



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

- FEBRUARY 2015 -

CLIENTS:

**Civil Engineering and Development
Department**

and

Highways Department

PREPARED BY:

Lam Geotechnics Limited

11/F Centre Point
181-185 Gloucester Road,
Wanchai, H.K.

Telephone: (852) 2882-3939
Facsimile: (852) 2882-3331
E-mail: info@lamenviro.com
Website: <http://www.lamenviro.com>

CERTIFIED BY:

Raymond Dai
Environmental Team Leader

DATE:

13 March 2015

Ref.: AACWBIECEM00_0_6338L.15

13 March 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 (February 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 February 2015 received by e-mail on 13 March 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
	AECOM	Mr. Francis Leong / Mr. Stephen Lai	by Fax: 2691 2649
	AECOM	Mr. Conrad Ng	by Fax: 2691 2649
	Lam	Mr. Raymond Dai	by Fax: 2882 3331

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
1. INTRODUCTION.....	12
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	21
3.1 Status of Environmental Licensing and Permitting under the Project.....	21
4. MONITORING REQUIREMENTS.....	33
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.....	47
5.5 Waste Monitoring Results	55
6. COMPLIANCE AUDIT	62
6.1 Noise Monitoring	61
6.2 Real-time noise Monitoring	61
6.3 Air Monitoring	61
6.4 Water Quality Monitoring.....	62
6.5 Review of the Reasons for and the Implications of Non-compliance.....	63
6.6 Summary of action taken in the event of and follow-up on non-compliance	63
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	70

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 8.5	<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 – **February 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 **January 2015 to February 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:
- Nil
- iii. During this reporting period, the major work activities for Contract no. HK/2009/02 included:
- Works of covered walkway
 - ABWF work
 - Dredging and Reclamation at WCR3
 - Air lifting operation at WCR3
- iv. During this reporting period, the major work activities for Contract no. HY/2009/15 included:
- Installation of seawall blocks
 - Backfilling works for formation of TZ5
 - Reinstatement of seabed at TS4
- 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:
- Placing of levelling stones
 - Dry dock construction
 - Formation of rock bund
 - Filling works
 - Casing installation on temporary piling platform
- vii. During this reporting period, the major work activities for Contract no. HY/2010/08.
- Rock filling works
 - Seawall blocks installation works
 - Pre-treatment works
 - Bar fixing works
 - Diaphragm Wall and Barrette construction works

- [Fill Disposal 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 2 and 7 February 2015 to 4 and 10 February 2015 respectively. 24hr TSP monitoring at CMA4a was rescheduled from 17 February 2015 to 18 February 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; CMA5b – Pedestrian Plaza; CMA6a – WDII PRE Site Office.

Water Quality Monitoring

- xviii. [Due to Chinese New Year Holiday and no marine activities will be conducted under all](#)

- WDII-CWB contracts according to the information provided by the Contractor(s), the water quality monitoring event at all WQM stations was cancelled on 20 February 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	0	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	1	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	1	0	2
Total		0	1	0	2

- xliv. There were no action level exceedances and 3 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**.
- xlvi. 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.
- xlvii. 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.
- xlviii. 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.
- xlix. 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

- xlix. There was no environmental complaint received in this reporting month.

Site Inspections and Audit

- i. 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.

- ii. 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

- lii. 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](#)

- Install Seawall caisson fabrication at PRC
- Reclamation works at WCR3

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

- Reinstatement of existing bermstone and seawall at TS4
- Reinstatement of seabed at TS4
- 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](#)

- Placing of levelling stones
- Dry dock construction
- Formation of rock bund
- Filling
- Installation of caisson seawall
- Casing installation on temporary pilling platform

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

- Rock filling works
- Seawall blocks installation works



- Pre-treatment works
- Bar fixing works
- Diaphragm Wall and Barrette construction works
- Fill Disposal 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-041/2001).
- 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 [January 2015 to February 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 water mains 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	Project Manager	Mr. Simon Liu	9304 8355	2587 1878
		Site Agent	Mr. Andy Yu	9648 4896	
		Engineer Manager	Mr. Terry Wong	9757 9846	
		Construction Manager	Mr. Wyman Wong	9627 2467	
		Construction Manager	Mr. Kenneth Chan	9160 3850	
		Environmental Officer	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	
		Construction Manager (Marine)	William Luk	9610 1101	



Party	Role	Post	Name	Contact No.	Contact Fax
		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:

- Nil

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

- Works of covered walkway
- ABWF work
- Dredging and Reclamation at WCR3
- Air lifting operation at WCR3

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

- Installation of seawall blocks
- Backfilling works for formation of TZ5
- Reinstatement of seabed at TS4

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:

- Placing of levelling stones
- Dry dock construction
- Formation of rock bund
- Filling works
- Casing installation on temporary piling platform

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

- Rock filling works
- Seawall blocks installation
- Pre-treatment works
- Bar fixing works
- Diaphragm Wall and Barrette construction works
- Fill Disposal 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

- Install Seawall caisson fabrication at PRC
- Reclamation works at WCR3

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

- Reinstatement of existing bermstone and seawall at TS4
- Reinstatement of seabed at TS4
- 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

- Placing of levelling stones
- Dry dock construction
- Formation of rock bund
- Filling works
- Installation of caisson seawall
- Casing installation on temporary piling platform

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

- Rock filling works
- Seawall blocks installation
- Pre-treatment works
- Bar fixing works
- Diaphragm Wall and Barrette construction work
- Fill Disposal 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-09/364/2009/B	5 March 2013	Valid
Further Environmental Permit	FEP-10/364/2009/B	26 July 2013	Valid

Permits and/or Licences	Reference No.	Issued Date	Status
Further Environmental Permit	FEP-11/364/2009/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 for non-piling equipment	GW-RS0765-14	30 Jul 2014	15 Aug 2014 to 14 Feb 2015	Expired
	GW-RS0875-14	21 Aug 2014	23 Aug 2014 to 21 Feb 2015	Expired
	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

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1472-14	2 Jan 2015	22 Jan 2015 to 21 Jul 2015	Replaced by GW-RS0101-15
	GW-RS0079-15	27 Jan 2015	16 Feb 2015 to 14 Aug 2015	Valid
	GW-RS0104-15	3 Feb 2015	22 Feb 2015 to 21 Aug 2015	Valid
	GW-RS0101-15	3 Feb 2015	22 Feb 2015 to 21 Aug 2015	Valid
	GW-RS0074-15	22 Jan 2015	10 Feb 2015 to 9 Aug 2015	Valid
Discharge Licence	WT00018110-2014	6 Jan 2014	31 Mar 2015	Valid
	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	Expired
	EP/MD/15-225	18 Feb 2015	24 Feb 2015 to 23 Mar 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

EP Condition	Submission	Date of Submission
	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
	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 equipment	GW-RS0742-14	25 Jul 2014	15 Aug 2014 to 14 Feb 2015	Expired
	GW-RS0745-14	25 Jul 2014	14 Aug 2014 to 13 Feb 2015	Expired
	GW-RS0840-14	18 Aug 2014	23 Aug 2014 to 12 Feb 2015	Expired
	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	

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	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
	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
	GW-RS0198-15	24 Feb 2015	26 Feb 2015 to 22 Aug 2015	Valid
	GW-RS0215-15	27 Feb 2015	8 Mar 2015 to 7 Apr 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/15-181	29 Dec 2014	1 Jan 2015 to 30 Jun 2015	Valid
Dumping Permit (Type 2 – Confined Marine Disposal)	EP/MD15-204	21/01/2015	23 Jan 2015 to 22 Feb 2015	Expired

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
	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
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	Cancelled
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 concreting works at Eastern Breakwater of CBTS	GW-RS0150-15	11 Feb 2015	13 Feb 2015 to 10 Aug 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	Cancelled
Construction Noise Permit (CNP) for reclamation and d-wall works at Ex-PCWA	GW-RS0099-15	30 Jan 2015	1 Feb 2015 to 28 Jul 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	Expired
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-063	16 Jul 2014	28 Jul 2014 to 27 Jan 2015	Expired
Dumping Permit (Type 1 – Open Sea Disposal(Dedicated Site) and Type 2 – Confined Marine Disposal)	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
	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/A	20 Sep 2012	Granted	Valid
Notification of Works Under APCO	326160	24 Jan 2011	Notified	Valid

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period / Expiry date	Status
Construction Noise Permit (CNP) (For Portion Vi Marine)	GW-RS1339-14	2 Dec 2014	2 Dec 2014 to 30 May 15	Cancelled
	GW-RS0076-15	21 Jan 2015	23 Jan 2015 to 22 Jul 2015	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 3.9 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	Superseded by WT0002059 4-2014
	WT00020594-2014	22 Dec 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	Superseded by GW-RS0105-15
	GW-RS0105-15	5 Feb 2015	7 Feb 2015 to 4 Aug 2015	Valid
	PP-RS0023-14	18 Sep 2014	20 Sep 2014 to 17 Mar 2015	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1006-14	19 Sep 2014	1 Oct 2014 to 31 Mar 2015	Supersede d by GW-RS014 5-15
	GW-RS0145-15	11 Feb 2015	13 Feb 2015 to 12 Aug 2015	Valid
	GW-RS0144-15	12 Feb 2015	13 Feb 2015 to 12 Aug 2015	Valid

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
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

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
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-RS1259-14	7 Nov 2014	9 Nov 2014 to 3 May 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-169	9 Feb 2015	8 Aug 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	Expired
	EP/MD/15-215	3 Feb 2015	7 Mar 2015	Valid
Dumping Permit (Type 3) – Special Treatment	EP/MD/15-194	5 Jan 2014	5 Feb 2015	Expired

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 4.1**.

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 7 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:

- 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.
- 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-Wanchai 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 9, 10, 11, 12, 13 and 26 February 2015 during day time and on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no major noise generating construction activities were undertaken by the Contractor on 9, 10, 11, 12, 13 and 26 February 2015 while breaking works and excavation works was observed across February 2015 at the construction site located next to the concerned monitoring station. In view of the above, the exceedances were considered to be non-Project related and contributed by nearby non-CWB construction site works. On 20 February 2015, no construction works conducted at

the concerned location during the recorded period and the exceedance were considered to be non-Project related and contributed by pyrotechnic display.

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.

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 action level exceedance was recorded at CMA5b on 7 February 2015 during 24hr TSP monitoring in the reporting month.

5.3.3. After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust 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. Two action level and one limit exceedances were recorded at CMA5b on 9 February 2015 during 1hr TSP monitoring in the reporting month.

5.3.5. After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust 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.

5.3.6. 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

5.3.7. 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

- 5.3.8. 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/2009/15 - 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.

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. 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. HK/2012/08- Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai West

- 5.3.13. The proposed division of air monitoring stations are summarized in **Table 5.10** below.

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

Station	Description
CMA5b	Pedestrian Plaza

- 5.3.14. One action level exceedance was recorded at CMA5b on 7 February 2015 during 24hr TSP monitoring in the reporting month.
- 5.3.15. After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust 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.
- 5.3.16. Two action level and one limit level exceedances were recorded at CMA5b on 9 February 2015 during 1 hr TSP monitoring in the reporting month.
- 5.3.17. After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust 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 Chinese New Year Holiday and no marine activities will be conducted under all WDII-CWB contracts according to the information provided by the Contractor(s), the water quality monitoring event at all WQM stations was cancelled on 20 February 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 5.16 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.
- 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	0	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	1	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	1	0	2
Total		0	1	0	2

- 5.4.40. There were no action level exceedance and 3 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 *	2804	241292 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	0	150052 (Bulk volume)	East of Sha Chau

5.5.4. There were marine sediment Type 1 – Open Sea Disposal and no 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 disposed, m ³	NIL	141579.2	Tuen Mun Area 38	NIL
	NIL	65216	TKO137 FB	NIL

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
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	NIL (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	NIL (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 Geosynthetic Containers) , m ³	NIL (Bulk Volume)	2,760 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

- 5.5.6. There were no 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) , m ³	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	2086	3886	TM38

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
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)	NIL	27760	Brothers Island
Marine Sediment (Type 3 – Special Treatment)	NIL	7780	Brothers Island

5.5.12. There was no Type 1 – Open Sea Disposal, 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 Road 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 9, 10, 11, 12, 13 and 26 February 2015 during day time and on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no major noise generating construction activities were undertaken by the Contractor on 9, 10, 11, 12, 13 and 26 February 2015 while breaking works and excavation works was observed across February 2015 at the construction site located next to the concerned monitoring station. In view of the above, the exceedances were considered to be non-Project related and contributed by nearby non-CWB construction site works. On 20 February 2015, no construction works conducted at the concerned location during the recorded period and the exceedance were considered to be non-Project related and contributed by pyrotechnic display.

6.3 Air Monitoring

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

- 6.3.1 One action level exceedance was recorded at CMA5b – Pedestrian Plaza on 7 February 2015 during 24hr TSP monitoring and two action level and one limit level exceedances were

recorded at CMA5b – Pedestrian Plaza on 9 February 2015 in the reporting month. Ambient air pollutant concentration and nearby traffic exhaust were 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 No exceedance was recorded in the reporting month.

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. No exceedance was recorded in the reporting month.

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

6.2.2. One action level exceedance was recorded at CMA5b – Pedestrian Plaza on 7 February 2015 during 24hr TSP monitoring and two action level and one limit level exceedances were recorded at CMA5b – Pedestrian Plaza on 9 February 2015 in the reporting month. Ambient air pollutant concentration and nearby traffic exhaust were 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 occasionally DO exceedances at Ex-WPCWA SE recorded on 7, 24 and 26 February 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 7, 24 and 26 February 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.
- 6.4.6 There was turbidity exceedance at C7 recorded on 7 February 2015.
- 6.4.7 After checking with Contractor, no marine works were conducted in the vicinity of the water quality monitoring station. In view of the exceedance was not continuous and low suspended solid level recorded during monitoring, it was considered no significant suspended solid impact which may affect cooling water intake operation and the exceedance is not project related.

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

- 6.4.8 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

- 6.4.9 No exceedance was recorded in this reporting month.

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

- 6.4.10 There was turbidity exceedance at C7 recorded on 7 February 2015.
- 6.4.11 After checking with Contractor, no marine works were conducted in the vicinity of the water quality monitoring station on 7 February 2015. Contractor's mitigation measures including implementation of silt screen was found in order during monitoring. In addition, suspended solid level recorded during monitoring was found well below action level indicating no significant suspended solid impact which may affect cooling water intake operation. In view of the above findings and the exceedance was non-continuous, the exceedance was considered not related to the Project. Nevertheless, Contractor was reminded to maintain regular checking and cleaning for the silt screen and water holding tank of the diversion scheme to avoid any potential particulates concern within silt screen and water holding tank to safeguard the water quality for the cooling water intake station.

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, removal of rock armour, and socket H piling works were performed in February 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 foundation 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 based bored pilling 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. Five site inspections for Contract no. HK/2009/01 were conducted on 28 January 2015, 4, 11, 17 and 25 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
150217_01	17-Feb-15	Drip tray shall be provided for oil container at Stage 2.	The oil containers was taken away at Stage 2.	Completion as observed on 25 Feb 2015.
150225_01	25-Feb-15	Hole of drip tray under air compressor shall be covered at Stage 3.	The hole of drip tray under air compressor is covered at Stage 3.	Completion as observed on 4 March 2015.

8.0.3. Five site inspections for Contract no. HK/2009/02 were carried out on 29 January 2015, 5, 12, 16 and 26 February 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
150129_01	29-Jan-15	Drip tray of the air compressor at Portion 2 shall be reinstated and well maintained.	Drip tray was properly reinstated and well maintained.	Completion as observed on 5 Feb 2015
150205_01	5-Feb-15	Breaker shall be covered with acoustic material at Portion 3 &4.	Breaker is covered with acoustic material at Portion 3 & 4.	Completion as observed on 12 Feb 2015
150216_01	16-Feb-15	Drip tray shall be provided for oil containers at Portion 2	Oil containers has been removed	Completion as observed on 26 Feb 2015
150216_02	16-Feb-15	Wheel washing shall be improve to avoid any muddy trail on traffic road at Portion 3 &4	Muddy trail has been cleaned	Completion as observed on 26 Feb 2015
150226_01	26-Feb-15	Provide Noise Emission Label to the air compressor (Portion 2)	Noise emission label for the air compressor was provided at Portion 2.	Completion as observed on 5 Mar 2015

8.0.4. Four site inspections for Contract no. HY/2009/15 were carried out on 3, 10, 17 and 24 February 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
150203_1	3-Feb-2015	Collect floating refuse more frequently (EX-PCWA)	Floating refuses was collected	Completed as observed on 10 February 2015
150210_1	10-Feb-2015	Provide mitigation measure to prevent earth falling into water and cause contamination to the nearby water (EX-PCWA)	No further transfer work at the concerned location was observed and no residue mud at seawall was observed	Completed as observed on 17 February 2015
150217_1	17-Feb-2015	Block the surface runoff point and provide proper collection for concrete washing runoff to prevent contaminating nearby water	Surface runoff point was plugged to avoid runoff.	Completed as observed on 9 March 2015
150224_1	24-Feb-2015	Provide drip tray for oil container and provide proper collection for chemical waste (TZ4)	Oil containers were removed.	Completed as observed on 9 March 2015

- 8.0.5. Five site inspections for Contract no. HY/2009/19 were carried out on 28 January 2015, 4, 10, 17 and 26 February 2015 in reporting month. No particular finding was observed in the reporting month.
- 8.0.6. Four site inspections for Contract no. HK/2012/08 were carried out on 3, 10, 17 and 26 February 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
150210_01	10-Feb-15	Breaker shall be covered with acoustic material while operating at Portion 2.	Breaker were covered with acoustic material at Portion 2.	Completion as observed on 17 Feb 2015
150217_01	17-Feb-15	Construction effluent generated from socket H pile construction works shall be properly collected and treated to avoid any water contamination at nearby waterbody.	Additional silt curtain was deployed around the works area and no effluent was observed at nearby waterbody.	Completion as observed on 26 Feb 2015
150217_02	17-Feb-15	Oil container shall be properly handle on site area with drip tray at Portion 2.	Oil containers were taken away at Portion 2.	Completion as observed on 26 Feb 2015
150226_01	26-Feb-15	Silt curtain shall be properly deployed and regulary maintain in good condition to enclose the socket H pile works activities and to safeguard the water quality.	Silt curtain was properly deployed.	Completion as observed on 3 March 2015

8.0.7. Five site inspections for Contract no. HY/2010/08 were carried out on 29 January 2015, 5, 12, 16 and 26 February 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
150129_1	29-Jan-15	Surface runoff should be properly collected and transferred to treatment plant to avoid direct runoff (TS3)	Drainage was provided for collection of surface runoff for treatment	Completion as observed on 5 February 2015
150205_1	5-Feb-15	Integrity of silt curtain shall be critically checked to avoid seepage impermeable barrier shall be provided to the outer layer in addition to the silt curtain provided (TS3)	Impermeable barrier was provided to the outer layer in addition to the silt curtain provided (TS3)	Completion as observed on 12 Feb 2015
150205_2	5-Feb-15	Floating refuses shall be collected (TS3)	Floating refuses was cleared at TS3	Completion as observed on 12 Feb 2015
150212_1	12-Feb-15	The condition and integrity of the inner layer silt curtain shall be properly maintained to avoid seepage and the outer layer shall be properly place to enclose the gap between seawall to avoid muddy seepage (TS3)	The condition of inner layer silt curtain was improved. Outer layer silt curtain properly placed to avoid muddy seepage	Completion as observed on 16 Feb 2015
150212_2	12-Feb-15	Floating refuses shall be collect around the seawater intake location and the silt curtain provided for the silt screen shall be properly maintained	Floating refuses was clear at TS3	Completion as observed on 16 Feb 2015
150226_1	26-Feb-15	Collect floating refuses around silt screen and within silt screen and improve the silt screen condition to prevent the accumulation of floating refuses (TS3)	Floating refuses was cleared at TS3	Completion as observed on 5 Mar 2015

9. Complaints, Notification of Summons and Prosecution

9.0.1. There was no environmental complaint received in the reporting month..

9.0.2. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 9.1**

9.0.3. 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	35
February 2015	0
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

