2	2.0
40	38.5	-3.8
100	101	1.0
400	380	-5.0
1000	982	-1.8
	Tolerance Limit ($\pm\%$)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT: DEREK LO **WORK ORDER:** HK1410311
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 9/10/2014
DATE OF ISSUE: 16/10/2014
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203015
Equipment No.:	---
Date of Calibration:	09-Oct-14

Remarks:

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Mr. Peter Lee
Director

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: HK1410311
DATE OF ISSUE: 16/10/2014
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203015
Equipment No.:	---
Date of Calibration:	09-Oct-14
Date of next Calibration:	09-Jan-15

Parameters:
Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	3.90	-2.5
10	10.2	2.0
40	39.3	-1.8
100	103	3.0
400	388	-3.0
1000	986	-1.4
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT: SAM LAM **WORK ORDER:** HK1510002
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 06/01/2015
DATE OF ISSUE: 13/01/2015
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203015
Equipment No.:	---
Date of Calibration:	08/01/2015

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

WORK ORDER: HK1510002
DATE OF ISSUE: 13/01/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203015
Equipment No.:	---
Date of Calibration:	08/01/2015
Date of next Calibration:	08/04/2015

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	4.20	5.0
10	9.80	-2.0
40	41.0	2.5
100	100	0.0
400	420	5.0
1000	990	-1.0
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

CONTACT: MR ALAN LI
CLIENT: LAM GEOTECHNICS LIMITED
ADDRESS: 11/F., CENTRE POINT,
181-185 GLOUCESTER ROAD,
WAN CHAI, HONG KONG

WORK ORDER: HK1436509
LABORATORY: HONG KONG
DATE RECEIVED: 10/11/2014
DATE OF ISSUE: 17/11/2014


COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.
The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature
Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: Professional Plus
Serial No.: 11F100597
Equipment No.: --
Date of Calibration: 17 November, 2014

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Mr. Fung Lim Chee, Richard
General Manager
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1436509
Date of Issue: 17/11/2014
Client: LAM GEOTECHNICS LIMITED



Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: Professional Plus
Serial No.: 11F100597
Equipment No.: --
Date of Calibration: 17 November, 2014

Date of next Calibration: 17 February, 2015

Parameters:

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.60	3.57	-0.03
6.24	6.20	-0.04
8.06	8.03	-0.03
Tolerance Limit (mg/L)		±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.09	+0.09
7.0	7.19	+0.19
10.0	10.02	+0.02
Tolerance Limit (pH unit)		±0.20

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.57	-4.3
20	19.70	-1.5
30	29.86	-0.5
Tolerance Limit (%)		±10.0

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
11.0	11.4	+0.4
21.5	21.9	+0.4
38.0	38.3	+0.3
Tolerance Limit (°C)		±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.


 Mr. Fung Lim Chee, Richard
 General Manager
 Greater China & Hong Kong



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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR ALAN LI
CLIENT: LAM ENVIRONMENTAL SERVICES LTD
ADDRESS: 11/F., CENTRE POINT,
181-185 GLOUCESTER ROAD,
WAN CHAI, HONG KONG

WORK ORDER: HK1435131
LABORATORY: HONG KONG
DATE RECEIVED: 29/10/2014
DATE OF ISSUE: 05/11/2014

COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature
Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: Professional Plus
Serial No.: 14E100105
Equipment No.: --
Date of Calibration: 31 October, 2014

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1435131
Date of Issue: 05/11/2014
Client: LAM ENVIRONMENTAL SERVICES LTD



Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: Professional Plus
Serial No.: 14E100105
Equipment No.: --

Date of Calibration: 31 October, 2014 **Date of next Calibration:** 31 January, 2015

Parameters:

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.46	2.58	+0.12
5.04	4.91	-0.13
8.02	7.92	-0.10
Tolerance Limit (mg/L)		±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	3.98	-0.02
7.0	6.98	-0.02
10.0	10.05	+0.05
Tolerance Limit (pH unit)		±0.20

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.58	-4.2
20	19.48	-2.6
30	30.32	+1.1
Tolerance Limit (%)		±10.0

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
13.4	13.7	+0.3
23.8	24.0	+0.2
33.8	33.6	-0.2
Tolerance Limit (°C)		±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.



 Mr. Fung Lim Chee, Richard
 General Manager
 Greater China & Hong Kong



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1410306
Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT
Date of Issue : 16/10/2014

Customer : LAM GEOTECHNICS LIMITED
Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1410306
Test Item No. : HK1410306-01
Test Item Details
Test Item Description : Multifunctional Meter
Manufacturer : YSI
Model No. : YSI 600XL
Serial No. : 05C1607
Test Item Receipt Date : 13-Oct-14
Test Period : 14/10/2014 - 15/10/2014

- Notes :
1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Results relate to item(s) as received.
 3. \pm indicates the tolerance limit
 4. N/A = Not applicable
 5. APHA - American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
 6. DO, salinity, pH and temperature performance check was subcontracted to FT Laboratories Ltd.

Approved Signatory

 Peter Lee
 (Director)

Issue Date:

16/10/2014


REPORT OF EQUIPMENT PERFORMANCE CHECK

WORK ORDER: HK1410306
DATE OF ISSUE: 16/10/2014
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter
Manufacturer	YSI
Model No.	YSI 600XL
Serial No.	05C1607
Date of Calibration	14-Oct-14
Date of next Calibration	14-Jan-15

Parameters:
Temperature (Method Ref: APHA 19e 2550B)

Reference Reading (°C)	Temperature corrected of Thermometer (°C)	Display Reading (°C)	Deviation (°C)
10.21	10.37	10.33	-0.04
19.97	20.13	20.12	-0.01
30.02	30.18	30.16	-0.02
Tolerance Limit			±0.50

pH Value (Method Ref: APHA 19e 4500-H, B)

Expected Reading (pH unit)	pH unit of buffer at 20 °C (pH unit)	Display Reading at 20 °C (pH unit)	Deviation (pH unit)
6.0	6.01	5.89	-0.12
9.0	9.02	8.85	-0.17
Tolerance Limit			±0.20

Conductivity (Method Ref: APHA 19e 2520B)

KCl concentration (mol/L)	Standard conductivity (ms/cm) at 25°C)	Reading of SpCond (ms/cm)	Deviation (%)
0.0000	0.00	0.00	-
0.1000	12.89	12.82	-0.54
0.2000	24.8	24.78	-0.08
0.5000	58.67	58.43	-0.41
Tolerance Limit			±2.0

Dissolved Oxygen (DO) (Method Ref: (APHA 19e 4500-O, C)

DO of water sample (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
4.15	3.98	-0.17
6.24	6.14	-0.10
8.16	8.15	-0.01
Tolerance Limit		±0.20

- Remarks:
- (1) Maximum tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
 - (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
 - (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

- End of Report -



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510022
Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT
Date of Issue : 26/01/2015

Customer : LAM GEOTECHNICS LIMITED
Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1510022
Test Item No. : HK1510022-01
Test Item Details
Test Item Description : Multifunctional Meter
Manufacturer : YSI
Model No. : Professional Plus
Serial No. : 14M100277
Performance Method : Checked according to in-house method CAL005
 (References: Temperature (Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value (APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B) , Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date : 19-Jan-15
Test Item Calibration Date : 19-Jan-15
Test Period : 19/01/2015 - 26/01/2015

- Notes :
1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Results relate to item(s) as received.
 3. \pm indicates the tolerance limit
 4. N/A = Not applicable
 5. APHA - American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
 7. Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Mr. Peter Lee
(Director)

Issue Date:

26/01/2015


REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK1510022
DATE OF ISSUE: 26/01/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter
Manufacturer	YSI
Model No.	Professional Plus
Serial No.	14M100277
Date of Calibration	19-Jan-15
Date of next Calibration	19-Apr-15

Parameters:

Temperature (Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.4	10.8	+0.4
19.9	20.1	+0.2
30.2	30.0	-0.2
Tolerance Limit		±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	4.05	4.07	+0.02
7.0	7.02	7.04	+0.02
10.0	9.99	10.18	+0.19
Tolerance Limit			±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	--
0.1000	12.89	12.99	+0.74
0.2000	24.80	24.91	+0.43
0.5000	58.67	59.21	+0.93
Tolerance Limit			±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.28	8.22	-0.06
4.67	4.59	-0.08
1.42	1.48	+0.06
Tolerance Limit		±0.20

- Remarks:
- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
 - (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
 - (3) Because of high sensitivity and ease of measurement, the conductivity method (accoriding to APHA 19e 2510) is used to determine salinity.

- End of Report -



TISCH ENVIRONMENTAL, INC.
 145 SOUTH MIAMI AVE
 VILLAGE OF CLEVELAND, OH
 45002
 513.467.9000
 877.263.7610 TOLL FREE
 513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Jul 14, 2014 Roots-meter S/N 0438320 Ta (K) - 298
 Operator Tisch Orifice I.D. - 0005 Pa (mm) - 749.3

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.3870	3.2	2.00
2	NA	NA	1.00	0.9830	6.4	4.00
3	NA	NA	1.00	0.8760	7.9	5.00
4	NA	NA	1.00	0.8340	8.8	5.50
5	NA	NA	1.00	0.6860	12.7	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9817	0.7078	1.4042	0.9957	0.7179	0.8919
0.9775	0.9944	1.9859	0.9915	1.0086	1.2613
0.9754	1.1135	2.2203	0.9894	1.1294	1.4101
0.9743	1.1683	2.3286	0.9882	1.1849	1.4790
0.9692	1.4128	2.8084	0.9830	1.4330	1.7837
Qstd slope (m) = 1.99175			Qa slope (m) = 1.24720		
intercept (b) = -0.00041			intercept (b) = -0.00026		
coefficient (r) = 0.99991			coefficient (r) = 0.99991		
y axis = SQRT[H2O(Pa/760) (298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

Vstd = Diff. Vol [(Pa-Diff. Hg)/760] (298/Ta)
 Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
 Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{ [SQRT(H2O(Pa/760) (298/Ta))] - b}
 Qa = 1/m{ [SQRT H2O(Ta/Pa)] - b}



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA1b
 Equipment no. : EL452
 Calibration Date : 18-Dec-14
 Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.2	6.2	12.4	1.8130	65	66.6477
2	4.5	4.5	9.0	1.5446	55	56.3942
3	3.9	3.9	7.8	1.4380	50	51.2675
4	2.5	2.5	5.0	1.1513	42	43.0647
5	1.4	1.4	2.8	0.8616	31	31.7858

By Linear Regression of Y on X

Slope, m = 36.0094 Intercept, b = 0.7978

Correlation Coefficient* = 0.9981

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau Checked by : Derek Lo
 Date : 18-Dec-14 Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA2a
 Equipment no. : EL449
 Calibration Date : 18-Dec-14
 Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information				
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c
				-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$		
Next Calibration Date	14-Jul-15			

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.1	6.1	12.2	1.7983	62	63.5717
2	4.9	4.9	9.8	1.6118	55	56.3942
3	3.7	3.7	7.4	1.4006	49	50.2421
4	2.3	2.3	4.6	1.1043	40	41.0140
5	1.2	1.2	2.4	0.7977	32	32.8112

By Linear Regression of Y on X

Slope, m = 30.4893 Intercept, b = 7.8731

Correlation Coefficient* = 0.9984

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau Checked by : Derek Lo
 Date : 18-Dec-14 Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA3a Calibration Date : 18-Dec-14
 Equipment no. : EL333 Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	5.5	5.5	11.0	1.7076	56	57.4196
2	4.3	4.3	8.6	1.5099	47	48.1914
3	3.2	3.2	6.4	1.3026	44	45.1154
4	2.5	2.5	5.0	1.1513	38	38.9633
5	1.2	1.2	2.4	0.7977	25	25.6337

By Linear Regression of Y on X

Slope, m = 33.6450 Intercept, b = -0.4658
 Correlation Coefficient* = 0.9920
 Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau Checked by : Derek Lo
 Date : 18-Dec-14 Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA4a Calibration Date : 18-Dec-14
 Equipment no. : EL390 Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading H (inches of water)			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.0	6.0	12.0	1.7835	65	66.6477
2	4.7	4.7	9.4	1.5785	52	53.3182
3	3.5	3.5	7.0	1.3622	45	46.1407
4	2.2	2.2	4.4	1.0801	32	32.8112
5	1.4	1.4	2.8	0.8616	27	27.6844

By Linear Regression of Y on X

Slope, m = 41.9297 Intercept, b = -10.5801
 Correlation Coefficient* = 0.9901
 Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau Checked by : Derek Lo
 Date : 18-Dec-14 Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA5b
 Equipment no. : EL222

Calibration Date : 4-Dec-14
 Calibration Due Date : 4-Mar-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	288	Kelvin	Pressure, P _a
			1021 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	5.8	5.8	11.6	1.7462	60	61.2642
2	4.6	4.6	9.2	1.5552	54	55.1378
3	3.5	3.5	7.0	1.3566	48	49.0114
4	2.3	2.3	4.6	1.0997	41	41.8639
5	1.4	1.4	2.8	0.8580	34	34.7164

By Linear Regression of Y on X						
Slope, m	=	29.6907	Intercept, b	=	9.1139	
Correlation Coefficient*	=	0.9997				
Calibration Accepted	=	Yes/No**				

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau
 Date : 4-Dec-14

Checked by : Derek Lo
 Date : 4-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA6a
 Equipment no. : EL448
 Calibration Date : 18-Dec-14
 Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$\left(\frac{H \times P_a}{1013.3 \times 298 / T_a} \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$ Y-axis
	(up)	(down)	(difference)			
1	6.1	6.1	12.2	1.7983	55	56.3942
2	5.3	5.3	10.6	1.6763	49	50.2421
3	3.5	3.5	7.0	1.3622	41	42.0393
4	2.2	2.2	4.4	1.0801	36	36.9126
5	1.2	1.2	2.4	0.7977	25	25.6337

By Linear Regression of Y on X

Slope, m = 28.5508 Intercept, b = 3.9029

Correlation Coefficient* = 0.9912

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau Checked by : Derek Lo
 Date : 18-Dec-14 Date : 18-Dec-14



Appendix 5.1

Monitoring Schedules for Reporting Month and Coming Reporting Month

Contract No. HK/2011/07
Wan Chai Development Phase II and Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 2)
Environmental Monitoring Schedule
January 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28-Dec	29-Dec	30-Dec	31-Dec	1-Jan	2-Jan	3-Jan
	24hr TSP Noise (Daytime) (M1a, M2b, M3a, M4b, M5b) Impact WQM Mid-ebb 5:41 Mid-flood 12:40	1hr TSP Noise (Daytime) (M6)	Impact WQM Mid-flood 14:24 Mid-ebb 21:29			24hr TSP Impact WQM Mid-flood 16:41 Mid-ebb 23:43
4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan
	1hr TSP Noise (Daytime) (M1a, M2b, M3a, M4b)	Noise (Daytime) (M5b, M6) Impact WQM Mid-ebb 0:55 Mid-flood 7:53		Impact WQM Mid-ebb 1:59 Mid-flood 8:53	24hr TSP	1hr TSP Impact WQM Mid-ebb 2:50 Mid-flood 9:56
11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan
	Noise (Daytime) (M1a, M2b, M3a, M4b) Impact WQM Mid-ebb 3:36 Mid-flood 11:15	Noise (Daytime) (M5b, M6)	Impact WQM Mid-flood 12:39 Mid-ebb 19:32	24hr TSP	1hr TSP Impact WQM Mid-flood 14:16 Mid-ebb 21:46	
18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan
	Impact WQM Mid-flood 16:49 Mid-ebb 23:47	Noise (Daytime) (M1a, M2b, M3a, M4b, M5b, M6)	24hr TSP Impact WQM Mid-ebb 13:07 Mid-flood 18:33	1hr TSP	Impact WQM Mid-flood 8:52 Mid-ebb 14:38	
25-Jan	26-Jan	27-Jan	28-Jan			
	Noise (Daytime) (M1a, M2b) Impact WQM Mid-flood 11:05 Mid-ebb 17:20	24hr TSP Noise (Daytime) (M3a, M4b, M5b, M6)	24hr TSP (CMA3a) 1hr TSP			

Remarks: Due to malfunctioning of the intake transfer pump and resulting unavailability of seawater support to Windsor House cooling intake pump house, the WQM at monitoring station C7 was cancelled on 8 Jan 2015 during flood tide and ebb tide

Contract No. HK/2011/07
Wan Chai Development Phase II and Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 2)
Tentative Environmental Monitoring Schedule
February 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			28-Jan	29-Jan	30-Jan	31-Jan
			Impact WQM Mid-flood 12:43 Mid-ebb 20:01		Impact WQM Mid-flood 14:33 Mid-ebb 22:11	
1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb
	24hr TSP Noise (daytime) Impact WQM Mid-flood 17:07	1hr TSP Noise (daytime) Impact WQM Mid-ebb 0:05		Impact WQM Mid-ebb 13:17 Mid-flood 18:58		24hr TSP Impact WQM Mid-ebb 14:18 Mid-flood 20:08
8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb
	1hr TSP Noise (daytime) Impact WQM Mid-ebb 15:33 Mid-flood 21:17	Noise (daytime)	Impact WQM Mid-flood 10:48 Mid-ebb 17:15		24hr TSP Impact WQM Mid-flood 12:22 Mid-ebb 19:56	1hr TSP
15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb
	Noise (daytime) Impact WQM Mid-flood 15:39 Mid-ebb 22:42	24hr TSP Noise (daytime)	1hr TSP Impact WQM Mid-ebb 12:05 Mid-flood 17:35		Impact WQM Mid-ebb 13:29 Mid-flood 19:18	
22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	
	24hr TSP	1hr TSP Impact WQM Mid-flood 10:16 Mid-ebb 16:44	Noise (daytime)	Noise (daytime) Impact WQM Mid-flood 11:55 Mid-ebb 19:27		



Appendix 5.2

Noise Monitoring Results and Graphical Presentations



Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

Location: M1a - Harbour Road Sports Centre

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
29/12/14	9:50	Fine	72.1	74.5	67.0	72	72	75
05/01/15	13:35	Fine	72.2	74.5	67.5	72	72	75
13/01/15	13:55	Cloudy	71.7	74.0	67.0	72	72	75
20/01/15	9:53	Fine	73.4	76.0	68.5	72	67	75
26/01/15	13:50	Fine	73.7	76.5	69.5	72	68	75

Location: M2b - Noon-day gun area

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
29/12/14	10:45	Fine	69.9	72.0	66.0	68	66	75
05/01/15	14:18	Fine	67.1	68.0	64.5	68	67	75
13/01/15	14:37	Cloudy	68.9	70.0	67.0	68	63	75
20/01/15	10:40	Fine	68.9	70.5	66.5	68	63	75
26/01/15	14:35	Fine	70.6	73.5	66.5	68	68	75

Location: M3a - Tung Lo Wan Fire Station

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
29/12/14	14:30	Fine	64.3	65.5	62.0	69	64	75
05/01/15	15:00	Fine	65.2	66.0	62.5	69	65	75
13/01/15	15:17	Cloudy	66.0	67.5	63.5	69	66	75
20/01/15	13:48	Fine	64.6	66.0	62.0	69	65	75
27/01/15	14:25	Fine	67.0	67.5	62.5	69	67	75

Location: M4b - Victoria Centre

Date	Time	Weather	Measurement Noise Level			Baseline Noise Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30min)								
29/12/14	15:10	Fine	66.6	68.0	64.0	67	67	75
05/01/15	15:40	Fine	67.3	69.0	64.0	67	67	75
13/01/15	15:57	Cloudy	69.2	70.5	66.5	67	65	75
20/01/15	14:28	Fine	66.4	67.5	63.5	67	66	75
27/01/15	15:06	Fine	66.8	67.5	63.5	67	67	75

Location: M5b - City Garden

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30min)								
29/12/14	15:50	Fine	66.8	68.0	64.5	68	67	75
06/01/15	13:50	Fine	68.9	70.0	67.0	68	62	75
14/01/15	13:20	Fine	69.7	71.0	66.0	68	65	75
20/01/15	15:08	Fine	69.1	71.0	65.5	68	63	75
27/01/15	15:48	Fine	68.9	69.5	65.0	68	62	75

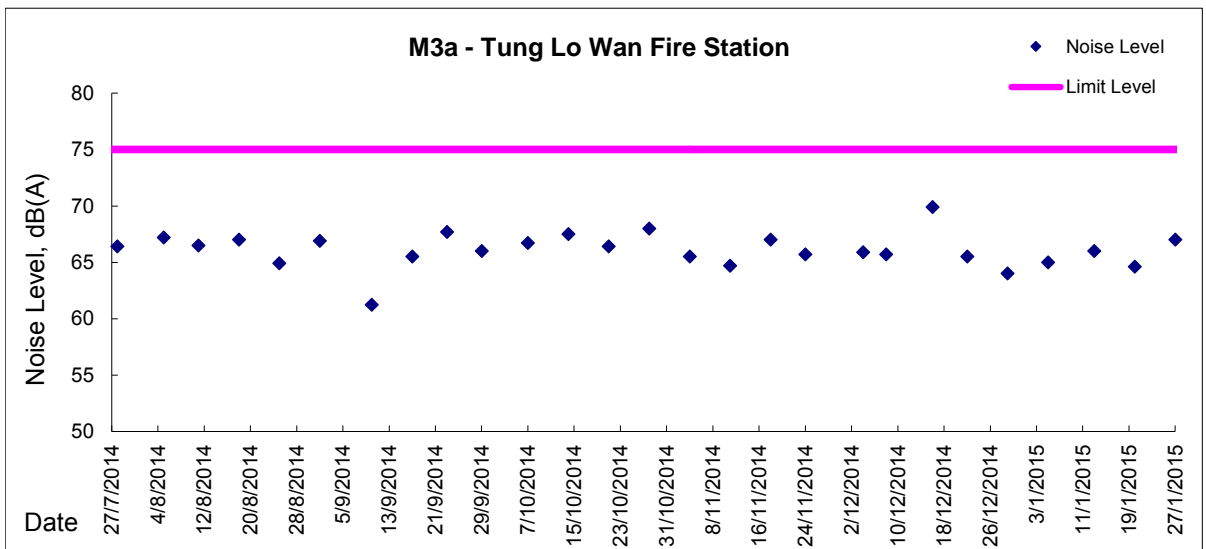
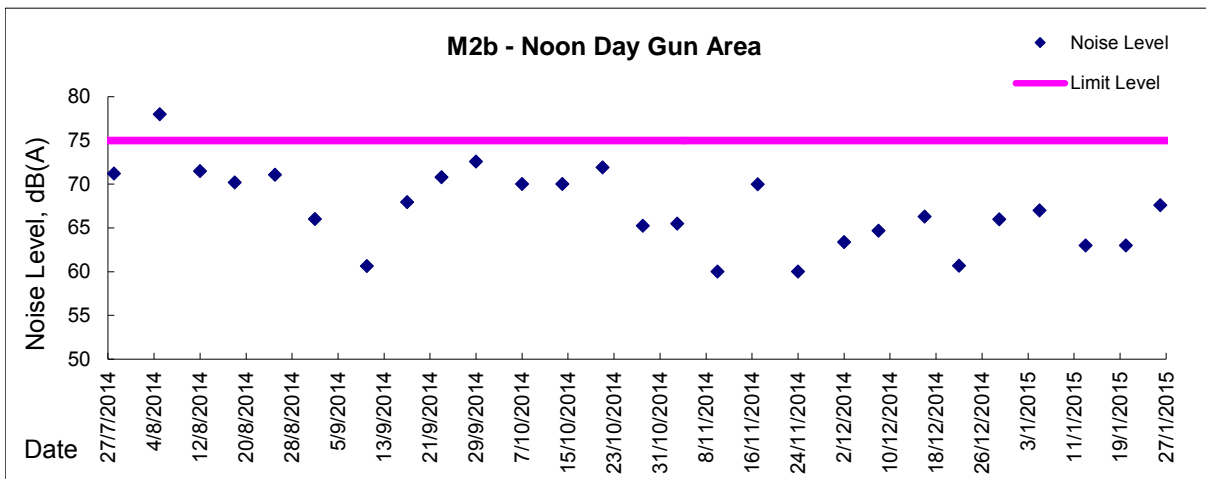
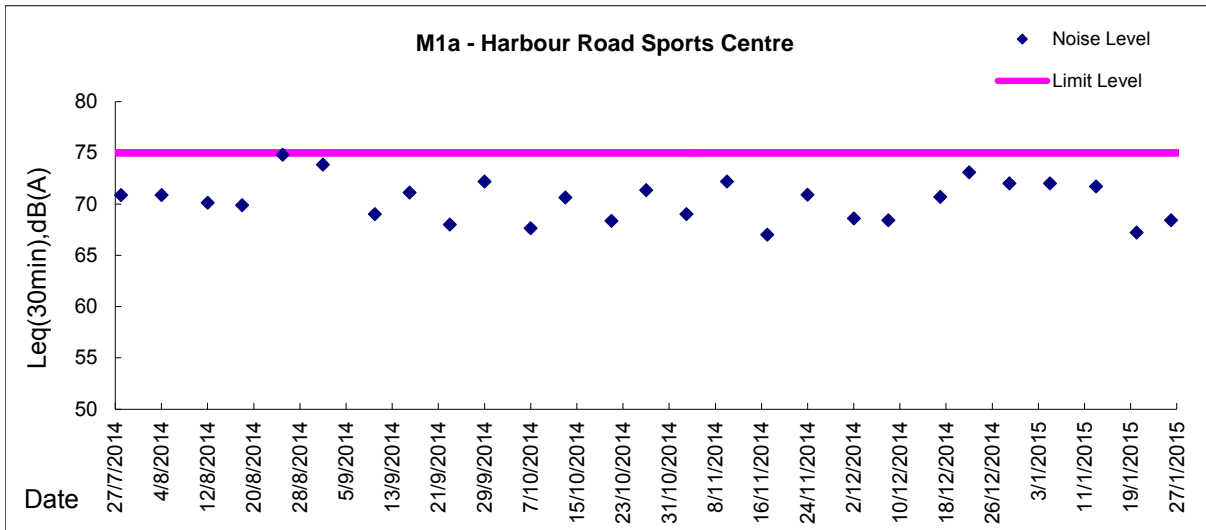
Location: M6 - HK Baptist Church Henrietta Secondary School

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
30/12/14	15:45	Cloudy	73.4	74.5	71.0	71	70	70
06/01/15	14:30	Fine	73.2	74.5	71.5	71	70	70
14/01/15	14:05	Fine	73.2	74.5	71.0	71	70	70
20/01/15	15:52	Fine	72.8	74.0	70.5	71	69	70
27/01/15	16:25	Fine	72.5	73.5	70.5	71	68	70



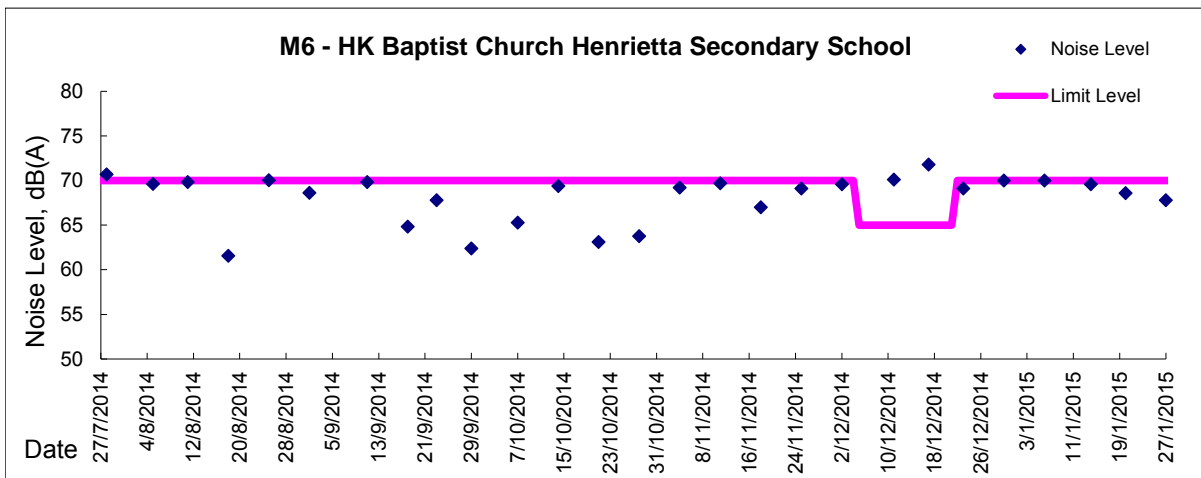
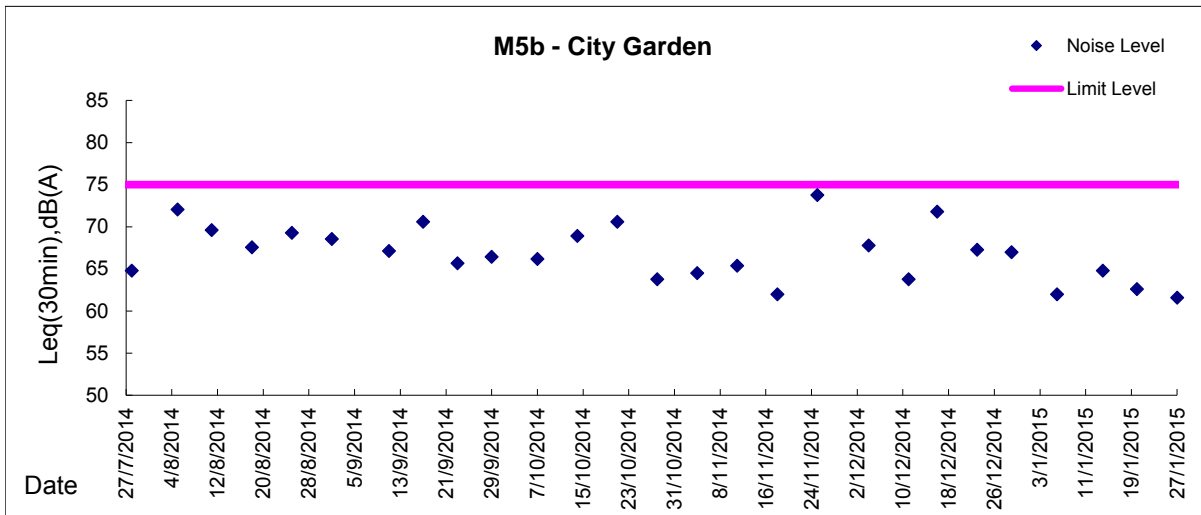
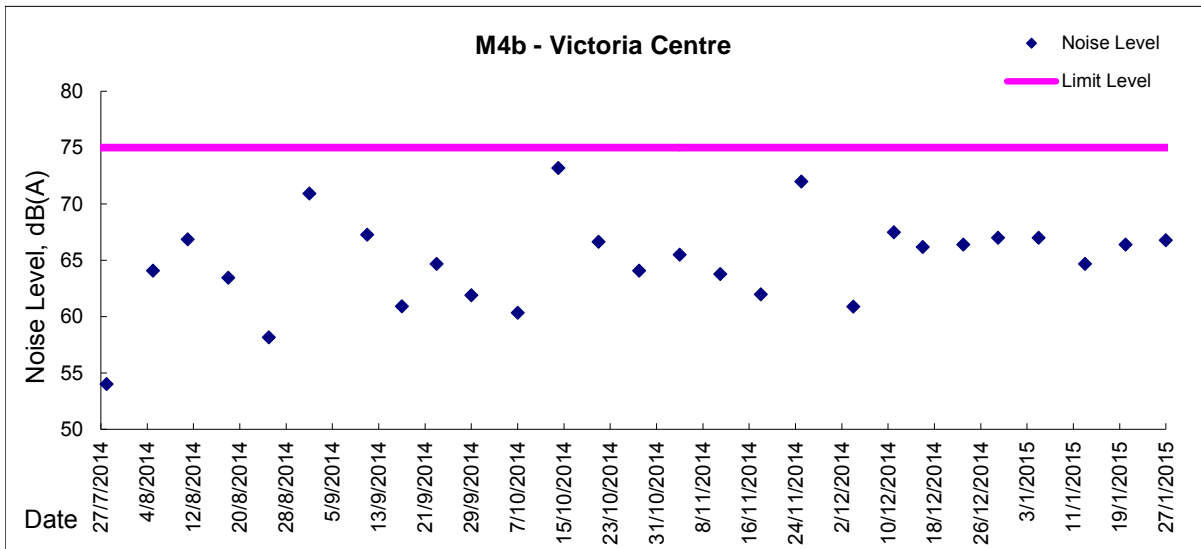
Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)





Graphic Presentation of Noise Monitoring Result
Day Time (0700 - 1900hrs on normal weekdays)





Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations, and odour Patrol Results



Location: CMA1b - Oil Street Site Office

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 176.7

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
29-Dec-14	8:00	Fine	010408	2.7607	2.8757	5650.47	5674.47	24.00	1.01	1.01	1.01	1457	78.9
3-Jan-15	8:00	Fine	010912	2.7728	2.9302	5677.47	5701.47	24.00	1.01	1.01	1.01	1452	108.0
9-Jan-15	8:00	Fine	010921	2.7352	2.9567	5704.47	5728.47	24.00	1.09	1.09	1.09	1574	140.7
15-Jan-15	8:00	Fine	010936	2.7486	2.9073	5731.47	5755.47	24.00	1.07	1.06	1.06	1533	103.5
21-Jan-15	8:00	Fine	010996	2.7584	3.1389	5758.47	5782.47	24.00	1.09	1.09	1.09	1569	242.5
27-Jan-15	8:00	Cloudy	010843	2.7644	2.9397	5785.47	5809.47	24.00	1.11	1.12	1.11	1605	109.2

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 320.1

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
30-Dec-14	8:12	Fine	010411	2.7782	2.7838	5674.47	5675.47	1.00	1.07	1.07	1.07	64	87.6
30-Dec-14	9:25	Fine	010906	2.7743	2.7783	5675.47	5676.47	1.00	1.07	1.07	1.07	64	62.6
30-Dec-14	10:30	Fine	010909	2.7608	2.7678	5676.47	5677.47	1.00	1.07	1.07	1.07	64	109.5
5-Jan-15	8:15	Cloudy	010403	2.7609	2.7703	5701.47	5702.47	1.00	1.06	1.06	1.06	63	148.0
5-Jan-15	9:20	Cloudy	010405	2.7789	2.7896	5702.47	5703.47	1.00	1.06	1.06	1.06	63	169.0
5-Jan-15	10:31	Cloudy	010919	2.7564	2.7655	5703.47	5704.47	1.00	1.06	1.06	1.06	63	144.0
10-Jan-15	8:06	Fine	010923	2.7405	2.7545	5728.47	5729.47	1.00	1.12	1.12	1.12	67	208.4
10-Jan-15	9:10	Fine	010924	2.7483	2.7634	5729.47	5730.47	1.00	1.12	1.12	1.12	67	224.8
10-Jan-15	10:26	Fine	010926	2.7573	2.7693	5730.47	5731.47	1.00	1.12	1.12	1.12	67	178.6
16-Jan-15	8:14	Fine	010942	2.7503	2.7620	5755.47	5756.47	1.00	1.06	1.06	1.06	64	183.5
16-Jan-15	9:20	Fine	010992	2.7577	2.7644	5456.47	5457.47	1.00	1.06	1.06	1.06	64	105.1
16-Jan-15	10:33	Fine	010994	2.7496	2.7551	5457.47	5458.47	1.00	1.06	1.06	1.06	64	86.2
22-Jan-15	8:11	Fine	010849	2.7818	2.7888	5782.47	5783.47	1.00	1.06	1.06	1.06	64	109.8
22-Jan-15	9:18	Fine	010839	2.7803	2.7915	5783.47	5784.47	1.00	1.06	1.06	1.06	64	175.6
22-Jan-15	10:29	Fine	010841	2.7828	2.7928	5784.47	5785.47	1.00	1.06	1.06	1.06	64	156.8
28-Jan-15	8:06	Cloudy	010998	2.7588	2.7647	5809.47	5810.47	1.00	1.12	1.12	1.12	67	88.2
28-Jan-15	9:12	Cloudy	011000	2.7640	2.7691	5810.47	5811.47	1.00	1.12	1.12	1.12	67	76.2
28-Jan-15	10:25	Cloudy	011002	2.7671	2.7763	5811.47	5812.47	1.00	1.12	1.12	1.12	67	137.5



Location: CMA2a - Causeway Bay Community Centre

Report on 24-hour TSP monitoring
 Action Level ($\mu\text{g}/\text{m}^3$) - 169.5
 Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
29-Dec-14	8:00	Fine	010409	2.7840	2.8740	15359.71	15383.71	24.00	1.03	1.03	1.03	1480	60.8
3-Jan-15	8:00	Fine	010911	2.7556	2.9144	15386.71	15410.71	24.00	1.09	1.08	1.09	1565	101.0
9-Jan-15	8:00	Fine	010922	2.7533	2.8671	15413.71	15437.71	24.00	0.96	0.96	0.96	1386	82.1
15-Jan-15	8:00	Fine	010937	2.7434	2.8550	15440.71	15464.71	24.00	1.09	1.09	1.09	1569	71.1
21-Jan-15	8:00	Fine	010997	2.7656	3.0959	15467.71	15491.71	24.00	1.12	1.12	1.12	1611	205.0
27-Jan-15	8:00	Cloudy	010844	2.7657	2.9422	15494.71	15518.71	24.00	0.99	1.02	1.00	1446	122.1

Report on 1-hour TSP monitoring
 Action Level ($\mu\text{g}/\text{m}^3$) - 323.4
 Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
30-Dec-14	8:03	Fine	010410	2.7750	2.7864	15383.71	15384.71	1.00	1.03	1.03	1.03	62	185.2
30-Dec-14	9:15	Fine	010905	2.7638	2.7743	15384.71	15385.71	1.00	1.09	1.09	1.09	65	160.5
30-Dec-14	10:20	Fine	010908	2.7714	2.7800	15385.71	15386.71	1.00	1.09	1.09	1.09	65	131.5
5-Jan-15	8:03	Cloudy	010404	2.7789	2.7896	15410.71	15411.71	1.00	1.08	1.08	1.08	65	165.0
5-Jan-15	9:10	Cloudy	010918	2.7681	2.7806	15412.71	15413.71	1.00	1.08	1.08	1.08	65	193.0
5-Jan-15	10:25	Cloudy	010920	2.7409	2.7510	15413.71	15414.71	1.00	1.08	1.08	1.08	65	156.0
10-Jan-15	8:03	Fine	010935	2.7521	2.7713	15437.71	15438.71	1.00	1.03	1.03	1.03	62	311.9
10-Jan-15	9:08	Fine	010925	2.7516	2.7702	15438.71	15439.71	1.00	1.03	1.03	1.03	62	302.2
10-Jan-15	10:15	Fine	010927	2.7574	2.7697	15439.71	15440.71	1.00	1.03	1.03	1.03	62	199.8
16-Jan-15	8:03	Fine	010934	2.7366	2.7423	15464.71	15465.71	1.00	1.09	1.09	1.09	65	87.4
16-Jan-15	9:06	Fine	010993	2.7486	2.7593	15465.71	15466.71	1.00	1.09	1.09	1.09	65	164.0
16-Jan-15	10:13	Fine	010995	2.7568	2.7661	15466.71	15467.71	1.00	1.09	1.09	1.09	65	142.5
22-Jan-15	8:06	Fine	010838	2.7822	2.7951	15491.71	15492.71	1.00	1.12	1.12	1.12	67	192.1
22-Jan-15	9:13	Fine	010840	2.7881	2.8045	15492.71	15493.71	1.00	1.09	1.09	1.09	65	251.4
22-Jan-15	10:22	Fine	010842	2.7656	2.7797	15493.71	15494.71	1.00	1.09	1.09	1.09	65	216.1
28-Jan-15	8:09	Cloudy	010999	2.7692	2.7750	15518.71	15519.71	1.00	1.02	1.02	1.02	61	94.6
28-Jan-15	9:14	Cloudy	011001	2.7564	2.7590	15519.71	15520.71	1.00	1.02	1.02	1.02	61	42.4
28-Jan-15	10:21	Cloudy	011003	2.7709	2.7786	15520.71	15521.71	1.00	1.02	1.02	1.02	61	125.6



Location: CMA3a - CWB PRE Site Office Area

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 171

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
29-Dec-14	8:00	Fine	010815	2.7835	2.9282	2779.55	2803.55	24.00	1.23	1.23	1.23	1777	81.4
3-Jan-15	8:00	Fine	010979	2.7559	2.9059	2806.56	2830.56	24.00	1.23	1.23	1.23	1772	85.0
9-Jan-15	8:00	Fine	010615	2.8030	3.0266	2833.56	2857.56	24.00	1.14	1.14	1.14	1641	136.2
15-Jan-15	8:00	Fine	011035	2.7214	2.8550	2860.55	2884.55	24.00	1.23	1.23	1.23	1775	75.3
21-Jan-15	8:00	Fine	010893	2.7653	2.9373	2887.56	2911.56	24.00	1.18	1.18	1.18	1705	100.9
28-Jan-15	17:15	Cloudy	011058	2.7412	2.9264	2939.26	2963.26	24.00	1.18	1.18	1.18	1700	108.9

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 27 January 2015 to 28 January 2015.

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 311.3

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
30-Dec-14	9:19	Fine	010973	2.7528	2.7571	2803.55	2804.55	1.00	1.18	1.18	1.18	71	60.9
30-Dec-14	10:23	Fine	010975	2.7553	2.7599	2804.55	2805.55	1.00	1.18	1.18	1.18	71	65.1
30-Dec-14	13:00	Fine	010977	2.7613	2.7655	2805.55	2806.55	1.00	1.18	1.18	1.18	71	59.4
5-Jan-15	10:50	Cloudy	010612	2.7340	2.7427	2830.56	2831.56	1.00	1.23	1.23	1.23	74	118.0
5-Jan-15	14:40	Cloudy	010614	2.8047	2.8101	2831.56	2832.56	1.00	1.23	1.23	1.23	74	73.0
5-Jan-15	15:50	Cloudy	010622	2.7882	2.7957	2832.56	2833.56	1.00	1.23	1.23	1.23	74	102.0
10-Jan-15	13:00	Fine	011026	2.7134	2.7199	2857.56	2858.56	1.00	1.18	1.18	1.18	71	92.0
10-Jan-15	14:18	Fine	011028	2.7482	2.7541	2858.56	2859.56	1.00	1.18	1.18	1.18	71	83.5
10-Jan-15	15:30	Fine	011030	2.7344	2.7506	2859.56	2860.56	1.00	1.18	1.18	1.18	71	229.3
16-Jan-15	9:08	Fine	011037	2.7225	2.7245	2884.55	2885.55	1.00	1.18	1.18	1.18	71	28.4
16-Jan-15	10:13	Fine	011039	2.7404	2.7424	2885.55	2886.55	1.00	1.18	1.18	1.18	71	28.4
16-Jan-15	13:00	Fine	010837	2.7830	2.8037	2886.55	2887.55	1.00	1.18	1.18	1.18	71	293.6
22-Jan-15	9:08	Fine	010894	2.7666	2.7753	2911.56	2912.56	1.00	1.26	1.26	1.26	76	114.9
22-Jan-15	10:12	Fine	010896	2.7685	2.7704	2912.56	2913.56	1.00	1.12	1.12	1.12	67	28.3
22-Jan-15	13:00	Fine	010898	2.7627	2.7712	2913.56	2914.56	1.00	1.26	1.26	1.26	76	112.2
28-Jan-15	9:50	Cloudy	011054	2.7493	2.7559	2936.23	2937.26	1.03	1.17	1.17	1.17	73	91.0
28-Jan-15	14:55	Cloudy	011056	2.7585	2.7674	2637.26	2638.26	1.00	1.17	1.17	1.17	70	126.4
28-Jan-15	16:00	Cloudy	011057	2.7331	2.7400	2638.26	2639.26	1.00	1.17	1.17	1.17	70	98.0



Location: CMA4a - SPCA

Report on 24-hour TSP monitoring
Action Level ($\mu\text{g}/\text{m}^3$) - 171.2
Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
29-Dec-14	8:00	Fine	010814	2.7839	2.9294	19616.23	19640.23	24.00	1.19	1.19	1.19	1710	85.1
3-Jan-15	8:00	Fine	010978	2.7480	2.8878	19643.24	19667.24	24.00	1.19	1.18	1.18	1705	82.0
9-Jan-15	8:00	Fine	010610	2.8068	3.0333	19670.24	19694.24	24.00	1.19	1.19	1.19	1709	132.6
15-Jan-15	8:00	Fine	011036	2.7268	2.8835	19697.24	19721.24	24.00	1.19	1.18	1.19	1708	91.8
21-Jan-15	8:00	Fine	010892	2.7721	3.1861	19724.24	19748.24	24.00	1.18	1.18	1.18	1705	242.8
27-Jan-15	8:00	Cloudy	010870	2.7869	2.9448	19751.24	19775.24	24.00	1.18	1.18	1.18	1702	92.8

Report on 1-hour TSP monitoring
Action Level ($\mu\text{g}/\text{m}^3$) - 312.5
Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
30-Dec-14	9:07	Fine	010972	2.7520	2.7581	19640.24	19641.24	1.00	1.14	1.14	1.14	68	89.2
30-Dec-14	10:11	Fine	010974	2.7484	2.7530	19641.24	19642.24	1.00	1.19	1.19	1.19	71	64.6
30-Dec-14	13:00	Fine	010976	2.7493	2.7541	19642.24	19643.24	1.00	1.14	1.14	1.14	68	70.2
5-Jan-15	10:40	Cloudy	010623	2.7811	2.7870	19667.24	19668.24	1.00	1.18	1.18	1.18	71	83.0
5-Jan-15	14:25	Cloudy	010613	2.7325	2.7410	19668.24	19669.24	1.00	1.18	1.18	1.18	71	120.0
5-Jan-15	15:45	Cloudy	010621	2.7870	2.7939	19669.24	19670.24	1.00	1.18	1.18	1.18	71	98.0
10-Jan-15	13:00	Fine	011025	2.7407	2.7478	19694.24	19695.24	1.00	1.23	1.23	1.23	74	96.0
10-Jan-15	14:06	Fine	011027	2.7441	2.7517	19695.24	19696.24	1.00	1.23	1.23	1.23	74	102.7
10-Jan-15	15:20	Fine	011029	2.7428	2.7585	19696.24	19697.24	1.00	1.23	1.23	1.23	74	212.3
16-Jan-15	9:20	Fine	011038	2.7193	2.7261	19721.24	19722.24	1.00	1.18	1.18	1.18	71	95.7
16-Jan-15	10:25	Fine	011040	2.7335	2.7401	19722.24	19723.24	1.00	1.18	1.18	1.18	71	92.9
16-Jan-15	13:00	Fine	011043	2.7233	2.7370	19723.24	19724.24	1.00	1.18	1.18	1.18	71	192.8
22-Jan-15	9:20	Fine	010895	2.7411	2.7496	19748.24	19749.24	1.00	1.14	1.14	1.14	68	124.5
22-Jan-15	10:31	Fine	010897	2.7873	2.7957	19749.24	19750.24	1.00	1.14	1.14	1.14	68	123.1
22-Jan-15	13:00	Fine	010899	2.7749	2.7862	19750.24	19751.24	1.00	1.14	1.14	1.14	68	165.6
28-Jan-15	9:40	Cloudy	011044	2.7274	2.7334	19775.24	19776.24	1.00	1.18	1.18	1.18	71	84.5
28-Jan-15	14:40	Cloudy	011055	2.7656	2.7772	19776.24	19777.24	1.00	1.18	1.18	1.18	71	163.5
28-Jan-15	15:50	Cloudy	011045	2.7408	2.7452	19777.24	19778.24	1.00	1.18	1.18	1.18	71	62.0



Location: CMA5b - Pedestrian Plaza

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 181
Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
29-Dec-14	8:00	Fine	010831	2.7848	2.9423	4088.55	4112.55	24.00	1.08	1.08	1.08	1554	101.3
3-Jan-15	8:00	Fine	010965	2.7891	2.9619	4115.55	4139.55	24.00	0.95	0.94	0.94	1357	127.0
9-Jan-15	8:00	Fine	010834	2.7880	2.9674	4142.55	4166.55	24.00	0.95	0.95	0.95	1363	131.6
15-Jan-15	8:00	Fine	010941	2.7576	2.9673	4169.55	4193.55	24.00	1.01	1.01	1.01	1456	144.0
21-Jan-15	8:00	Fine	010886	2.7846	3.2095	4196.55	4220.55	24.00	1.07	1.07	1.07	1547	274.6
27-Jan-15	8:00	Cloudy	010901	2.7762	2.9751	4223.55	4247.55	24.00	1.04	1.04	1.04	1495	133.0

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 332
Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
30-Dec-14	8:38	Fine	010950	2.7621	2.7703	4112.55	4113.55	1.00	0.95	0.95	0.95	57	144.5
30-Dec-14	9:43	Fine	010971	2.7461	2.7508	4113.55	4114.55	1.00	0.95	0.95	0.95	57	82.8
30-Dec-14	10:49	Fine	010968	2.7814	2.7858	4114.55	4115.55	1.00	0.95	0.95	0.95	57	77.5
5-Jan-15	9:23	Cloudy	010964	2.7697	2.7747	4139.55	4140.55	1.00	0.93	0.93	0.93	56	89.0
5-Jan-15	10:26	Cloudy	010957	2.7761	2.7879	4140.55	4141.55	1.00	0.93	0.93	0.93	56	210.0
5-Jan-15	13:00	Cloudy	010954	2.7697	2.7784	4141.55	4142.55	1.00	0.93	0.93	0.93	56	155.0
10-Jan-15	9:34	Fine	010835	2.7876	2.7981	4166.56	4167.56	1.00	0.95	0.95	0.95	57	185.0
10-Jan-15	13:00	Fine	011024	2.7405	2.7505	4167.56	4168.56	1.00	0.95	0.95	0.95	57	176.2
10-Jan-15	14:05	Fine	010938	2.7519	2.7717	4168.56	4169.56	1.00	1.01	1.01	1.01	61	326.2
16-Jan-15	8:04	Fine	010991	2.7571	2.7676	4193.55	4194.55	1.00	1.01	1.01	1.01	61	173.4
16-Jan-15	13:00	Fine	010848	2.7718	2.7886	4194.55	4195.55	1.00	1.01	1.01	1.01	61	277.5
16-Jan-15	15:00	Fine	011022	2.7247	2.7330	4195.55	4196.55	1.00	1.01	1.01	1.01	61	137.1
22-Jan-15	13:00	Fine	010876	2.7591	2.7768	4220.55	4221.55	1.00	1.07	1.07	1.07	64	274.5
22-Jan-15	14:12	Fine	010879	2.7704	2.7837	4221.55	4222.55	1.00	1.01	1.01	1.01	61	219.7
22-Jan-15	15:16	Fine	010882	2.7755	2.7852	4222.55	4223.55	1.00	0.94	0.94	0.94	57	171.4
28-Jan-15	9:40	Cloudy	010850	2.7874	2.8007	4247.55	4248.55	1.00	1.01	1.01	1.01	60	220.1
28-Jan-15	10:43	Cloudy	010853	2.7727	2.7789	4248.55	4249.55	1.00	1.01	1.01	1.01	60	102.6
28-Jan-15	13:00	Cloudy	010856	2.7751	2.7904	4249.55	4250.55	1.00	1.01	1.01	1.01	60	253.2



Location: CMA6a - WD2 PRE Office

Report on 24-hour TSP monitoring

Action Level - 187.3 $\mu\text{g}/\text{m}^3$
Limit Level - 260 $\mu\text{g}/\text{m}^3$

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
29-Dec-14	8:00	Fine	010828	2.7614	2.8780	19191.70	19215.70	24.00	1.17	1.17	1.17	1681	69.3
3-Jan-15	8:00	Fine	010967	2.7575	2.8719	19218.71	19242.71	24.00	1.27	1.26	1.27	1822	63.0
9-Jan-15	8:00	Fine	010953	2.7708	2.8795	19245.71	19269.71	24.00	1.24	1.23	1.24	1779	61.1
15-Jan-15	8:00	Fine	010929	2.7460	2.8734	19272.71	19296.71	24.00	1.24	1.23	1.23	1777	71.7
21-Jan-15	8:00	Fine	010885	2.7699	3.0828	19299.71	19323.71	24.00	1.16	1.16	1.16	1675	186.8
27-Jan-15	8:00	Cloudy	010883	2.7856	2.9245	19326.71	19350.71	24.00	1.19	1.20	1.19	1720	80.8

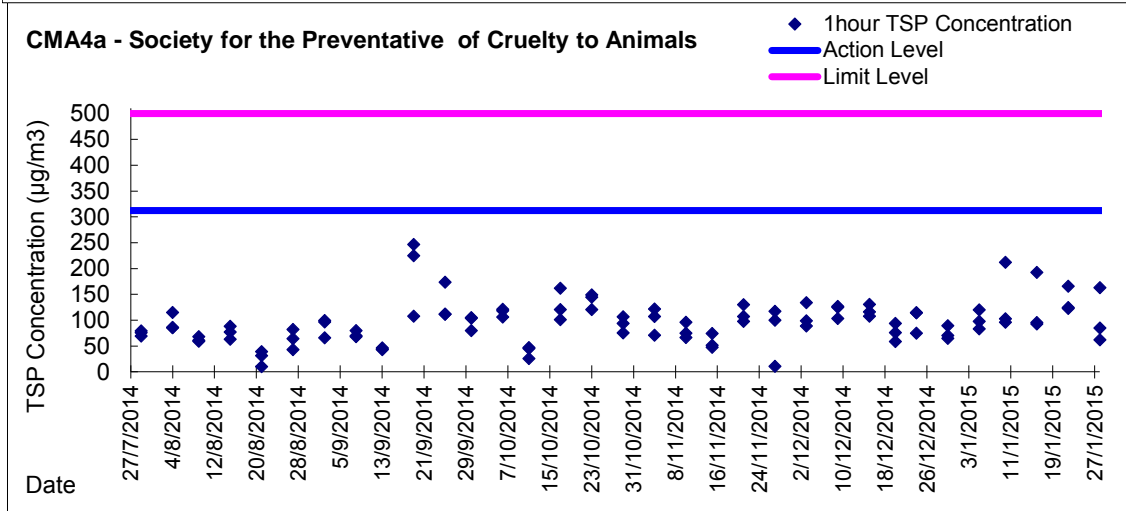
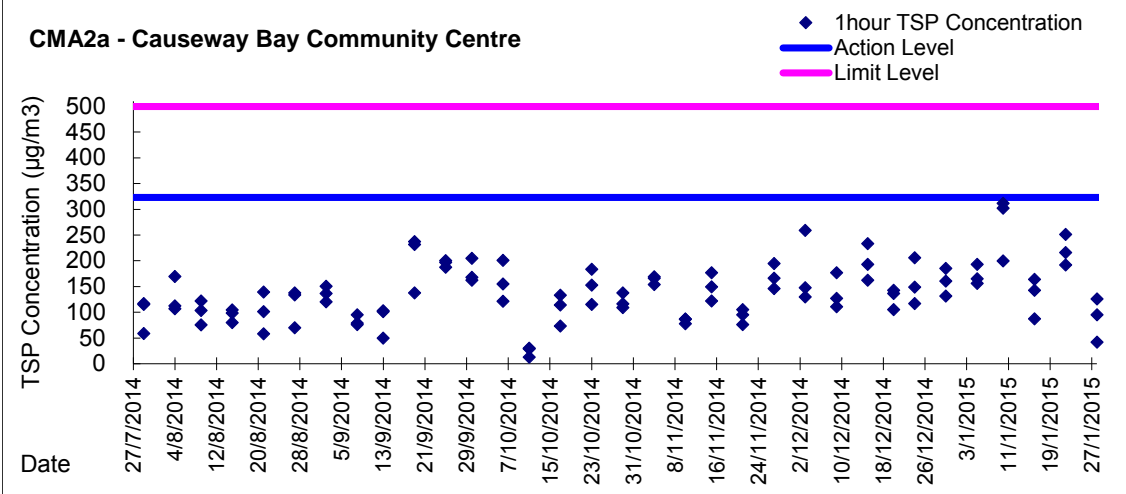
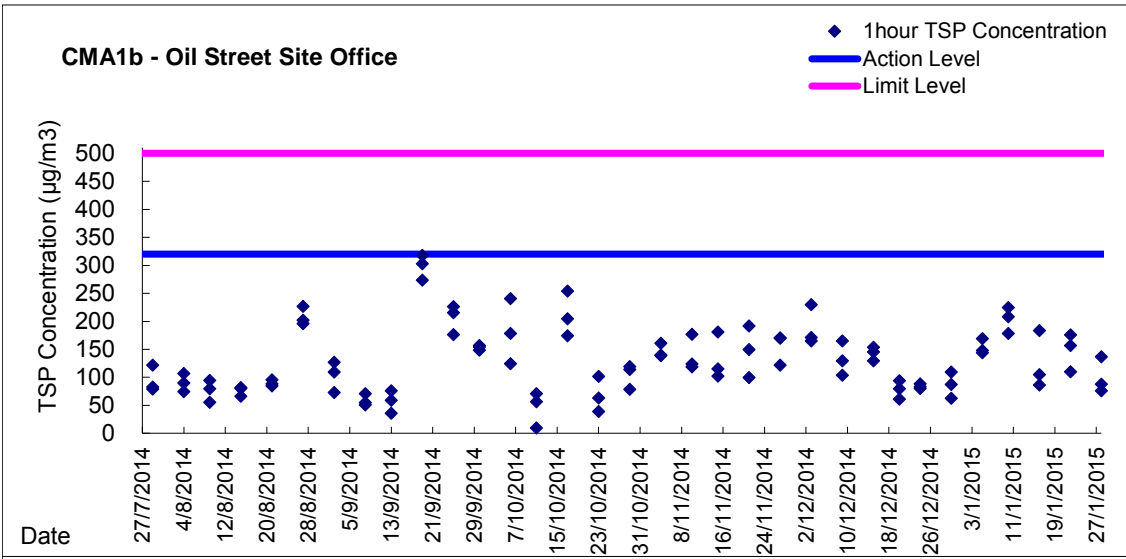
Report on 1-hour TSP monitoring

Action Level - 300.1 $\mu\text{g}/\text{m}^3$
Limit Level - 500 $\mu\text{g}/\text{m}^3$

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
30-Dec-14	8:21	Fine	010830	2.7855	2.7937	19215.70	19216.70	1.00	1.17	1.17	1.17	70	117.2
30-Dec-14	9:25	Fine	010951	2.7546	2.7619	19216.70	19217.70	1.00	1.30	1.30	1.30	78	93.3
30-Dec-14	10:32	Fine	010970	2.7538	2.7587	19217.70	19218.70	1.00	1.17	1.17	1.17	70	70.0
5-Jan-15	9:07	Cloudy	010959	2.7863	2.7947	19242.71	19243.71	1.00	1.29	1.29	1.29	77	108.0
5-Jan-15	10:11	Cloudy	010962	2.7658	2.7739	19243.71	19244.71	1.00	1.22	1.22	1.22	73	110.0
5-Jan-15	13:00	Cloudy	010956	2.7703	2.7752	19244.71	19245.71	1.00	1.29	1.29	1.29	77	63.0
10-Jan-15	9:14	Fine	011019	2.7251	2.7354	19269.71	19270.71	1.00	1.23	1.23	1.23	74	139.0
10-Jan-15	13:00	Fine	010836	2.7845	2.7882	19270.71	19271.71	1.00	1.23	1.23	1.23	74	49.9
10-Jan-15	14:05	Fine	010940	2.7617	2.7724	19271.71	19272.71	1.00	1.23	1.23	1.23	74	144.4
16-Jan-15	8:09	Fine	010933	2.7490	2.7551	19296.71	19297.71	1.00	1.16	1.16	1.16	70	87.4
16-Jan-15	13:00	Fine	010846	2.7805	2.7893	19297.71	19298.71	1.00	1.23	1.23	1.23	74	119.1
16-Jan-15	14:20	Fine	011020	2.7298	2.7434	19298.71	19299.71	1.00	1.16	1.16	1.16	70	194.8
22-Jan-15	13:00	Fine	010845	2.7533	2.7604	19323.71	19324.71	1.00	1.23	1.23	1.23	74	96.1
22-Jan-15	14:06	Fine	010877	2.7612	2.7676	19324.71	19325.71	1.00	1.16	1.16	1.16	70	91.7
22-Jan-15	15:11	Fine	010880	2.7746	2.7817	19325.71	19326.71	1.00	1.16	1.16	1.16	70	101.7
28-Jan-15	9:22	Cloudy	010875	2.7616	2.7670	19350.71	19351.71	1.00	1.20	1.20	1.20	72	75.3
28-Jan-15	10:30	Cloudy	010851	2.7856	2.7916	19351.71	19352.71	1.00	1.20	1.20	1.20	72	83.6
28-Jan-15	13:00	Cloudy	010854	2.7691	2.7770	19352.71	19353.71	1.00	1.20	1.20	1.20	72	110.1

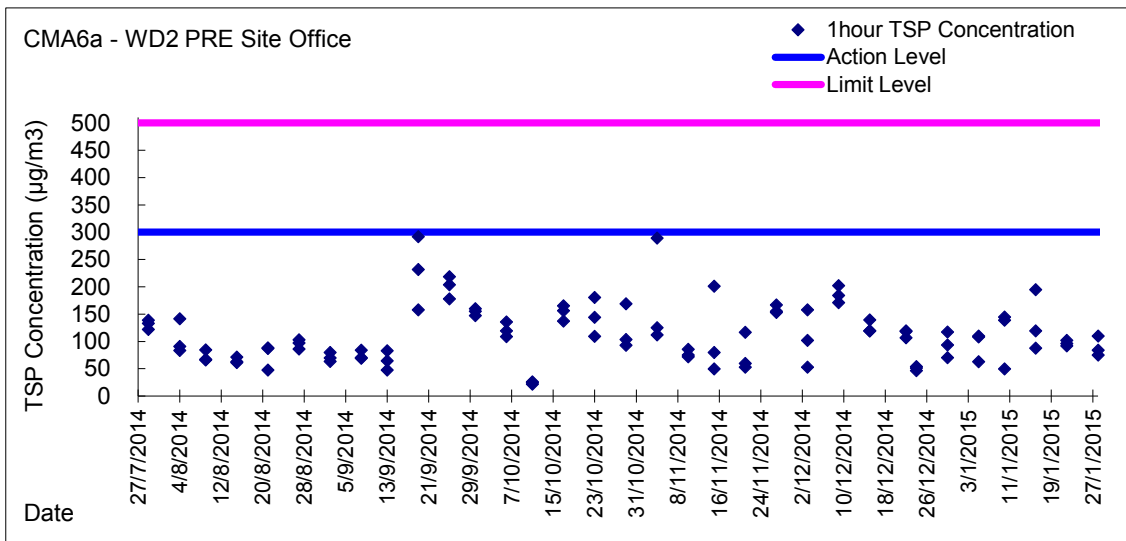
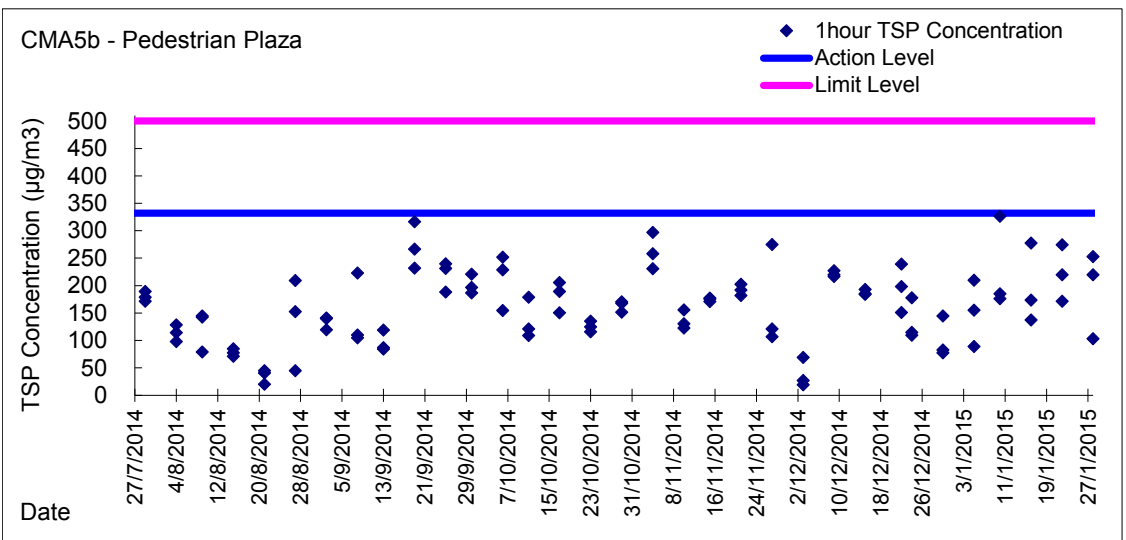
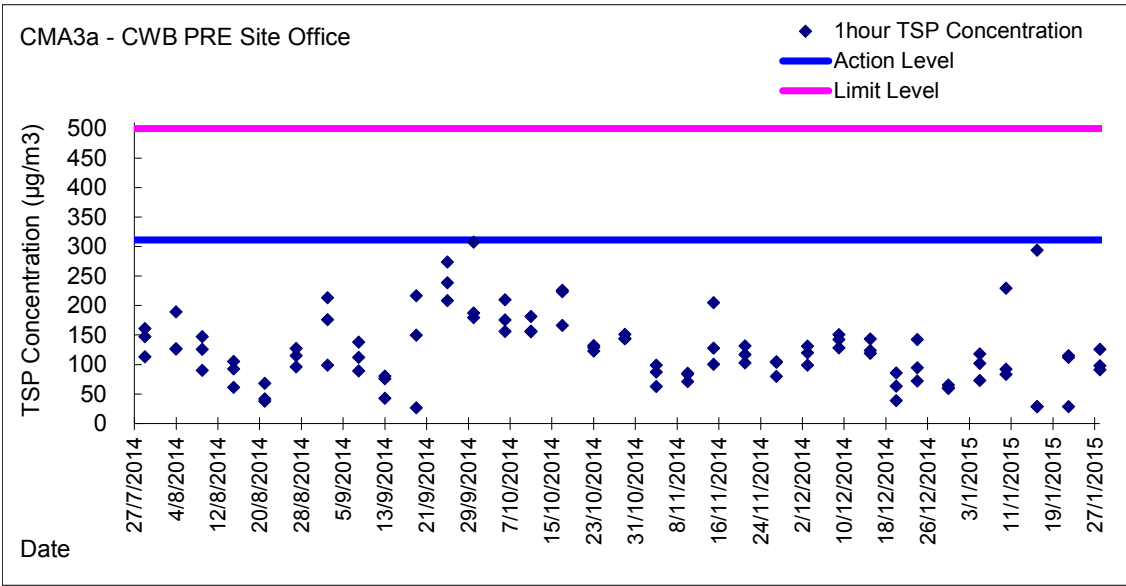


Graphic Presentation of 1 hour TSP Result

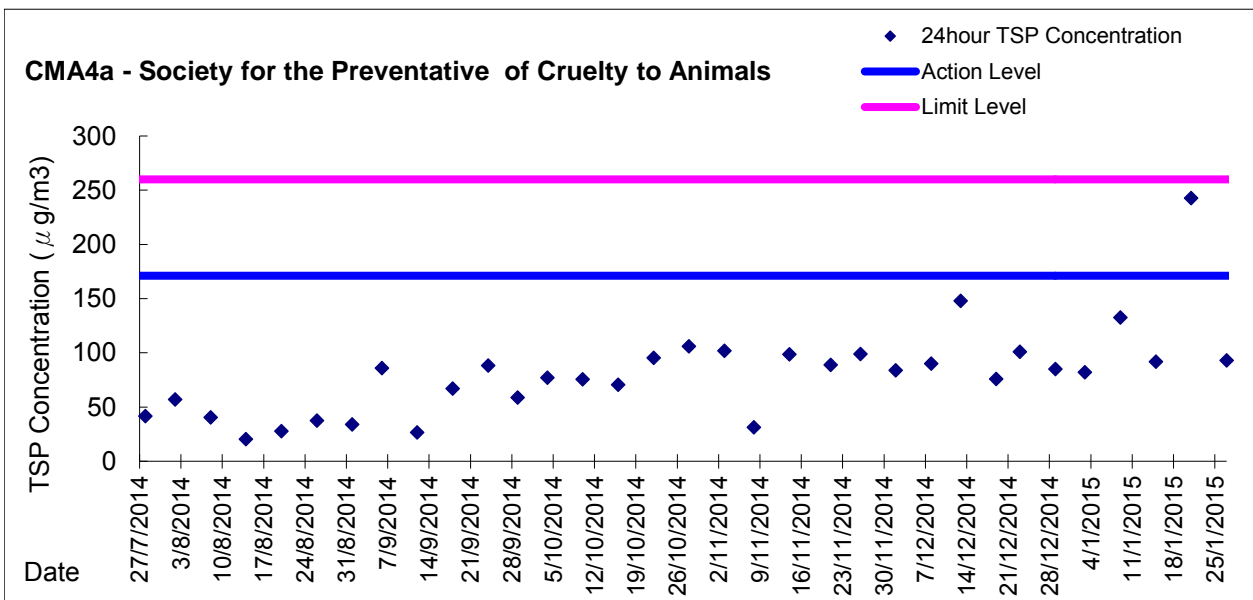
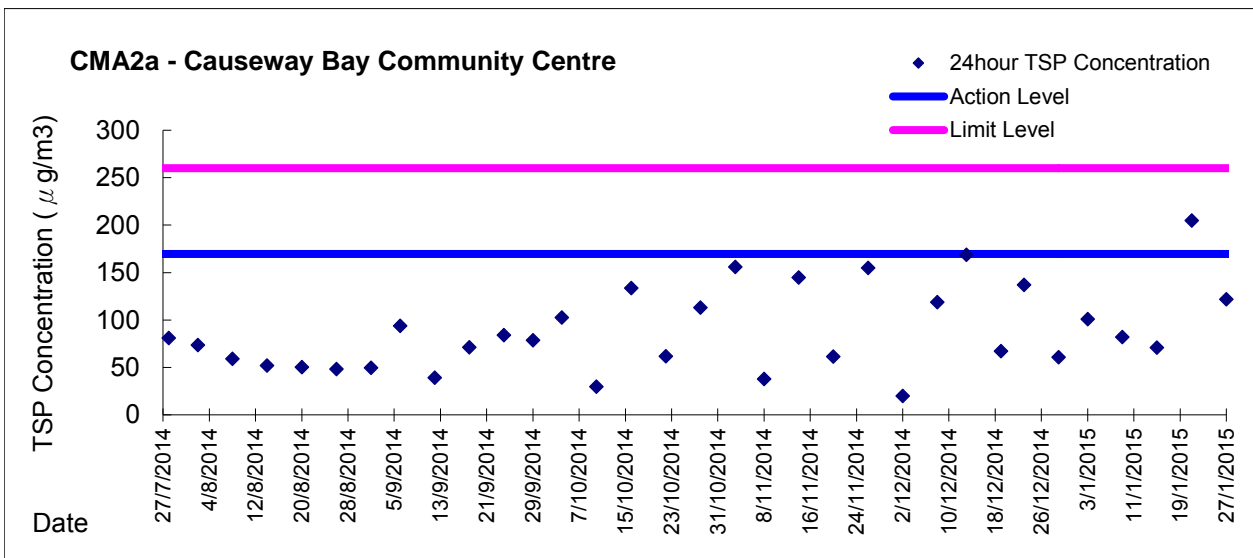
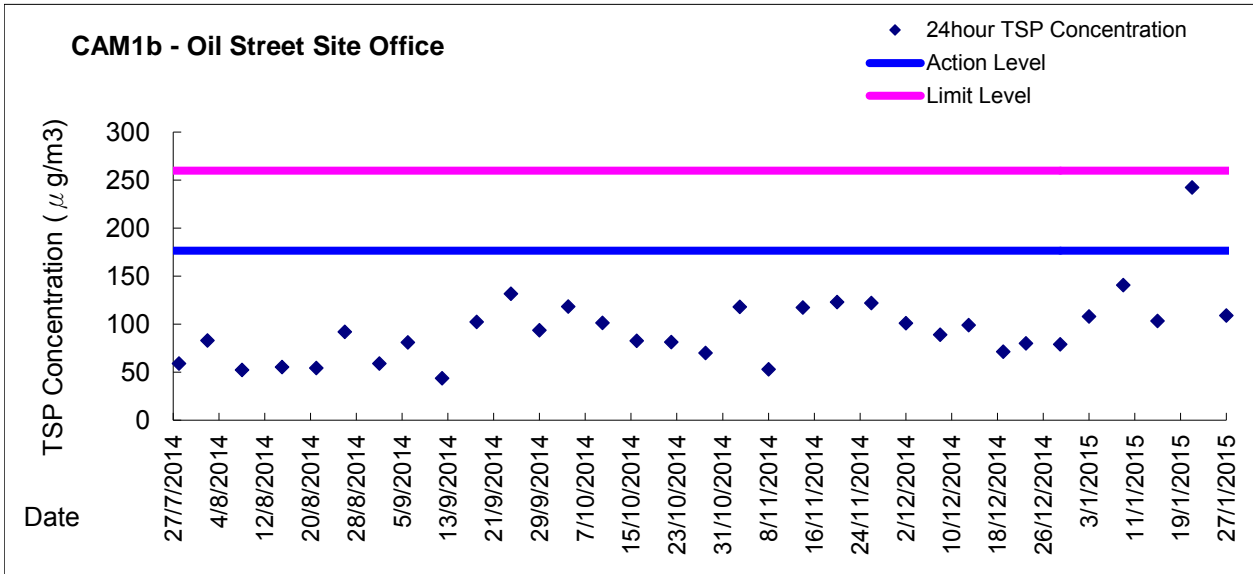