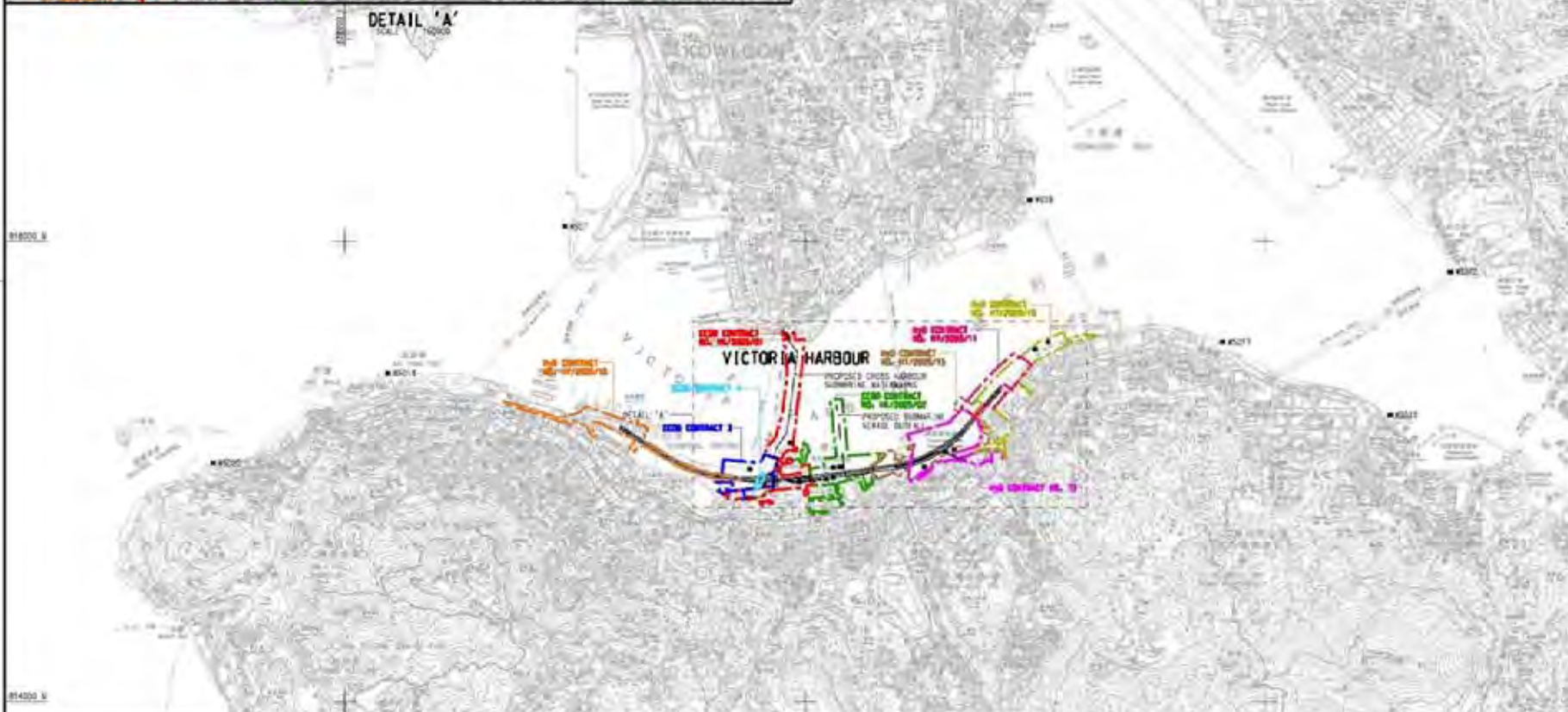
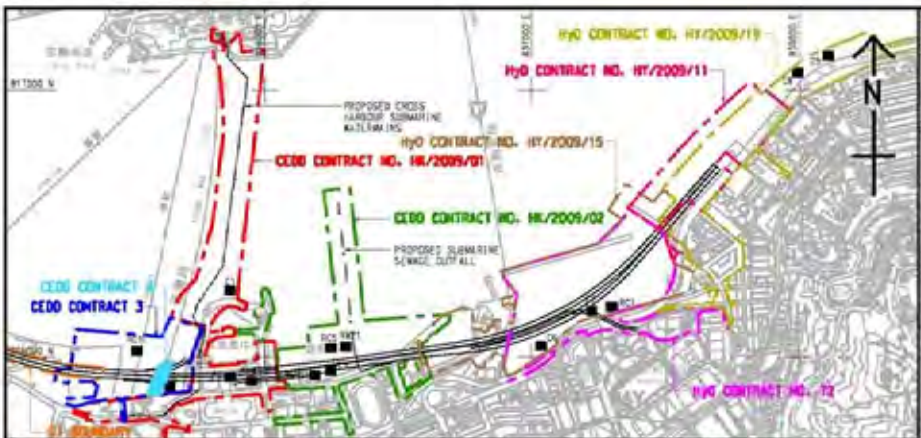
Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2009/01	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil
HK/2009/02	<ul style="list-style-type: none"> Install Seawall caisson fabrication at PRC Reclamation works at WCR3 	<ul style="list-style-type: 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"> Reinstatement of existing bermstone and seawall at TS4 Reinstatement of seabed at TS4 Reinstatement of existing seawall at TPCWAE 	<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.
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.

Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2012/08	<ul style="list-style-type: none"> • Placing of levelling stones • Dry dock construction • Formation of rock bund • Filling works • Installation of caisson seawall • Casing installation on temporary piling platform 	<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 • Pre-treatment works • Bar fixing works • Diaphragm Wall and Barrette construction works • Fill Disposal 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 GARDEN
 - 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. SAN
 - #6210 CHA KWO LING
 - #6215 SA. SAN ISD
 - #6217 CLARRY BAY
 - #6219 SWING WAYS
 - #6220 KENNEDY TOWER

DESIGNATED PROJECT'S TOP	WORK CONTRACT	DESIGNATED PROJECT NUMBER	COMPLETION (APPROXIMATE)
SP1 - CENTRAL WAN CHAI STRAITS CROSSING INCLUDING ITS ROAD TUNNEL AND SLIP ROADS	CEDD CONTRACT NO. HK/2009/01	SP1 - SP3 - SP6	APRIL 2010
SP2 - ROAD P2 AND OTHER ROADS (PRIMARY & DISTRICT DISTRIBUTION ROADS)	CEDD CONTRACT NO. HK/2009/02	SP1 - SP3 - SP5	APRIL 2010
SP3 - PERMANENT AND TEMPORARY REDUNDANT WORKS INCLUDING ASSOCIATED DREDGING WORKS IN WAN CHAI DEVELOPMENT PHASE 1T / WSD1T AREA	CEDD CONTRACT 3	SP1 - SP3	END 2011
SP4 - TEMPORARY BRIDGE-SHELTER / SP4 NOT TO BE IMPLEMENTED	CEDD CONTRACT 4	SP1 - SP3	END 2011
SP5 - WAN CHAI EAST SEWAGE DUTY ALL	CEDD CONTRACT 5	SP3	2010
SP6 - DREDGING FOR THE CROSS-HARBOUR WATER MAINS	HYD CONTRACT NO. HY/2009/11	SP3	18 AUGUST 2009
	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



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

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II, P20 CENTRE - SANITARY AND SEWERAGE INFRASTRUCTURE 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 OIL 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 lines /]	PORTION NPR1A	[Diagonal lines \]	PORTION NPR4B
[Horizontal lines]	PORTION NPR2	[Vertical lines]	PORTION NPR5A
[Diagonal lines /]	PORTION NPR3	[Diagonal lines \]	PORTION NPR5B
[Dotted pattern]	PORTION NPR4	[Cross-hatch pattern]	PORTION NPR5C
[Diagonal lines /]	PORTION NPR5	[Diagonal lines \]	PORTION NPR5D
[Vertical lines]	PORTION NPR6	[Diagonal lines /]	PORTION NPR5E

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. 圖紙編號	60095653/NP/1651B
DESIGNED BY 設計人	TTF
CHECKED BY 校核人	CJH
DATE 日期	AT 17 2009
SCALE 比例	AS SHOWN
ISSUED BY 發出人	WORKING DRAWING
DATE 日期	11/2009/11
APPROVED BY 核准人	CW
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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	DATE: 21/11/09
TENDER ADDENDUM NO. 1	DATE: 21/11/09
TENDER DRAWING	DATE: 21/11/09

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/C1/100/1010B
DATE 日期	16/2009/01
SCALE 比例	AS 1:8000
COPYRIGHT RESERVED	



INSET 'A'
SCALE 1 : 1000

CENTRAL DISTRICT



EIA-141/2007
DP3

HKCEC (Western Part)

HKCEC (Middle Part)

HKCEC (Eastern Part)

INT	COORDINATES	
	EASTING	NORTHING
C41	835986.528	818105.708
C42	835979.417	818104.408
C43	835963.943	818079.326
C44	835963.543	818086.581
C45	835964.818	818085.528
C46	835965.524	818085.514
C46	835953.757	818081.208
C47	835954.956	818082.441
C48	835960.846	818079.887
C49	835961.347	818077.238
C50	835976.828	818066.814
C51	835984.478	818080.846
C52	835975.226	818089.224
C53	835971.504	818077.897
C54	835975.827	818084.764
C55	835973.745	818079.883
C56	835991.071	818078.764
C56-1	835995.679	818078.873
C56-2	835982.468	818078.765
C56-3	835987.248	818182.758
C57	835983.403	818181.878
C58	835978.498	818087.198
C59	835978.574	818083.818
C60	835978.507	818120.748
C61	835990.881	818184.524
C62	835923.438	818171.812
C63	835923.504	818280.748
C64	835923.818	818276.507

INT	COORDINATES	
	EASTING	NORTHING
C65	836028.933	818413.438
C66	836034.000	818413.614
C67	836022.816	818413.240
C68	836019.515	818413.882
C69	836021.110	818414.000
C70	836027.289	818413.882
C71	836041.050	818413.270
C72	836048.415	818407.187
C72-1	835555.589	818106.587
C73	836047.435	818385.890
C74	836049.797	818374.107
C75	836024.185	818382.148
C76	836038.298	818388.000
C77	836048.906	818382.888
C78	836048.439	818374.038
C79	836042.630	818351.015
C80	836024.635	818328.880
C81	836028.417	818308.182
C82	836028.882	818378.148
C83	836107.025	818328.084
C84	836098.473	818322.444
C85	836092.342	818348.714
C86	836084.499	818348.925
C87	836084.196	818348.388
C88	836082.512	818348.142
C89	836078.987	818345.898
C90	836077.630	818347.198

CUT LINE B-B
SEE AT DRAWING NO. 60041297/C1/100/1006



KEY PLAN
SCALE 1 : 10000

NOTE:
1. FOR NOTES & LEGEND, REFER TO DRAWING NO. 60041297/C1/100/1006.

INT	COORDINATES	
	EASTING	NORTHING
C1	836879.205	818222.558
C2	836879.271	818222.299
C3	836874.561	818228.425
C4	836871.020	818231.014
C5	836882.492	818229.522
C6	836881.584	818218.612
C7	836886.585	818215.197
C8	836886.195	818217.147
C9	836886.433	818232.247
C10	836891.082	818207.050
C11	836885.389	818208.075
C12	836877.486	818208.107
C13	836923.468	818204.817
C14	836886.433	818217.122
C15	836874.285	818228.500
C16	836875.195	818228.525
C17	836888.138	818204.441
C18	836846.085	818208.816
C19	836871.421	818206.587
C20	836902.537	818220.881
C21	836875.295	818217.484
C22	836873.182	818218.445
C23	836867.086	818208.074
C24	836876.984	818221.675
C25	836875.280	818228.251
C26	836881.647	818212.286
C27	836904.025	818243.836
C28	836906.218	818244.445
C29	836901.525	818208.180
C30	836883.781	818208.487
C31	836837.216	818228.470
C32	836824.142	818225.117
C33	836821.081	818228.482
C34	836826.290	818228.700
C35	836827.428	818228.256
C36	836868.187	818228.280
C37	836824.812	818228.280
C38	836824.747	818228.280
C39	836828.850	818218.134
C40	836818.190	818228.257
C41	836828.810	818228.280
C42	836818.190	818228.280
C43	836828.810	818228.280
C44	836828.810	818228.280
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C47	836828.810	818228.280
C48	836828.810	818228.280
C49	836828.810	818228.280
C50	836828.810	818228.280

C	TENDER ADDENDUM NO.4	SHEN JYL SEP 08
B	TENDER ADDENDUM NO.2	SHEN JYL SEP 08
A	TENDER ADDENDUM NO.1	SHEN JYL SEP 08
-	TENDER DRAWING	SHEN JYL AUG 08
00	REVISION	SHEN JYL SEP 08

土木工程師註冊
Civil Engineering and
Development Department

WAN CHAI DEVELOPMENT PHASE II

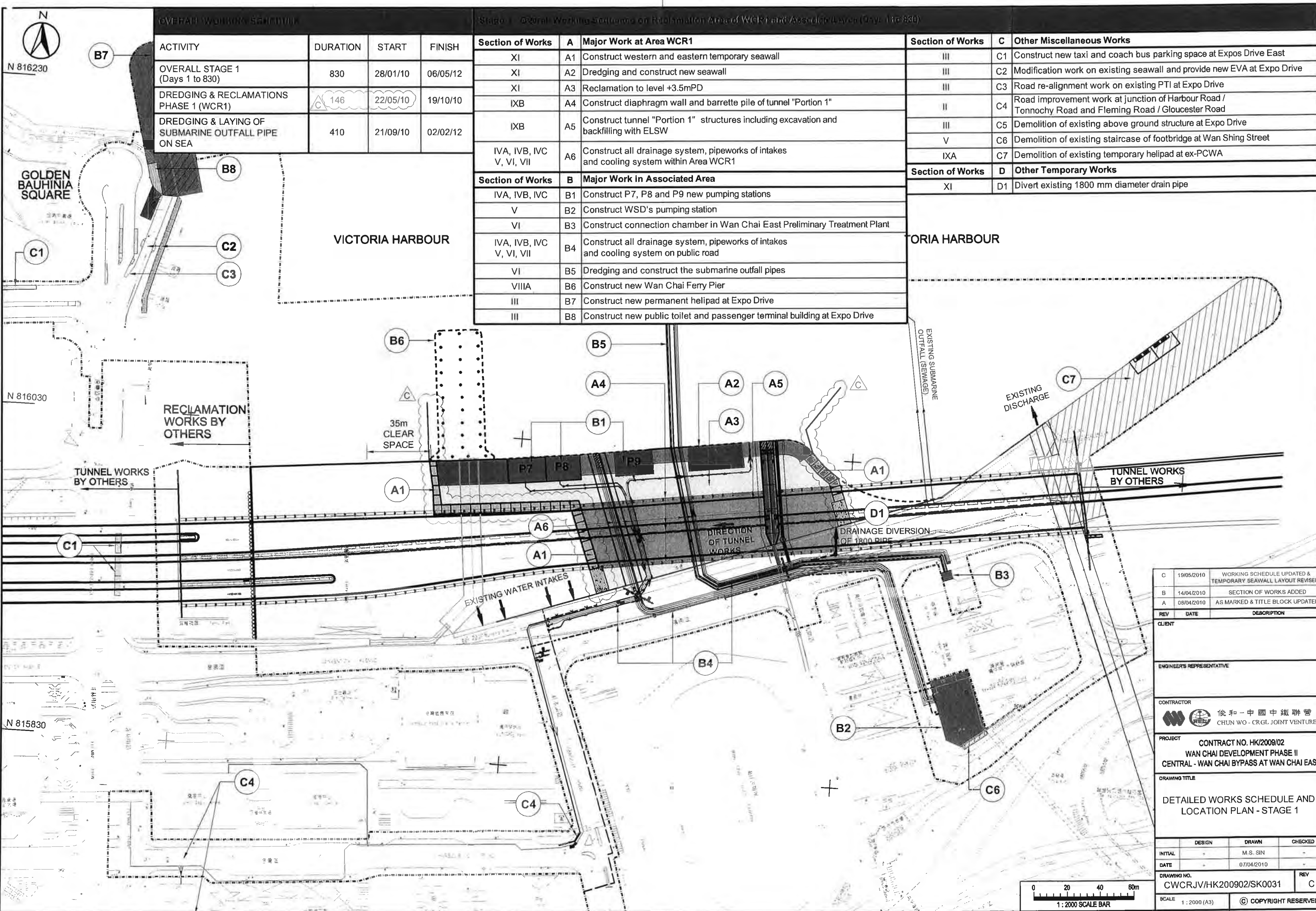
WAN CHAI DEVELOPMENT PHASE II -
CONTRACT NO. HK/2009/01
HONG KONG CONVENTION AND EXHIBITION CENTRE

SITE BOUNDARY
SETTING OUT PLAN
(Contract no. Hk/2009/01)

AECOM

DRGNO.
圖號
60041297/C1/100/1006C

SCALE	1:1000	DATE	08/2009/01	PROJECT	WAN CHAI
DRAWN BY	WJL	CHECKED BY	WJL	DESIGNED BY	WJL
DATE	08/2009	SCALE	1:1000	PROJECT	WAN CHAI
DATE	08/2009	SCALE	1:1000	PROJECT	WAN CHAI



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 helipad 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 helipad 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

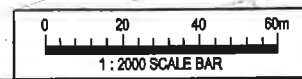
CONTRACTOR

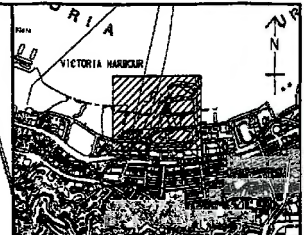
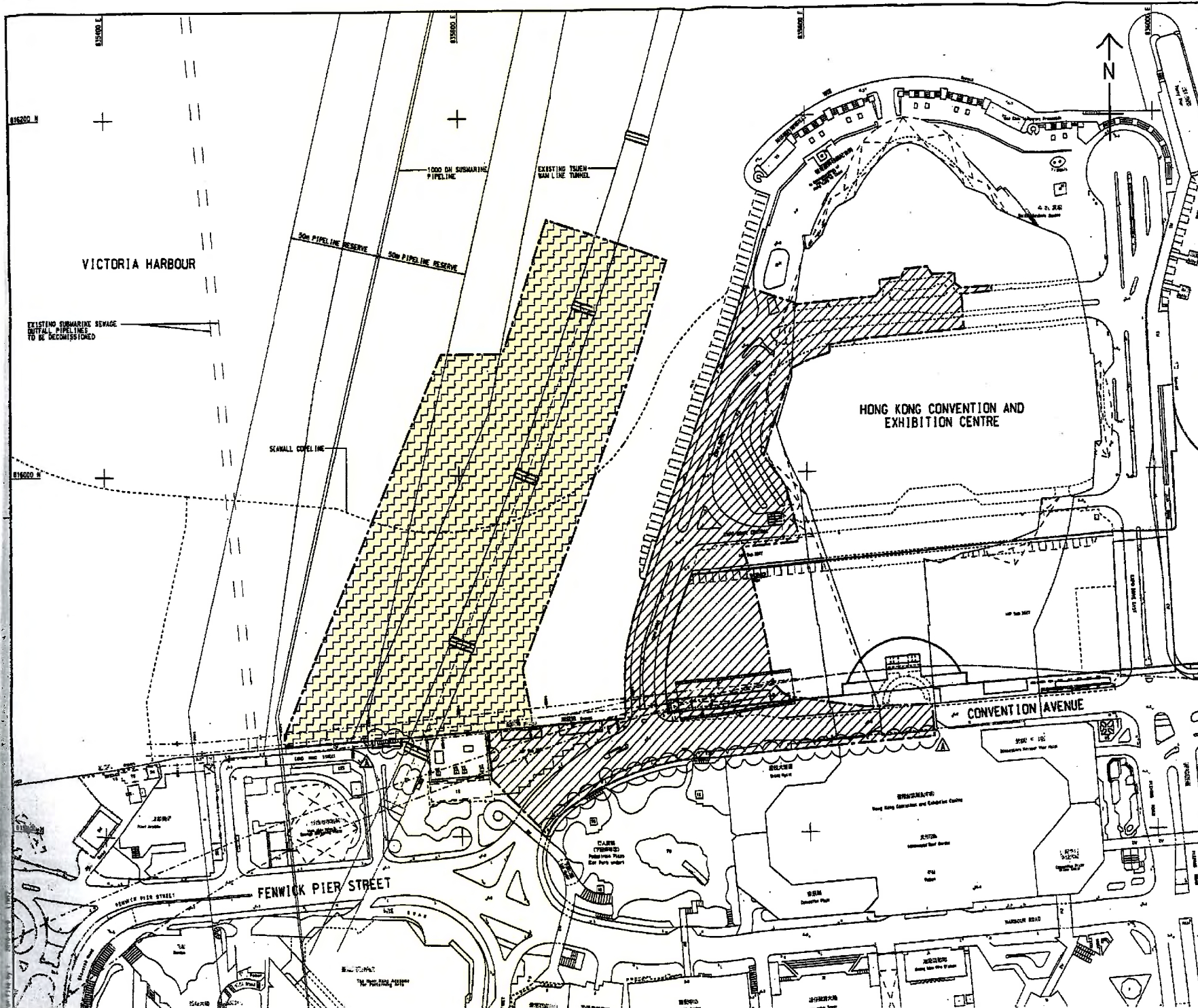
 俊和-中國中鐵聯營
 CHUN WO - CRGL JOINT VENTURE

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


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 SPARS OVER MTR TSUEN WAN LINE
PORTIONS OF THE SITE
 (Contract HK/2010/06)

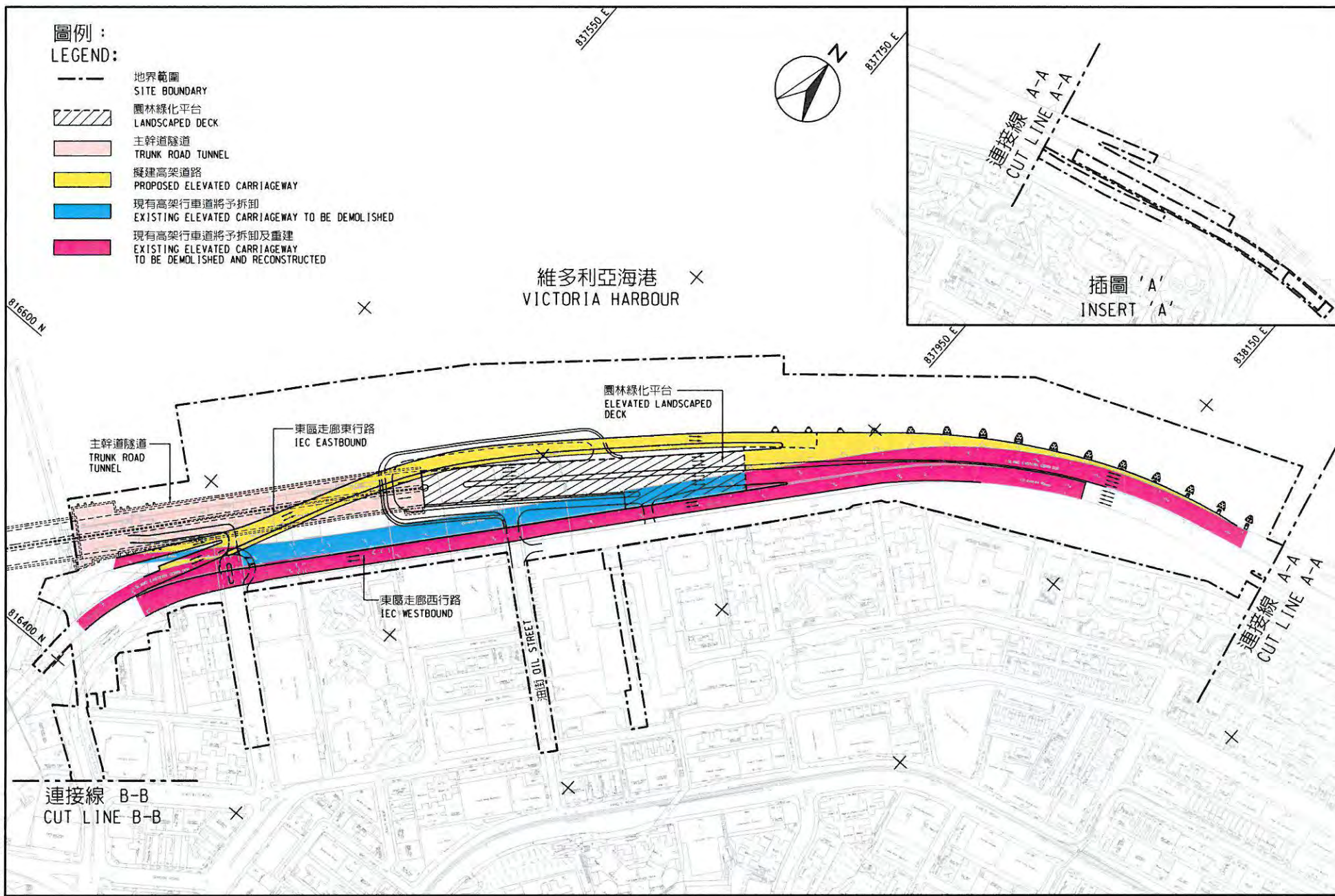
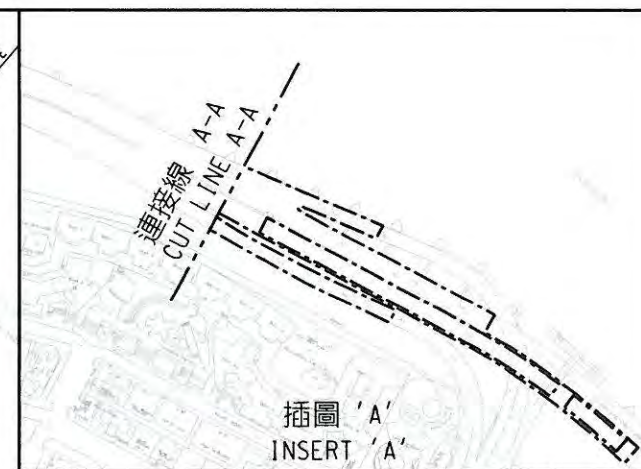
AECOM
 DRAWING NO. 60041297/C4/100/1301A
 DATE: 10/2010/06
 DRAWN BY: SWH
 CHECKED BY: TRH
 SCALE: AS SHOWN
 COPYRIGHT RESERVED

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

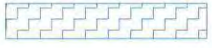
港口
HONG KONG PORT



LEGEND:



WORKS AREA



DREDGING AREA FOR
MITIGATION OF ODOUR(DP3)



SITE BOUNDARY



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

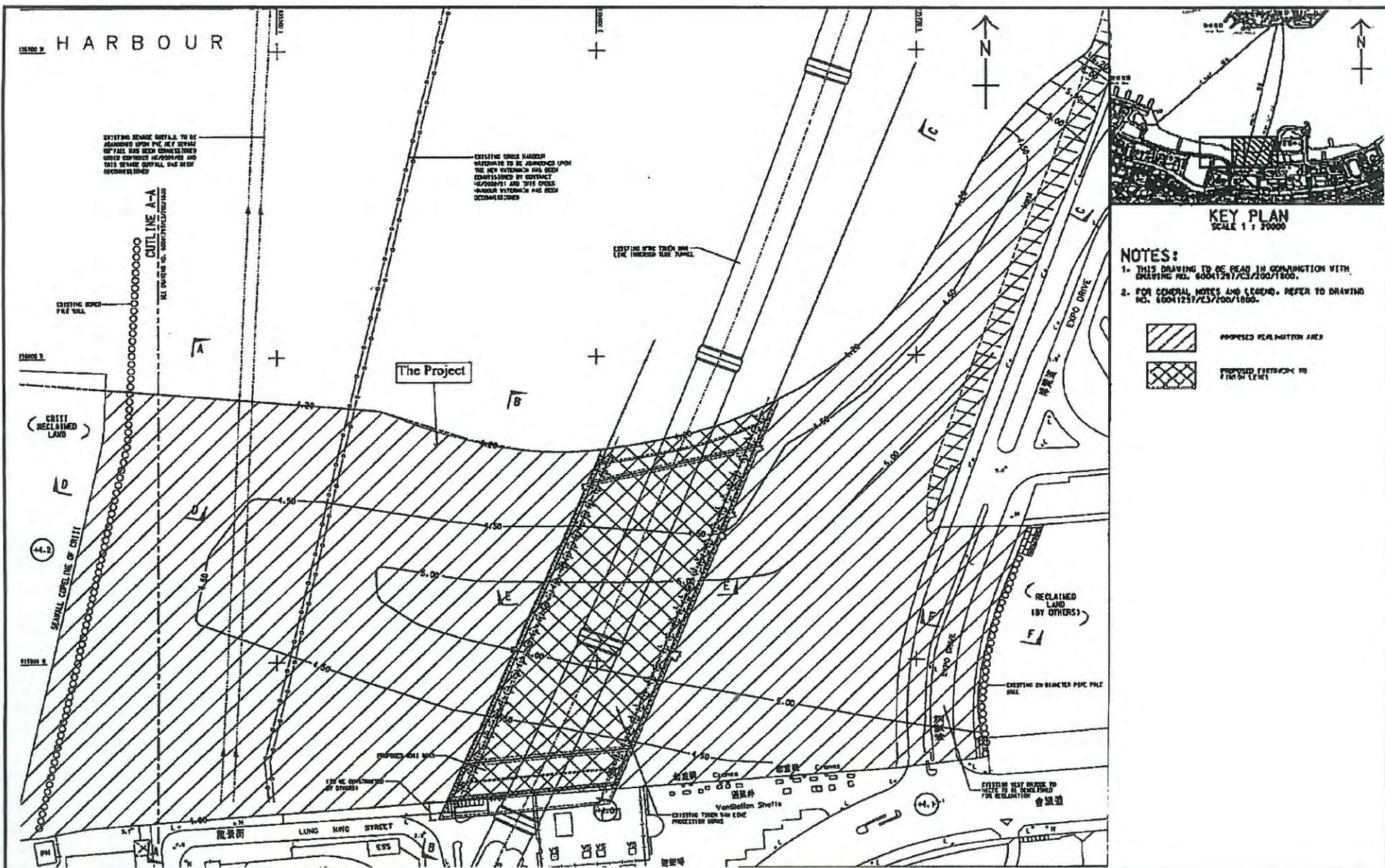
Highways Department
CONTRACT NO. HY/2009/15
CENTRAL-WAN CHAI BYPASS - TUNNEL
(CAUSEWAY BAY TYPHOON
SHELTER SECTION)

TITLE
LOCATION PLAN OF WORKS AREA

DRG. NO.
CWB/EPD/001B

SCALE
1:1000 @ A0
DIMENSIONS ARE IN
MILLIMETERS

SIMBO
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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

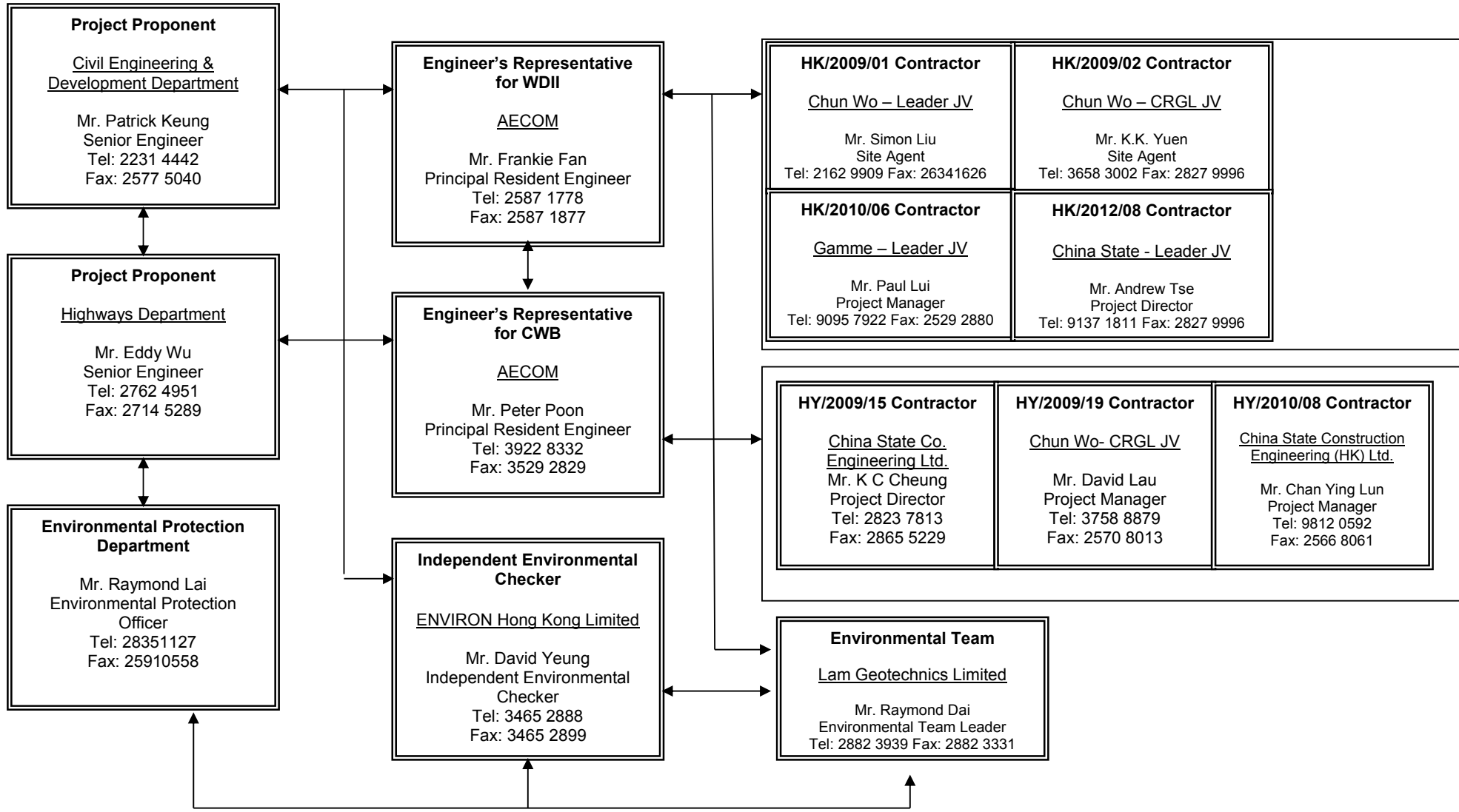
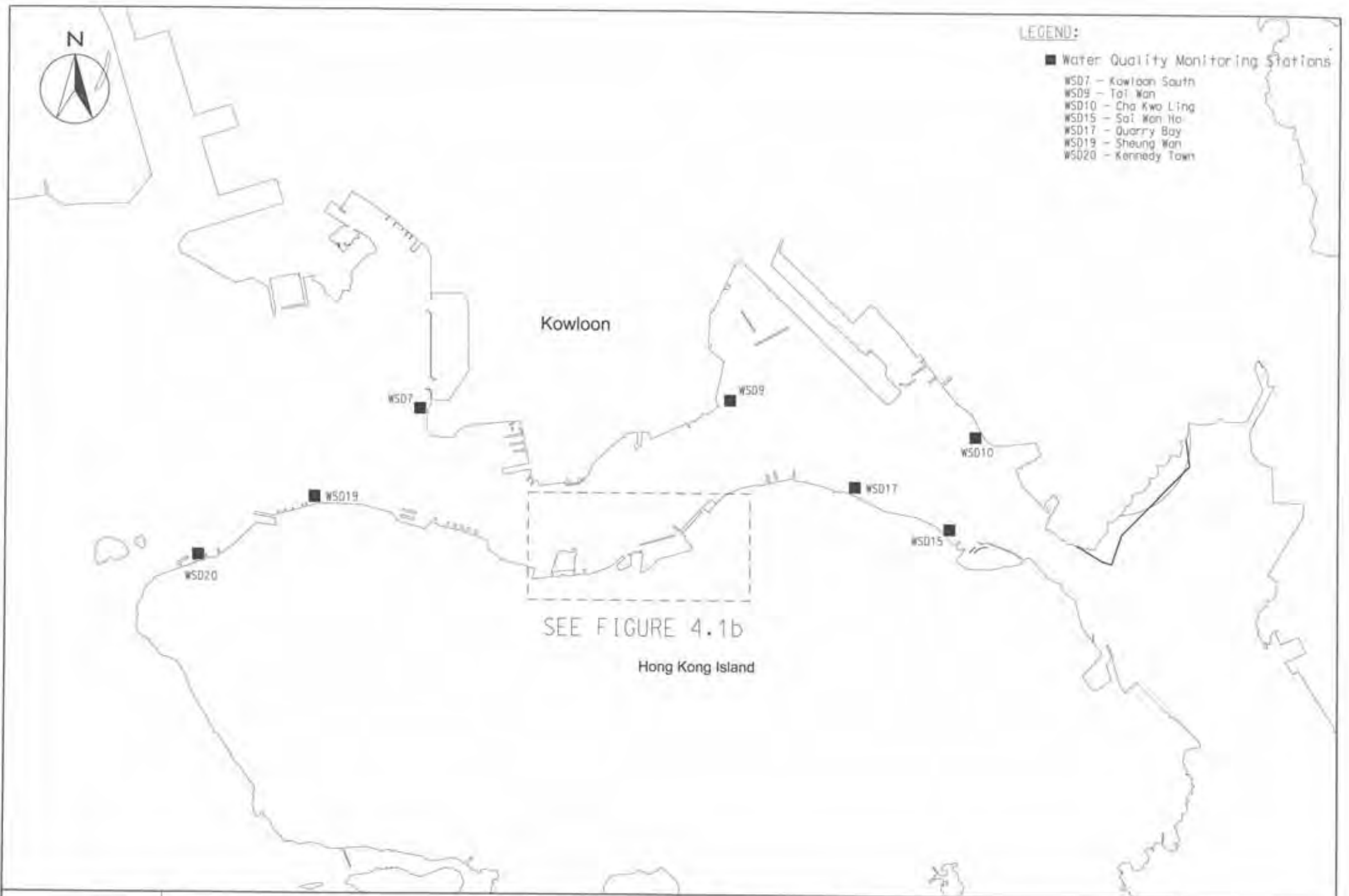
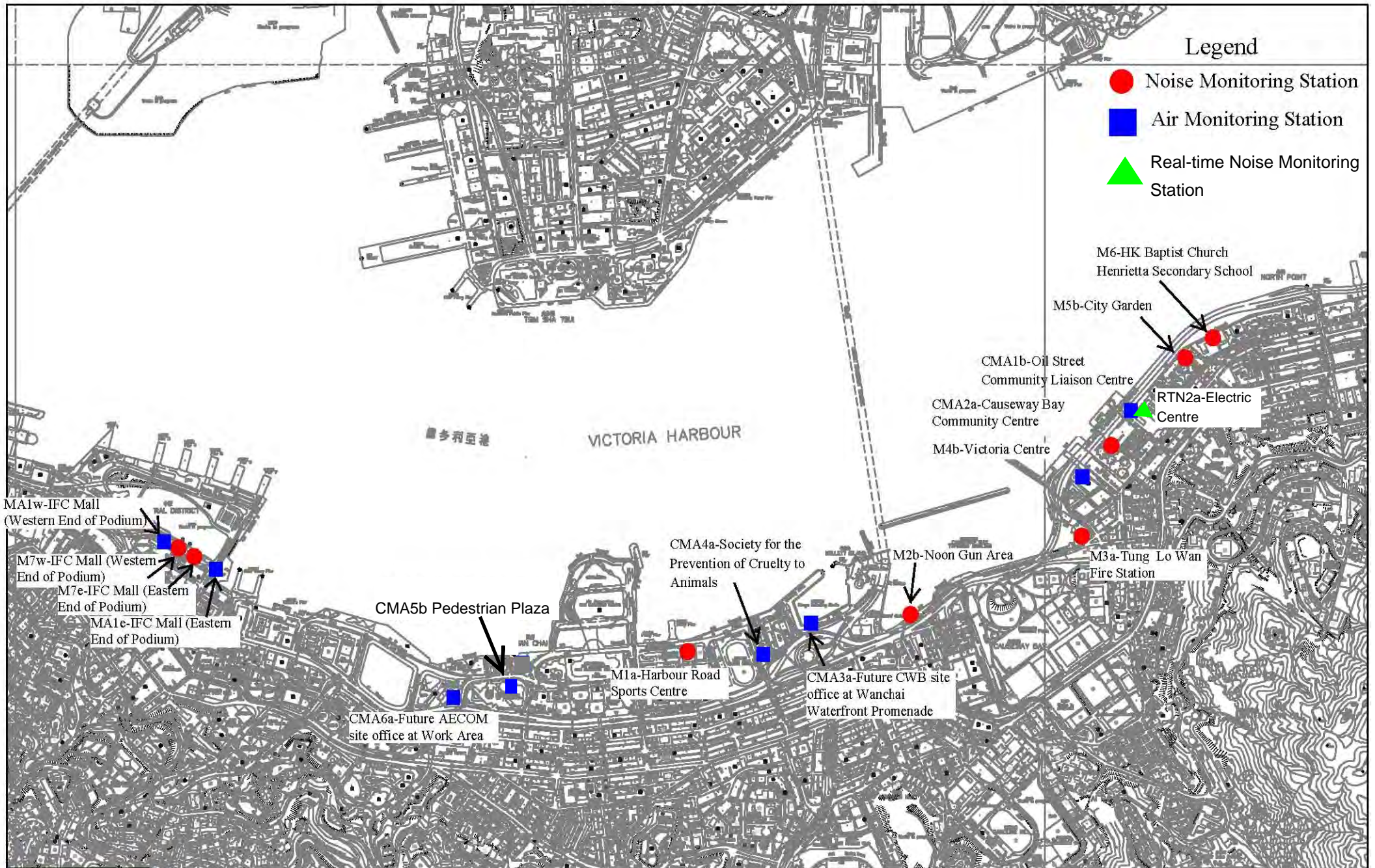