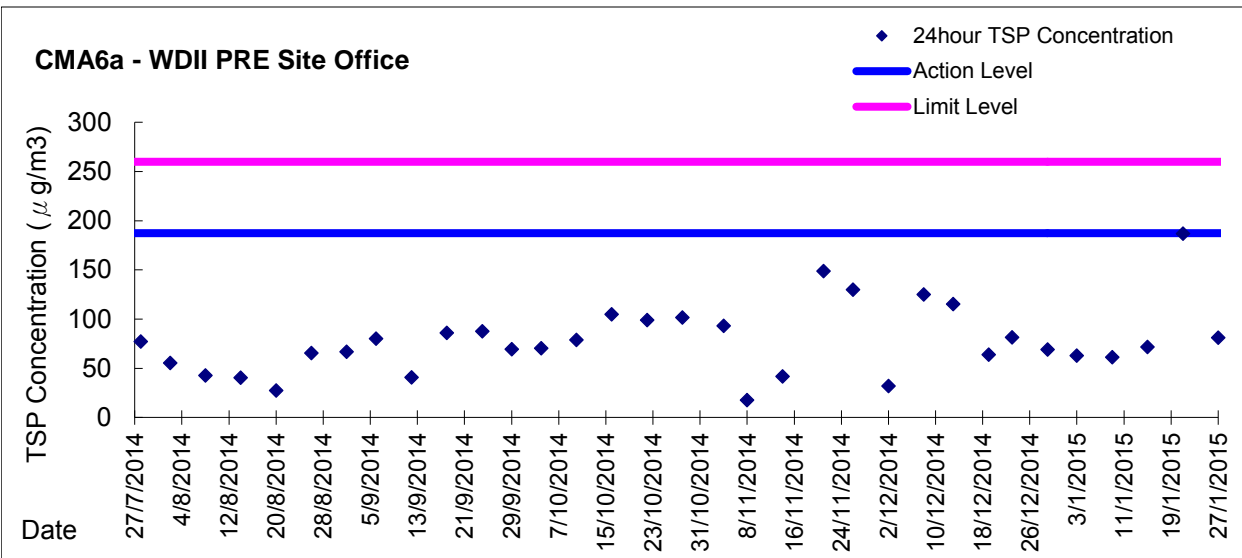
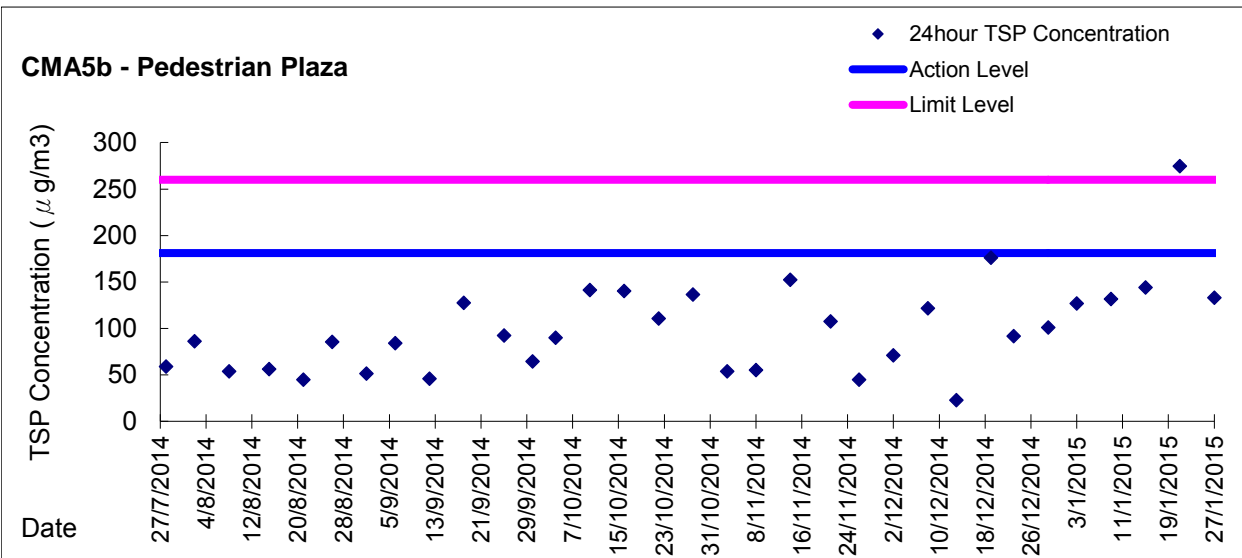
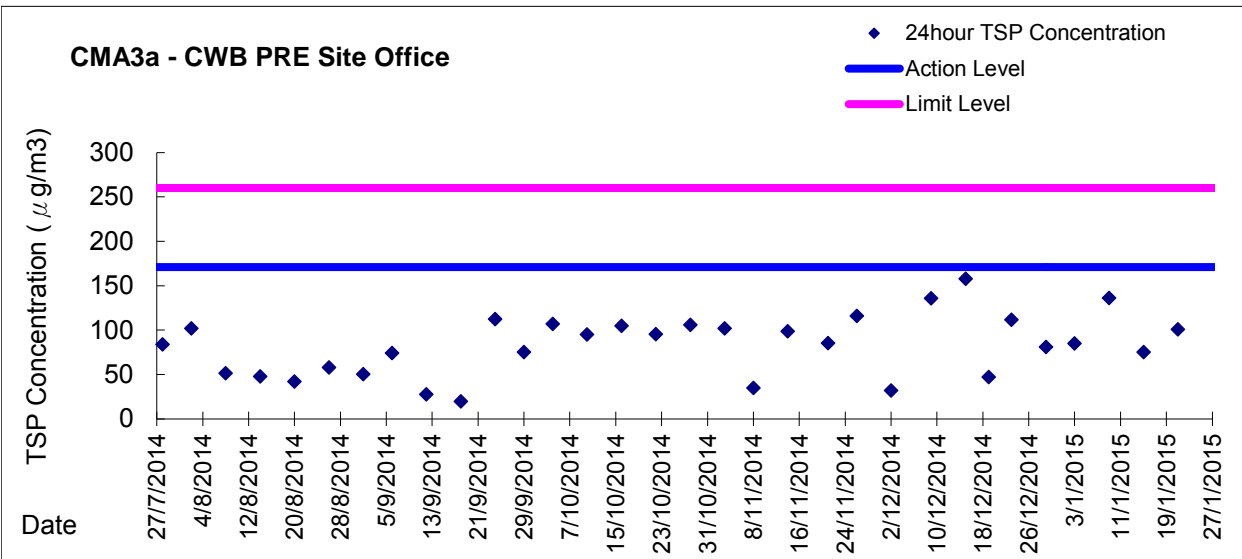
Graphic Presentation of 1 hour TSP Result



Graphic Presentation of 24 hour TSP Result



Graphic Presentation of 24 hour TSP Result





Appendix 5.4

Water Quality and Additional Dissolved Oxygen Monitoring Results and Graphical Presentations



**Water Monitoring Result at C7 - Windsor House
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth m		Water Temperature °C			pH			Salinity ppt			DO Saturation %			DO mg/L			Turbidity NTU			Suspended Solids mg/L	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
29/12/2014	9:58	Fine	Middle	-	17.40	17.40	17.40	8.19	8.19	8.19	31.14	31.14	31.15	79.7	79.0	79.3	6.34	6.28	6.27	4.57	4.56	4.55	3	3.00
	10:00		Middle	-	17.40	17.40		8.19	8.19		31.15	31.15		79.4	79.1		6.24	6.21		4.53	4.53			
31/12/2014	14:58	Fine	Middle	-	18.60	18.60	18.70	8.12	8.12	8.12	31.35	31.35	31.35	88.1	88.3	88.5	6.82	6.84	6.85	3.50	3.52	3.52	4	4.00
	15:00		Middle	-	18.80	18.80		8.11	8.11		31.34	31.34		88.3	89.2		6.83	6.90		3.52	3.55			
3/1/2015	17:29	Fine	Middle	-	17.50	17.50	17.55	8.31	8.31	8.29	31.37	31.37	31.37	77.2	76.5	75.9	6.11	6.06	6.01	2.43	2.42	2.42	3	3.50
	17:31		Middle	-	17.60	17.60		8.26	8.26		31.37	31.37		75.4	74.6		5.96	5.90		2.41	2.40			
6/1/2015	9:30	Fine	Middle	-	18.90	18.90	18.95	8.17	8.17	8.17	31.41	31.41	31.41	87.0	87.3	87.2	6.70	6.73	6.72	3.40	3.41	3.41	2	2.00
	9:32		Middle	-	19.00	19.00		8.17	8.17		31.41	31.41		87.1	87.2		6.71	6.72		3.42	3.42			
8/1/2015	-	-	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Middle	-	-	-		-	-		-	-		-	-		-	-		-				
10/1/2015	7:50	Fine	Middle	-	17.20	17.20	17.15	8.15	8.15	8.15	31.12	31.12	31.13	79.0	79.6	79.5	6.31	6.36	6.35	3.42	3.43	3.44	<2	<2
	7:52		Middle	-	17.10	17.10		8.15	8.15		31.13	31.13		79.6	79.7		6.36	6.37		3.44	3.45			
12/1/2015	10:25	Fine	Middle	-	17.60	17.60	17.60	8.13	8.13	8.12	31.04	31.04	31.05	75.0	77.1	76.5	5.97	6.11	6.07	5.76	5.77	5.65	4	5.00
	10:27		Middle	-	17.60	17.60		8.11	8.11		31.05	31.05		77.1	76.9		6.11	6.10		5.56	5.49			
14/1/2015	14:50	Fine	Middle	-	17.90	17.90	17.95	7.96	7.96	7.96	31.26	31.26	31.29	74.7	75.0	74.6	5.86	5.89	5.85	6.94	6.54	6.60	3	4.00
	14:52		Middle	-	18.00	18.00		7.95	7.95		31.31	31.31		74.6	74.0		5.86	5.80		6.52	6.39			
16/1/2015	14:56	Fine	Middle	-	18.30	18.30	18.45	8.14	8.14	8.13	31.00	31.00	31.00	89.3	90.8	90.6	6.96	7.07	7.05	2.47	2.47	2.51	4	4.00
	14:58		Middle	-	18.60	18.60		8.12	8.12		30.99	30.99		91.3	90.8		7.11	7.07		2.54	2.55			
19/1/2015	17:10	Fine	Middle	-	17.90	17.90	18.00	8.05	8.05	8.05	30.81	30.81	30.82	85.6	84.6	83.7	6.74	6.67	6.60	4.08	4.10	4.11	4	3.50
	17:12		Middle	-	18.10	18.10		8.05	8.05		30.82	30.82		82.3	82.4		6.48	6.49		4.13	4.13			
21/1/2015	18:50	Fine	Middle	-	17.50	17.50	17.50	8.04	8.04	8.04	30.93	30.93	30.94	81.4	79.9	79.0	6.47	6.34	6.27	2.59	2.59	2.61	4	3.50
	18:52		Middle	-	17.50	17.50		8.04	8.04		30.95	30.95		77.1	77.4		6.12	6.14		2.62	2.65			
23/1/2015	10:10	Fine	Middle	-	17.00	17.00	17.00	8.04	8.04	8.04	31.07	31.07	31.07	82.0	83.2	82.3	6.57	6.67	6.59	3.38	3.34	3.35	6	5.50
	10:12		Middle	-	17.00	17.00		8.04	8.04		31.06	31.06		82.2	81.6		6.59	6.54		3.33	3.33			
26/1/2015	10:45	Fine	Middle	-	17.90	17.90	18.00	8.00	8.00	8.00	31.03	31.03	31.03	79.1	80.1	79.6	6.22	6.29	6.25	3.35	3.35	3.36	7	7.50
	10:47		Middle	-	18.10	18.10		8.00	8.00		31.02	31.02		79.8	79.4		6.27	6.23		3.37	3.37			

Remarks:

Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

Due to malfunctioning of the intake transfer pump and resulting unavailability of seawater supply to Windsor House cooling intake pump house at the designated water tank, the water quality monitoring at the monitoring station C7 was cancelled on 8 Jan 2015 during flood tide and ebb tide.



**Water Monitoring Result at C1 - HKCEC Extension
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
29/12/2014	13:57	Fine	Middle	2.5	17.70	17.70	17.70	7.89	7.90	7.90	32.10	32.10	32.10	70.0	69.3	69.3	5.49	5.44	5.44	1.96	1.96	1.94	3	3.00
	13:59		Middle	2.5	17.70	17.70		7.90	7.90		32.09	32.09		69.0	69.0		5.42	5.42		1.93	1.91		3	
31/12/2014	13:45	Fine	Middle	2.5	18.80	18.80	18.85	8.08	8.08	8.09	31.60	31.60	31.58	82.7	80.7	81.6	6.33	6.17	6.24	4.47	4.40	4.42	2	2.50
	13:47		Middle	2.5	18.90	18.90		8.09	8.09		31.56	31.56		81.7	81.2		6.26	6.21		4.40	4.40		3	
3/1/2015	16:19	Fine	Middle	3.0	17.60	17.60	17.70	8.19	8.19	8.20	30.56	30.56	30.56	80.8	80.0	80.4	6.44	6.40	6.44	2.45	2.45	2.46	2	2.00
	16:21		Middle	3.0	17.80	17.80		8.20	8.20		30.56	30.56		80.2	80.7		6.42	6.51		2.45	2.47		<2	
6/1/2015	8:33	Fine	Middle	3.0	18.50	18.50	18.60	8.16	8.16	8.17	31.60	31.60	31.60	84.7	83.5	83.4	6.56	6.46	6.46	2.93	2.89	2.93	4	4.00
	8:35		Middle	3.0	18.70	18.70		8.17	8.17		31.59	31.59		83.1	82.4		6.42	6.38		2.91	2.98		4	
8/1/2015	9:34	Fine	Middle	2.5	18.10	18.10	18.05	7.50	7.50	7.48	35.63	35.63	35.06	73.8	72.2	72.0	5.62	5.00	5.38	6.04	5.94	5.89	3	3.00
	9:36		Middle	2.5	18.00	18.00		7.46	7.46		34.48	34.48		71.8	70.1		5.47	5.42		5.80	5.76		3	
10/1/2015	10:32	Fine	Middle	3.0	17.70	17.70	17.70	7.56	7.56	7.57	32.59	32.59	32.59	63.6	63.1	63.0	4.93	4.88	4.89	3.15	3.27	3.25	2	2.50
	10:34		Middle	3.0	17.70	17.70		7.58	7.58		32.59	32.59		62.8	62.5		4.88	4.86		3.28	3.28		3	
12/1/2015	11:17	Fine	Middle	3.0	17.60	17.60	17.65	7.43	7.43	7.51	31.68	31.72	31.72	68.2	68.1	68.3	5.37	5.37	5.38	3.48	3.45	3.44	4	3.50
	11:19		Middle	3.0	17.70	17.70		7.58	7.58		31.73	31.73		68.5	68.4		5.40	5.37		3.41	3.40		3	
14/1/2015	13:47	Fine	Middle	2.5	18.30	18.30	18.45	7.84	7.84	7.85	31.72	31.72	31.72	82.1	85.8	85.2	6.61	6.65	6.67	2.93	2.94	2.94	3	3.00
	13:49		Middle	2.5	18.60	18.60		7.85	7.85		31.72	31.72		86.6	86.4		6.71	6.69		2.94	2.94		3	
16/1/2015	14:16	Fine	Middle	3.0	17.30	17.30	17.35	7.77	7.77	7.82	31.63	31.63	31.65	71.0	70.3	70.8	5.64	5.59	5.62	1.90	1.97	1.92	4	4.00
	14:18		Middle	3.0	17.40	17.40		7.87	7.87		31.67	31.67		70.7	71.1		5.60	5.63		1.91	1.90		4	
19/1/2015	15:05	Fine	Middle	3.0	17.80	17.80	13.40	8.05	8.05	8.05	31.04	31.04	31.03	87.8	87.8	87.4	6.92	6.92	6.89	4.06	4.07	4.05	5	5.00
	15:07		Middle	3.0	0.00	18.00		8.05	8.05		31.02	31.02		86.1	88.0		6.77	6.93		4.04	4.02		5	
21/1/2015	17:15	Fine	Middle	3.0	17.40	17.40	17.70	8.04	8.04	8.04	31.16	31.16	31.16	87.2	88.0	87.4	6.93	6.99	6.94	4.08	4.10	4.13	10	9.00
	17:18		Middle	3.0	18.00	18.00		8.03	8.03		31.16	31.16		87.3	87.2		6.93	6.92		4.17	4.17		8	
23/1/2015	8:57	Fine	Middle	4.0	16.20	16.20	16.20	8.06	8.06	8.06	31.19	31.19	31.19	80.4	80.5	80.4	6.54	6.55	6.53	5.61	5.58	5.58	9	8.50
	8:59		Middle	3.0	16.20	16.20		8.06	8.06		31.19	31.19		80.3	80.2		6.52	6.52		5.57	5.56		8	
26/1/2015	10:53	Fine	Middle	2.5	17.50	17.60	17.73	8.35	8.33	8.27	31.26	31.21	31.21	77.3	78.6	78.5	6.08	6.19	6.18	5.66	5.57	5.58	7	7.00
	10:55		Middle	2.5	17.90	17.90		8.19	8.19		31.18	31.18		79.6	78.3		6.27	6.16		5.48	5.61		7	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P1 - HKCEC Phase I
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation		DO		Turbidity		Suspended Solids				
					°C			-			ppt			%		mg/L		NTU		mg/L				
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average			
29/12/2014	14:30	Fine	Middle	3.0	18.00	18.00	18.00	8.08	8.08	8.10	32.13	32.13	32.14	70.0	69.2	68.5	5.45	5.40	5.34	1.22	1.22	1.21	2	2.00
	14:32		Middle	3.0	18.00	18.00		8.12	8.12		32.14	32.14		67.6	67.1		5.27	5.23		1.21	1.19		2	
31/12/2014	14:10	Fine	Middle	2.5	18.50	18.50	18.65	8.07	8.07	8.07	31.64	31.64	31.62	77.1	77.1	77.1	5.97	5.98	5.97	2.99	2.95	2.96	4	3.50
	14:12		Middle	2.5	18.80	18.80		8.06	8.06		31.60	31.60		76.8	77.4		5.93	5.99		2.94	2.96		3	
3/1/2015	16:15	Fine	Middle	3.0	18.10	18.10	18.15	8.17	8.17	8.17	31.59	31.59	31.59	83.4	83.6	83.3	6.53	6.53	6.51	2.40	2.00	2.10	4	4.50
	16:17		Middle	3.0	18.20	18.20		8.17	8.17		31.59	31.59		82.9	83.2		6.47	6.50		2.01	1.97		5	
6/1/2015	8:36	Fine	Middle	3.0	18.30	18.30	18.35	8.15	8.15	8.15	31.50	31.50	31.54	78.8	77.2	76.7	6.13	6.01	5.97	4.49	4.51	4.36	5	4.50
	8:38		Middle	3.0	18.40	18.40		8.14	8.14		31.57	31.57		76.0	74.9		5.91	5.83		4.28	4.14		4	
8/1/2015	9:56	Fine	Middle	2.5	17.60	17.60	17.55	7.43	7.43	7.46	31.98	31.98	31.99	71.9	72.1	72.0	5.66	5.69	5.68	1.27	1.25	1.25	4	4.00
	9:58		Middle	2.5	17.50	17.50		7.49	7.49		31.99	31.99		72.3	71.7		5.70	5.66		1.24	1.22		4	
10/1/2015	11:10	Fine	Middle	3.0	17.70	17.70	17.65	7.68	7.68	7.69	31.93	31.93	31.93	66.2	65.7	65.9	5.21	5.18	5.19	1.38	1.37	1.37	<2	<2
	11:12		Middle	3.0	17.60	17.60		7.70	7.70		31.93	31.93		65.5	66.1		5.15	5.21		1.37	1.36		<2	
12/1/2015	11:41	Fine	Middle	3.0	17.50	17.50	17.50	7.70	7.70	7.72	31.72	31.72	31.75	65.4	64.4	64.2	5.17	5.09	5.08	1.86	1.86	1.86	4	3.50
	11:43		Middle	3.0	17.50	17.50		7.74	7.74		31.77	31.77		63.9	63.2		5.05	4.99		1.86	1.87		3	
14/1/2015	13:52	Fine	Middle	2.5	18.00	18.00	18.10	7.86	7.86	7.86	31.72	31.72	31.67	72.2	73.6	74.4	5.65	5.75	5.82	3.02	3.01	3.00	4	4.00
	13:54		Middle	2.5	18.20	18.20		7.86	7.86		31.61	31.61		75.8	76.1		5.92	5.94		2.98	2.97		4	
16/1/2015	14:54	Fine	Middle	3.0	17.60	17.60	17.60	7.93	7.93	7.95	31.76	31.76	31.77	79.0	76.4	76.0	6.23	6.03	6.00	1.04	1.07	1.06	2	2.00
	14:56		Middle	3.0	17.60	17.60		7.97	7.97		31.77	31.77		74.9	73.8		5.91	5.81		1.06	1.08		2	
19/1/2015	15:10	Fine	Middle	3.0	17.50	17.50	17.55	8.02	8.02	8.02	31.09	31.09	31.08	81.7	82.8	82.2	6.47	6.55	6.51	2.88	2.82	2.84	7	6.50
	15:12		Middle	3.0	17.60	17.60		8.01	8.01		31.07	31.07		82.2	82.0		6.51	6.49		2.84	2.81		6	
21/1/2015	17:20	Fine	Middle	3.0	17.20	17.20	17.25	8.01	8.01	8.01	31.21	31.21	31.21	81.7	82.2	82.1	6.51	6.55	6.54	3.41	3.45	3.45	6	7.00
	17:22		Middle	3.0	17.30	17.30		8.01	8.01		31.20	31.20		82.1	82.3		6.54	6.55		3.47	3.46		8	
23/1/2015	9:20	Fine	Middle	3.0	16.50	16.50	16.50	8.02	8.02	8.02	31.18	31.18	31.19	80.5	80.6	80.6	6.51	6.52	6.51	5.06	5.00	5.01	11	12.00
	9:21		Middle	3.0	16.50	16.50		8.02	8.02		31.19	31.19		80.9	80.2		6.54	6.48		4.98	4.99		13	
26/1/2015	11:20	Fine	Middle	2.5	17.50	17.50	17.50	8.11	8.11	8.11	31.33	31.33	31.30	74.4	73.7	73.4	5.90	5.84	5.82	3.07	3.03	3.03	8	7.50
	11:22		Middle	2.5	17.50	17.50		8.10	8.10		31.27	31.27		73.0	72.5		5.78	5.74		3.01	3.00		7	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P3 - APA
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/12/2014	14:21	Fine	Middle	3.0	17.70	17.70	17.70	8.09	8.09	8.11	32.07	32.07	32.12	66.7	68.2	67.8	5.23	5.35	5.32	1.21	1.16	1.15	2	2.00
	14:23		Middle	3.0	17.70	17.70		8.12	8.12		32.16	32.16		68.0	68.1		67.8	5.34		5.34	1.11		1.11	
31/12/2014	14:03	Fine	Middle	2.5	18.20	18.20	18.30	8.09	8.09	8.08	31.57	31.57	31.51	76.9	76.5	77.0	6.00	5.97	6.00	3.35	3.40	3.40	4	3.50
	14:05		Middle	2.5	18.40	18.40		8.07	8.07		31.45	31.45		77.3	77.4		77.0	6.02		6.02	3.41		3.44	
3/1/2015	16:32	Fine	Middle	3.0	17.90	17.90	17.90	8.20	8.20	8.20	31.56	31.56	31.56	78.1	77.6	77.1	6.13	6.08	6.05	2.37	2.34	2.35	2	2.50
	16:34		Middle	3.0	17.90	17.90		8.20	8.20		31.55	31.55		76.6	76.2		77.1	6.01		5.98	6.05		2.34	
6/1/2015	8:39	Fine	Middle	3.0	18.30	18.30	18.30	8.14	8.14	8.14	31.60	31.60	31.60	81.8	81.6	81.4	6.37	6.35	6.34	3.27	3.18	3.24	3	3.50
	8:41		Middle	3.0	18.30	18.30		8.13	8.13		31.60	31.60		80.9	81.2		81.4	6.30		6.32	6.34		3.23	
8/1/2015	9:51	Fine	Middle	2.5	17.70	17.70	17.55	7.41	7.41	7.43	32.03	32.03	32.04	68.7	69.5	68.8	5.42	5.48	5.43	1.12	1.10	1.10	2	2.50
	9:53		Middle	2.5	17.40	17.40		7.45	7.45		32.04	32.04		68.6	68.4		68.8	5.41		5.40	5.43		1.09	
10/1/2015	11:00	Fine	Middle	3.0	17.40	17.40	17.35	7.60	7.60	7.63	31.75	31.75	31.82	61.0	60.6	60.5	4.83	4.80	4.79	1.35	1.34	1.36	2	2.50
	11:02		Middle	3.0	17.30	17.30		7.66	7.66		31.88	31.88		60.4	60.1		60.5	4.77		4.75	4.79		1.36	
12/1/2015	11:34	Fine	Middle	3.0	17.60	17.60	17.55	7.69	7.69	7.70	31.83	31.83	31.84	63.7	62.8	62.2	5.03	4.96	4.91	1.96	1.91	1.89	2	2.00
	11:36		Middle	3.0	17.50	17.50		7.71	7.71		31.84	31.84		61.3	60.8		62.2	4.84		4.80	4.91		1.84	
14/1/2015	13:56	Fine	Middle	2.5	17.70	17.70	17.80	7.87	7.87	7.87	31.70	31.70	31.69	76.4	76.6	77.1	6.00	6.02	6.06	3.57	3.43	3.47	<2	<2
	13:58		Middle	2.5	17.90	17.90		7.87	7.87		31.68	31.68		77.4	78.1		77.1	6.08		6.13	6.06		3.43	
16/1/2015	14:42	Fine	Middle	3.0	17.30	17.30	17.35	7.97	7.97	7.98	31.73	31.73	31.75	62.9	62.5	62.3	4.99	4.95	4.94	1.34	1.39	1.36	2	2.00
	14:44		Middle	3.0	17.40	17.40		7.98	7.98		31.77	31.77		62.0	61.8		62.3	4.91		4.91	4.94		1.37	
19/1/2015	15:16	Fine	Middle	3.0	17.70	17.70	17.70	8.02	8.02	8.02	31.05	31.05	31.05	82.1	82.2	81.9	6.49	6.50	6.47	3.34	3.32	3.32	5	4.50
	15:18		Middle	3.0	17.70	17.70		8.02	8.02		31.05	31.05		82.0	81.2		81.9	6.48		6.42	6.47		3.30	
21/1/2015	17:25	Fine	Middle	3.0	17.20	17.20	17.25	8.02	8.02	8.02	31.15	31.15	31.16	83.5	84.5	84.3	6.66	6.73	6.72	3.86	3.76	3.73	13	12.50
	17:27		Middle	3.0	17.30	17.30		8.02	8.02		31.16	31.16		84.8	84.5		84.3	6.76		6.74	6.72		3.64	
23/1/2015	9:15	Fine	Middle	3.0	16.30	16.30	16.30	8.02	8.02	8.02	31.17	31.17	31.18	81.4	80.9	80.8	6.61	6.57	6.56	3.62	3.56	3.53	10	10.00
	9:17		Middle	3.0	16.30	16.30		8.02	8.02		31.18	31.18		80.6	80.1		80.8	6.56		6.51	6.56		3.51	
26/1/2015	11:12	Fine	Middle	2.5	17.30	17.30	17.35	8.11	8.11	8.11	31.22	31.22	31.22	75.2	75.0	75.1	5.97	5.97	5.96	3.65	3.52	3.67	5	5.00
	11:14		Middle	2.5	17.40	17.40		8.10	8.10		31.21	31.21		75.3	74.7		75.1	5.98		5.93	5.96		3.69	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P4 - SOC
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/12/2014	14:07	Fine	Middle	3.0	17.40	17.40	17.35	7.78	7.78	7.79	31.90	31.90	31.99	69.3	69.0	68.9	5.48	5.46	5.45	1.34	1.34	1.35	2	2.00
	14:09		Middle	3.0	17.30	17.30		7.80	7.80		32.07	32.07		68.7	68.4		68.9	5.44		5.41	1.38		1.34	
31/12/2014	13:53	Fine	Middle	2.5	18.20	18.20	18.25	8.08	8.08	8.08	31.56	31.56	31.55	76.3	76.8	76.3	5.95	5.99	5.95	3.27	3.17	3.14	3	3.00
	13:55		Middle	2.5	18.30	18.30		8.07	8.07		31.54	31.54		76.2	76.0		76.3	5.94		5.93	3.06		3.05	
3/1/2015	16:27	Fine	Middle	3.0	17.30	17.30	17.30	8.21	8.21	8.21	31.38	31.38	31.38	83.5	82.9	82.6	6.65	6.59	6.57	2.51	2.54	2.49	3	3.00
	16:29		Middle	3.0	17.30	17.30		8.21	8.21		31.38	31.38		82.4	81.5		82.6	6.55		6.47	2.56		2.36	
6/1/2015	8:42	Fine	Middle	3.0	18.30	18.30	18.35	8.16	8.16	8.17	31.59	31.59	31.59	87.0	86.5	86.4	6.77	6.73	6.72	3.92	3.97	3.88	3	3.00
	8:44		Middle	3.0	18.40	18.40		8.18	8.18		31.58	31.58		86.2	85.7		86.4	6.71		6.67	3.82		3.81	
8/1/2015	9:46	Fine	Middle	2.5	17.70	17.70	17.60	7.38	7.38	7.41	32.02	32.02	32.03	74.9	74.7	74.6	5.89	5.88	5.87	1.69	1.68	1.68	3	3.00
	9:48		Middle	2.5	17.50	17.50		7.43	7.43		32.04	32.04		74.6	74.2		74.6	5.87		5.84	1.67		1.67	
10/1/2015	10:50	Fine	Middle	3.0	17.50	17.50	17.50	7.45	7.45	7.53	31.82	31.82	31.85	62.0	62.2	62.3	4.90	4.91	4.92	2.32	2.26	2.26	4	3.50
	10:52		Middle	3.0	17.50	17.50		7.61	7.61		31.87	31.87		62.6	62.5		62.3	4.94		4.93	2.24		2.21	
12/1/2015	11:27	Fine	Middle	3.0	17.40	17.40	17.45	7.68	7.68	7.69	31.84	31.84	31.84	62.7	61.6	61.9	4.96	4.87	4.90	1.86	1.83	1.82	4	3.00
	11:29		Middle	3.0	17.50	17.50		7.69	7.69		31.84	31.84		61.5	61.9		61.9	4.86		4.89	1.81		1.77	
14/1/2015	14:02	Fine	Middle	2.5	17.60	17.60	17.65	7.88	7.88	7.88	31.67	31.67	31.67	75.6	75.6	76.7	5.95	5.96	6.04	2.93	2.70	2.72	3	3.50
	14:04		Middle	2.5	17.70	17.70		7.88	7.88		31.66	31.66		77.6	78.0		76.7	6.12		6.14	2.69		2.77	
16/1/2015	14:34	Fine	Middle	3.0	17.10	17.10	17.10	7.92	7.92	7.94	31.75	31.75	31.78	63.9	63.2	63.2	5.08	5.03	5.03	1.04	1.05	1.06	3	2.50
	14:36		Middle	3.0	17.10	17.10		7.96	7.96		31.80	31.80		63.0	62.6		63.2	5.01		4.98	1.08		1.05	
19/1/2015	15:21	Fine	Middle	3.0	17.30	17.30	17.35	8.04	8.04	8.04	31.03	31.03	31.03	84.2	84.6	83.8	6.70	6.73	6.67	4.23	4.10	4.11	5	5.00
	15:23		Middle	3.0	17.40	17.40		8.04	8.04		31.02	31.02		83.6	82.9		83.8	6.65		6.59	4.09		4.00	
21/1/2015	17:35	Fine	Middle	3.0	17.10	17.10	17.10	8.03	8.03	8.03	31.15	31.15	31.15	90.2	90.6	90.4	7.21	7.26	7.23	4.10	4.19	4.15	12	12.50
	17:38		Middle	3.0	17.10	17.10		8.03	8.03		31.15	31.15		90.7	89.9		90.4	7.27		7.18	4.21		4.11	
23/1/2015	9:10	Fine	Middle	3.0	16.00	16.00	16.00	8.05	8.05	8.05	31.17	31.17	31.17	84.7	84.8	84.9	6.91	6.92	6.93	5.70	5.66	5.64	8	8.50
	9:12		Middle	3.0	16.00	16.00		8.05	8.05		31.17	31.17		85.2	84.7		84.9	6.96		6.91	5.61		5.59	
26/1/2015	11:05	Fine	Middle	2.5	17.60	17.60	17.65	8.15	8.15	8.14	31.32	31.32	31.29	76.0	76.2	76.1	6.00	6.01	6.01	5.11	4.94	4.96	7	7.50
	11:07		Middle	2.5	17.70	17.70		8.13	8.13		31.26	31.26		76.1	76.1		76.1	6.01		6.01	4.88		4.90	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P5 - WCT / RT / IT
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/12/2014	14:12	Fine	Middle	3.0	17.50	17.50	17.35	8.09	8.09	8.11	31.84	31.84	31.99	73.3	72.2	71.8	5.81	5.72	5.70	1.44	1.44	1.44	5	4.00
	14:14		Middle	3.0	17.20	17.20		8.13	8.13		32.13	32.13		71.6	70.1		5.68	5.58		1.44	1.44		3	
31/12/2014	13:58	Fine	Middle	2.5	18.10	18.10	18.10	8.11	8.11	8.11	31.51	31.51	31.51	75.3	76.3	76.1	5.90	5.98	5.96	3.29	3.35	3.38	3	3.00
	14:00		Middle	2.5	18.10	18.10		8.11	8.11		31.50	31.50		76.5	76.3		5.99	5.97		3.41	3.45		3	
3/1/2015	16:23	Fine	Middle	3.0	17.30	17.30	17.35	8.21	8.21	8.21	31.55	31.55	31.54	79.6	79.0	78.5	6.32	6.28	6.23	2.76	2.72	2.72	3	3.50
	16:25		Middle	3.0	17.40	17.40		8.21	8.21		31.53	31.53		78.2	77.1		6.21	6.12		2.70	2.69		4	
6/1/2015	8:45	Fine	Middle	3.0	18.40	18.40	18.40	8.18	8.18	8.18	31.59	31.59	31.59	78.9	78.1	77.7	6.14	6.10	6.05	3.17	3.05	3.05	4	4.50
	8:47		Middle	3.0	18.40	18.40		8.18	8.18		31.58	31.58		76.9	76.8		5.98	5.98		3.00	2.97		5	
8/1/2015	9:40	Fine	Middle	2.5	18.00	18.00	17.95	7.37	7.37	7.39	31.58	31.58	31.82	76.4	74.9	75.0	5.96	5.87	5.87	1.86	1.86	1.86	5	5.50
	9:42		Middle	2.5	17.90	17.90		7.41	7.41		32.05	32.05		74.5	74.2		5.83	5.81		1.86	1.87		6	
10/1/2015	10:42	Fine	Middle	3.0	17.70	17.70	17.70	7.57	7.57	7.60	31.98	31.98	31.98	65.4	65.2	65.3	5.14	5.12	5.13	2.45	2.46	2.46	4	4.00
	10:44		Middle	3.0	17.70	17.70		7.62	7.62		31.97	31.97		65.1	65.6		5.12	5.15		2.46	2.47		4	
12/1/2015	11:24	Fine	Middle	3.0	17.50	17.50	17.50	7.60	7.60	7.63	31.84	31.84	31.86	65.6	65.4	65.5	5.18	5.17	5.17	2.87	2.89	2.90	5	4.50
	11:26		Middle	3.0	17.50	17.50		7.65	7.65		31.87	31.87		65.3	65.5		5.16	5.18		2.92	2.92		4	
14/1/2015	14:07	Fine	Middle	2.5	17.70	17.70	17.75	7.88	7.88	7.89	31.68	31.68	31.68	77.3	77.8	77.9	6.08	6.12	6.13	3.82	3.73	3.71	2	3.00
	14:09		Middle	2.5	17.80	17.80		7.89	7.89		31.67	31.67		78.5	78.0		6.18	6.14		3.66	3.63		4	
16/1/2015	14:24	Fine	Middle	3.0	17.30	17.30	17.30	7.94	7.94	7.95	31.77	31.77	31.67	68.0	67.7	67.9	5.39	5.37	5.39	1.14	1.17	1.16	6	5.50
	14:26		Middle	3.0	17.30	17.30		7.95	7.95		31.78	31.38		67.9	68.1		5.38	5.40		1.16	1.15		5	
19/1/2015	15:28	Fine	Middle	3.0	17.40	17.40	17.50	8.05	8.05	8.05	30.98	30.98	30.99	81.1	82.1	80.7	6.44	6.51	6.41	4.91	4.91	4.85	6	6.00
	15:30		Middle	3.0	17.60	17.60		8.05	8.05		30.99	30.99		80.7	79.0		6.40	6.27		4.84	4.75		6	
21/1/2015	17:42	Fine	Middle	3.0	17.10	17.10	17.10	8.05	8.05	8.05	31.14	31.14	31.14	83.8	83.7	83.5	6.70	6.69	6.68	4.16	4.10	4.16	8	9.00
	17:44		Middle	3.0	17.10	17.10		8.05	8.05		31.14	31.14		83.1	83.5		6.64	6.68		4.15	4.22		10	
23/1/2015	9:05	Fine	Middle	3.0	16.10	16.10	16.10	8.07	8.07	8.07	31.19	31.19	31.19	79.9	80.1	80.2	6.50	6.52	6.53	5.92	5.92	5.92	13	13.00
	9:07		Middle	3.0	16.10	16.10		8.07	8.07		31.19	31.19		80.1	80.6		6.52	6.57		5.92	5.93		13	
26/1/2015	10:58	Fine	Middle	2.5	17.60	17.40	17.55	8.17	8.17	8.17	31.24	31.24	31.23	79.3	78.7	79.0	6.28	6.24	6.25	5.80	5.77	5.78	9	8.50
	11:00		Middle	2.5	17.60	17.60		8.16	8.16		31.22	31.22		79.0	78.8		6.26	6.23		5.76	5.79		8	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/12/2014	9:25	Fine	Middle	3.0	16.50	16.50	16.40	8.18	8.18	8.19	31.93	31.93	31.95	79.3	80.3	80.5	6.40	6.48	6.50	2.13	2.16	2.16	3	2.50
	9:27		Middle	3.0	16.30	16.30		8.19	8.19		31.96	31.96		81.5	81.0		80.5	6.58		6.54	6.50		2.17	
31/12/2014	14:27	Fine	Middle	3.0	18.80	18.80	18.80	8.11	8.11	8.12	31.63	31.63	31.60	86.4	84.7	84.8	6.64	6.51	6.52	2.42	2.45	2.47	3	3.00
	14:29		Middle	3.0	18.80	18.80		8.12	8.12		31.57	31.57		84.3	83.8		84.8	6.48		6.44	6.52		2.51	
3/1/2015	16:58	Fine	Middle	3.0	17.70	17.70	17.70	8.21	8.21	8.22	31.59	31.59	31.59	84.9	84.7	84.5	6.70	6.68	6.67	2.69	2.72	2.73	3	3.50
	17:00		Middle	3.0	17.70	17.70		8.22	8.22		31.59	31.59		84.3	84.1		84.5	6.65		6.64	6.67		2.74	
6/1/2015	8:53	Fine	Middle	3.0	18.30	18.30	18.35	8.17	8.17	8.15	31.63	31.63	31.61	81.5	81.1	80.8	6.35	6.32	6.29	3.42	3.42	3.42	2	2.50
	8:55		Middle	3.0	18.40	18.40		8.13	8.13		31.59	31.59		80.4	80.0		80.8	6.26		6.22	6.29		3.42	
8/1/2015	8:05	Fine	Middle	3.0	17.10	17.10	17.05	8.15	8.15	8.15	31.45	31.45	31.47	75.7	76.3	76.2	6.04	6.09	6.09	5.03	5.02	5.02	5	4.50
	8:07		Middle	3.0	17.00	17.00		8.15	8.15		31.48	31.48		76.4	76.4		76.2	6.10		6.11	6.09		5.02	
10/1/2015	7:20	Fine	Middle	3.0	16.70	16.70	16.55	8.19	8.19	8.18	31.12	31.12	31.14	78.7	78.7	78.1	6.35	6.35	6.31	4.37	4.30	4.22	<2	<u><2</u>
	7:22		Middle	3.0	16.40	16.40		8.17	8.17		31.15	31.15		77.6	77.4		78.1	6.27		6.25	6.31		4.13	
12/1/2015	9:50	Fine	Middle	3.0	17.30	17.30	17.30	8.11	8.11	8.11	31.69	31.69	31.70	78.5	77.9	78.0	6.22	6.18	6.19	3.91	3.91	3.92	3	3.50
	9:52		Middle	3.0	17.30	17.30		8.10	8.10		31.70	31.70		77.8	77.9		78.0	6.18		6.18	6.19		3.92	
14/1/2015	14:15	Fine	Middle	3.0	17.70	17.70	17.75	7.92	7.92	7.92	32.50	32.50	32.59	71.0	71.3	72.1	5.59	5.61	5.67	4.01	4.01	4.04	3	3.50
	14:17		Middle	3.0	17.80	17.80		7.92	7.92		32.67	32.67		72.8	73.1		72.1	5.72		5.75	5.67		4.02	
16/1/2015	14:20	Fine	Middle	3.5	18.00	18.00	18.10	8.12	8.12	8.13	31.18	31.18	31.17	97.7	96.4	96.2	7.66	7.55	7.54	2.57	2.58	2.59	3	3.00
	14:22		Middle	3.5	18.20	18.20		8.13	8.13		31.16	31.16		96.1	94.7		96.2	7.54		7.41	7.54		2.59	
19/1/2015	15:50	Fine	Middle	2.5	17.80	17.80	17.95	8.05	8.05	8.05	31.05	31.05	31.05	82.2	84.1	83.5	6.47	6.61	6.57	3.19	3.18	3.18	5	5.00
	15:52		Middle	2.5	18.10	18.10		8.05	8.05		31.05	31.05		83.7	84.0		83.5	6.58		6.60	6.57		3.18	
21/1/2015	18:00	Fine	Middle	3.5	17.40	17.40	17.45	8.05	8.05	8.06	31.18	31.18	31.17	83.4	83.6	83.3	6.62	6.63	6.61	6.34	6.53	6.42	9	9.00
	18:02		Middle	3.5	17.50	17.50		8.06	8.06		31.15	31.15		83.2	83.0		83.3	6.61		6.59	6.61		6.53	
23/1/2015	9:35	Fine	Middle	4.0	16.60	16.60	16.60	8.05	8.05	8.06	31.23	31.23	31.24	80.6	82.0	81.2	6.50	6.61	6.55	6.41	6.34	6.28	9	9.50
	9:37		Middle	4.0	16.60	16.60		8.06	8.06		31.24	31.24		81.1	81.1		81.2	6.54		6.54	6.55		6.20	
26/1/2015	10:05	Fine	Middle	3.5	17.70	17.70	17.75	8.03	8.03	8.03	31.20	31.20	31.21	83.4	83.2	82.6	6.57	6.56	6.44	6.15	6.13	6.11	7	7.50
	10:07		Middle	3.5	17.80	17.80		8.03	8.03		31.22	31.22		82.2	81.4		82.6	6.48		6.14	6.44		6.08	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at WSD19 - Sheung Wan
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/12/2014	13:40	Fine	Middle	3.5	17.90	17.90	17.90	8.21	8.21	8.41	31.62	31.62	31.62	81.5	80.9	81.2	6.40	6.35	6.38	3.72	3.76	3.73	4	3.50
	13:42		Middle	3.5	17.90	17.90		8.61	8.61		31.61	31.61		81.6	80.8		6.41	6.35		3.76	3.67		3	
31/12/2014	11:20	Fine	Middle	3.0	17.50	17.50	17.45	8.14	8.14	8.16	31.57	31.57	31.63	78.4	78.4	78.2	6.21	6.21	6.21	5.77	5.67	5.70	3	3.50
	11:22		Middle	3.0	17.40	17.40		8.17	8.17		31.69	31.69		78.0	78.0		6.23	6.18		5.71	5.64		4	
3/1/2015	15:39	Fine	Middle	3.0	18.30	18.30	18.30	8.17	8.17	8.17	31.70	31.70	31.68	74.5	74.3	74.5	5.80	5.78	5.80	3.63	3.64	3.64	4	4.00
	15:41		Middle	3.0	18.30	18.30		8.16	8.16		31.65	31.65		74.5	74.7		5.80	5.81		3.65	3.64		4	
6/1/2015	7:37	Fine	Middle	3.0	18.40	18.40	18.45	8.27	8.27	8.26	31.75	31.75	31.74	80.8	80.0	79.1	6.27	6.21	6.14	1.71	1.71	1.71	4	5.00
	7:39		Middle	3.0	18.50	18.50		8.24	8.24		31.73	31.72		78.4	77.3		6.08	6.00		1.71	1.71		6	
8/1/2015	9:10	Fine	Middle	3.0	17.20	17.20	17.20	8.15	8.15	8.16	31.43	31.43	31.44	81.2	83.0	82.8	6.47	6.61	6.60	8.01	8.00	7.97	2	2.00
	9:12		Middle	3.0	17.20	17.20		8.16	8.16		31.45	31.45		83.6	83.3		6.66	6.64		7.89	7.99		<2	
10/1/2015	11:53	Fine	Middle	3.5	18.10	18.10	18.10	8.14	8.14	8.14	31.39	31.39	31.39	79.4	80.1	80.0	6.22	6.27	6.26	5.02	5.02	5.02	<2	<2
	11:55		Middle	3.5	18.10	18.10		8.14	8.14		31.39	31.39		80.4	79.9		6.30	6.26		5.02	5.03		<2	
12/1/2015	10:50	Fine	Middle	3.0	17.20	17.20	17.20	8.10	8.10	8.11	31.41	31.41	31.41	76.4	77.3	76.8	6.09	6.16	6.12	3.79	3.79	3.79	4	5.00
	10:52		Middle	3.0	17.20	17.20		8.11	8.11		31.41	31.41		76.9	76.5		6.13	6.10		3.79	3.78		6	
14/1/2015	10:35	Fine	Middle	3.0	17.10	17.10	17.10	7.63	7.63	7.64	31.57	31.57	31.57	75.8	75.1	75.3	6.05	6.00	6.01	4.63	4.63	4.62	5	4.50
	10:37		Middle	3.0	17.10	17.10		7.64	7.64		31.57	31.57		74.9	75.2		5.98	6.01		4.62	4.61		4	
16/1/2015	13:30	Fine	Middle	3.0	18.40	18.40	18.50	8.00	8.00	8.02	31.19	31.19	31.20	82.4	82.7	82.7	6.42	6.43	6.43	3.97	3.98	4.02	7	7.50
	13:32		Middle	3.0	18.60	18.60		8.03	8.03		31.20	31.20		82.8	82.7		6.44	6.43		4.02	4.10		8	
19/1/2015	14:40	Fine	Middle	3.0	18.50	18.50	18.70	7.98	7.98	7.98	31.06	31.06	31.05	82.3	80.7	81.1	6.37	6.26	6.28	3.39	3.39	3.43	6	6.00
	14:42		Middle	3.0	18.90	18.90		7.97	7.97		31.03	31.03		80.2	81.2		6.21	6.28		3.45	3.47		6	
21/1/2015	16:50	Fine	Middle	3.5	18.60	18.60	18.65	8.03	8.03	8.03	31.22	31.22	31.22	81.9	81.6	81.3	6.36	6.35	6.31	7.59	7.74	7.73	12	12.00
	16:52		Middle	3.5	18.70	18.70		8.03	8.03		31.22	31.22		81.4	80.4		6.31	6.23		7.82	7.75		12	
23/1/2015	8:00	Fine	Middle	3.5	16.20	16.20	16.15	8.04	8.04	8.05	31.23	31.23	31.23	73.5	72.7	72.6	5.98	5.91	5.90	16.61	16.48	<u>16.48</u>	8	8.00
	8:02		Middle	3.5	16.10	16.10		8.05	8.05		31.23	31.23		71.9	72.2		5.84	5.88		16.40	16.44		8	
26/1/2015	11:10	Fine	Middle	3.5	18.10	18.10	18.10	8.00	8.00	8.00	31.25	31.25	31.24	80.0	80.5	80.2	6.26	6.29	6.27	7.58	7.63	7.61	10	10.00
	11:12		Middle	3.5	18.10	18.10		8.00	8.00		31.23	31.23		80.0	80.2		6.26	6.27		7.62	7.60		10	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at C7 - Windsor House
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
					°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	3:10	Cloudy	Middle	-	15.30	15.30	15.25	7.80	7.80	7.81	31.32	31.32	31.36	89.8	89.6	89.7	7.43	7.43	7.43	2.10	2.08	2.11	2	2.00
	3:11		Middle	-	15.20	15.20		7.81	7.81		31.39	31.39		89.5	89.9		7.42	7.44		2.12	2.15		2	
31/12/2014	20:02	Cloudy	Middle	-	18.00	18.00	18.00	8.11	8.11	8.12	31.25	31.25	31.27	76.0	76.4	76.4	5.97	6.00	6.00	2.76	2.71	2.69	3	3.00
	20:04		Middle	-	18.00	18.00		8.13	8.13		31.29	31.29		76.9	76.4		6.04	6.00		2.65	2.62		3	
3/1/2015	22:52	Cloudy	Middle	-	17.20	17.20	17.20	7.83	7.83	7.83	31.30	31.30	31.30	90.3	90.4	90.7	7.19	7.21	7.22	2.07	2.04	2.02	2	2.00
	22:53		Middle	-	17.20	17.20		7.83	7.83		31.30	31.30		90.9	91.0		7.24	7.25		2.02	1.96		<2	
6/1/2015	0:03	Cloudy	Middle	-	18.80	18.80	18.80	7.72	7.72	7.73	31.34	31.35	31.35	92.1	92.3	92.2	7.12	7.13	7.12	1.29	1.32	1.34	2	2.00
	0:04		Middle	-	18.80	18.80		7.73	7.73		31.35	31.35		92.5	91.8		7.15	7.09		1.38	1.36		2	
8/1/2015	-	-	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
10/1/2015	0:11	Cloudy	Middle	-	16.90	16.90	16.90	7.88	7.88	7.88	31.28	31.28	31.27	87.4	87.2	87.7	7.05	6.99	7.05	3.28	3.36	3.35	<2	<2
	0:12		Middle	-	16.90	16.90		7.88	7.88		31.22	31.28		88.3	88.0		7.08	7.06		3.37	3.40		<2	
12/1/2015	2:02	Cloudy	Middle	-	17.30	17.30	17.30	7.83	7.83	7.84	31.16	31.16	31.17	87.8	89.3	89.5	6.99	7.11	7.13	3.06	2.83	2.79	<2	3.00
	2:03		Middle	-	17.30	17.30		7.84	7.84		31.17	31.17		89.9	90.9		7.16	7.24		2.59	2.66		3	
14/1/2015	20:25	Fine	Middle	-	15.80	15.80	15.80	7.95	7.95	7.96	30.18	30.18	30.48	84.7	84.5	84.3	6.96	6.95	6.93	3.57	3.53	3.52	<2	<2
	20:26		Middle	-	15.80	15.80		7.96	7.96		30.77	30.77		84.4	83.7		6.94	6.88		3.50	3.48		<2	
16/1/2015	20:32	Cloudy	Middle	-	17.60	17.60	17.55	7.79	7.79	7.79	30.34	30.34	30.67	89.4	91.4	90.8	7.14	7.25	7.22	3.75	3.55	3.64	<2	2.00
	20:33		Middle	-	17.50	17.50		7.79	7.79		30.99	30.99		91.0	91.3		7.22	7.26		3.64	3.60		2	
19/1/2015	23:05	Cloudy	Middle	-	16.20	16.20	16.20	7.90	7.90	7.90	31.06	31.07	31.06	89.5	89.6	90.4	7.29	7.30	7.36	5.42	5.44	5.56	5	4.50
	23:06		Middle	-	16.20	16.20		7.90	7.90		31.07	31.04		91.5	91.0		7.44	7.40		5.77	5.60		4	
21/1/2015	14:30	Fine	Middle	-	17.90	17.90	18.00	8.04	8.04	8.04	30.94	30.94	30.93	83.2	83.6	83.0	6.65	6.68	6.58	2.84	2.84	2.84	6	5.00
	14:32		Middle	-	18.10	18.10		8.04	8.04		30.92	30.92		82.6	82.4		6.50	6.49		2.83	2.83		4	
23/1/2015	15:30	Fine	Middle	-	18.00	18.00	18.10	8.02	8.02	8.02	31.06	31.06	31.06	79.8	79.8	79.4	6.26	6.26	6.21	2.37	2.42	2.42	8	8.50
	15:32		Middle	-	18.20	18.20		8.02	8.02		31.06	31.06		79.0	79.1		6.19	6.12		2.44	2.43		9	
26/1/2015	15:37	Fine	Middle	-	18.80	18.80	18.95	7.98	7.98	7.98	31.07	31.07	31.07	87.1	87.0	86.5	6.71	6.70	6.67	3.17	3.17	3.17	4	4.00
	15:39		Middle	-	19.10	19.10		7.98	7.98		31.07	31.07		86.7	85.3		6.68	6.57		3.18	3.14		4	

Remarks:

Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.

Due to malfunctioning of the intake transfer pump and resulting unavailability of seawater supply to Windsor House cooling intake pump house at the designated water tank, the water quality monitoring at the monitoring station C7 was cancelled on 8 Jan 2015 during flood tide and ebb tide.



**Water Monitoring Result at C1 - HKCEC
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	6:15	Cloudy	Middle	2.5	15.70	15.70	15.65	7.92	7.92	7.92	30.96	30.96	30.99	85.9	86.8	86.3	7.08	7.15	7.11	1.47	1.39	1.45	3	3.00
	6:16		Middle	2.5	15.60	15.60		7.92	7.92		31.01	31.04		86.4	86.0		7.12	7.09		1.44	1.51		3	
31/12/2014	19:10	Cloudy	Middle	3.0	17.80	17.80	17.80	8.09	8.09	8.09	31.50	31.50	31.50	71.1	70.7	70.7	5.59	5.55	5.56	2.31	2.29	2.30	3	3.50
	19:12		Middle	3.0	17.80	17.80		8.09	8.09		31.50	31.50		70.5	70.5		5.54	5.54		2.28	2.31		4	
3/1/2015	2:48	Cloudy	Middle	2.0	16.80	16.80	16.80	7.94	7.94	7.94	30.73	30.73	30.73	81.0	81.5	81.5	6.54	6.57	6.57	2.14	2.11	2.09	<2	<2
	2:49		Middle	2.0	16.80	16.80		7.94	7.94		30.73	30.73		81.6	81.7		6.58	6.59		2.06	2.04		<2	
6/1/2015	4:03	Cloudy	Middle	2.0	18.30	18.30	18.30	7.74	7.74	7.75	31.52	31.52	31.52	86.1	85.8	85.9	6.71	6.69	6.70	1.85	1.71	1.70	3	3.00
	4:04		Middle	2.0	18.30	18.30		7.76	7.76		31.52	31.52		86.0	85.8		6.70	6.69		1.58	1.64		3	
8/1/2015	2:56	Cloudy	Middle	2.0	17.00	17.00	16.98	7.86	7.86	7.87	31.45	31.46	31.46	81.7	81.9	81.6	6.54	6.55	6.53	1.95	1.98	1.95	8	8.00
	2:57		Middle	2.0	16.90	17.00		7.87	7.87		31.46	31.46		81.4	81.3		6.51	6.51		1.99	1.89		8	
10/1/2015	4:03	Cloudy	Middle	2.5	16.80	16.80	16.75	7.91	7.91	7.91	31.27	31.27	31.27	78.8	79.1	78.7	6.34	6.37	6.33	2.24	2.26	2.27	<2	2.00
	4:04		Middle	2.5	16.70	16.70		7.91	7.91		31.27	31.28		78.9	77.8		6.35	6.27		2.30	2.28		2	
12/1/2015	5:29	Cloudy	Middle	2.0	17.00	17.00	16.95	7.72	7.72	7.74	31.28	31.28	31.29	85.6	87.7	87.4	6.89	7.02	7.00	2.74	2.67	2.61	3	2.50
	5:30		Middle	2.0	16.90	16.90		7.75	7.75		31.30	31.30		88.0	88.2		7.04	7.06		2.53	2.50		2	
14/1/2015	16:42	Fine	Middle	3.0	17.80	17.80	17.85	7.88	7.88	7.90	31.88	31.88	31.84	80.0	77.8	77.6	6.25	6.11	6.08	2.30	2.32	2.33	2	3.00
	16:44		Middle	3.0	17.90	17.90		7.92	7.92		31.80	31.80		76.6	75.8		6.00	5.95		2.34	2.35		4	
16/1/2015	22:17	Cloudy	Middle	3.0	16.90	16.90	16.90	7.96	7.96	7.96	29.92	29.50	29.99	78.7	78.6	79.3	6.31	6.30	6.36	5.39	5.27	5.23	4	4.00
	22:18		Middle	3.0	16.90	16.90		7.96	7.96		30.19	30.34		79.8	80.2		6.40	6.43		5.24	5.03		4	
19/1/2015	2:54	Cloudy	Middle	2.0	15.60	15.60	15.55	7.94	7.94	7.95	31.05	31.05	31.08	85.4	85.5	85.6	7.05	7.05	7.06	4.34	4.14	4.15	4	3.50
	2:55		Middle	2.0	15.50	15.50		7.95	7.95		31.09	31.11		85.7	85.8		7.06	7.07		4.09	4.04		3	
21/1/2015	13:15	Fine	Middle	3.0	18.60	18.60	18.75	8.05	8.05	8.05	31.33	31.33	31.28	87.2	87.8	87.3	6.73	6.77	6.73	4.81	5.07	4.91	13	12.50
	13:17		Middle	3.0	18.90	18.90		8.05	8.05		31.23	31.23		87.2	86.9		6.72	6.69		4.91	4.86		12	
23/1/2015	14:25	Fine	Middle	2.5	17.80	17.80	17.90	8.02	8.02	8.02	31.26	31.26	31.26	84.8	84.0	83.4	6.65	6.57	6.52	4.32	4.32	4.36	6	6.00
	14:27		Middle	2.5	18.00	18.00		8.02	8.02		31.26	31.26		81.9	82.9		6.40	6.47		4.37	4.41		6	
26/1/2015	16:30	Fine	Middle	3.0	18.40	18.40	18.55	8.03	8.03	8.03	31.27	31.27	31.27	83.5	84.0	84.1	6.48	6.52	6.52	6.39	6.14	6.21	8	8.00
	16:32		Middle	3.0	18.70	18.70		8.03	8.03		31.26	31.26		84.1	84.9		6.52	6.56		6.14	6.15		8	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P1 - HKCEC Phase I
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	5:31	Cloudy	Middle	2.5	14.80	14.80	14.80	7.98	7.98	7.98	31.55	31.54	31.54	83.2	83.9	83.3	6.95	7.00	6.95	1.53	1.56	1.65	<2	<2
	5:32		Middle	2.5	14.80	14.80		7.98	7.98		31.54	31.54		83.3	82.9		6.95	6.91		1.71	1.80		<2	
31/12/2014	19:14	Cloudy	Middle	3.0	17.60	17.60	17.60	8.10	8.10	8.11	31.56	31.56	31.56	71.2	71.3	70.9	5.62	5.63	5.60	2.45	2.46	2.48	3	3.00
	19:16		Middle	3.0	17.60	17.60		8.11	8.11		31.55	31.55		70.9	70.3		5.59	5.55		2.50	2.49		3	
3/1/2015	2:12	Cloudy	Middle	2.0	16.50	16.50	16.50	7.95	7.95	7.95	31.45	31.45	31.46	82.5	83.1	83.3	6.65	6.70	6.72	1.04	1.06	1.08	<2	<2
	2:13		Middle	2.0	16.50	16.50		7.95	7.95		31.46	31.46		83.1	84.5		6.71	6.82		1.09	1.11		<2	
6/1/2015	3:28	Cloudy	Middle	2.0	18.40	18.40	18.45	7.56	7.56	7.59	31.20	31.21	31.21	85.5	87.0	86.4	6.65	6.77	6.72	2.65	2.68	2.56	4	4.00
	3:29		Middle	2.0	18.50	18.50		7.61	7.61		31.22	31.22		86.7	86.4		6.75	6.72		2.78	2.14		4	
8/1/2015	2:15	Cloudy	Middle	2.0	16.70	16.70	16.65	7.77	7.77	7.79	31.47	31.47	31.48	84.9	85.8	85.4	6.85	6.91	6.88	1.75	1.90	1.94	7	7.50
	2:16		Middle	2.0	16.60	16.60		7.80	7.80		31.48	31.48		85.6	85.2		6.89	6.86		2.01	2.10		8	
10/1/2015	3:33	Cloudy	Middle	2.5	16.10	16.10	16.10	7.87	7.87	7.88	31.39	31.39	31.40	83.4	83.6	83.3	6.82	6.82	6.79	1.77	1.84	1.82	3	2.50
	3:34		Middle	2.5	16.10	16.10		7.88	7.88		31.40	31.40		82.4	83.7		6.71	6.81		1.75	1.90		2	
12/1/2015	4:45	Cloudy	Middle	2.0	16.70	16.70	16.70	7.78	7.78	7.78	31.37	31.37	31.37	84.3	83.9	84.0	6.78	6.75	6.75	2.33	2.37	2.26	3	2.50
	4:46		Middle	2.0	16.70	16.70		7.78	7.78		31.37	31.37		83.7	83.9		6.73	6.75		2.19	2.15		2	
14/1/2015	17:04	Fine	Middle	3.0	17.10	17.10	17.25	7.97	7.97	7.98	31.72	31.72	31.73	76.1	73.3	72.7	6.03	5.81	5.76	2.26	2.31	2.31	4	3.50
	17:06		Middle	3.0	17.40	17.40		7.98	7.98		31.74	31.74		71.0	70.3		5.62	5.57		2.32	2.33		3	
16/1/2015	21:25	Cloudy	Middle	3.0	16.80	16.80	16.80	7.85	7.85	7.85	28.61	28.61	28.60	85.1	85.3	85.4	6.95	6.97	6.97	9.19	9.09	9.10	7	7.50
	21:26		Middle	3.0	16.80	16.80		7.85	7.85		28.59	28.59		85.5	85.7		6.96	6.98		9.06	9.04		8	
19/1/2015	2:13	Cloudy	Middle	2.0	15.00	15.00	15.00	7.95	7.95	7.95	31.00	31.00	31.05	92.9	93.8	93.6	7.74	7.81	7.79	6.19	6.27	6.15	4	4.00
	2:14		Middle	2.0	15.00	15.00		7.95	7.95		31.07	31.11		93.7	93.9		7.80	7.82		6.10	6.05		4	
21/1/2015	13:20	Fine	Middle	3.0	17.80	17.80	17.95	8.04	8.04	8.04	31.16	31.16	31.15	83.2	84.5	84.2	6.53	6.65	6.61	4.02	4.09	4.05	8	9.00
	13:22		Middle	3.0	18.10	18.10		8.04	8.04		31.13	31.13		84.2	84.7		6.61	6.65		4.09	4.00		10	
23/1/2015	14:50	Fine	Middle	2.5	17.80	17.80	17.90	8.03	8.03	8.03	31.23	31.23	31.23	83.2	84.0	83.5	6.54	6.60	6.56	6.17	6.16	6.07	11	11.50
	14:52		Middle	2.5	18.00	18.00		8.03	8.03		31.22	31.22		83.8	82.8		6.58	6.50		6.01	5.95		12	
26/1/2015	16:51	Fine	Middle	3.0	18.50	18.50	18.55	8.00	8.00	8.00	31.21	31.21	31.22	79.6	79.7	79.7	6.20	6.20	6.20	3.34	3.32	3.32	4	3.50
	16:52		Middle	3.0	18.60	18.60		8.00	8.00		31.22	31.22		79.8	79.6		6.21	6.19		3.30	3.30		3	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P3 - APA
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	5:39	Cloudy	Middle	2.5	15.50	15.50	15.45	7.96	7.96	7.97	31.30	31.30	31.32	86.7	87.0	87.0	7.16	7.18	7.18	1.52	1.81	1.79	3	3.00
	5:40		Middle	2.5	15.40	15.40		7.97	7.97		31.34	31.33		87.1	87.2		7.19	7.19		1.89	1.92		3	
31/12/2014	19:18	Cloudy	Middle	3.0	17.50	17.50	17.50	8.10	8.10	8.10	31.53	31.53	31.54	71.4	71.9	71.8	5.65	5.69	5.68	2.18	2.38	2.33	4	3.00
	19:20		Middle	3.0	17.50	17.50		8.09	8.09		31.54	31.54		71.9	71.9		5.69	5.69		2.40	2.35		2	
3/1/2015	2:21	Cloudy	Middle	2.0	16.60	16.60	16.60	7.94	7.94	7.95	31.24	31.24	31.25	84.7	85.3	85.3	6.83	6.88	6.88	2.02	2.10	2.03	2	2.00
	2:22		Middle	2.0	16.60	16.60		7.95	7.95		31.25	31.25		85.6	85.4		6.91	6.89		2.00	1.98		2	
6/1/2015	3:40	Cloudy	Middle	2.0	18.30	18.30	18.30	7.78	7.78	7.79	31.51	31.51	31.52	87.9	85.5	86.6	6.84	6.66	6.75	1.95	1.90	1.97	5	5.50
	3:41		Middle	2.0	18.30	18.30		7.80	7.80		31.53	31.53		86.3	86.7		6.73	6.75		1.99	2.03		6	
8/1/2015	2:21	Cloudy	Middle	2.0	16.60	16.60	16.60	7.88	7.88	7.88	31.51	31.51	31.51	84.1	83.9	83.9	6.78	6.76	6.76	2.12	2.09	2.08	7	6.50
	2:22		Middle	2.0	16.60	16.60		7.88	7.88		31.51	31.51		83.8	83.7		6.75	6.75		2.06	2.03		6	
10/1/2015	3:40	Cloudy	Middle	2.5	16.40	16.40	16.40	7.93	7.93	7.93	31.37	31.37	31.38	82.0	81.9	81.8	6.68	6.64	6.64	2.02	1.99	1.97	3	2.50
	3:41		Middle	2.5	16.40	16.40		7.93	7.93		31.38	31.38		81.8	81.6		6.62	6.60		1.91	1.96		2	
12/1/2015	4:57	Cloudy	Middle	2.0	16.90	16.90	16.90	7.82	7.82	7.83	31.39	31.39	31.39	80.0	80.7	80.9	6.42	6.46	6.49	2.02	2.11	2.05	2	2.00
	4:58		Middle	2.0	16.90	16.90		7.83	7.83		31.39	31.39		81.3	81.7		6.52	6.57		2.08	1.98		<2	
14/1/2015	17:00	Fine	Middle	3.0	17.30	17.30	17.25	7.90	7.90	7.93	31.62	31.65	31.69	70.0	69.0	68.6	5.56	5.48	5.45	2.89	2.91	2.89	2	3.00
	17:02		Middle	3.0	17.20	17.20		7.96	7.96		31.74	31.74		68.1	67.1		5.41	5.33		2.90	2.87		4	
16/1/2015	23:33	Cloudy	Middle	3.0	16.60	16.60	16.60	7.90	7.90	7.91	28.46	28.46	28.86	90.2	89.2	88.9	7.35	7.28	7.25	5.02	5.25	5.05	5	4.50
	23:34		Middle	3.0	16.60	16.60		7.91	7.91		29.26	29.26		88.3	87.7		7.21	7.15		5.04	4.90		4	
19/1/2015	2:20	Cloudy	Middle	2.0	15.30	15.30	15.30	7.96	7.96	7.94	31.12	31.12	31.11	84.1	84.8	84.9	6.99	7.06	7.05	5.12	5.19	5.17	5	4.50
	2:21		Middle	2.0	15.30	15.30		7.92	7.92		31.13	31.07		85.3	85.4		7.07	7.08		5.24	5.14		4	
21/1/2015	13:25	Fine	Middle	2.5	17.80	17.80	17.75	8.04	8.04	8.04	31.15	31.15	31.15	83.2	83.8	82.9	6.58	6.62	6.55	5.67	5.64	5.65	10	10.00
	13:27		Middle	2.5	17.70	17.70		8.04	8.04		31.14	31.14		82.4	82.0		6.51	6.48		5.64	5.63		10	
23/1/2015	14:40	Fine	Middle	2.5	17.50	17.50	17.60	8.03	8.03	8.03	31.26	31.26	31.26	80.4	80.5	80.4	6.37	6.37	6.36	5.94	5.71	5.75	8	8.00
	14:42		Middle	2.5	17.70	17.70		8.03	8.03		31.25	31.25		80.7	80.0		6.38	6.33		5.75	5.58		8	
26/1/2015	16:47	Fine	Middle	3.0	18.10	18.10	18.10	8.00	8.00	8.00	31.26	31.26	31.26	80.3	80.5	80.8	6.30	6.31	6.33	3.85	3.76	3.79	4	4.50
	16:49		Middle	3.0	18.10	18.10		8.00	8.00		31.25	31.25		81.0	81.5		6.34	6.38		3.76	3.78		5	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P4 - SOC
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	5:56	Cloudy	Middle	2.5	15.40	15.40	15.40	7.94	7.94	7.94	31.40	31.40	31.32	87.3	88.8	87.9	7.19	7.33	7.26	1.48	1.40	1.46	<2	<2
	5:57		Middle	2.5	15.40	15.40		7.94	7.94		31.23	31.23		86.8	88.7		7.18	7.32		1.51	1.46		<2	
31/12/2014	19:22	Cloudy	Middle	3.0	17.70	17.70	17.70	8.09	8.09	8.09	31.52	31.52	31.53	66.2	67.5	66.8	5.23	5.33	5.27	3.56	3.54	3.55	2	2.00
	19:24		Middle	3.0	17.70	17.70		8.09	8.09		31.54	31.54		67.0	66.5		5.29	5.24		3.53	3.56		2	
3/1/2015	2:30	Cloudy	Middle	2.0	16.60	16.60	16.65	7.90	7.90	7.91	31.19	31.19	31.19	90.0	90.8	90.8	7.25	7.31	7.32	1.43	1.45	1.43	3	2.50
	2:31		Middle	2.0	16.70	16.70		7.91	7.91		31.19	31.19		91.1	91.3		7.34	7.36		1.51	1.32		2	
6/1/2015	3:48	Cloudy	Middle	2.0	18.30	18.30	18.30	7.68	7.68	7.70	31.51	31.51	31.51	89.7	89.9	90.8	6.98	6.99	7.07	1.16	1.00	1.10	2	2.00
	3:49		Middle	2.0	18.30	18.30		7.71	7.71		31.50	31.50		91.8	91.9		7.15	7.17		1.08	1.14		2	
8/1/2015	2:34	Cloudy	Middle	2.0	16.60	16.60	16.60	7.72	7.72	7.74	31.19	31.19	31.20	91.1	90.9	91.1	7.34	7.33	7.35	2.52	2.62	2.49	3	2.50
	2:35		Middle	2.0	16.60	16.60		7.76	7.76		31.20	31.20		91.3	91.2		7.36	7.35		2.39	2.42		2	
10/1/2015	3:50	Cloudy	Middle	2.5	16.20	16.20	16.20	7.83	7.83	7.85	31.11	31.11	31.14	89.1	89.6	88.8	7.25	7.29	7.22	1.85	1.77	1.81	<2	<2
	3:51		Middle	2.5	16.20	16.20		7.86	7.86		31.17	31.17		88.1	88.3		7.16	7.18		1.75	1.88		<2	
12/1/2015	5:09	Cloudy	Middle	2.0	16.60	16.60	16.65	7.80	7.80	7.81	31.41	31.41	31.41	88.0	88.3	88.7	7.08	7.11	7.14	1.66	1.40	1.49	<2	<2
	5:10		Middle	2.0	16.70	16.70		7.81	7.81		31.40	31.40		88.9	89.7		7.16	7.22		1.46	1.44		<2	
14/1/2015	16:51	Fine	Middle	3.0	17.20	17.20	17.20	7.91	7.91	7.93	31.69	31.69	31.71	76.7	74.4	73.6	6.09	5.91	5.85	1.64	1.61	1.60	4	3.50
	16:53		Middle	3.0	17.20	17.20		7.95	7.95		31.72	31.72		72.5	70.9		5.76	5.63		1.58	1.57		3	
16/1/2015	21:45	Cloudy	Middle	3.0	16.60	16.60	16.60	7.92	7.92	7.92	29.03	29.03	29.23	89.7	90.1	90.1	7.33	7.36	7.35	4.30	4.32	4.22	5	5.00
	21:46		Middle	3.0	16.60	16.60		7.92	7.92		29.42	29.42		90.3	90.1		7.36	7.35		4.12	4.14		5	
19/1/2015	2:27	Cloudy	Middle	2.0	15.30	15.30	15.30	7.91	7.91	7.92	30.83	30.83	30.83	87.7	88.4	88.0	7.28	7.33	7.30	5.62	5.29	5.30	6	6.00
	2:28		Middle	2.0	15.30	15.30		7.92	7.92		30.83	30.83		88.0	87.9		7.29	7.29		5.22	5.06		6	
21/1/2015	13:30	Fine	Middle	2.5	17.60	17.60	17.65	8.03	8.03	8.03	31.14	31.14	31.14	82.9	83.9	83.5	6.56	6.64	6.60	4.97	4.82	4.84	9	8.00
	13:32		Middle	2.5	17.70	17.70		8.03	8.03		31.14	31.14		83.7	83.4		6.62	6.59		4.79	4.77		7	
23/1/2015	14:35	Fine	Middle	2.5	17.50	17.50	17.60	8.02	8.02	8.02	31.19	31.19	31.20	76.0	76.4	76.5	6.02	6.05	6.06	4.45	4.57	4.48	5	5.50
	14:37		Middle	2.5	17.70	17.70		8.02	8.02		31.21	31.21		77.0	76.6		6.09	6.06		4.58	4.33		6	
26/1/2015	16:42	Fine	Middle	3.0	18.00	18.00	18.05	8.01	8.01	8.01	31.27	31.27	31.27	80.5	80.7	80.6	6.30	6.32	6.31	4.52	4.64	4.56	5	4.50
	16:44		Middle	3.0	18.10	18.10		8.01	8.01		31.26	31.26		80.5	80.6		6.31	6.32		4.49	4.57		4	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P5 - WCT / RT / IT
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		
29/12/2014	6:04	Cloudy	Middle	2.5	15.80	15.80	15.80	7.89	7.89	7.90	31.53	31.53	31.50	81.2	80.8	81.0	6.65	6.61	6.63	1.13	1.07	1.14	<2	<2
	6:05		Middle	2.5	15.80	15.80		7.90	7.90		31.46	31.46		80.7	81.1		6.61	6.64		1.26	1.09		<2	
31/12/2014	19:26	Cloudy	Middle	3.0	17.60	17.60	17.70	8.11	8.11	8.12	31.53	31.53	31.53	69.3	68.7	68.4	5.47	5.42	5.40	2.49	2.46	2.46	2	2.00
	19:28		Middle	3.0	17.80	17.80		8.12	8.12		31.53	31.53		68.1	67.5		5.38	5.33		2.45	2.45		2	
3/1/2015	2:36	Cloudy	Middle	2.0	16.90	16.90	16.85	7.92	7.92	7.93	30.98	30.98	30.98	84.4	85.1	84.9	6.79	6.84	6.83	1.78	1.85	1.82	<2	<2
	2:37		Middle	2.0	16.80	16.80		7.93	7.93		30.98	30.98		85.2	84.7		6.85	6.82		1.76	1.87		<2	
6/1/2015	3:55	Cloudy	Middle	2.0	18.30	18.30	18.30	7.81	7.81	7.81	31.45	31.45	31.47	84.3	84.6	84.8	6.57	6.59	6.61	1.52	1.54	1.50	2	2.00
	3:56		Middle	2.0	18.30	18.30		7.81	7.81		31.49	31.49		85.1	85.3		6.63	6.65		1.50	1.45		2	
8/1/2015	2:47	Cloudy	Middle	2.0	16.90	16.90	16.85	7.84	7.84	7.84	31.49	31.49	31.50	83.7	83.9	83.6	6.72	6.73	6.71	2.08	2.10	2.07	5	5.00
	2:48		Middle	2.0	16.80	16.80		7.84	7.84		31.51	31.51		82.9	84.0		6.65	6.74		2.12	1.98		5	
10/1/2015	3:57	Cloudy	Middle	2.5	16.40	16.40	16.40	7.94	7.94	7.95	31.20	31.20	31.27	83.3	82.8	82.4	6.73	6.70	6.66	2.11	2.13	2.20	<2	<2
	3:58		Middle	2.5	16.40	16.40		7.95	7.95		31.34	31.34		82.0	81.3		6.63	6.56		2.34	2.20		<2	
12/1/2015	5:21	Cloudy	Middle	2.0	16.60	16.60	16.60	7.84	7.84	7.85	31.70	31.70	31.67	83.0	84.1	84.2	6.67	6.77	6.78	2.39	2.49	2.51	2	2.00
	5:22		Middle	2.0	16.60	16.60		7.85	7.85		31.63	31.63		84.7	85.1		6.82	6.85		2.68	2.46		2	
14/1/2015	16:47	Fine	Middle	3.0	17.20	17.20	17.30	7.82	7.82	7.88	31.77	31.77	31.78	77.2	74.2	73.9	6.11	5.88	5.85	3.82	3.79	3.69	3	3.00
	16:49		Middle	3.0	17.40	17.40		7.93	7.93		31.78	31.78		72.3	71.8		5.73	5.68		3.63	3.53		3	
16/1/2015	21:58	Cloudy	Middle	3.0	16.80	16.80	16.80	7.93	7.93	7.93	28.25	28.24	28.25	83.0	83.2	83.4	6.97	6.92	6.92	5.55	5.33	5.31	6	5.50
	21:59		Middle	3.0	16.80	16.80		7.93	7.93		28.19	28.32		83.5	83.8		6.90	6.89		5.22	5.13		5	
19/1/2015	2:41	Cloudy	Middle	2.0	15.50	15.50	15.50	7.93	7.93	7.94	31.11	31.11	31.12	88.9	89.1	89.3	7.33	7.35	7.36	4.83	4.87	4.92	5	5.00
	2:42		Middle	2.0	15.50	15.50		7.94	7.94		31.13	31.13		89.4	89.6		7.37	7.39		4.96	5.02		5	
21/1/2015	13:40	Fine	Middle	2.5	18.00	18.00	18.05	8.07	8.07	8.07	31.20	31.20	31.20	81.6	83.6	82.3	6.40	6.56	6.46	7.02	7.05	7.04	7	6.50
	13:42		Middle	2.5	18.10	18.10		8.07	8.07		31.20	31.20		82.3	81.7		6.46	6.40		7.06	7.04		6	
23/1/2015	14:31	Fine	Middle	2.5	17.50	17.50	17.70	8.02	8.02	8.03	31.23	31.23	31.22	82.7	83.7	83.0	6.53	6.64	6.56	5.44	5.36	5.41	6	6.00
	14:33		Middle	2.5	17.90	17.90		8.03	8.03		31.21	31.21		82.8	82.7		6.53	6.52		5.54	5.30		6	
26/1/2015	16:37	Fine	Middle	3.0	18.10	18.10	18.25	8.06	8.06	8.06	31.28	31.28	31.28	78.7	78.4	78.0	6.14	6.11	6.08	5.55	5.54	5.47	6	6.00
	16:39		Middle	3.0	18.40	18.40		8.06	8.06		31.27	31.27		77.6	77.3		6.05	6.02		5.46	5.31		6	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	4:00	Cloudy	Middle	3.5	15.00	15.00	15.00	7.84	7.84	7.86	30.41	30.42	30.43	79.8	81.7	81.3	6.67	6.84	6.81	2.74	2.72	2.71	2	2.00
	4:01		Middle	3.5	15.00	15.00		7.87	7.87		30.44	30.44		81.5	82.1		6.85	6.88		2.70	2.68		2	
31/12/2014	19:35	Cloudy	Middle	3.0	17.70	17.70	17.70	8.12	8.12	8.13	31.53	31.53	31.54	75.2	74.9	74.4	5.93	5.86	5.85	2.68	2.68	2.68	3	3.00
	19:37		Middle	3.0	17.70	17.70		8.13	8.13		31.54	31.54		74.6	72.8		5.87	5.73		2.68	2.68		3	
3/1/2015	0:10	Cloudy	Middle	3.0	17.20	17.20	17.15	7.75	7.75	7.76	31.22	31.22	31.22	91.1	91.3	91.1	7.27	7.29	7.28	2.06	2.26	2.13	2	2.50
	0:11		Middle	3.0	17.10	17.10		7.77	7.77		31.22	31.22		90.9	91.2		7.26	7.29		2.12	2.08		3	
6/1/2015	1:20	Cloudy	Middle	3.0	18.70	18.70	18.75	7.68	7.68	7.69	31.46	31.46	31.50	82.4	83.9	84.0	6.37	6.48	6.49	1.64	1.69	1.69	4	3.50
	1:21		Middle	3.0	18.80	18.80		7.69	7.69		31.53	31.53		84.7	85.1		6.54	6.57		1.81	1.61		3	
8/1/2015	1:01	Cloudy	Middle	3.0	17.50	17.50	17.45	7.77	7.77	7.78	31.38	31.38	31.38	84.8	82.9	83.4	6.70	6.54	6.60	2.06	2.10	2.05	2	2.50
	1:02		Middle	3.0	17.40	17.40		7.78	7.78		31.38	31.38		82.4	83.4		6.54	6.62		2.03	2.00		3	
10/1/2015	1:28	Cloudy	Middle	3.5	16.80	16.80	16.80	7.85	7.85	7.86	31.26	31.26	31.27	85.3	85.8	84.9	6.85	6.89	6.81	1.90	1.75	1.86	<2	<u><2</u>
	1:29		Middle	3.5	16.80	16.80		7.86	7.86		31.28	31.28		84.1	84.2		6.75	6.76		1.84	1.95		<2	
12/1/2015	2:38	Cloudy	Middle	3.5	17.10	17.10	17.10	7.78	7.78	7.79	31.20	31.20	31.24	88.0	87.8	87.2	7.02	7.00	6.96	2.88	2.78	2.91	<2	2.00
	2:39		Middle	3.5	17.10	17.10		7.80	7.80		31.27	31.27		85.9	87.2		6.86	6.97		2.95	3.02		2	
14/1/2015	19:50	Fine	Middle	3.5	15.80	15.80	15.80	7.95	7.95	7.96	31.07	31.07	31.09	81.7	81.6	81.8	6.71	6.72	6.72	4.63	4.71	4.62	3	2.50
	19:51		Middle	3.5	15.80	15.80		7.96	7.96		31.11	31.11		82.2	81.5		6.75	6.69		4.59	4.56		2	
16/1/2015	20:07	Cloudy	Middle	3.5	17.30	17.30	17.30	7.74	7.74	7.75	31.12	31.19	31.18	91.4	91.3	91.3	7.28	7.27	7.27	4.18	4.40	4.32	4	4.00
	20:08		Middle	3.5	17.30	17.30		7.76	7.76		31.20	31.21		91.3	91.1		7.27	7.26		4.25	4.43		4	
19/1/2015	0:15	Cloudy	Middle	3.0	16.10	16.10	16.10	7.87	7.87	7.87	31.02	31.02	31.03	89.3	89.9	88.7	7.36	7.37	7.29	6.10	6.01	6.04	3	3.00
	0:16		Middle	3.0	16.10	16.10		7.87	7.87		31.03	31.03		88.0	87.7		7.28	7.16		6.04	5.99		3	
21/1/2015	14:00	Fine	Middle	3.0	17.90	17.90	17.95	8.06	8.06	8.06	31.22	31.22	31.22	86.7	86.4	86.3	6.81	6.79	6.78	3.85	3.77	3.76	13	12.50
	14:02		Middle	3.0	18.00	18.00		8.06	8.06		31.21	31.21		86.2	85.9		6.77	6.74		3.73	3.70		12	
23/1/2015	15:00	Fine	Middle	3.5	18.00	18.00	18.10	8.05	8.05	8.05	31.28	31.28	31.28	81.3	81.9	81.6	6.37	6.42	6.39	4.09	4.09	4.13	7	7.50
	15:02		Middle	3.5	18.20	18.20		8.05	8.05		31.27	31.27		82.2	81.0		6.44	6.34		4.14	4.18		8	
26/1/2015	17:05	Fine	Middle	3.0	17.90	17.90	18.00	8.00	8.00	8.00	31.25	31.25	31.25	78.0	79.4	78.9	6.12	6.23	6.19	3.30	3.30	3.28	5	5.00
	17:07		Middle	3.0	18.10	18.10		8.00	8.00		31.24	31.24		79.0	79.1		6.20	6.21		3.24	3.27		5	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



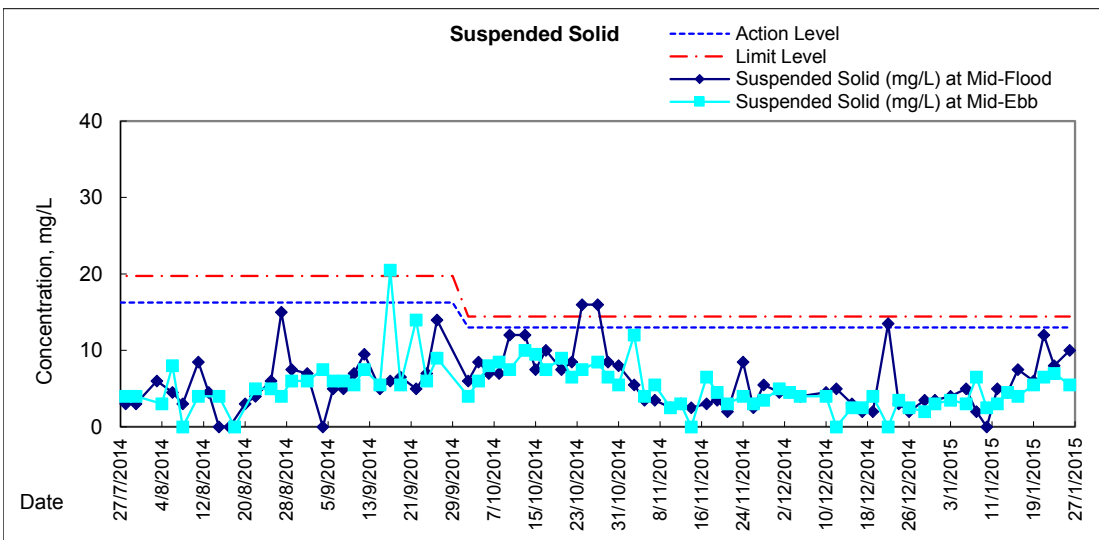
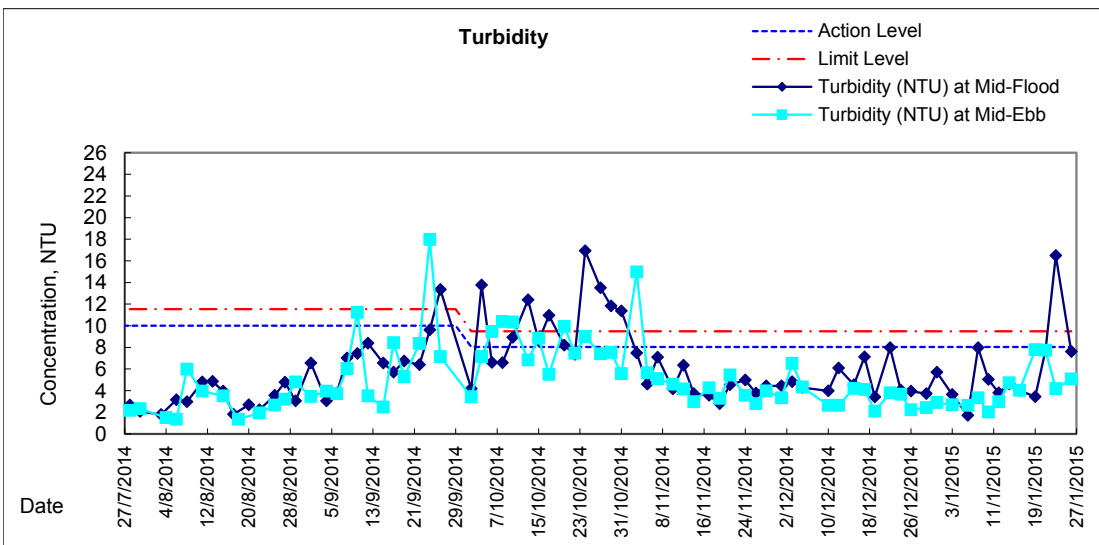
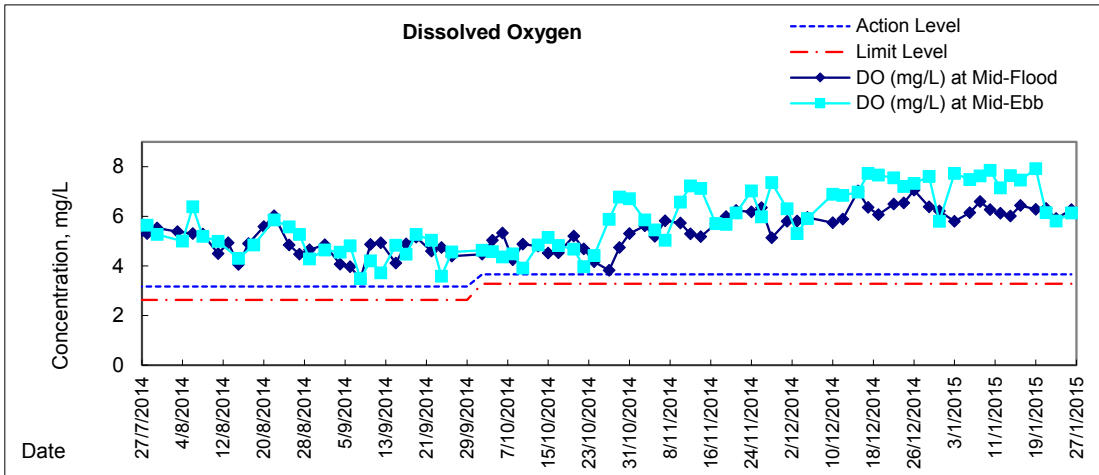
**Water Monitoring Result at WSD19 - Sheung Wan
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	4:45	Cloudy	Middle	3.0	15.30	15.30	15.25	7.80	7.80	7.80	31.56	31.56	31.55	92.9	92.4	92.0	7.68	7.64	7.60	2.39	2.46	2.44	2	2.00
	4:46		Middle	3.0	15.20	15.20		7.80	7.80		31.53	31.53		90.7	91.8		7.50	7.59		2.48	2.41		2	
31/12/2014	18:30	Cloudy	Middle	3.0	18.20	18.20	18.25	8.15	8.15	8.14	31.53	31.53	31.53	73.0	73.0	73.8	5.85	5.69	5.79	2.84	2.89	2.90	3	3.00
	18:32		Middle	3.0	18.30	18.30		8.12	8.12		31.53	31.53		74.3	74.7		5.79	5.83		2.93	2.93		3	
3/1/2015	1:25	Cloudy	Middle	2.5	17.10	17.10	17.10	7.68	7.68	7.69	31.25	31.27	31.27	97.1	96.9	96.9	7.75	7.73	7.73	2.74	2.79	2.68	3	3.50
	1:26		Middle	2.5	17.10	17.10		7.69	7.69		31.27	31.27		96.4	97.0		7.70	7.74		2.72	2.48		4	
6/1/2015	2:10	Cloudy	Middle	2.5	18.80	18.80	18.80	7.59	7.59	7.62	31.47	31.47	31.48	97.3	97.2	96.7	7.52	7.51	7.48	2.58	2.69	2.64	3	3.00
	2:11		Middle	2.5	18.80	18.80		7.64	7.64		31.48	31.48		96.7	95.7		7.47	7.40		2.73	2.56		3	
8/1/2015	1:37	Cloudy	Middle	2.5	17.40	17.40	17.40	7.67	7.67	7.68	31.27	31.27	31.26	95.5	96.8	96.1	7.58	7.68	7.62	3.37	3.43	3.35	7	6.50
	1:38		Middle	2.5	17.40	17.40		7.68	7.68		31.25	31.25		95.9	96.0		7.61	7.62		3.30	3.28		6	
10/1/2015	2:46	Cloudy	Middle	2.5	16.80	16.80	16.80	7.80	7.80	7.82	31.34	31.35	31.36	98.4	99.3	97.8	7.90	7.97	7.86	2.26	1.94	2.02	3	2.50
	2:47		Middle	2.5	16.80	16.80		7.83	7.83		31.38	31.38		97.0	96.6		7.79	7.76		1.84	2.02		2	
12/1/2015	3:35	Cloudy	Middle	2.5	17.10	17.10	17.10	7.84	7.84	7.85	31.39	31.39	31.39	88.5	89.4	89.5	7.06	7.13	7.14	2.97	2.89	2.98	3	3.00
	3:36		Middle	2.5	17.10	17.10		7.85	7.85		31.39	31.39		90.0	90.1		7.18	7.18		2.95	3.11		3	
14/1/2015	18:32	Fine	Middle	2.5	15.20	15.20	15.20	7.94	7.94	7.93	31.20	31.20	31.24	91.7	92.7	92.0	7.64	7.69	7.64	4.47	4.61	4.73	4	4.50
	18:33		Middle	2.5	15.20	15.20		7.92	7.92		31.28	31.28		91.6	91.8		7.61	7.62		4.88	4.95		5	
16/1/2015	19:09	Cloudy	Middle	2.5	17.30	17.30	17.30	7.66	7.66	7.67	30.96	30.96	30.98	92.0	91.5	93.6	7.33	7.30	7.46	4.04	4.12	4.04	4	4.00
	19:10		Middle	2.5	17.30	17.30		7.68	7.68		31.00	31.00		95.6	95.1		7.62	7.58		4.02	3.98		4	
19/1/2015	1:25	Cloudy	Middle	2.5	15.70	15.70	15.70	7.81	7.81	7.82	31.26	31.25	31.26	96.6	95.8	96.5	7.93	7.86	7.92	7.72	7.86	7.80	5	5.50
	1:26		Middle	2.5	15.70	15.70		7.82	7.82		31.25	31.28		97.3	96.3		7.98	7.90		7.78	7.82		6	
21/1/2015	11:15	Fine	Middle	3.0	17.40	17.40	17.45	8.04	8.04	8.04	31.15	31.15	31.16	77.6	77.5	77.3	6.16	6.15	6.14	7.89	7.60	7.74	7	6.50
	11:17		Middle	3.0	17.50	17.50		8.03	8.03		31.17	31.17		77.2	76.8		6.13	6.10		7.59	7.89		6	
23/1/2015	13:50	Fine	Middle	3.5	18.40	18.40	18.40	7.98	7.98	7.98	31.18	31.18	31.20	74.7	74.8	74.5	5.82	5.83	5.81	4.06	4.21	4.20	8	7.00
	13:52		Middle	3.5	18.40	18.40		7.98	7.98		31.21	31.21		74.3	74.2		5.80	5.79		4.25	4.26		6	
26/1/2015	15:50	Fine	Middle	3.5	18.30	18.30	18.45	7.96	7.96	7.96	31.20	31.20	31.20	78.6	79.3	78.8	6.12	6.17	6.13	5.12	5.13	5.09	5	5.50
	15:52		Middle	3.5	18.60	18.60		7.96	7.96		31.20	31.20		78.7	78.4		6.12	6.09		5.13	4.97		6	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.

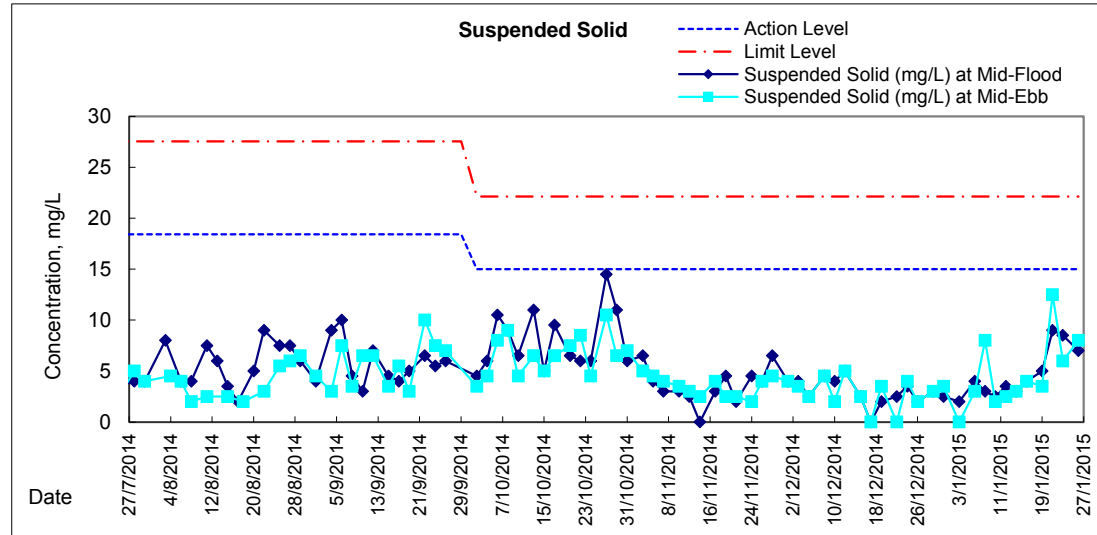
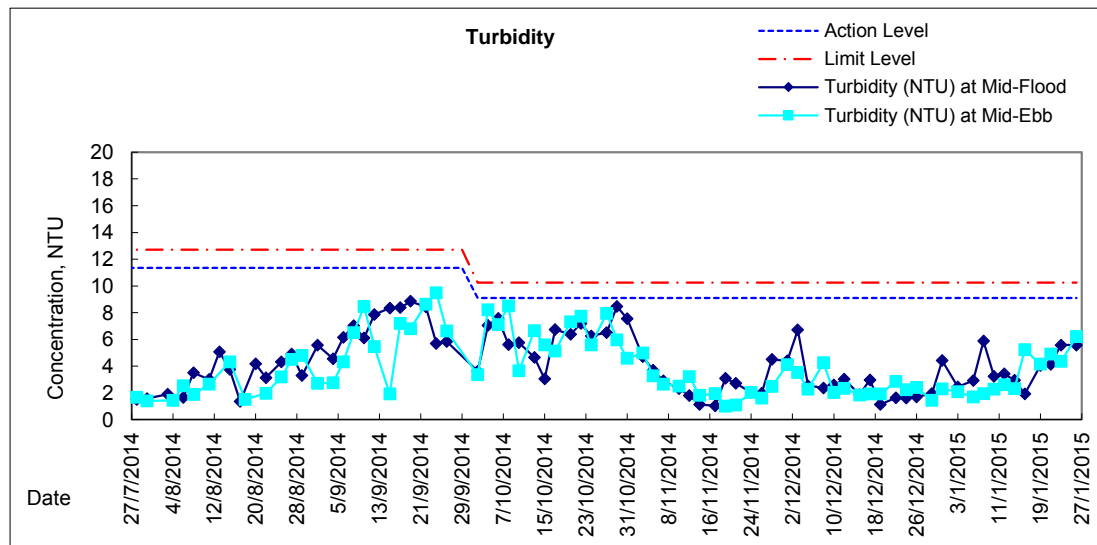
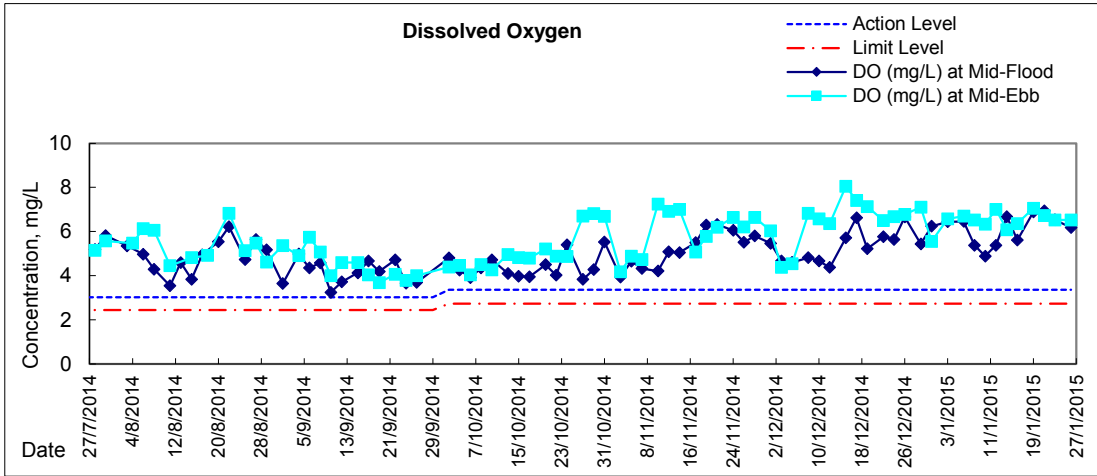


Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan



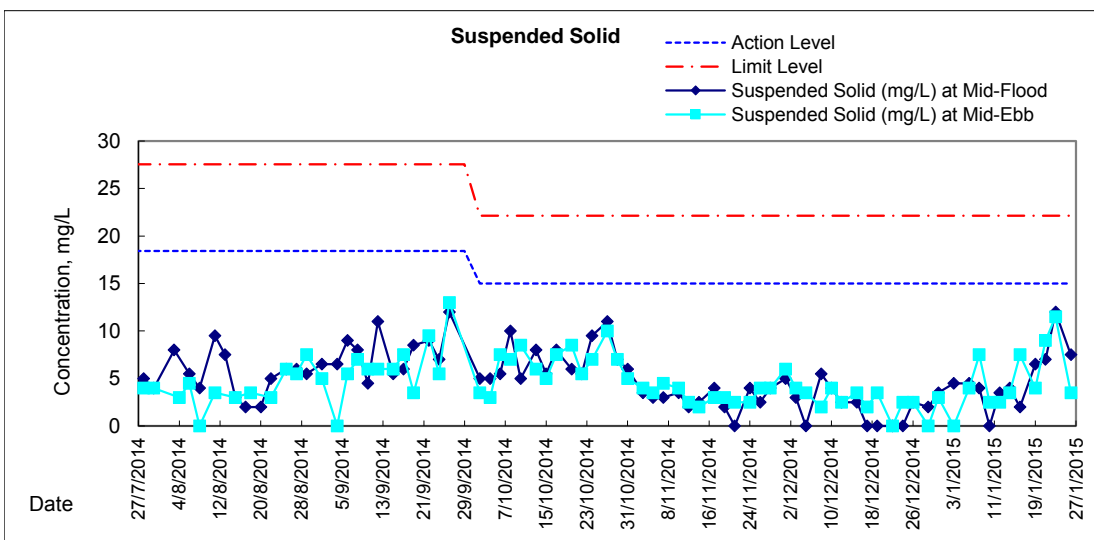
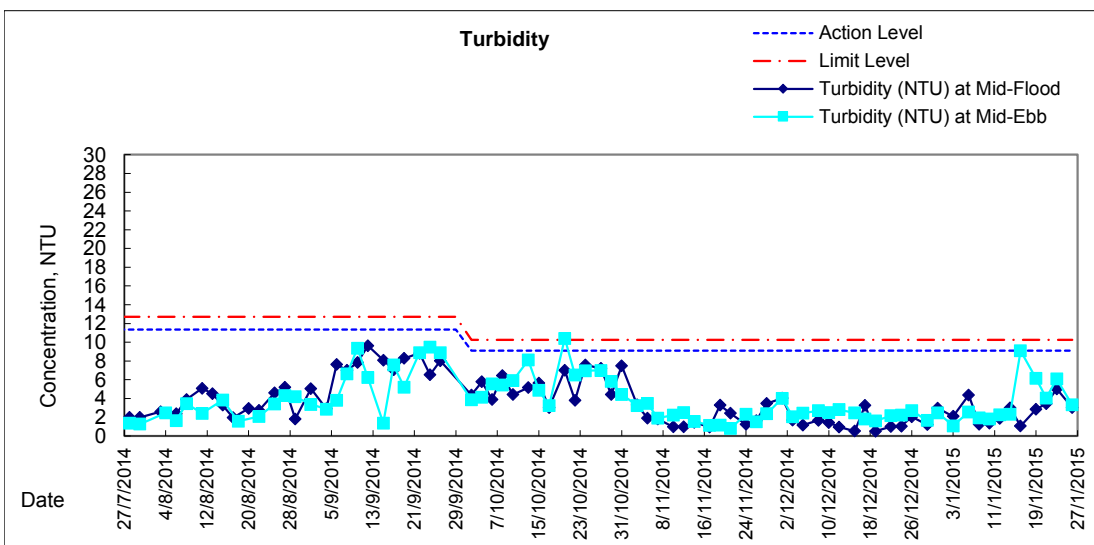
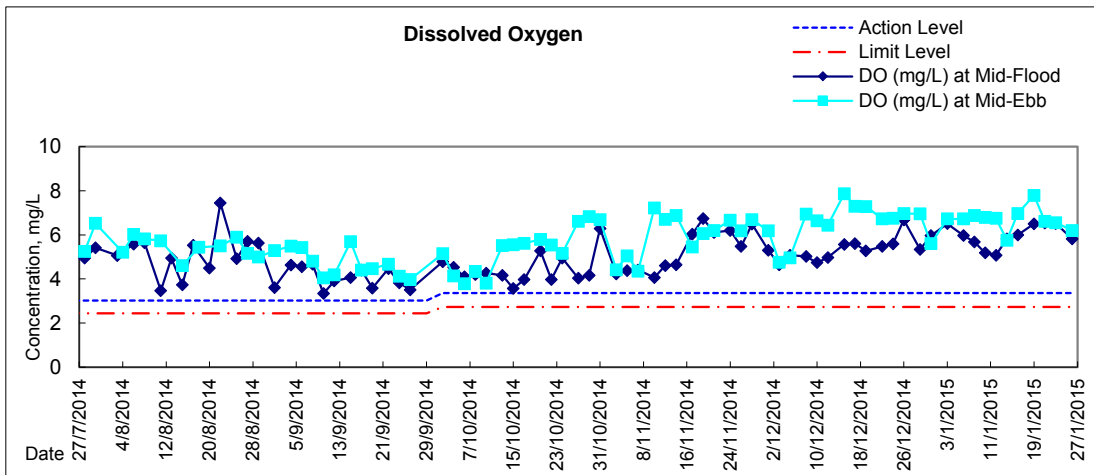


Graphic Presentation of Water Quality Result of C1 - HKCEC



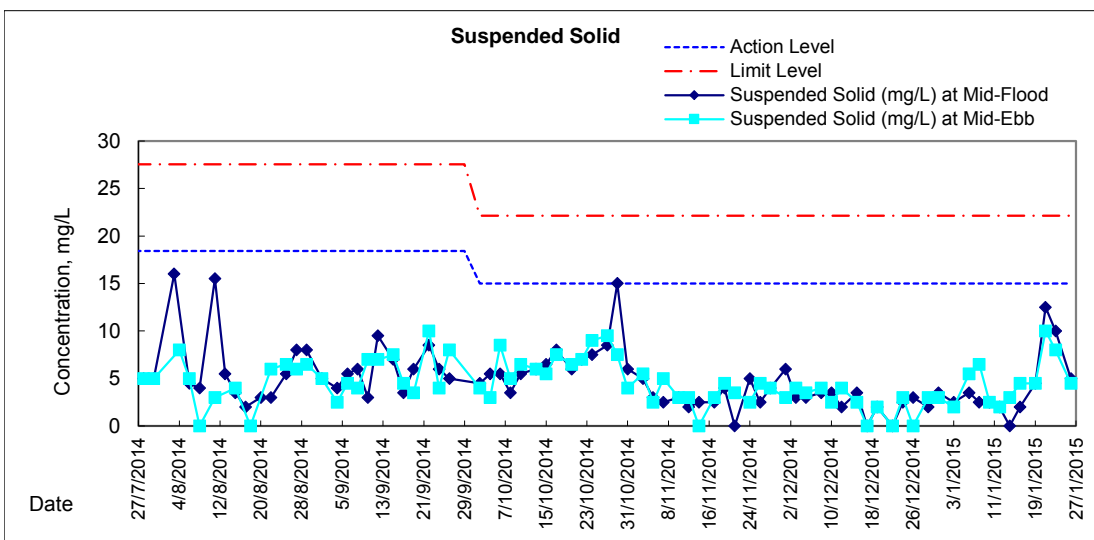
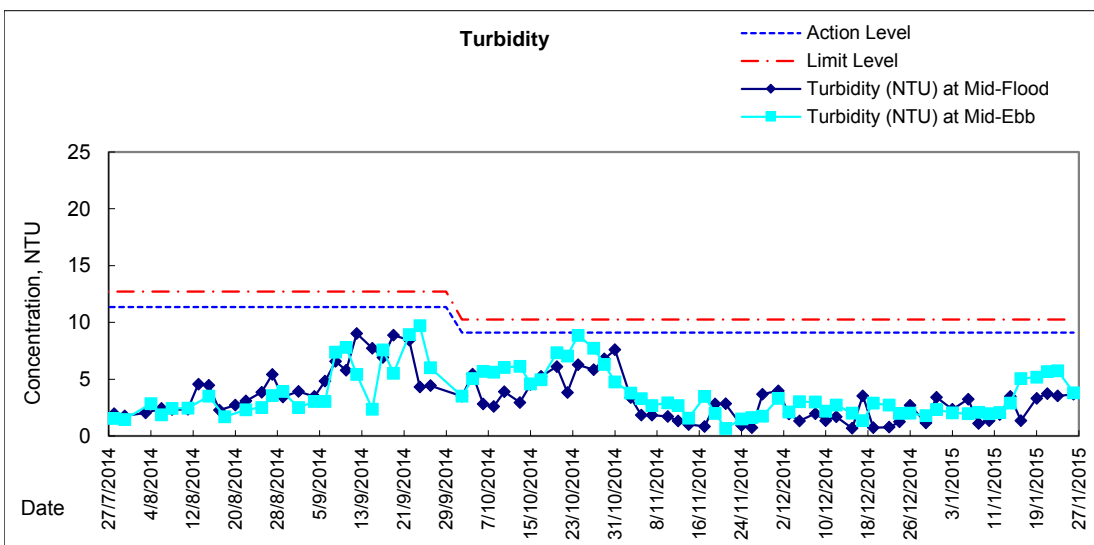
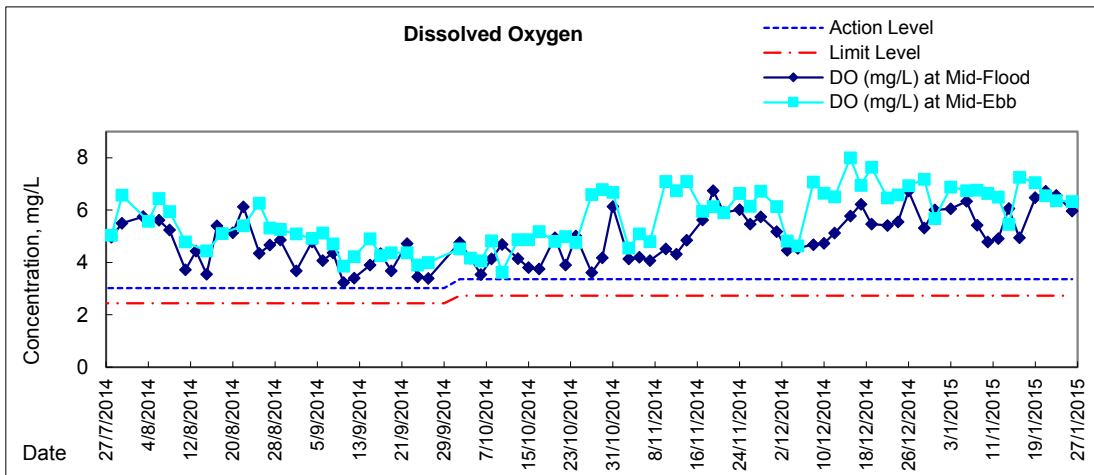


Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I



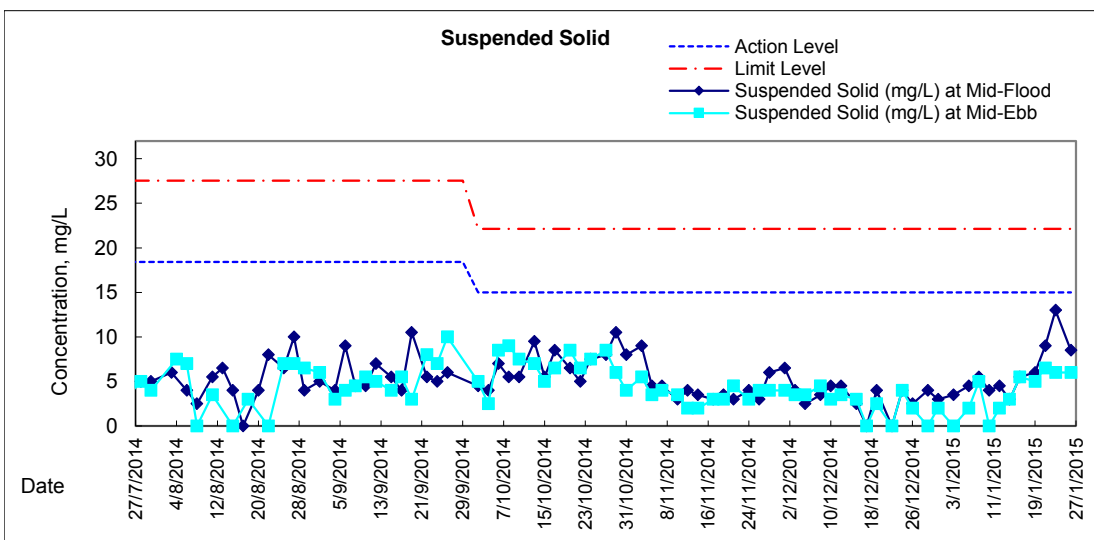
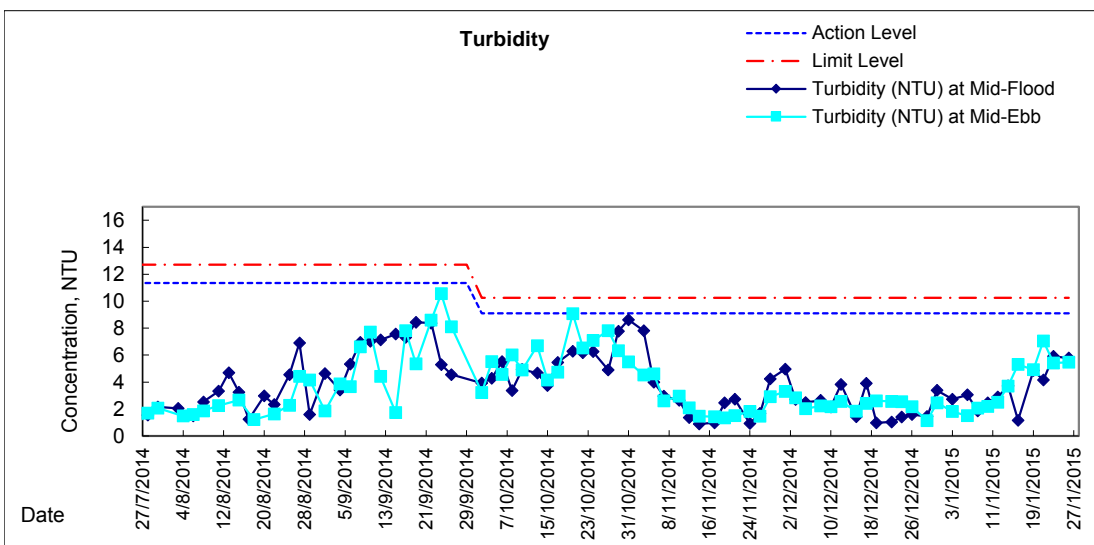
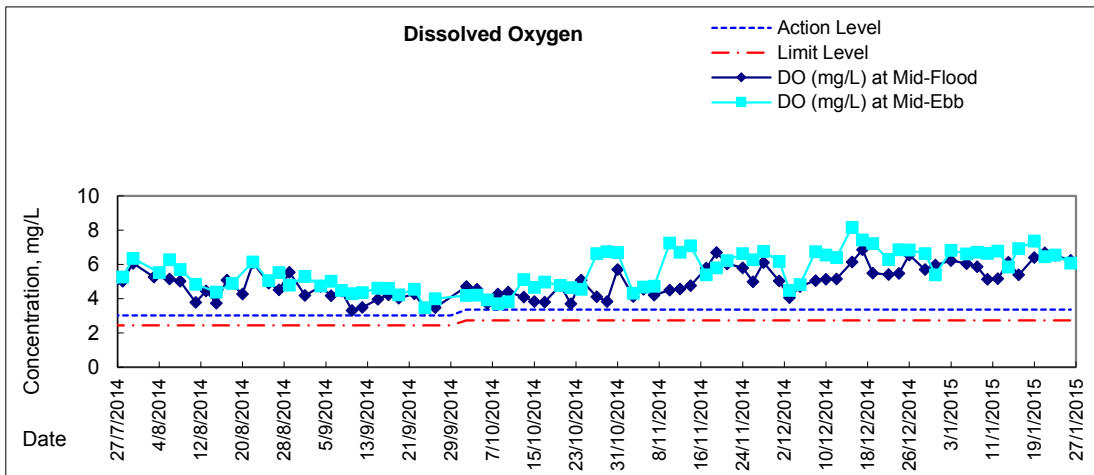


Graphic Presentation of Water Quality Result of P3 - APA



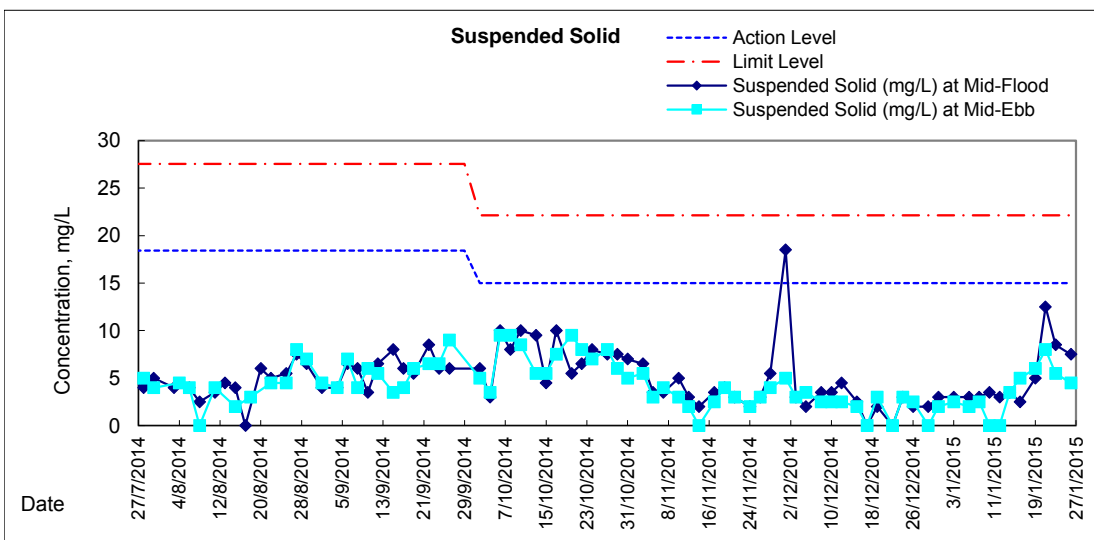
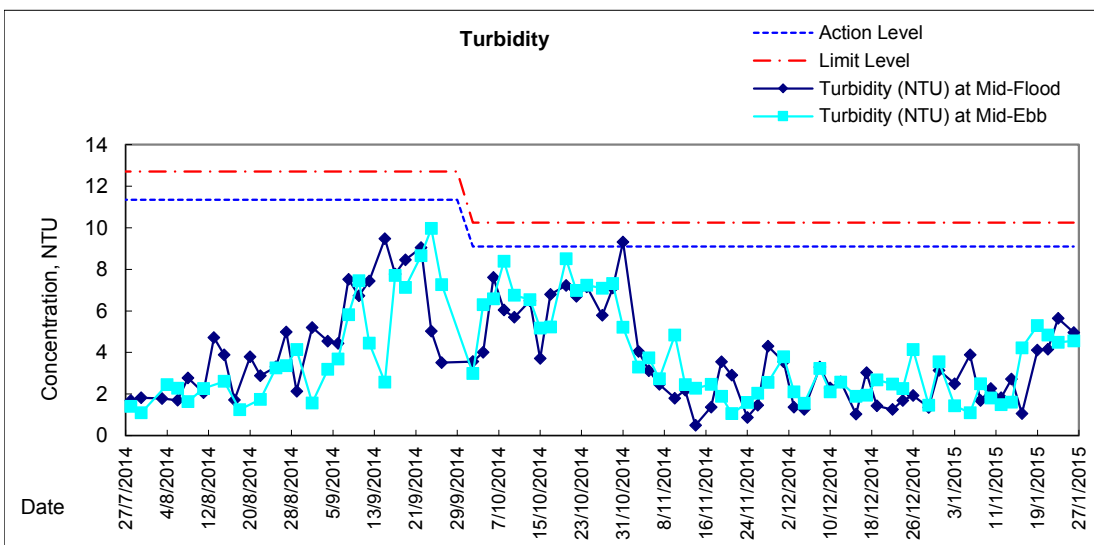
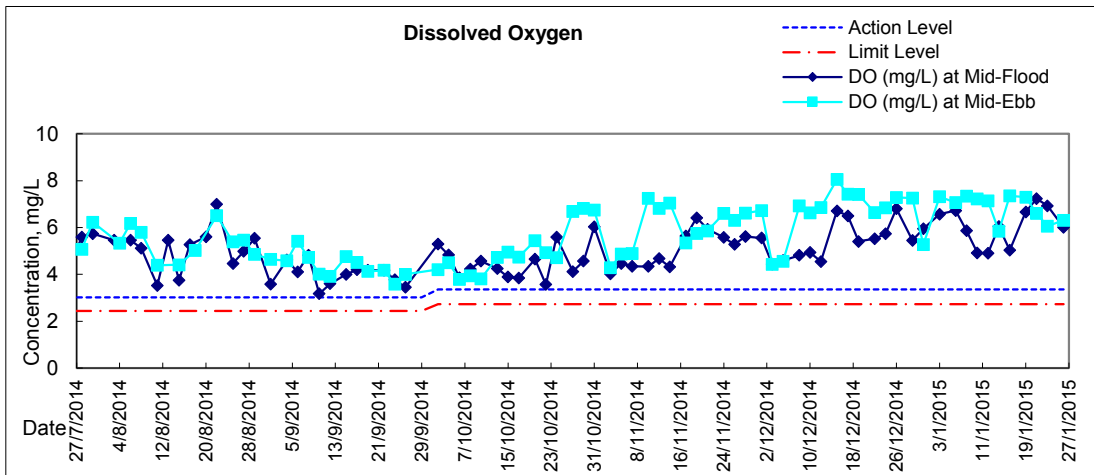


Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT



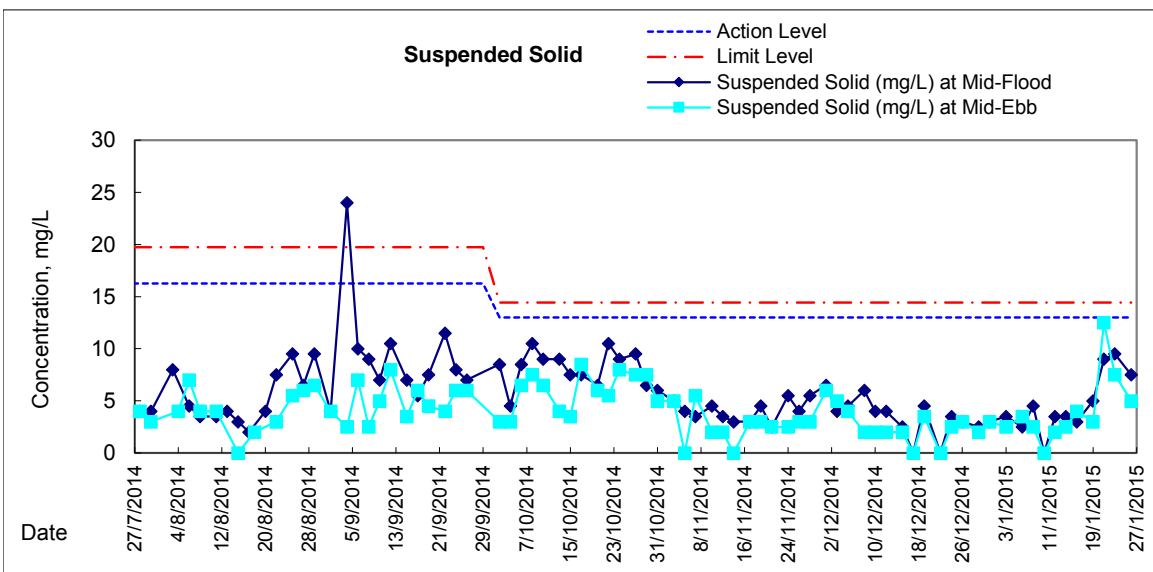
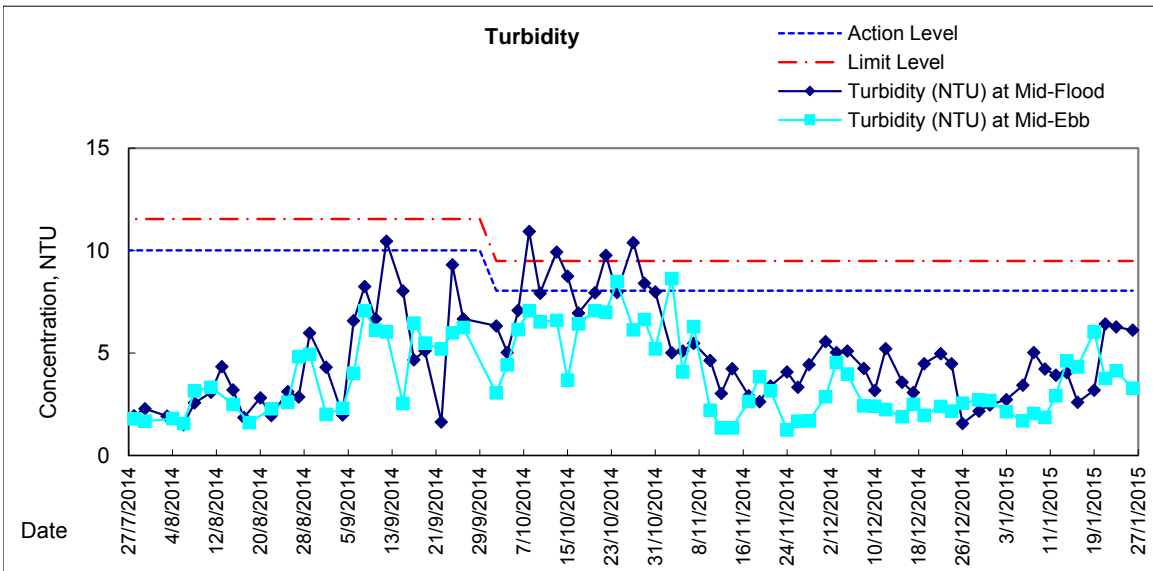
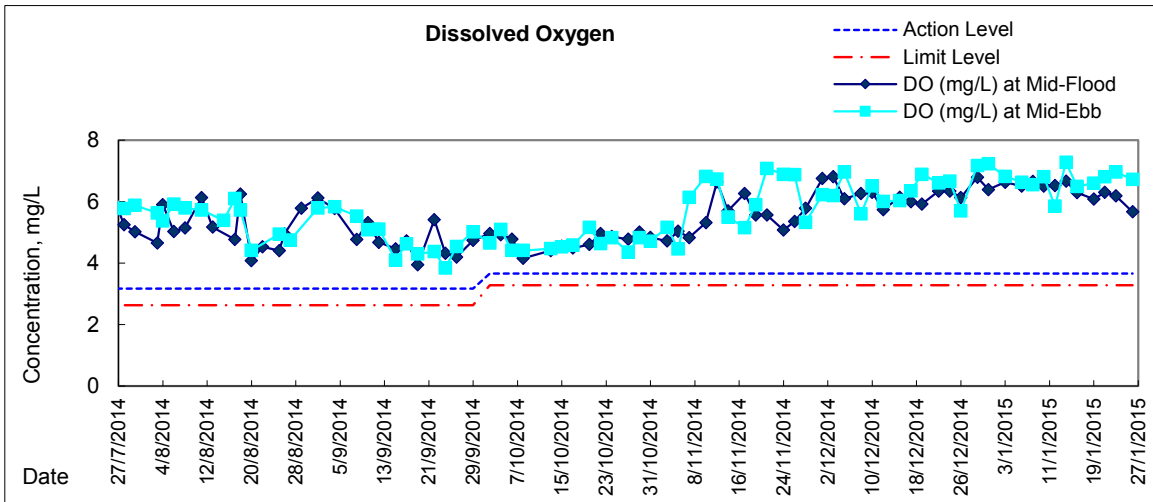


Graphic Presentation of Water Quality Result of P4 - SOC



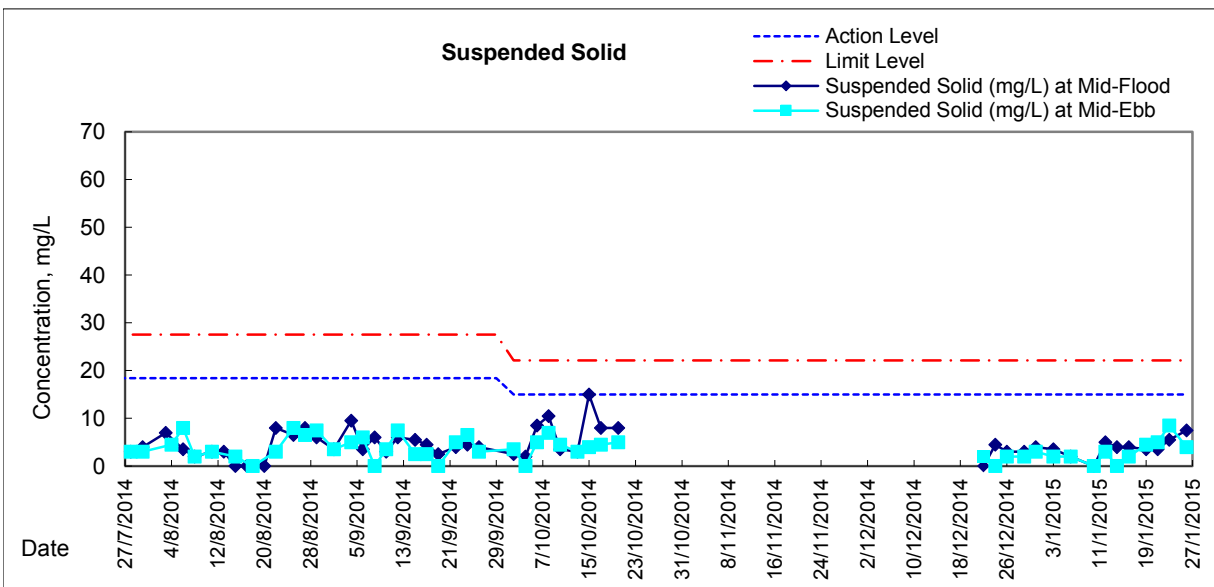
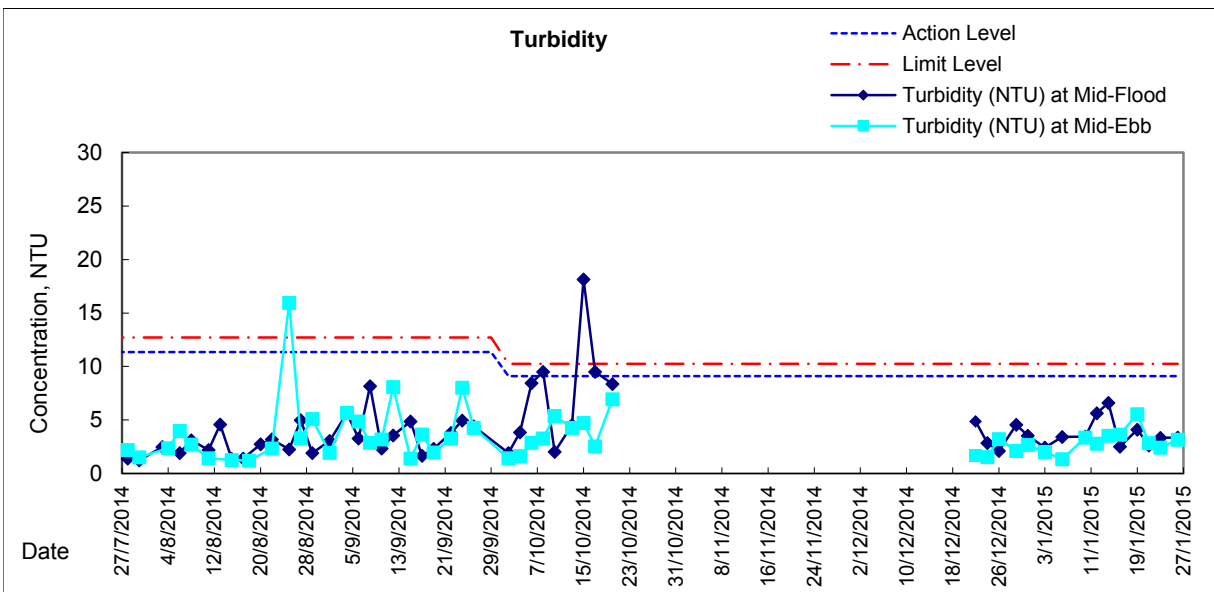
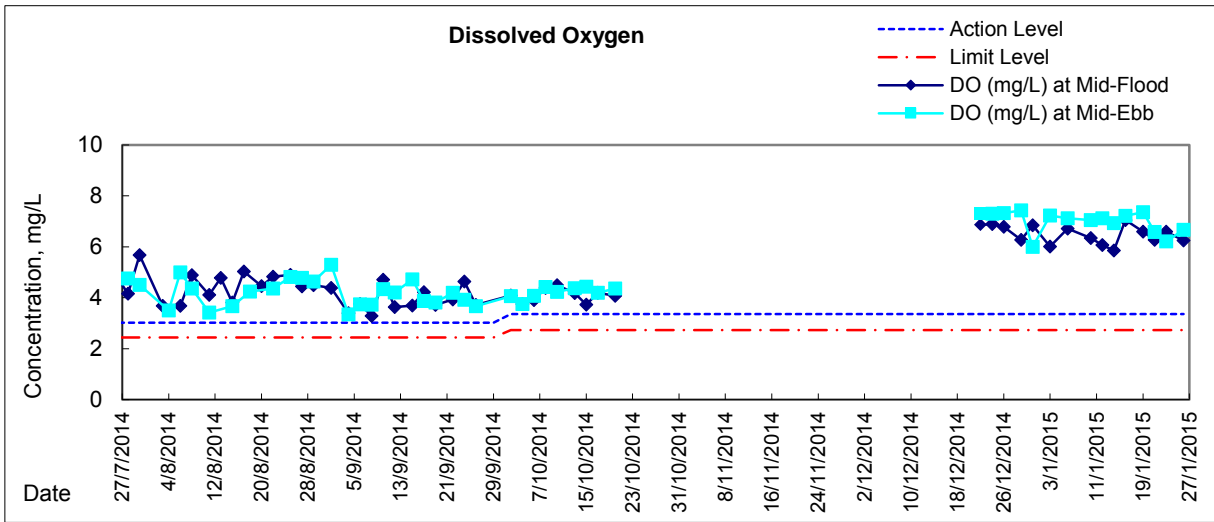


Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK





Graphic Presentation of Water Quality Result of C7 - Windsor House



Remark: Due to malfunctioning of the intake transfer pump and resulting unavailability of seawater supply to Windsor House cooling intake pump house at the designated water tank, the water quality monitoring at the monitoring station C7 was cancelled on 8 Jan 2015 during flood tide and ebb tide.



**Water Monitoring Result at C6 - Excelsior Hotel
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth m	Water Temperature °C				pH				Salinity ppt				DO Saturation %				DO mg/L			
				Value		Average		Value		Average		Value		Average		Value		Average		Value		Average	
29/12/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:48		Middle	1.5	17.20	17.20	17.2	8.19	8.19	8.2	31.02	31.02	31.0	86.8	86.6	86.7	6.94	6.92	6.93	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/12/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:51		Middle	1.5	18.80	18.80	18.8	8.12	8.12	8.1	30.99	30.99	31.0	82.7	81.6	82.2	6.40	6.32	6.36	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:20		Middle	1.5	17.60	17.60	17.6	8.40	8.40	8.4	31.06	31.06	31.1	84.1	82.9	83.5	6.66	6.56	6.61	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:20		Middle	1.5	18.50	18.50	18.5	8.17	8.17	8.2	30.87	30.87	30.9	87.5	87.0	87.3	6.81	6.77	6.79	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:25		Middle	1.5	17.30	17.30	17.3	8.16	8.16	8.2	29.58	29.58	29.6	79.0	78.8	78.9	6.37	6.35	6.36	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7:45		Middle	1.5	17.10	17.10	17.1	8.17	8.17	8.2	30.08	30.08	30.1	82.1	81.8	82.0	6.53	6.50	6.52	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:17		Middle	1.5	17.50	17.50	17.5	8.15	8.15	8.2	30.60	30.60	30.6	76.6	75.7	76.2	6.10	6.03	6.07	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:42		Middle	1.5	18.10	18.10	18.1	7.91	7.91	7.9	30.83	30.83	30.8	84.1	82.6	83.4	6.57	6.49	6.53	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:50		Middle	1.5	18.90	18.90	18.9	8.16	8.16	8.2	30.52	30.52	30.5	91.2	91.3	91.3	7.06	7.06	7.06	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:50		Middle	1.5	17.80	17.80	17.8	8.07	8.07	8.1	30.52	30.52	30.5	81.1	80.2	80.7	6.41	6.33	6.37	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18:45		Middle	1.5	17.20	17.20	17.2	8.09	8.09	8.1	30.76	30.76	30.8	73.6	72.2	72.9	5.90	5.77	5.84	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:05		Middle	1.5	16.90	16.90	16.9	8.10	8.10	8.1	30.64	30.64	30.6	81.3	83.1	82.2	6.54	6.69	6.62	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:38		Middle	1.5	18.00	18.00	18.0	8.06	8.06	8.1	30.71	30.71	30.7	82.3	81.2	81.8	6.48	6.39	6.44	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth m		Water Temperature °C			pH			Salinity ppt			DO Saturation %			DO mg/L		
					Value		Average	Value		Average	Value		Average	Value		Average	Value		Average
29/12/2014	9:33	Fine	Surface	1.0	17.40	17.40	17.4	8.20	8.20	8.2	28.66	28.66	28.7	69.3	68.4	68.9	5.60	5.53	5.57
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:35		Bottom	3.0	17.30	17.30	17.3	8.17	8.17	8.2	31.18	31.18	31.2	73.6	74.3	74.0	5.87	5.93	5.90
31/12/2014	14:36	Fine	Surface	1.0	18.80	18.80	18.8	8.14	8.14	8.1	28.85	28.85	28.9	72.6	71.4	72.0	5.69	5.60	5.65
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14:38		Bottom	4.0	18.20	18.20	18.2	8.11	8.11	8.1	30.96	30.96	31.0	76.7	75.8	76.3	6.01	5.94	5.98
3/1/2015	17:00	Fine	Surface	1.0	17.70	17.70	17.7	8.35	8.35	8.4	31.00	31.00	31.0	74.7	75.5	75.1	5.90	5.96	5.93
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	17:02		Bottom	5.0	17.70	17.70	17.7	8.35	8.35	8.4	31.19	31.19	31.2	82.1	82.7	82.4	6.49	6.54	6.52
6/1/2015	9:02	Fine	Surface	1.0	18.80	18.80	18.8	8.12	8.12	8.1	25.56	25.56	25.6	63.5	63.7	63.6	5.08	5.09	5.09
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:04		Bottom	4.0	18.40	18.40	18.4	8.07	8.07	8.1	30.67	30.67	30.7	80.3	80.3	80.3	6.29	6.28	6.29
8/1/2015	8:10	Fine	Surface	1.0	17.60	17.60	17.6	8.17	8.17	8.2	31.02	31.02	31.0	75.9	76.0	76.0	6.02	6.03	6.03
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8:12		Bottom	3.0	17.50	17.50	17.5	8.17	8.17	8.2	31.10	31.10	31.1	66.6	66.0	66.3	5.29	5.24	5.27
10/1/2015	7:28	Fine	Surface	1.0	17.00	17.00	17.0	8.16	8.16	8.2	31.25	31.25	31.3	71.4	71.0	71.2	5.72	5.70	5.71
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7:30		Bottom	3.0	17.20	17.20	17.2	8.18	8.18	8.2	31.21	31.21	31.2	78.1	78.0	78.1	6.24	6.23	6.24
12/1/2015	9:58	Fine	Surface	1.0	17.50	17.50	17.5	8.11	8.11	8.1	30.47	30.47	30.5	74.1	74.3	74.2	5.90	5.91	5.91
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:56		Bottom	3.0	17.40	17.40	17.4	8.10	8.10	8.1	30.84	30.84	30.8	75.1	75.0	75.1	5.98	5.98	5.98
14/1/2015	14:15	Fine	Surface	1.0	17.70	17.70	17.7	7.93	7.93	7.9	29.68	29.68	29.7	67.3	67.0	67.2	5.36	5.33	5.35
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14:17		Bottom	4.0	17.90	17.90	17.9	7.90	7.90	7.9	30.17	30.17	30.2	82.8	81.6	82.2	6.54	6.45	6.50
16/1/2015	14:30	Fine	Surface	1.0	18.20	18.20	18.2	8.14	8.14	8.1	28.45	28.45	28.5	87.1	85.1	86.1	6.91	6.76	6.84
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14:32		Bottom	3.0	18.00	18.00	18.0	8.11	8.11	8.1	30.60	30.60	30.6	84.6	84.2	84.4	6.69	6.66	6.68
19/1/2015	16:22	Fine	Surface	1.0	17.80	17.80	17.8	8.07	8.07	8.1	30.44	30.44	30.4	81.9	82.1	82.0	6.48	6.50	6.49
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	16:24		Bottom	4.0	17.20	17.20	17.2	8.10	8.10	8.1	30.96	30.96	31.0	84.1	83.9	84.0	6.71	6.70	6.71
21/1/2015	18:12	Fine	Surface	1.0	17.50	17.50	17.5	8.08	8.08	8.1	30.17	30.17	30.2	76.1	75.6	75.9	6.07	6.03	6.05
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	18:14		Bottom	4.0	17.20	17.20	17.2	8.09	8.09	8.1	30.73	30.73	30.7	77.9	77.0	77.5	6.23	6.15	6.19
23/1/2015	9:47	Fine	Surface	1.0	17.00	17.00	17.0	8.06	8.06	8.1	27.36	27.36	27.4	70.9	70.2	70.6	6.81	6.75	6.78
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:49		Bottom	4.0	16.70	16.70	16.7	8.08	8.08	8.1	30.89	30.89	30.9	76.5	76.5	76.5	6.17	6.17	6.17
26/1/2015	10:20	Fine	Surface	1.0	17.80	17.80	17.8	7.98	7.98	8.0	29.39	29.39	29.4	72.4	72.8	72.6	5.75	5.78	5.77
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10:22		Bottom	3.0	17.60	17.60	17.6	8.02	8.02	8.0	30.77	30.77	30.8	83.0	82.3	82.7	6.59	6.53	6.56

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at Ex-WPCWA SE - South-eastern corners of ex-Public Cargo Works Area
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth m		Water Temperature °C			pH			Salinity ppt		DO Saturation %		DO mg/L				
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/12/2014	9:38	Fine	Surface	1.0	17.40	17.40	17.4	8.20	8.20	8.2	30.68	30.68	30.7	79.9	80.4	80.2	6.37	6.42	6.40
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:40		Bottom	4.0	17.30	17.30	17.3	8.20	8.20	8.2	31.16	31.16	31.2	78.4	78.5	78.5	6.24	6.25	6.25
31/12/2014	14:40	Fine	Surface	1.0	18.40	18.40	18.4	8.15	8.15	8.2	30.50	30.50	30.5	77.4	76.5	77.0	6.05	5.98	6.02
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14:42		Bottom	4.0	18.30	18.30	18.3	8.16	8.16	8.2	31.12	31.12	31.1	75.7	75.2	75.5	5.90	5.87	5.89
3/1/2015	17:09	Fine	Surface	1.0	17.60	17.60	17.6	8.70	8.70	8.7	30.98	30.98	31.0	79.2	79.1	79.2	6.28	6.27	6.28
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	17:11		Bottom	5.0	17.60	17.60	17.6	8.74	8.71	8.7	30.70	30.70	30.7	79.1	79.5	79.3	6.27	6.31	6.29
6/1/2015	9:09	Fine	Surface	1.0	18.70	18.70	18.7	8.16	8.16	8.2	30.16	30.16	30.2	77.3	75.3	76.3	6.03	5.87	5.95
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:11		Bottom	4.0	18.80	18.80	18.8	8.17	8.17	8.2	30.63	30.63	30.6	80.3	78.3	79.3	6.27	6.11	6.19
8/1/2015	8:15	Fine	Surface	1.0	17.70	17.70	17.7	8.17	8.17	8.2	30.67	30.67	30.7	74.3	75.3	74.8	5.89	5.98	5.94
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8:17		Bottom	4.0	17.60	17.60	17.6	8.21	8.21	8.2	30.54	30.54	30.5	68.5	68.7	68.6	5.44	5.45	5.45
10/1/2015	7:32	Fine	Surface	1.0	17.30	17.30	17.3	8.18	8.18	8.2	31.26	31.26	31.3	69.1	69.5	69.3	5.51	5.54	5.53
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7:34		Bottom	4.0	17.50	17.50	17.5	8.17	8.17	8.2	31.24	31.24	31.2	70.3	71.3	70.8	5.59	5.67	5.63
12/1/2015	10:05	Fine	Surface	1.0	17.60	17.60	17.6	8.12	8.12	8.1	30.69	30.69	30.7	69.4	71.0	70.2	5.52	5.64	5.58
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10:03		Bottom	4.0	17.50	17.50	17.5	8.11	8.11	8.1	30.85	30.85	30.9	75.8	75.5	75.7	6.02	6.00	6.01
14/1/2015	14:27	Fine	Surface	1.0	17.80	17.80	17.8	7.96	7.96	8.0	29.47	29.47	29.5	64.9	65.3	65.1	5.15	5.21	5.18
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14:29		Bottom	4.0	17.90	17.90	17.9	7.94	7.94	7.9	30.23	30.23	30.2	67.3	67.6	67.5	5.43	5.44	5.44
16/1/2015	14:35	Fine	Surface	1.0	18.70	18.70	18.7	8.19	8.19	8.2	26.41	26.41	26.4	72.2	74.4	73.3	5.76	5.93	5.85
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14:37		Bottom	3.0	17.80	17.80	17.8	8.13	8.13	8.1	30.81	30.81	30.8	85.7	85.2	85.5	6.77	6.73	6.75
19/1/2015	16:30	Fine	Surface	1.0	17.40	17.40	17.4	8.09	8.09	8.1	30.72	30.72	30.7	79.2	78.4	78.8	6.30	6.24	6.27
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	16:32		Bottom	4.0	17.20	17.20	17.2	8.08	8.08	8.1	30.84	30.84	30.8	72.0	70.8	71.4	6.74	6.66	6.70
21/1/2015	18:16	Fine	Surface	1.0	17.30	17.30	17.3	8.12	8.12	8.1	29.27	29.27	29.3	73.8	73.4	73.6	6.94	6.90	6.92
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	18:18		Bottom	4.0	17.20	17.20	17.2	8.10	8.10	8.1	30.73	30.73	30.7	77.6	76.4	77.0	6.20	6.10	6.15
23/1/2015	9:51	Fine	Surface	1.0	16.80	16.80	16.8	8.08	8.08	8.1	30.96	30.96	31.0	75.5	74.2	74.9	6.07	5.98	6.03
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:53		Bottom	4.0	16.60	16.60	16.6	8.09	8.09	8.1	31.12	31.12	31.1	81.9	82.2	82.1	6.60	6.63	6.62
26/1/2015	10:25	Fine	Surface	1.0	18.00	18.00	18.0	7.86	7.86	7.9	26.70	26.70	26.7	68.9	69.3	69.1	5.55	5.58	5.57
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10:27		Bottom	4.0	17.80	17.80	17.8	8.01	8.01	8.0	30.13	30.13	30.1	76.1	76.5	76.3	6.05	6.00	6.03