Figure 4.1

Locations of Monitoring Stations



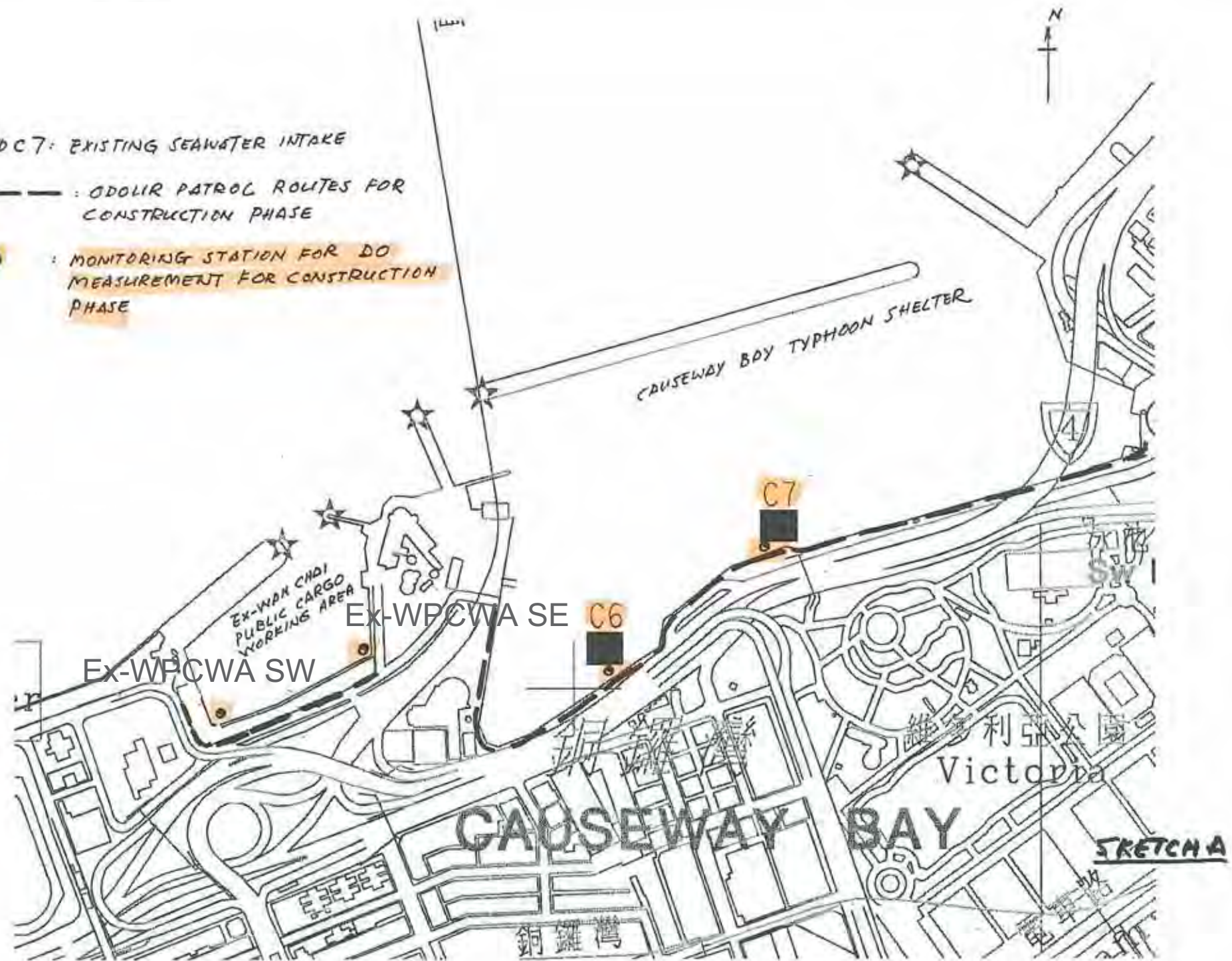


Location plan of Environmental Monitoring Stations


C6 AND C7: EXISTING SEAWATER INTAKE

— : ODOLIR PATROL ROUTES FOR CONSTRUCTION PHASE


● : MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE

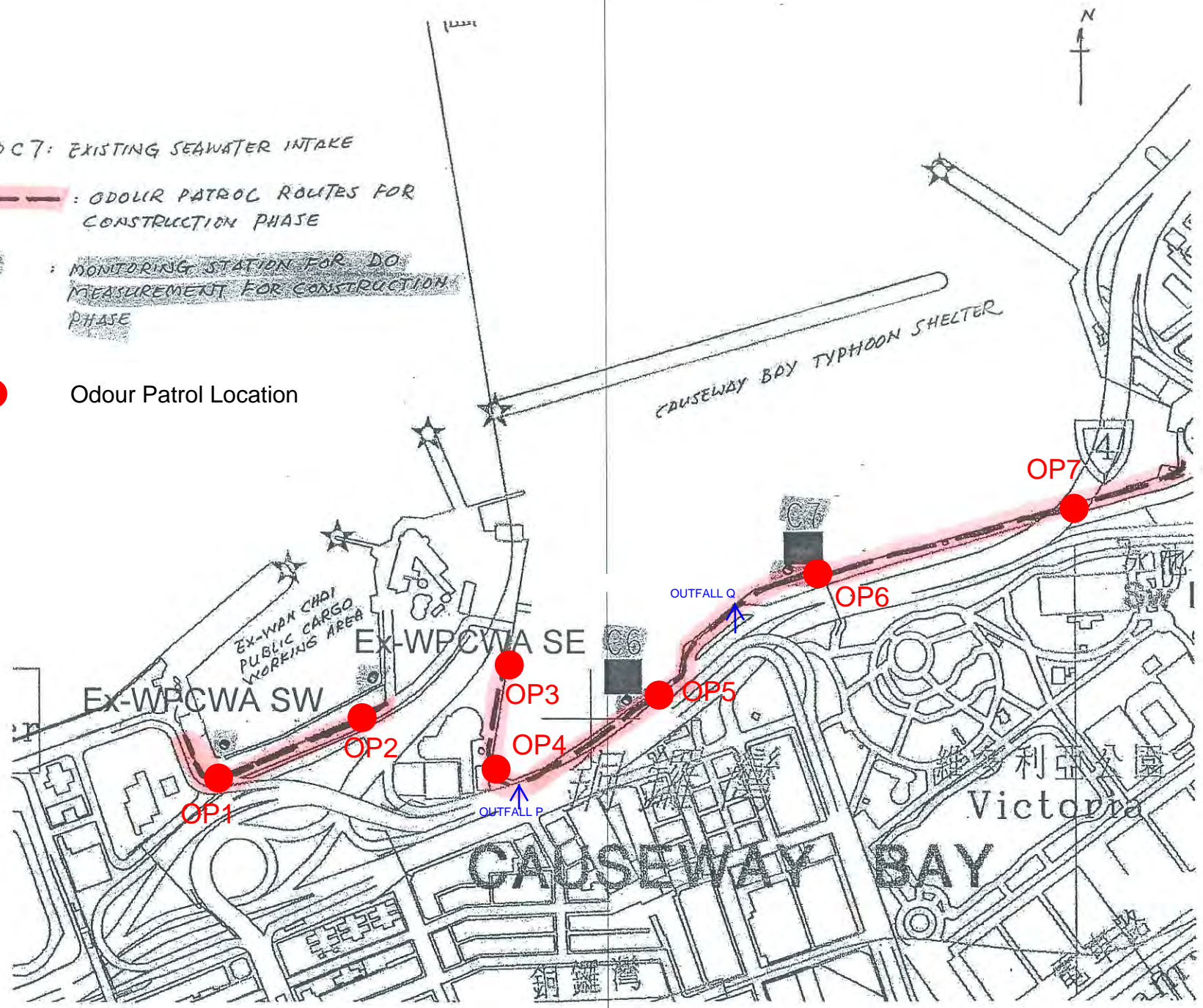


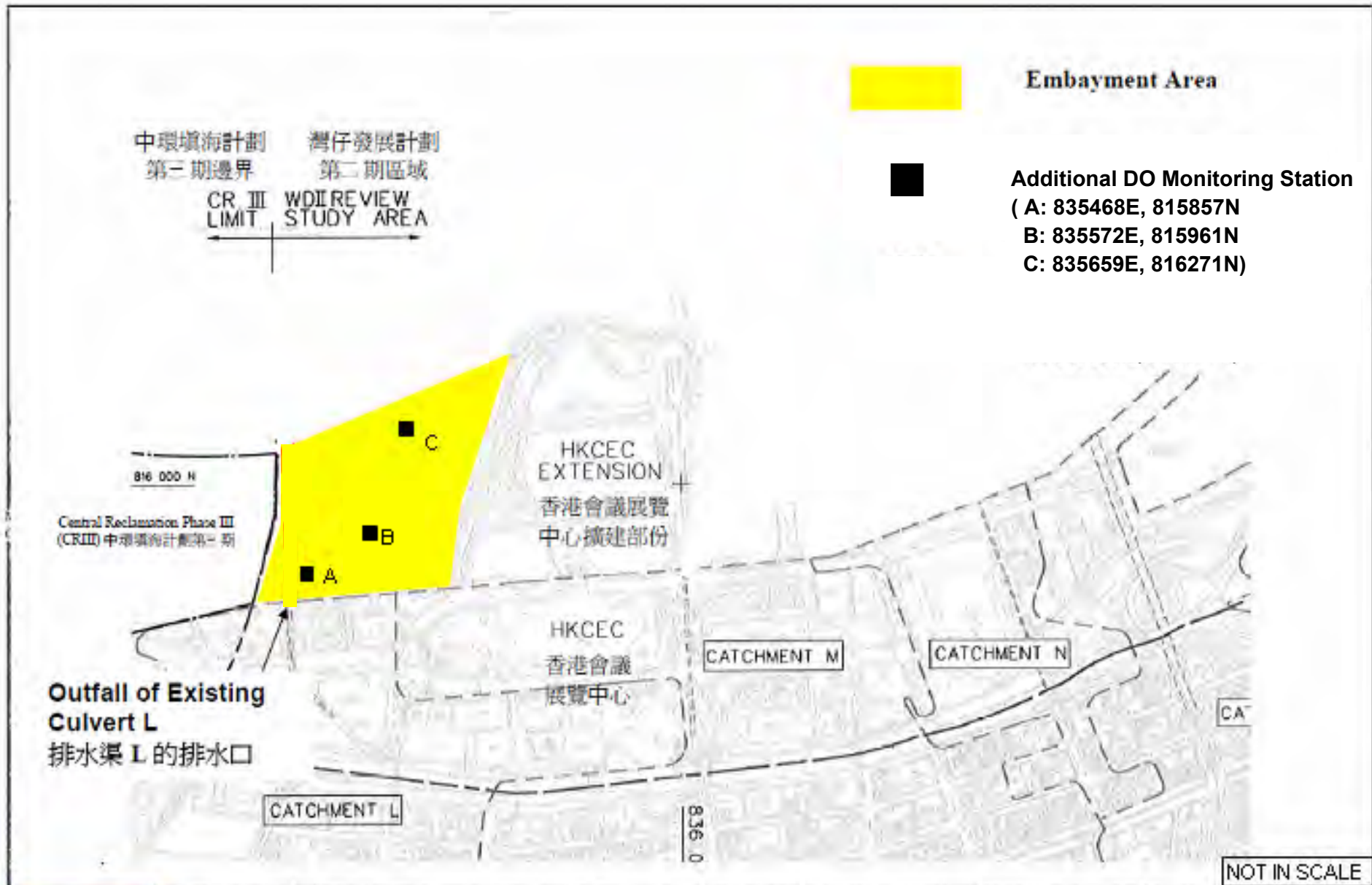
C6 AND C7: EXISTING SEAWATER INTAKE

 : ODOR PATROL ROUTES FOR CONSTRUCTION PHASE

 : MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE

 Odour Patrol Location

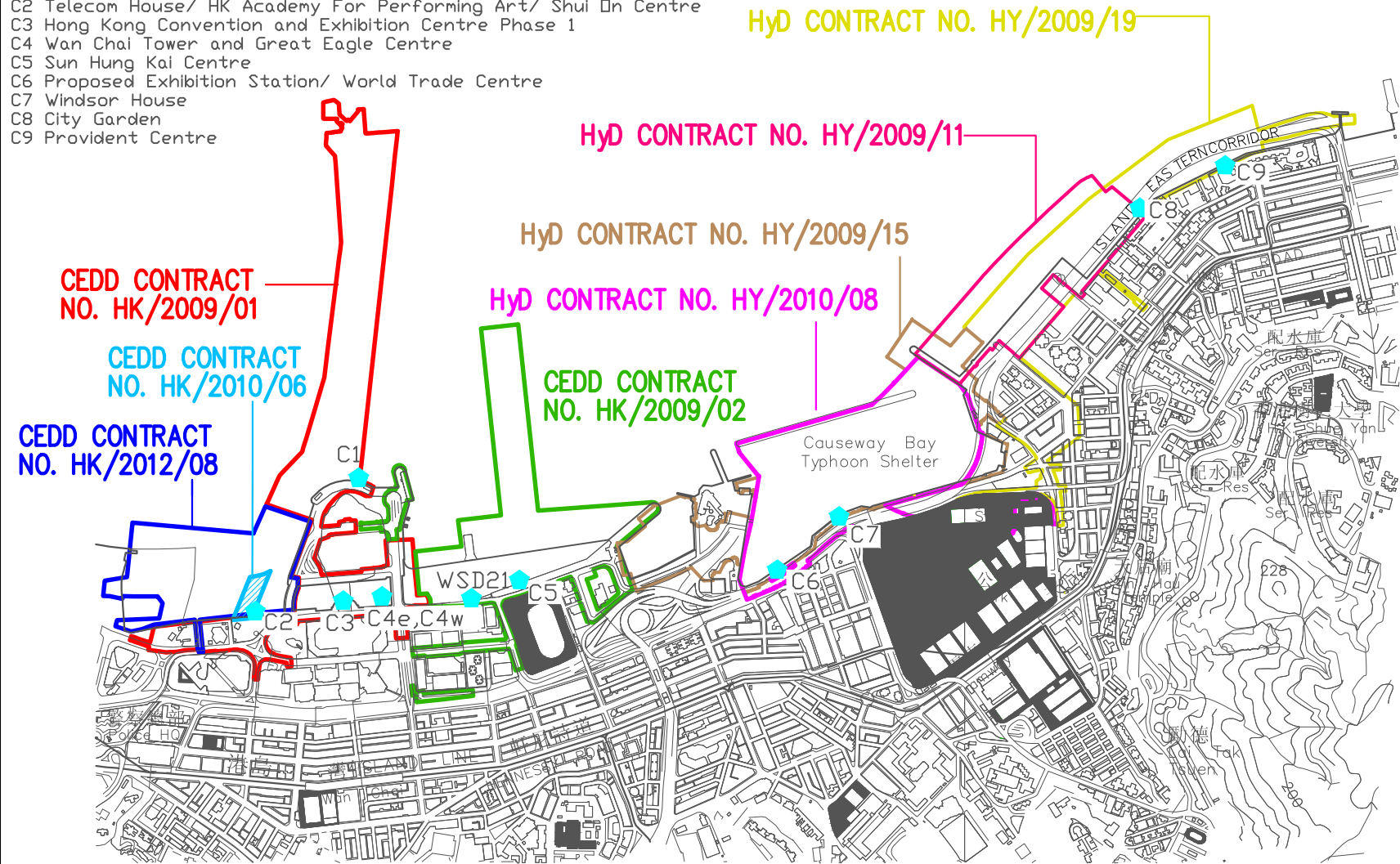




Location Plan of Additional Dissolved Oxygen Monitoring Stations for Culvert L Water Discharge Flow

Legend

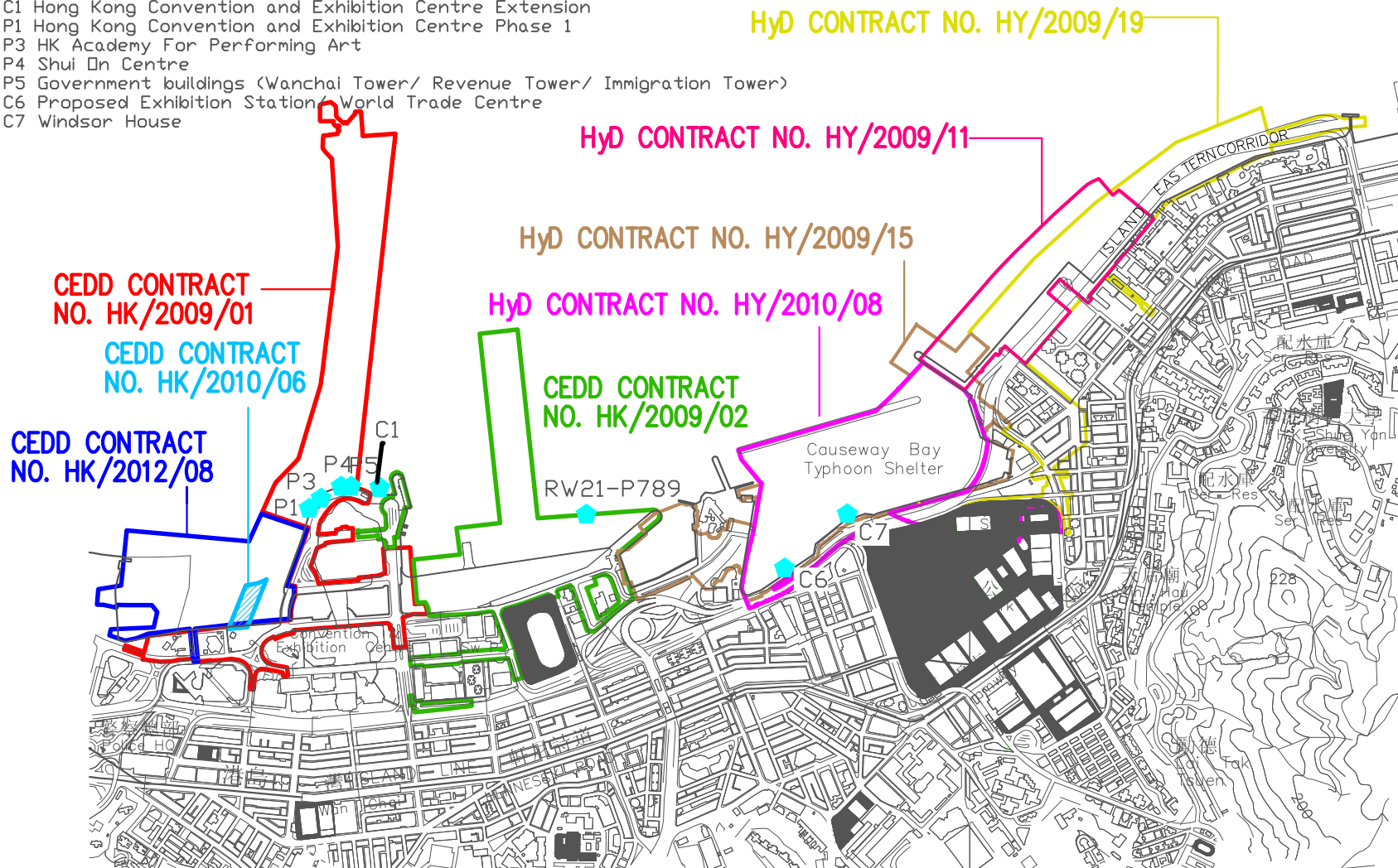
- ◆ Water Quality Monitoring Stations
- C1 Hong Kong Convention and Exhibition Centre Extension
- C2 Telecom House/ HK Academy For Performing Art/ Shui On Centre
- C3 Hong Kong Convention and Exhibition Centre Phase 1
- C4 Wan Chai Tower and Great Eagle Centre
- C5 Sun Hung Kai Centre
- C6 Proposed Exhibition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



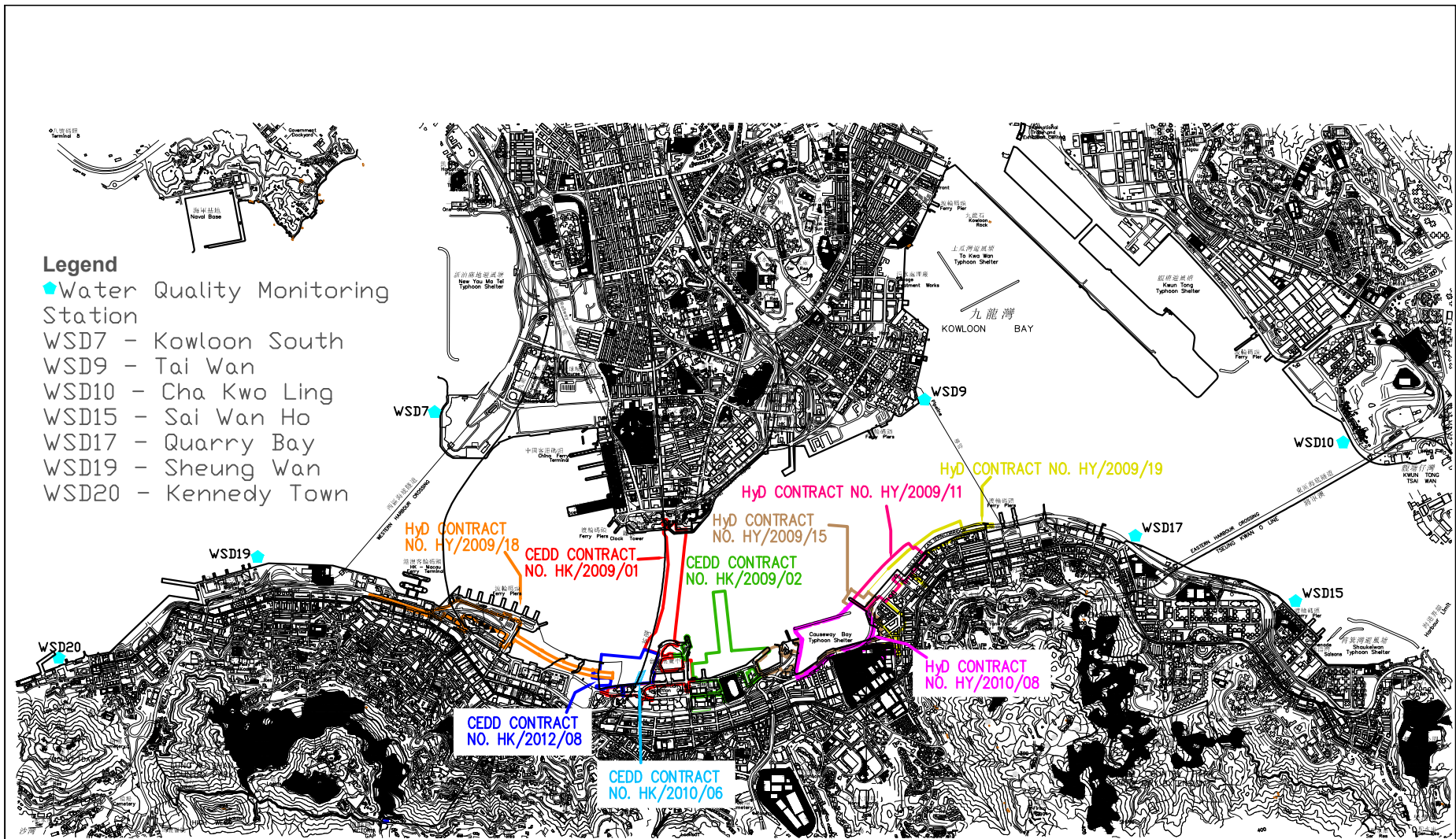
LOCATIONS OF WATER QUALITY MONITORING STATIONS

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

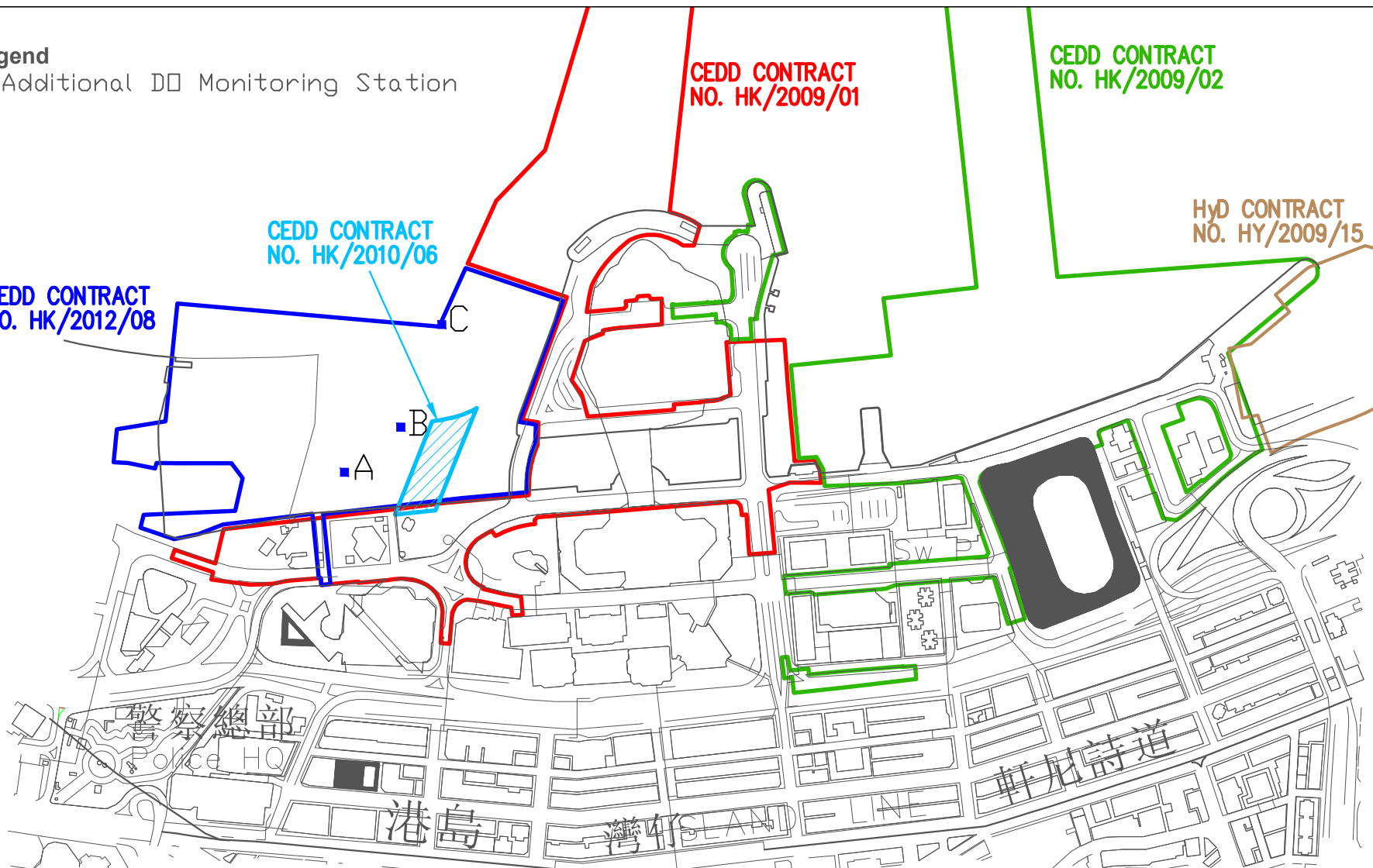
CEDD CONTRACT
NO. HK/2012/08

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	
<i>For DP5 – Wan Chai East Sewage Outfall</i>								
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
<i>For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui</i>								
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								
<i>For DP1 – CWB (Within the Project Boundary)</i>								

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>TBW</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>Shoreline Zone</td> <td>TGBR</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	TBW	94	10,500	Shoreline Zone	TGBR	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)																															
Dredging along seawall or breakwater																																	
North Point Shoreline Zone (NPR)	6,000	375	42,000																														
Causeway Bay	TBW	94	10,500																														
Shoreline Zone	TGBR	6,000	375	42,000																													
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>HKCEC Stage 1 & 3</td> <td>1,500</td> <td>94</td> </tr> <tr> <td></td> <td>HKCEC Stage 2</td> <td>6,000</td> <td>375</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)	HKCEC Stage 1 & 3	1,500	94		HKCEC Stage 2	6,000	375	Cross Harbour Water Mains	1,500	94	10,500	Wan Chai East Submarine Sewage Pipeline	1,500	94	10,500								
Wan Chai Shoreline Zone (WCR)	6,000	375	42,000																										
HKCEC Shoreline Zone (HKCEC)	HKCEC Stage 1 & 3	1,500	94																										
	HKCEC Stage 2	6,000	375																										
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	<p>Silt screens shall be applied to seawater intakes at interim construction stages as stated below:</p> <table border="1"> <thead> <tr> <th>Interim Construction Stage</th> <th>Location of Applications</th> </tr> </thead> <tbody> <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> </tbody> </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	Work site / During the construction period	Contractor		√					EIAO-TM, WPCO															
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																												

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.								
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.														
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	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.	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	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.	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</p> <p>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								

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</p> <p>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)

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

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								
<i>For the Whole Project - Schedule 3 DP</i>								
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.
<i>For DP3 - Reclamation Works</i>								
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.

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
CMA5b ^{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

This report may not be reproduced except with prior written approval from Pilot Testing Limited.

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

Phone +852 2527 6691 | Email info@pilot-testing.com

**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: SAM LAM **WORK ORDER:** HK1510067
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 25/02/2015
DATE OF ISSUE: 04/03/2015
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.:	1203010
Equipment No.:	---
Date of Calibration:	25-Feb-15

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: HK1510067
DATE OF ISSUE: 04/03/2015
CLIENT: LAM GEOTECHNICS LIMITED

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

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

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	3.98	-0.5
10	10.8	8.4
40	39.8	-0.4
100	100	0.2
400	373	-6.7
1000	964	-3.6
	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 ($\pm\%$)	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:** HK1510003
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.:	1309192
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: HK1510003
DATE OF ISSUE: 13/01/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1309192
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	3.91	-2.3
10	10.2	2.0
40	40.0	0.0
100	103	3.0
400	413	3.3
1000	988	-1.2
	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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ALS Technichem (HK) Pty Ltd
11/F, Chung Shun Knitting Centre
1-3 Wing Yip Street
Kwai Chung, N.T., Hong Kong
T: +852 2610 1044
F: +852 2610 2021
www.alsglobal.com

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



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510049
 Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT
 Date of Issue : 13/02/2015

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

Calibration Job No. : HK1510049
 Test Item No. : HK1510049-01
 Test Item Details
 Test Item Description : Multifunctional Meter
 Manufacturer : YSI
 Model No. : Professional Plus
 Serial No. : 11F100597
 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 : 12-Feb-15
 Test Item Calibration Date : 13-Feb-15
 Test Period : 12/02/2015 - 13/02/2015

- 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:

13/02/2015


REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK1510049
DATE OF ISSUE: 13/02/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter
Manufacturer	YSI
Model No.	Professional Plus
Serial No.	11F100597
Date of Calibration	13-Feb-15
Date of next Calibration	13-May-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)
10.8	10.8	0.0
20.2	20.3	+0.1
30.1	30.6	+0.5
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	4.06	+0.01
7.0	7.03	7.04	+0.01
10.0	9.98	9.96	+0.02
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	12.81	-0.63
0.2000	24.80	25.20	+1.60
0.5000	58.67	59.33	+1.12
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)
7.49	7.60	+0.11
4.56	4.67	+0.11
1.86	1.83	-0.03
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 (accorng to APHA 19e 2510) is used to determine salinity.

- End of Report -



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510021
Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT
Date of Issue : 23/01/2015

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

Calibration Job No. : HK1510021
Test Item No. : HK1510021-01
Test Item Details
Test Item Description : Multifunctional Meter
Manufacturer : YSI
Model No. : Professional Plus
Serial No. : 14E100105
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 : 15-Jan-15
Test Item Calibration Date : 16-Jan-15
Test Period : 16/01/2015 - 23/01/2015

- 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:

23/01/2015


REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK1510021
DATE OF ISSUE: 23/01/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter
Manufacturer	YSI
Model No.	Professional Plus
Serial No.	14E100105
Date of Calibration	16-Jan-15
Date of next Calibration	16-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)
10.0	10.4	+0.4
19.4	19.6	+0.2
30.0	30.1	+0.1
	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	4.06	4.02	-0.04
7.0	7.01	7.09	+0.08
10.0	9.99	10.03	+0.04
	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	12.69	-1.55
0.2000	24.80	25.25	1.82
0.5000	58.67	57.50	-1.99
	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)
8.18	8.14	-0.04
5.89	5.90	0.01
4.42	4.26	-0.16
	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 -



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 -



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)

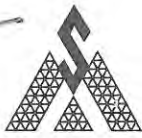
KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	--
0.1000	12.89	12.99	+0.74
0.2000	24.80	24.91	+0.43
0.5000	58.67	59.21	+0.93
	Tolerance Limit		±2.0

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 -



CERTIFICATE OF CALIBRATION

Certificate No.: 14CA0320 04

Page: 1 of 2

Item tested

Description: Acoustical Calibrator (Class 1)
Manufacturer: B & K
Type/Model No.: 4230
Serial/Equipment No.: 1411076
Adaptors used: Yes

Item submitted by

Customer: Lam Geotechnics Limited
Address of Customer: -
Request No.: -
Date of receipt: 20-Mar-2014

Date of test: 21-Mar-2014

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	17-Apr-2014	SCL
Preamplifier	B&K 2673	2239857	16-Apr-2014	CEPREI
Measuring amplifier	B&K 2610	2346941	24-Apr-2014	CEPREI
Signal generator	DS 360	61227	15-Apr-2014	CEPREI
Digital multi-meter	34401A	US36087050	17-Dec-2014	CEPREI
Audio analyzer	8903B	GB41300350	15-Apr-2014	CEPREI
Universal counter	53132A	MY40003662	15-Apr-2014	CEPREI

Ambient conditions

Temperature: 22 ± 1 °C
Relative humidity: 60 ± 10 %
Air pressure: 1000 ± 10 hPa

Test specifications


- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory:


Huang Jian-Min/Feng Jun Qi

Date: 21-Mar-2014

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 14CA0320 04

Page: 2 of 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	(Output level in dB re 20 μ Pa)
			Estimated Expanded Uncertainty dB
1000	94.00	94.01	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz STF = 0.002 dB
Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz Actual Frequency = 961.1 Hz
Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz TND = 0.8 %
Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

Date: 21-Mar-2014

Fung Chi Yip

- End -

Checked by:

Date: 21-Mar-2014

Feng Jun Qi

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.



CERTIFICATE OF CALIBRATION

Certificate No.: 14CA1213 01 Page 1 of 2

Item tested

Description:	Sound Level Meter (Type 1)	Microphone
Manufacturer:	B & K	B & K
Type/Model No.:	2236	4188
Serial/Equipment No.:	2100736	2288941
Adaptors used:	-	-

Item submitted by

Customer Name: Lam Geotechnics Limited
Address of Customer: -
Request No.: -
Date of receipt: 13-Dec-2014

Date of test: 13-Dec-2014

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	20-Jun-2015	CIGISMEC
Signal generator	DS 360	33873	09-Apr-2015	CEPREI
Signal generator	DS 360	61227	09-Apr-2015	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C
Relative humidity: 60 ± 5 %
Air pressure: 1010 ± 5 hPa

Test specifications

- The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
- The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of $\pm 20\%$.
- The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure response of the Sound Level Meter.


Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory:


Huang Jian Min/Feng Jun Qi

Date: 15-Dec-2014

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 14CA1213 01 Page 2 of 2

1, Electrical Tests

The electrical tests were performed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor	
Self-generated noise	A	Pass	0.3	2.1	
	C	Pass	1.0		
	Lin	Pass	2.0		
Linearity range for Leq	At reference range, Step 5 dB at 4 kHz	Pass	0.3	2.2	
	Reference SPL on all other ranges	Pass	0.3		
	2 dB below upper limit of each range	Pass	0.3		
	2 dB above lower limit of each range	Pass	0.3		
Linearity range for SPL	At reference range, Step 5 dB at 4 kHz	Pass	0.3		
	Frequency weightings	A	Pass		0.3
	C	Pass	0.3		
Time weightings	Lin	Pass	0.3		
	Single Burst Fast	Pass	0.3		
	Single Burst Slow	Pass	0.3		
Peak response	Single 100µs rectangular pulse	Pass	0.3		
	R.M.S. accuracy	Crest factor of 3	Pass		0.3
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3		
	Repeated at frequency of 100 Hz	Pass	0.3		
Time averaging	1 ms burst duty factor 1/10 ³ at 4kHz	Pass	0.3		
	1 ms burst duty factor 1/10 ⁴ at 4kHz	Pass	0.3		
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4		
	Sound exposure level	Single burst 10 ms at 4 kHz	Pass		0.4
Overload indication	SPL	Pass	0.3		
	Leq	Pass	0.4		

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by:		Checked by:	
Date:	Fung Chi Yip 13-Dec-2014	Date:	Lam Tze Wai 15-Dec-2014

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.



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 Rootsmeter 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 : CMA1b
 Equipment no. : EL452
 Calibration Date : 12-Feb-15
 Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 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 /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.6	6.6	13.2	1.8536	65	66.0431
2	5.3	5.3	10.6	1.6611	58	58.9308
3	4.0	4.0	8.0	1.4431	50	50.8024
4	2.6	2.6	5.2	1.1635	40	40.6419
5	1.5	1.5	3.0	0.8838	30	30.4814

By Linear Regression of Y on X

Slope, m = 36.6703 Intercept, b = -1.9950

Correlation Coefficient* = 1.0000

Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar Checked by : Derek Lo
 Date : 12-Feb-15 Date : 12-Feb-15



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
 Date : 18-Dec-14

Checked by : Derek Lo
 Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA2a
 Equipment no. : EL449
 Calibration Date : 12-Feb-15
 Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	291	Kelvin	Pressure, P _a
			1015 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	6.4	6.4	12.8	1.8195	60	60.7683
2	5.0	5.0	10.0	1.6082	55	55.7042
3	3.8	3.8	7.6	1.4020	46	46.5890
4	2.2	2.2	4.4	1.0668	36	36.4610
5	1.4	1.4	2.8	0.8511	30	30.3841

By Linear Regression of Y on X

Slope, m = 32.2546 Intercept, b = 2.4526

Correlation Coefficient* = 0.9972

Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar Checked by : Derek Lo
 Date : 12-Feb-15 Date : 12-Feb-15



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 : CMA3a Calibration Date : 12-Feb-15
 Equipment no. : EL333 Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 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	6.0	6.0	12.0	1.7673	52	52.8345
2	4.7	4.7	9.4	1.5642	47	47.7542
3	3.6	3.6	7.2	1.3690	41	41.6579
4	2.3	2.3	4.6	1.0943	35	35.5617
5	1.4	1.4	2.8	0.8538	28	28.4493

By Linear Regression of Y on X

Slope, m = 26.4964 Intercept, b = 6.0181
 Correlation Coefficient* = 0.9989
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar Checked by : Derek Lo
 Date : 12-Feb-15 Date : 12-Feb-15



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			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 : CMA4a Calibration Date : 12-Feb-15
 Equipment no. : EL390 Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
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 /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.5	6.5	13.0	1.8395	58	58.9308
2	5.2	5.2	10.4	1.6453	51	51.8184
3	4.1	4.1	8.2	1.4610	43	43.6900
4	2.7	2.7	5.4	1.1856	30	30.4814
5	1.3	1.3	2.6	0.8228	22	22.3530

By Linear Regression of Y on X

Slope, m = 37.3358 Intercept, b = -10.4734
 Correlation Coefficient* = 0.9906
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar Checked by : Derek Lo
 Date : 12-Feb-15 Date : 12-Feb-15



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 : CMA5b Calibration Date : 04-Feb-15
 Equipment no. : EL222 Calibration Due Date : 04-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	289	Kelvin	Pressure, P _a
			1024 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	5.4	5.4	10.8	1.6845	59	60.2271
2	4.4	4.4	8.8	1.5206	54	55.1231
3	3.4	3.4	6.8	1.3367	50	51.0399
4	2.2	2.2	4.4	1.0753	42	42.8736
5	1.4	1.4	2.8	0.8578	37	37.7696

By Linear Regression of Y on X

Slope, m = 27.2571 Intercept, b = 14.1098

Correlation Coefficient* = 0.9987

Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar Checked by : Derek Lo
 Date : 04-Feb-15 Date : 04-Feb-15



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	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
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 /1013.3x298/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



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA6a
 Equipment no. : EL448
 Calibration Date : 12-Feb-15
 Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 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 <small>(W(P_a/1013.3x298/T_a)^{1/2}/35.31)</small> Y-axis
	(up)	(down)	(difference)			
1	6.5	6.5	13.0	1.8395	60	60.9628
2	5.2	5.2	10.4	1.6453	54	54.8666
3	4.0	4.0	8.0	1.4431	48	48.7703
4	2.7	2.7	5.4	1.1856	40	40.6419
5	1.6	1.6	3.2	0.9128	32	32.5135

By Linear Regression of Y on X

Slope, m = 30.7375 Intercept, b = 4.3570

Correlation Coefficient* = 1.0000

Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar Checked by : Derek Lo
 Date : 12-Feb-15 Date : 12-Feb-15



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
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) (M1a, M2b, M3a, M4b, M5b, M6) Impact WQM Mid-flood	1hr TSP Impact WQM Mid-ebb 17:07	24hr TSP (CMA3a) Impact WQM Mid-ebb 0:05 Mid-flood	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 Impact WQM Mid-ebb 15:33 Mid-flood 21:17	24hr TSP (CMA3a) Noise (daytime) (M1a, M2b, M3a, M4b, M5b, M6) Impact WQM Mid-flood 17:15	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
	Impact WQM Mid-flood 15:39 Mid-ebb 22:42	24hr TSP Noise (daytime) (M1a, M2b, M3a, M4b, M5b, M6) Impact WQM Mid-ebb 12:05 Mid-flood 17:35	24hr TSP (CMA4a) 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) (M1a, M2b, M3a, M4b, M5b, M6) Impact WQM Mid-flood 11:55 Mid-ebb 19:27	Noise (daytime) Impact WQM Mid-flood 11:55 Mid-ebb 19:27		