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at C6 - Excelsior Hotel
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH		Salinity		DO Saturation		DO					
					°C			-		ppt		%		mg/L					
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
29/12/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3:20		Middle	1.5	15.20	15.20	15.2	7.83	7.83	7.8	27.23	27.23	27.2	75.2	74.9	75.1	6.39	6.37	6.38
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/12/2014	0:00	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:00		Middle	1.5	17.80	17.80	17.8	8.13	8.13	8.1	30.70	30.70	30.7	75.1	73.1	74.1	5.93	5.77	5.85
	0:00		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23:03		Middle	1.0	17.20	17.20	17.2	7.91	7.91	7.9	30.14	30.14	30.1	82.7	83.1	82.9	6.64	6.67	6.66
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:18		Middle	1.0	18.80	18.80	18.8	7.75	7.75	7.8	24.81	24.89	24.9	58.8	58.7	58.8	4.71	4.71	4.71
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23:35		Middle	1.5	17.40	17.40	17.4	7.83	7.83	7.8	29.41	29.41	29.4	72.3	73.1	72.7	5.81	5.88	5.85
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:25		Middle	1.5	16.90	16.90	16.9	7.95	7.95	8.0	29.24	29.24	29.2	74.9	75.2	75.1	6.09	6.11	6.10
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:16		Middle	1.5	17.20	17.20	17.2	7.76	7.76	7.8	25.30	25.30	25.3	55.2	55.1	55.2	4.57	4.56	4.57
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:35		Middle	1.5	15.80	15.80	15.8	7.93	7.93	7.9	25.80	25.74	25.8	74.9	75.7	75.3	6.37	6.44	6.41
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:42		Middle	1.5	17.50	17.50	17.5	7.83	7.83	7.8	29.64	29.64	29.6	76.2	77.7	77.0	6.11	6.22	6.17
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23:16		Middle	1.5	16.10	16.10	16.1	7.96	7.96	8.0	30.46	30.46	30.5	83.2	82.7	83.0	6.81	6.75	6.78
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:25		Middle	1.5	17.70	17.70	17.7	8.08	8.08	8.1	30.55	30.55	30.6	80.2	81.3	80.8	6.34	6.42	6.38
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:27		Middle	1.5	17.50	17.50	17.5	8.06	8.06	8.1	30.74	30.74	30.7	73.2	73.0	73.1	5.80	5.79	5.80
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/1/2015	15:25	Fine	Surface	1.0	19.00	19.00	19.0	8.01	8.01	8.0	31.08	31.08	31.1	83.1	84.5	83.8	6.36	6.46	6.41
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:27		Bottom	3.0	19.40	19.40	19.4	8.04	8.04	8.0	30.17	30.17	30.2	86.0	86.7	86.4	6.70	6.74	6.72

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO				
					°C			-			ppt		%		mg/L				
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	4:20	Cloudy	Surface	1.0	15.40	15.40	15.4	7.94	7.94	7.9	22.30	22.32	22.3	71.8	71.4	71.6	6.25	6.23	6.24
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4:22		Bottom	5.0	15.40	15.40	15.4	7.91	7.91	7.9	22.05	22.05	22.1	71.0	71.1	71.1	6.18	6.20	6.19
31/12/2014	19:44	Fine	Surface	1.0	17.90	17.90	17.9	8.13	8.13	8.1	31.21	31.21	31.2	74.9	73.7	74.3	5.89	5.80	5.85
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	19:46		Bottom	5.0	17.80	17.80	17.8	8.14	8.14	8.1	31.28	31.28	31.3	70.9	69.8	70.4	5.58	5.50	5.54
3/1/2015	0:32	Cloudy	Surface	1.0	17.20	17.20	17.2	8.00	8.00	8.0	23.55	23.55	23.6	65.2	65.1	65.2	5.44	5.43	5.44
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:34		Bottom	4.0	17.20	17.20	17.2	8.00	8.01	8.0	23.06	23.16	23.1	67.7	67.6	67.7	5.66	5.65	5.66
6/1/2015	1:35	Cloudy	Surface	1.0	18.80	18.80	18.8	7.82	7.82	7.8	20.76	20.76	20.8	51.3	51.3	51.3	4.22	4.22	4.22
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:37		Bottom	4.0	18.80	18.80	18.8	7.78	7.78	7.8	20.67	20.69	20.7	58.7	59.3	59.0	4.83	4.88	4.86
8/1/2015	1:15	Cloudy	Surface	1.0	17.30	17.40	17.4	7.92	7.92	7.9	23.81	23.81	23.8	61.8	61.9	61.9	5.13	5.15	5.14
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:17		Bottom	4.0	17.30	17.30	17.3	7.89	7.89	7.9	23.84	23.84	23.8	62.2	62.2	62.2	5.18	5.18	5.18
10/1/2015	2:15	Cloudy	Surface	1.0	16.90	16.90	16.9	8.01	8.01	8.0	24.36	24.38	24.4	65.2	64.4	64.8	5.46	5.42	5.44
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:17		Bottom	5.0	16.80	16.80	16.8	8.00	8.00	8.0	24.23	24.23	24.2	65.7	65.9	65.8	5.51	5.61	5.56
12/1/2015	3:03	Cloudy	Surface	1.0	17.30	17.30	17.3	7.91	7.91	7.9	22.38	22.38	22.4	56.4	56.6	56.5	4.73	4.75	4.74
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:05		Bottom	4.0	17.30	17.20	17.3	7.89	7.89	7.9	22.47	22.49	22.5	59.7	59.8	59.8	5.02	5.02	5.02
14/1/2015	20:05	Fine	Surface	1.0	15.70	15.70	15.7	7.97	7.97	8.0	24.03	24.03	24.0	67.5	66.1	66.8	5.82	5.67	5.75
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:07		Bottom	5.0	15.60	15.60	15.6	7.99	7.99	8.0	24.02	24.02	24.0	65.9	65.6	65.8	5.67	5.66	5.67
16/1/2015	20:17	Cloudy	Surface	1.0	17.40	17.40	17.4	7.91	7.91	7.9	25.57	25.60	25.6	66.2	66.7	66.5	5.68	5.68	5.68
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:19		Bottom	5.0	17.40	17.40	17.4	7.90	7.90	7.9	25.63	25.63	25.6	66.7	69.4	68.1	5.68	5.70	5.69
19/1/2015	0:32	Cloudy	Surface	1.0	16.00	16.00	16.0	8.04	8.04	8.0	23.89	23.90	23.9	68.5	66.9	67.7	5.83	5.71	5.77
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:34		Bottom	4.0	16.00	16.00	16.0	8.03	8.03	8.0	23.91	23.91	23.9	68.6	69.6	69.1	5.88	6.01	5.95
21/1/2015	14:14	Fine	Surface	1.0	17.60	17.60	17.6	8.07	8.07	8.1	29.89	29.89	29.9	76.9	76.6	76.8	6.14	6.11	6.13
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:12		Bottom	4.0	17.50	17.50	17.5	8.07	8.07	8.1	30.87	30.87	30.9	78.8	78.6	78.7	6.25	6.22	6.24
23/1/2015	15:13	Fine	Surface	1.0	17.70	17.70	17.7	8.06	8.06	8.1	28.84	28.84	28.8	71.1	70.9	71.0	6.68	6.67	6.68
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:15		Bottom	4.0	17.70	17.70	17.7	8.06	8.06	8.1	27.66	27.66	27.7	66.9	64.4	65.7	5.40	5.20	5.30
26/1/2015	17:30	Fine	Surface	1.0	17.70	17.70	17.7	8.01	8.01	8.0	30.41	30.41	30.4	77.5	76.7	77.1	6.14	6.08	6.11
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:32		Bottom	4.0	17.50	17.50	17.5	8.02	8.02	8.0	31.08	31.08	31.1	75.3	75.1	75.2	5.95	5.95	5.95

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



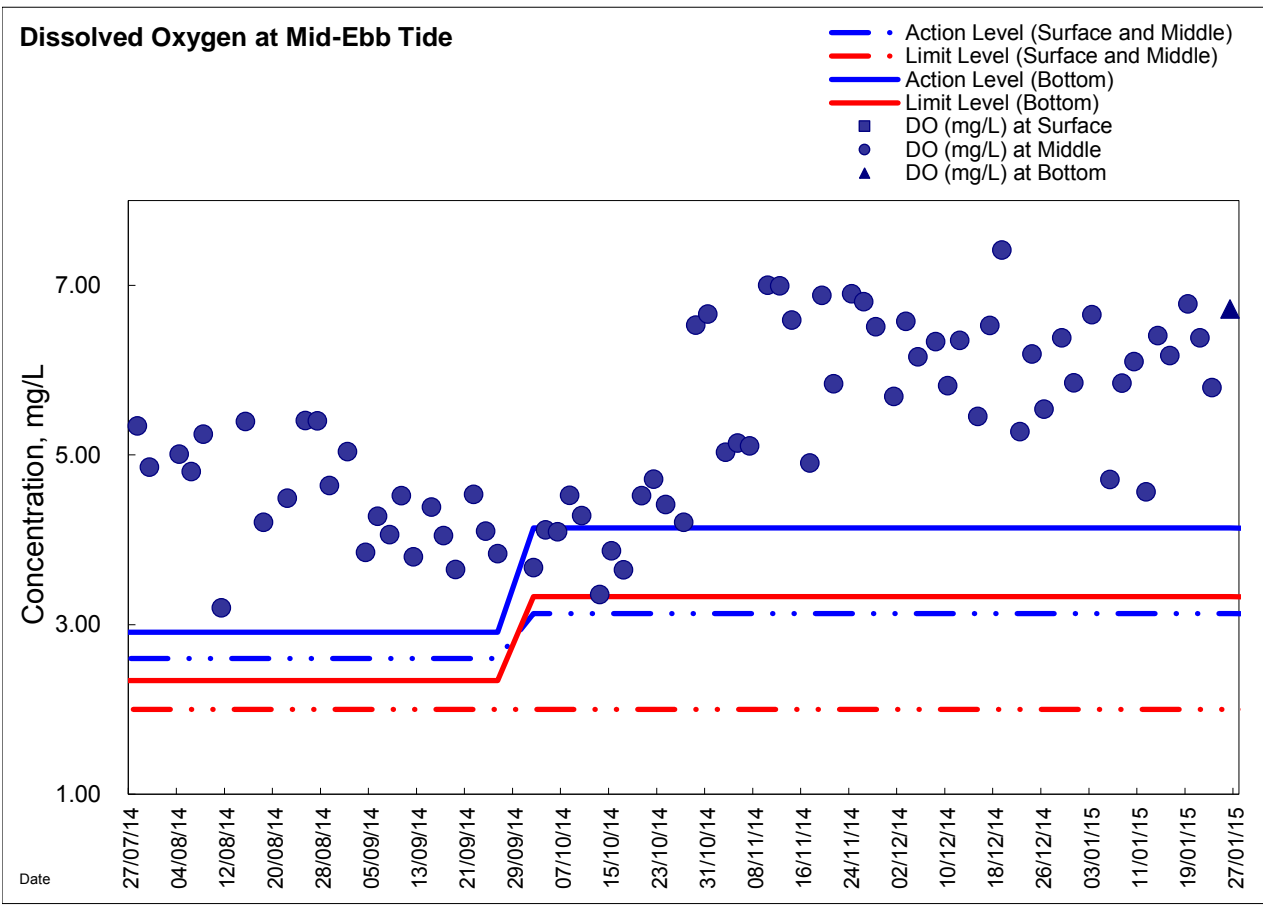
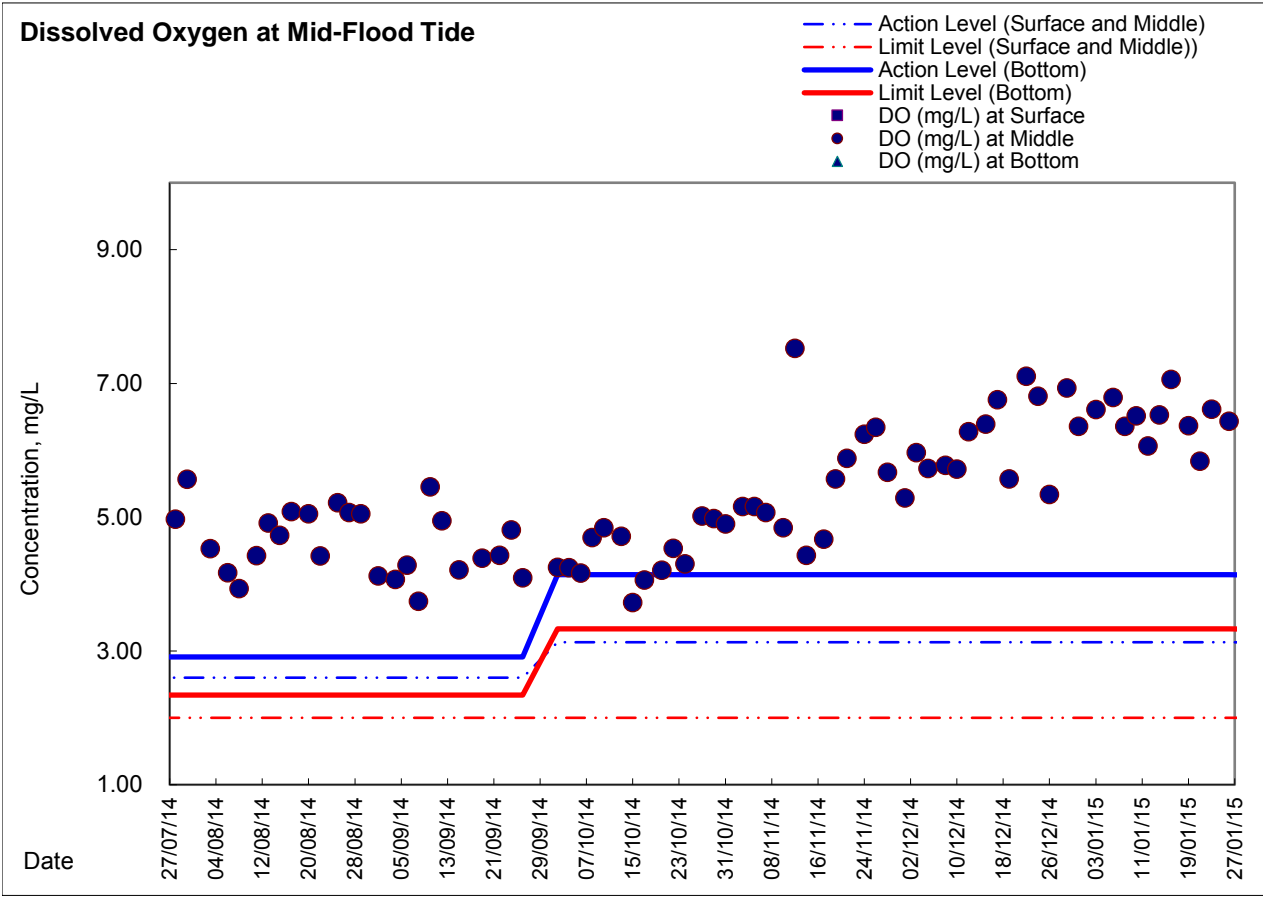
**Water Monitoring Result at Ex-WPCWA SE - South-eastern corners of ex-Public Cargo Works Area
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation			DO			
					°C			-			ppt		%			mg/L			
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/12/2014	4:26	Cloudy	Surface	1.0	15.30	15.30	15.3	7.92	7.92	7.9	21.77	21.77	21.8	70.0	69.5	69.8	6.12	6.08	6.10
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4:28		Bottom	5.0	15.40	15.40	15.4	7.93	7.92	7.9	21.83	21.83	21.8	69.2	69.7	69.5	6.06	6.10	6.08
31/12/2014	19:48	Fine	Surface	1.0	17.90	17.90	17.9	8.15	8.15	8.2	31.29	31.29	31.3	72.3	71.9	72.1	5.70	5.67	5.69
	0:00		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	19:50		Bottom	5.0	17.80	17.80	17.8	8.16	8.16	8.2	30.66	30.66	30.7	74.0	73.3	73.7	5.83	5.77	5.80
3/1/2015	0:38	Cloudy	Surface	1.0	17.20	17.20	17.2	7.99	7.99	8.0	23.27	23.33	23.3	62.0	62.4	62.2	5.18	5.22	5.20
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:40		Bottom	4.0	17.20	17.20	17.2	8.01	8.01	8.0	23.34	23.34	23.3	65.2	65.6	65.4	5.45	5.48	5.47
6/1/2015	1:39	Cloudy	Surface	1.0	18.80	18.80	18.8	7.74	7.74	7.7	20.54	20.59	20.6	53.2	54.2	53.7	4.39	4.46	4.43
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:41		Bottom	4.0	18.80	18.80	18.8	7.72	7.72	7.7	20.60	20.61	20.6	65.2	65.7	65.5	5.40	5.42	5.41
8/1/2015	1:21	Cloudy	Surface	1.0	17.30	17.30	17.3	7.86	7.86	7.9	23.08	23.08	23.1	57.9	59.0	58.5	4.84	4.93	4.89
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:23		Bottom	4.0	17.20	17.20	17.2	7.83	7.83	7.8	23.61	23.61	23.6	65.2	65.8	65.5	5.45	5.50	5.48
10/1/2015	2:24	Cloudy	Surface	1.0	16.80	16.80	16.8	7.98	7.98	8.0	24.17	24.16	24.2	65.2	65.1	65.2	5.46	5.45	5.46
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:26		Bottom	5.0	16.80	16.80	16.8	7.94	7.94	7.9	24.11	24.11	24.1	66.7	66.9	66.8	5.59	5.60	5.60
12/1/2015	3:08	Cloudy	Surface	1.0	17.20	17.20	17.2	7.85	7.85	7.9	22.22	22.22	22.2	55.9	56.2	56.1	4.70	4.73	4.72
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:10		Bottom	4.0	17.20	17.20	17.2	7.85	7.85	7.9	22.23	22.23	22.2	64.3	64.9	64.6	5.44	5.47	5.46
14/1/2015	20:11	Fine	Surface	1.0	15.70	15.70	15.7	8.01	8.01	8.0	23.93	23.93	23.9	62.5	63.9	63.2	5.40	5.50	5.45
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:13		Bottom	5.0	15.60	15.60	15.6	8.01	8.01	8.0	23.37	23.37	23.4	64.4	64.0	64.2	5.69	5.54	5.62
16/1/2015	20:22	Cloudy	Surface	1.0	17.40	17.40	17.4	7.89	7.89	7.9	25.15	25.15	25.2	65.0	65.2	65.1	5.36	5.36	5.36
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:24		Bottom	5.0	17.40	17.40	17.4	7.89	7.89	7.9	25.26	25.26	25.3	66.4	67.8	67.1	5.49	5.58	5.54
19/1/2015	0:39	Cloudy	Surface	1.0	15.90	15.90	15.9	8.03	8.03	8.0	23.03	23.03	23.0	67.7	68.0	67.9	5.82	5.84	5.83
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:41		Bottom	4.0	15.90	15.90	15.9	8.02	8.02	8.0	23.02	23.02	23.0	68.6	68.9	68.8	5.89	5.92	5.91
21/1/2015	14:16	Fine	Surface	1.0	18.00	18.00	18.0	8.08	8.08	8.1	28.56	28.56	28.6	76.0	75.7	75.9	6.06	6.04	6.05
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:18		Bottom	4.0	17.60	17.60	17.6	8.00	8.00	8.0	30.70	30.70	30.7	76.1	75.6	75.9	6.05	6.01	6.03
23/1/2015	15:17	Fine	Surface	1.0	17.90	17.90	17.9	8.06	8.06	8.1	26.96	26.96	27.0	66.8	66.9	66.9	5.39	5.39	5.39
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:19		Bottom	4.0	17.70	17.70	17.7	8.06	8.06	8.1	27.55	27.55	27.6	65.2	65.0	65.1	5.25	5.20	<u>5.23</u>
26/1/2015	17:45	Fine	Surface	1.0	17.70	17.70	17.7	8.10	8.10	8.1	29.01	29.01	29.0	73.8	73.3	73.6	5.90	5.86	5.88
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:47		Bottom	4.0	17.60	17.60	17.6	8.10	8.10	8.1	30.10	30.10	30.1	74.1	73.3	73.7	5.90	5.84	5.87

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.

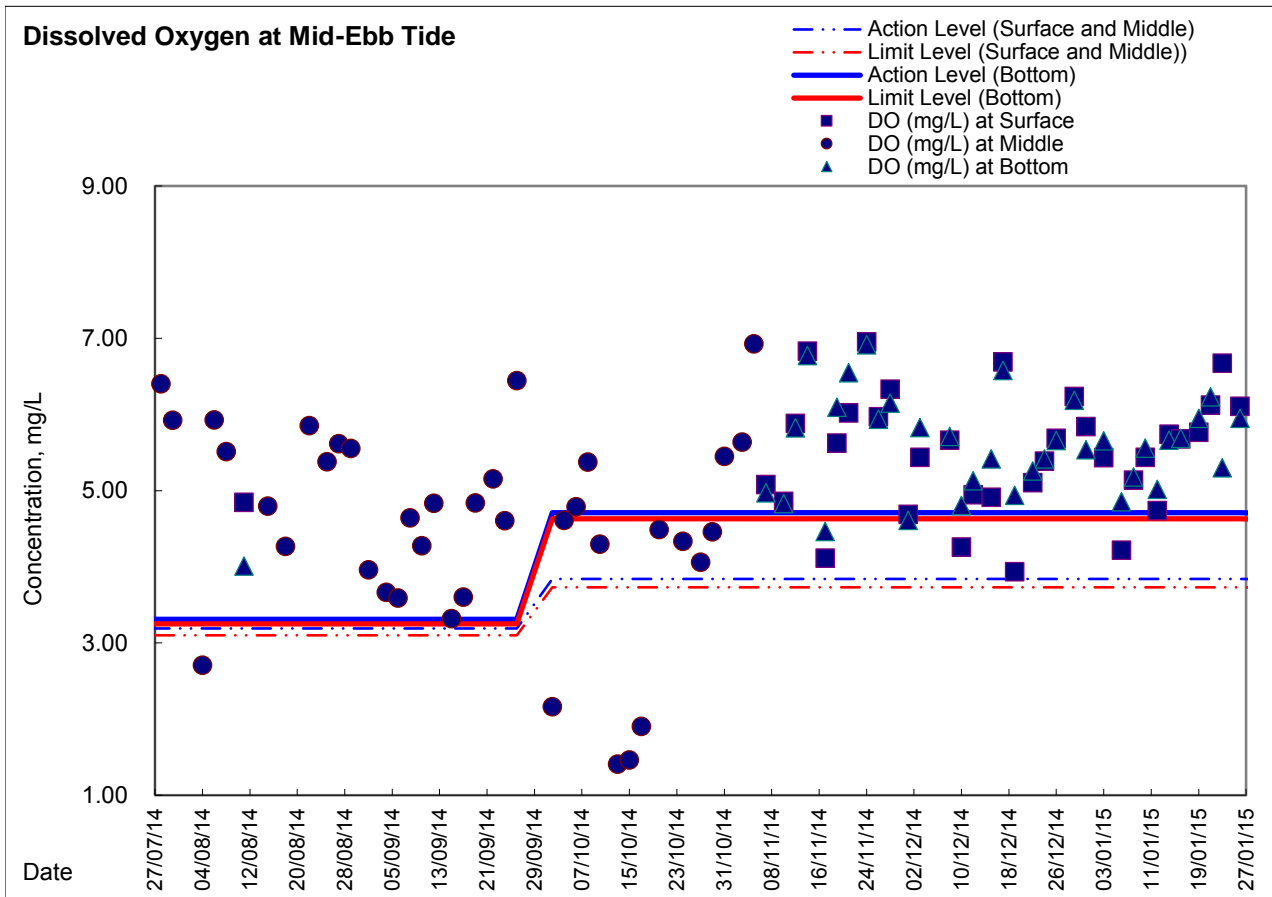
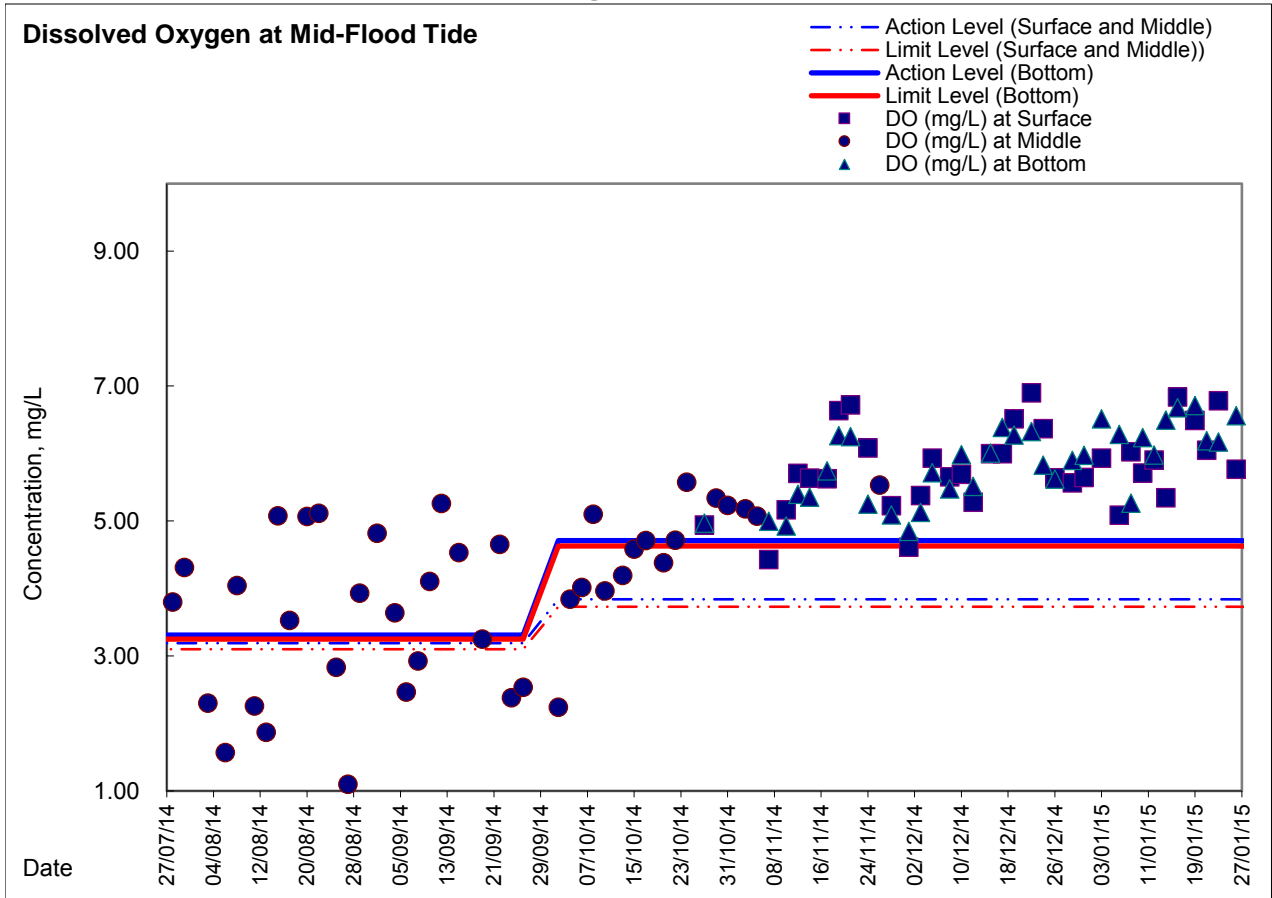


Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel



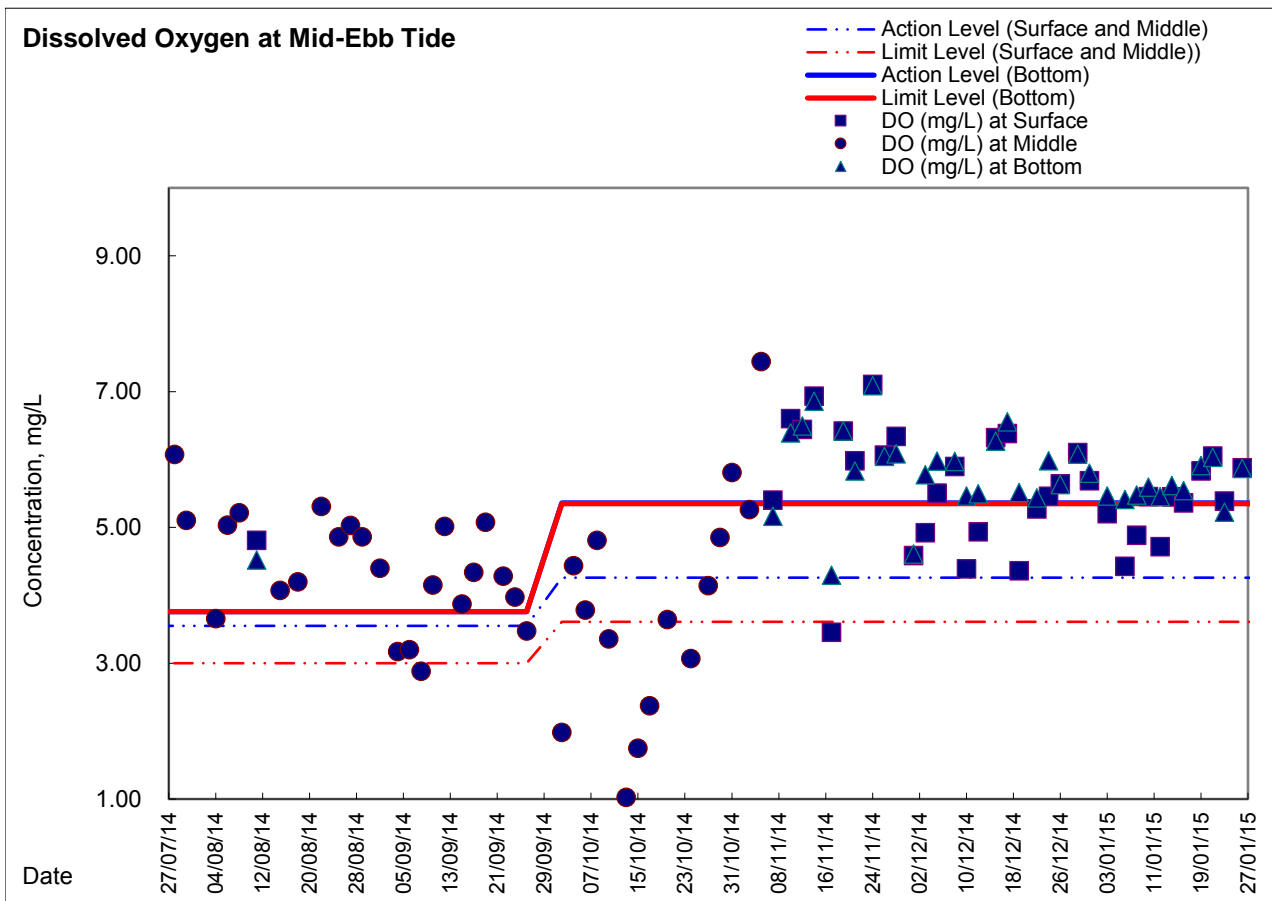
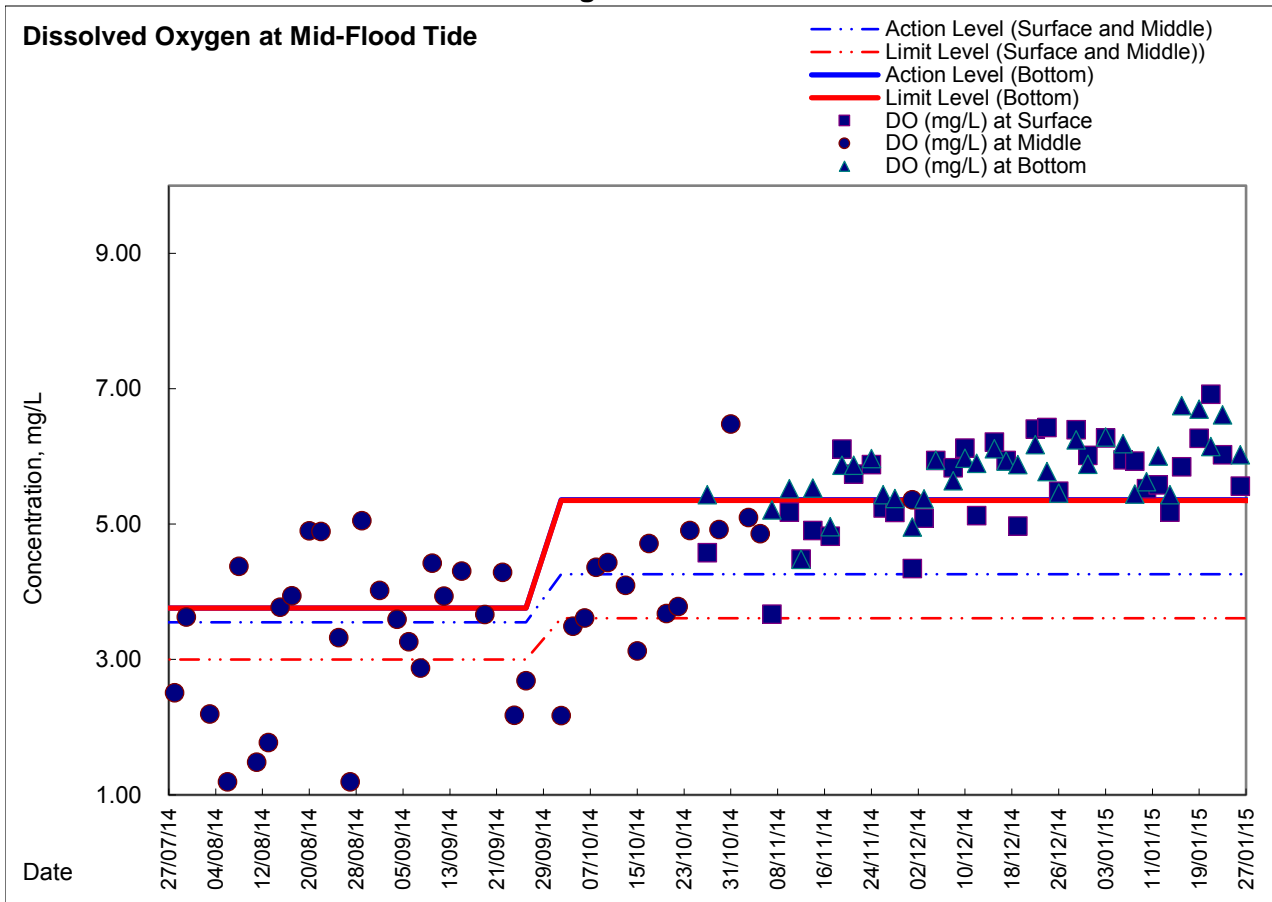


Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area





Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SE - South-eastern corners of ex-Public Cargo Works Area





Appendix 5.5

Real-time Noise Monitoring Results and Graphical Presentations

Real-time Noise Data	RTN2a (Hong Kong Electric Centre)										
23/1/2015 22:26	61.5	25/1/2015 11:31	59.5	25/1/2015 20:36	61.3	27/1/2015 21:41	62.6	28/12/2014 23:31	65.5	30/12/2014 0:36	63.1
23/1/2015 22:31	61.8	25/1/2015 11:36	61.7	25/1/2015 20:41	62.0	27/1/2015 21:46	61.7	28/12/2014 23:36	65.4	30/12/2014 0:41	62.3
23/1/2015 22:36	63.0	25/1/2015 11:41	62.2	25/1/2015 20:46	60.8	27/1/2015 21:51	60.8	28/12/2014 23:41	65.4	30/12/2014 0:46	62.3
23/1/2015 22:41	61.0	25/1/2015 11:46	61.8	25/1/2015 20:51	60.9	27/1/2015 21:56	61.8	28/12/2014 23:46	65.5	30/12/2014 0:51	62.6
23/1/2015 22:46	60.2	25/1/2015 11:51	60.5	25/1/2015 20:56	61.3	27/1/2015 22:01	61.1	28/12/2014 23:51	67.2	30/12/2014 0:56	61.9
23/1/2015 22:51	60.2	25/1/2015 11:56	59.2	25/1/2015 21:01	61.2	27/1/2015 22:06	60.9	28/12/2014 23:56	65.2	30/12/2014 1:01	62.1
23/1/2015 22:56	61.0	25/1/2015 12:01	57.7	25/1/2015 21:06	60.9	27/1/2015 22:11	62.6	29/12/2014 0:01	65.5	30/12/2014 1:06	61.7
24/1/2015 19:01	61.4	25/1/2015 12:06	60.0	25/1/2015 21:11	60.8	27/1/2015 22:16	62.4	29/12/2014 0:06	65.1	30/12/2014 1:11	62.1
24/1/2015 19:06	61.7	25/1/2015 12:11	60.6	25/1/2015 21:16	61.3	27/1/2015 22:21	60.8	29/12/2014 0:11	65.1	30/12/2014 1:16	62.1
24/1/2015 19:11	62.3	25/1/2015 12:16	62.9	25/1/2015 21:21	60.2	27/1/2015 22:26	60.6	29/12/2014 0:16	65.3	30/12/2014 1:21	62.2
24/1/2015 19:16	61.3	25/1/2015 12:21	61.2	25/1/2015 21:26	60.9	27/1/2015 22:31	60.7	29/12/2014 0:21	65.1	30/12/2014 1:26	61.7
24/1/2015 19:21	61.2	25/1/2015 12:26	64.0	25/1/2015 21:31	61.4	27/1/2015 22:36	60.8	29/12/2014 0:26	65.8	30/12/2014 1:31	61.2
24/1/2015 19:26	61.9	25/1/2015 12:31	61.4	25/1/2015 21:36	60.5	27/1/2015 22:41	60.7	29/12/2014 0:31	64.7	30/12/2014 1:36	60.8
24/1/2015 19:31	61.8	25/1/2015 12:36	61.2	25/1/2015 21:41	60.3	27/1/2015 22:46	59.7	29/12/2014 0:36	64.1	30/12/2014 1:41	61.6
24/1/2015 19:36	62.2	25/1/2015 12:41	61.2	25/1/2015 21:46	60.2	27/1/2015 22:51	60.0	29/12/2014 0:41	64.4	30/12/2014 1:46	61.0
24/1/2015 19:41	60.8	25/1/2015 12:46	61.6	25/1/2015 21:51	61.1	27/1/2015 22:56	59.9	29/12/2014 0:46	63.6	30/12/2014 1:51	61.0
24/1/2015 19:46	60.5	25/1/2015 12:51	61.3	25/1/2015 21:56	62.0			29/12/2014 0:51	64.0	30/12/2014 1:56	60.5
24/1/2015 19:51	61.1	25/1/2015 12:56	63.7	25/1/2015 22:01	60.5			29/12/2014 0:56	63.5	30/12/2014 2:01	60.3
24/1/2015 19:56	62.3	25/1/2015 13:01	62.1	25/1/2015 22:06	61.1			29/12/2014 1:01	63.5	30/12/2014 2:06	60.5
24/1/2015 20:01	60.7	25/1/2015 13:06	62.2	25/1/2015 22:11	61.6			29/12/2014 1:06	63.5	30/12/2014 2:11	62.8
24/1/2015 20:06	61.2	25/1/2015 13:11	62.0	25/1/2015 22:16	60.6			29/12/2014 1:11	63.8	30/12/2014 2:16	60.6
24/1/2015 20:11	60.2	25/1/2015 13:16	60.9	25/1/2015 22:21	60.6			29/12/2014 1:16	63.7	30/12/2014 2:21	60.2
24/1/2015 20:16	60.4	25/1/2015 13:21	62.1	25/1/2015 22:26	61.3			29/12/2014 1:21	62.8	30/12/2014 2:26	59.7
24/1/2015 20:21	61.1	25/1/2015 13:26	61.7	25/1/2015 22:31	58.9			29/12/2014 1:26	66.6	30/12/2014 2:31	60.3
24/1/2015 20:26	60.3	25/1/2015 13:31	62.8	25/1/2015 22:36	61.2			29/12/2014 1:31	62.3	30/12/2014 2:36	59.1
24/1/2015 20:31	60.3	25/1/2015 13:36	61.9	25/1/2015 22:41	59.9			29/12/2014 1:36	62.5	30/12/2014 2:41	60.7
24/1/2015 20:36	60.8	25/1/2015 13:41	62.0	25/1/2015 22:46	61.0			29/12/2014 1:41	62.9	30/12/2014 2:46	59.2
24/1/2015 20:41	61.1	25/1/2015 13:46	61.7	25/1/2015 22:51	60.2			29/12/2014 1:46	63.0	30/12/2014 2:51	60.0
24/1/2015 20:46	60.0	25/1/2015 13:51	62.6	25/1/2015 22:56	58.4			29/12/2014 1:51	62.3	30/12/2014 2:56	60.0
24/1/2015 20:51	60.3	25/1/2015 13:56	61.7	26/1/2015 19:01	62.9			29/12/2014 1:56	62.3	30/12/2014 3:01	59.0
24/1/2015 20:56	60.3	25/1/2015 14:01	61.5	26/1/2015 19:06	63.2			29/12/2014 2:01	62.4	30/12/2014 3:06	59.9
24/1/2015 21:01	62.1	25/1/2015 14:06	61.8	26/1/2015 19:11	62.6			29/12/2014 2:06	62.6	30/12/2014 3:11	59.9
24/1/2015 21:06	61.5	25/1/2015 14:11	62.3	26/1/2015 19:16	62.8			29/12/2014 2:11	62.5	30/12/2014 3:16	58.4
24/1/2015 21:11	59.7	25/1/2015 14:16	62.5	26/1/2015 19:21	62.3			29/12/2014 2:16	62.1	30/12/2014 3:21	59.0
24/1/2015 21:16	60.2	25/1/2015 14:21	62.6	26/1/2015 19:26	65.1			29/12/2014 2:21	62.9	30/12/2014 3:26	60.2
24/1/2015 21:21	60.8	25/1/2015 14:26	62.8	26/1/2015 19:31	63.0			29/12/2014 2:26	61.9	30/12/2014 3:31	58.3
24/1/2015 21:26	61.8	25/1/2015 14:31	62.6	26/1/2015 19:36	62.7			29/12/2014 2:31	61.9	30/12/2014 3:36	59.2
24/1/2015 21:31	59.8	25/1/2015 14:36	61.9	26/1/2015 19:41	63.5			29/12/2014 2:36	62.6	30/12/2014 3:41	59.3
24/1/2015 21:36	60.0	25/1/2015 14:41	62.4	26/1/2015 19:46	62.2			29/12/2014 2:41	62.1	30/12/2014 3:46	57.8
24/1/2015 21:41	59.1	25/1/2015 14:46	62.4	26/1/2015 19:51	63.2			29/12/2014 2:46	60.8	30/12/2014 3:51	58.7
24/1/2015 21:46	61.0	25/1/2015 14:51	62.7	26/1/2015 19:56	62.5			29/12/2014 2:51	60.8	30/12/2014 3:56	58.7
24/1/2015 21:51	61.0	25/1/2015 14:56	62.1	26/1/2015 20:01	63.1			29/12/2014 2:56	61.4	30/12/2014 4:01	58.4
24/1/2015 21:56	60.4	25/1/2015 15:01	62.3	26/1/2015 20:06	62.6			29/12/2014 3:01	60.5	30/12/2014 4:06	57.7
24/1/2015 22:01	60.9	25/1/2015 15:06	64.8	26/1/2015 20:11	62.6			29/12/2014 3:06	61.7	30/12/2014 4:11	58.6
24/1/2015 22:06	60.4	25/1/2015 15:11	61.5	26/1/2015 20:16	64.3			29/12/2014 3:11	60.3	30/12/2014 4:16	58.6
24/1/2015 22:11	61.4	25/1/2015 15:16	62.3	26/1/2015 20:21	62.6			29/12/2014 3:16	59.3	30/12/2014 4:21	58.4
24/1/2015 22:16	60.6	25/1/2015 15:21	62.1	26/1/2015 20:26	61.9			29/12/2014 3:21	60.8	30/12/2014 4:26	59.0
24/1/2015 22:21	61.8	25/1/2015 15:26	62.8	26/1/2015 20:31	61.3			29/12/2014 3:26	58.6	30/12/2014 4:31	58.8
24/1/2015 22:26	59.8	25/1/2015 15:31	62.3	26/1/2015 20:36	62.2			29/12/2014 3:31	62.6	30/12/2014 4:36	59.0
24/1/2015 22:31	62.1	25/1/2015 15:36	61.9	26/1/2015 20:41	61.2			29/12/2014 3:36	60.0	30/12/2014 4:41	57.9
24/1/2015 22:36	62.6	25/1/2015 15:41	63.1	26/1/2015 20:46	61.3			29/12/2014 3:41	59.0	30/12/2014 4:46	58.2
24/1/2015 22:41	60.9	25/1/2015 15:46	62.7	26/1/2015 20:51	60.9			29/12/2014 3:46	59.3	30/12/2014 4:51	58.7
24/1/2015 22:46	59.7	25/1/2015 15:51	62.1	26/1/2015 20:56	60.6			29/12/2014 3:51	60.0	30/12/2014 4:56	58.0
24/1/2015 22:51	60.4	25/1/2015 15:56	62.9	26/1/2015 21:01	60.4			29/12/2014 3:56	58.3	30/12/2014 5:01	59.1
24/1/2015 22:56	61.2	25/1/2015 16:01	62.6	26/1/2015 21:06	61.4			29/12/2014 4:01	58.6	30/12/2014 5:06	58.5
25/1/2015 7:01	59.3	25/1/2015 16:06	62.3	26/1/2015 21:11	61.2			29/12/2014 4:06	59.2	30/12/2014 5:11	57.9
25/1/2015 7:06	59.8	25/1/2015 16:11	62.1	26/1/2015 21:16	61.1			29/12/2014 4:11	60.0	30/12/2014 5:16	59.3
25/1/2015 7:11	59.7	25/1/2015 16:16	61.5	26/1/2015 21:21	60.8			29/12/2014 4:16	59.3	30/12/2014 5:21	59.2
25/1/2015 7:16	61.7	25/1/2015 16:21	62.4	26/1/2015 21:26	61.0			29/12/2014 4:21	59.3	30/12/2014 5:26	59.7
25/1/2015 7:21	60.5	25/1/2015 16:26	61.8	26/1/2015 21:31	61.1			29/12/2014 4:26	58.6	30/12/2014 5:31	59.7
25/1/2015 7:26	59.9	25/1/2015 16:31	62.1	26/1/2015 21:36	59.6			29/12/2014 4:31	57.8	30/12/2014 5:36	60.0
25/1/2015 7:31	58.7	25/1/2015 16:36	62.0	26/1/2015 21:41	61.1			29/12/2014 4:36	58.9	30/12/2014 5:41	59.8
25/1/2015 7:36	60.1	25/1/2015 16:41	62.7	26/1/2015 21:46	61.3			29/12/2014 4:41	59.3	30/12/2014 5:46	60.0
25/1/2015 7:41	59.6	25/1/2015 16:46	62.8	26/1/2015 21:51	62.1			29/12/2014 4:46	59.5	30/12/2014 5:51	60.2
25/1/2015 7:46	61.7	25/1/2015 16:51	62.5	26/1/2015 21:56	62.1			29/12/2014 4:51	60.6	30/12/2014 5:56	60.2
25/1/2015 7:51	60.4	25/1/2015 16:56	61.8	26/1/2015 22:01	60.5			29/12/2014 4:56	59.0	30/12/2014 6:01	60.7
25/1/2015 7:56	59.2	25/1/2015 17:01	61.2	26/1/2015 22:06	59.9			29/12/2014 5:01	58.8	30/12/2014 6:06	60.6
25/1/2015 8:01	59.4	25/1/2015 17:06	61.0	26/1/2015 22:11	59.3			29/12/2014 5:06	59.1	30/12/2014 6:11	60.5
25/1/2015 8:06	61.8	25/1/2015 17:11	60.9	26/1/2015 22:16	61.4			29/12/2014 5:11	58.8	30/12/2014 6:16	61.1
25/1/2015 8:11	61.7	25/1/2015 17:16	61.4	26/1/2015 22:21	61.9			29/12/2014 5:16	59.1	30/12/2014 6:21	61.8
25/1/2015 8:16	53.6	25/1/2015 17:21	62.6	26/1/2015 22:26	60.8			29/12/2014 5:21	58.9	30/12/2014 6:26	61.6
25/1/2015 8:21	61.3	25/1/2015 17:26	61.5	26/1/2015 22:31	59.3			29/12/2014 5:26	59.5	30/12/2014 6:31	61.9
25/1/2015 8:26	60.3	25/1/2015 17:31	62.8	26/1/2015 22:36	57.3			29/12/2014 5:31	59.9	30/12/2014 6:36	62.4
25/1/2015 8:31	60.2	25/1/2015 17:36	61.7	26/1/2015 22:41	59.7			29/12/2014 5:36	60.0	30/12/2014 6:41	62.7
25/1/2015 8:36	59.0	25/1/2015 17:41	61.9	26/1/2015 22:46	59.2			29/12/2014 5:41	59.7	30/12/2014 6:46	63.0
25/1/2015 8:41	59.7	25/1/2015 17:46	61.7	26/1/2015 22:51	60.0			29/12/2014			

Real-time Noise Data	RTN2a (Hong Kong Electric Centre)										
31/12/2014 1:41	63.8	1/1/2015 2:46	61.3	2/1/2015 3:51	48.6	3/1/2015 4:56	54.0	4/1/2015 6:01	56.0	5/1/2015 23:06	62.6
31/12/2014 1:46	63.8	1/1/2015 2:51	63.6	2/1/2015 3:56	58.0	3/1/2015 5:01	53.2	4/1/2015 6:06	57.1	5/1/2015 23:11	62.6
31/12/2014 1:51	64.5	1/1/2015 2:56	60.9	2/1/2015 4:01	38.9	3/1/2015 5:06	56.9	4/1/2015 6:11	55.9	5/1/2015 23:16	62.4
31/12/2014 1:56	62.6	1/1/2015 3:01	60.3	2/1/2015 4:06	58.2	3/1/2015 5:11	55.7	4/1/2015 6:16	56.8	5/1/2015 23:21	62.7
31/12/2014 2:01	62.7	1/1/2015 3:06	63.0	2/1/2015 4:11	48.4	3/1/2015 5:16	54.1	4/1/2015 6:21	57.2	5/1/2015 23:26	61.8
31/12/2014 2:06	63.2	1/1/2015 3:11	61.2	2/1/2015 4:16	47.0	3/1/2015 5:21	57.4	4/1/2015 6:26	57.9	5/1/2015 23:31	62.1
31/12/2014 2:11	62.6	1/1/2015 3:16	60.7	2/1/2015 4:21	57.7	3/1/2015 5:26	59.1	4/1/2015 6:31	57.0	5/1/2015 23:36	62.5
31/12/2014 2:16	64.6	1/1/2015 3:21	60.6	2/1/2015 4:26	58.2	3/1/2015 5:31	58.2	4/1/2015 6:36	56.6	5/1/2015 23:41	61.1
31/12/2014 2:21	62.6	1/1/2015 3:26	61.4	2/1/2015 4:31	43.8	3/1/2015 5:36	58.0	4/1/2015 6:41	58.3	5/1/2015 23:46	62.5
31/12/2014 2:26	62.4	1/1/2015 3:31	60.3	2/1/2015 4:36	39.7	3/1/2015 5:41	57.7	4/1/2015 6:46	58.7	5/1/2015 23:51	61.4
31/12/2014 2:31	62.9	1/1/2015 3:36	60.5	2/1/2015 4:41	36.7	3/1/2015 5:46	57.6	4/1/2015 6:51	58.3	5/1/2015 23:56	61.4
31/12/2014 2:36	63.3	1/1/2015 3:41	59.4	2/1/2015 4:46	52.2	3/1/2015 5:51	57.8	4/1/2015 6:56	58.6	6/1/2015 0:01	60.8
31/12/2014 2:41	62.7	1/1/2015 3:46	62.2	2/1/2015 4:51	47.4	3/1/2015 5:56	58.7	4/1/2015 23:01	62.0	6/1/2015 0:06	61.8
31/12/2014 2:46	62.7	1/1/2015 3:51	59.9	2/1/2015 4:56	50.8	3/1/2015 6:01	56.9	4/1/2015 23:06	61.5	6/1/2015 0:11	60.4
31/12/2014 2:51	62.7	1/1/2015 3:56	61.2	2/1/2015 5:01	49.7	3/1/2015 6:06	58.3	4/1/2015 23:11	61.8	6/1/2015 0:16	60.7
31/12/2014 2:56	62.8	1/1/2015 4:01	59.8	2/1/2015 5:06	53.3	3/1/2015 6:11	57.1	4/1/2015 23:16	60.9	6/1/2015 0:21	61.1
31/12/2014 3:01	62.9	1/1/2015 4:06	64.9	2/1/2015 5:11	55.0	3/1/2015 6:16	59.2	4/1/2015 23:21	61.7	6/1/2015 0:26	60.8
31/12/2014 3:06	62.8	1/1/2015 4:11	58.7	2/1/2015 5:16	53.4	3/1/2015 6:21	59.0	4/1/2015 23:26	61.5	6/1/2015 0:31	59.9
31/12/2014 3:11	62.9	1/1/2015 4:16	59.8	2/1/2015 5:21	52.9	3/1/2015 6:26	60.0	4/1/2015 23:31	61.2	6/1/2015 0:36	59.3
31/12/2014 3:16	63.0	1/1/2015 4:21	60.2	2/1/2015 5:26	50.5	3/1/2015 6:31	59.2	4/1/2015 23:36	62.0	6/1/2015 0:41	59.8
31/12/2014 3:21	63.1	1/1/2015 4:26	59.8	2/1/2015 5:31	52.7	3/1/2015 6:36	60.0	4/1/2015 23:41	61.4	6/1/2015 0:46	59.7
31/12/2014 3:26	62.6	1/1/2015 4:31	58.8	2/1/2015 5:36	54.4	3/1/2015 6:41	60.6	4/1/2015 23:46	60.6	6/1/2015 0:51	58.8
31/12/2014 3:31	63.0	1/1/2015 4:36	59.5	2/1/2015 5:41	54.2	3/1/2015 6:46	60.4	4/1/2015 23:51	62.4	6/1/2015 0:56	57.9
31/12/2014 3:36	62.7	1/1/2015 4:41	59.0	2/1/2015 5:46	56.4	3/1/2015 6:51	61.0	4/1/2015 23:56	61.6	6/1/2015 1:01	59.1
31/12/2014 3:41	63.4	1/1/2015 4:46	58.5	2/1/2015 5:51	55.8	3/1/2015 6:56	61.4	5/1/2015 0:01	60.8	6/1/2015 1:06	58.4
31/12/2014 3:46	62.4	1/1/2015 4:51	58.3	2/1/2015 5:56	57.3	3/1/2015 23:01	63.4	5/1/2015 0:06	61.0	6/1/2015 1:11	57.3
31/12/2014 3:51	63.0	1/1/2015 4:56	59.0	2/1/2015 6:01	55.3	3/1/2015 23:06	62.4	5/1/2015 0:11	60.7	6/1/2015 1:16	57.9
31/12/2014 3:56	62.7	1/1/2015 5:01	59.2	2/1/2015 6:06	55.4	3/1/2015 23:11	62.9	5/1/2015 0:16	60.5	6/1/2015 1:21	57.0
31/12/2014 4:01	62.5	1/1/2015 5:06	59.2	2/1/2015 6:11	56.4	3/1/2015 23:16	63.0	5/1/2015 0:21	59.5	6/1/2015 1:26	57.1
31/12/2014 4:06	62.3	1/1/2015 5:11	60.2	2/1/2015 6:16	59.5	3/1/2015 23:21	62.9	5/1/2015 0:26	58.9	6/1/2015 1:31	57.1
31/12/2014 4:11	62.4	1/1/2015 5:16	58.5	2/1/2015 6:21	59.1	3/1/2015 23:26	62.3	5/1/2015 0:31	58.4	6/1/2015 1:36	55.0
31/12/2014 4:16	62.2	1/1/2015 5:21	59.4	2/1/2015 6:26	59.1	3/1/2015 23:31	62.8	5/1/2015 0:36	59.2	6/1/2015 1:41	56.2
31/12/2014 4:21	62.7	1/1/2015 5:26	58.0	2/1/2015 6:31	59.5	3/1/2015 23:36	62.5	5/1/2015 0:41	58.4	6/1/2015 1:46	55.5
31/12/2014 4:26	62.5	1/1/2015 5:31	58.5	2/1/2015 6:36	60.4	3/1/2015 23:41	63.1	5/1/2015 0:46	58.9	6/1/2015 1:51	55.9
31/12/2014 4:31	62.5	1/1/2015 5:36	59.4	2/1/2015 6:41	60.2	3/1/2015 23:46	61.7	5/1/2015 0:51	58.8	6/1/2015 1:56	53.5
31/12/2014 4:36	62.2	1/1/2015 5:41	58.8	2/1/2015 6:46	61.2	3/1/2015 23:51	62.7	5/1/2015 0:56	58.6	6/1/2015 2:01	55.7
31/12/2014 4:41	63.1	1/1/2015 5:46	59.5	2/1/2015 6:51	61.6	3/1/2015 23:56	62.4	5/1/2015 1:01	56.8	6/1/2015 2:06	51.8
31/12/2014 4:46	62.4	1/1/2015 5:51	59.0	2/1/2015 6:56	62.1	4/1/2015 0:01	62.0	5/1/2015 1:06	58.7	6/1/2015 2:11	53.2
31/12/2014 4:51	62.5	1/1/2015 5:56	59.3	2/1/2015 23:01	63.4	4/1/2015 0:06	61.5	5/1/2015 1:11	58.9	6/1/2015 2:16	55.3
31/12/2014 4:56	62.6	1/1/2015 6:01	58.9	2/1/2015 23:06	62.8	4/1/2015 0:11	62.0	5/1/2015 1:16	52.5	6/1/2015 2:21	56.4
31/12/2014 5:01	62.9	1/1/2015 6:06	59.2	2/1/2015 23:11	63.1	4/1/2015 0:16	61.5	5/1/2015 1:21	55.9	6/1/2015 2:26	54.0
31/12/2014 5:06	62.7	1/1/2015 6:11	59.8	2/1/2015 23:16	62.9	4/1/2015 0:21	61.9	5/1/2015 1:26	62.1	6/1/2015 2:31	53.0
31/12/2014 5:11	62.7	1/1/2015 6:16	58.6	2/1/2015 23:21	62.7	4/1/2015 0:26	59.8	5/1/2015 1:31	56.9	6/1/2015 2:36	45.2
31/12/2014 5:16	62.9	1/1/2015 6:21	59.5	2/1/2015 23:26	64.0	4/1/2015 0:31	62.6	5/1/2015 1:36	53.2	6/1/2015 2:41	53.5
31/12/2014 5:21	62.6	1/1/2015 6:26	61.9	2/1/2015 23:31	62.0	4/1/2015 0:36	61.0	5/1/2015 1:41	59.8	6/1/2015 2:46	54.4
31/12/2014 5:26	62.9	1/1/2015 6:31	59.1	2/1/2015 23:36	63.1	4/1/2015 0:41	60.6	5/1/2015 1:46	57.2	6/1/2015 2:51	53.9
31/12/2014 5:31	62.9	1/1/2015 6:36	61.3	2/1/2015 23:41	62.5	4/1/2015 0:46	60.0	5/1/2015 1:51	50.1	6/1/2015 2:56	47.5
31/12/2014 5:36	62.8	1/1/2015 6:41	60.0	2/1/2015 23:46	62.7	4/1/2015 0:51	61.1	5/1/2015 1:56	55.1	6/1/2015 3:01	48.8
31/12/2014 5:41	62.9	1/1/2015 6:46	60.5	2/1/2015 23:51	62.5	4/1/2015 0:56	60.4	5/1/2015 2:01	49.2	6/1/2015 3:06	53.6
31/12/2014 5:46	63.5	1/1/2015 6:51	61.4	2/1/2015 23:56	62.6	4/1/2015 1:01	62.0	5/1/2015 2:06	54.4	6/1/2015 3:11	50.9
31/12/2014 5:51	63.0	1/1/2015 6:56	60.8	3/1/2015 0:01	63.2	4/1/2015 1:06	61.8	5/1/2015 2:11	39.7	6/1/2015 3:16	53.8
31/12/2014 5:56	63.4	1/1/2015 23:01	62.8	3/1/2015 0:06	62.6	4/1/2015 1:11	60.7	5/1/2015 2:16	54.9	6/1/2015 3:21	58.1
31/12/2014 6:01	62.7	1/1/2015 23:06	62.4	3/1/2015 0:11	62.7	4/1/2015 1:16	59.9	5/1/2015 2:21	48.1	6/1/2015 3:26	50.8
31/12/2014 6:06	63.8	1/1/2015 23:11	62.8	3/1/2015 0:16	62.7	4/1/2015 1:21	60.1	5/1/2015 2:26	47.3	6/1/2015 3:31	49.3
31/12/2014 6:11	63.9	1/1/2015 23:16	62.6	3/1/2015 0:21	62.5	4/1/2015 1:26	59.6	5/1/2015 2:31	57.6	6/1/2015 3:36	46.5
31/12/2014 6:16	63.6	1/1/2015 23:21	62.8	3/1/2015 0:26	62.1	4/1/2015 1:31	59.6	5/1/2015 2:36	50.8	6/1/2015 3:41	52.3
31/12/2014 6:21	63.7	1/1/2015 23:26	61.9	3/1/2015 0:31	61.8	4/1/2015 1:36	60.6	5/1/2015 2:41	58.1	6/1/2015 3:46	46.8
31/12/2014 6:26	63.7	1/1/2015 23:31	62.4	3/1/2015 0:36	61.5	4/1/2015 1:41	58.7	5/1/2015 2:46	58.2	6/1/2015 3:51	51.5
31/12/2014 6:31	64.1	1/1/2015 23:36	62.6	3/1/2015 0:41	61.4	4/1/2015 1:46	61.6	5/1/2015 2:51	57.8	6/1/2015 3:56	42.0
31/12/2014 6:36	64.1	1/1/2015 23:41	61.9	3/1/2015 0:46	63.1	4/1/2015 1:51	60.1	5/1/2015 2:56	57.9	6/1/2015 4:01	57.4
31/12/2014 6:41	64.4	1/1/2015 23:46	62.7	3/1/2015 0:51	61.6	4/1/2015 1:56	59.2	5/1/2015 3:01	57.7	6/1/2015 4:06	57.6
31/12/2014 6:46	64.3	1/1/2015 23:51	62.4	3/1/2015 0:56	61.2	4/1/2015 2:01	61.5	5/1/2015 3:06	45.5	6/1/2015 4:11	51.1
31/12/2014 6:51	65.1	1/1/2015 23:56	62.1	3/1/2015 1:01	60.6	4/1/2015 2:06	58.3	5/1/2015 3:11	57.9	6/1/2015 4:16	57.7
31/12/2014 6:56	65.0	2/1/2015 0:01	62.1	3/1/2015 1:06	61.8	4/1/2015 2:11	57.9	5/1/2015 3:16	57.6	6/1/2015 4:21	41.5
31/12/2014 23:01	63.2	2/1/2015 0:06	62.0	3/1/2015 1:11	60.5	4/1/2015 2:16	57.0	5/1/2015 3:21	38.0	6/1/2015 4:26	58.1
31/12/2014 23:06	62.5	2/1/2015 0:11	60.8	3/1/2015 1:16	61.0	4/1/2015 2:21	57.8	5/1/2015 3:26	57.7	6/1/2015 4:31	58.3
31/12/2014 23:11	62.8	2/1/2015 0:16	61.1	3/1/2015 1:21	60.3	4/1/2015 2:26	59.0	5/1/2015 3:31	58.2	6/1/2015 4:36	57.0
31/12/2014 23:16	63.3	2/1/2015 0:21	61.3	3/1/2015 1:26	62.7	4/1/2015 2:31	58.4	5/1/2015 3:36	57.7	6/1/2015 4:41	57.0
31/12/2014 23:21	64.2	2/1/2015 0:26	61.2	3/1/2015 1:31	60.8	4/1/2015 2:36	58.5	5/1/2015 3:41	57.7	6/1/2015 4:46	51.0
31/12/2014 23:26	64.2	2/1/2015 0:31	60.6	3/1/2015 1:36	60.3	4/1/2015 2:41	57.6	5/1/2015 3:46	57.8	6/1/2015 4:51	52.3
31/12/2014 23:31	62.6	2/1/2015 0:36	60.9	3/1/2015 1:41	61.0	4/1/2015 2:46	56.5	5/1/2015 3:51	58.2	6/1/2015 4:56	45.7
31/12/2014 23:36	62.3	2/1/2015 0:41	60.2	3/1/2015 1:46	60.2	4/1/2015 2:51	57.9	5/1/2015 3:56	57.3	6/1/2015 5:01	45.2
31/12/2014 23:41	62.3	2/1/2015 0:46	59.9	3/1/201							

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
7/1/2015 0:11	60.0	8/1/2015 1:16	58.3	9/1/2015 2:21	54.2	10/1/2015 3:26	56.2	11/1/2015 4:31	49.2	12/1/2015 5:36	52.4
7/1/2015 0:16	59.2	8/1/2015 1:21	58.0	9/1/2015 2:26	58.7	10/1/2015 3:31	55.1	11/1/2015 4:36	54.2	12/1/2015 5:41	51.8
7/1/2015 0:21	57.7	8/1/2015 1:26	59.2	9/1/2015 2:31	51.9	10/1/2015 3:36	56.7	11/1/2015 4:41	48.4	12/1/2015 5:46	54.5
7/1/2015 0:26	59.0	8/1/2015 1:31	56.5	9/1/2015 2:36	56.2	10/1/2015 3:41	56.6	11/1/2015 4:46	51.6	12/1/2015 5:51	55.8
7/1/2015 0:31	60.2	8/1/2015 1:36	56.9	9/1/2015 2:41	54.4	10/1/2015 3:46	54.1	11/1/2015 4:51	44.0	12/1/2015 5:56	55.1
7/1/2015 0:36	57.2	8/1/2015 1:41	56.2	9/1/2015 2:46	55.7	10/1/2015 3:51	55.3	11/1/2015 4:56	52.5	12/1/2015 6:01	54.3
7/1/2015 0:41	58.9	8/1/2015 1:46	59.4	9/1/2015 2:51	50.1	10/1/2015 3:56	54.9	11/1/2015 5:01	51.9	12/1/2015 6:06	56.2
7/1/2015 0:46	57.8	8/1/2015 1:51	56.3	9/1/2015 2:56	53.0	10/1/2015 4:01	53.8	11/1/2015 5:06	51.9	12/1/2015 6:11	57.3
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7/1/2015 1:06	57.0	8/1/2015 2:11	56.4	9/1/2015 3:16	58.1	10/1/2015 4:21	55.6	11/1/2015 5:26	49.2	12/1/2015 6:31	58.6
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7/1/2015 1:51	51.9	8/1/2015 2:56	53.3	9/1/2015 4:01	53.6	10/1/2015 5:06	54.2	11/1/2015 6:11	54.3	12/1/2015 7:16	65.7
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7/1/2015 2:16	42.0	8/1/2015 3:21	49.5	9/1/2015 4:26	58.0	10/1/2015 5:31	56.2	11/1/2015 6:36	54.5	12/1/2015 7:41	64.5
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7/1/2015 2:26	49.7	8/1/2015 3:31	45.8	9/1/2015 4:36	57.7	10/1/2015 5:41	54.7	11/1/2015 6:46	58.3	12/1/2015 7:51	64.8
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7/1/2015 2:36	51.7	8/1/2015 3:41	42.0	9/1/2015 4:46	57.8	10/1/2015 5:51	55.7	11/1/2015 6:56	57.8	13/1/2015 0:01	63.3
7/1/2015 2:41	49.8	8/1/2015 3:46	52.4	9/1/2015 4:51	51.1	10/1/2015 5:56	56.9	11/1/2015 7:01	62.7	13/1/2015 0:06	64.7
7/1/2015 2:46	45.7	8/1/2015 3:51	52.9	9/1/2015 4:56	42.4	10/1/2015 6:01	55.3	11/1/2015 7:06	62.7	13/1/2015 0:11	63.9
7/1/2015 2:51	50.8	8/1/2015 3:56	57.9	9/1/2015 5:01	51.4	10/1/2015 6:06	57.5	11/1/2015 7:11	61.4	13/1/2015 0:16	64.0
7/1/2015 2:56	46.7	8/1/2015 4:01	58.0	9/1/2015 5:06	46.5	10/1/2015 6:11	58.2	11/1/2015 7:16	61.7	13/1/2015 0:21	63.9
7/1/2015 3:01	58.2	8/1/2015 4:06	47.5	9/1/2015 5:11	52.2	10/1/2015 6:16	57.7	11/1/2015 7:21	61.5	13/1/2015 0:26	64.4
7/1/2015 3:06	46.7	8/1/2015 4:11	53.6	9/1/2015 5:16	48.8	10/1/2015 6:21	57.6	11/1/2015 7:26	61.0	13/1/2015 0:31	63.7
7/1/2015 3:11	57.5	8/1/2015 4:16	58.0	9/1/2015 5:21	47.0	10/1/2015 6:26	59.7	11/1/2015 7:31	60.7	13/1/2015 0:36	63.9
7/1/2015 3:16	57.8	8/1/2015 4:21	51.9	9/1/2015 5:26	52.4	10/1/2015 6:31	60.1	11/1/2015 7:36	61.6	13/1/2015 0:41	63.5
7/1/2015 3:21	58.0	8/1/2015 4:26	57.3	9/1/2015 5:31	51.4	10/1/2015 6:36	59.1	11/1/2015 7:41	61.1	13/1/2015 0:46	63.0
7/1/2015 3:26	57.0	8/1/2015 4:31	48.3	9/1/2015 5:36	53.3	10/1/2015 6:41	60.4	11/1/2015 7:46	61.4	13/1/2015 0:51	62.1
7/1/2015 3:31	57.8	8/1/2015 4:36	58.1	9/1/2015 5:41	51.9	10/1/2015 6:46	61.2	11/1/2015 7:51	61.0	13/1/2015 0:56	62.2
7/1/2015 3:36	50.8	8/1/2015 4:41	49.1	9/1/2015 5:46	54.0	10/1/2015 6:51	61.3	11/1/2015 7:56	61.6	13/1/2015 1:01	62.6
7/1/2015 3:41	47.3	8/1/2015 4:46	54.1	9/1/2015 5:51	58.3	10/1/2015 6:56	61.0	12/1/2015 0:01	61.1	13/1/2015 1:06	61.3
7/1/2015 3:46	57.4	8/1/2015 4:51	58.2	9/1/2015 5:56	55.9	10/1/2015 7:01	62.8	12/1/2015 0:06	61.0	13/1/2015 1:11	61.1
7/1/2015 3:51	57.5	8/1/2015 4:56	44.3	9/1/2015 6:01	56.7	10/1/2015 7:06	63.4	12/1/2015 0:11	60.4	13/1/2015 1:16	61.3
7/1/2015 3:56	52.2	8/1/2015 5:01	53.6	9/1/2015 6:06	57.3	10/1/2015 7:11	62.4	12/1/2015 0:16	60.3	13/1/2015 1:21	61.4
7/1/2015 4:01	57.9	8/1/2015 5:06	54.8	9/1/2015 6:11	58.7	10/1/2015 7:16	63.2	12/1/2015 0:21	59.3	13/1/2015 1:26	61.5
7/1/2015 4:06	58.2	8/1/2015 5:11	49.9	9/1/2015 6:16	59.0	10/1/2015 7:21	62.6	12/1/2015 0:26	59.2	13/1/2015 1:31	58.9
7/1/2015 4:11	57.7	8/1/2015 5:16	49.1	9/1/2015 6:21	59.5	10/1/2015 7:26	62.5	12/1/2015 0:31	60.2	13/1/2015 1:36	60.1
7/1/2015 4:16	49.8	8/1/2015 5:21	48.7	9/1/2015 6:26	59.9	10/1/2015 7:31	63.3	12/1/2015 0:36	58.5	13/1/2015 1:41	60.7
7/1/2015 4:21	40.4	8/1/2015 5:26	53.2	9/1/2015 6:31	60.6	10/1/2015 7:36	62.0	12/1/2015 0:41	58.0	13/1/2015 1:46	60.1
7/1/2015 4:26	57.8	8/1/2015 5:31	53.4	9/1/2015 6:36	61.4	10/1/2015 7:41	62.2	12/1/2015 0:46	57.7	13/1/2015 1:51	59.4
7/1/2015 4:31	58.0	8/1/2015 5:36	51.2	9/1/2015 6:41	61.6	10/1/2015 7:46	62.6	12/1/2015 0:51	58.2	13/1/2015 1:56	57.2
7/1/2015 4:36	57.6	8/1/2015 5:41	54.2	9/1/2015 6:46	61.9	10/1/2015 7:51	61.8	12/1/2015 0:56	55.6	13/1/2015 2:01	60.5
7/1/2015 4:41	40.4	8/1/2015 5:46	56.6	9/1/2015 6:51	61.6	10/1/2015 7:56	61.9	12/1/2015 1:01	57.6	13/1/2015 2:06	57.5
7/1/2015 4:46	58.3	8/1/2015 5:51	56.8	9/1/2015 6:56	63.2	11/1/2015 0:01	60.3	12/1/2015 1:06	57.5	13/1/2015 2:11	58.6
7/1/2015 4:51	46.8	8/1/2015 5:56	56.4	9/1/2015 7:01	63.3	11/1/2015 0:06	57.5	12/1/2015 1:11	57.3	13/1/2015 2:16	59.1
7/1/2015 4:56	58.1	8/1/2015 6:01	55.4	9/1/2015 7:06	63.1	11/1/2015 0:11	59.0	12/1/2015 1:16	56.3	13/1/2015 2:21	58.4
7/1/2015 5:01	45.7	8/1/2015 6:06	58.1	9/1/2015 7:11	63.1	11/1/2015 0:16	59.5	12/1/2015 1:21	54.3	13/1/2015 2:26	59.8
7/1/2015 5:06	59.5	8/1/2015 6:11	59.2	9/1/2015 7:16	63.2	11/1/2015 0:21	57.0	12/1/2015 1:26	56.7	13/1/2015 2:31	59.2
7/1/2015 5:11	47.1	8/1/2015 6:16	58.8	9/1/2015 7:21	63.4	11/1/2015 0:26	57.7	12/1/2015 1:31	51.8	13/1/2015 2:36	59.6
7/1/2015 5:16	51.1	8/1/2015 6:21	59.7	9/1/2015 7:26	63.2	11/1/2015 0:31	57.5	12/1/2015 1:36	54.8	13/1/2015 2:41	58.8
7/1/2015 5:21	50.3	8/1/2015 6:26	59.9	9/1/2015 7:31	63.6	11/1/2015 0:36	58.2	12/1/2015 1:41	53.6	13/1/2015 2:46	60.3
7/1/2015 5:26	52.0	8/1/2015 6:31	60.6	9/1/2015 7:36	63.3	11/1/2015 0:41	58.2	12/1/2015 1:46	58.4	13/1/2015 2:51	59.1
7/1/2015 5:31	50.2	8/1/2015 6:36	61.5	9/1/2015 7:41	63.0	11/1/2015 0:46	57.6	12/1/2015 1:51	47.0	13/1/2015 2:56	58.3
7/1/2015 5:36	51.8	8/1/2015 6:41	61.2	9/1/2015 7:46	63.3	11/1/2015 0:51	56.9	12/1/2015 1:56	47.3	13/1/2015 3:01	60.8
7/1/2015 5:41	50.7	8/1/2015 6:46	61.9	9/1/2015 7:51	63.1	11/1/2015 0:56	58.1	12/1/2015 2:01	51.8	13/1/2015 3:06	59.4
7/1/2015 5:46	52.1	8/1/2015 6:51	62.5	9/1/2015 7:56	63.4	11/1/2015 1:01	57.0	12/1/2015 2:06	52.1	13/1/2015 3:11	57.7
7/1/2015 5:51	54.5	8/1/2015 6:56	62.6	10/1/2015 0:01	62.9	11/1/2015 1:06	57.7	12/1/2015 2:11	51.4	13/1/2015 3:16	58.2
7/1/2015 5:56	53.5	8/1/2015 7:01	62.4	10/1/2015 0:06	62.9	11/1/2015 1:11	57.6	12/1/2015 2:16	50.7	13/1/2015 3:21	59.1
7/1/2015 6:01	55.1	8/1/2015 7:06	63.5	10/1/2015 0:11	62.0	11/1/2015 1:16	56.8	12/1/2015 2:21	50.9	13/1/2015 3:26	58.5
7/1/2015 6:06	55.0	8/1/2015 7:11	63.8	10/1/2015 0:16	61.1	11/1/2015 1:21	58.0	12/1/2015 2:26	52.5	13/1/2015 3:31	55.0
7/1/2015 6:11	57.3	8/									