Remarks: Due to Chinese New Year Holiday and no marine activities will be conducted under all WDI-CWB contracts according to the information provided by the Contractors, the water quality monitoring event at all WQM stations was cancelled on 20 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
March 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						28-Feb
						Impact WQM Mid-flood 13:52 Mid-ebb 21:43
1-Mar	2-Mar	3-Mar	4-Mar	5-Mar	6-Mar	7-Mar
	1hr TSP Noise (daytime) Impact WQM Mid-flood Mid-ebb	Noise (daytime)		Impact WQM Mid-ebb Mid-flood	24hr TSP 12:23 18:15	1hr TSP Impact WQM Mid-ebb Mid-flood
	16:14 23:08					13:19 19:27
8-Mar	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar
	Noise (daytime) Impact WQM Mid-flood Mid-ebb	Noise (daytime)	Impact WQM Mid-flood Mid-ebb	24hr TSP	1hr TSP Impact WQM Mid-flood Mid-ebb	
	8:19 14:25		9:17 15:40		10:28 17:34	
15-Mar	16-Mar	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar
	Noise (daytime) Impact WQM Mid-flood Mid-ebb	Noise (daytime)	24hr TSP Impact WQM Mid-ebb Mid-flood	1hr TSP	Impact WQM Mid-ebb Mid-flood	
	14:16 21:22		11:01 16:33		12:24 18:22	
22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar
	24hr TSP Noise (daytime) Impact WQM Mid-flood Mid-ebb	1hr TSP Noise (daytime)	Impact WQM Mid-flood Mid-ebb		24hr TSP Impact WQM Mid-flood Mid-ebb	1hr TSP
	8:11 14:30		9:25 16:06		10:51 18:30	



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)								
02/02/15	9:50	Fine	73.0	75.5	68.5	72	65	75
10/02/15	11:12	Fine	72.2	75.0	67.0	72	72	75
17/02/15	9:33	Cloudy	70.6	73.5	64.0	72	71	75
25/02/15	10:35	Cloudy	70.4	73.0	64.5	72	70	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)								
02/02/15	10:40	Fine	70.1	72.0	66.5	68	67	75
10/02/15	13:20	Fine	70.8	73.5	67.0	68	68	75
17/02/15	10:19	Cloudy	69.6	71.0	66.5	68	65	75
25/02/15	11:19	Cloudy	70.8	72.5	67.5	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)								
02/02/15	13:40	Fine	65.9	67.0	63.5	69	66	75
10/02/15	14:05	Fine	65.3	66.5	62.5	69	65	75
17/02/15	10:55	Cloudy	64.8	66.0	62.5	69	65	75
25/02/15	13:00	Cloudy	64.1	66.0	62.5	69	64	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)								
02/02/15	14:20	Fine	67.4	69.0	64.5	67	51	75
10/02/15	14:45	Fine	66.3	67.5	63.0	67	66	75
17/02/15	11:30	Cloudy	64.8	66.0	63.0	67	65	75
25/02/15	13:43	Cloudy	66.2	68.5	62.5	67	66	75

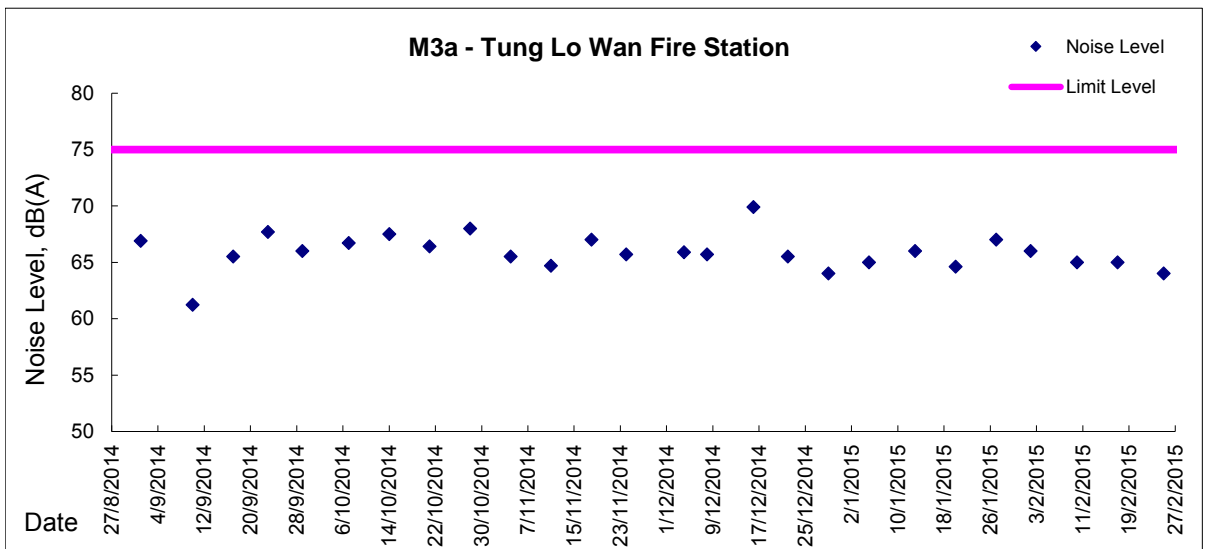
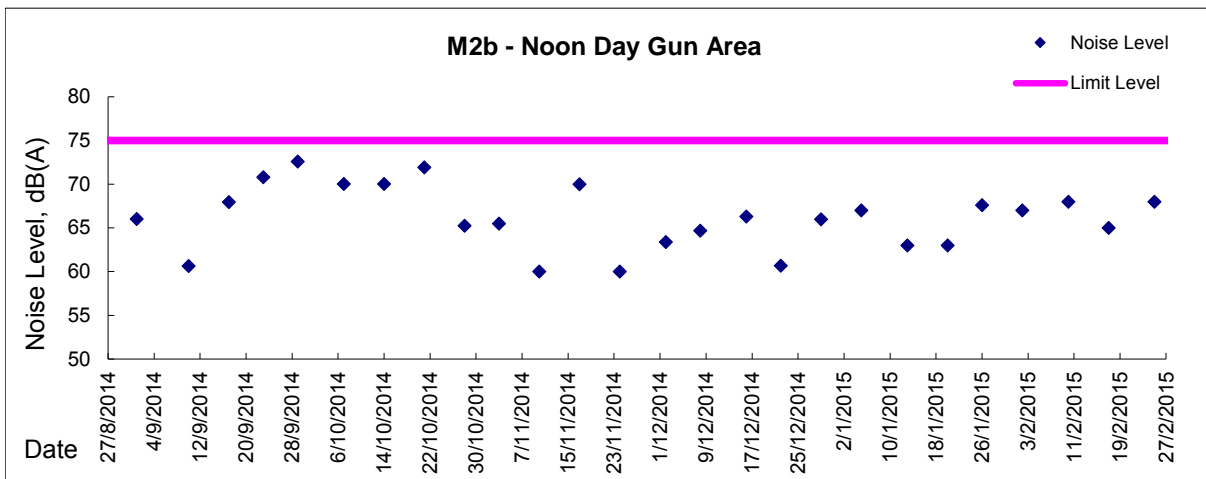
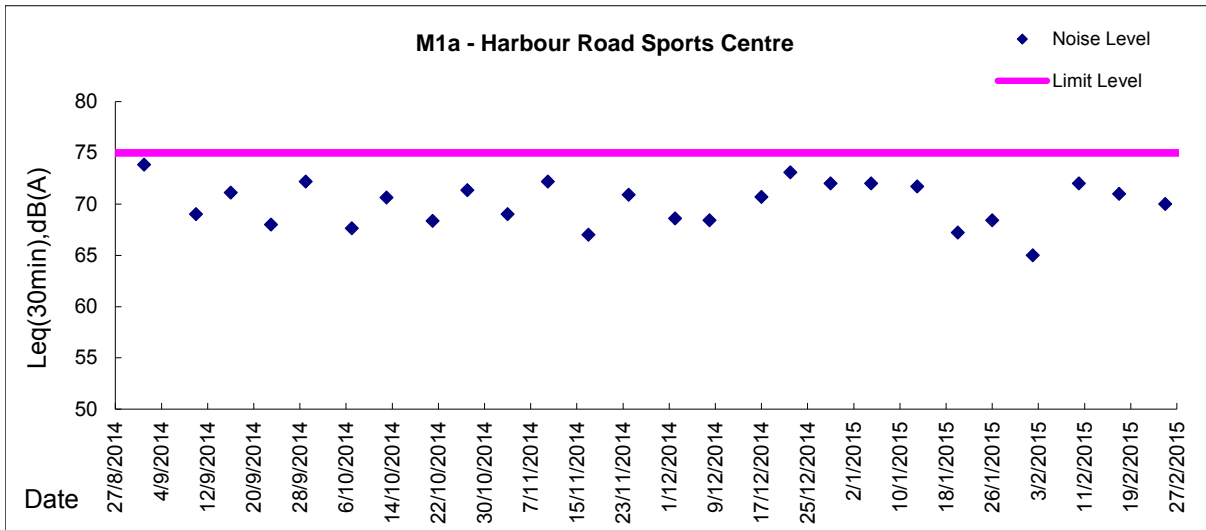
Location: M5b - City Garden

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30min)								
02/02/15	15:00	Fine	67.3	69.0	64.5	68	67	75
10/02/15	15:25	Fine	67.3	68.5	64.5	68	67	75
17/02/15	13:10	Fine	67.0	67.5	63.5	68	67	75
25/02/15	14:25	Cloudy	67.8	68.5	64.0	68	68	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)								
02/02/15	15:40	Fine	73.1	74.0	71.0	71	69	70
10/02/15	16:05	Fine	72.5	73.5	70.5	71	68	70
17/02/15	14:14	Fine	72.5	73.0	70.5	71	68	70
25/02/15	15:05	Cloudy	72.0	73.0	70.0	71	66	70

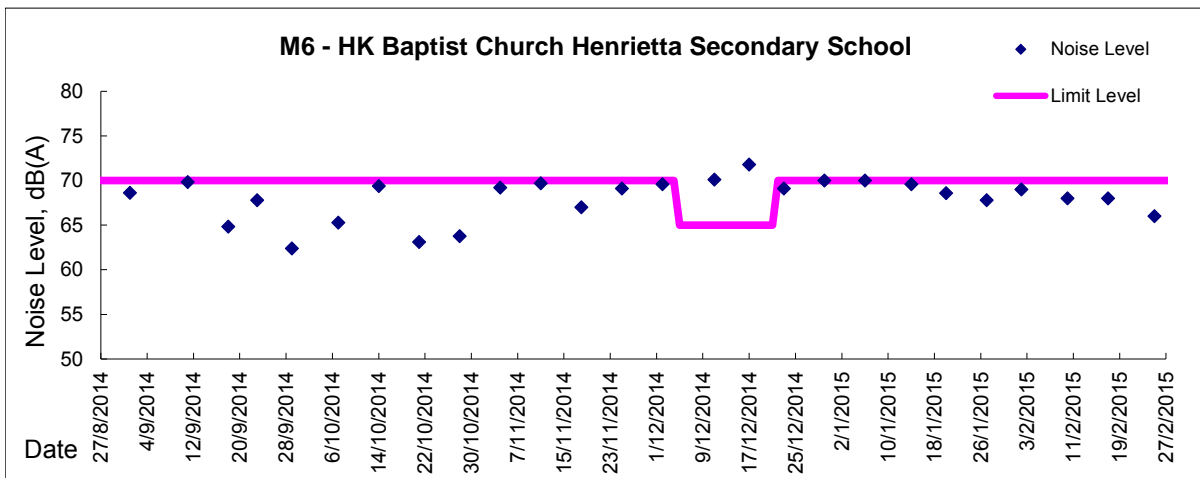
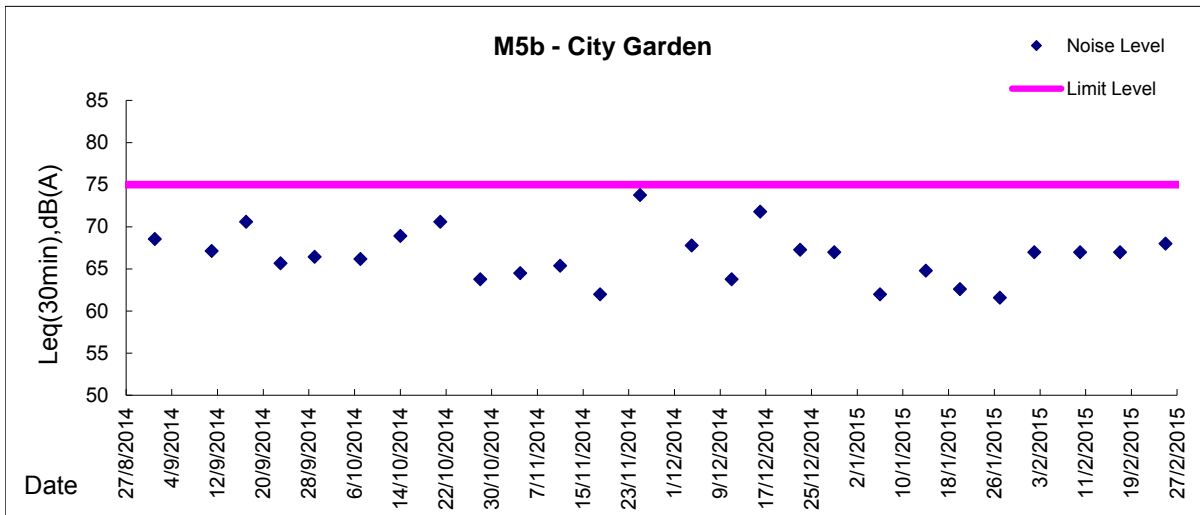
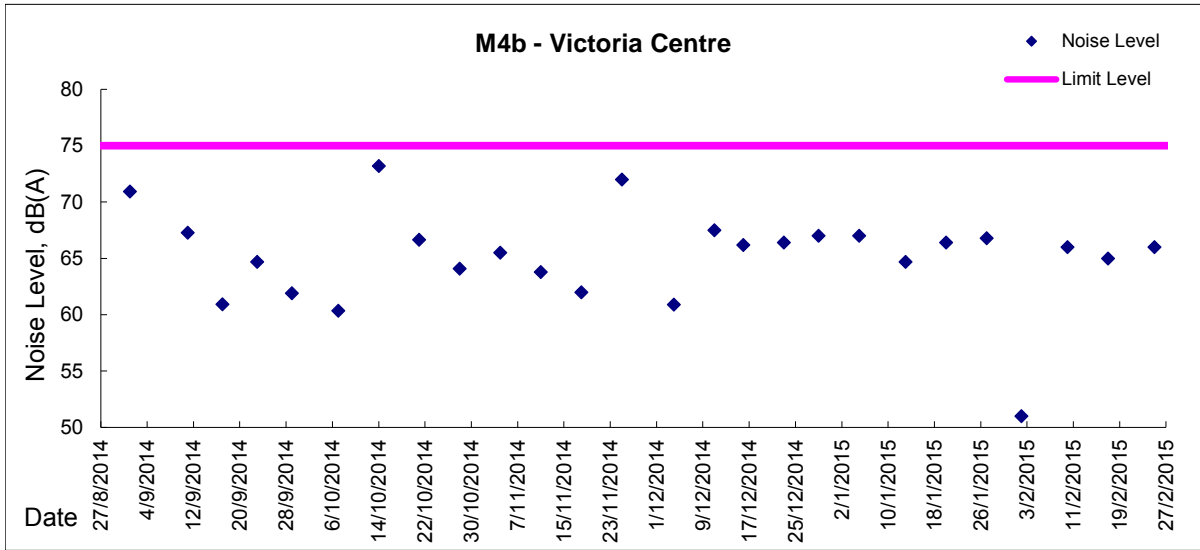
Graphic Presentation of Noise Monitoring Result
Day Time (0700 - 1900hrs on normal weekdays)





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		
2-Feb-15	8:00	Fine	011004	2.7654	2.9325	5812.47	5836.47	24.00	1.12	1.12	1.12	1612	103.6
7-Feb-15	8:00	Fine	011060	2.7503	2.9667	5839.47	5863.47	24.00	1.06	1.07	1.06	1533	141.1
13-Feb-15	8:00	Fine	009635	2.8524	3.1385	5866.60	5890.60	24.00	1.20	1.19	1.19	1720	166.3
17-Feb-15	8:00	Cloudy	009660	2.8557	3.0802	5893.60	5917.60	24.00	1.17	1.17	1.17	1682	133.4
23-Feb-15	8:00	Cloudy	011200	2.7265	2.9043	5920.61	5944.61	24.00	1.11	1.11	1.11	1603	110.9

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		
3-Feb-15	9:45	Fine	009571	2.8195	2.8288	5836.47	5837.47	1.00	1.12	1.12	1.12	67	138.5
3-Feb-15	10:50	Fine	009574	2.8139	2.8241	5837.47	5838.47	1.00	1.12	1.12	1.12	67	151.9
3-Feb-15	13:00	Fine	009577	2.8321	2.8434	5838.47	5839.47	1.00	1.12	1.12	1.12	67	168.3
9-Feb-15	8:02	Fine	011042	2.7140	2.7318	5863.46	5864.46	1.00	1.18	1.18	1.18	71	252.1
9-Feb-15	9:06	Fine	009566	2.8155	2.8302	5864.46	5865.46	1.00	1.18	1.18	1.18	71	208.2
9-Feb-15	10:10	Fine	009626	2.8708	2.8893	5865.47	5866.47	1.00	1.18	1.18	1.18	71	262.0
14-Feb-15	8:30	Fine	009654	2.8438	2.8642	5890.60	5891.60	1.00	1.17	1.17	1.17	70	291.4
14-Feb-15	9:32	Fine	009656	2.8464	2.8643	5891.60	5892.60	1.00	1.17	1.17	1.17	70	255.7
14-Feb-15	10:34	Fine	009658	2.8475	2.8596	5892.60	5893.60	1.00	1.17	1.17	1.17	70	172.8
18-Feb-15	8:05	Cloudy	011194	2.7208	2.7295	5917.61	5918.61	1.00	1.17	1.17	1.17	70	124.0
18-Feb-15	9:12	Cloudy	011196	2.7233	2.7324	5918.61	5919.61	1.00	1.17	1.17	1.17	70	129.7
18-Feb-15	10:24	Cloudy	011198	2.7207	2.7325	5919.61	5920.61	1.00	1.17	1.17	1.17	70	168.1
24-Feb-15	8:20	Cloudy	011138	2.7251	2.7329	5944.61	5945.61	1.00	1.11	1.11	1.11	67	116.8
24-Feb-15	9:25	Cloudy	011141	2.7302	2.7354	5945.61	5946.61	1.00	1.06	1.06	1.06	64	81.8
24-Feb-15	10:30	Cloudy	011144	2.7234	2.7280	5946.61	5947.61	1.00	1.06	1.06	1.06	64	72.3



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		
2-Feb-15	8:00	Fine	011005	2.7671	2.9438	15521.71	15545.71	24.00	0.96	0.96	0.96	1385	127.6
7-Feb-15	8:00	Fine	011059	2.7583	3.0500	15548.71	15572.71	24.00	1.35	1.35	1.35	1939	150.4
13-Feb-15	8:00	Fine	009634	2.8601	3.1027	15575.71	15599.71	24.00	1.25	1.25	1.25	1800	134.8
17-Feb-15	8:00	Cloudy	009661	2.8539	2.9597	15602.71	15626.71	24.00	1.07	1.07	1.07	1540	68.7
23-Feb-15	8:00	Cloudy	011201	2.7264	2.8426	15629.73	15653.73	24.00	1.07	1.07	1.07	1537	75.6

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		
3-Feb-15	9:35	Fine	009570	2.8171	2.8304	15545.71	15546.71	1.00	1.09	1.09	1.09	65	203.5
3-Feb-15	10:38	Fine	009573	2.8142	2.8264	15546.71	15547.71	1.00	1.09	1.09	1.09	65	186.7
3-Feb-15	13:00	Fine	009576	2.8254	2.8407	15547.71	15548.71	1.00	1.09	1.09	1.09	65	234.1
9-Feb-15	8:05	Fine	009565	2.8181	2.8385	15572.71	15573.71	1.00	1.35	1.35	1.35	81	251.6
9-Feb-15	9:10	Fine	009567	2.8188	2.8398	15573.70	15574.70	1.00	1.35	1.35	1.35	81	259.0
9-Feb-15	10:15	Fine	009627	2.8526	2.8742	15574.70	15575.70	1.00	1.35	1.35	1.35	81	266.4
14-Feb-15	8:40	Fine	009655	2.8448	2.8592	15599.71	15600.71	1.00	1.25	1.25	1.25	75	192.2
14-Feb-15	9:42	Fine	009657	2.8591	2.8773	15600.71	15601.71	1.00	1.25	1.25	1.25	75	242.9
14-Feb-15	10:44	Fine	009659	2.8553	2.8695	15601.71	15602.71	1.00	1.25	1.25	1.25	75	189.5
18-Feb-15	8:10	Cloudy	011195	2.7260	2.7353	15626.71	15627.71	1.00	1.07	1.07	1.07	64	144.7
18-Feb-15	9:12	Cloudy	011197	2.7215	2.7280	15627.71	15628.71	1.00	1.07	1.07	1.07	64	101.2
18-Feb-15	10:14	Cloudy	011199	2.7271	2.7365	15628.71	15629.71	1.00	1.07	1.07	1.07	64	146.3
24-Feb-15	8:10	Cloudy	011139	2.7391	2.7454	15653.73	15654.73	1.00	1.07	1.07	1.07	64	98.4
24-Feb-15	9:15	Cloudy	011142	2.7208	2.7282	15654.73	15655.73	1.00	1.07	1.07	1.07	64	115.6
24-Feb-15	10:20	Cloudy	011145	2.7232	2.7306	15655.73	15656.73	1.00	1.07	1.07	1.07	64	115.6



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		
4-Feb-15	11:54	Fine	009605	2.8150	2.9573	2966.26	2990.26	24.00	1.14	1.14	1.14	1644	86.6
10-Feb-15	13:30	Fine	011078	2.7458	2.9987	2993.23	3017.23	24.00	1.19	1.19	1.19	1708	148.1
13-Feb-15	8:00	Fine	009639	2.8495	3.1098	3017.40	3041.40	24.00	1.32	1.32	1.32	1904	136.7
17-Feb-15	8:00	Cloudy	011068	2.7336	2.9366	3044.41	3068.41	24.00	1.37	1.38	1.37	1979	102.6
23-Feb-15	8:00	Cloudy	011217	2.8041	2.9881	3071.41	3095.41	24.00	1.32	1.32	1.32	1901	96.8

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 2 and 7 February 2015 to 4 and 10 February 2015 respectively.

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		
3-Feb-15	13:08	Fine	009598	2.8328	2.8398	2963.26	2964.26	1.00	1.12	1.12	1.12	67	104.3
3-Feb-15	14:34	Fine	009601	2.8384	2.8493	2964.26	2965.26	1.00	1.18	1.18	1.18	71	154.4
3-Feb-15	15:40	Fine	009603	2.8269	2.8376	2965.26	2966.26	1.00	1.12	1.12	1.12	67	159.4
9-Feb-15	9:18	Fine	011061	2.7593	2.7718	2990.26	2991.26	1.00	1.24	1.24	1.24	74	168.2
9-Feb-15	10:24	Fine	011111	2.7544	2.7716	2991.26	2992.26	1.00	1.18	1.18	1.18	71	242.8
9-Feb-15	13:00	Fine	011109	2.7452	2.7539	2992.26	2993.26	1.00	1.18	1.18	1.18	71	122.8
14-Feb-15	9:03	Fine	011101	2.7424	2.7550	3041.40	3042.40	1.00	1.39	1.39	1.39	83	151.5
14-Feb-15	10:07	Fine	011099	2.7389	2.7527	3042.40	3043.40	1.00	1.39	1.39	1.39	83	166.0
14-Feb-15	13:00	Fine	011097	2.7317	2.7516	3043.40	3044.40	1.00	1.39	1.39	1.39	83	239.3
18-Feb-15	8:50	Cloudy	011183	2.7501	2.7607	3068.41	3069.41	1.00	1.24	1.24	1.24	75	142.1
18-Feb-15	10:25	Cloudy	011219	2.8155	2.8303	3069.41	3070.41	1.00	1.24	1.24	1.24	75	198.4
18-Feb-15	13:00	Cloudy	011063	2.7502	2.7623	3070.41	3071.41	1.00	1.24	1.24	1.24	75	162.2
24-Feb-15	8:21	Cloudy	011064	2.7656	2.7731	3095.41	3096.41	1.00	1.24	1.24	1.24	74	101.0
24-Feb-15	9:25	Cloudy	011049	2.7371	2.7403	3096.41	3097.41	1.00	1.24	1.24	1.24	74	43.1
24-Feb-15	10:35	Cloudy	011065	2.7609	2.7676	3097.41	3098.41	1.00	1.24	1.24	1.24	74	90.2



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		
2-Feb-15	8:00	Fine	011046	2.7322	2.9041	19778.24	19802.24	24.00	1.19	1.19	1.19	1708	100.6
7-Feb-15	8:00	Fine	009604	2.8257	3.0935	19805.24	19829.24	24.00	1.14	1.14	1.14	1640	163.2
13-Feb-15	8:00	Fine	011102	2.7514	2.9906	19832.25	19856.25	24.00	1.32	1.32	1.32	1904	125.6
18-Feb-15	14:03	Cloudy	011216	2.8006	3.0394	19873.82	19897.82	24.00	1.32	1.33	1.32	1908	125.2
23-Feb-15	8:00	Cloudy	011047	2.7350	2.8708	19897.82	19921.82	24.00	1.29	1.29	1.29	1864	72.9

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 17 February 2015 to 18 February 2015.

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		
3-Feb-15	13:20	Fine	009599	2.8244	2.8354	19802.24	19803.24	1.00	1.19	1.19	1.19	71	154.6
3-Feb-15	14:23	Fine	009600	2.8156	2.8264	19803.24	19804.24	1.00	1.14	1.14	1.14	68	158.0
3-Feb-15	15:37	Fine	009602	2.8252	2.8351	19804.24	19805.24	1.00	1.14	1.14	1.14	68	144.9
9-Feb-15	9:32	Fine	011062	2.7382	2.7581	19829.24	19830.24	1.00	1.19	1.19	1.19	71	279.1
9-Feb-15	10:34	Fine	011110	2.7554	2.7645	19830.24	19831.24	1.00	1.19	1.19	1.19	71	127.6
9-Feb-15	13:00	Fine	011108	2.7392	2.7578	19831.24	19832.24	1.00	1.19	1.19	1.19	71	260.8
14-Feb-15	9:14	Fine	011100	2.7397	2.7516	19856.25	19857.25	1.00	1.32	1.32	1.32	79	150.1
14-Feb-15	10:22	Fine	011098	2.7264	2.7395	19857.25	19858.25	1.00	1.32	1.32	1.32	79	165.3
14-Feb-15	13:00	Fine	011106	2.7640	2.7812	19858.25	19859.25	1.00	1.32	1.32	1.32	79	217.0
18-Feb-15	9:40	Cloudy	011182	2.7304	2.7434	19870.82	19871.82	1.00	1.27	1.27	1.27	76	170.4
18-Feb-15	10:45	Cloudy	011218	2.7931	2.8073	19871.82	19872.82	1.00	1.27	1.27	1.27	76	186.1
18-Feb-15	13:00	Cloudy	011184	2.7289	2.7412	19872.82	19873.82	1.00	1.27	1.27	1.27	76	161.2
24-Feb-15	8:07	Cloudy	011048	2.7376	2.7399	19921.82	19922.82	1.00	1.29	1.29	1.29	78	29.6
24-Feb-15	9:15	Cloudy	011053	2.7355	2.7442	19922.82	19923.82	1.00	1.29	1.29	1.29	78	112.0
24-Feb-15	10:20	Cloudy	011052	2.7473	2.7514	19923.82	19924.82	1.00	1.29	1.29	1.29	78	52.8



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		
2-Feb-15	8:00	Fine	009597	2.8229	2.9371	4250.55	4274.55	24.00	0.95	0.95	0.95	1362	83.8
7-Feb-15	18:19	Fine	011041	2.7244	3.0576	4277.55	4301.55	24.00	1.01	1.01	1.01	1456	228.8
13-Feb-15	8:00	Fine	011081	2.7372	3.0022	4304.66	4328.66	24.00	1.05	1.05	1.05	1515	174.9
17-Feb-15	8:00	Cloudy	009595	2.8218	2.9015	4331.66	4355.66	24.00	0.84	0.84	0.84	1207	66.0
23-Feb-15	8:00	Cloudy	011136	2.7196	2.8947	4358.66	4382.66	24.00	0.98	0.79	0.88	1272	137.6

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		
3-Feb-15	9:50	Fine	009615	2.8604	2.8709	4274.55	4275.55	1.00	0.95	0.95	0.95	57	185.2
3-Feb-15	11:00	Fine	009620	2.8508	2.8610	4275.55	4276.55	1.00	0.95	0.95	0.95	57	179.9
3-Feb-15	13:00	Fine	009623	2.8762	2.8841	4276.55	4277.55	1.00	0.95	0.95	0.95	57	139.3
9-Feb-15	10:40	Fine	009630	2.8512	2.8775	4301.55	4302.55	1.00	1.02	1.02	1.02	61	431.8
9-Feb-15	13:00	Fine	009633	2.8617	2.8834	4302.55	4303.55	1.00	1.02	1.02	1.02	61	356.3
9-Feb-15	14:05	Fine	011084	2.7296	2.7627	4303.55	4304.55	1.00	1.02	1.02	1.02	61	543.4
14-Feb-15	13:00	Fine	011071	2.7292	2.7497	4328.66	4329.66	1.00	1.05	1.05	1.05	63	325.3
14-Feb-15	14:15	Fine	011076	2.7314	2.7382	4329.66	4330.66	1.00	0.91	0.91	0.91	54	124.8
14-Feb-15	15:25	Fine	009592	2.8323	2.8406	4330.68	4331.68	1.00	0.91	0.91	0.91	54	152.4
18-Feb-15	9:13	Cloudy	009637	2.8544	2.8686	4355.66	4356.66	1.00	0.91	0.91	0.91	55	259.7
18-Feb-15	10:20	Cloudy	011129	2.7365	2.7428	4356.66	4357.66	1.00	0.91	0.91	0.91	55	115.2
18-Feb-15	13:00	Cloudy	011133	2.7412	2.7579	4357.66	4358.66	1.00	0.91	0.91	0.91	55	305.4
24-Feb-15	8:40	Cloudy	011185	2.7162	2.7268	4382.66	4383.66	1.00	0.98	0.79	0.88	53	200.1
24-Feb-15	9:43	Cloudy	011213	2.7310	2.7443	4383.66	4384.66	1.00	0.98	0.79	0.88	53	251.0
24-Feb-15	10:50	Cloudy	011193	2.7357	2.7461	4384.66	4385.66	1.00	0.98	0.79	0.88	53	196.3



Location: CMA6a - WD2 PRE Office

Report on 24-hour TSP monitoring

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

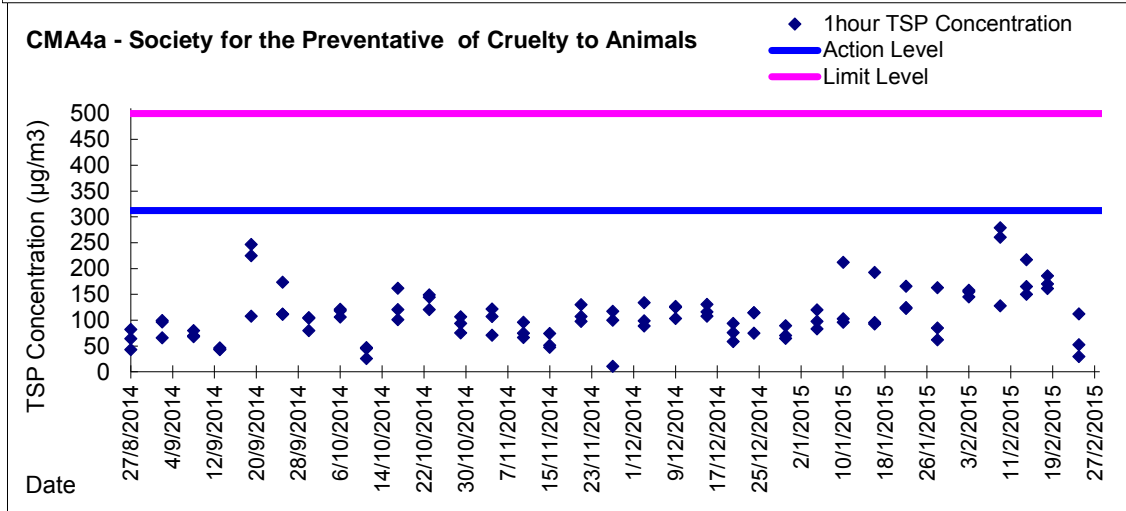
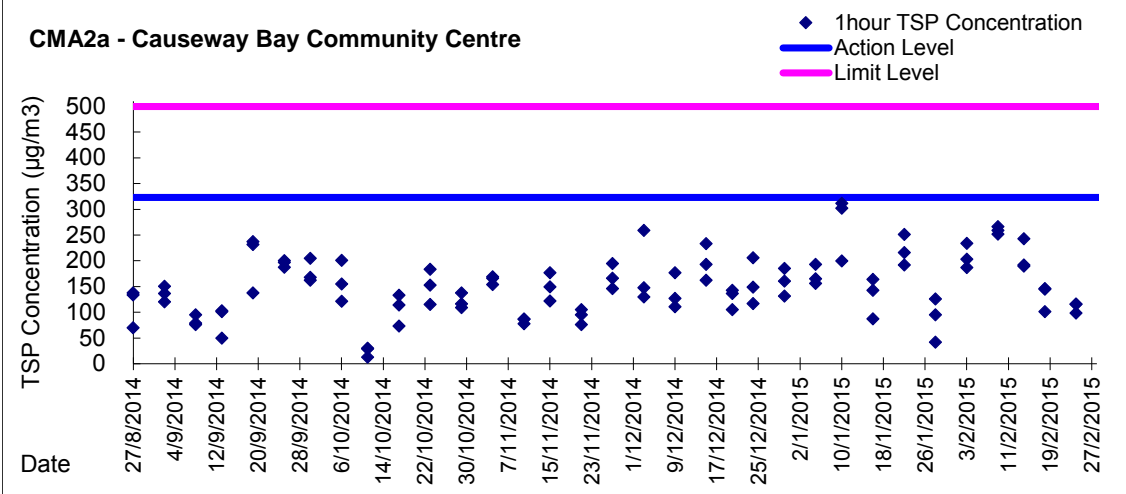
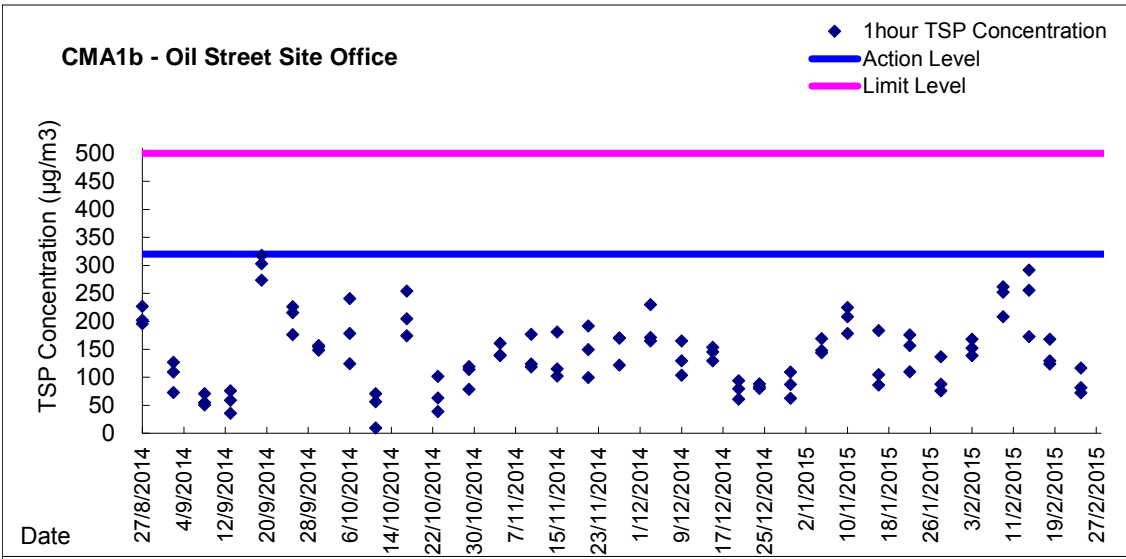
Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Feb-15	8:00	Fine	010857	2.7609	2.8963	19353.71	19377.71	24.00	1.17	1.17	1.17	1680	80.6
7-Feb-15	8:00	Fine	009624	2.8685	3.1068	19380.71	19404.71	24.00	1.17	1.17	1.17	1679	142.0
13-Feb-15	8:00	Fine	011079	2.7474	2.9655	19407.82	19431.82	24.00	1.06	1.06	1.06	1527	142.8
17-Feb-15	8:00	Cloudy	009593	2.8232	3.0161	19434.82	19458.82	24.00	1.12	1.13	1.12	1618	119.2
23-Feb-15	8:00	Cloudy	011134	2.7318	2.8414	19461.83	19485.83	24.00	1.06	1.06	1.06	1524	71.9

Report on 1-hour TSP monitoring

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

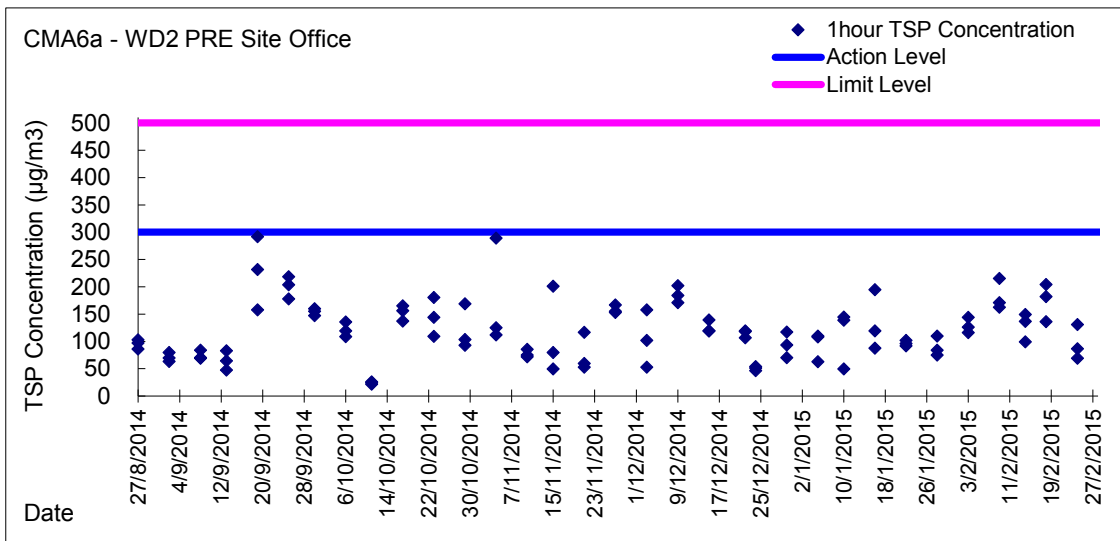
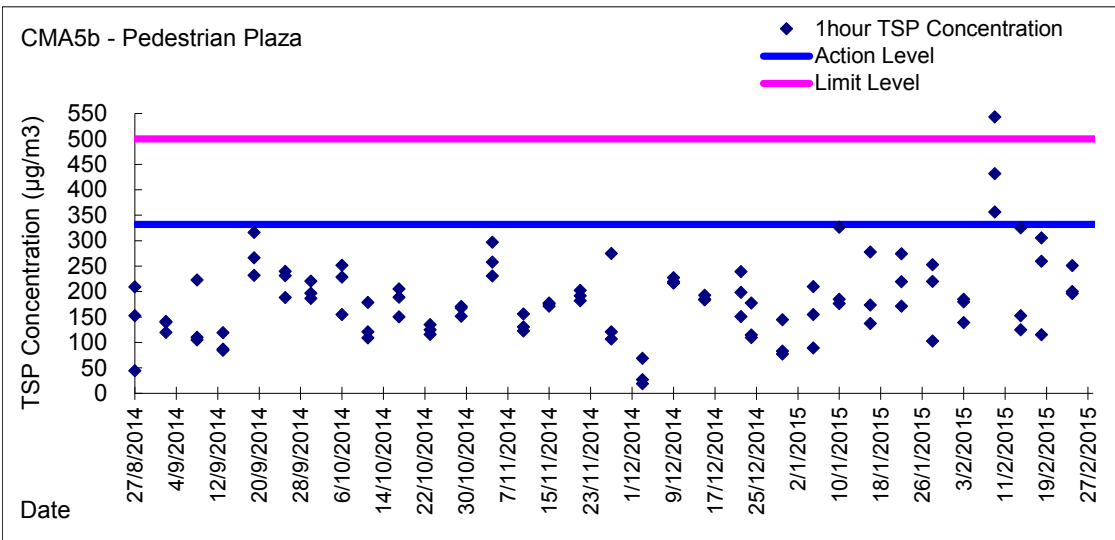
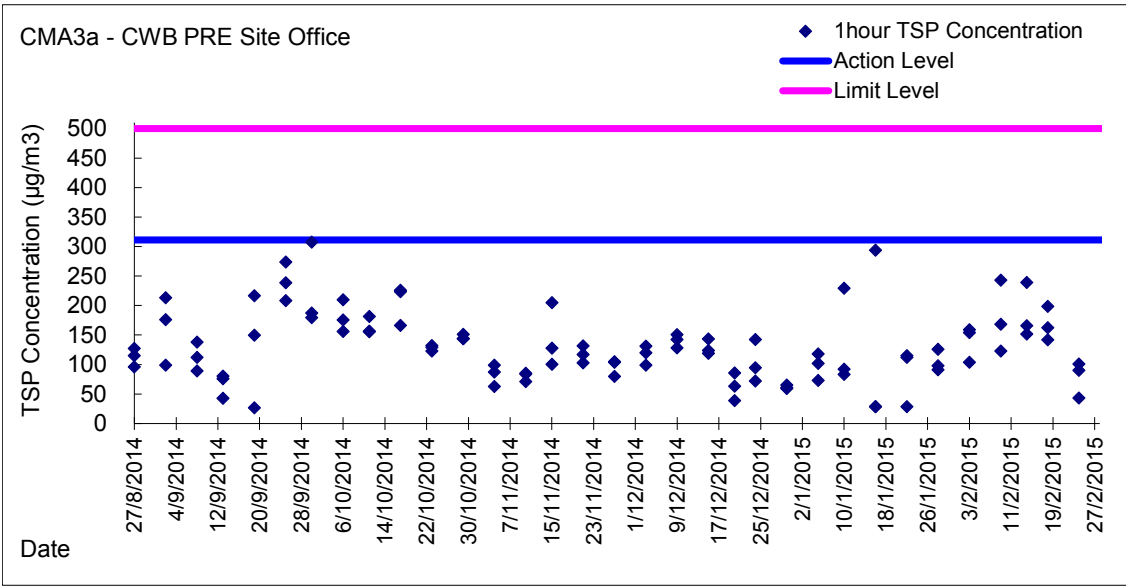
Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	9:55	Fine	009616	2.8766	2.8847	19377.71	19378.71	1.00	1.17	1.17	1.17	70	115.8
3-Feb-15	11:00	Fine	009618	2.8616	2.8704	19378.71	19379.71	1.00	1.17	1.17	1.17	70	125.9
3-Feb-15	13:00	Fine	009621	2.8607	2.8708	19379.71	19380.71	1.00	1.17	1.17	1.17	70	144.5
9-Feb-15	10:30	Fine	009628	2.8653	2.8773	19404.71	19405.71	1.00	1.17	1.17	1.17	70	171.0
9-Feb-15	13:00	Fine	009631	2.8436	2.8587	19405.71	19406.71	1.00	1.17	1.17	1.17	70	215.2
9-Feb-15	14:06	Fine	011082	2.7371	2.7485	19406.71	19407.71	1.00	1.17	1.17	1.17	70	162.5
14-Feb-15	13:00	Fine	011069	2.7423	2.7510	19431.82	19432.82	1.00	1.06	1.06	1.06	64	136.9
14-Feb-15	14:02	Fine	011074	2.7369	2.7464	19432.82	19433.82	1.00	1.06	1.06	1.06	64	149.5
14-Feb-15	15:03	Fine	011077	2.7442	2.7505	19433.82	19434.82	1.00	1.06	1.06	1.06	64	99.1
18-Feb-15	8:55	Cloudy	011085	2.7362	2.7454	19458.82	19459.82	1.00	1.13	1.13	1.13	68	136.2
18-Feb-15	10:00	Cloudy	009638	2.8512	2.8628	19459.83	19460.83	1.00	1.06	1.06	1.06	64	182.0
18-Feb-15	13:00	Cloudy	011131	2.7369	2.7499	19460.83	19461.83	1.00	1.06	1.06	1.06	64	204.0
24-Feb-15	8:30	Cloudy	011186	2.7320	2.7375	19485.83	19486.83	1.00	1.06	1.06	1.06	63	86.6
24-Feb-15	9:40	Cloudy	011212	2.7285	2.7368	19486.83	19487.83	1.00	1.06	1.06	1.06	63	130.8
24-Feb-15	10:45	Cloudy	011192	2.7246	2.7290	19487.83	19488.83	1.00	1.06	1.06	1.06	63	69.3