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
13/1/2015 6:41	64.4	14/1/2015 23:46	63.3	16/1/2015 0:51	60.6	17/1/2015 1:56	59.5	18/1/2015 3:01	56.5	19/1/2015 4:06	57.0
13/1/2015 6:46	64.2	14/1/2015 23:51	63.1	16/1/2015 0:56	60.1	17/1/2015 2:01	59.7	18/1/2015 3:06	56.4	19/1/2015 4:11	58.0
13/1/2015 6:51	64.9	14/1/2015 23:56	62.9	16/1/2015 1:01	60.2	17/1/2015 2:06	59.5	18/1/2015 3:11	57.1	19/1/2015 4:16	57.7
13/1/2015 6:56	64.6	15/1/2015 0:01	62.6	16/1/2015 1:06	59.1	17/1/2015 2:11	59.0	18/1/2015 3:16	56.6	19/1/2015 4:21	58.2
13/1/2015 23:01	64.8	15/1/2015 0:06	62.4	16/1/2015 1:11	58.7	17/1/2015 2:16	59.1	18/1/2015 3:21	56.1	19/1/2015 4:26	57.3
13/1/2015 23:06	64.0	15/1/2015 0:11	63.2	16/1/2015 1:16	59.6	17/1/2015 2:21	59.3	18/1/2015 3:26	57.0	19/1/2015 4:31	57.8
13/1/2015 23:11	64.4	15/1/2015 0:16	62.5	16/1/2015 1:21	59.1	17/1/2015 2:26	59.8	18/1/2015 3:31	56.1	19/1/2015 4:36	58.3
13/1/2015 23:16	64.4	15/1/2015 0:21	61.2	16/1/2015 1:26	59.8	17/1/2015 2:31	59.5	18/1/2015 3:36	56.7	19/1/2015 4:41	57.7
13/1/2015 23:21	64.0	15/1/2015 0:26	62.1	16/1/2015 1:31	58.3	17/1/2015 2:36	60.3	18/1/2015 3:41	55.5	19/1/2015 4:46	57.3
13/1/2015 23:26	63.9	15/1/2015 0:31	62.2	16/1/2015 1:36	58.2	17/1/2015 2:41	58.8	18/1/2015 3:46	57.0	19/1/2015 4:51	57.5
13/1/2015 23:31	63.9	15/1/2015 0:36	61.1	16/1/2015 1:41	59.0	17/1/2015 2:46	59.0	18/1/2015 3:51	55.4	19/1/2015 4:56	58.3
13/1/2015 23:36	63.7	15/1/2015 0:41	60.9	16/1/2015 1:46	57.7	17/1/2015 2:51	57.7	18/1/2015 3:56	56.7	19/1/2015 5:01	42.8
13/1/2015 23:41	64.0	15/1/2015 0:46	60.7	16/1/2015 1:51	58.8	17/1/2015 2:56	59.3	18/1/2015 4:01	55.2	19/1/2015 5:06	39.7
13/1/2015 23:46	63.6	15/1/2015 0:51	59.5	16/1/2015 1:56	55.9	17/1/2015 3:01	57.2	18/1/2015 4:06	55.9	19/1/2015 5:11	49.4
13/1/2015 23:51	63.5	15/1/2015 0:56	61.0	16/1/2015 2:01	57.2	17/1/2015 3:06	58.0	18/1/2015 4:11	57.8	19/1/2015 5:16	51.8
13/1/2015 23:56	63.3	15/1/2015 1:01	59.0	16/1/2015 2:06	56.2	17/1/2015 3:11	57.5	18/1/2015 4:16	55.2	19/1/2015 5:21	58.2
14/1/2015 0:01	63.4	15/1/2015 1:06	59.9	16/1/2015 2:11	56.3	17/1/2015 3:16	58.8	18/1/2015 4:21	55.3	19/1/2015 5:26	52.9
14/1/2015 0:06	62.9	15/1/2015 1:11	60.0	16/1/2015 2:16	55.7	17/1/2015 3:21	57.4	18/1/2015 4:26	56.2	19/1/2015 5:31	52.2
14/1/2015 0:11	62.4	15/1/2015 1:16	59.6	16/1/2015 2:21	55.8	17/1/2015 3:26	57.7	18/1/2015 4:31	56.0	19/1/2015 5:36	53.1
14/1/2015 0:16	62.7	15/1/2015 1:21	59.9	16/1/2015 2:26	57.4	17/1/2015 3:31	57.0	18/1/2015 4:36	56.3	19/1/2015 5:41	53.1
14/1/2015 0:21	62.5	15/1/2015 1:26	59.5	16/1/2015 2:31	57.0	17/1/2015 3:36	57.7	18/1/2015 4:41	53.6	19/1/2015 5:46	53.8
14/1/2015 0:26	62.2	15/1/2015 1:31	58.9	16/1/2015 2:36	54.1	17/1/2015 3:41	57.6	18/1/2015 4:46	52.9	19/1/2015 5:51	55.8
14/1/2015 0:31	62.1	15/1/2015 1:36	58.6	16/1/2015 2:41	54.4	17/1/2015 3:46	56.7	18/1/2015 4:51	51.5	19/1/2015 5:56	55.4
14/1/2015 0:36	61.8	15/1/2015 1:41	58.3	16/1/2015 2:46	53.7	17/1/2015 3:51	56.5	18/1/2015 4:56	55.7	19/1/2015 6:01	59.2
14/1/2015 0:41	61.3	15/1/2015 1:46	58.3	16/1/2015 2:51	55.8	17/1/2015 3:56	56.9	18/1/2015 5:01	55.3	19/1/2015 6:06	58.0
14/1/2015 0:46	61.6	15/1/2015 1:51	57.5	16/1/2015 2:56	52.4	17/1/2015 4:01	56.0	18/1/2015 5:06	56.1	19/1/2015 6:11	55.9
14/1/2015 0:51	61.2	15/1/2015 1:56	57.5	16/1/2015 3:01	54.8	17/1/2015 4:06	55.8	18/1/2015 5:11	53.6	19/1/2015 6:16	58.5
14/1/2015 0:56	61.5	15/1/2015 2:01	54.9	16/1/2015 3:06	52.8	17/1/2015 4:11	54.1	18/1/2015 5:16	55.9	19/1/2015 6:21	58.4
14/1/2015 1:01	63.7	15/1/2015 2:06	57.0	16/1/2015 3:11	52.2	17/1/2015 4:16	56.1	18/1/2015 5:21	57.2	19/1/2015 6:26	59.9
14/1/2015 1:06	60.8	15/1/2015 2:11	59.0	16/1/2015 3:16	50.5	17/1/2015 4:21	53.8	18/1/2015 5:26	57.0	19/1/2015 6:31	60.4
14/1/2015 1:11	60.9	15/1/2015 2:16	56.2	16/1/2015 3:21	54.3	17/1/2015 4:26	55.0	18/1/2015 5:31	54.9	19/1/2015 6:36	60.6
14/1/2015 1:16	59.7	15/1/2015 2:21	58.0	16/1/2015 3:26	49.7	17/1/2015 4:31	55.9	18/1/2015 5:36	55.2	19/1/2015 6:41	61.4
14/1/2015 1:21	60.7	15/1/2015 2:26	57.0	16/1/2015 3:31	53.1	17/1/2015 4:36	55.5	18/1/2015 5:41	56.8	19/1/2015 6:46	61.7
14/1/2015 1:26	60.7	15/1/2015 2:31	56.1	16/1/2015 3:36	52.1	17/1/2015 4:41	55.6	18/1/2015 5:46	57.0	19/1/2015 6:51	61.5
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14/1/2015 3:41	54.7	15/1/2015 4:46	55.4	16/1/2015 5:51	54.9	17/1/2015 6:56	60.9	19/1/2015 0:01	61.4	20/1/2015 1:06	58.3
14/1/2015 3:46	54.3	15/1/2015 4:51	50.7	16/1/2015 5:56	58.8	17/1/2015 23:01	63.1	19/1/2015 0:06	61.0	20/1/2015 1:11	57.8
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14/1/2015 4:01	50.4	15/1/2015 5:06	53.5	16/1/2015 6:11	57.3	17/1/2015 23:16	63.1	19/1/2015 0:21	60.2	20/1/2015 1:26	58.2
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14/1/2015 4:16	51.2	15/1/2015 5:21	53.4	16/1/2015 6:26	60.7	17/1/2015 23:31	63.2	19/1/2015 0:36	58.9	20/1/2015 1:41	55.7
14/1/2015 4:21	54.8	15/1/2015 5:26	54.7	16/1/2015 6:31	60.5	17/1/2015 23:36	63.3	19/1/2015 0:41	58.5	20/1/2015 1:46	56.4
14/1/2015 4:26	51.3	15/1/2015 5:31	54.1	16/1/2015 6:36	61.3	17/1/2015 23:41	63.3	19/1/2015 0:46	58.7	20/1/2015 1:51	55.9
14/1/2015 4:31	54.0	15/1/2015 5:36	55.9	16/1/2015 6:41	62.1	17/1/2015 23:46	63.7	19/			

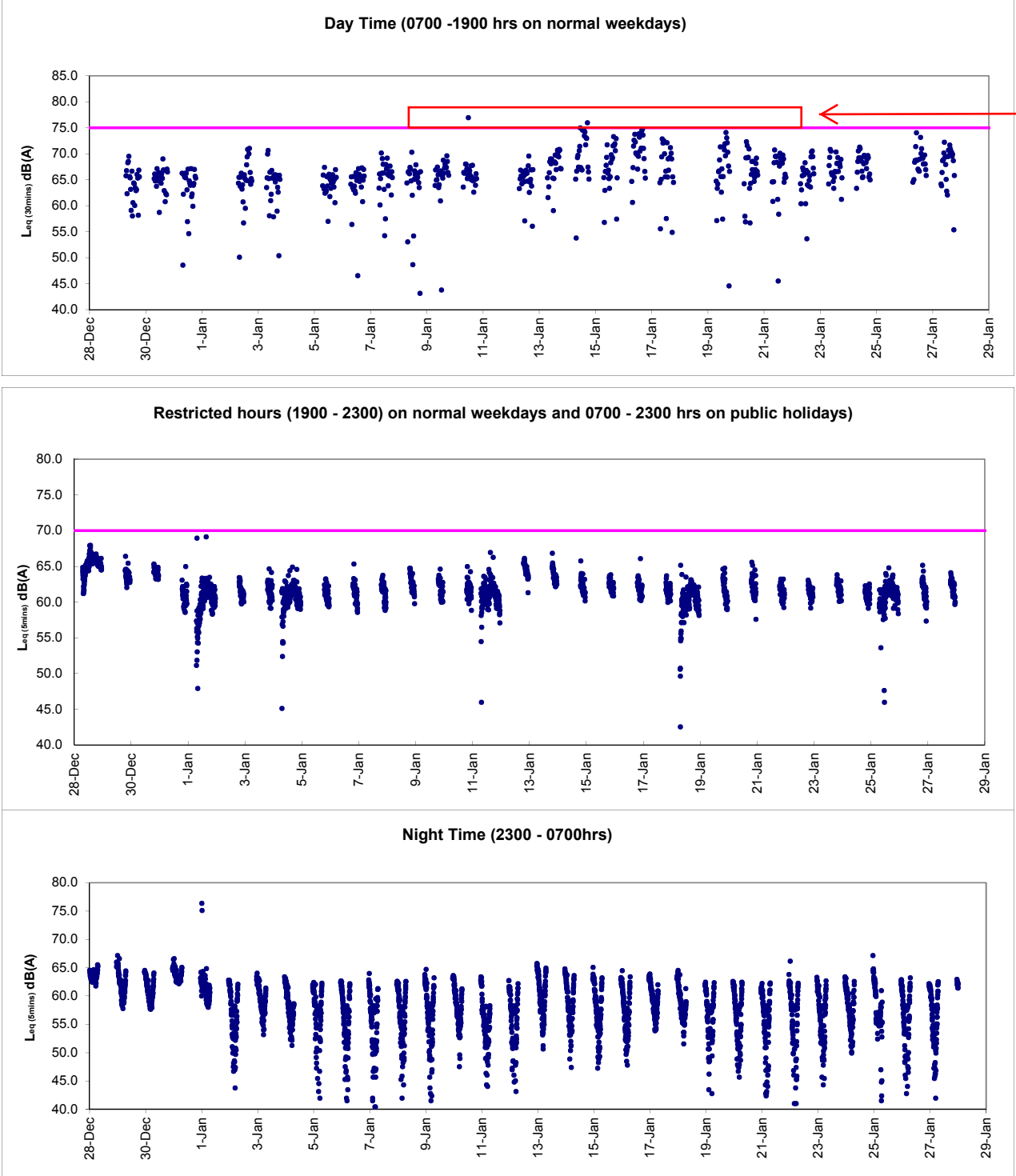
Real-time Noise Data	RTN2a (Hong Kong Electric Centre)										
20/1/2015 5:11	49.9	21/1/2015 6:16	59.0	22/1/2015 23:21	62.0	24/1/2015 0:26	60.5	25/1/2015 1:31	59.9	26/1/2015 2:36	46.0
20/1/2015 5:16	51.2	21/1/2015 6:21	58.7	22/1/2015 23:26	60.8	24/1/2015 0:31	61.5	25/1/2015 1:36	57.1	26/1/2015 2:41	58.1
20/1/2015 5:21	49.6	21/1/2015 6:26	59.0	22/1/2015 23:31	61.4	24/1/2015 0:36	60.3	25/1/2015 1:41	56.0	26/1/2015 2:46	49.4
20/1/2015 5:26	52.9	21/1/2015 6:31	60.4	22/1/2015 23:36	61.5	24/1/2015 0:41	60.4	25/1/2015 1:46	55.2	26/1/2015 2:51	53.6
20/1/2015 5:31	52.8	21/1/2015 6:36	60.9	22/1/2015 23:41	61.9	24/1/2015 0:46	59.9	25/1/2015 1:51	55.6	26/1/2015 2:56	53.3
20/1/2015 5:36	48.7	21/1/2015 6:41	61.1	22/1/2015 23:46	61.0	24/1/2015 0:51	59.5	25/1/2015 1:56	56.1	26/1/2015 3:01	53.6
20/1/2015 5:41	53.9	21/1/2015 6:46	62.1	22/1/2015 23:51	61.5	24/1/2015 0:56	60.6	25/1/2015 2:01	55.3	26/1/2015 3:06	45.5
20/1/2015 5:46	56.7	21/1/2015 6:51	62.1	22/1/2015 23:56	61.2	24/1/2015 1:01	60.8	25/1/2015 2:06	56.7	26/1/2015 3:11	58.2
20/1/2015 5:51	54.4	21/1/2015 6:56	62.3	23/1/2015 0:01	61.9	24/1/2015 1:06	58.8	25/1/2015 2:11	55.7	26/1/2015 3:16	58.2
20/1/2015 5:56	54.9	21/1/2015 23:01	63.8	23/1/2015 0:06	61.1	24/1/2015 1:11	59.7	25/1/2015 2:16	56.4	26/1/2015 3:21	57.8
20/1/2015 6:01	55.0	21/1/2015 23:06	62.3	23/1/2015 0:11	60.5	24/1/2015 1:16	59.7	25/1/2015 2:21	56.2	26/1/2015 3:26	58.2
20/1/2015 6:06	58.7	21/1/2015 23:11	62.7	23/1/2015 0:16	60.3	24/1/2015 1:21	60.0	25/1/2015 2:26	56.4	26/1/2015 3:31	57.8
20/1/2015 6:11	58.5	21/1/2015 23:16	62.1	23/1/2015 0:21	60.4	24/1/2015 1:26	60.5	25/1/2015 2:31	55.6	26/1/2015 3:36	42.8
20/1/2015 6:16	58.7	21/1/2015 23:21	61.8	23/1/2015 0:26	60.3	24/1/2015 1:31	59.6	25/1/2015 2:36	55.6	26/1/2015 3:41	57.9
20/1/2015 6:21	59.5	21/1/2015 23:26	62.1	23/1/2015 0:31	59.2	24/1/2015 1:36	60.3	25/1/2015 2:41	56.4	26/1/2015 3:46	57.6
20/1/2015 6:26	60.1	21/1/2015 23:31	61.9	23/1/2015 0:36	60.1	24/1/2015 1:41	60.1	25/1/2015 2:46	56.0	26/1/2015 3:51	58.2
20/1/2015 6:31	61.3	21/1/2015 23:36	62.1	23/1/2015 0:41	61.8	24/1/2015 1:46	59.5	25/1/2015 2:51	57.1	26/1/2015 3:56	58.2
20/1/2015 6:36	61.1	21/1/2015 23:41	61.8	23/1/2015 0:46	58.5	24/1/2015 1:51	58.4	25/1/2015 2:56	53.4	26/1/2015 4:01	57.5
20/1/2015 6:41	60.7	21/1/2015 23:46	61.9	23/1/2015 0:51	58.3	24/1/2015 1:56	58.1	25/1/2015 3:01	52.4	26/1/2015 4:06	49.5
20/1/2015 6:46	62.5	21/1/2015 23:51	61.4	23/1/2015 0:56	57.8	24/1/2015 2:01	57.6	25/1/2015 3:06	55.4	26/1/2015 4:11	58.1
20/1/2015 6:51	62.0	21/1/2015 23:56	60.8	23/1/2015 1:01	58.0	24/1/2015 2:06	58.4	25/1/2015 3:11	55.6	26/1/2015 4:16	58.2
20/1/2015 6:56	62.4	22/1/2015 0:01	61.5	23/1/2015 1:06	57.9	24/1/2015 2:11	57.8	25/1/2015 3:16	55.4	26/1/2015 4:21	49.5
20/1/2015 23:01	60.9	22/1/2015 0:06	61.5	23/1/2015 1:11	57.2	24/1/2015 2:16	58.3	25/1/2015 3:21	55.3	26/1/2015 4:26	58.0
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20/1/2015 23:11	61.4	22/1/2015 0:16	61.0	23/1/2015 1:21	57.3	24/1/2015 2:26	57.7	25/1/2015 3:31	55.6	26/1/2015 4:36	44.0
20/1/2015 23:16	61.1	22/1/2015 0:21	62.4	23/1/2015 1:26	58.2	24/1/2015 2:31	58.5	25/1/2015 3:36	56.0	26/1/2015 4:41	58.1
20/1/2015 23:21	61.5	22/1/2015 0:26	60.4	23/1/2015 1:31	56.8	24/1/2015 2:36	57.2	25/1/2015 3:41	56.1	26/1/2015 4:46	47.5
20/1/2015 23:26	60.9	22/1/2015 0:31	59.6	23/1/2015 1:36	59.8	24/1/2015 2:41	57.5	25/1/2015 3:46	55.2	26/1/2015 4:51	58.1
20/1/2015 23:31	61.1	22/1/2015 0:36	60.0	23/1/2015 1:41	55.7	24/1/2015 2:46	58.1	25/1/2015 3:51	55.3	26/1/2015 4:56	48.9
20/1/2015 23:36	61.7	22/1/2015 0:41	59.7	23/1/2015 1:46	55.8	24/1/2015 2:51	56.4	25/1/2015 3:56	54.9	26/1/2015 5:01	47.3
20/1/2015 23:41	60.8	22/1/2015 0:46	59.7	23/1/2015 1:51	56.2	24/1/2015 2:56	56.7	25/1/2015 4:01	55.4	26/1/2015 5:06	58.2
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21/1/2015 2:16	54.3	22/1/2015 3:21	58.1	23/1/2015 4:26	44.3	24/1/2015 5:31	55.2	25/1/2015 6:36	52.8	26/1/2015 23:41	61.8
21/1/2015 2:21	53.4	22/1/2015 3:26	57.9	23/1/2015 4:31	58.0	24/1/2015 5:36	54.5	25/1/2015 6:41	45.0	26/1/2015 23:46	61.6
21/1/2015 2:26	53.7	22/1/2015 3:31	57.7	23/1/2015 4:36	50.3	24/1/2015 5:41	51.9	25/1/2015 6:46	58.9	26/1/2015 23:51	61.0
21/1/2015 2:31	52.6	22/1/2015 3:36	50.6	23/1/2015 4:41	49.6	24/1/2015 5:46	60.5	25/1/2015 6:51	55.4	26/1/2015 23:56	61.3
21/1/2015 2:36	54.6	22/1/2015 3:41	41.0	23/1/2015 4:46	48.9	24/1/2015 5:51	57.3	25/1/2015 6:56	55.3	27/1/2015 0:01	61.0
21/1/2015 2:41	50.9	22/1/2015 3:46	50.7	23/1/2015 4:51	54.8	24/1/2015 5:56	55.6	25/1/2015 23:01	62.8	27/1/2015 0:06	61.3
21/1/2015 2:46	52.0	22/1/2015 3:51	38.0	23/1/2015 4:56	58.2	24/1/2015 6:01	55.9	25/1/2015 23:06	62.5	27/1/2015 0:11	61.6
21/1/2015 2:51	44.3	22/1/2015 3:56	57.5	23/1/2015 5:01	57.8	24/1/2015 6:06	57.4	25/1/2015 23:11	62.0	27/1/2015 0:16	61.1
21/1/2015 2:56	48.3	22/1/2015 4:01	57.7	23/1/2015 5:06	48.7	24/1/2015 6:11	58.9	25/1/2015 23:16	62.9	27/1/2015 0:21	61.3
21/1/2015 3:01	51.7	22/1/2015 4:06	58.1	23/1/2015 5:11	52.3	24/1/2015 6:16	59.0	25/1/2015 23:21	62.2	27/1/2015 0:26	60.8
21/1/2015 3:06	42.8	2									

Real-time Noise Data RTN2a (Hong Kong Electric Centre)

27/1/2015 3:41	51.9
27/1/2015 3:46	47.9
27/1/2015 3:51	58.3
27/1/2015 3:56	51.1
27/1/2015 4:01	45.8
27/1/2015 4:06	47.3
27/1/2015 4:11	58.1
27/1/2015 4:16	46.4
27/1/2015 4:21	48.3
27/1/2015 4:26	57.9
27/1/2015 4:31	46.2
27/1/2015 4:36	50.4
27/1/2015 4:41	58.3
27/1/2015 4:46	42.0
27/1/2015 4:51	46.8
27/1/2015 4:56	52.1
27/1/2015 5:01	49.9
27/1/2015 5:06	51.7
27/1/2015 5:11	50.8
27/1/2015 5:16	52.3
27/1/2015 5:21	51.7
27/1/2015 5:26	55.1
27/1/2015 5:31	54.4
27/1/2015 5:36	53.5
27/1/2015 5:41	54.8
27/1/2015 5:46	56.3
27/1/2015 5:51	57.1
27/1/2015 5:56	56.3
27/1/2015 6:01	55.1
27/1/2015 6:06	58.4
27/1/2015 6:11	57.8
27/1/2015 6:16	58.0
27/1/2015 6:21	59.7
27/1/2015 6:26	60.2
27/1/2015 6:31	62.0
27/1/2015 6:36	60.9
27/1/2015 6:41	60.8
27/1/2015 6:46	62.1
27/1/2015 6:51	62.5
27/1/2015 6:56	62.6
27/1/2015 23:01	62.9
27/1/2015 23:06	62.0
27/1/2015 23:11	62.7
27/1/2015 23:16	62.2
27/1/2015 23:21	62.4
27/1/2015 23:26	62.5
27/1/2015 23:31	61.7
27/1/2015 23:36	61.9
27/1/2015 23:41	61.4
27/1/2015 23:46	62.1
27/1/2015 23:51	61.5
27/1/2015 23:56	62.2



Graphic Presentation of Real Time Noise Monitoring Result (RTN2a- Hong Kong Electric Centre)



After checking with contractor HY/2009/19, bored piling was conducted during the recorded period, contractor mitigation measures including provision of temporary noise barrier were implemented. In view of the exceedances are non-continuous, the exceedances were considered to be non-Project related and contributed by nearby IEC traffic.



Appendix 6.1

Event Action Plans



Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	<ol style="list-style-type: none">1. Notify ER, IEC and Contractor;2. Carry out investigation;3. Report the results of investigation to the IEC, ER and Contractor;4. Discuss with the IEC and Contractor on remedial measures required;5. Increase monitoring frequency to check mitigation effectiveness. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Review the investigation results submitted by the ET;2. Review the proposed remedial measures by the Contractor and advise the ER accordingly;3. Advise the ER on the effectiveness of the proposed remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Confirm receipt of notification of failure in writing;2. Notify Contractor;3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;4. Supervise the implementation of remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Submit noise mitigation proposals to IEC and ER;2. Implement noise mitigation proposals. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>



EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)



Event / Action Plan for Construction Air Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Notify Contractor. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Rectify any unacceptable practice; Amend working methods if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify source; Inform IEC and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; If exceedance continues, arrange meeting with IEC and ER; If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise Implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Submit proposals for remedial to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
LIMIT LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with IEC and ER to discuss the remedial actions to be taken; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; Ensure remedial measures properly implemented; 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. (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)



Event and Action Plan for Marine Water Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next working day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)



EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit level being exceeded by one sampling day	<p>Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET , IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)</p>
Limit level being exceeded by more than one consecutive sampling days	<p>Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)</p>	<p>Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)</p>



Event and Action Plan for Odour Patrol

Event	ACTION	
	Person-in-charge of Odour Monitoring	Implementation Agent Identified by CEDD
Action Level		
Exceedance of Action Level	1. Identify source/reason of exceedance; 2. Repeat odour patrol to confirm finding.	1. Carry out investigation to identify the source/reason of exceedance; 2. Rectify any unacceptable practice 3. Implement more mitigation measures if necessary; 4. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.
Limit Level		
Exceedance of Limit Level	1. Identify source / reason of exceedance; 2. Repeat odour patrol to confirm findings; 3. Increase odour patrol frequency; 4. If exceedance stops, cease additional odour patrol.	1. Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks; 2. Rectify any unacceptable practice; 3. Formulate remedial actions; 4. Ensure remedial actions properly implemented; 5. If exceedance continues, consider what more/enhanced mitigation measures shall be implemented; 6. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.



Appendix 6.2

Summary for Notification of Exceedance



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A001	21-Jan-15	8:00	CMA1b-Oil Street Site Office	242.5	24 hr TSP (ug/m ³)	176.7	260	<p>Possible reason: High ambient air pollution level was observed during monitoring and was considered as the major contribution for air quality impact.</p> <p>Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and covering of dusty stockpile were implemented by contractor of HY/2009/19</p> <p>Remarks / Other Obs: Although bored piling and sewage pipe construction were conducted under HY/2009/19 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Eastern District during the monitoring period was ranged from 4 to 10+ indicating a severely high concentration of air pollutants. In addition, similar construction activities and mitigation measures were undertaken in previous monitoring, no exceedance was recorded. As such, the implemented measures were considered effective and exceedance was considered as non-project related.</p>



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A002	21-Jan-15	8:00	CMA2a-Oil Street Site Office	205	24 hr TSP (ug/m ³)	176.7	260	<p>Possible reason: High ambient air pollution level was observed during monitoring and was considered as the major contribution for air quality impact.</p> <p>Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and covering of dusty stockpile were implemented by contractor of HY/2009/19.</p> <p>Remarks / Other Obs: Although excavation and tunnel back filling works were conducted under HY/2009/19 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Eastern District during the monitoring period was ranged from 4 to 10+ indicating a severely high concentration of air pollutants. In addition, similar construction activities and mitigation measures were undertaken in previous monitoring, no exceedance was recorded. As such, the implemented measures were considered effective and exceedance was considered as non-project related.</p>



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A003	21-Jan-15	8:00	CMA4a-SPCA	242.8	24 hr TSP (ug/m ³)	171.2	260	<p>Possible reason: High ambient air pollution level was observed during monitoring and was considered as the major contribution for air quality impact.</p> <p>Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road was implemented by contractor of HK/2009/02</p> <p>Remarks / Other Obs: Although D-wall construction, shear pin installation and ground investigation were conducted under HK/2009/02 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/Western District during the monitoring period was ranged from 4 to 10+ indicating a severely high concentration of air pollutants. In addition, similar construction activities and mitigation measures were undertaken in previous monitoring, no exceedance was recorded. As such, the implemented measures were considered effective and exceedance was considered as non-project related.</p>



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A004	21-Jan-15	8:00	CMA5b- Pedestrian Plaza	274.6	24 hr TSP (ug/m ³)	181.0	260	<p>Possible reason: High ambient air pollution level was observed during monitoring and was considered as the major contribution for air quality impact.</p> <p>Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and was implemented by contractor of HK/2009/01</p> <p>Remarks / Other Obs: Although tunnel construction and retaining wall construction were conducted under HK/2009/01 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/Western District during the monitoring period was ranged from 4 to 10+ indicating a severely high concentration of air pollutants. In addition, similar construction activities and mitigation measures were undertaken in previous monitoring, no exceedance was recorded. As such, the implemented measures were considered effective and exceedance was considered as non-project related.</p>



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A005	21-Jan-15	8:00	CMA5b- Pedestrian Plaza	274.6	24 hr TSP (ug/m ³)	181.0	260	<p>Possible reason: High ambient air pollution level was observed during monitoring and was considered as the major contribution for air quality impact.</p> <p>Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and was implemented by contractor of HK/2012/08.</p> <p>Remarks / Other Obs: Although concreting works were conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/Western District during the monitoring period was ranged from 4 to 10+ indicating a severely high concentration of air pollutants. In addition, similar construction activities and mitigation measures were undertaken in previous monitoring, no exceedance was recorded. As such, the implemented measures were considered effective and exceedance was considered as non-project related.</p>



Lam Geotechnics Limited

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and Testing Work (Stage2)
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action
X_W5189	23-Jan-15	Mid-flood	WSD19	DO(mg/l)	5.9	3.66	2.73	Possible reason: Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	16.48	8.04	9.49	Action taken/ to be taken: Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	8.00	13.00	14.43	Remarks/ Other Obs: Despite formation of rockbund was conducted under contract HK/2012/08 on the monitoring date, Contractor mitigation measures including the use of silt curtain was generally in place. Silt screen at monitoring station was generally in order. In view of the exceedance was not continuous, it was considered that the exceedance was not project related.



Lam Geotechnics Limited

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and Testing Work (Stage2)
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Depth	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_10D506	23-Jan-15	Mid-ebb	Ex-WPCWA SE	Bottom	DO(mg/l)	5.23	5.36	5.35	<p>Possible reason:</p>	<p>Possible in relation to the upstream organic discharge.</p>
									<p>Action taken/ to be taken:</p>	<p>Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p>
									<p>Remarks/ Other Obs:</p>	<p>No marine works were conducted at Ex-WPCWA on the monitoring date and upstream discharge at the concerned location were consistently observed. In view of no marine activities were conducted, it was considered the exceedance was not related to Project.</p>



Appendix 9.1

Complaint Log

**Environmental Complaints Log**

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100321a	21/3/2010	ICC Case no. 1-224618029, Ms. Tsang	Location near Tin Hau	Complaint regarding the loud noise and dark smoke in the course of dredging works on 21 March 2010 (Sunday).	<ol style="list-style-type: none">1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works which carry out at area for North Point Reclamation.2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.3) The Contractor (CHEC-CRBC JV) strictly comply all the conditions in CNP and take all mitigation measures in order to minimize the potential impacts to surrounding sensitive receivers. A formal letter was issued out by CHEC-CRBC JV and to explain the status of the recent construction activities.4) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring.5) No further complaints were received from Mr. Tsang in the reporting month. The complaint is considered closed.	Closed
100321b	21/3/2010	Unknown	Near the eastern breakwater of the Causeway Bay Typhoon Shelter	A public complaint and enquiry regarding loud noises emanated from dredging activities on 21/3/2010 (Sunday) until 2220 hours and between 1920-1946 hours in the evening of 22 March 2010(Monday).	<ol style="list-style-type: none">1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works at area for North Point Reclamation during general holidays including Sunday between 0700-2300 hours and any day not being a general holiday between 1900-2300hours. It is complied with the condition of CNP.2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.3) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring.4) No further complaints were received in the reporting month. The complaint is considered closed.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100504	4/5/2010	Public complainant received by ICC (ICC case: 1-233384048)	Watson Road	Complaint on the noise nuisance due to the large scale of dredging machine (face to Island East Corridor) in particular the hours 1900 to 0800 and request to reduce the noise level.	<ol style="list-style-type: none">1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0119-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230.2) According to RSS 's record, no more daytime and night time dredging since the departure of the split hopper barge from the workplace on 29 April 2010 at 1900 hrs to 5 May 2010.3) No further complaints were received in the reporting month. The complaint is considered closed.	Closed
100731	31/7/2010	Mr. Lee received by ICC (CC Case: 1-250702681)	Oil Street to Watson Road	Complaint on the noise nuisance due to the dredging works. Three construction plants were operated concurrently.	<ol style="list-style-type: none">1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works.2) There was only 1 grab dredger operated by Contractor within NPR project site area for dredging works.3) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 27 July and 3 August 2010 during daytime and evening time period.4) It is considered as invalid from the EP and CNP point of view.	Closed
100812	12/8/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the dredging works at the marine works area adjacent to the Harbour Height during the period from 0700 to 2200.	<ol style="list-style-type: none">1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230.2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 10 and 17 August 2010 during daytime and evening time period.3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
101108	8/11/2010	Mr. Nip received by ICC (CC Case)	Sai Wan Ho	Visual concern around the seaside silt screen outside the WSD freshwater intake pump at Sai Wan Ho (Monitoring station ref no.. WSD15)	<ol style="list-style-type: none">1) Contractor for HY/2009/11 has been regular checked of condition and removal of trapped rubbish before the dismantling of the floating silt screen to be replaced by wall mount silt screen.2) Follow-up action had been immediately carried out to check and clear the floating refuse around the seaside silt screen after receipt of the complaint.3) Removal of seaside silt screen outside the WSD freshwater intake (WSD15) by contractor HY/2009/11 was checked and confirmed dated 9 November 2010. Silt screen has been deployed into the existing steel frame at WSD15 for the protection of WSD salt water intake.	Closed
101110	10/11/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the power mechanical equipment during the 0700 to 2200hrs	<ol style="list-style-type: none">1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0870-10 for their dredging works during evening time. Contractor has implemented mitigation measures to reduce the working hour not later than 2230.2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 4 and 10 November 2010 during daytime and evening time period.3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed
101203	3/12/2010, 01:45a.m.	The resident of Block 11, City Garden by ICC referral from Marine Department	North Point	Bad odour was generated from the dredging plant off North Point	<ol style="list-style-type: none">1) The first investigation was carried out by Marine Department patrol in the morning on 3 Dec 2010 at around 10:00 and revealed that a few working barges were anchoring in the vicinity without carrying out dredging work.2) A further specific investigation inspection on contractor's backhoe barge in the vicinity of City Garden was jointly conducted with Engineer Representatives (AECOM/RSS), and ET on 8 Dec 2010 at 11:30. No bad odour was noted during the investigation.3) Routine dredging operation of the backhoe barge was performed during the jointed investigation inspection and it was revealed that no bad odour was attributed by the dredged materials inspected.	Closed
101206	6/12/2010	Ms Lui, the resident of 27/F, Block 10, City	City Garden, North Point	Two barges were generating noise at 22:00 on 6 December 2010 in which the noise from	<ol style="list-style-type: none">1) ET confirmed the following information with resident site staff on the complaint:<ul style="list-style-type: none">• It was referred to the filling operation at North Point	Closed



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		Garden by ICC (ICC case: 1-266039336)		<p>filling operation was louder than the traffic noise & visual impact was generated due to the spot-light pointing directly to the complainant flat, suspected the filling operation was part of Wanchai Development Phase II;</p> <p>Complainant also raised the same complaint to District Councillor, Mr. Hui on 7 Dec 2010 regarding the night-time noise and suspected earlier start of work at 06:30. Complaint also requested for limiting the plant operating hours from 09:00-21:00.</p>	<p>Reclamation of Central Wan Chai Bypass site area instead of part of Wanchai Development Phase II;</p> <ul style="list-style-type: none"> • Two derrick barges were in operation at the time of complaint for placing 400 rockfill onto the excavation trench and for levelling the formation level to receive the pre-cast caisson seawall; • Flood light on the control mast of derrick barge have no lighting shields for the prevention of glare of flood lights; • No starting work on 7 Dec 2010 at 0630hours. <p>2) PME used in restricted hours were checked and confirmed compliant with valid CNP no. GW-RS0870-10. The noise level recorded on 6 Dec 2010 was complied with the noise criteria during restricted hour;</p> <p>3) It was found that the occasional noise nuisance might be caused by the hitting or scratching onto the rock surface during loading down the grab onto the Grade 400 rockfill;</p> <p>4) The absence of the lighting shields at flood light results in visual glare to the complainant at night-time.</p> <p>5) Contractor was advised to minimize the finishing time of placing Grade 400 rockfill at 2100hrs and switch off all unnecessary flood lights apart from the light for the safety and security purpose;</p> <p>6) No further complaint was received after implementation of proposed measures</p>	
110415	15/04/2011	The resident, Mr Law at Victoria Centre by ICC (ICC#1-281451236)	North Point	A dust generation and a concern of mosquitoes breeding complaint in which suspected the filling operation was part of North Point Reclamation.	<p>1) The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work.</p> <p>2) Water spraying on the haul road and potential dust generating material at least 4 times a day was conducted by contractor that complies with the requirement.</p> <p>3) It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant.</p> <p>4) It was recommended that increasing the frequency of water spraying shall be conducted to all potential dust generating materials and activities. Besides, Contractor should consider to cover the idle part of the stockpile</p> <p>5) The concern of mosquitoes breeding is out the scope of EM&A, the follow-up action is not reported in this monthly EM&A report.</p>	Closed



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110419	19/04/2011	Ms Chiu at Victoria Centre at Victoria Centre by ICC (ICC# 1-272874759)	North Point	The episode of night noise on 19/4/11 and 20/4/11 at 2:50 am and the noise lasted for 30 minutes per night.	<ol style="list-style-type: none">1) According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period.2) There was no abnormal real-time noise monitoring data recorded in RTN1 - FEHD Hong Kong Transport Section Whitefield Depot which is next to the Victoria Centre.3) It is considered as invalid complaint under this Project.	Closed
110617	9/06/2011	Mr. Law from Victoria Centre Management Office	North Point	An odour nuisance suspected generating from the discharge point – Channel T at Watson Road in part of the site area was related to CWB under Contract no. HY/2009/11	<ol style="list-style-type: none">1) The complaint was received by ET on 13 Jun 2011. During the weekly site inspection on 7 and 17 June 2011, there was no any odour impact detected in the site area.2) According to the site record, there was muddy water discharged from the unknown source at upstream of Channel T during heavy rainstorm. No any site surface runoff to the Channel T and out of site boundary was observed in the inspection.3) In order to prevent muddy water washing out to the water body under heavy rainstorm, a silt curtain was installed at the outfall of the channel by Contractor. ET confirmed with the Resident Site Staff that a silt curtain was installed at the outfall of the channel to prevent muddy water washing out to the water body under heavy rainstorm. Besides, regular cleaning of refuse in the channel has been conducted by Contractor.4) A further site investigation on 28 June 2011 revealed that no odour nuisance was detected at the upstream of the Channel T and no source of odour nuisance was identified at site. As such, it was concluded that the source of odour nuisance was not related to the Project works.5) Although no source of odour nuisance was identified at site, the muddy water and dirt from the unknown source at upstream of Channel T may cause a potential smell during low tide and low water flow. Contractor was reminded to remove the silt curtain at the channel on non-rainy day so as to avoid the accumulation of the sediment and dirt in the water channel.	Closed



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110709	09/07/2011	Mr. Au from City Garden Management Office	North Point	A complaint letter to Contractor HY/2009/11 was raised by Cayley Property Management Limit on 9 July 2011 regarding a series of pump breakdown events at seawater intake of City Garden on 4, 6, 7 and 8 July 2011. A lot of rubbish such as plastic bags, nylon bags, nylon-wire mesh was observed sucking from the seawater intake at the seawater front of Block 7 of City Garden affecting the operation of seawater pump plant.	<ol style="list-style-type: none">1) Contractor conducted formation works for installation of caisson seawall at C27, C28, C29 and C30 on 4, 6, 7 and 8 July 2011 and no dredging work was conducted during this time period2) Water mitigation measures of an 80m long silt curtain at the site boundary in front of City Garden Relocation of silt curtain and silt curtain at the outfall of the channel were provided and maintained to accommodate the site works. All vessels are equipped with rubbish collection facilities and disposed the rubbish regularly. Also, daily cleaning actions had been taken by contractor to minimize floating refuse within the site boundary.3) Moreover, it has been reported several times that discharged from outfall pipeline outside the site boundary near the intake of the pump maybe considered as another source of rubbish generation.4) Referring to the record provided by Cayley Property Management Limit, the trapped rubbish was unlikely generated from the construction works. It was considered that complaint is invalid and not related to project.	Closed
110710	09/07/2011	Complainant by ICC (ICC no. 1-301520309)	North Point	It was received at 00:56 on 10 July 2011. There was complained a derrick barge unloading rockfill material off the shore facing the Harbour Grant HK Hotel causing noise nuisance.	<ol style="list-style-type: none">1) ET confirmed with the Resident Site Staff that the complaint was referred to Contract HY/2009/15 for the loading and unloading of fill material at two barges operation in the sea at around 300m adjacent to Island Eastern Corridor (Oil Street Chainage) where is outside the Site of HY/2009/15 in the period of around 19:45 on 9 July to 1:00 on 10 July 2011.2) The material loading and unloading operation processed in restricted hours was checked without a valid CNP. It was found that the operation was due to an unexpected water leakage of the hopper barge and considered an incident.3) According to the incident report provided from RSS on 20 July 2011, around 7:30 pm the barge S22 was inclined slightly and slightly water leakage might occur. Due to marine safety concern, the hopper barge would open the hopper to release the contained materials in order to reduce the weight and stabilize the barge. In consider of slight water leakage, the operator decided to use the nearby Derrick Barge ST32 to help for unload the general fill materials first and the unloading operation was started at around 7:45pm, and end at around 1:00 am. Contractor was reminder to provide frequent check of vessel condition	Closed



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					so as to prevent recurrent by barge defect	
110723a	23/07/2011	Ms. Law at Victoria Centre by ICC no. 1-303887687	North Point	She concerned that Highways Department published a notice in their Management Office about construction works will be conducted from 0700 hours to 2300 hours during July to December 2011 including Saturday, Sunday and public holiday.	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed that the notice was prepared by Victoria Centre's Management office to their resident and the advice was only given on the extension construction works (for Contract HY/2009/15) to 7am-9pm from Monday to Saturday except Public Holidays and Sundays. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) No noise exceedance was recorded at construction noise monitoring station at Victoria Centre on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring. 5) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures. 	Closed
110723b	23/07/2011	Ms. Yau at Block 2, Victoria Centre by ICC no. 1-304013959	North Point	Reclamation work was conducted at Causeway Bay Typhoon Shelter at 7am on 23 July 2011. She complained that the works shall be started later to minimize the noise nuisance to the vicinity of the residents in early morning	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 8 August 2011 2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures. 	Closed
110727a	27/07/2011	Mr. Law from Victoria Centre Management Office by ICC no. 1-304616162	North Point	It was complained by Mr. Law from Victoria Centre Management Office on 27 July 2011 regarding construction noise generated by the construction operations of	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed to start the rock breaking activities for Contract HY/2009/15 at 8am as a mitigation measure to minimize the noise nuisance in the vicinity of the residents. 3) No noise exceedance was recorded at construction noise 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
				Central-Wanchai Bypass at noon rather than in morning at 7am.	<p>monitoring station at Victoria Centre on 25 July and 4 August 2011 during daytime while breaking and excavation works were undertaken during monitoring.</p> <p>4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. No further complaint from complainant was received after proposed the mitigation measure.</p>	
110727b	27/07/2011	Ms. Chiu by ICC no.1-304615409	North Point	Noise nuisance from the excavation works for the Highways Department adjacent to the Victoria Centre was conducted from 7am	<p>1) It was referred by AECOM to ET on 28 July 2011</p> <p>2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 25 July and 4 and 10 August 2011 during daytime while breaking and excavation works were undertaken during monitoring.</p> <p>3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am.</p>	Closed
	08/08/2011				<p>4) However, complainant did not satisfy with the response on the noise nuisance from the rock-breaking during morning in front of Victoria Centre and then further complaint via 1823 on 7 August 2011.</p> <p>5) Highways contacted the complainant on 15 August 2011 that the noisy rock breaking operation had been completed.</p> <p><i>Remarks: There will be counted as two complaints in this complaint log.</i></p>	
110810	10/08/2011	Mr. Yip by ICC no. 1 - 306740207	North Point	Muddy water was discharged from work site to the seafront near Oil Street during heavy rain. The environmental protection measures were not good enough and are needed to rectify.	<p>1) It was referred by AECOM to ET on 17 August 2011.</p> <p>2) Confirmed with RE, Muddy water was caused by a heap of earth being washed to the sea by heavy rain. The heap of earth was referred as a small stockpile placed close to the seafront in front of Oil Street within the site area under handover transition period from contract HY/2009/11 to contract HY/2009/19. The necessary mitigation measures to protect the small stockpile against rainfall were missing at the time of complaint.</p> <p>3) Due to the missing of mitigation measures to protect the small stockpile during handover transition period, loose material was washed into the harbour when heavy rain came. Muddy water was formed and dispersed in the sea that caused the water quality and visual concern to the public. The complaint was considered as valid.</p> <p>4) Contractors were advised to relocate the loose materials</p>	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					away from the coastline as far as practicable. Any loose material placed which needed to be placed near the coastline shall be properly compacted or covered as appropriate. To avoid any further environmental deficiency, Contractors shall ensure all necessary environmental mitigation measures will not be missing during site area handover.	
110826	26/08/2011	Grand Hyatt and a complainant by ICC	Wan Chai	Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area.	<ol style="list-style-type: none"> 1) Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01. 2) The Excavator mounted breaker at Convention Avenue and Drilling rig at HKCEC1 reclamation area were the dominant construction noise source during this period. 3) The drilling rig at HKCEC1 reclamation area and excavator mounted breaker at Convention Avenue were then temporary suspended after received the complaint. 4) Investigation revealed that the erected noise barrier (4m cantilevered movable noise barrier for the drilling rig and 1m movable noise barrier for the excavator mounted breaker) were not located close to the plants to provide adequate noise screening. 5) Contractor was advised to avoid concurrent operation of construction plants at site. Further enhancement of movable noise barriers at HKCEC1 and providing noise enclosure for the excavator mounted breaker at Convention Avenue are needed. 6) Further site investigation and checking on 31 August and 7 September 2011 revealed that the implemented noise mitigation measures were in proper and minimize the noise impact. 	Closed
110826A	26/08/2011	A complaint letter from Mr. Au of Cayley Property of City Garden	North Point	Harbor front adjacent to their cooling water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25 August 2011.	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 29 August 2011. Confirmed with the Resident Site Staff that the <ul style="list-style-type: none"> • construction works were referred to the Contractors HY/2009/11 and HY/2009/19. • The pump is located on the site area of HY/2009/19 • A temporary garbage defender was installed on 23 July 2011 by HY/2009/11 and the shape of the defender was adjusted on 8 August 2011 in order to exclude the outfall. • An ad hoc inspection of the effectiveness of garbage defender was conducted with RSS (CWB project 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>team), contractor of HY/200911 and HY/2009/19 and ICon 29 August 2011. Inspection report of it was submitted to RSS on 19 September 2011.</p> <ul style="list-style-type: none"> • Daily cleaning near the water intake was conducted twice a day by contractor HY/2009/19. • In response to City Garden request, the contractors have set up the temporary garbage defender in function and collect the floating refuses, but cannot eliminate all refuses, in particular the refuse coming from the seabed <p>2) According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying with their expectation.</p> <p>3) During on-site inspection, floating refuses observed occasionally outside the garbage defender. No conclusion could be made for the source of these floating refuses. On the other hand, some of the refuses were observed floating behind the garbage defender during investigation.</p> <p>4) All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site.</p> <p>5) It was noted that the cooling water intake was accessible to the public. As such, fish breeding and fishing activities were observed even though a notice has already hoisted. Also, tripping of rubbish by the passers-by could result in a lot of rubbish accumulated around the intake point.</p> <p>6) Referring to the record provided by CPML, there were a lot of nylon/ plastic bags and nylon wire mesh that matched those rubbishes generated from the public activities.</p> <p>7) Contractors have fulfilled the requirement of site cleanliness and no exceedance was recorded during Water Quality Monitoring. It is considered the cause of this complaint is not related to project and environmental issue in this project as well. No more complaint received after ad-hoc inspection</p>	
111014	14/10/2011	The complainant, Ms. Tam complained via hotline 1823	Wan Chai	The polluted fumes and exhaust from the excavation by sub-contractor of CEDD on pedestrian way outside no.25 Harbour Road (in front of the Harbour Centre)	<p>1) RSS notified ET to carry out investigation on 17 October 2011.</p> <p>2) ET confirmed with the Resident Site Staff that the location of the excavator was within site area of Contract no. HK/2009/02 undertaking the water cooling main re-provision works along the Harbour Road. The plants including the excavator have been checked before using</p>	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>at the site. However, the polluted fumes and exhausted from the excavator was caused due to insufficient maintenance of the plant after using at site.</p> <p>3) After receiving the complaint, the excavator was then removal off-site for checking and maintenance works on 17 October 2011.</p> <p>4) Contractor was reminded to enhance regular checking and maintenance to all plants at site.</p> <p>5) RSS has replied to the complainant on the arrangement of the measures taken on 17 October 2011. Complainant was satisfied with the response and follow-up action taken by the Contractor.</p>	
111104	04/11/2011	Mr. Liu from LCSD complained via Contractor Complaint Hotline	Wan Chai	Complain about a tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road, the status is not healthy and roof ball of two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue were half cut.	<p>1) ET confirmed with the Resident Site Staff that</p> <ul style="list-style-type: none"> • A tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road is the Tree no. TA1122 under Contract no. HK/2009/02. Leaves of a branch of this tree were shrivelled. • Two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue are the tree nos. A160 and A161 under Contract no. HK/2009/01. Part of roof ball of these two trees was covered by the metal plate. <p>2) Independent Tree Specialists for these two inspected the trees. Contractor HK/2009/01 has taken the measure as recommend downgrading the soil level around the trunk base. Reinstating of the ground works will be conducted in mid-December 2011. For the tree no. TA1122 under Contract no. HK/2009/02, the brown leaves were removed and fenced the tree with orange net is provided to prevent damage of tree trunk by construction works. The distance between the tree and the edge of the trench is kept approximate 2m. Two Contractors were reminded to carry out regular watering to the trees within their site area.</p>	Waiting RSS respond
111106	06/11/2011	Police officer	Wan Chai	Construction noise generated from the site at about 6:30 a.m on 6 November 2011 and require to stop the machine operation	<p>1) According to the information reported by Contractor, one BC cutter and hoist were operated for Diaphragm Wall construction of Shatin-Central Link to inspect bentonite pipes and ensure no damages and all the joints are tightened in good position. Then, the subcontractor for Diaphragm wall, SAMBO Korean foreman stopped the engine of the BC cutter immediately. The police officer recorded the details and HKID number of the foreman and then left. Due to the different language communication between the police officer and the Korean foreman, no</p>	Keep in view for three months from the date of complaint received



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>CNP was checked by the police officer.</p> <p>2) ET confirmed with the Resident Site Staff that same issue was also raised out by RSS at about 7:00a.m on the same day. Besides, it was confirmed that there is no valid Construction Noise Permit for the conducted construction works in the period between 2300 and 0700.</p> <p>3) Due to insufficient communication between Contractor HK/2009/01 and their Korean Sub-contractor, Korean Sub-contractor had not notified to Contractor before carrying out the inspection of the BC cutter, hoists and bentonite pipes at about 6:00a.m to ensure no damages and all the pipe joints should be tightened and in good position.</p> <p>4) Contractor was advised to enhance the communication between Contractor and sub-contractor and provide sufficient environmental training to all foreman and operators on restricted hour operation. Furthermore, Construction Noise Permit should be checked and in place for the construction works during restricted hour</p> <p>5) This complaint was considered in relation to the conducted construction works during restricted hours without valid Construction Noise Permit. No more construction works were conducted during night time period. The construction works will be conducted in accordance with the time period stated in valid CNP. This complaint will be kept in view of any follow-up action from the relevant government activities.</p>	
120405	05/04/2012	N/A	North Point	A complaint regarding excessive noise from construction sites of CBTS was observed daily before 7:30am except on public holidays, and the noise source was mainly from piling works. The complainant requested that construction works should start after 8:30am to avoid nuisance to nearby residents and a speedy follow-up and reply.	<p>1) RSS notified ET on 5 April 2012.</p> <p>2) ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period.</p> <p>3) After reviewing the results of noise monitoring (M2b and M3a), no exceedance was recorded during daytime period and the noise level was below 75dB(A). Site inspection for HY/2009/15 was conducted on 10 April 2012. The condition of noise mitigation measures around CBTS was found satisfactory. RSS confirmed that no pilings were performed during the concerned period. The major works included drilling, diaphragm wall construction and excavations.</p> <p>4) HyD made a reply to the complainant on 16 April 2012 via 1823. HyD replied that the current works at CBTS were drilling, diaphragm wall construction and deep excavations. In order to minimize the noise generated</p>	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					from the above works, the Contractor had erected temporary noise barriers and provided noise blankets on plants. RSS would continue to work with the Contractor on the effectiveness of the environmental mitigation measures implemented on site. No further complaint was received after the response.	
130308	06/03/2013	ICC Case#1-407181502	Tin Hau	A complaint regarding the dropping of fine rock material into surrounding waterbody was observed during rock breaking operation with two excavators in active operation at the Eastern Breakwater of Causeway Bay Typhoon Shelter near the North Point lighthouse.	<p>1) RSS notified ET on 8 March 2013</p> <p>2) ET confirmed with RSS that excavation works, installation of buoy, flashing light and silt curtain and dredging works were undertaken at Eastern Breakwater during the concerned period on 6 March 2013. One backhoe equipped with breaker and one derrick barge were confirmed in operation while another backhoe was at idle during the concerned period on 6 March 2013.</p> <p>3) Reviewing the photo record provided by RSS, the condition of the silt curtain deployed around the Eastern Breakwater on 6 March 2013 was found to be in good condition. It is considered that the silt curtain was properly in place during the concerned period and the concerned act of dropping of fine rock material was confined within the silt curtain boundary without adverse impact to the nearby water quality.</p> <p>Further follow up was conducted on 12 March 2013 during weekly environmental audit inspection, the silt curtain deployed around the concerned area was found to be maintained in good condition and the water quality at the concerned work area was generally satisfactory. No violation of the Environmental Permit condition was found.</p> <p>The contractor was advised and committed to implement preventive measures to minimize the potential impact of work including conducting regular diver check to ensure the integrity and the extend of silt curtain deployment and to provide adequate back up stock of silt curtain for emergency use.</p>	Closed
140612	12/06/2014	EPD ref: EP/860/F2/24 Annex IV	Wan Chai	The complaint is regarding to the water quality of the waterfront outside the Hong Kong Academy for Performing Arts Theatre Block, where a large piece of muddy water was found.	<p>1) WSII RSS team notified ET on 12 June 2014; Notification letter from EPD (ref: EP/860/F2/24 Annex IV) was received by ET on 13 June 2014.</p> <p>2) ET confirmed with RSS that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. With respect to the complaint case, muddy dispersion was observed at HKCEC2W works area on 12 June 2014, and</p>	Interim Report was submitted to EPD on 20 June 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested.</p> <p>3) It is considered that Contractor's mitigation measures would require further review on the effectiveness to avoid seepage of muddy dispersion such as regular diver inspection check and daily visual checking of silt curtains.</p> <p>Additional silt curtain at marine access zone was installed by Contractor on 12 June 2014 and the double layer silt curtain were generally in order. Follow-up inspection was further conducted on 16 June 2014.</p> <p>The Contractor's investigation report on the complaint case was submitted to EPA via email on 18 June 2014.</p>	
140723	21/07/2014	ICC Case Ref: 2-341537112	Works area opposite to Ngan Tao Building	The complaint is regarding to construction noise impact to the complainant who could not sleep due to work and machine at the project site opposite to the Ngan Tao Building.	<p>1) Construction noise impact referred by RSS was received by ET on 25 July 2014</p> <p>2) ET confirmed with RSS that horizontal cutting and removal of D-wall at Eastern, Southern and Northern side of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter before 23:00hrs on 20 July 2014 that total 3 numbers of derrick lighter and 3 numbers of saw cut machine were in operation, and removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter around 00:25hrs to 00:56hrs on 21 July 2014 that total 1 number of derrick lighter was in operation.</p> <p>3) According to the relevant site records under Contract HY/2009/15, before 23:00hrs on 20 July 2014, horizontal cutting and removal of Diaphragm Wall at Eastern, Southern and Northern side of TS2 was conducted under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 3 nos. of derrick lighter and 3 nos. of saw cut machine were in operation at the above period. From around 00:25hrs to 00:56hrs on 21 July 2014, removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter. Total 1 no. of derrick lighter was found operating at the above period</p> <p>4) It was considered the condition of CNP GW-RS0592-14 was not fulfilled by the Contractor of HY/2009/15. "From 00:25hrs to 00:57hrs on 21 July 2014, the PME(s) (1 no. of Derrick Lighter) on-site could not follow with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no. GW-RS0592-14."</p>	<p>Final report (Issue1) issued on 31 July 2014.</p> <p>Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.</p>



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>Notwithstanding the above, according to the site recorded provided by the RSS, the derrick lighter was found malfunction at around 23:00hrs on 20 July 2014 while the diaphragm wall cutting procedure was incomplete. Under safety and navigation consideration, the completion of diaphragm wall removal was necessary and of imminent need.</p> <p>5) The Contractor of HY/2009/15 was advised to review the construction sequence and emergency response procedure for construction activities during restricted hours and night time period to allow for sufficient buffer time for work completion such that the Construction Noise Permit would be followed. Furthermore, the Contractor of HY/2009/15 was suggested to conduct throughout checking of PME used on site prior to work commencement to minimize the potential malfunctioning of PME during the course of work which affect the duration of works.</p>	
141016	14/10/2014	<p>EPD Ref.: EP860/E2/24 Annex IV</p> <p>ICC complaint received by ET on 10 October 2014</p>	Work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	Construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	<p>A public complaint regarding construction noise impact referred by EPD was received by ET on 16 October 2014 (EPD Ref.: EP860/E2/24 Annex IV dated 16 October 2014). The complainant reported that construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.</p> <p>ET confirmed with the Resident Site Staff that From 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.</p> <p>Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.</p> <p>Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p>	<p>Interim investigation report submitted to EPD on 23 October 2014.</p> <p>Updated interim investigation with supplementary information submitted to EPD on 17 November 2014</p>



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway.</p> <p>Total one scissor platform and two hand held drills (battery) were in operation.</p> <p>From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road.Total one crane lorry was in operation.</p> <p>According to the relevant site records under Contract HK/2009/02, from 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation.</p> <p>From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation.</p> <p>In view of the above findings, no direct information associated with the noise concern was considered available.</p>	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141110	07/11/2014	EPD Ref.: H05/RS/000278 15-14 EPD complaint received by ET on 10 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.	<p>A public complaint regarding odour concern referred by EPD was received by ET on 07 November 2014 (EPD Ref.: H05/RS/00027815-14 dated 10 November 2014).</p> <p>The complainant reported that Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.</p> <p>ET confirmed with the Resident Site Staff that ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool).</p> <p>Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated.</p> <p>Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier.</p> <p>Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.</p> <p>Dredging works was conducted on 7 November 2014 during daytime at WCR3 (East of old Wan Chai Ferry Pier)</p> <p>Total 1 no .of dredger, 1 no. of hopper and 1 no. of tug boat were operated.</p> <p>According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.</p> <p>Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.</p>	<p>Interim investigation report submitted to EPD on 17 November 2014.</p> <p>EPD advised no comment on the interim report and case closed on 1 Dec 2014.</p>



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Based on the relevant information provided by RSS, despite no information associated with the malodour concern was identified after investigation, the Contractor was reminded to conduct regular checking on the condition of PME used on site to ensure only well maintained PME are used on site The interim report would be submitted to EPD on 17 November 2014.	
141113	12/11/2014	EPD Ref.: H05/RS/000282 53-14 EPD complaint received by ET on 13 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians.	A public complaint regarding odour concern referred by EPD was received by ET on 13 November 2014 (EPD Ref.: H05/RS/00028253-14 dated 13 November 2014). The complainant reported that Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that demolition works was conducted under Contract HK/2009/02 on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	Interim investigation report submitted to EPD on 19 November 2014. EPD advised no comment on the interim report and case closed on 8 Dec 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141121	Not Specified	EPD Ref: H08/RS/28263-14 EPD complaint information and findings was received by ET via email on 21 Nov 2014	Causeway Bay Typhoon Shelter	Resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.	EPD received a construction noise complaint from dredging works at Causeway Bay Typhoon Shelter and a resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavor to minimize the noise as so not to disturb the nearby residents.	Complaint case handled by EPD and relevant investigation findings was sent to ET on 21 November 2014
150127	21 Jan 2015	EPD complaint (EPD Ref.: H05/RS/00001725-15) received by ET on 27 January 2015 and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015	A portion of Hung Hing Road immediately to the east of Marsh Road near SPCA	Construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public.	A public complaint regarding air quality impact referred by EPD was received by ET on 27 January 2015 (EPD Case Ref.: H05/RS/00001725-15 dated 27 January 2015) and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015. The complainant reported that construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public. ET confirmed with the Resident Site Staff that the major construction activities around the concerned location conducted on 21 January 2015 include breaking of seawall blocks and D-wall at TPCWAW; concreting, grouting and drilling works at TPCWAW;reclamation/ backfilling works at TPCWAW Mitigation measures implemented by the Contractor for the above construction works include spraying haul road with water; covering bagged cement with tarpaulin; providing three sided and top covering for grouting stations; providing water spraying to dusty activities such as breaking works According to the relevant site records, breaking of seawall blocks and D-wall, concreting, grouting and drilling works and reclamation/ backfilling works were	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>conducted at TPCWAW. Dust mitigation measures including spraying haul road with water, covering bagged cement with tarpaulin, providing three sided and top covering for grouting stations and water spraying to dusty activities such as breaking works were implemented by the Contractor of HY/2009/15 near the concerned location on 21 January 2015.</p> <p>Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place.</p> <p>In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a , no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants.</p> <p>As such, the site condition under Contract HY/2009/15 at the concerned location was considered to be generally satisfactory and no non-conformity related to cumulative air quality impact was observed. Nevertheless, in view of the public concern, the contractor was reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public.</p>	



Appendix 10.1

Construction Programme of Individual Contracts

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014		2015			
								Dec	Jan	Feb	Mar		
HK/2009/01 - Works Programme Rev.6E (Data Date: 20-Dec-14)													
Key Dates (Contractual)													
Major Works													
KD-0300	Completion of Section 3 of Works - CWB, Slip Roads 2 & 3 & Works in Area 8	0	0		11-Mar-15*	0%	0						◆ Compl
KD-0400B	Completion of Outstanding Works for Section 4 - Salt Watermains	0	0		30-Jan-15	0%	562						◆ Completion of Outstanding Works for Section 4
KD-0610	Completion of Section 6A of Works - Gov't Offices cooling water discharge	0	0		20-Dec-14*	0%	-62						◆ Completion of Section 6A of Works - Gov't Offices cooling water discharge
KD-0620	Completion of Section 6B of Works - Great Eagle Centre cooling water discharge	0	0		20-Dec-14*	0%	-62						◆ Completion of Section 6B of Works - Great Eagle Centre cooling water discharge
KD-0630	Completion of Section 6C of Works - China Resources Bldg cooling water discharge	0	0		20-Dec-14*	0%	-62						◆ Completion of Section 6C of Works - China Resources Bldg cooling water discharge
KD-0800	Completion of Section 8 of Works - Works in Area 6	0	0		20-Dec-14*	0%	-44						◆ Completion of Section 8 of Works - Works in Area 6
KD-1200	Completion of Section 12 of Works - Works in Area 10	0	0		20-Dec-14*	0%	-255						◆ Completion of Section 12 of Works - Works in Area 10
KD-1300	Completion of Section 13 of Works - Works in Area 11	0	0		21-Jan-15*	0%	0						◆ Completion of Section 13 of Works - Works in Area 11
Key Dates (Forecast Completion)													
Major Works													
KD-0405B	Completion of Outstanding Works for Section 4 - Salt Watermains & Works in Area 3	0	0		16-Jan-15	0%	576						◆ Completion of Outstanding Works for Section 4 - Salt Waterm
KD-0805	Completion of Section 8 of Works - Works in Area 6	0	0		09-Apr-15	0%	-155						◆ Completion of Sec
KD-1205	Completion of Section 12 of Works - Works in Area 10	0	0		28-Feb-15*	0%	0						◆ Completion of Sec
KD-1305	Completion of Section 13 of Works - Works in Area 11	0	0		28-Feb-15*	0%	0						◆ Completion of Sec
Preliminaries													
Method Statement & Design (Major) Approval by AECOM													
PRE-2000G	D-Wall Construction for CWB Tunnel (Stage 3)	60	1	05-Nov-13 A	20-Dec-14*	0%	-364						D-Wall Construction for CWB Tunnel (Stage 3)
PRE-2030B	ELS for CWB Stage 2	30	1	20-Mar-14 A	17-Jan-15	0%	575						ELS for CWB Stage 2
PRE-2030C	ELS for CWB Stage 3	30	30	19-Apr-14 A	16-Feb-15	0%	545						ELS for CWB Stage 3
Statutory / Authority Approval													
PRE-3050B	ELS for CWB Tunneling Works Stage 2 (GEO)	28	28	21-Dec-14*	17-Jan-15	0%	-539						ELS for CWB Tunneling Works Stage 2 (GEO)
PRE-3050C	ELS for CWB Tunneling Works Stage 3 (GEO)	28	28	20-Jan-15	16-Feb-15	0%	545						ELS for CWB Tunneling Work
PRE-3050D	ELS for CWB Tunneling Works Stage 1b (GEO) for Bottom Up	28	1	20-Apr-11 A	20-Dec-14	0%	-539						ELS for CWB Tunneling Works Stage 1b (GEO) for Bottom Up
PRE-3310	Stage 2 Tunnel Structure Design	60	60	20-Dec-14	17-Feb-15	0%	544						Stage 2 Tunnel Structure De
PRE-3320	Stage 3 Tunnel Structure Design	60	60	20-Dec-14	17-Feb-15	0%	544						Stage 3 Tunnel Structure De
Watermains Connection Submission Approval by WSD/Stakeholders													
PRE-3200C	Salt Water Mains (S3)	28	28	20-Dec-14*	16-Jan-15	0%	15						Salt Water Mains (S3)
PRE-3200D	Salt Water Mains (S8)	28	28	20-Dec-14*	16-Jan-15	0%	-147						Salt Water Mains (S8)
PRE-3200E	Salt Water Mains (S9)	28	28	20-Dec-14*	16-Jan-15	0%	-567						Salt Water Mains (S9)
PRE-3200O	Cooling Watermains (BF)	28	28	20-Dec-14*	16-Jan-15	0%	-91						Cooling Watermains (BF)
PRE-3200P	Cooling Watermains (BG)	28	28	20-Dec-14*	16-Jan-15	0%	-91						Cooling Watermains (BG)
PRE-3200Q	Cooling Watermains (BI)	28	28	20-Dec-14*	16-Jan-15	0%	-91						Cooling Watermains (BI)
Contractor's Design (CWB Diaphragm Wall)													
PRE-4020	Contractor's Detailed Design	30	1	09-Jul-11 A	20-Dec-14	40%	543						Contractor's Detailed Design
PRE-4030	AECOM's and GEO's approval on Detailed Design	60	60	21-Dec-14	18-Feb-15	0%	543						AECOM's and GEO's appro
Contractor's Design (PS1.94)													
PRE-5100C	Approval of ICCP of Cross-Harbour Mains - by AECOM & Relevant Authorities	9	0	04-Mar-11 A	20-Dec-14	100%	604						Approval of ICCP of Cross-Harbour Mains - by AECOM & Relevant Authorities
TTA Implementation and Completion Summary Milestone													
Zone A2 (At Convention Avenue)													
TTAM-A2-1040D	TTA Completion - Zone A2-4B	0	0		12-Jan-15	0%	580						TTA Completion - Zone A2-4B
Zone A3 (At Fenwick Pier Street)													
TTAM-A3-1030	TTA Completion - Combination of Zone A3-5D & A3-4D (Sewer)	0	0		24-Jan-15	0%	-146						TTA Completion - Combination of Zone A3-5D & A3-
TTAM-A3-1040	TTA Implementation - Zone A3-2C (Sewer)	0	0	25-Jan-15		0%	-146						TTA Implementation - Zone A3-2C (Sewer)
TTAM-A3-1050	TTA Completion - Zone A3-2C (Sewer)	0	0		27-Feb-15	0%	-152						TTA Completion - Zone A3-2C (Sewer)
TTAM-A3-1060	TTA Implementation - Zone A3-2D (Sewer)	0	0	28-Feb-15		0%	-152						TTA Implementation - Zone A3-2D (Sewer)
TTAM-A3-1070	TTA Completion - Zone A3-2D (Sewer)	0	0		26-Mar-15	0%	507						TTA Completion - Zone A3-2D (Sewer)
TTAM-A3-1090B	TTA Completion - Zone A3-5C - Salt Water	0	0		23-Jan-15	0%	569						TTA Completion - Zone A3-5C - Salt Water
Zone A4 (At Convention Avenue)													
TTAM-A4-1120B	TTA Completion - Zone A4-2C	0	0		30-Jan-15	0%	-147						TTA Completion - Zone A4-2C
Zone A5 (At Harbour Road)													
TTAM-A5-1050B	TTA Completion - Zone A5-6	0	0		30-Jan-15	0%	562						TTA Completion - Zone A5-6

■ Remaining Work ■ Summary Bar
■ Actual Work
■ Summary Bar
■ Critical Remaining Work
◆ Milestone

CEDD CONTRACT NO. HK/2009/01
 Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)
 WORKS PROGRAMME Rev.6E - 3 Month Programme starting from 20-Dec-14

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014		2015		
								Dec	Jan	Feb	Mar	
Area X3 (Fleming Road b/w Harbour Road & Convention Avenue)												
TTAM-X3-1000B	TTA Completion - Zone X1-1	0	0	16-Jan-15	0%	-90						
Zone C (Expo Drive East)												
TTAM-C1-1000B	TTA Completion - Zone C1-1	0	0	20-Dec-14	0%	604						
TTAM-C1-1010D	TTA Completion - Zone C1-2A	0	0	20-Dec-14	0%	604						
TTAM-C3-1000B	TTA Completion - Zone C3-1	0	0	31-Jan-15	0%	561						
Section 3 of the Works - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8												
CWB Tunnelling Works (Stage 1 : CH2947 - CH3045)												
Stage 1 - Tunnel Structure Works (Bay 1 to Bay 7 : Ch2947 - Ch 3045)												
Tunnel Structure at Stage 1A & 1B (CH2947 - CH3045)												
S3A-TS-2000	Tunnel Structures Works including Waterproofing and OHVD	300	11	28-Feb-14 A	30-Dec-14	0%	178					
S3A-TS-2080	Backfilling to formation level for Stage 1B (CH 80 to CH 120)	30	30	31-Dec-14	29-Jan-15	0%	178					
CWB Tunnelling Works (Stage 2 : Ch3045 - Ch3129)												
Stage 2 - Foundation Works (Bottom Up Method : CH3045 - CH3129 / CH120 - CH225)												
S3B-FW-1040C	ELS for Exhaust Duct (~-5.0mPD)	170	71	27-Jun-14 A	28-Feb-15	0%	455					
Stage 2 - Excavation Works (For Bottom Slab Construction : CH3045 - CH3129)												
S3B-EW-1000A	Stage 2 ELS - excavate to approx. +0.5mPD and installation of 1st layer strut/waling	84	1	19-May-14 A	20-Dec-14	0%	603					
S3B-EW-1000B	Stage 2 ELS - excavate to approx. -3.0mPD and installation of 2nd layer strut/waling (15,000m3)	46	1	19-Sep-14 A	20-Dec-14	0%	603					
S3B-EW-1000C	Stage 2 ELS - excavate to approx. -6.4mPD and installation of 3rd layer strut/waling (16,500m3)	70	1	19-Sep-14 A	20-Dec-14	0%	603					
S3B-EW-1000D	Stage 2 ELS - excavate to approx. -10.0mPD (17,500m3)	50	1	19-Sep-14 A	20-Dec-14	0%	-73					
Stage 2 - Tunnel Structure Works (Bay 8 to Bay 10 : CH3045 - CH3129)												
S3B-TS-1010	Bay 7 Base Slab	14	14	21-Dec-14	03-Jan-15	0%	-73					
S3B-TS-1020	Bay 8 Base Slab	14	14	05-Jan-15	18-Jan-15	0%	-73					
S3B-TS-1030	Bay 9 Base Slab	14	14	22-Dec-14	04-Jan-15	0%	-73					
S3B-TS-1040	Bay 10 Base Slab	14	14	06-Jan-15	19-Jan-15	0%	-73					
S3B-TS-1050	Removal of 2nd and 3rd layer of Strut/Waling	15	15	25-Jan-15	08-Feb-15	0%	-73					
S3B-TS-1060	Bay 7 & 8 Wall	14	14	09-Feb-15	22-Feb-15	0%	-73					
S3B-TS-1070	Bay 9 & 10 Wall	14	14	14-Feb-15	27-Feb-15	0%	-73					
S3B-TS-1080	Construction of Exhaust Duct (CH3045 - CH3129)	45	45	21-Dec-14	03-Feb-15	0%	-35					
S3B-TS-1090	Backfilling at Northern Side from -10mPD to -2mPD (Slip Road 2 - 4700cu.m)	21	21	14-Mar-15	03-Apr-15	0%	-73					
S3B-TS-1100	Backfilling at Southern Side from -10mPD to -2mPD (Slip Road 3 - 4000cu.m)	21	21	22-Feb-15	14-Mar-15	0%	-53					
S3B-TS-1110	Bay 7 & 8 Wall and OHVD Base Slab	10	10	23-Feb-15	04-Mar-15	0%	-73					
S3B-TS-1120	Bay 9 & 10 Wall and OHVD Base Slab	10	10	28-Feb-15	09-Mar-15	0%	-73					
S3B-TS-1130	Bay 7 & 8 OHVD Wall Stem and Bay 7 & 8 Top Slab	10	10	05-Mar-15	14-Mar-15	0%	-68					
S3B-TS-1140	Bay 9 & 10 OHVD Wall Stem and Bay 9 Top Slab	10	10	10-Mar-15	19-Mar-15	0%	-73					
S3B-TS-1160	Construction of Slip Road 2 & 3 Base Slab (CH3045 - CH3129)	14	14	04-Apr-15	17-Apr-15	0%	-73					
S3B-TS-2000A	Construction of Exhaust Duct (CH2988 - CH3045)	48	48	01-Mar-15	17-Apr-15	0%	455					
S3B-TS-2000B	Construction of Slip Road 3 (CH2988 - CH3045) above Exhaust Duct including backfilling	30	30	18-Apr-15	17-May-15	0%	455					
CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245)												
Stage 3 - Reclamation Works												
S3C-MW-1400	Removal of Remaining Type II & I Material during Stage 3 Excavation	45	45	20-Dec-14	02-Feb-15	0%	-144					
Stage 3 - Excavation Works (Ch3129 - Ch3245)												
Excavation Works at Stage 3												
S3C-EW-1000	Excavation to +0mPD (approx 21,400m3) including strut/waling installation	40	12	03-Sep-14 A	31-Dec-14	0%	592					
S3C-EW-1010	Excavation to -4.0 mPD (approx 26,600m3) including strut/waling installation	96	43	03-Sep-14 A	31-Jan-15	0%	-271					
S3C-EW-1010C	Installation of Dewatering Well (24nos.) and Pumping Test	45	46	12-Dec-14 A	03-Feb-15	0%	558					
S3C-EW-1010D	Excavation to -16mPD (approx 55,000m3)	125	43	15-Dec-14 A	31-Jan-15	0%	-142					
Stage 3 - Tunnel Structure Works (Bay 11 to Bay 17 : Ch3129 - Ch3245)												
Tunnel Structure at Stage 3A (Top Slab Construction : CH3185 - CH3246)												
S3C-TS-1100	Stage 3A - Bay 15, 16, 17 & 18 Top Slab (CH3185 - CH3223 : 38m Long)	30	30	01-Feb-15	02-Mar-15	0%	-271					
Tunnel Structure at Stage 3A & 3B (CH3129 - CH3245)												
S3C-TS-2000	Bay 11 Slip Road 3 Sump Pit Base Slab	14	13	03-Feb-15	15-Feb-15	0%	453					
S3C-TS-2000A	Bay 11 Slip Road 3 Sump Pit Wall	7	7	16-Feb-15	22-Feb-15	0%	453					
S3C-TS-2000B	Backfill to the Base Slab of Slip Road 3	10	10	23-Feb-15	04-Mar-15	0%	453					
S3C-TS-2000C	Remove 2nd and 3rd layer of Strut and Waling (Bay 11)	7	7	05-Mar-15	11-Mar-15	0%	453					

█ Remaining Work █ Summary Bar
█ Actual Work
█ Summary Bar
█ Critical Remaining Work
◆ Milestone

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014				2015						
												Qtr 1						
								Dec	Jan	Feb	Mar	Dec	Jan	Feb	Mar			
S3C-TS-2000C	Bay 11 Slip Road 3 Base Slab and Pump Room Base Slab	14	14	12-Mar-15	25-Mar-15	0%	453											
S3C-TS-2000D	Bay 11 Slip Road 3 Pump Room Wall	7	7	26-Mar-15	01-Apr-15	0%	453											
S3C-TS-2000E	Bay 11 Slip Road 3 Elec. Room Base Slab	14	14	02-Apr-15	15-Apr-15	0%	453											
S3C-TS-2000F	Bay 11 Slip Road 3 Wall & OHVD Base Slab	10	10	16-Apr-15	25-Apr-15	0%	453											
S3C-TS-2000G	Bay 11 CWB Base Slab	14	14	02-Jan-15	15-Jan-15	0%	475											
S3C-TS-2000H	Bay 11 CWB Wall	7	7	12-Mar-15	18-Mar-15	0%	470											
S3C-TS-2000I	Bay 11 CWB Wall and OHVD Base Slab	10	10	19-Mar-15	28-Mar-15	0%	491											
S3C-TS-2000J	Bay 11 CWB OHVD Wall Stem and Top Slab	14	14	29-Mar-15	11-Apr-15	0%	491											
S3C-TS-2000K	Backfilling to formation of Slip Road 2	10	10	19-Mar-15	28-Mar-15	0%	470											
S3C-TS-2000L	Bay 11 Slip Road 2 Base Slab	14	14	29-Mar-15	11-Apr-15	0%	470											
S3C-TS-2000M	Bay 11 Slip Road 2 Wall	7	7	12-Apr-15	18-Apr-15	0%	470											
S3C-TS-2000N	Bay 11 Slip Road 2 Top Slab	14	14	19-Apr-15	02-May-15	0%	470											
S3C-TS-2010	Bay 12 CWB Base Slab	14	14	17-Feb-15	02-Mar-15	0%	443											
S3C-TS-2010A	Remove 2nd and 3rd layers of Strut/Waling (Bay 12)	7	7	08-Mar-15	14-Mar-15	0%	443											
S3C-TS-2010B	Bay 12 CWB Wall	14	14	15-Mar-15	28-Mar-15	0%	443											
S3C-TS-2010C	Backfilling to formation of Slip Road 2 & 3	10	10	29-Mar-15	07-Apr-15	0%	447											
S3C-TS-2010D	Bay 12 Slip Road 2 & 3 Base Slab	10	10	12-Apr-15	21-Apr-15	0%	443											
S3C-TS-2010E	Bay 12 CWB Wall & OHVD Base Slab	14	14	29-Mar-15	11-Apr-15	0%	443											
S3C-TS-2010F	Bay 12 CWB OHVD Wall Stem and Top Slab	14	14	12-Apr-15	25-Apr-15	0%	477											
S3C-TS-2020	Bay 13 CWB and Slip Road 3 Base Slab	14	14	03-Feb-15	16-Feb-15	0%	-144											
S3C-TS-2020A	Backfilling to formation of Slip Road 2	10	10	17-Feb-15	26-Feb-15	0%	478											
S3C-TS-2020B	Remove 2nd and 3rd layers of Strut/Waling (Bay 13)	7	7	27-Feb-15	05-Mar-15	0%	478											
S3C-TS-2020C	Bay 13 CWB & Slip Road 3 Wall and Slip Road 2 Base Slab	14	14	06-Mar-15	19-Mar-15	0%	478											
S3C-TS-2020D	Bay 13 CWB & Slip Road 3 Wall & OHVD Base Slab and Slip Road 2 Wall	21	21	20-Mar-15	09-Apr-15	0%	478											
S3C-TS-2020E	Bay 13 CWB & Slip Road 3 Top Slab and Slip Road 2 Wall & OHVD Base Slab	14	14	10-Apr-15	23-Apr-15	0%	478											
S3C-TS-2030	Bay 14 CWB, Sump Pump and Slip Road 3 Base Slab	14	14	17-Feb-15	02-Mar-15	0%	-144											
S3C-TS-2030A	Bay 14 Sump Pump Wall	10	10	03-Mar-15	12-Mar-15	0%	-144											
S3C-TS-2030B	Backfill to formation of Slip Road 2	10	10	13-Mar-15	22-Mar-15	0%	-144											
S3C-TS-2030C	Bay 14 Slip Road 2 Base Slab	14	14	23-Mar-15	05-Apr-15	0%	-144											
S3C-TS-2030D	Remove 2nd and 3rd layer of Strut/Waling (Bay 14)	7	7	11-Apr-15	17-Apr-15	0%	-144											
S3C-TS-2030E	Bay 14 CWB and Slip 3 Road Wall and Pump Room Base Slab	14	14	18-Apr-15	01-May-15	0%	-144											
S3C-TS-2090	Bay 20 Slip Road 3 Base Slab	10	10	03-Feb-15	12-Feb-15	0%	495											
S3C-TS-2090A	Bay 20 CWB & Slip Road 2 Base Slab and Slip Road 3 Wall	14	14	25-Jan-15	07-Feb-15	0%	500											
S3C-TS-2090B	Remove 2nd and 3rd layer of Strut/Waling (Bay 20)	7	7	18-Feb-15	24-Feb-15	0%	495											
S3C-TS-2090C	Bay 20 CWB & Slip Road 2 Wall and Slip Road 3 Wall & OHVD Base Slab	14	14	25-Feb-15	10-Mar-15	0%	495											
S3C-TS-2090D	Bay 20 CWB & Slip Road 2 Wall & OHVD Base Slab and Slip Road 3 Top Slab	14	14	11-Mar-15	24-Mar-15	0%	495											
S3C-TS-2090E	Bay 20 CWB & Slip Road 2 Top Slab	14	14	25-Mar-15	07-Apr-15	0%	495											
S3C-TS-2100	Bay 16 & Bay 18 Slip Road 3 Base Slab	14	14	03-Feb-15	16-Feb-15	0%	-131											
S3C-TS-2100A	Bay 16 & Bay 18 CWB & Slip Road 2 Base Slab and Slip Road 3 Wall	21	21	01-Feb-15	21-Feb-15	0%	-139											
S3C-TS-2100B	Remove 2nd and 3rd layer of Strut/Waling (Bay 16 & Bay 18)	14	14	27-Feb-15	12-Mar-15	0%	465											
S3C-TS-2100C	Bay 16 & Bay 18 CWB & Slip Road 2 Wall and Slip Road 3 Wall & OHVD Base Slab	21	21	13-Mar-15	02-Apr-15	0%	465											
S3C-TS-2100D	Bay 16 & Bay 18 CWB & Slip Road 2 Wall & OHVD Base Slab and Slip Road 3 OHVD Wall	21	21	03-Apr-15	23-Apr-15	0%	465											
S3C-TS-2110	Bay 15, 17 & 19 Slip Road 3 Base Slab	21	21	17-Feb-15	09-Mar-15	0%	-131											
S3C-TS-2110A	Bay 15, 17 & 19 CWB & Slip Road 2 Base Slab and Slip Road 3 Wall	24	24	22-Feb-15	17-Mar-15	0%	-139											
S3C-TS-2110B	Remove 2nd and 3rd layer of Strut/Waling (Bay Bay 15, 17 & 19)	14	14	23-Mar-15	05-Apr-15	0%	-139											
S3C-TS-2110C	Bay 15, 17 & 19 CWB & Slip Road 2 Wall and Slip Road 3 Wall & OHVD Base Slab	24	24	06-Apr-15	29-Apr-15	0%	-139											
Section 4 of the Works - Salt Water Mains, Works in Area 3																		
S8B (DN800) Salt Watermains																		
S4-1000	Zone A4-2C - S8B (20m)	45	7	24-Sep-14 A	26-Dec-14	0%	-132											
S4-1010C	Zone A4-2B - S8B (20m)	48	7	07-Oct-13 A	26-Dec-14	0%	-132											
S4-1010D	Zone A4-2Brev - S8B (10m)	21	7	14-Mar-14 A	26-Dec-14	100%	-132											
Testing and Commissioning																		
S4-1500	Pressure Test of S8B	6	6	27-Dec-14	01-Jan-15	0%	-132											
S4-1510	Cleaning of S8B	7	7	02-Jan-15	08-Jan-15	0%	-132											
S4-1520	Connection to Existing Mains (S8B)	7	7	17-Jan-15	23-Jan-15	0%	-147											

█ Remaining Work █ Summary Bar
█ Actual Work
█ Summary Bar
█ Critical Remaining Work
◆ Milestone

CEDD CONTRACT NO. HK/2009/01
 Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)
 WORKS PROGRAMME Rev.6E - 3 Month Programme starting from 20-Dec-14

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014		2015		
								Dec	Jan	Qtr 1		Feb
S9 (DN450) Salt Watermains & Sewer												
S4-2080	Zone A2-4B - S9 (8m) - Testing point	24	16	04-Dec-13 A	10-Jan-15	100%	453					
S4-2120	Zone A3-5C - S9 (8m) - Testing point	14	14	16-Jul-13 A	10-Jan-15	0%	464					
Testing and Commissioning												
S4-2500	Pressure Test of S9	6	6	11-Jan-15	16-Jan-15	0%	569					
S4-2510	Cleaning of S9	7	7	17-Jan-15	23-Jan-15	0%	569					
S4-2520	Connection to Existing Mains (S9)	7	7	17-Jan-15	23-Jan-15	0%	569					
Section 6A of the Works - Cooling Water Discharge System (3 nos. Govt Towers)												
S6A-1200	Zone X1-1 - CHBF (11m)	21	21	27-Dec-14	16-Jan-15	0%	-112					
S6A-1220	Zone X1-3 - CHBF (7m)	21	21	14-Apr-15	04-May-15	0%	-241					
S6A-1230	Zone X1-4A - CHBF (21m) & S3 (21m) Connection Point	24	115	20-Jan-14 A	13-Apr-15	100%	-241					
S6A-1240	Zone C3-1 - CHBF (16m) Test and Connection Point	60	43	22-Jun-14 A	31-Jan-15	0%	-127					
Section 6B of the Works - Cooling Water Intake & Discharge System (Great Eagle / Harbour Centre)												
S6B-1220	Zone C3-1 - CHBG (16m) Test and Connection Point	60	43	22-Jun-14 A	31-Jan-15	0%	-127					
Section 6C of the Works - Cooling Water Discharge System (China Resources Building)												
S6C-1600	Zone C3-1 - CHBI (16m) Test and Connection Point	60	43	22-Jun-14 A	31-Jan-15	0%	-127					
Common Works for Sections 6A, 6B & 6C												
Discharge Outfall Construction												
S6-1030	Connection of the Completed Cooling Mains to Precast Outfall Unit	0	0		07-Feb-15*	0%	0					
S6-1040	Reinstatement of Existing Seawall after Connection	30	30	08-Feb-15	09-Mar-15	0%	524					
Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street)												
Sewerage Works												
S8-1030	Zone A3-5D & A3-4D	23	28	10-Jan-14 A	24-Jan-15	100%	-120					
S8-1040	Zone A3-2C	23	23	26-Jan-15	27-Feb-15	0%	-120					
S8-1050	Zone A3-2D	23	23	28-Feb-15	26-Mar-15	0%	-120					
S8-2500	CCTV Survey	1	1	27-Mar-15	27-Mar-15	0%	-120					
S8-3000	Connection with Upstream Existing Manhole & Abandon Used Pipe	7	7	28-Mar-15	09-Apr-15	0%	-120					
Section 9 of the Works - Remaindar of the Works												
Box Culvert Construction												
S9-1030	Construction of Precast Bay 1	76	12	25-Sep-14 A	31-Dec-14	84.21%	592					
S9-1040A	Installation of Sheet Pile / ELS and Construction for Bay 7	180	43	07-Sep-14 A	31-Jan-15	0%	-166					
S9-1040B	Installation of Sheet Pile / ELS and Construction for Bay 2	180	43	11-Oct-14 A	31-Jan-15	0%	-166					
S9-1050	Construction of Bay 3 to Bay 6 incl. top slab waterproofing works	75	75	03-Mar-15	16-May-15	0%	-271					
Waterworks in Area 9												
Salt Water Mains (S3, S5A & S5B)												
S9-5500A	Zone X1-1 - S3 (5m)	0	0		16-Jan-15	0%	-90					
Fresh Water Mains (F3)												
S9-7040	Zone X1-1 - F3 (5m)	0	0		16-Jan-15	0%	1					
Section 13 of the Works - Works in Area 11 (other than Section 11)												
S13-3000	Completion of Backfilling to +5.0mPD	0	0		20-Dec-14	0%	70					
Section 9A of the Works - Landscape Softworks in Area 9												
S9A-1000	Transplanting at Expo Drive East and Convention Avenue Junction	180	180	20-Dec-14	17-Jun-15	0%	59					

■ Remaining Work ■ Summary Bar
■ Actual Work
■ Summary Bar
■ Critical Remaining Work
◆ Milestone

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																				
						January				February				March				April				May				
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03			
3MRP - Jan 2015 to April 2015																										
02 - PRE-CONSTRUCTION WORKS																										
02.3 - Method Statement / Shop Drawings																										
0230-1380	MS Landscape Deck Structure - Submission	28	08-Feb-15	07-Mar-15	893																					
0230-1390	MS Landscape Deck Structure - ER Review & Comment	28	08-Mar-15	04-Apr-15	893																					
0230-1400	MS Landscape Deck Structure - Resubmission	28	05-Apr-15	02-May-15	893																					
0230-1450	MS Permanent Noise Barrier Cantilever - No Adverse Comment	3	19-Aug-14 A	22-Jan-15	63																					
0230-1611	MS Noise Semi Enclosure - Submission	60	19-Feb-15	19-Apr-15	276																					
0230-1612	MS Noise Semi Enclosure - ER Review / Comment	28	20-Apr-15	17-May-15	276																					
0230-1670	MS Approach Ramp - ER Review & Comment	28	20-Jan-15	16-Feb-15	0																					
0230-1680	MS Approach Ramp - Resubmission	28	17-Feb-15	16-Mar-15	0																					
0230-1690	MS Approach Ramp - ER Approval	28	17-Mar-15	13-Apr-15	0																					
A10060	MS for Demolition of Bulkhead Wall at interface C15 & C19 - Resubmission	0	21-Dec-14 A	31-Dec-14 A																						
A10070	MS for Demolition of Bulkhead Wall at interface C15 & C19 - ER No Adverse Comment	10	01-Jan-15 A	29-Jan-15	5																					
A10090	MS for Partition Walls and outstanding columns at APS Basement - ER Review & Comment	0	11-Dec-14 A	31-Dec-14 A																						
A10100	MS for Partition Walls and outstanding columns at APS Basement - Resubmission	6	01-Jan-15 A	25-Jan-15	22																					
A10110	MS for Partition Walls and outstanding columns at APS Basement - ER No Adverse Comment	18	26-Jan-15	12-Feb-15	22																					
A10380	MS for Temporary Steel Tower under existing W/B BrigdeADB Ground Beam & Pile C	0	16-Nov-14 A	19-Jan-15 A																						
A5910	MS for Temporary Steel Tower under existing W/B Brigde - Submission	0	20-Jan-15 A	20-Jan-15	71																					
A5920	MS for Temporary Steel Tower under existing W/B Brigde - ER Review & Comment	12	20-Jan-15	31-Jan-15	71																					
A5930	MS for Temporary Steel Tower under existing W/B Brigde - Resubmission	6	01-Feb-15	06-Feb-15	71																					
A5940	MS for Temporary Steel Tower under existing W/B Brigde - ER No Adverse Comment	18	07-Feb-15	24-Feb-15	71																					
A5980	MS ADB Ground Beam & Pile Cap - ER No Adverse Comment	0	16-Nov-14 A	19-Jan-15 A																						
A7590	MS Temporary Bridge TA2 - ER No Adverse Comment	8	16-Dec-14 A	27-Jan-15	57																					
A8941	MS for for installation of Temporary JTI sign gantry - ER Review & Comment	0	16-Dec-14 A	31-Dec-14 A																						
A8951	MS for for installation of Temporary JTI sign gantry - Resubmission	0	01-Jan-15 A	10-Jan-15 A																						
A8961	MS for for installation of Temporary JTI sign gantry - ER No Adverse Comment	10	11-Jan-15 A	29-Jan-15	14																					
02.4 - Contractor's Design and Build Items																										
0240-1111	Noise Enclosure Structural Design - No Adverse Comment	6	03-Aug-14 A	25-Jan-15	57																					
0240-1113	Noise Enclosure Structural - Shop Drawings	30	02-Jan-14 A	18-Feb-15	191																					
0240-1137	Noise Barrier Panel - Design No Adverse Comment	0	13-Aug-14 A	15-Jan-15 A																						
0240-1170	HGHK Permanent Carpark Design - Prep & Submit	80	20-Jan-15*	09-Apr-15	11																					
0240-1180	HGHK Permanent Carpark Design - ER/HGHK Review and Comment	80	10-Apr-15	28-Jun-15	11																					
0240-1270	Landscaping Design - Submission	90	20-Jan-15*	19-Apr-15	758																					
0240-1280	Landscaping Design - ER Review/Resubmission	42	20-Apr-15	31-May-15	758																					
A5890	Temp Bridge "TA2" Design (Foundation & Structure) - ER No Adverse Comment	4	01-Dec-14 A	24-Jan-15	44																					
A5900	Temp Bridge "TA2" - Fabrication	24	01-Dec-14 A	12-Feb-15	44																					
A8981	Design for Trial Panels > Green Roof & Wall- Resubmission	0	16-Dec-14 A	31-Dec-14 A																						

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A8991	Design for Trial Panels > Green Roof & Wall- ER No Adverse Comment	21	20-Jan-15	09-Feb-15	19																				
A9001	Design for Trial Panels > Green Roof & Wall - Fabrication	48	10-Feb-15	29-Mar-15	19																				
A9010	Green Roof & Wall Minimum 2 years Establishment	660	07-Apr-15*	14-Jun-17	10																				
02.5 - Bridge Segment/Beam Off-site Precasting																									
0250-1720.17	Precast Beam Bridge C1 2021-A	0	02-Dec-14 A	30-Dec-14 A																					
0250-1720.18	Precast Beam Bridge C1 2021-B	18	20-Jan-15	06-Feb-15	5																				
0250-1720.19	Precast Beam Bridge C1 2021-C	18	07-Feb-15	24-Feb-15	88																				
0250-1720.20	Precast Beam Bridge C1 2122-A	18	25-Feb-15	14-Mar-15	88																				
0250-1720.21	Precast Beam Bridge C1 2122-B	18	15-Mar-15	01-Apr-15	88																				
0250-1720.22	Precast Beam Bridge C1 2122-C	18	20-Jan-15	06-Feb-15	5																				
0250-1720.23	Precast Beam Bridge C1 2122-D	18	07-Feb-15	24-Feb-15	88																				
0250-1720.25	Precast Beam Bridge C1 2122-E	18	25-Feb-15	14-Mar-15	88																				
0250-1720.26	Precast Beam Bridge C1 2122-F	18	15-Mar-15	01-Apr-15	88																				
0250-1720.27	Precast Beam Bridge E E3E2-A	18	07-Feb-15	24-Feb-15	5																				
0250-1720.28	Precast Beam Bridge E E3E2-B	18	25-Feb-15	14-Mar-15	5																				
0250-1720.29	Precast Beam Bridge E E3E2-C	18	15-Mar-15	01-Apr-15	5																				
0250-1720.30	Precast Beam Bridge E E4E3-A	18	02-Apr-15	19-Apr-15	5																				
0250-1720.31	Precast Beam Bridge E E4E3-B	18	20-Apr-15	07-May-15	5																				
0250-2040	Bridg C2 Pier 23 T-span Segment Off-site Casting (13 nos.)	5	06-Dec-14 A	24-Jan-15	8																				
0250-2050	Bridg C2 Pier 25 End-span Segment Off-site Casting (6 nos.)	0	26-Nov-14 A	29-Dec-14 A																					
0250-2070	Bridg F1C Pier 36 T-span Segment Off-site Casting (13 nos.)	31	24-Jan-15	24-Feb-15	8																				
0250-2080	Bridg F1C Pier 37 T-span Segment Off-site Casting (11 nos.)	27	24-Feb-15	23-Mar-15	8																				
0250-2090	Bridg F1C Abut D12 End-span Segment Off-site Casting (7 nos.)	22	20-Jan-15	10-Feb-15	22																				
0250-2100	Bridg F1C Pier 38 End-span Segment Off-site Casting (6 nos.)	19	11-Feb-15	01-Mar-15	25																				
0250-2110	Bridg F2C Pier 39 T-span Segment Off-site Casting (13 nos.)	31	23-Mar-15	23-Apr-15	8																				
0250-2120	Bridg F2C Pier 38 End-span Segment Off-site Casting (5 nos.)	16	02-Mar-15	17-Mar-15	25																				
0250-2130	Bridg F2C Pier 40 End-span Segment Off-site Casting (5 nos.)	16	18-Mar-15	02-Apr-15	25																				
0250-2160	Bridg F3C Pier 40 End-span Segment Off-site Casting (5 nos.)	16	03-Apr-15	18-Apr-15	25																				
0250-2170	Bridg F3C Pier 43 End-span Segment Off-site Casting (6 nos.)	19	19-Apr-15	07-May-15	25																				
03 - PRELIMINARY WORKS																									
03.3 - Interface Works																									
0330-1100	Temporary Relocate FEHD On top of Tunnel (Portion IA)	12	12-Feb-15	28-Feb-15	63																				
0330-1101	Works at FEHD Permanent Depot (Stage 2)	100	21-Mar-15	22-Jul-15	46																				
A7630	Relocation of Cu-De-Sac at Oil Street > Junk Collector	81	02-Feb-15	15-May-15	50																				
A9190	Fabrication of JTI Gantry	0	01-Dec-14 A	19-Jan-15 A																					
A9200	Installation of JTI Gantry	44	20-Jan-15	14-Mar-15	12																				
05 - SECTION 2 & 2A OF THE WORKS																									
05.1 - Cut & Cover Tunnel Ch 4855-4932 (APS Footprint)																									

- █ Remaining Level of Effort
- █ Actual Level of Effort
- █ Actual Work
- █ Remaining Work
- █ Critical Remaining Work
- ◆ Milestone

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																				
						January				February				March					April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03			
05.1.1 - D-Wall Construction																										
A5990	D-Wall Interface Coring	14	20-Jan-15*	04-Feb-15	14																					
A6000	D-Wall Grouting/Pressure Grouting	3	05-Feb-15	07-Feb-15	14																					
05.1.2 - ELS																										
0512-1275	Middle Lev. Bay 14 (Break Permanent Bulkhead Wall)	0	10-Dec-14 A	12-Jan-15 A																						
05.1.3 - APS & Tunnel Structure																										
0513-1316	APS Bay 17 Col - (Reb. Fix + Concrete)	12	27-Feb-15	13-Mar-15	63																					
0513-1400	Tunnel Bay 17- Base Slab - (Reb. Fix + Concrete)-Lower Portion	0	15-Dec-14 A	26-Dec-14 A																						
0513-1410	Tunnel Bay 17 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	0	16-Dec-14 A	11-Jan-15 A																						
0513-1420	Tunnel Bay 17 - Struts Removal	4	12-Jan-15 A	23-Jan-15	3																					
0513-1430	Tunnel Bay 17 - Central Wall - (Reb. Fix)	5	24-Jan-15	29-Jan-15	3																					
0513-1440	Tunnel Bay 17 - Central Wall - (Concrete)	1	30-Jan-15	30-Jan-15	21																					
0513-1450	OHVD Bay 17 - Falseworks	8	24-Jan-15	02-Feb-15	3																					
0513-1460	OHVD + Wall Bay 17 - Steel Fixing	5	03-Feb-15	07-Feb-15	4																					
0513-1470	OHVD + Wall Bay 17 - Concreting	1	08-Feb-15	08-Feb-15	4																					
0513-1480	OHVD + Wall Bay 17 - Curing of Concrete	1	09-Feb-15	09-Feb-15	4																					
0513-1510	Tunnel Bay 17 -Tunnel Roof - Falseworks	8	09-Feb-15	16-Feb-15	4																					
0513-1520	Tunnel Bay 17 -Tunnel Roof - CJ Preparation	4	09-Feb-15	12-Feb-15	9																					
0513-1530	Tunnel Bay 17 -Tunnel Roof - Steel Fixing	6	17-Feb-15	22-Feb-15	4																					
0513-1540	Tunnel Bay 17 -Tunnel Roof - (Concrete)	1	23-Feb-15	23-Feb-15	4																					
0513-1630	Tunnel Bay 18 - Struts Removal	4	15-Jan-15 A	23-Jan-15	3																					
0513-1640	Tunnel Bay 18 - Central Wall - (Reb. Fix)	7	24-Jan-15	31-Jan-15	3																					
0513-1650	Tunnel Bay 18 - Central Wall - (Concrete)	1	02-Feb-15	02-Feb-15	18																					
0513-1660	OHVD Bay 18 - Falseworks	8	24-Jan-15	02-Feb-15	3																					
0513-1670	OHVD + Wall Bay 18 - Steel Fixing	5	03-Feb-15	07-Feb-15	3																					
0513-1680	OHVD + Bay 18 - Concreting	1	08-Feb-15	08-Feb-15	3																					
A3370	OHVD + Wall Bay 18 - Curing of Concrete	1	09-Feb-15	09-Feb-15	3																					
A3400	Tunnel Bay 18 -Tunnel Roof - Falseworks	6	09-Feb-15	16-Feb-15	3																					
A3410	Tunnel Bay 18 -Tunnel Roof - CJ Preparation	6	09-Feb-15	14-Feb-15	9																					
A3420	Tunnel Bay 18 -Tunnel Roof - Steel Fixing	6	16-Feb-15	22-Feb-15	5																					
A3430	Tunnel Bay 18 -Tunnel Roof - (Concrete)	1	23-Feb-15	23-Feb-15	4																					
A3540	OHVD Bay 19	0	22-Dec-14 A	24-Dec-14 A																						
A3550	OHVD Wall Bay	0	26-Dec-14 A	30-Dec-14 A																						
A3560	OHVD + Wall Bay 19 - Curing of Concrete	0	30-Dec-14 A	31-Dec-14 A																						
A3590	Tunnel Bay 19 -Tunnel Roof - Falseworks	0	31-Dec-14 A	06-Jan-15 A																						
A3600	Tunnel Bay 19 -Tunnel Roof - CJ Preparation	0	31-Dec-14 A	08-Jan-15 A																						
A3610	Tunnel Bay 19 -Tunnel Roof - Steel Fixing	0	07-Jan-15 A	20-Jan-15	38																					
A3620	Tunnel Bay 19 -Tunnel Roof - (Concrete)	1	20-Jan-15	21-Jan-15	38																					

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Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A3680	Tunnel Bay 20 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	0	14-Dec-14 A	23-Dec-14 A		- Base Slab - (Reb. Fix + Concrete)-Upper Portion																			
A3690	Tunnel Bay 20 - Struts Removal	0	24-Dec-14 A	07-Jan-15 A		■ Tunnel Bay 20 - Struts Removal																			
A3691	Tunnel Bay 20 - Central Wall - (Reb. Fix)	0	08-Jan-15 A	16-Jan-15 A		■ Tunnel Bay 20 - Central Wall - (Reb. Fix)																			
A3692	Tunnel Bay 20 - Central Wall - (Concrete)	1	20-Jan-15	20-Jan-15	38	■ Tunnel Bay 20 - Central Wall - (Concrete)																			
A3693	OHVD Bay 20 - Falseworks	9	20-Jan-15	28-Jan-15	7	■ OHVD Bay 20 - Falseworks																			
A3694	OHVD + Wall Bay 20 - Steel Fixing	4	29-Jan-15	01-Feb-15	7	■ OHVD + Wall Bay 20 - Steel Fixing																			
A3695	OHVD + Wall Bay 20 - Concreting	1	02-Feb-15	02-Feb-15	7	■ OHVD + Wall Bay 20 - Concreting																			
A3696	OHVD Bay 20 - Curing of Concrete	1	03-Feb-15	03-Feb-15	7	■ OHVD Bay 20 - Curing of Concrete																			
A3790	Tunnel Bay 20 -Tunnel Roof - Falsework/Formworks	6	04-Feb-15	09-Feb-15	7	■ Tunnel Bay 20 -Tunnel Roof - Falsework/Formworks																			
A3791	Tunnel Bay 20 -Tunnel Roof - CJ Preparation	5	04-Feb-15	08-Feb-15	18	■ Tunnel Bay 20 -Tunnel Roof - CJ Preparation																			
A3800	Tunnel Bay 20 -Tunnel Roof - Steel Fixing	6	09-Feb-15	16-Feb-15	6	■ Tunnel Bay 20 -Tunnel Roof - Steel Fixing																			
A3810	Tunnel Bay 20 -Tunnel Roof - (Concrete)	1	16-Feb-15	17-Feb-15	6	■ Tunnel Bay 20 -Tunnel Roof - (Concrete)																			
A3813	APS Bay 21 Col - (Reb. Fix + Concrete)	12	23-Feb-15	06-Mar-15	85	■ APS Bay 21 Col - (Reb. Fix + Concrete)																			
A3860	Tunnel Bay 21- Base Slab - (Reb. Fix + Concrete)-Lower Portion	0	06-Dec-14 A	13-Jan-15 A		■ Tunnel Bay 21- Base Slab - (Reb. Fix + Concrete)-Lower Portion																			
A3861	Tunnel Bay 21 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	2	08-Jan-15 A	21-Jan-15	0	■ Tunnel Bay 21 - Base Slab - (Reb. Fix + Concrete)-Upper Portion																			
A3880	Tunnel Bay 21 - Struts Removal	3	22-Jan-15	24-Jan-15	0	■ Tunnel Bay 21 - Struts Removal																			
A3890	Tunnel Bay 21 - Central Wall - (Reb. Fix)	6	25-Jan-15	30-Jan-15	5	■ Tunnel Bay 21 - Central Wall - (Reb. Fix)																			
A3900	Tunnel Bay 21 - Central Wall - (Concrete)	1	31-Jan-15	31-Jan-15	7	■ Tunnel Bay 21 - Central Wall - (Concrete)																			
A3910	OHVD Bay 21 - Falseworks	9	25-Jan-15	02-Feb-15	5	■ OHVD Bay 21 - Falseworks																			
A3920	OHVD + Wall Bay 21 - Steel Fixing	4	03-Feb-15	06-Feb-15	5	■ OHVD + Wall Bay 21 - Steel Fixing																			
A3930	OHVD + Wall Bay 21 - Concreting	1	07-Feb-15	07-Feb-15	5	■ OHVD + Wall Bay 21 - Concreting																			
A3940	OHVD + Wall Bay 21 - Curing of Concrete	1	07-Feb-15	07-Feb-15	5	■ OHVD + Wall Bay 21 - Curing of Concrete																			
A3970	Tunnel Bay 21 -Tunnel Roof - Falseworks/Formworks	6	08-Feb-15	13-Feb-15	5	■ Tunnel Bay 21 -Tunnel Roof - Falseworks/Formworks																			
A3980	Tunnel Bay 21 -Tunnel Roof - CJ Preparation	7	08-Feb-15	14-Feb-15	5	■ Tunnel Bay 21 -Tunnel Roof - CJ Preparation																			
A3990	Tunnel Bay 21 -Tunnel Roof - Steel Fixing	7	15-Feb-15	21-Feb-15	5	■ Tunnel Bay 21 -Tunnel Roof - Steel Fixing																			
A4000	Tunnel Bay 21 -Tunnel Roof - (Concrete)	1	22-Feb-15	22-Feb-15	5	■ Tunnel Bay 21 -Tunnel Roof - (Concrete)																			
A5414	APS Basement (Bay 21a) - Staircase - Falseworks/Formworks	12	16-Feb-15	04-Mar-15	1	■ APS Basement (Bay 21a) - Staircase - Falseworks/Formworks																			
A5424	APS Basement (Bay 21a) - Staircase - Rebar-Fixing + Concreting	14	05-Mar-15	20-Mar-15	1	■ APS Basement (Bay 21a) - Staircase - Rebar-Fixing + C																			
A5425	APS Basement (Bay 21a) - Partition wall	14	16-Feb-15	06-Mar-15	13	■ APS Basement (Bay 21a) - Partition wall																			
A5426	APS Basement (Bay 21b) - Staircase - Falseworks/Formworks	12	21-Mar-15	07-Apr-15	1	■ APS Basement (Bay 21b) - Stairca																			
A5427	APS Basement (Bay 21b) - Staircase - Rebar-Fixing + Concreting	14	08-Apr-15	23-Apr-15	31	■ APS Basement																			
A5427.1	APS Basement (Bay 21b) - Partition wall	14	21-Mar-15	09-Apr-15	1	■ APS Basement (Bay 21b) - Parti																			
A5427.2	APS Basement (Bay 20) - Partition wall	14	21-Mar-15	09-Apr-15	1	■ APS Basement (Bay 20) - Partiti																			
A5427.3	APS Basement (Bay 19) - Partition wall	14	10-Apr-15	25-Apr-15	1	■ APS Baseme																			
A5454	Vertical Saw Cutting of BHW upper portion @ 2M(H) X 32M(L)	12	24-Jan-15	07-Feb-15	0	■ Vertical Saw Cutting of BHW upper portion @ 2M(H) X 32M(L)																			
A5465	Horizontal Saw Cutting of BHW @ 2M(H) X 32M(L)	7	07-Feb-15	16-Feb-15	0	■ Horizontal Saw Cutting of BHW @ 2M(H) X 32M(L)																			
A5474	Removal of BHW Saw Cutted Blocks at upper portion	12	16-Feb-15	05-Mar-15	0	■ Removal of BHW Saw Cutted Blocks at upper portion																			

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Contract HY/2009/19
Three Months Rolling Programme (20 Jan to 19 Apr 2015)

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						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A5484	Removal of BHW Middle Portion By Breaker Machine @ 3.5M(H) X 32M(L)	14	05-Mar-15	21-Mar-15	0											■ Removal of BHW Middle Portion By Breaker Machine @									
A5494	Removal of BHW Lower Portion By Breaker Machine @ 3.5M(H) X 32M(L)	14	21-Mar-15	10-Apr-15	0											■ Removal of BHW Lower Portion									
A5495	Removal of concrete debris and prepare CJ	2	10-Apr-15	13-Apr-15	0											■ Removal of concrete debris									
A5495.1	Complete In situ Stitch	10	13-Apr-15	24-Apr-15	0											■ Complete In si									
05.1.4 - Tunnel Structure																									
A4429	Tunnel Bay 14a - Prepare C.J at D-Wall	0	12-Jan-15 A	19-Jan-15 A		■ Tunnel Bay 14a - Prepare C.J at D-Wall																			
A4429.1	Tunnel Bay 14a - (Waterproofing)	0	15-Jan-15 A	15-Jan-15 A		■ Tunnel Bay 14a - (Waterproofing)																			
A4429.2	Tunnel Bay 14a - Base Slab > Reb. Fix + Concreting	6	20-Jan-15	25-Jan-15	3	■ Tunnel Bay 14a - Base Slab > Reb. Fix + Concreting																			
A4429.6	Tunnel Bay 14a - Struts Removal	2	26-Jan-15	27-Jan-15	3	■ Tunnel Bay 14a - Struts Removal																			
A4429.7	Tunnel Bay 14a - Central Wall - (Reb Fix + Concrete)	6	27-Jan-15	03-Feb-15	3	■ Tunnel Bay 14a - Central Wall - (Reb Fix + Concrete)																			
A4429.8	OHVD Bay 14a - Falseworks/Forworks	6	27-Jan-15	03-Feb-15	3	■ OHVD Bay 14a - Falseworks/Forworks																			
A4429.9	OHVD + Wall Bay 14a - Reb Fix + Concreting	10	03-Feb-15	14-Feb-15	3	■ OHVD + Wall Bay 14a - Reb Fix + Concreting																			
A4429.91	Tunnel Bay 14a -Tunnel Roof - Falseworks/Formworks	6	11-Feb-15	18-Feb-15	3	■ Tunnel Bay 14a -Tunnel Roof - Falseworks/Formworks																			
A4429.92	Tunnel Bay 14a -Tunnel Roof - CJ Preparation	7	12-Feb-15	18-Feb-15	8	■ Tunnel Bay 14a -Tunnel Roof - CJ Preparation																			
A4429.93	Tunnel Bay 14a -Tunnel Roof - Steel Fixing	8	15-Feb-15	22-Feb-15	4	■ Tunnel Bay 14a -Tunnel Roof - Steel Fixing																			
A4429.94	Tunnel Bay 14a -Tunnel Roof - (Concrete)	1	23-Feb-15	23-Feb-15	4	■ Tunnel Bay 14a -Tunnel Roof - (Concrete)																			
A4442.3	Tunnel Bay 14b - Struts Removal	2	26-Jan-15	27-Jan-15	3	■ Tunnel Bay 14b - Struts Removal																			
A4442.4	Tunnel Bay 14b - Central Wall - (Reb Fix + Concrete)	6	27-Jan-15	03-Feb-15	3	■ Tunnel Bay 14b - Central Wall - (Reb Fix + Concrete)																			
A4442.5	OHVD Bay 14b - Falseworks/Forworks	6	27-Jan-15	03-Feb-15	3	■ OHVD Bay 14b - Falseworks/Forworks																			
A4442.6	OHVD + Wall Bay 14b - Reb Fix + Concreting	10	03-Feb-15	14-Feb-15	3	■ OHVD + Wall Bay 14b - Reb Fix + Concreting																			
A4442.7	Tunnel Bay 14b -Tunnel Roof - Falseworks/Formworks	6	11-Feb-15	18-Feb-15	3	■ Tunnel Bay 14b -Tunnel Roof - Falseworks/Formworks																			
A4442.8	Tunnel Bay 14b -Tunnel Roof - CJ Preparation	7	12-Feb-15	18-Feb-15	8	■ Tunnel Bay 14b -Tunnel Roof - CJ Preparation																			
A4442.9	Tunnel Bay 14b -Tunnel Roof - Steel Fixing	8	15-Feb-15	22-Feb-15	4	■ Tunnel Bay 14b -Tunnel Roof - Steel Fixing																			
A4442.91	Tunnel Bay 14b -Tunnel Roof - (Concrete)	1	23-Feb-15	23-Feb-15	4	■ Tunnel Bay 14b -Tunnel Roof - (Concrete)																			
A5153	OHVD Bay 15 - Falseworks	0	20-Dec-14 A	06-Jan-15 A		OHVD Bay 15 - Falseworks																			
A5163	OHVD Bay 15	0	06-Jan-15 A	12-Jan-15 A		■ OHVD Bay 15																			
A5173	OHVD + Wall Bay 15 - Concreting	0	12-Jan-15 A	20-Jan-15	23	■ OHVD + Wall Bay 15 - Concreting																			
A5183	OHVD + Wall Bay 15 - Curing of Concrete	1	20-Jan-15	20-Jan-15	23	■ OHVD + Wall Bay 15 - Curing of Concrete																			
A5213	Tunnel Bay 15 -Tunnel Roof - Falseworks	8	21-Jan-15	28-Jan-15	23	■ Tunnel Bay 15 -Tunnel Roof - Falseworks																			
A5223	Tunnel Bay 15 -Tunnel Roof - CJ Preparation	8	21-Jan-15	28-Jan-15	24	■ Tunnel Bay 15 -Tunnel Roof - CJ Preparation																			
A5233	Tunnel Bay 15 -Tunnel Roof - Steel Fixing	6	28-Jan-15	02-Feb-15	24	■ Tunnel Bay 15 -Tunnel Roof - Steel Fixing																			
A5234	Tunnel Bay 15 -Tunnel Roof - (Concrete)	1	03-Feb-15	03-Feb-15	24	■ Tunnel Bay 15 -Tunnel Roof - (Concrete)																			
A5254	Tunnel Bay 16 - Blinding Layer	0	15-Jan-15 A	15-Jan-15 A		■ Tunnel Bay 16 - Blinding Layer																			
A5263	Tunnel Bay 16 - (Waterproofing)	2	20-Jan-15	21-Jan-15	0	■ Tunnel Bay 16 - (Waterproofing)																			
A5273	Tunnel Bay 16 - Reb. Fix + Concreting	7	22-Jan-15	28-Jan-15	0	■ Tunnel Bay 16 - Reb. Fix + Concreting																			
A5283	Tunnel Bay 16 - Struts Removal	2	29-Jan-15	30-Jan-15	0	■ Tunnel Bay 16 - Struts Removal																			
A5284	Tunnel Bay 16 - Central Wall - (Reb Fix + Concrete)	6	30-Jan-15	06-Feb-15	0	■ Tunnel Bay 16 - Central Wall - (Reb Fix + Concrete)																			

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Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

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						January				February				March					April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03			
A5285	OHVD Bay 16 - Falseworks/Forworks	6	30-Jan-15	06-Feb-15	0																		OHVD Bay 16 - Falseworks/Forworks			
A5286	OHVD + Wall Bay 16 - Reb Fix + Concreting	10	06-Feb-15	18-Feb-15	0																		OHVD + Wall Bay 16 - Reb Fix + Concreting			
A5288	Tunnel Bay 16 -Tunnel Roof - Falseworks/Formworks	6	14-Feb-15	25-Feb-15	0																		Tunnel Bay 16 -Tunnel Roof - Falseworks/Formworks			
A5383	Tunnel Bay 16 -Tunnel Roof - CJ Preparation	7	15-Feb-15	21-Feb-15	6																		Tunnel Bay 16 -Tunnel Roof - CJ Preparation			
A5393	Tunnel Bay 16 -Tunnel Roof - Steel Fixing	8	19-Feb-15	26-Feb-15	0																		Tunnel Bay 16 -Tunnel Roof - Steel Fixing			
A5394	Tunnel Bay 16 -Tunnel Roof - (Concrete)	1	27-Feb-15	27-Feb-15	0																		Tunnel Bay 16 -Tunnel Roof - (Concrete)			
A5395	Weak Seam Rectification works for sub-standard D-Wall	30	20-Jan-15	26-Feb-15	1																		Weak Seam Rectification works for sub-standard D-Wall			
A5396	Complete Tunnel Roof	0		27-Feb-15*	0																		Complete Tunnel Roof			
05.1.5 - EVB Sub-structure & Tunnel																										
A5514	Tunnel (Zone A,B & C) - Tunnel Roadside/Profile Barrier and Cable Trough Portion V	14	27-Feb-15	16-Mar-15	272																		Tunnel (Zone A,B & C) - Tunnel Roadside/Profile Barrier and			
A5524	EVB Basement (Zone A1) - Partition Wall (Reb. Fix + Concreting)	14	27-Feb-15	16-Mar-15	120																		EVB Basement (Zone A1) - Partition Wall (Reb. Fix + Concre			
A5534	EVB Basement (Zone A1) - Staircase-2nos.(Reb. Fix + Concreting)	14	16-Mar-15	01-Apr-15	160																		EVB Basement (Zone A1) - Staircase-2no			
A5544	EVB Basement (Zone A2) - Partition Wall (Reb. Fix + Concreting)	14	01-Apr-15	21-Apr-15	160																		EVB Basement (Z			
A5744	EVB Mezzanine (Zone A1) - (Reb. Fix + Concreting)	14	16-Mar-15	01-Apr-15	120																		EVB Mezzanine (Zone A1) - (Reb. Fix + C			
A5754	EVB Mezzanine (Zone A1) - Staircase-2nos.(Reb. Fix + Concreting)	14	01-Apr-15	21-Apr-15	120																		EVB Mezzanine (Z			
05.2 - Cut & Cover Tunnel Ch 4932-5149																										
05.2.3 - ELS																										
A4192	Tunnel Base Slab - Erect Falsework and Soffit	2	20-Jan-15	21-Jan-15	26																		Tunnel Base Slab - Erect Falsework and Soffit			
A4242	Pump Sump E (Pump Rm) - Erect Falsework	0	15-Dec-14 A	07-Jan-15 A																			Pump Sump E (Pump Rm) - Erect Falsework			
A4252	Tunnel Bay 1 & 2 (Center Wall)+ Pump Rm - Rebar Fix. & Conc.	0	15-Dec-14 A	26-Dec-14 A																			1 & 2 (Center Wall)+ Pump Rm - Rebar Fix. & Conc.			
A4282	Tunnel Bay 1 & 2 (OHVD) Rebar Fix. & Conc.	0	19-Dec-14 A	10-Jan-15 A																			Tunnel Bay 1 & 2 (OHVD) Rebar Fix. & Conc.			
A4283	Tunnel Bay 1 & 2 Elec. & Duct Rm - Rebar Fix. & Conc.	7	15-Jan-15 A	29-Jan-15	22																		Tunnel Bay 1 & 2 Elec. & Duct Rm - Rebar Fix. & Conc.			
A4292	Tunnel Bay 1 & 2 (Hanger Wall) - Formworks + Rebar Fix & Conc.	0	11-Jan-15 A	15-Jan-15 A																			Tunnel Bay 1 & 2 (Hanger Wall) - Formworks + Rebar Fix & Conc.			
A4302	Tunnel Bay 1 & 2 - (Roof Slab) - Falseworks	2	21-Jan-15	23-Jan-15	22																		Tunnel Bay 1 & 2 - (Roof Slab) - Falseworks			
A4312	Tunnel Bay 1 & 2 - (Roof Slab) - Relocating the Runner Beam	2	24-Jan-15	25-Jan-15	26																		Tunnel Bay 1 & 2 - (Roof Slab) - Relocating the Runner Beam			
A4322	Tunnel Bay 1 & 2 - (Roof Slab) - Formworks + Rebar Fix. & Conc.	7	26-Jan-15	01-Feb-15	26																		Tunnel Bay 1 & 2 - (Roof Slab) - Formworks + Rebar Fix. & Conc.			
05.2.4 - Tunnel Structure																										
0524-2535	Waterproof Top Slab Bay 1 to Bay 4	2	02-Feb-15	03-Feb-15	63																		Waterproof Top Slab Bay 1 to Bay 4			
05.2.5 - Road & Miscellaneous Works																										
0525-2882	Backfill above Tunnel Structure Bay 1 to Bay 4	7	04-Feb-15	11-Feb-15	63																		Backfill above Tunnel Structure Bay 1 to Bay 4			
0525-2900	Tunnel Roadside/Profile Barrier (excl vent bldg)	30	05-Aug-14 A	26-Feb-15	76																		Tunnel Roadside/Profile Barrier (excl vent bldg)			
0525-2940	Backfill above Tunnel Structure Bay 5 to Bay 9	20	28-Nov-14 A	11-Feb-15	11																		Backfill above Tunnel Structure Bay 5 to Bay 9			
0525-2950	Backfill above Tunnel Structure Bay 10 to Bay 13	20	28-Nov-14 A	11-Feb-15	11																		Backfill above Tunnel Structure Bay 10 to Bay 13			
06 - SECTION 3 OF THE WORKS																										
06.1 - Westbound - Pier 29-34																										
A6050	Pier 29 Additional 12nos. Pre bore H-Pile > P29-8	0	20-Dec-14 A	06-Jan-15 A																			Pier 29 Additional 12nos. Pre bore H-Pile > P29-8			
A6120	Pier 29 Additional 12nos. Pre bore H-Pile > P29-15	0	19-Nov-14 A	05-Jan-15 A																			Pier 29 Additional 12nos. Pre bore H-Pile > P29-15			
06.2 - Box Culvert U1																										
0620-2635	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Backfill/Extract Sheet Pile	0	15-Jan-15 A	19-Jan-15 A																			1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Backfill/Extract Sheet Pile			

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Contract HY/2009/19

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						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
0620-2641	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Backfill/Extract Sheet Pile	0	15-Jan-15 A	19-Jan-15 A																					
0620-2646	1500mm Drainage MH 3-1 to MH 3-2 - Backfill/Extract Sheet Pile	0	15-Jan-15 A	19-Jan-15 A																					
A9180	In-Situ Testing of Drainage Pipe	14	19-Jan-15 A	04-Feb-15*	42																				
06.3 - Admin Building																									
0630-3119.13	Grd. Beam - Stage 1-(GL > L2-N6) - Loading Test for HP13c	0	10-Dec-14 A	29-Dec-14 A																					
0630-3119.13.1	Grd. Beam - Stage 1-(GL > L2-N6) - Blinding of Cap & Grnd. Beam	2	20-Jan-15	21-Jan-15	93																				
0630-3119.13.2	Grd. Beam - Stage 1-(GL > L2-N6) - Install Capping Plate + weld Test	5	22-Jan-15	27-Jan-15	93																				
0630-3119.14	Grd. Beam - Stage 1-(GL > L2-N6) - Reb Fix + Forworks (Grd. Beam & Pile Cap) > Part1	13	28-Jan-15	09-Feb-15	117																				
0630-3119.15	Grd. Beam - Stage 1-(GL > L2-N6) - Reb Fix + Forworks (Grd. Beam & Pile Cap) > Part2	9	09-Feb-15	23-Feb-15	94																				
0630-3119.16	Grd. Beam - Stage 1-(GL > L2-N6) - Concreting (Grd. Beam & Pile Cap)	1	23-Feb-15	24-Feb-15	94																				
0630-3119.18	Grd. Beam - Stage 1-(GL > L2-N6) - Formworks Removal and Backfill	4	24-Feb-15	28-Feb-15	94																				
0630-3119.2	Grd. Beam - Stage 2-(GL > G2-K6) - Preparation & Divert Waterflow	0	10-Nov-14 A	23-Dec-14 A																					
0630-3119.21	Grd. Beam - Stage 2-(GL > G2-K6) - Excavate G.L to +2.5mPD and Pile Cap B.L to +1.65mPD	0	24-Dec-14 A	17-Jan-15 A																					
0630-3119.22	Grd. Beam - Stage 2-(GL > G2-K6) - Install Capping Plate	9	20-Jan-15	29-Jan-15	71																				
0630-3119.23	Grd. Beam - Stage 2-(GL > G2-K6) - Blinding of Cap & Grnd. Beam	2	30-Jan-15	31-Jan-15	71																				
0630-3119.24	Grd. Beam - Stage 2-(GL > G2-K6) - Rebar Fixing (Grd. Beam & Pile Cap)	5	02-Feb-15	06-Feb-15	71																				
0630-3119.25	Grd. Beam - Stage 2-(GL > G2-K6) - Erect Formworks (Grd. Beam & Pile Cap)	6	07-Feb-15	13-Feb-15	71																				
0630-3119.26	Grd. Beam - Stage 2-(GL > G2-K6) - Concreting (Grd. Beam & Pile Cap)	1	14-Feb-15	14-Feb-15	71																				
0630-3119.27	Grd. Beam - Stage 2-(GL > G2-K6) - Formworks Removal and Backfill	5	16-Feb-15	24-Feb-15	71																				
0630-3119.61	Grd. Beam - Stage A-(GL > D2-F6) - Drive Sheet-Pile Copperdam	0	12-Nov-14 A	16-Jan-15 A																					
0630-3119.62	Grd. Beam - Stage A-(GL > D2-F6) - Excavate to -0.55mPD	2	20-Jan-15	21-Jan-15	41																				
0630-3119.63	Grd. Beam - Stage A-(GL > D2-F6) - Drive Sheet-Pile for 3nos. Sump Pits	4	22-Jan-15	26-Jan-15	41																				
0630-3119.64	Grd. Beam - Stage A-(GL > D2-F6) - Excavate Sump Pits (B.L -1.35,-2.6 & -3.3mPD) + install waling	4	27-Jan-15	30-Jan-15	41																				
0630-3119.65	Grd. Beam - Stage A-(GL > D2-F6) - Install Capping Plate	4	31-Jan-15	04-Feb-15	41																				
0630-3119.66	Grd. Beam - Stage A-(GL > D2-F6) - Blinding of Cap,Grnd. Beam + 3nos.Sump Pits	1	05-Feb-15	05-Feb-15	41																				
0630-3119.67	Grd. Beam - Stage A-(GL > D2-F6) - Water-Proofing	5	06-Feb-15	11-Feb-15	41																				
0630-3119.68	Grd. Beam - Stage A-(GL > D2-F6) - Construct Lower Portion 3nos. Sump-Pit	6	12-Feb-15	18-Feb-15	41																				
0630-3119.69	Grd. Beam - Stage A-(GL > D2-F6) - Remove Waling and Construct upper Portion of Sump Pit	5	23-Feb-15	27-Feb-15	41																				
0630-3119.7	Grd. Beam - Stage A-(GL > D2-F6) - Water-Proofing at Basement	4	28-Feb-15	04-Mar-15	41																				
0630-3119.71	Grd. Beam - Stage A-(GL > D2-F6) - Construct Base-Slab w/ Kicker	4	05-Mar-15	09-Mar-15	41																				
0630-3119.72	Grd. Beam - Stage A-(GL > D2-F6) - Remove Strut	4	10-Mar-15	13-Mar-15	41																				
0630-3119.73	Grd. Beam - Stage A-(GL > D2-F6) - Construct Basement Wall/PC/GB/Column	10	14-Mar-15	25-Mar-15	41																				
0630-3119.74	Grd. Beam - Stage A-(GL > D2-F6) - Formworks, Sheet-Pile Removal and Backfill	5	26-Mar-15	31-Mar-15	41																				
0630-3119.8	Grd. Beam - Stage B-(GL > A1-B6) - Drive Sheet-Pile Copperdam	0	08-Dec-14 A	15-Jan-15 A																					
0630-3119.81	Grd. Beam - Stage B-(GL > A1-B6) - Bulk Excavate G.L to +0.7mPD and install Waling/Strut	6	20-Jan-15	26-Jan-15	44																				
0630-3119.82	Grd. Beam - Stage B-(GL > A1-B6) - Beam Excavation up to +0.2mPD	3	27-Jan-15	29-Jan-15	44																				
0630-3119.83	Grd. Beam - Stage B-(GL > A1-B6) - Pile Cap Excavation up to +0.0mPD and -0.3mPD + Vert/Hor. Blinding	5	30-Jan-15	04-Feb-15	44																				

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A7670	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39b	18	02-Jan-15 A	09-Feb-15	36																		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39b		
A7671	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40a	18	10-Feb-15	05-Mar-15	36																		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40a		
A7672	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40b	18	10-Feb-15	05-Mar-15	36																		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40b		
A7673	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS41a	18	20-Jan-15	09-Feb-15	54																		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS41a		
A7680	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42a	18	20-Jan-15	09-Feb-15	36																		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42a		
A7690	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42b	18	20-Jan-15	09-Feb-15	36																		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42b		
A7720	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44a	0	12-Dec-14 A	10-Jan-15 A																			Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44a		
A7730	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44b	0	15-Dec-14 A	10-Jan-15 A																			Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44b		
A7740	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45a	0	06-Dec-14 A	20-Jan-15	72																		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45a		
A7750	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45b	0	05-Dec-14 A	05-Jan-15 A																			Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45b		
A7760	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS46a	0	26-Nov-14 A	27-Dec-14 A																			Wall F Pre-Bored H-Pile - H - Beam + Grout > BS46a		
A7780	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS47a	0	02-Dec-14 A	27-Dec-14 A																			Wall F Pre-Bored H-Pile - H - Beam + Grout > BS47a		
A7800	Complete Pre-Bored H-Pile > Retaining Wall	0		20-Apr-15*	0																		◆ Complete Pre-Bore		
10 - SECTION X OF THE WORKS																									
10.1 - E/B Bridges (Bridge D, E and F)																									
10.1.1 - Marine Pier Construction																									
Pier F03 to F15																									
1011-3274	F1 Dolphin Construction	0	23-Jul-14 A	06-Jan-15 A																			F1 Dolphin Construction		
Pier F01 to F02																									
1011-2900	F1B Pier/Column Construction	12	20-Jan-15	02-Feb-15	664																		F1B Pier/Column Construction		
1011-2910	F1B Crosshead Construction	18	03-Feb-15	26-Feb-15	664																		F1B Crosshead Construction		
1011-2930	Bearing installation pier F1B/F2B	12	27-Feb-15	12-Mar-15	664																		Bearing installation pier F1B/F2B		
10.1.3 - E/B Bridge Construction																									
Bridge F1A																									
1013-1868.2	TTA > Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)	14	21-Jan-15*	05-Feb-15	0																		TTA > Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)		
1013-1868.3	Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)	14	21-Jan-15	05-Feb-15	40																		Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)		
Bridge F2A																									
1013-1378.2	TTA > Bridge F2A Int. Double Noise Encl. Install Panell (Stage 2 - North)	14	21-Jan-15*	05-Feb-15	0																		TTA > Bridge F2A Int. Double Noise Encl. Install Panell (Stage 2 - North)		
1013-1378.3	Bridge Bridge F2A Int. Double Noise Encl. Install Panel (Stage 2 - North)	14	21-Jan-15	05-Feb-15	50																		Bridge Bridge F2A Int. Double Noise Encl. Install Panel (Stage 2 - North)		
Bridge F5/F4																									
1013-2172.25	Bridge F4 MJ at Pier F14	3	20-Jan-15	22-Jan-15	0																		Bridge F4 MJ at Pier F14		
All E/B Bridges (Common)																									
1013-1720	Permanent Noise Barrier Type B1 E/B Bridge Ch 962-1059 (132m)	5	02-Dec-14 A	30-Jan-15	46																		Permanent Noise Barrier Type B1 E/B Bridge Ch 962-1059 (132m)		
1013-1730	Permanent Noise Barrier Type A1 E/B Bridge Ch 826-962 (136m)	5	05-Dec-14 A	30-Jan-15	46																		Permanent Noise Barrier Type A1 E/B Bridge Ch 826-962 (136m)		
1013-1750	E/B Bridge Sign Gantries and Misc. Mounting Structure/Support	14	20-Sep-14 A	04-Feb-15	42																		E/B Bridge Sign Gantries and Misc. Mounting Structure/Support		
A6150	Permanent Water Mains install E/B > Pier D1 - D3	7	20-Jan-15	27-Jan-15	21																		Permanent Water Mains install E/B > Pier D1 - D3		
A6160	Permanent Water Mains install E/B > Pier D3-D5	7	28-Jan-15	04-Feb-15	21																		Permanent Water Mains install E/B > Pier D3-D5		
A6170	Permanent Water Mains install E/B > Pier D5-D7	7	05-Feb-15	12-Feb-15	21																		Permanent Water Mains install E/B > Pier D5-D7		
A6180	Permanent Water Mains install E/B > Pier D7-D9	7	13-Feb-15	24-Feb-15	21																		Permanent Water Mains install E/B > Pier D7-D9		
A6190	Permanent Water Mains install E/B > Pier D9-D12	7	25-Feb-15	04-Mar-15	21																		Permanent Water Mains install E/B > Pier D9-D12		

- █ Remaining Level of Effort ◆ ◆ Milestone
- █ Actual Level of Effort
- █ Actual Work
- █ Remaining Work
- █ Critical Remaining Work

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A6300	Temporary Water Mains install Bridge "TD" > Pier F5-F15	10	20-Jan-15	30-Jan-15	26																		Temporary Water Mains install Bridge "TD" > Pier F5-F15		
A6310	Temporary Water Mains install W/B > Pier 45 - 50	10	31-Jan-15	11-Feb-15	26																		Temporary Water Mains install W/B > Pier 45 - 50		
A6320	Temporary Water Mains install E/B > Pier 16 - 20	10	12-Feb-15	26-Feb-15	26																		Temporary Water Mains install E/B > Pier 16 - 20		
A7620	Remaining E/B Bridges Bitumin Paving Works	12	11-Mar-15*	22-Mar-15	0																		Remaining E/B Bridges Bitumin Paving Works		
10.1.4 - Bridge E / Hing Fat Slip Road																									
Pier Construction																									
1014-1240.12	Bridge E (Pier E2 & 18)) - Pile Cap & Pier	0	02-Dec-14 A	24-Dec-14 A																			Bridge E (Pier E2 & 18)) - Pile Cap & Pier		
1014-1240.20	Bridge E (Pier 18) - Const. Crosshead Part 1	0	12-Aug-14 A	02-Jan-15 A																			Bridge E (Pier 18) - Const. Crosshead Part 1		
1014-1240.21	Bridge E (Pier 18) - Const. Crosshead Part 2	0	03-Jan-15 A	18-Jan-15 A																			Bridge E (Pier 18) - Const. Crosshead Part 2		
1014-1249	Bridge E (Pier 17) - Const. Crosshead	0	30-Oct-14 A	12-Jan-15 A																			Bridge E (Pier 17) - Const. Crosshead		
1014-1249.1	Bridge E (Pier E1b - 19) - Connect E1b Crosshead to Pier 19	0	08-Dec-14 A	15-Jan-15 A																			Bridge E (Pier E1b - 19) - Connect E1b Crosshead to Pier 19		
Bridge Construction																									
1014-1210.1	Bridge C1 (Pier 17) - Install Bearing	0	15-Jan-15 A	20-Jan-15	3																		Bridge C1 (Pier 17) - Install Bearing		
1014-1240.2	Bridge E (Pier 19) - Install Bearing	0	16-Jan-15 A	22-Jan-15	0																		Bridge E (Pier 19) - Install Bearing		
1014-1240.3	Bridge E (Pier 18) - Install Bearing	3	19-Jan-15 A	22-Jan-15	0																		Bridge E (Pier 18) - Install Bearing		
1014-1240.4	Bridge E (Pier 18 - 19) - Erect Pre-Cast Beam (4nos)	4	23-Jan-15	27-Jan-15	0																		Bridge E (Pier 18 - 19) - Erect Pre-Cast Beam (4nos)		
1014-1240.5	Bridge E (Pier 19 - D1) - Erect Pre-Cast Beam (4nos)	4	28-Jan-15	31-Jan-15	0																		Bridge E (Pier 19 - D1) - Erect Pre-Cast Beam (4nos)		
1014-1240.6	Bridge E (Pier 17 - 18) - Erect Pre-Cast Beam (2nos)	3	01-Feb-15	03-Feb-15	1																		Bridge E (Pier 17 - 18) - Erect Pre-Cast Beam (2nos)		
A9230	Bridge E (Pier 18-19) - Pre-Cast Planking erection	4	28-Jan-15	31-Jan-15	0																		Bridge E (Pier 18-19) - Pre-Cast Planking erection		
A9240	Bridge E (Pier 18-19) - Erect Scaffoldings & Platform for Diaphragm	5	01-Feb-15	05-Feb-15	1																		Bridge E (Pier 18-19) - Erect Scaffoldings & Platform for Diaphragm		
A9250	Bridge E (Pier 18-19) - Formworks > Diaphragm	4	02-Feb-15	06-Feb-15	7																		Bridge E (Pier 18-19) - Formworks > Diaphragm		
A9251	Bridge E (Pier 18-19) - Erect Scaffoldings & Platform for Cantilever Slab	4	02-Feb-15	05-Feb-15	0																		Bridge E (Pier 18-19) - Erect Scaffoldings & Platform for Cantilever Slab		
A9260	Bridge E (Pier 18-19) - Rebar Fix > Diaphragm + Slab + Pipe install	8	06-Feb-15	14-Feb-15	0																		Bridge E (Pier 18-19) - Rebar Fix > Diaphragm + Slab + Pipe install		
A9270	Bridge E (Pier 18-19) - Formworks > Slab	1	16-Feb-15	16-Feb-15	0																		Bridge E (Pier 18-19) - Formworks > Slab		
A9280	Bridge E (Pier 18-19) - Concreting > Diaphragm + Slab	1	17-Feb-15	17-Feb-15	0																		Bridge E (Pier 18-19) - Concreting > Diaphragm + Slab		
A9300	Bridge E (Pier 18-19) - Hanger Formworks for Stitching	7	18-Feb-15	28-Feb-15	0																		Bridge E (Pier 18-19) - Hanger Formworks for Stitching		
A9310	Bridge E (Pier 18-19) - Stitching > Reb. Fix + Concretin	14	01-Mar-15	14-Mar-15	1																		Bridge E (Pier 18-19) - Stitching > Reb. Fix + Concretin		
A9320	Bridge E (Pier 17 - 18) - Pre-Cast Planking erection	3	03-Feb-15	06-Feb-15	1																		Bridge E (Pier 17 - 18) - Pre-Cast Planking erection		
A9330	Bridge E (Pier 17 - 18) - Erect Scaffoldings & Platform for Diaphragm	5	07-Feb-15	11-Feb-15	1																		Bridge E (Pier 17 - 18) - Erect Scaffoldings & Platform for Diaphragm		
A9340	Bridge E (Pier 17 - 18) - Formworks > Diaphragm	4	07-Feb-15	12-Feb-15	1																		Bridge E (Pier 17 - 18) - Formworks > Diaphragm		
A9350	Bridge E (Pier 17 - 18) - Erect Scaffoldings & Platform for Cantilever Slab	5	07-Feb-15	11-Feb-15	4																		Bridge E (Pier 17 - 18) - Erect Scaffoldings & Platform for Cantilever Slab		
A9360	Bridge E (Pier 17 - 18) - Rebar Fix > Diaphragm + Slab + Pipe install	4	11-Feb-15	14-Feb-15	1																		Bridge E (Pier 17 - 18) - Rebar Fix > Diaphragm + Slab + Pipe install		
A9370	Bridge E (Pier 17 - 18) - Formworks > Slab	1	14-Feb-15	16-Feb-15	0																		Bridge E (Pier 17 - 18) - Formworks > Slab		
A9380	Bridge E (Pier 17 - 18) - Concreting > Diaphragm + Slab	1	16-Feb-15	17-Feb-15	0																		Bridge E (Pier 17 - 18) - Concreting > Diaphragm + Slab		
A9390	Bridge E (Pier 17 - 18) - Hanger Formworks for Stitching	7	17-Feb-15	28-Feb-15	0																		Bridge E (Pier 17 - 18) - Hanger Formworks for Stitching		
A9400	Bridge E (Pier 17 - 18) - Stitching > Reb. Fix + Concretin	14	01-Mar-15	14-Mar-15	1																		Bridge E (Pier 17 - 18) - Stitching > Reb. Fix + Concretin		
A9410	Bridge E (Pier 19 - D1) - Pre-Cast Planking erection	3	02-Feb-15	04-Feb-15	11																		Bridge E (Pier 19 - D1) - Pre-Cast Planking erection		
A9420	Bridge E (Pier 19 - D1) - Erect Scaffoldings & Platform for Diaphragm	5	04-Feb-15	08-Feb-15	8																		Bridge E (Pier 19 - D1) - Erect Scaffoldings & Platform for Diaphragm		

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																							
						January				February				March				April				May							
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03						
A9430	Bridge E (Pier 19 - D1) - Formworks > Diaphragm	4	04-Feb-15	09-Feb-15	7					█																			
A9440	Bridge E (Pier 19 - D1) - Erect Scaffoldings & Platform for Cantilever Slab	4	04-Feb-15	07-Feb-15	8					█																			
A9450	Bridge E (Pier 19 - D1) - Rebar Fix > Diaphragm + Slab + Pipe install	10	09-Feb-15	24-Feb-15	7					█																			
A9460	Bridge E (Pier 19 - D1) - Formworks > Slab	1	24-Feb-15	25-Feb-15	7					█																			
A9470	Bridge E (Pier 19 - D1) - Concreting > Diaphragm + Slab	1	25-Feb-15	26-Feb-15	7					█																			
A9471	Bridge E (Pier E1 - D1) - Stitching > Reb. Fix + Concretin	12	27-Feb-15	10-Mar-15	8					█																			
A9472	Bridge E (Pier 19 - D1) - Temporary L3 Parapet Railings	7	27-Feb-15	05-Mar-15	24					█																			
A9500	Bridge E (Pier 16 - 19) - Lightings	6	15-Mar-15	20-Mar-15	1														█										
A9510	Bridge E (Pier 17 - 19) - MJ	10	01-Mar-15	10-Mar-15	10					█																			
A9520	Bridge E (Pier 17 - 19) - install pre-cast Parapet	16	24-Feb-15	11-Mar-15	12					█																			
A9521	Bridge E (Pier 17 - 19) - Install L3 Railing/Parapet	4	12-Mar-15	15-Mar-15	12					█																			
A9540	Bridge E (Pier 17 - D1) - Drainage Gully	5	16-Mar-15	20-Mar-15	0														█										
A9560	Bridge E (Pier 19 - D1) - Parapet + Noise Barrier > Post + Panel	25	30-Mar-15	30-Apr-15	0														█										
A9570	Bridge E (Pier 19 - D1) - Green Wall	2	28-Apr-15	30-Apr-15*	0														█										
A9590	Bridge E (Pier D1) - MJ	6	10-Mar-15	17-Mar-15	7					█																			
A9600	Bridge E (Pier 17 - D1) - Asphalting	4	21-Mar-15	25-Mar-15	0														█										
A9610	Bridge E (Pier 17 - D1) - Road Marking	2	26-Mar-15	27-Mar-15	0														█										
A9620	Bridge E (Pier 17 - D1) - Signage	5	16-Mar-15	20-Mar-15	6					█																			
10.2 - W/B Bridges (Bridge C and F)																													
10.2.2 - Bridge Construction																													
A7270	Int. Noise Enclosure Main + Sub Frames Fab / Del	150	18-Feb-15	22-Aug-15	155									█															
A7280	Int. Noise Enclosure Noise Panel Fab / Del	150	07-Apr-15	05-Oct-15	155														█										
All W/B Bridges (Common)																													
A10390	TTA > Opening of Median Barrier at Existing W/B bridge (Pier 15-21 & 44-49)	13	30-Mar-15	11-Apr-15	0														█										
A8060	Opening of Median Barrier at Existing W/B bridge (Pier 15-21 & 44-49)	13	30-Mar-15	11-Apr-15	0														█										
A8530	Saw - Cutting of Slab at W/B Bridge (Pier 26-44)	15	14-Apr-15	28-Apr-15	8									█															
A9820	Erection of Fixed Gantry > Pier 34-35	4	13-Apr-15	17-Apr-15	138									█															
10.3 - Middle Bridge (Bridge F)																													
10.3.1 - Pier Construction																													
Abutment D12																													
1031-1057	Abut D12 (Approach Ramp Area) - Reb Fix + Concrete Pour 2	0	19-Dec-14 A	23-Dec-14 A																									
1031-1058	Abut D12 (Approach Ramp Area) - Reb Fix + Concrete Pour 3	14	20-Jan-15	04-Feb-15	137					█																			
1031-1060	Construct partial D12 under old E/B	18	20-Jan-15	09-Feb-15	663					█																			
1031-1070	Bearing installation at Abutment D12 under old E/B	6	10-Feb-15	16-Feb-15	663					█																			
10.4 - Bridge Deck Demolition																													
10.4.1 - Existing W/B Bridge (Part 1)																													
A6640	Erect/Assemble LG1 + T&C	50	13-Apr-15	11-Jun-15	7														█										
A6770	TTA for Bridge Demolition at Watson Road & Oil Street	90	22-Jan-15	15-May-15	50					█																			
A8070	Pier 43 Erect Falsework at existing W/B Bridge prior to demolition	0	22-Dec-14 A	27-Dec-14 A																									

- █ Remaining Level of Effort ◆ ◆ Milestone
- █ Actual Level of Effort
- █ Actual Work
- █ Remaining Work
- █ Critical Remaining Work

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																				
						January				February				March					April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03			
A8072	Pier 42 Erect Falsework at existing W/B Bridge prior to demolition	0	27-Dec-14 A	31-Dec-14 A		Pier 42 Erect Falsework at existing W/B Bridge prior to demolition																				
A8073	Pier 41 Erect Falsework at existing W/B Bridge prior to demolition	0	01-Jan-15 A	06-Jan-15 A		Pier 41 Erect Falsework at existing W/B Bridge prior to demolition																				
A8074	Pier 40 Erect Falsework at existing W/B Bridge prior to demolition	0	05-Jan-15 A	10-Jan-15 A		Pier 40 Erect Falsework at existing W/B Bridge prior to demolition																				
A8075	Pier 39 Erect Falsework at existing W/B Bridge prior to demolition	0	08-Jan-15 A	13-Jan-15 A		Pier 39 Erect Falsework at existing W/B Bridge prior to demolition																				
A8076	Pier 38 Erect Falsework at existing W/B Bridge prior to demolition	0	12-Jan-15 A	16-Jan-15 A		Pier 38 Erect Falsework at existing W/B Bridge prior to demolition																				
A8077	Pier 37 Erect Falsework at existing W/B Bridge prior to demolition	2	15-Jan-15 A	21-Jan-15	111	Pier 37 Erect Falsework at existing W/B Bridge prior to demolition																				
A8078	Pier 36 Erect Falsework at existing W/B Bridge prior to demolition	5	19-Jan-15 A	26-Jan-15	111	Pier 36 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.1	Pier 28 Erect Falsework at existing W/B Bridge prior to demolition	6	26-Jan-15	31-Jan-15	111	Pier 28 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.11	Pier 29 Erect Falsework at existing W/B Bridge prior to demolition	6	31-Jan-15	06-Feb-15	111	Pier 29 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.12	Pier 30 Erect Falsework at existing W/B Bridge prior to demolition	6	06-Feb-15	12-Feb-15	111	Pier 30 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.13	Pier 31 Erect Falsework at existing W/B Bridge prior to demolition	6	12-Feb-15	18-Feb-15	111	Pier 31 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.14	Pier 32 Erect Falsework at existing W/B Bridge prior to demolition	6	18-Feb-15	27-Feb-15	111	Pier 32 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.15	Pier 33 Erect Falsework at existing W/B Bridge prior to demolition	6	27-Feb-15	05-Mar-15	111	Pier 33 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.16	Pier 34 Erect Falsework at existing W/B Bridge prior to demolition	6	05-Mar-15	11-Mar-15	111	Pier 34 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.17	Pier 35 Erect Falsework at existing W/B Bridge prior to demolition	6	11-Mar-15	17-Mar-15	111	Pier 35 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.18	Pier 17 Erect Falsework at existing W/B Bridge prior to demolition	6	17-Mar-15	23-Mar-15	197	Pier 17 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.19	Pier 26 Erect Falsework at existing W/B Bridge prior to demolition	6	23-Mar-15	28-Mar-15	197	Pier 26 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.2	Pier 25 Erect Falsework at existing W/B Bridge prior to demolition	6	28-Mar-15	07-Apr-15	197	Pier 25 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.21	Pier 24 Erect Falsework at existing W/B Bridge prior to demolition	6	07-Apr-15	13-Apr-15	197	Pier 24 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.22	Pier 23 Erect Falsework at existing W/B Bridge prior to demolition	6	13-Apr-15	18-Apr-15	197	Pier 23 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.3	Pier 22 Erect Falsework at existing W/B Bridge prior to demolition	6	18-Apr-15	24-Apr-15	197	Pier 22 Erect Falsework at existing W/B Bridge prior to demolition																				
A8079.4	Pier 21 Erect Falsework at existing W/B Bridge prior to demolition	6	24-Apr-15	30-Apr-15	197	Pier 21 Erect Falsework at existing W/B Bridge prior to demolition																				

10.5 - Temporary Bridge

10.5.1 - Temporary Bridge 'TA'

1051-1019	Temporary Bridge TA2 - Mini-Pile	0	19-Dec-14 A	31-Dec-14 A		Temporary Bridge TA2 - Mini-Pile																				
A9630	(TA21 > C15) - Cap Construction	10	17-Jan-15 A	30-Jan-15	43	(TA21 > C15) - Cap Construction																				
A9631	(TA22 > C15) - Cap Construction	11	17-Jan-15 A	31-Jan-15	48	(TA22 > C15) - Cap Construction																				
A9640	(TA21 & TA22 > C15) - Steel Tower Erection	6	31-Jan-15	06-Feb-15	43	(TA21 & TA22 > C15) - Steel Tower Erection																				
A9650	(TA21 & TA22 > C15) - Beam Erection (4nos)	10	06-Feb-15	17-Feb-15	43	(TA21 & TA22 > C15) - Beam Erection (4nos)																				
A9660	(TA21 & TA22 > C15) - Deck Construction	15	18-Feb-15	10-Mar-15	43	(TA21 & TA22 > C15) - Deck Construction																				
A9670	(TA23 & TA25 > C19-EVB Roof) - Steel Tower + Bearing + Beam	12	04-Mar-15	18-Mar-15	0	(TA23 & TA25 > C19-EVB Roof) - Steel Tower + Bearing + Beam																				
A9680	(TA26 - TA28 > C19-EVB Roof) - Steel Tower + Bearing + Beam	16	18-Mar-15	09-Apr-15	18	(TA26 - TA28 > C19-EVB Roof) - Steel Tower + Bearing + Beam																				
A9690	(TA23 - TA24 > C19-EVB Roof) - Deck construction	18	18-Mar-15	11-Apr-15	0	(TA23 - TA24 > C19-EVB Roof) - Deck construction																				
A9700	(TA24 - TA25 > C19-EVB Roof) - Deck construction	18	18-Mar-15	11-Apr-15	0	(TA24 - TA25 > C19-EVB Roof) - Deck construction																				
A9710	(TA25 - TA26 > C19-EVB Roof) - Deck construction	18	11-Apr-15	04-May-15	0	(TA25 - TA26 > C19-EVB Roof) - Deck construction																				
A9720	(TA26 - TA27 > C19-EVB Roof) - Deck construction	18	11-Apr-15	04-May-15	0	(TA26 - TA27 > C19-EVB Roof) - Deck construction																				
A9740	(TA23 - TA25 > C19-EVB Roof) - Parapet + Lightings + MJ	14	11-Apr-15	28-Apr-15	18	(TA23 - TA25 > C19-EVB Roof) - Parapet + Lightings + MJ																				
A9780	(TA2 > C15) - Stitching to Existing Bridge	14	11-Mar-15	26-Mar-15	43	(TA2 > C15) - Stitching to Existing Bridge																				

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
10.5.2 - Temporary Bridge 'TB'																									
A10240	TB > Beams Pier 16 -17	2	20-Jan-15	21-Jan-15	10																				
A10250	TB > (Pier 16 -17) - Install Bondeck & Shear Stub	6	22-Jan-15	28-Jan-15	10																				
A10260	TB > (Pier 16 -17) - Rebar Fixing for Bridge deck + Fixing Holding Down Bolt	10	29-Jan-15	09-Feb-15	10																				
A10270	TB > (Pier 16 -17) - Concreting	1	10-Feb-15	10-Feb-15	10																				
A10280	TB > (Pier 16-17) - Stitching	6	11-Feb-15	17-Feb-15	10																				
A10290	TB > (Pier TB1-16) - L3 Railing Installation	5	23-Feb-15	27-Feb-15	10																				
A10300	Bridge E (Pier 16) - MJ	8	02-Mar-15	10-Mar-15	9																				
A2461	TB > Erection of TB I - Beams TB1-16	0	29-Dec-14 A	30-Dec-14 A																					
A2470	TB > (Pier TB1-16) - Install Bondeck & Shear Stub	0	06-Jan-15 A	12-Jan-15 A																					
A2471	TB > (Pier TB1-16) - Rebar Fixing for Bridge deck + Fixing Holding Down Bolt	0	13-Jan-15 A	23-Jan-15	39																				
A2472	TB > (Pier TB1-16) - Concreting	1	23-Jan-15	24-Jan-15	39																				
A2473	TB > (Pier TB1-16) - Stitching	7	24-Jan-15	02-Feb-15	39																				
A2480	TB > (Pier TB1-16) - L3 Railing Installation	5	02-Feb-15	07-Feb-15	39																				
10.5.3 - Temporary Bridge 'TD'																									
1053-1166	Bridge TD - MJ at Pier F14	3	20-Jan-15	22-Jan-15	53																				
10.6 - Tunnel Approach Ramp																									
10.6.1 - Approach Ramp (Excluding Portion IIB)																									
Bored Piles																									
1061-1012	Pre-drilling Approach Ramp Piles Remaining (70 nos) (excl IIB & VD)	46	18-Oct-13 A	17-Mar-15	544																				
1061-1030	Founding Level Approach Ramp Piles Remaining (excl IIB & VD)	69	08-Jan-14 A	16-Apr-15	521																				
1061-1053	Remaining Bored Piles & Pre-Bored H-Pile Testing	60	18-Apr-15	29-Jun-15	668																				
1061-2031	Bored Pile Ramp - BN28	0	15-Dec-14 A	23-Dec-14 A																					
A5851	Bored Pile Ramp - BN25	15	27-Feb-15	16-Mar-15	25																				
A5851.1	Bored Pile Ramp - BN26	15	29-Dec-14 A	05-Feb-15	25																				
A5852	Bored Pile Ramp - BN25a	15	06-Feb-15	26-Feb-15	25																				
A5854	Bored Pile Ramp - BN23	18	23-Dec-14 A	09-Feb-15	22																				
A5855	Bored Pile Ramp - BN28	14	15-Dec-14 A	04-Feb-15	26																				
A5856	Bored Pile Ramp > LHR- BN32	14	05-Feb-15	24-Feb-15	90																				
A5857	Bored Pile Ramp > LHR - BN34	14	05-Feb-15	24-Feb-15	104																				
A5859.2	Bored Pile Ramp - BN19	15	10-Apr-15	27-Apr-15	22																				
A5859.21	Bored Pile Ramp - BN20	15	20-Mar-15	09-Apr-15	22																				
A5859.22	Bored Pile Ramp - BN21	15	03-Mar-15	19-Mar-15	22																				
A5859.23	Bored Pile Ramp - BN22	15	10-Feb-15	02-Mar-15	22																				
A5859.24	Bored Pile Ramp - BS21	15	07-Apr-15	23-Apr-15	25																				
A5859.25	Bored Pile Ramp - BS22	15	17-Mar-15	02-Apr-15	25																				
A5859.32	Bored Pile Ramp > LHR - BN14	14	25-Feb-15	12-Mar-15	90																				
A5859.33	Bored Pile Ramp > LHR - BN15	14	25-Feb-15	12-Mar-15	104																				
A5859.34	Bored Pile Ramp > LHR - BN16	14	13-Mar-15	28-Mar-15	90																				

- █ Remaining Level of Effort
- █ Actual Level of Effort
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Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																				
						January				February				March				April				May				
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03			
A5859.35	Bored Pile Ramp > LHR - BN17	14	13-Mar-15	28-Mar-15	104																Bored Pile Ramp > LHR - BN17					
A5859.36	Bored Pile Ramp > LHR - BN18	14	30-Mar-15	17-Apr-15	90																Bored Pile Ramp > LHR - BN18					
A5859.36.1	Complete Bored Piles > LHR	0		17-Apr-15	90																◆ Complete Bored Piles > LHR					
A7910	Pre-Bored H-Pile - H - Beam + Grout > BS28a	14	20-Jan-15	04-Feb-15	0																Pre-Bored H-Pile - H - Beam + Grout > BS28a					
A7920	Pre-Bored H-Pile - H - Beam + Grout > BS28b	14	20-Jan-15	04-Feb-15	0																Pre-Bored H-Pile - H - Beam + Grout > BS28b					
A7930	Pre-Bored H-Pile - H - Beam + Grout > BS29a	14	17-Dec-14 A	04-Feb-15	0																Pre-Bored H-Pile - H - Beam + Grout > BS29a					
A7940	Pre-Bored H-Pile - H - Beam + Grout > BS29b	14	20-Jan-15	04-Feb-15	0																Pre-Bored H-Pile - H - Beam + Grout > BS29b					
A7950	Pre-Bored H-Pile - H - Beam + Grout > BS30a	1	13-Dec-14 A	20-Jan-15	0																Pre-Bored H-Pile - H - Beam + Grout > BS30a					
A7970	Pre-Bored H-Pile - H - Beam + Grout > BS31a	14	07-Jan-15 A	04-Feb-15	0																Pre-Bored H-Pile - H - Beam + Grout > BS31a					
A7990	Pre-Bored H-Pile - H - Beam + Grout > BS32a	14	03-Jan-15 A	04-Feb-15	0																Pre-Bored H-Pile - H - Beam + Grout > BS32a					
A8050	Complete Pre-Bored H-Pile > CSD Approach Ramp	0		04-Feb-15*	0																◆ Complete Pre-Bored H-Pile > CSD Approach Ramp					
ELS																										
1061-1065	Drive Sheet Pile for Trough A & B (excl IIB)	115	17-Mar-15	04-Aug-15	0																Drive Sheet Pile for Trough A & B (excl IIB)					
A9210	Start Sheet Pile > Approach Ramp	0	17-Mar-15*		0																◆ Start Sheet Pile > Approach Ramp					
10.6.2 - Approach Ramp (Within Portion IIB)																										
Bored Piles																										
1061-1050	Pre-bored H-piles BN01/BN05/BN06 (6 nos)	30	18-Apr-15	23-May-15	490																Pre-bored H-piles BN01/BN05/BN06 (6 nos)					
10.7 - Section X - Miscellaneous Works																										
10.7.1 - TTM Stages																										
1071-1025	TTM Stage 2B - TMLG / TD / Police Consultation and Endorsement	56	31-Jan-15	27-Mar-15	0																TTM Stage 2B - TMLG / TD / Police Consultation and Endorsement					
1071-1030	TTM Stage 2B - TTM Enabling Works	2	28-Mar-15	29-Mar-15	0																TTM Stage 2B - TTM Enabling Works					
1071-1040	TTM Stage 2B - Divert 3 Lanes to E/B Bridge through 'Bridge From Pier 17 to Pier D1'	0		29-Mar-15*	0																◆ TTM Stage 2B - Divert 3 Lanes to E/B Bridge					
1071-1041	TTM Stage 2B1 - TMLG / TD / Police Consultation and Endorsement	82	20-Jan-15	11-Apr-15	0																TTM Stage 2B1 - TMLG / TD / Police Consultation and Endorsement					
1071-1042	TTM Stage 2B1 - TTM Enabling Works	2	12-Apr-15	13-Apr-15	0																TTM Stage 2B1 - TTM Enabling Works					
1071-1043	TTM Stage 2B1 - Use Existing E/B Lane to Divert 4 W/B Lane	0		13-Apr-15*	0																◆ TTM Stage 2B1 - Use Existing E/B Lane to Divert 4 W/B Lane					
1071-1045	TTM Stage 2C - TMLG / TD / Police Consultation and Endorsement	126	06-Feb-15	11-Jun-15	0																TTM Stage 2C - TMLG / TD / Police Consultation and Endorsement					
11 - SECTION 11 OF THE WORKS																										
11.2 - Roadworks																										
1110-2200	Junction Improvement Work at Portion X1IA (possession 02Sep14)	320	20-Jan-15*	16-Feb-16	0																Junction Improvement Work at Portion X1IA (possession 02Sep14)					
13 - SECTION 13 OF THE WORKS																										
13.1 - Waterworks																										
1310-1000	Salt Watermain - S02 Portion XIIB (possession 16Aug16)	90	20-Jan-15	12-May-15	893																Salt Watermain - S02 Portion XIIB (possession 16Aug16)					

	Remaining Level of Effort	◆	◆ Milestone
	Actual Level of Effort		
	Actual Work		
	Remaining Work		
	Critical Remaining Work		

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

WP13-0		Layout: CWB - Working Layout for DWP Rev M					Date Printed 26-Sep-14 11						
Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
HY/2009/15 - Works Programme Rev. M (DD:20-Sep-12)													
Works in East Ventilation Adit - Based on Alternative Method													
Reinstatement of Breakwater													
S3_54840	Reinstatement works -west side	7d/wk-1	60d	21-Feb-14 08 A	30-Sep-14 18	-85d							
S3_60085	Reinstatement works east side	7d/wk-1	60d	31-May-14 08 A	30-Sep-14 18	-85d							
S3_54845	Completion of Section 3 (KD8) in EVA Area (Alternative Method)	7d/wk-2	0d		30-Sep-14 18	-86d							
Works in TS1/TS2 - OHVD and Cable Trough/Maintenance Walkway													
TS2 - OHVD and Cable Trough/Maintenance Walkway													
OHVD Slab and Cable Trough Construction													
S3_6210	TS2 - OHVD/ Cable trough	7d/wk-1	40d	20-May-14 08 A	30-Sep-14 18	-85d							
S3_6212	Completion of Section 3 - TS1/TS2 Area (below -6mpd) KD8)	7d/wk-2	0d		30-Sep-14 18	-86d							
Works in TS4/ME4 Area (Portion 14A, 14B, 15, 23)													
TS4/ME4 - Removal of Temporary Reclamation													
Remaining Works at TZ6													
Stage 4 - Seawall and Reclamation at TZ6													
A-2010	Installation of seawall blocks (Qty: 245 nos.)	7d/wk-2	6d	15-Sep-14 08 A	26-Sep-14 18	-332d							
A-2020	Soil Backfilling up to -2.45mPD (Qty:3,000 cu.m.)	7d/wk-2	2d	25-Sep-14 08	26-Sep-14 18	-332d							
A-2030	Utilities installation for Mined Tunnel	7d/wk-2	1d	27-Sep-14 08	27-Sep-14 18	-332d							
A-2040	Soil backfilling up to ground level (Qty:2,000 cu.m.)	7d/wk-2	2d	28-Sep-14 08	29-Sep-14 18	-332d							
A-2050	Site clearance	7d/wk-2	1d	30-Sep-14 08	30-Sep-14 18	-305d							
A-2060	Handover to MTR	7d/wk-2	0d		30-Sep-14 18	-305d							
Removal of Temporary Reclamation at TS4/ME4													
Stage 5 (Zones A, D & F - TS4-D33 to D-26, SCL2 & ME4-D19 to D13)													
A-3000	D-Wall horizontal cutting (Qty: 62 pcs.)	7d/wk-2	21d	29-Aug-14 08 A	23-Sep-14 18	-340d							
Stage 5 (Zone C - P4, ME4-D12 to ME4-D10 & P3)													
A-3011	Marine removal of temporary reclamation and seawall blocks (Zones C)	7d/wk-2	21d	31-Aug-14 08 A	02-Oct-14 18	-353d							
A-3030	D-Wall vertical cutting (Qty: 15 pcs.)	7d/wk-2	4d	03-Oct-14 08	06-Oct-14 18	-353d							
A-3040	D-Wall horizontal cutting (Qty: 20 pcs.)	7d/wk-2	5d	06-Oct-14 08	10-Oct-14 18	-352d							

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

1 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015									2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3					
Stage 7 (Zones C & E - ME4-D06 to D01, SCL1 & TS4-D25)																			
A-4000	Marine removal of temporary reclamation and seawall blocks (Zones C & E)	7d/wk-2	18d	06-Sep-14 08 A	06-Oct-14 18	-353d													
A-3090	Hole coring (Qty: 44 nos)	7d/wk-2	9d	20-Sep-14 08*	28-Sep-14 18	-346d													
A-4010	D-Wall vertical cutting (Qty: 27pcs.)	7d/wk-2	7d	07-Oct-14 08	13-Oct-14 18	-353d													
A-4020	D-Wall horizontal cutting (Qty: 37 pcs.)	7d/wk-2	10d	11-Oct-14 08	20-Oct-14 18	-353d													
Stage 9 (Zone I - TS4-D01 to TS4-D08)																			
A-3050	Remaining removal of temporary reclamation (Zone I)	7d/wk-2	28d	29-Aug-14 08 A	01-Oct-14 18	-342d													
A-3060	Hole coring (Qty: 25 nos)	7d/wk-2	5d	02-Oct-14 08	06-Oct-14 18	-342d													
A-3070	D-Wall vertical cutting (Qty: 14 pcs.)	7d/wk-2	3d	07-Oct-14 08	09-Oct-14 18	-342d													
A-3080	D-Wall horizontal cutting (Qty: 24 pcs.)	7d/wk-2	5d	21-Oct-14 08	25-Oct-14 18	-353d													
Stage 8 (Zones G & K - TS4-D24 to TS4-D15)																			
A-4040	Relocation of RHKYC floating pontoon	7d/wk-2	5d	22-Sep-14 08*	26-Sep-14 18	-338d													
A-4050	Hole coring (Qty: 27 nos)	7d/wk-2	6d	29-Sep-14 08	04-Oct-14 18	-346d													
A-4060	Marine removal of temporary reclamation and seawall blocks (Zone G & K)	7d/wk-2	14d	11-Oct-14 08	24-Oct-14 18	-352d													
A-4070	D-Wall vertical cutting (Qty: 18pcs.)	7d/wk-2	4d	25-Oct-14 08	28-Oct-14 18	-352d													
A-4080	D-Wall horizontal cutting (Qty: 25 pcs.)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-352d													
Stage 10 (Zone J - TS4-D09 to TS4-D14)																			
A-4090	Land removal of temporary reclamation (Zone J)	7d/wk-2	10d	07-Oct-14 08	16-Oct-14 18	-344d													
A-5000	Hole coring (Qty: 32 nos)	7d/wk-2	7d	17-Oct-14 08	23-Oct-14 18	-340d													
A-5010	Marine removal of temporary reclamation (Zone J)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-353d													
A-5020	D-Wall vertical cutting (Qty: 20 pcs.)	7d/wk-2	5d	02-Nov-14 08	06-Nov-14 18	-353d													
A-5030	D-Wall horizontal cutting (Qty: 26 pcs.)	7d/wk-2	7d	04-Nov-14 08	10-Nov-14 18*	-353d													
Stage 13 - Phase 3 Mooring																			
A-5050	Final trimming of sea bed level	7d/wk-2	4d	02-Nov-14 08	05-Nov-14 18	-347d													
A-5060	Phase 3 Mooring	7d/wk-2	6d	06-Nov-14 08	11-Nov-14 18	-347d													
A-5040	Reinstatement of existing seawall (Zones I & J)	7d/wk-2	7d	11-Nov-14 08	17-Nov-14 18	-353d													
Stage 12 - Re-provisioning of Jetty																			
S6_5258	Provision of Mobile Crane (until permanent re-provision of Jetty is completed)	7d/wk-1	160d	20-Feb-14 08 A	30-Dec-14 18	-335d													
A-6010	BA8 submission and consent for commencement of superstructure	7d/wk-2	28d	20-Sep-14 08 A	16-Oct-14 18	-336d													

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

2 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016								
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3					
A-6012	Submission of performance report	7d/wk-2	1d	25-Oct-14 08*	25-Oct-14 18	-286d													
A-6020	Erection of working platform for jetty beams and reinstate the floating portoon	7d/wk-2	10d	02-Nov-14 08	11-Nov-14 18	-352d													
A-6040	BA10 submission for authorized signatory and subcontractor	7d/wk-2	1d	12-Nov-14 08	12-Nov-14 18	-304d													
A-6030	Jetty beams construction	7d/wk-2	14d	12-Nov-14 08	25-Nov-14 18	-352d													
A-6052	Construction of floating pontoon	7d/wk-2	14d	26-Nov-14 08	09-Dec-14 18	-331d													
A-6050	BA13 submission + 14-day cube test results	7d/wk-2	28d	26-Nov-14 08	23-Dec-14 18	-352d													
A-6060	E&M and accessories installation	7d/wk-2	7d	24-Dec-14 08	30-Dec-14 18	-352d													
A-6070	Handover to RHKYC	7d/wk-2	1d	31-Dec-14 08	31-Dec-14 18	-352d													
Stage 11 - Construction of TZ4																			
A-6080	South side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	24-Sep-14 08	05-Oct-14 18	-339d													
A-6090	South side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	06-Oct-14 08	11-Oct-14 18	-339d													
A-7000	South side - general fill (Qty: 2,000 cu.m.)	7d/wk-2	2d	12-Oct-14 08	13-Oct-14 18	-339d													
A-7010	North side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	21-Oct-14 08	01-Nov-14 18	-346d													
A-7020	North side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	02-Nov-14 08	07-Nov-14 18	-346d													
A-7030	North side - general fill (Qty:2,000 cu.m.)	7d/wk-2	2d	08-Nov-14 08	09-Nov-14 18	-346d													
A-7040	Handover to contract TS3/SR8	7d/wk-2	1d	10-Nov-14 08	10-Nov-14 18*	-346d													
TS4/ME4, Removal of Temporary Reclamation																			
S26875	Completion of Section 2 (With ME4 option) (KD7)	7d/wk-2	0d		17-Nov-14 18	-353d													
S26890	Completion of Section 7B (ME4) (KD13)	7d/wk-2	0d		17-Nov-14 18	-353d													
TS4 - OHVD / Cable Trough																			
S5_6185	TS4 (incl. TS4+) - OHVD Slab - Area C (access through temp. opening at TZ4)	7d/wk-1	36d	02-Jan-15 08*	06-Feb-15 18	195d													
S5_6190	TS4 (incl. TS4+) - Cable Trough (access through temp. opening at TZ4)	7d/wk-1	60d	07-Feb-15 08*	14-Apr-15 18	195d													
S5_59850	Completion of Section 5 - TS4/ME4 Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d													
Works in TPCWAE Area (Portion 20A, 20B)																			
Removal of Temporary Reclamation																			
Removal of Temporary Reclamation & Form TZ5																			
S67670	Remove general fill /sea wall block	7d/wk-1	24d	20-May-14 08A	08-Oct-14 18	-296d													
S67675	Diaphragm wall saw cutting (1st D Wall cut on 23 Jun 2014)	7d/wk-1	31d	03-Sep-14 08A	16-Oct-14 18	-306d													
S67755	Form TZ5	7d/wk-1	18d	25-Sep-14 08	14-Oct-14 18	-304d													


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3 of 18

China State Construction Engineering (Hong Kong) Ltd
 Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)
WORKS PROGRAMME REV. M

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Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016																													
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3																										
S67885	Achievement of KD5	7d/wk-2	0d		16-Oct-14 18	-323d	◆ Achievement of KD5																																	
S67687	Complete Reinstatement of Vertical Seawall (near PRE Office)	7d/wk-2	0d		27-Oct-14 18	-322d	◆ Complete Reinstatement of Vertical Seawall (near PRE Office)																																	
Reinstate Mucking Out Access Shaft "C"																																								
S67240	Start reinstatement works (after completion of TPCWAW OHVD works)	6d/wk	0d	26-Mar-16 08		-102d	◆ Start reinstatement works (after c																																	
S67225	Cast slab opening at top of CCT West bound (access shaft)	6d/wk	18d	28-Mar-16 08	16-Apr-16 18	-102d	■ Cast slab opening at top of C																																	
S67230	Removal of vertical shaft and backfilling	6d/wk	48d	11-Apr-16 08	04-Jun-16 18	-102d	■ Removal of vertical																																	
S67235	Reinstatement of pavement	6d/wk	12d	30-May-16 08	11-Jun-16 18	-102d	■ Reinstatement of																																	
TPCWAE - OHVD / Cable Trough																																								
S5_7405	TPCWAE - Cable Trough (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d	■ TPCWAE - Cable Trough (access through temp. opening at T																																	
S5_7400	TPCWAE - OHVD Slab AT Area A (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d	■ TPCWAE - OHVD Slab AT Area A (access through temp. open																																	
S5_59840	Completion of Section 5 - TPCWAE Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d	◆ Completion of Section 5 - TPCWAE Area (KD10), below -20m																																	
Works in TPCWAW Area																																								
TPCWAW - Temporary Reclamation																																								
Temporary Reclamation -																																								
S6_9440	TPCWAW - place levelling stone and tamping, South side	7d/wk-1	6d	15-Oct-14 08	20-Oct-14 18	-122d	■ TPCWAW - place levelling stone and tamping, South side																																	
S6_9450	TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-122d	■ TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)																																	
S6_9465	TPCWAW - place levelling stone and tamping, North side	7d/wk-1	6d	02-Nov-14 08	07-Nov-14 18	-122d	■ TPCWAW - place levelling stone and tamping, North side																																	
S6_9470	TPCWAW - place seawall blocks to +4 North side (Qty:672 nos @ 50 nos/day)	7d/wk-1	14d	08-Nov-14 08	21-Nov-14 18	-122d	■ TPCWAW - place seawall blocks to +4 North side (Qty:672 nos @ 50 nos/day)																																	
S6_9495	TPCWAW - General fill to +2 within the seawall	7d/wk-1	17d	15-Nov-14 08	01-Dec-14 18	-122d	■ TPCWAW - General fill to +2 within the seawall																																	
S6_9490	TPCWAW - place seawall blocks to +4 at the temporary opening	7d/wk-1	7d	02-Dec-14 08	08-Dec-14 18	-122d	■ TPCWAW - place seawall blocks to +4 at the temporary opening																																	
S6_9475	TPCWAW - Remaining General fill to +4 within the seawall	7d/wk-1	10d	09-Dec-14 08	18-Dec-14 18	-122d	■ TPCWAW - Remaining General fill to +4 within the seawall																																	
TPCWAW - Diaphragm Wall																																								
Diaphragm Wall																																								
S6_9385	Site investigation	7d/wk-1	49d	01-Dec-14 08	21-Jan-15 18	-113d	■ Site investigation																																	
S6_8960	Install guide wall	7d/wk-1	40d	17-Dec-14 08	28-Jan-15 18	-120d	■ Install guide wall																																	
S6_8955	Curtain grout along proposed diaphragm wall	7d/wk-1	40d	19-Dec-14 08	30-Jan-15 18	-122d	■ Curtain grout along proposed diaphragm wall																																	
S6_9382	Set up bentonite silo/plants and equipments	7d/wk-1	30d	19-Dec-14 08	20-Jan-15 18	-112d	■ Set up bentonite silo/plants and equipments																																	
S6_9345	Diaphragm wall construction (34 panels @ 3 panels/ week)	7d/wk-1	68d	30-Jan-15 08	14-Apr-15 18	-141d	■ Diaphragm wall construction (34 panels @ 3 panels/ week)																																	
S6_9350	Install shear pins on diaphragm wall	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d	■ Install shear pins on diaphragm wall																																	
<p>Summary Bar</p> <p>Actual Level of Effort</p> <p>Actual Work</p> <p>Remaining Work</p> <p>Critical Remaining Work</p> <p>◆ Milestone</p>							<p>4 of 18</p> <p>China State Construction Engineering (Hong Kong) Ltd</p> <p>Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)</p> <p>WORKS PROGRAMME REV. M</p>							<p>Prepared by William Caluza</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>26-Sep...</td> <td>1st submission</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p> 中國建築工程(香港)有限公司 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.</p>							Date	Revision	Checked	Approved	26-Sep...	1st submission														
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Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016				
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
S6_9355	Install king posts	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d			■	■					
S6_8970	Diaphragm Wall Pile test	7d/wk-1	40d	20-Mar-15 08	03-May-15 18	-129d			■	■					
S6_9375	Carry out contact/fissure grouting	7d/wk-1	29d	21-Mar-15 08	22-Apr-15 18	-141d			■	■					
TPCWAW- ELS Works															
ELS Works															
S6_9360	Install dewatering wells and piezometers	7d/wk-1	20d	30-Mar-15 08	22-Apr-15 18	-141d			■	■					
S6_9365	Install inclinometers inside D-wall	7d/wk-1	20d	15-Apr-15 08	05-May-15 18	-141d			■	■					
S6_8975	Carry out pumping tests	7d/wk-1	12d	23-Apr-15 08	05-May-15 18	-141d			■	■					
S6_8980	1st Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	06-May-15 08	15-May-15 18	-141d			■	■					
S6_9260	Submit pumping test report	7d/wk-1	1d	06-May-15 08	06-May-15 18	-137d			■	■					
S6_8985	1st Layer - install lateral support	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			■	■					
S6_8990	Install vibrating wire strain gauge	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			■	■					
S6_8995	2nd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	18-May-15 08	28-May-15 18	-141d			■	■					
S6_9000	2nd Layer - install lateral support	7d/wk-1	10d	29-May-15 08	07-Jun-15 18	-141d			■	■					
S6_9005	3rd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	31-May-15 08	09-Jun-15 18	-141d			■	■					
S6_9010	3rd Layer - install lateral support	7d/wk-1	10d	10-Jun-15 08	19-Jun-15 18	-141d			■	■					
S6_9015	4th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	12-Jun-15 08	22-Jun-15 18	-141d			■	■					
S6_9020	4th Layer - install lateral support	7d/wk-1	10d	23-Jun-15 08	03-Jul-15 18	-141d			■	■					
S6_9025	5th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	25-Jun-15 08	05-Jul-15 18	-141d			■	■					
S6_9030	5th Layer - install lateral support	7d/wk-1	10d	27-Jun-15 08	07-Jul-15 18	-141d			■	■					
S6_9035	6th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	08-Jul-15 08	17-Jul-15 18	-141d			■	■					
S6_9040	6th Layer - install lateral support	7d/wk-1	10d	18-Jul-15 08	27-Jul-15 18	-69d			■	■					
TPCWAW - ROCK EXCAVATION															
S6_6180	Rock excavation to formation	7d/wk-1	112d	18-Jul-15 08	09-Nov-15 18	-141d			■	■					
S6_9370	Install tie back anchor to D- Walls (area on west side, near Portion 11)	7d/wk-1	25d	20-Jul-15 08	13-Aug-15 18	-69d			■	■					
S6_9415	Install tie back anchor to D- Walls (east area)	7d/wk-1	20d	20-Jul-15 08	08-Aug-15 18	-69d			■	■					
S6_9055	Provide Access to WDII Contractor for demolition of bulkhead at Portion 11	7d/wk-2	0d		10-Nov-15 18	-133d					◆				
TPCWAW- CCT RC Structure															
TPCWAW - CCT / OHVD															

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5 of 18

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Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016									
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3						
S6_9070	TPCWAW Construct tunnel base slab	7d/wk-1	50d	23-Oct-15 08	11-Dec-15 18	-141d														
S6_9075	TPCWAW Construct tunnel wall + OHVD + roof slab	7d/wk-1	80d	13-Nov-15 08	02-Feb-16 18	-141d														
S6_9077	TPCWAW - external waterproofing on top of completed CCT box (incl. screeding)	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d														
S6_9076	TPCWAW King post load transfer	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d														
TPCWAW - Removal of Temporary Reclamation																				
Removal of Temporary Reclamation																				
S6_9140	Backfilling/Removal of ELS/ Reinstatement of sea wall at Portion 11 (concurrent activities)	7d/wk-1	30d	17-Feb-16 08	17-Mar-16 18	-120d														
S6_9105	Remove general fill/ seawall block (concurrent activities)	7d/wk-1	25d	06-Mar-16 08	30-Mar-16 18	-120d														
S6_9120	Saw out diaphragm wall	7d/wk-1	63d	21-Mar-16 08	23-May-16 18	-120d														
S6_7550	Completion of Section 6- (KD11), above -20mPD	7d/wk-2	0d		23-May-16 18	-121d														
TPCWAW -Cable Trough/ Maintenance Walkway																				
S6_9085	TPCWAW - Cable Trough (access through temp. opening at Portion 19)	7d/wk-2	24d	02-Mar-16 08	25-Mar-16 18	-144d														
S6_9135	Completion of Section 5 - TPCWAW Area (KD10), below -20mPD	7d/wk-2	0d		25-Mar-16 18	-144d														
Works in Wan Chai PCWA (Portion 11)																				
Initial Works & Utilities Works																				
S4_2810	Installation of Hoarding	7d/wk-1	24d	05-May-14 08 A	17-Oct-14 18	-58d														
S4_2720	Remove existing rock mound	7d/wk-1	24d	21-Oct-14 08	13-Nov-14 18	-61d														
S4_2750	Carry out Site Investigation for BW1/BW2	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-61d														
S4_2755	BW1/BW2 Engineers confirmation of provisional Barrettes	7d/wk-1	0d		07-Nov-14 18	-61d														
Allow Access to WDII																				
S4_2785	Complete Section 4 - Portion 11 (KD9)	7d/wk-2	0d		10-Nov-15 18	-132d														
S4_2775	Return Portion 11 to WDII	7d/wk-1	0d		10-Nov-15 18	-129d														
Works for Mined Tunnel (Portion 16, 17, 18)																				
SR8 (Tunnel Excavation + Lining)																				
From West (TPCWAE)																				
Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																				
A8676	SR8 Heading Excavation From West, CH 4095- 4107 = 8m @2d/m	7d/wk-1a	16d	03-Sep-14 08 A	28-Sep-14 18	164d														
Bench Excavation (1.5d-2d/m, 20m separation with heading)																				
A8700	SR8 Bench Excavation From West, CH 4055- 4065 = 10m	7d/wk-1a	20d	08-Sep-14 08 A	24-Sep-14 18	148d														

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6 of 18

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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
A8705	SR8 Bench Excavation From West, CH 4065- 4075 = 10m	7d/wk-1a	20d	25-Sep-14 08	15-Oct-14 18	148d									
A8685	SR8 Bench Excavation From West, CH 4075- 4085 = 10m	7d/wk-1a	20d	16-Oct-14 08	04-Nov-14 18	148d									
A8680	SR8 Bench Excavation From West, CH 4085- 4095 = 10m	7d/wk-1a	20d	05-Nov-14 08	24-Nov-14 18	148d									
A8725	SR8 Bench Excavation From West, CH 4095- 4100 = 5m	7d/wk-1a	10d	25-Nov-14 08	04-Dec-14 18	148d									
From East (TS4)															
Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)															
A8495	SR8 Heading Excavation From East CH 4115- 4107 = 8m @2d/m	7d/wk-1a	16d	15-Sep-14 08 A	28-Sep-14 18	10d									
Bench Excavation (1.5d/m, 20m separation with heading)															
A8455	SR8 Bench Excavation From East, CH 4147.5- 4135 = 12.5m	7d/wk-1a	19d	20-Sep-14 08	09-Oct-14 18	0d									
A8470	SR8 Bench Excavation From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	10-Oct-14 08	24-Oct-14 18	0d									
A8460	SR8 Bench Excavation From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	25-Oct-14 08	08-Nov-14 18	0d									
A8465	SR8 Bench Excavation From East, CH 4115- 4100 = 15m	7d/wk-1a	23d	09-Nov-14 08	01-Dec-14 18	0d									
Tunnel Lining Works															
From West - Base Slab (10m/bay, 10m separation with benching excavation)															
A8525	SR8, From West, CH 4015 - 4025 = 10m/bay, base slab	7d/wk-1a	10d	15-Sep-14 08 A	04-Oct-14 18	137d									
A8530	SR8, From West, CH 4025 - 4035 = 10m/bay, base slab	7d/wk-1a	10d	05-Oct-14 08	14-Oct-14 18	163d									
A8535	SR8, From West, CH 4035 - 4045 = 10m/bay, base slab	7d/wk-1a	8d	15-Oct-14 08	22-Oct-14 18	165d									
A8540	SR8, From West, CH 4045 - 4055 = 10m/bay, base slab	7d/wk-1a	8d	23-Oct-14 08	30-Oct-14 18	165d									
A8545	SR8, From West, CH 4055 - 4065 = 10m/bay, base slab	7d/wk-1a	8d	05-Nov-14 08	12-Nov-14 18	160d									
A8550	SR8, From West, CH 4065 - 4075 = 10m/bay, base slab	7d/wk-1a	8d	25-Nov-14 08	02-Dec-14 18	148d									
A8555	SR8, From West, CH 4075 - 4085 = 10m/bay, base slab	7d/wk-1a	8d	05-Dec-14 08	12-Dec-14 18	148d									
A8560	SR8, From West, CH 4085 - 4095 = 10m/bay, base slab	7d/wk-1a	8d	13-Dec-14 08	20-Dec-14 18	150d									
A8561	SR8, From West, CH 4095 - 4105 = 10m/bay, base slab	7d/wk-1a	8d	21-Dec-14 08	29-Dec-14 18	152d									
A8562	SR8, From West, CH 4105 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	30-Dec-14 08	07-Jan-15 18	154d									
From West - Lining (5m/bay, 10m separation with base slab)															
A8575	SR8, From West, CH 3995 - 4000 = 1bay, lining	7d/wk-1a	9d	20-Sep-14 08	28-Sep-14 18	0d									
A8580	SR8, From West, CH 4000 - 4005 = 1bay, lining	7d/wk-1a	9d	05-Oct-14 08	13-Oct-14 18	137d									
A8585	SR8, From West, CH 4005 - 4010 = 1bay, lining	7d/wk-1a	9d	14-Oct-14 08	22-Oct-14 18	137d									
A8590	SR8, From West, CH 4010 - 4015 = 1bay, lining	7d/wk-1a	9d	23-Oct-14 08	31-Oct-14 18	137d									

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- ◆ Milestone

7 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A8595	SR8, From West, CH 4015 - 4020 = 1bay, lining	7d/wk-1a	9d	01-Nov-14 08	09-Nov-14 18	137d		■ SR8, From West, CH 4015 - 4020 = 1bay, lining					
A8600	SR8, From West, CH 4020 - 4025 = 1bay, lining	7d/wk-1a	9d	10-Nov-14 08	18-Nov-14 18	137d		■ SR8, From West, CH 4020 - 4025 = 1bay, lining					
A8605	SR8, From West, CH 4025 - 4030 = 1bay, lining	7d/wk-1a	5d	19-Nov-14 08	23-Nov-14 18	137d		■ SR8, From West, CH 4025 - 4030 = 1bay, lining					
A8610	SR8, From West, CH 4030 - 4035 = 1bay, lining	7d/wk-1a	5d	24-Nov-14 08	28-Nov-14 18	137d		■ SR8, From West, CH 4030 - 4035 = 1bay, lining					
A8615	SR8, From West, CH 4035 - 4040 = 1bay, lining	7d/wk-1a	5d	29-Nov-14 08	03-Dec-14 18	137d		■ SR8, From West, CH 4035 - 4040 = 1bay, lining					
A8620	SR8, From West, CH 4040 - 4045 = 1bay, lining	7d/wk-1a	5d	04-Dec-14 08	08-Dec-14 18	137d		■ SR8, From West, CH 4040 - 4045 = 1bay, lining					
A8625	SR8, From West, CH 4045 - 4050 = 1bay, lining	7d/wk-1a	5d	09-Dec-14 08	13-Dec-14 18	137d		■ SR8, From West, CH 4045 - 4050 = 1bay, lining					
A8630	SR8, From West, CH 4050 - 4055 = 1bay, lining	7d/wk-1a	5d	14-Dec-14 08	18-Dec-14 18	137d		■ SR8, From West, CH 4050 - 4055 = 1bay, lining					
A8635	SR8, From West, CH 4055 - 4060 = 1bay, lining	7d/wk-1a	5d	19-Dec-14 08	23-Dec-14 18	137d		■ SR8, From West, CH 4055 - 4060 = 1bay, lining					
A8640	SR8, From West, CH 4060 - 4065 = 1bay, lining	7d/wk-1a	5d	24-Dec-14 08	29-Dec-14 18	137d		■ SR8, From West, CH 4060 - 4065 = 1bay, lining					
A8645	SR8, From West, CH 4065 - 4070 = 1bay, lining	7d/wk-1a	5d	30-Dec-14 08	04-Jan-15 18	137d		■ SR8, From West, CH 4065 - 4070 = 1bay, lining					
A8647	SR8, From West, CH 4070 - 4075 = 1bay, lining	7d/wk-1a	5d	05-Jan-15 08	09-Jan-15 18	137d		■ SR8, From West, CH 4070 - 4075 = 1bay, lining					
A8648	SR8, From West, CH 4075 - 4080 = 1bay, lining	7d/wk-1a	5d	10-Jan-15 08	14-Jan-15 18	137d		■ SR8, From West, CH 4075 - 4080 = 1bay, lining					
A8649	SR8, From West, CH 4080 - 4085 = 1bay, lining	7d/wk-1a	5d	15-Jan-15 08	19-Jan-15 18	137d		■ SR8, From West, CH 4080 - 4085 = 1bay, lining					
A8651	SR8, From West, CH 4085 - 4090 = 1bay, lining	7d/wk-1a	5d	20-Jan-15 08	24-Jan-15 18	137d		■ SR8, From West, CH 4085 - 4090 = 1bay, lining					
A8652	SR8, From West, CH 4090 - 4095 = 1bay, lining	7d/wk-1a	5d	25-Jan-15 08	29-Jan-15 18	137d		■ SR8, From West, CH 4090 - 4095 = 1bay, lining					
A8653	SR8, From West, CH 4095 - 4100 = 1bay, lining	7d/wk-1a	5d	30-Jan-15 08	03-Feb-15 18	137d		■ SR8, From West, CH 4095 - 4100 = 1bay, lining					
A8654	SR8, From West, CH 4100 - 4105 = 1bay, lining	7d/wk-1a	5d	04-Feb-15 08	08-Feb-15 18	137d		■ SR8, From West, CH 4100 - 4105 = 1bay, lining					
From East - Base Slab (10m/bay, 10m separation with benching excavation)													
A9775	SR8 From East, CH 4149.5 - 4145 = 4.5m, base slab	7d/wk-1a	8d	02-Dec-14 08	09-Dec-14 18	0d		■ SR8 From East, CH 4149.5 - 4145 = 4.5m, base slab					
A9780	SR8 From East, CH 4145 - 4135 = 10m/bay, base slab	7d/wk-1a	8d	10-Dec-14 08	17-Dec-14 18	0d		■ SR8 From East, CH 4145 - 4135 = 10m/bay, base slab					
A9785	SR8 From East, CH 4135 - 4125 = 10m/bay, base slab	7d/wk-1a	8d	18-Dec-14 08	26-Dec-14 18	8d		■ SR8 From East, CH 4135 - 4125 = 10m/bay, base slab					
A9786	SR8 From East, CH 4125 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	27-Dec-14 08	04-Jan-15 18	10d		■ SR8 From East, CH 4125 - 4115 = 10m/bay, base slab					
From East - Lining (5m/bay, 10m separation with base slab)													
A9820	From East, SR8 CH 4149.5 - 4145 = 4.5m, 1 bay, lining	7d/wk-1a	5d	18-Dec-14 08	22-Dec-14 18	0d		■ From East, SR8 CH 4149.5 - 4145 = 4.5m, 1 bay, lining					
A9815	From East, SR8 CH 4145 - 4140 = 1bay, lining	7d/wk-1a	5d	23-Dec-14 08	28-Dec-14 18	6d		■ From East, SR8 CH 4145 - 4140 = 1bay, lining					
A9810	From East, SR8 CH 4140 - 4135 = 1bay, lining	7d/wk-1a	5d	29-Dec-14 08	03-Jan-15 18	6d		■ From East, SR8 CH 4140 - 4135 = 1bay, lining					
A9805	From East, SR8 CH 4135 - 4130 = 1bay, lining	7d/wk-1a	5d	04-Jan-15 08	08-Jan-15 18	6d		■ From East, SR8 CH 4135 - 4130 = 1bay, lining					

- Summary Bar
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- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

8 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A9870	From East, SR8 CH 4130 - 4125 = 1bay, lining	7d/wk-1a	5d	09-Jan-15 08	13-Jan-15 18	6d			■ From East, SR8 CH 4130 - 4125 = 1bay, lining				
A9800	From East, SR8 CH 4125 - 4120 = 1bay, lining	7d/wk-1a	5d	14-Jan-15 08	18-Jan-15 18	143d			■ From East, SR8 CH 4125 - 4120 = 1bay, lining				
A9860	From East, SR8 CH 4120 - 4115 = 1bay, lining	7d/wk-1a	5d	19-Jan-15 08	23-Jan-15 18	143d			■ From East, SR8 CH 4120 - 4115 = 1bay, lining				
A9855	From East, SR8 CH 4115 - 4110 = 1bay, lining	7d/wk-1a	5d	24-Jan-15 08	28-Jan-15 18	143d			■ From East, SR8 CH 4115 - 4110 = 1bay, lining				
A9850	From East, SR8 CH 4110 - 4105 = 1bay, lining	7d/wk-1a	5d	29-Jan-15 08	02-Feb-15 18	143d			■ From East, SR8 CH 4110 - 4105 = 1bay, lining				
OHVD(10m/bay) / Utility Trough													
A8570	SR8 Tunnel OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	09-Feb-15 08	13-Jun-15 18	137d			■ SR8 Tunnel OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay				
EB Outer Tunnel Excavation													
From West (TPCWAE)													
Outer Bench Excavation (1.5d - 2d/m, 20m separation with heading)													
A9550	EB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	30d	07-Aug-14 08 A	20-Oct-14 18	135d			■ EB, Outer Bench From West, CH 4035- 4045 = 10m				
A9555	EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)	7d/wk-1a	20d	20-Oct-14 08	08-Nov-14 18	135d			■ EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)				
A9560	EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)	7d/wk-1a	20d	09-Nov-14 08	28-Nov-14 18	135d			■ EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)				
A9565	EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)	7d/wk-1a	20d	29-Nov-14 08	18-Dec-14 18	135d			■ EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)				
A9520	EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)	7d/wk-1a	20d	19-Dec-14 08	09-Jan-15 18	135d			■ EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)				
A9545	EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)	7d/wk-1a	15d	10-Jan-15 08	24-Jan-15 18	135d			■ EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)				
From East (TS4)													
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)													
A9605	EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	30d	20-Oct-14 08*	18-Nov-14 18	120d			■ EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m				
A9610	EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	120d			■ EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)				
A9615	EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	120d			■ EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)				
A9620	EB, Outer Bench From East, CH 4125- 4115 = 10m (2d/m)	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	120d			■ EB, Outer Bench From East, CH 4125- 4115 = 10m (2d/m)				
A9625	EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	120d			■ EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)				
A9630	EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	120d			■ EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)				
EB (Inner Tunnel Excavation + Lining)													
From West (TPCWAE)													
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)													
A8805	EB, Inner Heading From West, CH 3992- 4005 = 13m @3d/m	7d/wk-1a	39d	29-Sep-14 08	07-Nov-14 18	0d			■ EB, Inner Heading From West, CH 3992- 4005 = 13m @3d/m				
A8815	EB, Inner Heading From West, CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	08-Nov-14 08	27-Nov-14 18	0d			■ EB, Inner Heading From West, CH 4005- 4015 = 10m @2d/m				

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9 of 18

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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
A8820	EB,Inner Heading From West , CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	28-Nov-14 08	17-Dec-14 18	0d		■										
A8780	EB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	18-Dec-14 08	08-Jan-15 18	0d		■										
A8810	EB,Inner Heading From West , CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	09-Jan-15 08	28-Jan-15 18	0d		■										
A8785	EB,Inner Heading From West , CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	29-Jan-15 08	17-Feb-15 18	0d		■										
A8790	EB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	18-Feb-15 08	12-Mar-15 18	0d		■										
A8795	EB,Inner Heading From West , CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	13-Mar-15 08	01-Apr-15 18	0d		■										
A8800	EB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	02-Apr-15 08	22-Apr-15 18	0d		■										
A8825	EB,Inner Heading From West, CH 4085- 4095 = 10m @ 2d/m	7d/wk-1a	20d	23-Apr-15 08	13-May-15 18	0d		■										
Inner Bench Excavation (1.5-2d/m, 20m separation with heading)																		
A8765	EB, Inner Bench From West, CH 3992- 4005 = 13m (2d/m)	7d/wk-1a	26d	08-Nov-14 08	03-Dec-14 18	23d		■										
A8770	EB, Inner Bench From West,CH 4005- 4015 = 10m	7d/wk-1a	15d	18-Dec-14 08	03-Jan-15 18	9d		■										
A8775	EB, Inner Bench From West,CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Jan-15 08	23-Jan-15 18	4d		■										
A8735	EB, Inner Bench From West,CH 4025- 4035 = 10m	7d/wk-1a	15d	29-Jan-15 08	12-Feb-15 18	14d		■										
A8740	EB, Inner Bench From West,CH 4035- 4045 = 10m	7d/wk-1a	15d	18-Feb-15 08	07-Mar-15 18	11d		■										
A8745	EB, Inner Bench From West,CH 4045- 4055 = 10m	7d/wk-1a	15d	13-Mar-15 08	27-Mar-15 18	6d		■										
A8750	EB, Inner Bench From West,CH 4055- 4065 = 10m	7d/wk-1a	15d	02-Apr-15 08	17-Apr-15 18	1d		■										
A8755	EB, Inner Bench From West,CH 4065- 4075 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	1d		■										
A8760	EB, Inner Bench From West,CH 4075- 4085 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d		■										
A8761	EB, Inner Bench From West,CH 4085- 4095 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d		■										
From East (TS4)																		
Inner Heading Excavation (3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																		
A8835	EB,Inner Heading From East, CH 4147.5 to 4145 = 2.5m, @ 3d/m	7d/wk-1a	8d	06-Jan-15 08	13-Jan-15 18	0d		■										
A8850	EB,Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m	7d/wk-1a	30d	14-Jan-15 08	12-Feb-15 18	0d		■										
A8830	EB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	13-Feb-15 08	07-Mar-15 18	0d		■										
A8840	EB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	08-Mar-15 08	27-Mar-15 18	0d		■										
A9910	EB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	28-Mar-15 08	17-Apr-15 18	0d		■										
A8845	EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Apr-15 08	08-May-15 18	0d		■										
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)																		
A8860	EB,Inner Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	4d	08-Mar-15 08	11-Mar-15 18	11d		■										

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10 of 18

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Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
A8865	EB,Inner Bench From East, CH 4145- 4135 = 10m	7d/wk-1a	15d	12-Mar-15 08	26-Mar-15 18	11d			■ EB,Inner Bench From East, CH 4145- 4135 = 10m							
A8870	EB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	28-Mar-15 08	12-Apr-15 18	10d			■ EB,Inner Bench From East, CH 4135- 4125 = 10m							
A8855	EB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	5d			■ EB,Inner Bench From East, CH 4125- 4115 = 10m							
A8875	EB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	09-May-15 08	23-May-15 18	0d			■ EB,Inner Bench From East, CH 4115- 4105 = 10m							
A9915	EB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	24-May-15 08	08-Jun-15 18	0d			■ EB,Inner Bench From East, CH 4105- 4095 = 10m							
Tunnel Lining Works																
From West Base Slab (10m/bay, 10m separation with benching excavation)																
A8900	EB From West, Base Slab CH 3990 - 3995 = 1 bay	7d/wk-1a	10d	04-Dec-14 08	13-Dec-14 18	33d			■ EB From West, Base Slab CH 3990 - 3995 = 1 bay							
A8890	EB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Jan-15 08	13-Jan-15 18	14d			■ EB From West, Base Slab CH 3995 - 4005 = 10m/bay							
A8905	EB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	24-Jan-15 08	02-Feb-15 18	4d			■ EB From West, Base Slab CH 4005 - 4015 = 10m/bay							
A8910	EB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	14d			■ EB From West, Base Slab CH 4015 - 4025 = 10m/bay							
A8915	EB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	12d			■ EB From West, Base Slab CH 4025 - 4035 = 10m/bay							
A8920	EB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	28-Mar-15 08	07-Apr-15 18	8d			■ EB From West, Base Slab CH 4035 - 4045 = 10m/bay							
A8925	EB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	18-Apr-15 08	27-Apr-15 18	4d			■ EB From West, Base Slab CH 4045 - 4055 = 10m/bay							
A8930	EB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	5d			■ EB From West, Base Slab CH 4055 - 4065 = 10m/bay							
A8880	EB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	5d			■ EB From West, Base Slab CH 4065 - 4075 = 10m/bay							
A8885	EB From West, Base Slab CH 4075 - 4085 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	0d			■ EB From West, Base Slab CH 4075 - 4085 = 10m/bay							
A8895	EB From West, Base Slab CH 4085 - 4095 = 10m/bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	0d			■ EB From West, Base Slab CH 4085 - 4095 = 10m/bay							
From East Base Slab (10m/bay, 10m separation with benching excavation)																
A9905	EB From East, Base Slab CH 4149.5 - 4145 = 4.5m	7d/wk-1a	10d	13-Apr-15 08	22-Apr-15 18	26d			■ EB From East, Base Slab CH 4149.5 - 4145 = 4.5m							
A9900	EB From East, Base Slab CH 4145 - 4135 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	16d			■ EB From East, Base Slab CH 4145 - 4135 = 10m/bay							
A9895	EB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	24-May-15 08	02-Jun-15 18	6d			■ EB From East, Base Slab CH 4135 - 4125 = 10m/bay							
A9890	EB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	09-Jun-15 08	18-Jun-15 18	0d			■ EB From East, Base Slab CH 4125 - 4115 = 10m/bay							
A9885	EB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d			■ EB From East, Base Slab CH 4115 - 4105 = 10m/bay							
A9880	EB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d			■ EB From East, Base Slab CH 4105 - 4095 = 10m/bay							
Lining (5m/bay, 15m separation with base slab)																
A9065	EB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	10d	03-Feb-15 08	12-Feb-15 18	4d			■ EB From West, Lining CH 3990 - 3995 = 1bay							
A9005	EB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	4d			■ EB From West, Lining CH 3995 - 4000 = 1bay							
A9090	EB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	10d	26-Feb-15 08	07-Mar-15 18	4d			■ EB From West, Lining CH 4000 - 4005 = 1bay							

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11 of 18

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中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A9050	EB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	4d			■ EB From West, Lining CH 4005 - 4010 = 1bay				
A9055	EB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	10d	18-Mar-15 08	27-Mar-15 18	4d			■ EB From West, Lining CH 4010 - 4015 = 1bay				
A9060	EB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	10d	26-Mar-15 08	05-Apr-15 18	4d			■ EB From West, Lining CH 4015 - 4020 = 1bay				
A9070	EB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	10d	03-Apr-15 08	13-Apr-15 18	4d			■ EB From West, Lining CH 4020 - 4025 = 1bay				
A9075	EB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	10d	12-Apr-15 08	21-Apr-15 18	4d			■ EB From West, Lining CH 4025 - 4030 = 1bay				
A9080	EB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	10d	20-Apr-15 08	29-Apr-15 18	4d			■ EB From West, Lining CH 4030 - 4035 = 1bay				
A9085	EB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	10d	28-Apr-15 08	08-May-15 18	4d			■ EB From West, Lining CH 4035 - 4040 = 1bay				
A9015	EB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	10d	07-May-15 08	16-May-15 18	4d			■ EB From West, Lining CH 4040 - 4045 = 1bay				
A9020	EB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	10d	15-May-15 08	24-May-15 18	4d			■ EB From West, Lining CH 4045 - 4050 = 1bay				
A9025	EB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	10d	23-May-15 08	01-Jun-15 18	4d			■ EB From West, Lining CH 4050 - 4055 = 1bay				
A9030	EB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	10d	31-May-15 08	09-Jun-15 18	4d			■ EB From West, Lining CH 4055 - 4060 = 1bay				
A9035	EB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	10d	07-Jun-15 08	16-Jun-15 18	4d			■ EB From West, Lining CH 4060 - 4065 = 1bay				
A9040	EB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	4d			■ EB From West, Lining CH 4065 - 4070 = 1bay				
A9045	EB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	10d	25-Jun-15 08	05-Jul-15 18	0d			■ EB From West, Lining CH 4070 - 4075 = 1bay				
A8955	EB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d			■ EB From West, Lining CH 4075 - 4080 = 1bay				
A8960	EB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d			■ EB From West, Lining CH 4080 - 4085 = 1bay				
A8970	EB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d			■ EB From West, Lining CH 4085 - 4090 = 1bay				
A8975	EB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d			■ EB From West, Lining CH 4090 - 4095 = 1bay				
A8980	EB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d			■ EB From West, Lining CH 4095 - 4100 = 1bay				
A8985	EB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d			■ EB From West, Lining CH 4100 - 4105 = 1bay				
A8990	EB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d			■ EB From West, Lining CH 4105 - 4110 = 1bay				
A8995	EB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d			■ EB From West, Lining CH 4110 - 4115 = 1bay				
A9000	EB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d			■ EB From West, Lining CH 4115 - 4120 = 1bay				
A9010	EB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d			■ EB From West, Lining CH 4120 - 4125 = 1bay				
A8965	EB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d			■ EB From West, Lining CH 4125 - 4130 = 1bay				
A8935	EB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d			■ EB From West, Lining CH 4130 - 4135 = 1bay				
A8940	EB From West, Lining CH 4135 - 4140 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d			■ EB From West, Lining CH 4135 - 4140 = 1bay				
A8945	EB From West, Lining CH 4140 - 4145 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d			■ EB From West, Lining CH 4140 - 4145 = 1bay				
A8950	EB From West, Lining CH 4145 - 4149.5 = 4.5m	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d			■ EB From West, Lining CH 4145 - 4149.5 = 4.5m				

- Summary Bar
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12 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016						
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3			
OHVD(10m/bay) / Utility Trough																	
A9095	EB From West OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	03-Jul-15 08	02-Nov-15 18	0d											
WB Outer Tunnel Excavation																	
From West (TPCWAE)																	
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																	
A9651	WB, Outer Heading From West, CH 4085- 4092.5 = 7.5m @ 2d/m	7d/wk-1a	15d	13-Sep-14 08 A	30-Sep-14 18	163d											
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)																	
A9680	WB, Outer Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	12-Oct-14 08	26-Oct-14 18	163d											
A9665	WB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	27-Oct-14 08	10-Nov-14 18	163d											
A9670	WB, Outer Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	163d											
A9675	WB, Outer Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	163d											
A9700	WB, Outer Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	11-Dec-14 08	26-Dec-14 18	163d											
A9701	WB, Outer Bench From West, CH 4075- 4082.5 = 7.5m	7d/wk-1a	15d	27-Dec-14 08	11-Jan-15 18	163d											
From East (TS4)																	
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																	
A9730	WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m @2d/m	7d/wk-1a	25d	30-Aug-14 08 A	30-Sep-14 18	168d											
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)																	
A9740	WB, Outer Bench From East, CH 4136- 4135 = 1m	7d/wk-1a	2d	12-Oct-14 08	13-Oct-14 18	168d											
A9770	WB, Outer Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	14-Oct-14 08	28-Oct-14 18	168d											
A9745	WB, Outer Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	28-Oct-14 08	11-Nov-14 18	168d											
A9750	WB, Outer Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	168d											
A9755	WB, Outer Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	168d											
A9760	WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m	7d/wk-1a	25d	11-Dec-14 08	06-Jan-15 18	168d											
WB (Inner Tunnel Excavation + Lining)																	
From West (TPCWAE)																	
Inner Heading Excavation (2-3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																	
A9130	WB, Inner Heading From West, CH 3993- 4005 = 12m @3d/m	7d/wk-1a	50d	29-Sep-14 08	18-Nov-14 18	0d											
A9135	WB, Inner Heading From West, CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	0d											
A9140	WB, Inner Heading From West, CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	0d											

-  Summary Bar
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13 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		



Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A9100	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	0d		■	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m					
A9105	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	0d		■	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m					
A9110	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	09-Feb-15 08	03-Mar-15 18	0d		■	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m					
A9115	WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	04-Mar-15 08	23-Mar-15 18	0d		■	WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m					
A9120	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	24-Mar-15 08	13-Apr-15 18	0d		■	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m					
A9125	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	14-Apr-15 08	04-May-15 18	0d		■	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m					
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)														
A9180	WB,Inner Bench From West, CH 3993- 4005 = 12m	7d/wk-1a	18d	30-Dec-14 08	17-Jan-15 18	27d		■	WB,Inner Bench From West, CH 3993- 4005 = 12m					
A9205	WB,Inner Bench From West, CH 4005- 4015 = 10m	7d/wk-1a	15d	20-Jan-15 08	03-Feb-15 18	25d		■	WB,Inner Bench From West, CH 4005- 4015 = 10m					
A9190	WB,Inner Bench From West, CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	20d		■	WB,Inner Bench From West, CH 4015- 4025 = 10m					
A9185	WB,Inner Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	04-Mar-15 08	18-Mar-15 18	15d		■	WB,Inner Bench From West, CH 4025- 4035 = 10m					
A9155	WB,Inner Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	24-Mar-15 08	08-Apr-15 18	10d		■	WB,Inner Bench From West, CH 4035- 4045 = 10m					
A9160	WB,Inner Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	14-Apr-15 08	28-Apr-15 18	5d		■	WB,Inner Bench From West, CH 4045- 4055 = 10m					
A9165	WB,Inner Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d		■	WB,Inner Bench From West, CH 4055- 4065 = 10m					
A9170	WB,Inner Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d		■	WB,Inner Bench From West, CH 4065- 4075 = 10m					
A9175	WB,Inner Bench From West, CH 4075- 4085 = 10m	7d/wk-1a	15d	04-Jun-15 08	18-Jun-15 18	0d		■	WB,Inner Bench From West, CH 4075- 4085 = 10m					
From East (TS4)														
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)														
A9210	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	14-Jan-15 08	02-Feb-15 18	6d		■	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m					
A9215	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	03-Feb-15 08	25-Feb-15 18	6d		■	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m					
A9230	WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	26-Feb-15 08	17-Mar-15 18	6d		■	WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m					
A9232	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Mar-15 08	07-Apr-15 18	6d		■	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m					
A9225	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m	7d/wk-1a	20d	08-Apr-15 08	27-Apr-15 18	6d		■	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m					
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)														
A9235	WB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	18-Mar-15 08	01-Apr-15 18	16d		■	WB,Inner Bench From East, CH 4135- 4125 = 10m					
A9240	WB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	08-Apr-15 08	22-Apr-15 18	11d		■	WB,Inner Bench From East, CH 4125- 4115 = 10m					
A9245	WB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	28-Apr-15 08	13-May-15 18	6d		■	WB,Inner Bench From East, CH 4115- 4105 = 10m					
A9247	WB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	14-May-15 08	28-May-15 18	6d		■	WB,Inner Bench From East, CH 4105- 4095 = 10m					
A9250	WB,Inner Bench From East, CH 4095- 4085 = 10m	7d/wk-1a	15d	29-May-15 08	12-Jun-15 18	6d		■	WB,Inner Bench From East, CH 4095- 4085 = 10m					

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14 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

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中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3			
Tunnel Lining Works																	
From West Base Slab (10m/bay, 10m separation with benching excavation)																	
A9295	WB From West, Base Slab CH 3990 - 3995 = 5m bay	7d/wk-1a	10d	18-Jan-15 08	27-Jan-15 18	37d											
A9320	WB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Feb-15 08	13-Feb-15 18	30d											
A9255	WB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	27-Feb-15 08	08-Mar-15 18	50d											
A9260	WB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	19-Mar-15 08	28-Mar-15 18	40d											
A9265	WB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	09-Apr-15 08	18-Apr-15 18	30d											
A9300	WB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	29-Apr-15 08	09-May-15 18	20d											
A9325	WB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	10d											
A9305	WB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	5d											
A9310	WB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d											
A9315	WB From West, Base Slab CH 4075 - 4080 = 5m	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d											
From East Base Slab (10m/bay, 10m separation with benching excavation)																	
A9960	WB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	23-Apr-15 08	03-May-15 18	26d											
A9955	WB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	14-May-15 08	23-May-15 18	16d											
A9950	WB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	29-May-15 08	07-Jun-15 18	11d											
A9945	WB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	13-Jun-15 08	23-Jun-15 18	6d											
A9940	WB From East, Base Slab CH 4095 - 4085 = 10m/bay	7d/wk-1a	10d	24-Jun-15 08	04-Jul-15 18	6d											
A9941	WB From East, Base Slab CH 4085 - 4080 = 5m	7d/wk-1a	10d	05-Jul-15 08	14-Jul-15 18	6d											
Lining (5m/bay, 10m separation with base slab)																	
A9430	WB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	7d	14-Feb-15 08	23-Feb-15 18	30d											
A9470	WB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	7d	24-Feb-15 08	02-Mar-15 18	30d											
A9435	WB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	7d	03-Mar-15 08	09-Mar-15 18	30d											
A9360	WB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	7d	10-Mar-15 08	16-Mar-15 18	30d											
A9365	WB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	7d	17-Mar-15 08	23-Mar-15 18	30d											
A9370	WB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	7d	24-Mar-15 08	30-Mar-15 18	30d											
A9375	WB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	7d	31-Mar-15 08	07-Apr-15 18	30d											
A9380	WB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	7d	08-Apr-15 08	14-Apr-15 18	30d											
A9385	WB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	7d	15-Apr-15 08	21-Apr-15 18	30d											

- █ Summary Bar
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15 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

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中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A9390	WB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	7d	22-Apr-15 08	28-Apr-15 18	30d			■ WB From West, Lining CH 4035 - 4040 = 1bay				
A9330	WB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	7d	29-Apr-15 08	06-May-15 18	30d			■ WB From West, Lining CH 4040 - 4045 = 1bay				
A9335	WB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	7d	07-May-15 08	13-May-15 18	30d			■ WB From West, Lining CH 4045 - 4050 = 1bay				
A9340	WB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	7d	14-May-15 08	20-May-15 18	30d			■ WB From West, Lining CH 4050 - 4055 = 1bay				
A9345	WB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	7d	21-May-15 08	27-May-15 18	30d			■ WB From West, Lining CH 4055 - 4060 = 1bay				
A9350	WB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	7d	28-May-15 08	03-Jun-15 18	30d			■ WB From West, Lining CH 4060 - 4065 = 1bay				
A9355	WB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	5d	04-Jun-15 08	08-Jun-15 18	30d			■ WB From West, Lining CH 4065 - 4070 = 1bay				
A9415	WB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d			■ WB From West, Lining CH 4070 - 4075 = 1bay				
A9475	WB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d			■ WB From West, Lining CH 4075 - 4080 = 1bay				
A9440	WB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d			■ WB From West, Lining CH 4080 - 4085 = 1bay				
A9445	WB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d			■ WB From West, Lining CH 4085 - 4090 = 1bay				
A9450	WB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d			■ WB From West, Lining CH 4090 - 4095 = 1bay				
A9455	WB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d			■ WB From West, Lining CH 4095 - 4100 = 1bay				
A9420	WB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d			■ WB From West, Lining CH 4100 - 4105 = 1bay				
A9425	WB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d			■ WB From West, Lining CH 4105 - 4110 = 1bay				
A9460	WB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d			■ WB From West, Lining CH 4110 - 4115 = 1bay				
A9465	WB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d			■ WB From West, Lining CH 4115 - 4120 = 1bay				
A9395	WB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d			■ WB From West, Lining CH 4120 - 4125 = 1bay				
A9400	WB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d			■ WB From West, Lining CH 4125 - 4130 = 1bay				
A9405	WB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d			■ WB From West, Lining CH 4130 - 4135 = 1bay				
A9410	WB From West, Lining CH 4135 - 4136.5 = 1bay	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d			■ WB From West, Lining CH 4135 - 4136.5 = 1bay				
OHVD(10m/bay) / Utility Trough													
A9480	WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay	7d/wk-1a	115d	08-Jul-15 08	02-Nov-15 18	0d			■ WB From West OHVD and utility trough =, 153= 16 bays @ 10				
Completion of KD10- Section 5													
A8445	KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)	7d/wk-2	0d		02-Nov-15 18*	0d			◆ KD10- Section 2: Completion of Mined Tunnel Works (orig. Tar				
Interface works with other Contracts													
S5_60115	Handover TZ6 to MTR	7d/wk-2	0d		30-Sep-14 18	-249d			◆ Handover TZ6 to MTR				
S6_5283	Handover TZ4 to CWB(T2)	7d/wk-2	0d		10-Nov-14 18	-290d			◆ Handover TZ4 to CWB(T2)				
S6_5275	Provide access to CWB (CC) Contractor- TS1 & TS2	7d/wk-2	0d		21-Nov-14 18*	-85d			◆ Provide access to CWB (CC) Contractor- TS1 & TS2				

Summary Bar
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

16 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		

中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
S6_5280	Provide access to CWB (CC) Contractor- TS4, TPCWA, Mined Tunnel	7d/wk-2	0d		31-Mar-16 18*	-124d								◆ Provide access to CWB (CC) C
Stage and Section Completion														
KD_5735	KD8 - Completion of Section 3, (1326d)	7d/wk-2	0d		30-Sep-14 18*	-86d	◆ KD8 - Completion of Section 3, (1326d)							
KD_5720	KD5 - Achievement of Stage 5, (1152d)	7d/wk-2	0d		16-Oct-14 18*	-323d	◆ KD5 - Achievement of Stage 5, (1152d)							
KD_5760	KD13 - Completion of Section 7B, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-353d	◆ KD13 - Completion of Section 7B, (1152d)							
KD_5730	KD7 - Completion of Section 2, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-297d	◆ KD7 - Completion of Section 2, (1152d)							
KD_5740	KD9 - Completion of Section 4, (1739d)	7d/wk-2	0d		10-Nov-15 18*	-132d				◆ KD9 - Completion of Section 4, (1739d)				
KD_5745	KD10 - Completion of Section 5, (1863d)	7d/wk-2	0d		25-Mar-16 18	-144d					◆ KD10 - Completion of Section 5, (
KD_5750	KD11 - Completion of Section 6, (1949d)	7d/wk-2	0d		23-May-16 18*	-121d						◆ KD11 - Completion of		
Portion Handover Date														
CD_5685	Portion Handover - Portion IV(4), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion IV(4), KD8 +28							
CD_5680	Portion Handover - Portion V (5), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion V (5), KD8 +28							
CD_5695	Portion Handover - Portion VI (6), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion VI (6), KD8 +28							
CD_5735	Portion Handover - Portion XIII (13B), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XIII (13B), KD8 +28							
CD_5790	Portion Handover - Portion XXII (22), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XXII (22), KD8 +28							
CD_5670	Portion Handover - Portion III (3), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion III (3), KD8 +28							
CD_5720	Portion Handover - Portion XIII A (13A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIII A (13A), KD7 +28							
CD_5705	Portion Handover - Portion VIII (8), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion VIII (8), KD7 +28							
CD_5730	Portion Handover - Portion XIV A (14A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIV A (14A), KD7 +28							
CD_5740	Portion Handover - Portion XV (15), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XV (15), KD7 +28							
CD_5805	Portion Handover - Portion XXIII (23), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XXIII (23), KD7 +28							
CD_5775	Portion Handover - Portion XVIII (18), KD10 +28	7d/wk-2	0d		30-Nov-15 18*	0d				◆ Portion Handover - Portion XVIII (18), KD10 +28				
CD_5710	Portion Handover - Portion XI (11), KD9 +28	7d/wk-2	0d		27-Dec-15 18*	0d				◆ Portion Handover - Portion XI (11), KD9 +28				
CD_5700	Portion Handover - Portion IX (9), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5745	Portion Handover - Portion XIV B (14B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5755	Portion Handover - Portion XVI (16), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5750	Portion Handover - Portion XVII (17), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5760	Portion Handover - Portion XIX (19), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5780	Portion Handover - Portion XX B (20B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ ◆ Milestone

17 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		



Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
CD_5690	Portion Handover - Portion VII (7), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5725	Portion Handover - Portion XII (12), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5715	Portion Handover - Portion X (10), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5785	Portion Handover - Portion XXA (20A), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5795	Portion Handover - Portion XXI (21), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov

-  Summary Bar
-  Actual Level of Effort
-  Actual Work
-  Remaining Work
-  Critical Remaining Work
-  Milestone

18 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Predecessor	Successors	2011												2012												2013												2014											
								n	F	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	N	Dec	Jan	F	Mar	Apr	M	Jun	Jul	Aug	Sep	Oct	N	D	Jan	F	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	N	Dec	Jan	F	Mar	Apr	May	Jun						
								Project Summary and Milestones <p>Positioning of the Unit 28-Feb-14, Sheet 28-Feb-14, Sheet 30-Nov-13, Site Stitching of Prec 30-Nov-13, Site Stitching Precas Grouting gaps between base slab and bored piles w Coring along reserved sleeve pipe Placing dowel bars and grouting w Grouting of Protection Layer for</p> <p>Outstanding Works inside Precast Box Unit after Stitching 04-Apr-14, 0 03-Mar-14, Pump Dewater Box B2-1 Dewater Box B2-2 Dewater Box B3 20-Mar-14, Fill Submission and Approval of Infill Proposal Fill WAC & 4B(Small Portion) Fill Box B2-1 Fill Box B2-2 Fill Box B3 22-Feb-14, Box Cu Box Culvert Concr 21-Mar-14, Co Concrete to Se 04-Apr-14, fi Removal of</p> <p>Outstanding Works outside Precast Unit after Stitching 14-Jan-14, Outstanding V 27-Jul-13, Removal of Survey Tower + Towing Furnit Removal of Survey Tower + Towing Furniture 16-Dec-13, Concrete Repair Concrete Repair Slotted Panel 14-Jan-14, Concrete Rep Concrete Repair WAC 02-Jan-14, Install Slotted P Install Slotted Panels Insitu Concrete Capping 19-Dec-13, Protection to Wa Protection to Waterproofing (</p> <p>Works To be Done After Tunnel Connection 0 0 0 0</p> <p>Section II 24-Jul-13, Section II 24-Jul-13, Road Works Taking over from other parties Consent from HKCEC 24-Jul-13, Temporary Access Road at HKCEC West 23-May-13, Phase IA - (1) (Expo Drive Central) Occupation of Site Area Excavation (B1201 & Gullies) Drainages (B1201 & Gullies) Ducts (Traffic Signals) Re-occupied by C1 (Maintain the footway for pedestrians) Breaking of Existing Footway Kerbs</p>																																															

	Date	Revision	Ch...	Approved
Actual Work	14-Aug-12	Rev. H	MF	KT
Remaining Work	19-Sep-12	Rev. I	MF	KT
Critical Remaining ...	21-Nov-12	Rev. J	MF	KT
Milestone	19-Feb-13	Rev. K	MF	KT
Summary	05-Mar-13	Rev. L	MF	KT
	21-May-13	Rev. M	MF	KT
	20-Aug-13	Rev. N	MF	EY
	15-Nov-13	Rev. O	WC	EY

Contract No.: HK/2010/06
Wan Chai Development Phase II-
Central-Wan Chai Bypass over MTR Tuen Wan Line
 (Works Programme - Rev. O)

金門 - 利達聯營
Gammon - Leader Joint Venture



CEDD Contract No. HK/2012/08
Wan Chai Development Phase II
Central -Wan Chai Bypass at Wan Chai West

Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015		
						Nov	Dec	Jan	Feb	Mar
Total		11-Nov-13 A	20-Jul-15	183						
HK/2012/08 3M Rolling Programme (Dec 2014 to Feb 2015) Based on Rev3/		11-Nov-13 A	20-Jul-15	183						
Dredging and Reclamation		24-Nov-14 A	21-Apr-15	110						
Marine Work Construction		24-Nov-14 A	21-Apr-15	110						
Dredging		01-Dec-14	21-Apr-15	110						
Dredging - Zone A1		31-Dec-14	15-Jan-15	12						
MAR10220	Zone A1 - Install shear pins to existing bored piles	31-Dec-14	15-Jan-15	12	0%					
Dredging - Zone D		01-Dec-14	21-Apr-15	110						
MAR12640	Zone D - Remove existing rock armour [S12-S14]	30-Jan-15	21-Apr-15	60	0%					
MAR12685	Zone D - Final Hydrographic Survey [R11-R12]	01-Dec-14	06-Dec-14	6	0%					
Seawall Construction		24-Nov-14 A	13-Mar-15	81						
Seawall Construction - Zone D		24-Nov-14 A	13-Mar-15	81						
MAR11839	Zone D - fill temp. rock bund at Seawall 1C - fill rock to +4.0mPD	21-Dec-14	22-Dec-14	2	0%					
MAR11844	Zone D - lay toe block and level stone for Seawall 2	12-Dec-14	22-Dec-14	9	0%					
MAR11845	Zone D - fill rock mound for Seawall 1A-L	09-Jan-15	18-Jan-15	10	0%					
MAR11847	Zone D - lay toe block and level stone for Seawall 1A-L	19-Jan-15	26-Jan-15	7	0%					
MAR11854	Zone D - fill temp. rock bund at Seawall 2 - fill rock to +4.0mPD	11-Feb-15	12-Feb-15	2	0%					
MAR11858	Zone D - fill rock mound for Seawall 9	19-Jan-15	03-Feb-15	14	0%					
MAR11888	Zone D - Caisson Seawall 2F - fill type A rockfill (-10mPD to +1.3mPD)	24-Nov-14 A	03-Dec-14	3	80%					
MAR11890	Zone D - Caisson Seawall 2F - lay geotextile and filter (-10mPD to +1.3mPD)	27-Nov-14 A	08-Dec-14	6	10%					
MAR11945	Zone D - Caisson Seawall 1C - fill type A rockfill (-10mPD to +1.3mPD)	29-Nov-14 A	13-Dec-14	12	7.69%					
MAR11947	Zone D - Caisson Seawall 1C - lay geotextile and filter (-10mPD to +1.3mPD)	15-Dec-14	20-Dec-14	6	0%					
MAR11980	Zone D - deliver and Install Caisson Seawall 2	23-Dec-14	25-Dec-14	3	0%					
MAR12000	Zone D - Caisson Seawall 1A & 2 - fill type A rock fill (-6.65mPD to +1.3mPD)	30-Jan-15	03-Feb-15	4	0%					
MAR12010	Zone D - Caisson Seawall 1A & 2 - lay geotxtile and filter (-6.65 to +1.3mPD)	04-Feb-15	10-Feb-15	6	0%					
MAR12220	Zone D - deliver and Install Caisson Seawall 1A-L	27-Jan-15	29-Jan-15	3	0%					
MAR20575	Zone D - TTA for demolish existing seawall (for seawall 11)	29-Jan-15	05-Feb-15	7	0%					
MAR20578	Zone D - demolish existing seawall	06-Feb-15	13-Mar-15	26	0%					
Filling		17-Dec-14	18-Mar-15	71						
Filling - Zone D		17-Dec-14	18-Mar-15	71						
MAR12040	Zone D - Sorted Public Fill up to +4.0mPD (south area behind caisson 2F and 1C)	17-Dec-14	31-Dec-14	11	0%					
MAR12045	Zone D - Sorted Public Fill up to +4.0mPD (south area behind caisson 1A and 2)	04-Feb-15	05-Feb-15	2	0%					
MAR12050	Zone D - 1st stage - Remove/Trim Down Existing Seawall	02-Jan-15	18-Mar-15	60	0%					
Works for Section Completion		11-Nov-13 A	20-Jul-15	183						
Construction		11-Nov-13 A	20-Jul-15	183						
Section II - MVB Structure		12-May-14 A	31-Mar-15	96						
MVB Substructure - Diaphragm Wall and Bored Pile		12-May-14 A	28-Jan-15	48						
SII10480	Sec II - MVB A - construct Dwall [P1-P12, P34-P41] (1.5m thk on rock)	28-May-14 A	05-Dec-14	5	97.18%					
SII10540	Sec II - MVB B - construct Dwall [P13-P33] (1.5m thk on rock)	12-May-14 A	05-Dec-14	5	97.33%					
SII10560	Sec II - MVB A&B - precaution grout / fissure grout	14-Oct-14 A	23-Dec-14	20	60%					
SII10565	Sec II - MVB A&B - Interface Core / Sonic Test	18-Oct-14 A	31-Dec-14	25	50%					

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

Project Star :22-Jan-13
Project End: 21-Jul-18
Date Date: 30-Nov-14

3 Month Rolling Programme (Non-CRIII Area)

December 2014 to February 2015

Date	Revi...	Chec...	Approved
30-No...	3MRP		

CEDD Contract No. HK/2012/08
Wan Chai Development Phase II
Central -Wan Chai Bypass at Wan Chai West

Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015		
						Nov	Dec	Jan	Feb	Mar
SII10570	Sec II - MVB A&B - Install pumping well/observation well	01-Dec-14	05-Jan-15	28	0%					
SII10580	Sec II - MVB A&B - pumping test for Dwall	06-Jan-15	23-Jan-15	18	0%					
SII10600	Sec II - MVB A&B - pumping test for precaution grout curtain and fissure grout	06-Jan-15	23-Jan-15	18	0%					
SII10610	Sec II - MVB A&B - Install shear pin on Dwall panel P18-P33 & P33A	16-Oct-14 A	02-Jan-15	26	40%					
SII10615	Sec II - MVB A&B - Install king post	17-Dec-14	03-Jan-15	12	0%					
SII10620	Sec II - MVB C - Construct Guide Wall [P42-P43]	03-Dec-14	09-Dec-14	6	0%					
SII10622	Sec II - MVB C - construct Dwall [P42-P43] (1.5m thk on rock)	10-Dec-14	28-Jan-15	40	0%					
MVB Substructure - Diaphragm Wall - Construction Sequences		14-Nov-14 A	13-Dec-14	12						
Group 1		28-Nov-14 A	13-Dec-14	12						
SII-10210	Sec II - MVB - Dwall P25	28-Nov-14 A	13-Dec-14	12	50%					
Group 2		17-Nov-14 A	09-Dec-14	8						
SII-10325	Sec II - MVB - Dwall P23	17-Nov-14 A	09-Dec-14	8	55%					
Group 3		14-Nov-14 A	08-Dec-14	6						
SII-10480	Sec II - MVB - Dwall P39	14-Nov-14 A	08-Dec-14	6	70%					
MVB Substructure - Bored Pile and Prebored H-Pile		26-Jun-14 A	31-Mar-15	96						
SII10340	Sec II - MVB A&B - Construct bored piles	26-Jun-14 A	17-Dec-14	15	90%					
SII10360	Sec II - MVB A&B - bored pile sonic test, interface core & full core	04-Oct-14 A	10-Jan-15	33	63.33%					
SII10380	Sec II - MVB C - predrilling for prebored H-piles	07-Jan-15	03-Feb-15	24	0%					
SII10400	Sec II - MVB C - construct prebored H-piles	25-Feb-15	31-Mar-15	30	0%					
MVB Substructure - Bored Pile - Construction Sequences		22-Nov-14 A	17-Dec-14	15						
Group 1		22-Nov-14 A	15-Dec-14	13						
SII-11200	Ssec II - MVB - Bored Pile BC7	01-Dec-14	15-Dec-14	13	0%					
SII-11210	Ssec II - MVB - Bored Pile BC9	01-Dec-14 A	13-Dec-14	11	25%					
SII-11240	Ssec II - MVB - Bored Pile BC18	22-Nov-14 A	08-Dec-14	7	55%					
Group 2		01-Dec-14	17-Dec-14	15						
SII-11160	Ssec II - MVB - Bored Pile BC15	01-Dec-14	17-Dec-14	15	0%					
MVB Substructure - Structural Works for Portion A		12-Jan-15	27-Feb-15	36						
SII10820	Sec II - MVB A - Excavation down to +1.7mPD	12-Jan-15	19-Jan-15	7	0%					
SII10840	Sec II - MVB A - Install Strut L1 at +2.7mPD	20-Jan-15	29-Jan-15	9	0%					
SII10860	Sec II - MVB A - Excavation down to -1.5mPD	30-Jan-15	10-Feb-15	10	0%					
SII10880	Sec II - MVB A - Install Strut L2 at -1.0mPD	11-Feb-15	27-Feb-15	10	0%					
MVB Substructure - Structural Works for Portion B		12-Jan-15	10-Mar-15	45						
SII11440	Sec II - MVB B: Excavation down to +1.7mPD	12-Jan-15	19-Jan-15	7	0%					
SII11460	Sec II - MVB B: Install Strut L1 at +2.7mPD	20-Jan-15	29-Jan-15	9	0%					
SII11480	Sec II - MVB B: Excavation down to -1.0mPD	30-Jan-15	07-Feb-15	8	0%					
SII11500	Sec II - MVB B: Install Strut L2 at 1.0mPD	09-Feb-15	24-Feb-15	9	0%					
SII11520	Sec II - MVB B: Excavation down to -5.5mPD	25-Feb-15	10-Mar-15	12	0%					
Section II A - CWB Tunnel & Slip Road Structures and Facilities		04-Aug-14 A	20-Jul-15	183						
Section II A - CWB Tunnel - Design, Submission and Approval		08-Dec-14	03-Mar-15	86						
SIIA10500	CWB Tunnel - Temp work design for bulk exc & ELS - ICE check & issue check cert	08-Dec-14	02-Jan-15	26	0%					
SIIA10520	CWB Tunnel - Temp work design for bulk exc & ELS - Eng comment & approve	03-Jan-15	28-Jan-15	26	0%					
SIIA10540	CWB Tunnel - Temp work design for tunnel structural works - prepare & submit to ICE	08-Dec-14	05-Feb-15	60	0%					
SIIA10560	CWB Tunnel - Temp work design for tunnel structural works - ICE check & issue check cert	06-Feb-15	03-Mar-15	26	0%					
CWB CRIII & A1		22-Sep-14 A	15-Jun-15	155						
CWB CRIII & A1 - Dwall and Pile Construction		22-Sep-14 A	28-Jan-15	47						
SIIA11120	Sec II A - CWB A1 - construct temporary DWall and temp bulk head wall	22-Sep-14 A	31-Dec-14	24	68%					

CEDD Contract No. HK/2012/08
Wan Chai Development Phase II
Central -Wan Chai Bypass at Wan Chai West

Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015		
						Nov	Dec	Jan	Feb	Mar
SIIA11140	Sec II A - CWBA1 - Construct pre-bored H-pile	31-Oct-14 A	10-Jan-15	33	43.1%					
SIIA11165	SIIA - CWB A1 - install shear pins to existing bored piles	31-Dec-14	15-Jan-15	12	0%					
SIIA11220	Sec II A - CWBA1 - D-wall Sonic test	15-Dec-14	09-Jan-15	20	0%					
SIIA11240	Sec II A - CWBA1 - install dewater/ recharge / observation well	13-Dec-14	15-Jan-15	25	0%					
SIIA11255	Sec II A - CWBA1- pumping test (CRIII, A1)	15-Jan-15	28-Jan-15	11	0%					
CWB CRIII & A1 - Tunnel Structure		24-Jan-15	15-Jun-15	111						
SIIA11280	Sec II A - CWBA1: Shoring & Excavation	24-Jan-15	15-Jun-15	111	0%					
SIIA11300	Sec II A - CWBA1: Roof slab (1st bay)	17-Feb-15	03-Apr-15	35	0%					
CWB A2 & B		10-Sep-14 A	01-Jun-15	143						
CWB A2 & B - Dwall Construction		10-Sep-14 A	01-Jun-15	143						
SIIA11480	Sec II A - CWB B: ground treatment	10-Sep-14 A	05-Dec-14	5	91.67%					
SIIA11500	Sec II A - CWB B: construct Guide Wall	25-Oct-14 A	03-Dec-14	3	90%					
SIIA11520	Sec II A - CWB B: Construct Permanent DWall and barrette (1.2m thk on rock)	30-Oct-14 A	26-Feb-15	68	26.88%					
SIIA11525	Sec II A - CWB B: Construct temp Dwall (1.2m thk)	29-Jan-15	24-Apr-15	65	0%					
SIIA11540	Sec II A - CWB B: Construct pre-bored H-pile	29-Jan-15	24-Apr-15	65	0%					
SIIA11560	Sec II A - CWB B: Ground treatment to Stop End (MTR CWL)	27-Feb-15	02-Apr-15	30	0%					
SIIA11580	Sec II A - CWB B: Dwall sonic test / interface core	30-Dec-14	07-May-15	100	0%					
SIIA11600	Sec II A - CWB B: Dwall precaution grout / fissure grout / grout curtain	30-Dec-14	07-May-15	100	0%					
SIIA11620	Sec II A - CWB B: Install dewatering/ recharging/ observation well	30-Dec-14	01-Jun-15	120	0%					
SIIA13340	Sec II A - CWBA2(1): Predrilling for Dwall & piles	01-Dec-14	04-Feb-15	54	0%					
SIIA13360	Sec II A - CWBA2(1): ground pretreatment	08-Dec-14	02-Feb-15	46	0%					
SIIA13380	Sec II A - CWBA2(1): Guide Wall	10-Dec-14	26-Feb-15	60	0%					
SIIA13400	Sec II A - CWBA2(1): construct temp DWall (1.2m thk) and temp bulk head wall	12-Jan-15	11-May-15	93	0%					
CWB C		04-Aug-14 A	30-May-15	142						
CWB C - Dwall Construction		04-Aug-14 A	30-May-15	142						
SIIA11880	Sec II A - CWB CW: Predrilling for Dwall & piles	04-Aug-14 A	13-Dec-14	12	82.86%					
SIIA11900	Sec II A - CWB CW: ground Pre-treatment	01-Nov-14 A	13-Jan-15	35	42%					
SIIA11920	Sec II A - CWB CW: Guide Wall	29-Oct-14 A	31-Dec-14	25	58.33%					
SIIA11940	Sec II A - CWB CW: construct north DWall & barrette (1.5m thk) (on rock)	06-Dec-14	15-Apr-15	100	0%					
SIIA11945	Sec II A - CWB CW: construct south DWall (1.5m thk) (on rock)	08-Jan-15	27-Apr-15	85	0%					
SIIA12960	Sec II A - CWB CE: Predrilling for Dwall	18-Sep-14 A	17-Dec-14	15	83.33%					
SIIA12980	Sec II A - CWB CE: ground pre-treatment	05-Jan-15	29-Apr-15	90	0%					
SIIA13000	Sec II A - CWB CE: construct Guide Wall	10-Jan-15	26-Mar-15	60	0%					
SIIA13010	Sec II A - CWB CE: construct barrette (1.2m thk)	16-Jan-15	30-May-15	105	0%					
CWB C - Exhaust Duct		18-Dec-14	24-Jan-15	30						
SIIA12820	Sec II A - Exhaust Duct at Slip Rd3: Predrilling for Piles	18-Dec-14	24-Jan-15	30	0%					
CWB D - Slip Road 1		11-Dec-14	20-Jul-15	174						
CWB D - Slip Road 1 - Dwall Construction		11-Dec-14	20-Jul-15	174						
SIIA12240	Sec II A - CWB SR1: Predrilling for Dwall & piles	11-Dec-14	03-Apr-15	90	0%					
SIIA12260	Sec II A - CWB SR1: ground pre-treatment	19-Dec-14	22-May-15	120	0%					
SIIA12280	Sec II A - CWB SR1: Guide Wall	06-Jan-15	13-May-15	100	0%					
SIIA12300	Sec II A - CWB SR1: construct permanent DWall (1.2m thk)	14-Jan-15	12-Mar-15	45	0%					
SIIA12305	Sec II A - CWB SR1: construct temp DWall (1.2m thk)	23-Jan-15	20-Jul-15	140	0%					

CEDD Contract No. HK/2012/08
Wan Chai Development Phase II
Central -Wan Chai Bypass at Wan Chai West

Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015		
						Nov	Dec	Jan	Feb	Mar
Section VI A - Box Culvert La, L1 & FRP-L Construction										
Sec VI A - Box Culvert La bay 1-3 and Roadwork										
Box Culvert La Bay 1-3										
CUL10570	Sec VI A - Area 1 - Culvert La bay 3 wall and roof slab - curing, backfill and remove upper layer of strut	22-Oct-14 A	10-Dec-14	9	1.99%					
CUL10703	Sec VI A - Area 1 - Culvert La bay 2 wall and roof slab - curing, backfill and remove upper layer of strut	29-Nov-14 A	03-Dec-14	3	50%					
CUL10705	Sec VI A - Area 1 - Culvert La bay 1-3 - construct manhole DO-01; IM-01	02-Dec-14	08-Dec-14	6	0%					
CUL10720	Sec VI A - Area 1 - Culvert La bay 1-3 - backfill to pavement formation	03-Dec-14	16-Dec-14	12	0%					
CUL10730	Sec VI A - Area 1 - Culvert La bay 1-3 - sub-base	10-Dec-14	16-Dec-14	6	0%					
CUL10740	Sec VI A - Area 1 - Culvert La bay 1-3 - road kerb	15-Dec-14	22-Dec-14	7	0%					
CUL10760	Sec VI A - Area 1 - Culvert La bay 1-3 - road paving	15-Dec-14	23-Dec-14	8	0%					
CUL10780	Sec VI A - Area 1 - Culvert La bay 1-3 - pedestrian way paving	24-Dec-14	05-Jan-15	8	0%					
CUL11680	Sec VI A - Area 1 - reinstatement of Kiosks	03-Jan-15	26-Jan-15*	20	0%					
CUL12380	Sec VI A - Area 1 - road marking and road sign	24-Dec-14	31-Dec-14	5	0%					
Section VI A - Area 2 - Lung King Street Roadwork & Utilities										
SVIA10040	Sec VI A - Area 1 - Summary of Box Culvert La Construction	11-Nov-13 A	05-Jan-15	28	79.41%					
SVIA10080	Sec VI A - Area 2 - Reinstate the area	01-Dec-14	07-Jan-15	30	0%					
Sec VI C - Box Culvert La bay 4 and Roadwork										
CUL11570	Sec VI C - Culvert L - bay 4 - sheet pile & ELS	08-Dec-14	06-Jan-15	23	0%					
CUL11580	Sec VI C - Culvert L - bay 4 (south half) - construct base slab	07-Jan-15	13-Jan-15	6	0%					
CUL11600	Sec VI C - Culvert L - bay 4 (south half) - construct wall and roof	14-Jan-15	27-Jan-15	12	0%					
CUL11605	Sec VI C - Culvert L - bay 4 (south half) - curing and remove internal formwork	28-Jan-15	04-Feb-15	7	0%					
CUL11615	Sec VI C - Culvert L - bay 4 (south half) - construct temp bulk head inside cells	05-Feb-15	24-Feb-15	12	0%					
CUL11620	Sec VI C - Culvert L - bay 4 - construct top slab	25-Feb-15	10-Mar-15	12	0%					
CUL11645	Sec VI C - Culvert L - bay 4 (north half) - drive pipe pile	28-Jan-15	17-Feb-15	18	0%					
CUL11650	Sec VI C - Culvert L - bay 4 (north half) - demolish existing seawall	25-Feb-15	07-Mar-15	10	0%					
Box Culvert L1 & FRP-L Construction (Bay 5 - Bay 13)										
Box Culvert L1 & FRP-L - Bay 5 to 7										
CUL10015	Culvert L - form temp opening at existing box culvert Bay 4 for temp flow diversion	01-Dec-14	13-Jan-15	35	0%					
CUL10275	Sec VI C - Culvert L - bay 5,6,7 - erect temp platform for predrilling	03-Oct-14 A	17-Jan-15	39	40%					
CUL10280	Sec VI C - Culvert L - bay 5,6,7 - predrilling	01-Dec-14	19-Jan-15	40	0%					
CUL10800	Sec VI C - Culvert L - bay 7 - construct pre-bored H-pile	12-Dec-14	30-Jan-15	40	0%					
CUL10820	Sec VI C - Culvert L - bay 6 - construct pre-bored H-pile	29-Dec-14	13-Feb-15	40	0%					
CUL10840	Sec VI C - Culvert L - bay 5 - construct pre-bored H-pile	26-Jan-15	18-Mar-15	40	0%					
CUL10868	Sec VI C - Culvert L - bay 5-7 - Form Dry Dock for precast culvert units	15-Aug-14 A	28-Jan-15	48	35.14%					
CUL10870	Sec VI C - Culvert L - bay 5-7 - Construct bottom slabs for precast culvert units	29-Jan-15	28-Feb-15	22	0%					
CUL10940	Sec VI C - Culvert L - bay 5 - pile head treatment and construct pile cap	06-Dec-14	17-Dec-14	10	0%					
CUL10960	Sec VI C - Culvert L - bay 5 - construct base slab	18-Dec-14	02-Jan-15	11	0%					
CUL10980	Sec VI C - Culvert L - bay 5 - construct wall	03-Jan-15	16-Jan-15	12	0%					
CUL11000	Sec VI C - Culvert L - bay 5 - construct top slab	17-Jan-15	03-Feb-15	15	0%					
CUL11020	Sec VI C - Culvert L - bay 6 - pile head treatment and construct pile cap	18-Dec-14	31-Dec-14	10	0%					
CUL11040	Sec VI C - Culvert L - bay 6 - construct base slab	02-Jan-15	14-Jan-15	11	0%					
CUL11060	Sec VI C - Culvert L - bay 6 - construct wall	15-Jan-15	28-Jan-15	12	0%					

CEDD Contract No. HK/2012/08
Wan Chai Development Phase II
Central -Wan Chai Bypass at Wan Chai West

Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015		
						Nov	Dec	Jan	Feb	Mar
CUL11080	Sec VI C - Culvert L - bay 6 - construct top slab	29-Jan-15	14-Feb-15	15	0%					
CUL11090	Sec VI C - Culvert L - bay 5, 6 - dismantle formwork and curing	16-Feb-15	11-Mar-15	16	0%					
Box Culvert L1 & FRP-L - Bay 8 to 13										
CUL10120	Culvert L - bay 8 - predrilling for pre-bored H-pile	31-Dec-14	15-Jan-15	12	0%					
CUL10180	Culvert L - bay 8 - construct pre-bored H-pile	08-Jan-15	12-Feb-15	30	0%					
CUL10260	Culvert L - Bay 8 - install sheetpile	12-Feb-15	07-Mar-15	15	0%					
CUL11690	CWBA1 - [Summary] Tunnel waterproofing and backfill for Culvert L construction	05-Feb-15	09-Jun-15	96	0%					
CUL12350	Culvert L - Bay 12 & 13 - Erect temp platform for predrill and pre-bored H-piles	13-Jan-15	02-Feb-15	18	0%					
CUL12352	Culvert L - Bay 12 & 13 - predrilling for pre-bored H-pile	03-Feb-15	03-Mar-15	20	0%					
Section VI C - Area 3, 6, 8A & 8C										
Area 8A & 8C - Seawall Modification (Reviewed)										
Modification of Seawall										
A11705	Sec VI C - pile head treatment	01-Dec-14	07-Jan-15	30	0%					
A11715	Sec VI C - southbound	16-Dec-14	22-Jan-15	30	0%					
A11725	Sec VI C - northbound	06-Jan-15	09-Feb-15	30	0%					
A11780	Sec VI C - drive pipe pile	01-Dec-14	24-Mar-15	90	0%					
A11800	Sec VI C - seawall modification - bay 1	10-Feb-15	21-Mar-15	30	0%					
MTR Pump Room Stabilization (Reviewed)										
PRS-1010	Sec VI C - Install props inside MTR pump house	15-Dec-14	19-Dec-14	5	0%					
PRS-1020	Sec VI C - Place counter weight on top of MTR pump house	01-Dec-14*	30-Dec-14	24	0%					
PRS-1030	Sec VI C - Trim existing rubble mound	31-Dec-14	31-Jan-15	27	0%					
PRS-1040	Sec VI C - fill up void under pump house	02-Feb-15	06-Mar-15	24	0%					
Area 6 - Box Culvert bay 5-6										
SVIC10000	Sec VI C - [Summary] Construct Box Culvert Bay 5-6	29-Jan-15	23-May-15	89	0%					
Area 3 - Box Culvert bay 4 and Roadwork										
SVIC10220	Sec VI C - [Summary] Construct Box Culvert Bay 4 in Area 3	08-Dec-14	30-Apr-15	112	0%					
Section VI D - Area 8B & 10										
WDII Box 1 Construction (Reviewed)										
WDII Box 1 Submission and Approval / Material Procurement										
PCU60410	Sec VI D - WD II Box 1 - Prepare Subcontract for Box 1 structure	16-Jan-15	18-Jan-15	3	0%					
S0721040	Sec VI D - WD II Box 1 - temp work design - ICE check and issue check cert	15-Jan-15	11-Feb-15	28	0%					
S0721060	Sec VI D - WD II Box 1 - temp work design - Engineer comment and approve	15-Jan-15	11-Feb-15	28	0%					
S0721070	Sec VI D - WD II Box 1 - method statement and temp work design - MTR comment and approve	12-Feb-15	04-Apr-15	52	0%					
S0721080	Sec VI D - WD II Box 1 - Prepare and submit method statement	12-Feb-15	11-Mar-15	28	0%					
Section VII - Remainder Works										
Landing Steps Construction										
SVII11180	Sec VII - Landing Steps - form temporary access from landing steps to Fleet Acade	16-Jan-15	05-Feb-15	18	0%					
Section VIII - Landscape Softworks										
Soft Landscaping Works										
SVIII10020	Sec VIII - Tree Felling/Transplanting at Portion 2 & 2A	20-Nov-13 A	11-Mar-15	79	12.22%					

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2015						
								Jan 61	Feb 62	Mar 63	Apr 64	May 65		
Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (dd 20-Jan-14)		1909	469	24-Feb-10 18:00 A	29-Aug-16 18:00	640								
Programme Milestones (Revised up to EOTO No.10 Issued on 29-Nov-13)		106	106	20-Jan-15 18:00	07-May-15 08:00	-28	Calendar Day							
Contractual Completion Dates		21	21	20-Jan-15 18:00	10-Feb-15 18:00	0	Calendar Day							
KDC0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Area 7 (7-May-12)	0	0	20-Jan-15 18:00*	20-Jan-15 18:00*	-988	Calendar Day							
Soft Landscaping & Establishment Key Dates		21	21	20-Jan-15 18:00	10-Feb-15 18:00	0	Calendar Day							
KDC0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8 (10-Feb-14)	0	0	20-Jan-15 18:00*	20-Jan-15 18:00*	-344	Calendar Day							
KDC0150	Section 8D Works (1838 days) - Establishment Works in Area 8 (10-Feb-15)	0	0	10-Feb-15 18:00*	10-Feb-15 18:00*	0	Calendar Day							
Forecast Completion Dates		4	4	07-Apr-15 18:00	11-Apr-15 18:00	-425	Calendar Day							
KDF0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Area 7	0	0	11-Apr-15 18:00	11-Apr-15 18:00	-1069	Calendar Day							
Soft Landscaping & Establishment Key Dates		0	0	07-Apr-15 18:00	07-Apr-15 18:00	-421	Calendar Day							
KDF0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8	0	0	07-Apr-15 18:00	07-Apr-15 18:00	-421	Calendar Day							
Possession of Site		0	0	07-May-15 08:00	07-May-15 08:00	-28	Calendar Day							
PS0090	Possession of Portion 9 - Western Bulkhead (By HK/2009/01)	0	0	07-May-15 08:00*	07-May-15 08:00*	-28	Calendar Day							
Preliminaries		700	120	08-Jun-13 08:00 A	20-May-15 18:00	1264	Calendar Day							
Interface with Others		0	0	31-Mar-15 18:00	31-Mar-15 18:00	-308	Calendar Day							
PRE0950	Permanent Diversion of Box Culvert M by HK/2009/01	0	0	31-Mar-15 18:00*	31-Mar-15 18:00*	-308	Calendar Day							
Critical Submission & Approval		700	120	08-Jun-13 08:00 A	20-May-15 18:00	1264	Calendar Day							
PRE-SUB-1000B	Temp Covered Walkway Capping Beam - Design Approval	30	7	19-Jun-13 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
PRE-SUB-1010B	Temp Covered Walkway Cover System (PS30.5) - Design Approval	30	7	12-Jun-14 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
CSD for CWB Tunnel		700	120	08-Jun-13 08:00 A	20-May-15 18:00	1264	Calendar Day							
PRE-CSD-2030B	Tunnel Portion 2 - Redesigned CWB Tunnel Structure Design Submission Approval by AECOM	60	30	16-Nov-13 08:00 A	19-Feb-15 18:00	-63	Calendar Day							
PRE-CSD-3000B	Tunnel Portion 3&4 - Redesigned Temp D-Wall Submission Approval by AECOM & GEO	30	10	08-Jun-13 08:00 A	30-Jan-15 18:00	1374	Calendar Day							
PRE-CSD-3010B	Tunnel Portion 3&4 - ELS Submission Approval by AECOM & GEO	60	30	17-Jan-14 08:00 A	19-Feb-15 18:00	-352	Calendar Day							
PRE-CSD-5000B	Tunnel Portion 5 - Temp D-Wall Submission Approval by AECOM & GEO	60	30	15-Aug-13 08:00 A	19-Feb-15 18:00	-252	Calendar Day							
PRE-CSD-5010A	Tunnel Portion 5 - ELS ICE Submission	120	120	21-Jan-15 08:00	20-May-15 18:00	-346	Calendar Day							
PRE-CSD-6010A	Tunnel Portion 6 - ELS ICE Submission	120	120	21-Jan-15 08:00	20-May-15 18:00	-33	Calendar Day							
Critical Procurement & Site Delivery		60	21	15-Jun-14 08:00 A	10-Feb-15 18:00	1363	Calendar Day							
PRE-PRO-1100B	GRP Roof Panel for Temp Covered Walkway (Type 2)	60	21	15-Jun-14 08:00 A	10-Feb-15 18:00	1363	Calendar Day							
Section 3 of the Works - Re-provisioning of Government Helipad and Public Toilet		254	25	11-Aug-12 08:00 A	18-Feb-15 18:00	1084	HK Working Day							
Outstanding Works		254	25	11-Aug-12 08:00 A	18-Feb-15 18:00	1084	HK Working Day							
S3-0070-1499	Reinstatement of armour rock, retaining walls & new covered walkway along Expo Drive East	254	25	11-Aug-12 08:00 A	18-Feb-15 18:00	1084	HK Working Day							
Section 4A of the Works - Cooling Water Pumping System for Sun Hung Kai Centre (P8)		365	73	16-Feb-14 08:00 A	03-Apr-15 18:00	1311	Calendar Day							
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	73	16-Feb-14 08:00 A	03-Apr-15 18:00	1311	Calendar Day							
S4A-0900	Outstanding Works	365	73	16-Feb-14 08:00 A	03-Apr-15 18:00	1311	Calendar Day							
Section 4B of the Works - Cooling Water Pumping System for China Resources Building (P9)		365	7	01-Oct-13 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	7	01-Oct-13 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
S4B-0900	Outstanding Works	365	7	01-Oct-13 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
Section 4C of the Works - Cooling Water Pumping System for Great Eagle Centre / Harbour Centre (P7)		365	7	21-Nov-13 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	7	21-Nov-13 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
S4C-0900	Outstanding Works	365	7	21-Nov-13 08:00 A	27-Jan-15 18:00	1377	Calendar Day							
Section 5 of the Works - WSD Salt Water Pumping System		365	73	06-Mar-14 08:00 A	03-Apr-15 18:00	1311	Calendar Day							
Overall Testing & Commissioning of Re-provisioned Salt Water Intake System		365	73	06-Mar-14 08:00 A	03-Apr-15 18:00	1311	Calendar Day							
S5-0900	Outstanding Works	365	73	06-Mar-14 08:00 A	03-Apr-15 18:00	1311	Calendar Day							
Section 7 of the Works - Box Culvert N1 & Flood Relief System		116	60	29-Oct-14 08:00 A	11-Apr-15 18:00	1049	Calendar Day							
Transformer Building for Dining Services at Ferry Pier (VO116)		116	60	29-Oct-14 08:00 A	11-Apr-15 18:00	1049	Calendar Day							
Civil Works		34	34	21-Jan-15 08:00	07-Mar-15 18:00	-833	Calendar Day							
S7-TB-2065	Waterproof application and testing for Roof Top Slab	6	6	21-Jan-15 08:00	26-Jan-15 18:00	-1022	Calendar Day							
S7-TB-2080	Formwork Removal & Scaffolding Dismantling	4	4	04-Mar-15 08:00	07-Mar-15 18:00	-833	HK Working Day							
ABWF Works		72	72	05-Jan-15 08:00 A	02-Apr-15 18:00	-695	Calendar Day							
S7-TB-3000	ABWF Works	60	42	05-Jan-15 08:00 A	03-Mar-15 18:00	-1035	Calendar Day							
S7-TB-3100	Landscaping Works	30	30	04-Mar-15 08:00	02-Apr-15 18:00	-695	Calendar Day							
E&M Works		151	67	29-Oct-14 08:00 A	28-Mar-15 18:00	1317	Calendar Day							
S7-TB-4000	E&M Installation (with individual testing)	30	30	18-Dec-14 08:00 A	19-Feb-15 18:00	-1069	Calendar Day							
S7-TB-4100	22kV Cable across HHR to Transformer Building by HEC	45	20	29-Oct-14 08:00 A	09-Feb-15 18:00	1364	Calendar Day							
S7-TB-4200	LV Cable Laying to Ferry Pier	30	29	02-Jan-15 08:00 A	18-Feb-15 13:30	-1068	Calendar Day							
S7-TB-4300	Transformer Installation by HEC	30	30	20-Feb-15 08:00	21-Mar-15 18:00	-1069	Calendar Day							
S7-TB-4400	Energization of Transformer	7	7	22-Mar-15 08:00	28-Mar-15 18:00	-1069	Calendar Day							
Overall Testing & Commissioning		51	51	20-Feb-15 08:00	11-Apr-15 18:00	-1069	Calendar Day							
S7-TB-9000	WSD Inspection & Water Cert Approval	14	14	20-Feb-15 08:00	05-Mar-15 18:00	-1046	Calendar Day							
S7-TB-9100	FSD Inspection & Fire Cert Approval	14	14	29-Mar-15 08:00	11-Apr-15 18:00	-1069	Calendar Day							
Section 8A of the Works - Re-provisioning of Wan Chai Ferry Pier in Area 8		212	36	10-Sep-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day							
ABWF & E&M Installation		212	36	10-Sep-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day							
Roof		212	36	10-Sep-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day							
S8A-BS-4010	E&M Installation	28	10	10-Sep-13 08:00 A	30-Jan-15 18:00	1374	Calendar Day							
Works in Area 8 - ABWF Works at Observation Deck of Ferry Pier		120	36	28-Oct-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day							
S8B-FP-01100	Roof Finishes & Misc. ABWF Installation	120	36	28-Oct-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day							
S8B-FP-01300	Handrail & Glass Balustrade Installation	45	36	21-Dec-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day							
Section 9B of the Works - CWB Tunnel Structure (CH3400 - CH3796)		427	301	20-Aug-14 08:00 A	05-Feb-16 17:43	-72	Calendar Day							



CEDD CONTRACT NO. HK/2009/02
Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Jan-15)

Date	Revision	Checked	Approved
20-Jan-15...	3MRP		
20-Sep-1...	Revised WP		

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2014					2015										
								Jan 61	Feb 62	Mar 63	Apr 64	May 65	Jan 61	Feb 62	Mar 63	Apr 64	May 65						
Tunnel Portion 1 (CH3500-CH3630)																							
CWB Structural Works																							
Bay 6 (For OHVD Base Slab & Side Wall, Combined to Bay 5)																							
Wall																							
S9B-T1-B6-1120	Wall (Middle Late Cast) - Rebar Fixing	4	4	06-Feb-15 08:00	10-Feb-15 18:00	205	HK Working Day																
S9B-T1-B6-1130A	Wall (Middle Late Cast) - Formwork	3	3	11-Feb-15 08:00	13-Feb-15 18:00	205	HK Working Day																
S9B-T1-B6-1130B	Wall (Middle Late Cast) - Concrete	1	1	14-Feb-15 08:00	14-Feb-15 18:00	205	HK Working Day																
S9B-T1-B6-1140	Wall (Middle Late Cast) - Curing & Formwork Removal	3	3	15-Feb-15 08:00	17-Feb-15 18:00	259	Calendar Day																
Tunnel Portion 2 (CH3425-CH3500)																							
CWB Structural Works																							
S9B-T2-2000	Tunnel portion 2 ELSW excavation (62,500m3; 500m3/d)	125	13	20-Aug-14 08:00 A	04-Feb-15 13:30	11	HK Working Day																
S9B-T2-3000	Tunnel Portion 2 - Trim Bored Pile Head, Blinding	21	20	19-Jan-15 08:00 A	12-Feb-15 17:33	-31	HK Working Day																
S9B-T2-4000	Strut S5 Removal	7	7	28-Apr-15 08:00	06-May-15 18:00	-50	HK Working Day																
S9B-T2-4200	Bulk Head Demolition between TP1 & TP2 @ CH3500 & Baseslab Stitching	14	14	16-Jan-15 08:00 A	05-Feb-15 18:00	19	HK Working Day																
Bay 1																							
S9B-T2-B1-1010	Base Slab - Waterproofing	4	4	26-Feb-15 08:00	02-Mar-15 18:00	-50	HK Working Day																
S9B-T2-B1-1020	Base Slab - Formwork & Rebar Fixing	14	14	03-Mar-15 08:00	18-Mar-15 18:00	-38	HK Working Day																
S9B-T2-B1-1030	Base Slab - Concrete & Curing	5	5	19-Mar-15 08:00	23-Mar-15 18:00	-35	Calendar Day																
Bay 2																							
S9B-T2-B2-1010	Base Slab - Waterproofing	4	4	03-Mar-15 08:00	06-Mar-15 18:00	-50	HK Working Day																
S9B-T2-B2-1020	Base Slab - Formwork & Rebar Fixing	14	14	07-Mar-15 08:00	23-Mar-15 18:00	-28	HK Working Day																
S9B-T2-B2-1030	Base Slab - Concrete & Curing	5	5	24-Mar-15 08:00	28-Mar-15 18:00	-40	Calendar Day																
Bay 3																							
S9B-T2-B3-1010	Base Slab - Waterproofing	4	4	07-Mar-15 08:00	11-Mar-15 18:00	-50	HK Working Day																
S9B-T2-B3-1020	Base Slab - Formwork & Rebar Fixing	14	14	19-Mar-15 08:00	08-Apr-15 18:00	-38	HK Working Day																
S9B-T2-B3-1030	Base Slab - Concrete & Curing	5	5	09-Apr-15 08:00	13-Apr-15 18:00	-56	Calendar Day																
S9B-T2-B3-3000	Wall (South) - Waterproofing	4	4	16-May-15 08:00	20-May-15 18:00	-50	HK Working Day																
S9B-T2-B3-3010	Wall (Middle) - Rebar Fixing	4	4	16-May-15 08:00	20-May-15 18:00	-47	HK Working Day																
S9B-T2-B3-3020	Wall (North) - Waterproofing	4	4	16-May-15 08:00	20-May-15 18:00	-50	HK Working Day																
Bay 4																							
S9B-T2-B4-1010	Base Slab - Waterproofing	4	4	12-Mar-15 08:00	16-Mar-15 18:00	-50	HK Working Day																
S9B-T2-B4-1020	Base Slab - Formwork & Rebar Fixing	14	14	17-Mar-15 08:00	01-Apr-15 18:00	-50	HK Working Day																
S9B-T2-B4-1030	Base Slab - Concrete & Curing	5	5	02-Apr-15 08:00	06-Apr-15 18:00	-49	Calendar Day																
S9B-T2-B4-3000	Wall (South) - Waterproofing	4	4	12-May-15 08:00	15-May-15 18:00	-50	HK Working Day																
S9B-T2-B4-3010	Wall (Middle) - Rebar Fixing	4	4	12-May-15 08:00	15-May-15 18:00	-47	HK Working Day																
S9B-T2-B4-3020	Wall (North) - Waterproofing	4	4	12-May-15 08:00	15-May-15 18:00	-50	HK Working Day																
S9B-T2-B4-3030	Wall (South) - Rebar Fixing	3	3	16-May-15 08:00	19-May-15 18:00	-38	HK Working Day																
S9B-T2-B4-3040	Wall (North) - Rebar Fixing	3	3	16-May-15 08:00	19-May-15 18:00	-38	HK Working Day																
S9B-T2-B4-3050	Wall (Middle) - Formwork & Concrete	3	3	16-May-15 08:00	19-May-15 18:00	-35	HK Working Day																
Bay 5																							
S9B-T2-B5-1010	Base Slab - Waterproofing	4	4	17-Mar-15 08:00	20-Mar-15 18:00	-40	HK Working Day																
S9B-T2-B5-1020	Base Slab - Formwork & Rebar Fixing	14	14	02-Apr-15 08:00	22-Apr-15 18:00	-50	HK Working Day																
S9B-T2-B5-1030	Base Slab - Concrete & Curing	5	5	23-Apr-15 08:00	27-Apr-15 18:00	-70	Calendar Day																
S9B-T2-B5-3000	Wall (South) - Waterproofing	4	4	07-May-15 08:00	11-May-15 18:00	-50	HK Working Day																
S9B-T2-B5-3010	Wall (Middle) - Rebar Fixing	4	4	07-May-15 08:00	11-May-15 18:00	-47	HK Working Day																
S9B-T2-B5-3020	Wall (North) - Waterproofing	4	4	07-May-15 08:00	11-May-15 18:00	-50	HK Working Day																
S9B-T2-B5-3030	Wall (South) - Rebar Fixing	3	3	12-May-15 08:00	14-May-15 18:00	-34	HK Working Day																
S9B-T2-B5-3040	Wall (North) - Rebar Fixing	3	3	12-May-15 08:00	14-May-15 18:00	-34	HK Working Day																
S9B-T2-B5-3050	Wall (Middle) - Formwork & Concrete	3	3	12-May-15 08:00	14-May-15 18:00	-31	HK Working Day																
S9B-T2-B5-3060	Wall (South) - Formwork & Concrete	3	3	15-May-15 08:00	18-May-15 18:00	-34	HK Working Day																
S9B-T2-B5-3070	Wall (North) - Formwork & Concrete	3	3	15-May-15 08:00	18-May-15 18:00	-34	HK Working Day																
S9B-T2-B5-3080	Wall (Middle) - Curing & Formwork Removal	3	3	15-May-15 08:00	17-May-15 18:00	-40	Calendar Day																
S9B-T2-B5-3090	Wall (South) - Curing & Formwork Removal	3	3	19-May-15 08:00	21-May-15 18:00	-44	Calendar Day																
S9B-T2-B5-3100	Wall (North) - Curing & Formwork Removal	3	3	19-May-15 08:00	21-May-15 18:00	-44	Calendar Day																
Tunnel Portion 3 & Tunnel Portion 4 (CH3630-CH3790)																							
Foundation																							
Stage 3 - Northern Wall after TWCR4 Reclamation (C88-C105)																							
S9B-T34-1430C	D-wall Construction at TWCR4 (C88-P94; P101-C105; 6d/Panel)	84	13	31-Oct-14 08:00 A	02-Feb-15 14:24	-349	Calendar Day																
Stage 4 - Southern Wall after HHR Flyover Diversion (Stage 2) (P132-P143)																							
S9B-T34-1640	D-wall Construction at Original HHR Flyover Approach Ramp (P132-P143; 8d/Panel)	96	80	08-Jan-15 08:00 A	10-Apr-15 17:43	-416	Calendar Day																
S9B-T34-1660	Capping Beam Construction Between Tunnel Portion 1 and 3 & 4	14	13	21-Jan-15 14:24 A	03-Feb-15 10:42	-335	Calendar Day																
S9B-T34-1670	Installation of Pump Well, Observation Well, Incliner and Piezometers	28	22	08-Jan-15 14:24 A	12-Feb-15 11:36	-358	Calendar Day																
S9B-T34-1700	Tunnel Portion 3 & 4 Pumping test	28	28	10-Apr-15 17:43	08-May-15 17:43	-416	Calendar Day																
CWB Structural Works																							
S9B-T34-2000	Tunnel Portion 3 & 4 Excavation (198,000m3 soil @1500m3/d; 2000m3 rock @100m3/d) & ELS	230	230	24-Apr-15 17:43	05-Feb-16 17:43	-333	HK Working Day																
Section 10 Works - CWB Tunnel Structure (CH3246 - CH3400)																							
Tunnel Portion 6 (CH3246-CH3280)																							
S10-T6-1020	Tunnel Portion 6 Bored Pile - 13nr. (3 sets @ 12d/pile)	52	52	07-May-15 08:00	09-Jul-15 18:00	-23	HK Working Day																
Section 11 of the Works - Remainder of Works																							



■ Remaining Work
■ Actual Work
■ Summary Bar
■ Critical Remaining Work
◆ Milestone

CEDD CONTRACT NO. HK/2009/02
Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai
East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Jan-15)

Date	Revision	Checked	Approved
20-Jan-15...	3MRP		
20-Sep-1...	Revised WP		

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2014					2015				
								Jan 61	Feb 62	Mar 63	Apr 64	May 65	Jan 61	Feb 62	Mar 63	Apr 64	May 65
Marine Works at WCR3																	
S11-R3-0500	Fabrication of Caisson Seawalls for WCR3 Reclamation (1st Stage - 5 Nos.)	184	123	05-Dec-14 08:00 A	23-May-15 18:00	-486	Calendar Day										
S11-R3-1300	1st Stage Rockfilling for Seawall (24,000m3 @ 1000m3/d)	60	30	05-Dec-14 08:00 A	19-Feb-15 18:00	-466	Calendar Day										
S11-R3-1400	Placing leveling stones to -6.0mPD (1500m2 @ 40m2/d)	38	38	02-Feb-15 08:00	11-Mar-15 18:00	-486	Calendar Day										
S11-R3-1500	Installation of Permanent Seawall (5 nos.) & Rockfilling behind seawall	16	16	12-Mar-15 08:00	27-Mar-15 18:00	-486	Calendar Day										
S11-R3-1600	2nd Stage Dredging incl. Existing Wan Chai Ferry Pier (20,000m3 @ 1,000m3/d)	20	17	15-Jan-15 08:00 A	06-Feb-15 18:00	-437	Calendar Day										
S11-R3-1700	Reclamation from -14 mPD to -2.0mPD by Hopper (121,000m3 @ 3,000m3/d)	41	41	28-Mar-15 08:00	07-May-15 18:00	-486	Calendar Day										
S11-R3-1800	Installation of Permanent Seawall & Rockfilling behind seawall	16	16	08-May-15 08:00	23-May-15 18:00	-486	Calendar Day										
Soft Landscaping & Establishment Works																	
Section 8C of the Works - Landscape Softworks in Area 8																	
S8C-0010	Carry out landscape soft work on new ferry pier	2375	587	24-Feb-10 18:00 A	29-Aug-16 18:00	0	Calendar Day										
Section 8D of the Works - Establishment Works in Area 8																	
S8D-0010	Carry out establishment work on new ferry pier	90	77	07-Oct-14 08:00 A	07-Apr-15 18:00	-421	Calendar Day										
Section 12 of the Works - Protection and Preservation of Existing Trees																	
S12-0010	Protection and preservation of existing trees	365	365	08-Apr-15 08:00	06-Apr-16 18:00	-421	Calendar Day										
SUMMARY PROGRAMME																	
CWB Tunnel Construction & Remaining Works (Section 9A, 9B, 10 & 11)																	
CWB Tunnel Works in WCR2																	
SUM-CWB-22000	Pump Test & Excavation for Tunnel Portion 2	2375	587	24-Feb-10 18:00 A	29-Aug-16 18:00	0	Calendar Day										
SUM-CWB-23000	CWB Tunnel Portion 2 Construction	314	170	30-Aug-14 08:00 A	09-Jul-15 18:00	-29	Calendar Day										
CWB Tunnel Works in WCR3																	
SUM-CWB-30000	Reclamation at WCR3 & Ferry Pier Demolition (Except Water Channel Maintained for HK/2009/02)	795	381	11-Nov-13 08:00 A	05-Feb-16 17:43	-158	Calendar Day										
SUM-CWB-35000B	Foundation for Tunnel Portion 6 - Bored Pile	209	158	30-Aug-14 08:00 A	27-Jun-15 18:00	-486	Calendar Day										
CWB Tunnel Works in WCR4/TWCR4																	
SUM-CWB-41000B	Foundation for Tunnel Portion 3&4 (except Eastern Bulkhead Wall)	64	64	07-May-15 08:00	09-Jul-15 18:00	-29	Calendar Day										
SUM-CWB-42000	Pump Test & Excavation for Tunnel Portion 3&4	795	381	11-Nov-13 08:00 A	05-Feb-16 17:43	-368	Calendar Day										
Reprovisioning of Existing Facilities (Section 3, 4A, 4B, 4C, 5, 6, 7, 8A & 8B)																	
Reprovisioning of Box Culvert N (Section 7)																	
SUM-FAC-52000	VO116 - New Transformer Building to Ferry Pier	457	80	11-Nov-13 08:00 A	10-Apr-15 17:43	-67	Calendar Day										
Reprovisioning of Wan Chai Ferry Pier & Covered Walkway (Section 8A & 8B)																	
SUM-FAC-65000	ABWF Works on Observation Deck under Section 8B	301	301	10-Apr-15 17:43	05-Feb-16 17:43	-422	Calendar Day										



- Remaining Work
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- Milestone

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3-MONTH ROLLING PROGRAMME (dd 20-Jan-15)

Date	Revision	Checked	Approved
20-Jan-15...	3MRP		
20-Sep-1...	Revised WP		

Activity ID	Activity Name	Original Duration	Start	Finish	2015			
					Jan	Feb	Mar	Apr
DWP-06 - Update Progress As of 20 Jan 15								
Works in TS3								
TS3 East & West Reclamation Works								
TS3W - Reclamation Works (new scheme)								
TS3W.MW.2110	TS3W - General Fill Area 2 (3 Barges)	40	20-Dec-14 A	27-Feb-15	TS3W - General Fill Area 2 (3 Barges)			
TS3W.MW.2120	TS3W - General Fill Area 3 (1 Barges)	22	19-Apr-15	10-May-15	TS3W - General Fill Area 3 (1 Barges)			
TS3W - North								
TS3W.MW.2010A	TS3W North - Phase 2 Dredging	28	07-Jan-15 A	05-Feb-15	TS3W North - Phase 2 Dredging			
TS3W.MW.2010B	TS3W North - HIS of Dredging	2	06-Feb-15	07-Feb-15	TS3W North - HIS of Dredging			
TS3W.MW.2010C	Inspection of Founding	4	08-Feb-15	11-Feb-15	Inspection of Founding			
TS3W.MW.2040	TS3W North - Rockfill	21	12-Feb-15	04-Mar-15	TS3W North - Rockfill			
TS3W.MW.2040A	TS3W North - Levelling	4	05-Mar-15	08-Mar-15	TS3W North - Levelling			
TS3W.MW.2050	TS3W North - Phase 1 Seawall Block Installation	28	09-Mar-15	05-Apr-15	TS3W North - Phase 1 Seawall Block Installation			
TS3W.MW.2060	TS3W North - Phase 2 Seawall Block Installation	13	06-Apr-15	18-Apr-15	TS3W North - Phase 2 Seawall Block Installation			
TS3W - South								
TS3W.MW.2080	TS3W South - Rockfill	14	24-Dec-14 A	25-Jan-15 A	TS3W South - Rockfill			
TS3W.MW.2080A	TS3W South - Levelling	3	31-Dec-14 A	22-Jan-15	TS3W South - Levelling			
TS3W.MW.2090	TS3W South - Seawall Block Installation	16	23-Jan-15	07-Feb-15	TS3W South - Seawall Block Installation			
Works for Box Culvert Q & Water Intake								
Box Culvert Q								
Box Culvert Q Outfall Diversion								
TS3_1145.50	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works	12	20-Jan-15	02-Feb-15	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works			
Works in TS3-East								
Diaphragm Wall								
TS3-East Pre-D/wall Works								
TS3E_2510	Bentonite silo & plant establishment	40	12-Nov-14 A	21-Jan-15 A	Bentonite silo & plant establishment			
TS3E_2520A	Pre-Drilling / Ground Investigation (SI) - Stage 2	27	28-Nov-14 A	21-Jan-15	Pre-Drilling / Ground Investigation (SI) - Stage 2			
TS3E_2530	Curtain grout/soil pre-treatment/slurry wall	49	10-Dec-14 A	23-Jan-15	Curtain grout/soil pre-treatment/slurry wall			
TS3E_2540	Guidewall construction	51	20-Dec-14 A	09-Feb-15	Guidewall construction			
TS3-East Diaphragm Construction								
TS3E_3110	Diaphragm wall construction Phase 1 (16/50 panels @ proposed bulkhead)	37	24-Dec-14 A	23-Feb-15	Diaphragm wall construction Phase 1 (16/50 panels @ proposed bulkhead)			
TS3E_3120	Diaphragm wall construction Phase 2 (34/50 panels @ proposed bulkhead)	80	23-Feb-15	14-May-15	Diaphragm wall construction Phase 2 (34/50 panels @ proposed bulkhead)			
Works in SR8 (Open Cut Method)								
SR8 - Cofferdam & Cut & Cover Tunnel Works								

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

Date	Revision	Checked	Approved
20-Jan-15	Updated to 20th January 2015	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish	2015			
					Jan	Feb	Mar	Apr
SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)								
TTA Stage 1 - East Bound								
Stage 2 - East Bound (Ref. DRG. No.CDD/SR8/083)								
SR8.EB.1340	Stage 2 - Sheet Pile Work	18	01-Nov-14 A	29-Jan-15	Stage 2 - Sheet Pile Work			
SR8.EB.1370	Install King Post for Traffic Deck	16	15-Jan-15 A	23-Jan-15 A	Install King Post for Traffic Deck			
SR8.EB.1380	Demolish part of the Wing Wall of Abutment M	14	20-Jan-15	04-Feb-15	Demolish part of the Wing Wall of Abutment M			
SR8.EB.1360	Stage 2 - TAM Grout	18	30-Jan-15	23-Feb-15	Stage 2 - TAM Grout			
SR8.EB.1530	Construct IEC East Bound Up Ramp	60	05-Feb-15	23-Apr-15	Construct IEC East Bound Up Ramp			
SR8.EB.1400	Ground Treatment - Jet Grout	21	24-Feb-15	19-Mar-15	Ground Treatment - Jet Grout			
SR8.EB.1390	Construct Traffic Deck	35	09-Mar-15	23-Apr-15	Construct Traffic Deck			
SR8.EB.1385	Install Dewatering Wells and Observation Wells & Pump Test	14	19-Mar-15	09-Apr-15	Install Dewatering Wells			
SR8 West Bound - Ch. 459.000 to 385.000 (Victoria Road / IEC Central Divider)								
TTA Stage 1 - West Bound								
Stage 2B - West Bound (Ref. DRG. No.CDD/SR8/086)								
SR8.WB.2120	Construct Temporary IEC West Bound Down Ramp	57	21-Dec-14 A	02-Feb-15	Construct Temporary IEC West Bound Down Ramp			
SR8.WB.2110	Construct Temporary Traffic Deck	26	29-Dec-14 A	02-Feb-15	Construct Temporary Traffic Deck			
SR8.WB.2100	Demolish Part (WB) Wing Wall of Abutment M	2	06-Jan-15 A	24-Jan-15 A	Demolish Part (WB) Wing Wall of Abutment M			
SR8.WB.2150	Asphalt Laying + Temporary Street Furniture	3	03-Feb-15	05-Feb-15	Asphalt Laying + Temporary Street Furniture			
TTA Stage 2 - West Bound								
Stage 3 - West Bound (Ref. DRG. No.CDD/SR8/087)								
SR8.WB.3010	Implement TTA Stage 2 - Traffic Diversion at West Bound	0	08-Feb-15		Implement TTA Stage 2 - Traffic Diversion at West Bound			
SR8.WB.3015	Excavate and expose U/G Utilites (HEC Fiber Optic)	12	09-Feb-15	25-Feb-15	Excavate and expose U/G Utilites (HEC Fiber Optic)			
SR8.WB.3020	Shift / Divert HEC Cable (Fibre Optic) during Construction of Sheet Pile and Pipe Pile Works	12	26-Feb-15	11-Mar-15	Shift / Divert HEC Cable (Fibre Optic) during Construction			
SR8.WB.3030	Carry out Stage 3 Sheet Pile works	27	26-Feb-15	28-Mar-15	Carry out Stage 3 Sheet Pile works			
SR8.WB.3040	Carry out Stage 3 Pipe Piling Works	45	30-Mar-15	27-May-15	Carry out Stage 3 Pipe Piling Works			
SR8 Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)								
SR8 Tunnel - ELS / CCT / BF Works (7 Bays Ch. 385.000 to Ch.317.500)								
ELS								
SR8.VP.5020	ELS Layer 1 - Soft Excavation + Strut Installation	24	24-Dec-14 A	26-Jan-15	ELS Layer 1 - Soft Excavation + Strut Installation			
SR8.VP.5070	ELS Layer 2 - Soft Excavation + Strut Installation	24	27-Jan-15	26-Feb-15	ELS Layer 2 - Soft Excavation + Strut Installation			
SR8.VP.5070A	ELS Layer 3 - Soft Excavation + Strut Installation	8	27-Feb-15	07-Mar-15	ELS Layer 3 - Soft Excavation + Strut Installation			
SR8.VP.5080	Soft Excavation down to Formation Level	16	09-Mar-15	26-Mar-15	Soft Excavation down to Formation Level			
Portal Structure								
Blinding + Waterproofing								
SR8.VP.5030	Blinding for Bay 1 to Bay 7	7	26-Mar-15	08-Apr-15	Blinding for Bay 1 to B			

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20-Jan-15	Updated to 20th January 2015	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish	2015			
					Jan	Feb	Mar	Apr
SR8.VP.5090	Waterproofing for Bay 1 to Bay 7	7	09-Apr-15	16-Apr-15				Waterproofing
Base Slab + Drainage								
SR8.VP.5100	Base Slab - Bay 1	8	17-Apr-15	25-Apr-15				
Pump Sump E								
SR8.VP.5360	Base Slab	8	17-Apr-15	25-Apr-15				
SR8 Ch 317.500 to Ch 210.000 - U-Structure & Slab (Victoria Park)								
Excavation and Lateral Support								
SR8_2230	ELS - Excavation to formation level + Lateral Support	96	13-Jun-14 A	05-Mar-15	ELS - Excavation to formation level + Lateral Support			
RC CCT & Backfill Ch317.5000 to Ch240.000								
Structure								
Base Slab								
SR8_1800	SR8 U-structure Base slab + Drainage (U8A1 - U8A2)	24	18-Nov-14 A	20-Jan-15 A	SR8 U-structure Base slab + Drainage (U8A1 - U8A2)			
SR8_1810	SR8 U-structure Base slab + Drainage (U8A3 - U8A6)	48	26-Nov-14 A	02-Apr-15	SR8 U-structure Base slab + Drainage (U8A3 - U8A6)			
SR8_1801	Remove SL1 - (U8A1 - U8A2)	14	05-Mar-15	21-Mar-15	Remove SL1 - (U8A1 - U8A2)			
SR8_1812	SR8 U-structure Base slab + Drainage (U8A7 - U8A8)	24	02-Apr-15	06-May-15	SR8 U-structure Base slab + Drainage (U8A7 - U8A8)			
SR8_1811	Remove SL2 - (U8A3 - U8A6)	28	02-Apr-15	11-May-15	Remove SL2 - (U8A3 - U8A6)			
SR8 Structural Slab Ch.240.000 to Ch.210.000								
SR8_2080	Cast Structural Slab Ch.240.000 to Ch.210.000 - 3 bays	48	30-Oct-14 A	04-Feb-15	Cast Structural Slab Ch.240.000 to Ch.210.000 - 3 bays			
Tsing Fung St - RW & Subway Extension & Toe Wall at Hing Fat St								
Ret. Wall & TF Subway Extension (Portion V)								
Retaining Wall RW8C at Tsing Fung Street (Portion V)								
VP_1290	TFS New Ret. Wall - wall stem + Railing	60	04-Nov-14 A	12-Feb-15	TFS New Ret. Wall - wall stem + Railing			
VP_1370	TFS New Ret. Wall - backfilling & compactionworks	24	13-Feb-15	16-Mar-15	TFS New Ret. Wall - backfilling & compactionworks			
VP_1390	Demolish Top Portion of Existing Wall Head and Kerb	18	17-Mar-15	10-Apr-15	Demolish Top Portion of Existing Wall Head and Kerb			
VP_1400	Road Formation - Subbase + Kerb + U-shape Channel	48	11-Apr-15	08-Jun-15	Road Formation - Subbase + Kerb + U-shape Channel			
Retaining Wall + Toe Wall at Hing Fat Street								
RC Works - Toe Wall								
VP_6152	Construct and divert Temporary Footpath	36	20-Jan-15	05-Mar-15	Construct and divert Temporary Footpath			
VP_6160	Site formation and Excavation to formation level	24	06-Mar-15	02-Apr-15	Site formation and Excavation to formation level			
VP_6170	Removed existing curb	24	08-Apr-15	06-May-15	Removed existing curb			
Works in Victoria Park								
Re-Provisioning Works								
Bowling Green Office								
BGO - Construction Works								
VP_1250.40	Statutory Inspections by Other Authorities (EMSD, WSD, ASD)	30	24-Dec-14 A	23-Jan-15	Statutory Inspections by Other Authorities (EMSD, WSD, ASD)			

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

Date	Revision	Checked	Approved
20-Jan-15	Updated to 20th January 2015	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish	2015			
					Jan	Feb	Mar	Apr
VP_1270	BGO - Completion of KD4 - Works in Section1B	0		23-Jan-15	◆ BGO - Completion of KD4 - Works in Section1B			
Pavilion								
Temp. Works Design								
VP_0210	(01) Temp. Work Design + ICE - submission	24	20-Jan-15	16-Feb-15	(01) Temp. Work Design + ICE - submission			
VP_0230	(01) Temp. Work Design - review and approval by AECOM	24	17-Feb-15	19-Mar-15	(01) Temp. Work Design - review and approval			
Materials Submission								
VP_6640	Materials submission (Specification and Samples)	24	20-Jan-15	16-Feb-15	Materials submission (Specification and Samples)			
VP_6650	Materials - ER review and approval	24	17-Feb-15	19-Mar-15	Materials - ER review and approval			
VP_6660	Issue P.O. / Manufacturing / Fabrication	48	20-Mar-15	20-May-15				
Shop Drawings								
VP_0195	Shopdrawing submission	24	20-Mar-15	21-Apr-15	Shopdrawing submission			
Method Statement								
VP_6680	(01) Method statement - submission	24	20-Mar-15	21-Apr-15	(01) Method statement - submission			
Construction Works - BG Pavillion								
VP_1310	PV - Site Possession, Portion VI/VII	0	20-Jan-15		◆ PV - Site Possession, Portion VI/VII			
VP_1340	Demolish existing BGO	24	24-Jan-15	24-Feb-15	Demolish existing BGO			
VP_1300	PV - Initial works (Site Clearance, underground utilities etc.)	24	25-Feb-15	24-Mar-15	PV - Initial works (Site Clearance, underground utilities etc.)			
Bowling Green								
Design Submissions for Bowling Green Lighting								
VP_0330	Engineer's Review and Approval	24	23-Sep-14 A	20-Jan-15	Engineer's Review and Approval			
Procurement								
VP_1010.164	Material submission	14	21-Jan-15	05-Feb-15	Material submission			
VP_1010.174	Materials - ER review and approval	24	06-Feb-15	09-Mar-15	Materials - ER review and approval			
VP_1010.184	Issue PO / Manufacturing	60	10-Mar-15	23-May-15				
Construction Works								
VP_1320	BG - Site Possession, Portion VI, VII	0	20-Jan-15		◆ BG - Site Possession, Portion VI, VII			
VP_1170	Demolish existing CP / BGO / Site Clearance	24	20-Jan-15	16-Feb-15	Demolish existing CP / BGO / Site Clearance			
VP_1180	Site Survey / Setting up	12	17-Feb-15	05-Mar-15	Site Survey / Setting up			
VP_1710	BG - Install U/G Sewerage System	24	27-Feb-15	26-Mar-15	BG - Install U/G Sewerage System			
VP_1720	BG - Install Drainage System	24	13-Mar-15	14-Apr-15	BG - Install Drainage System			
VP_1730	BG - Install Irrigation System	24	27-Mar-15	28-Apr-15				
Mooring Components Upkeep (CBTS and ATS)								
MAR_2000	Mooring Upkeep at Portion XIX(19) & XX(20) - ATS (if instructed by Engineer)	1399	21-Mar-13 A	17-Jan-17				
MAR_1000	Mooring Upkeep at Portion III (3) - CBTS	574	15-May-14 A	09-Dec-15				
MAR_3020	Mooring Upkeep at Portion X(10) & XVI(16) - CBTS	979	15-May-14 A	17-Jan-17				

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Activity ID	Activity Name	Original Duration	Start	Finish	2015																		
					Jan			Feb			Mar			Apr									
					Works for Public Works Regional Laboratory (North Lantau)																		
Maintenance and Upkeep of New PWRL (Portion XVII)																							
PWRL_1050	Maintenance/ Upkeep of New PWRL	1301	19-Jul-13 A	21-Nov-17																			

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