Graphic Presentation of 1 hour TSP Result



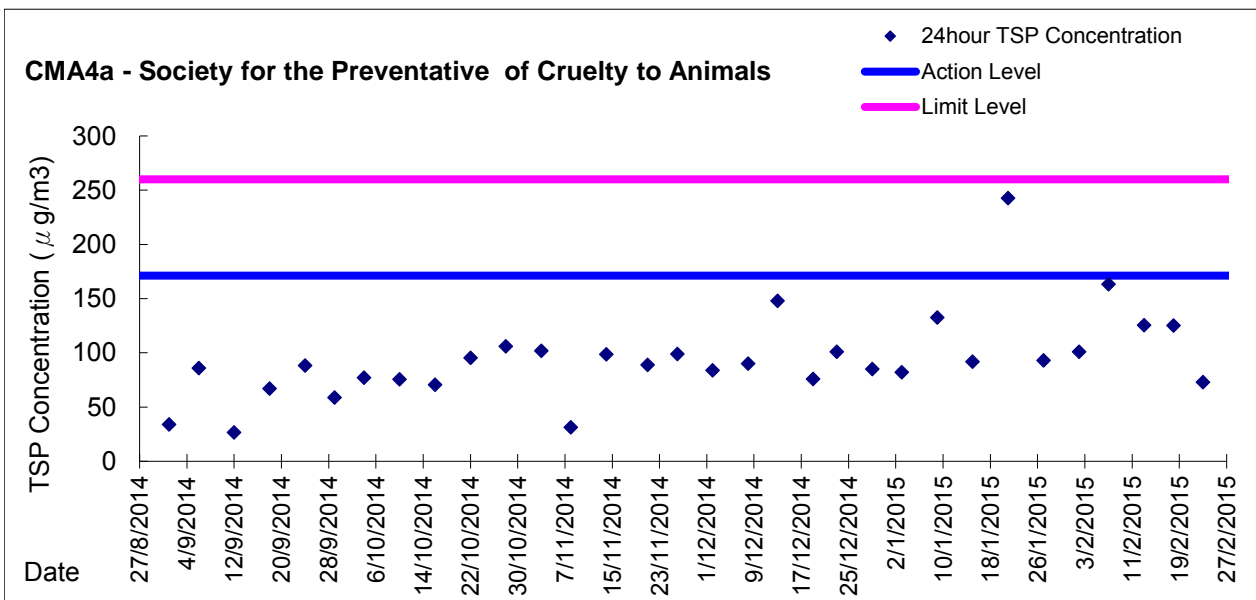
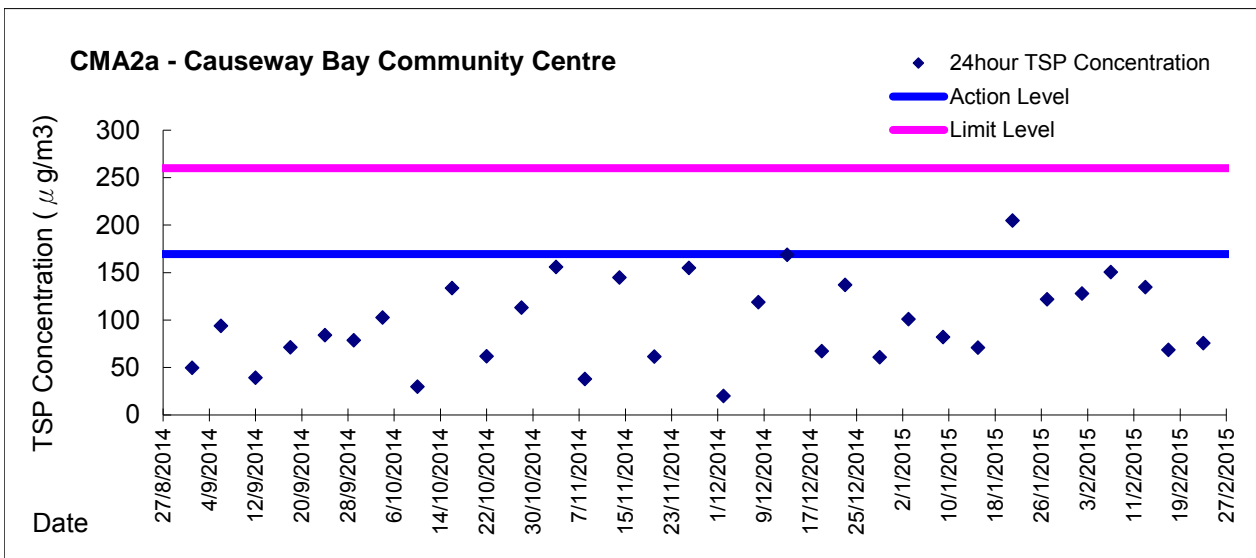
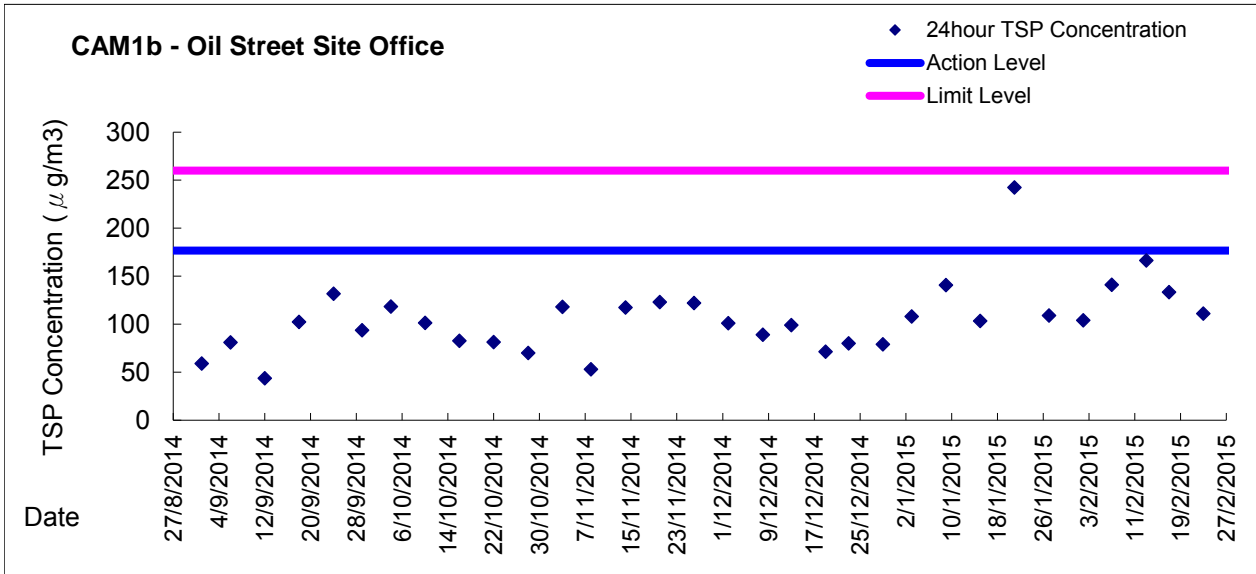


Graphic Presentation of 1 hour TSP Result



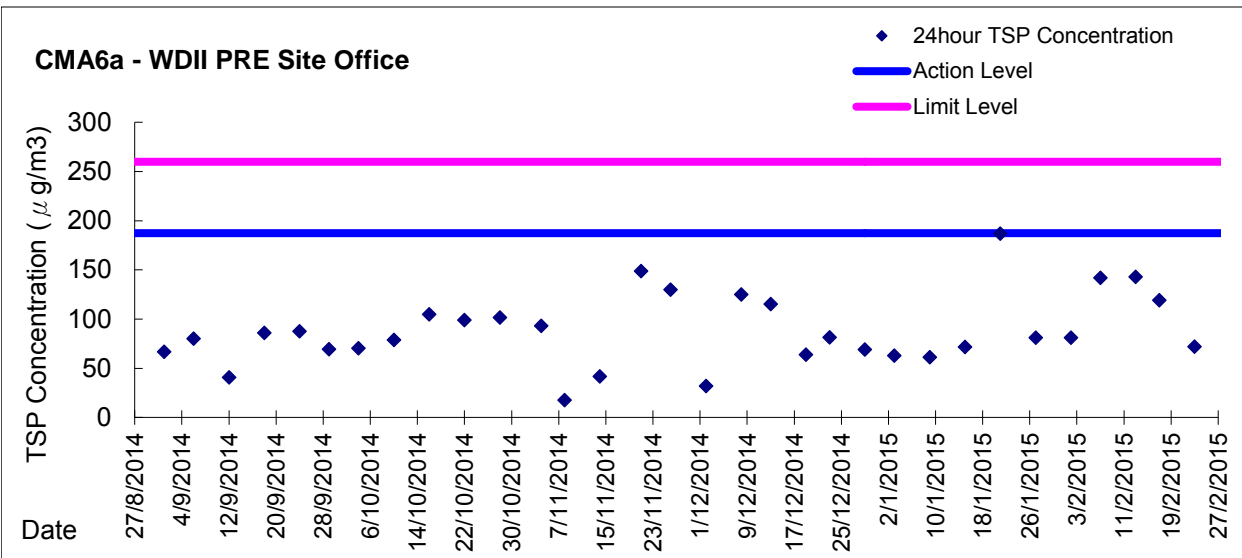
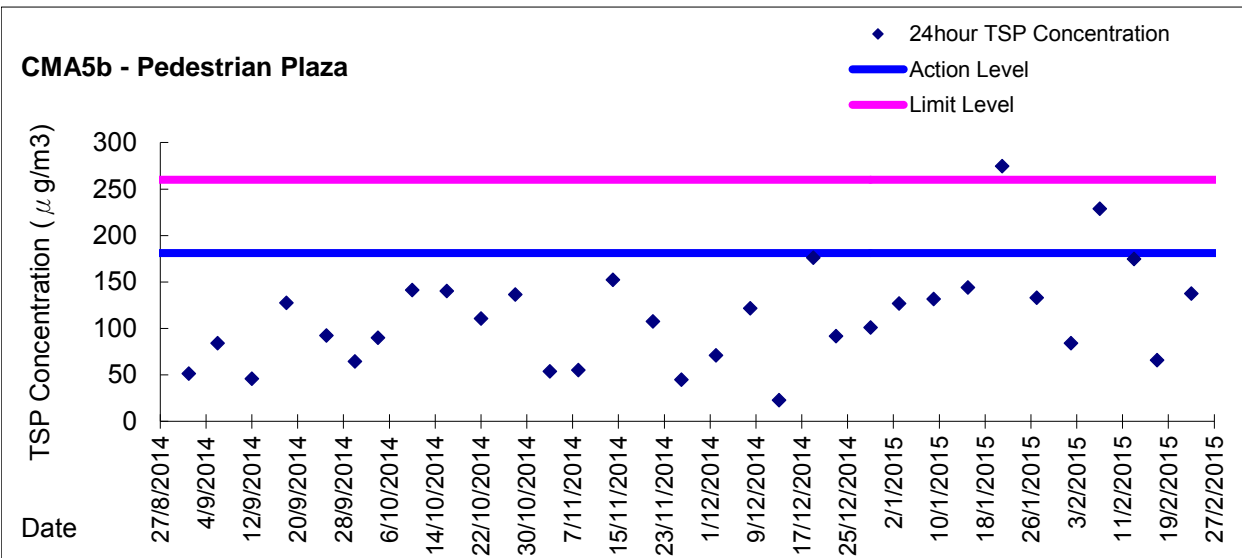
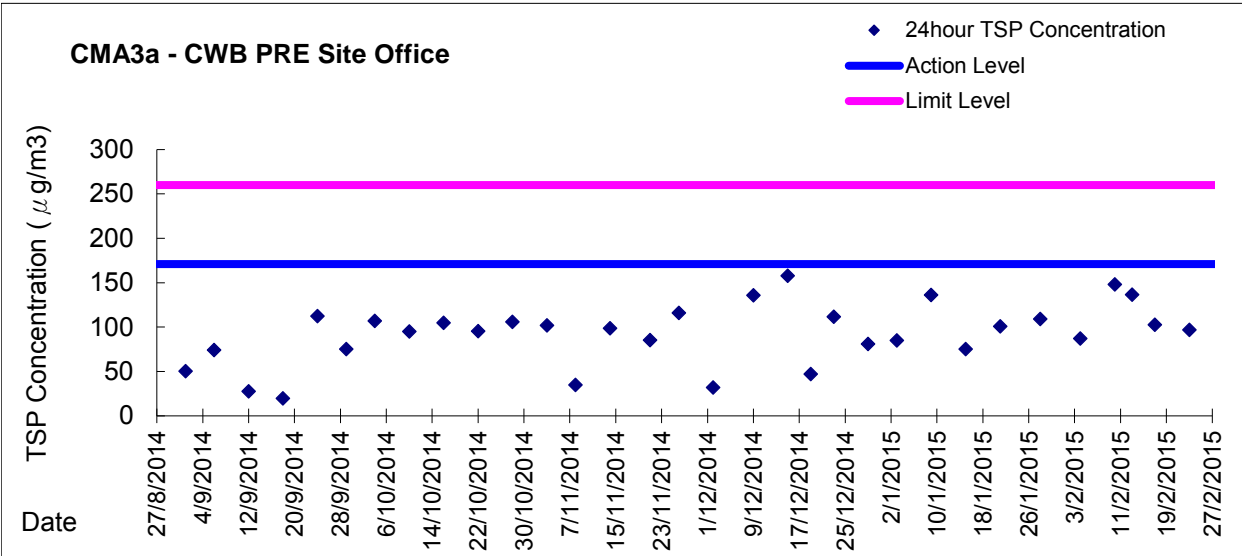


Graphic Presentation of 24 hour TSP Result





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		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						
28/1/2015	10:05	Fine	Middle	-	17.70	17.70	17.75	7.93	7.93	7.93	30.94	30.94	30.94	79.0	79.4	79.3	6.24	6.28	6.27	3.17	3.10	3.11	4	4.00
	10:07		Middle	-	17.80	17.80		7.93	7.93		30.93	30.93		79.6	79.1		6.29	6.25		3.08	3.07		4	
30/1/2015	15:40	Fine	Middle	-	17.70	17.70	17.80	8.10	8.10	8.10	31.32	31.32	31.32	84.4	84.3	84.3	6.65	6.65	6.65	4.45	4.42	4.44	3	2.50
	15:42		Middle	-	17.90	17.90		8.10	8.10		31.32	31.32		84.4	84.2		6.65	6.63		4.44	4.44		2	
2/2/2015	15:50	Fine	Middle	-	17.60	17.60	17.85	8.11	8.11	8.11	31.35	31.35	31.34	86.9	86.9	87.0	6.82	6.82	6.83	3.15	3.37	3.28	4	3.50
	15:52		Middle	-	18.10	18.10		8.11	8.11		31.33	31.33		87.0	87.3		6.83	6.85		3.37	3.23		3	
5/2/2015	19:54	Cloudy	Middle	-	16.30	16.30	16.25	7.62	7.62	7.62	31.74	31.74	31.74	85.0	86.1	85.3	6.97	6.96	6.96	4.77	4.72	4.70	4	4.50
	19:55		Middle	-	16.20	16.20		7.62	7.62		31.73	31.73		85.0	85.1		6.97	6.92		4.67	4.62		5	
7/2/2015	21:56	Cloudy	Middle	-	16.90	16.90	16.90	7.71	7.71	7.71	28.81	28.81	28.76	83.3	83.1	82.1	6.77	6.71	6.66	12.77	12.56	<u>11.92</u>	9	8.00
	21:57		Middle	-	16.90	16.90		7.71	7.72		28.71	28.71		81.8	80.0		6.72	6.45		11.25	11.09		7	
9/2/2015	18:45	Cloudy	Middle	-	16.90	16.90	16.90	7.72	7.72	7.73	31.69	31.69	31.69	74.2	77.4	77.6	5.93	6.19	6.19	7.36	7.39	7.44	6	6.00
	18:46		Middle	-	16.90	16.90		7.73	7.73		31.69	31.69		79.9	78.7		6.39	6.23		7.48	7.54		6	
11/2/2015	10:15	Fine	Middle	-	16.90	16.90	16.90	8.06	8.06	8.06	31.17	31.17	31.17	78.5	78.6	78.5	6.30	6.31	6.30	3.53	3.50	3.48	13	13.50
	10:17		Middle	-	16.90	16.90		8.06	8.06		31.17	31.17		78.6	78.3		6.31	6.28		3.45	3.42		14	
13/2/2015	10:15	Fine	Middle	-	17.30	17.30	17.30	8.01	8.01	8.01	31.12	31.12	31.12	75.0	75.5	75.4	5.97	6.02	6.00	3.09	3.07	3.05	12	11.50
	10:17		Middle	-	17.30	17.30		8.01	8.01		31.12	31.12		75.4	75.5		6.01	6.01		3.03	3.00		11	
16/2/2015	16:00	Cloudy	Middle	-	18.20	18.20	18.25	8.04	8.04	8.04	31.11	31.11	31.11	78.3	79.4	79.1	6.14	6.22	6.20	3.53	3.67	3.95	9	9.50
	16:02		Middle	-	18.30	18.30		8.03	8.03		31.10	31.10		79.3	79.4		6.21	6.21		4.54	4.05		10	
18/2/2015	16:25	Fine	Middle	-	18.00	18.00	18.05	8.05	8.05	8.05	31.20	31.20	31.20	74.4	74.7	74.0	5.84	5.86	5.81	9.06	9.04	9.00	4	3.50
	16:27		Middle	-	18.10	18.10		8.05	8.05		31.19	31.19		73.4	73.5		5.76	5.77		9.06	8.85		3	
24/2/2015	11:30	Fine	Middle	-	18.10	18.10	18.10	8.07	8.07	8.07	30.90	30.91	30.90	78.1	77.4	77.0	6.13	6.07	6.04	3.88	3.99	3.96	4	3.50
	11:32		Middle	-	18.10	18.10		8.07	8.07		30.89	30.89		76.4	76.0		6.00	5.94		3.97	3.98		3	
26/2/2015	10:37	Fine	Middle	-	18.70	18.70	18.80	8.04	8.04	8.04	31.16	31.16	31.15	77.2	76.6	76.4	5.98	5.93	5.92	8.77	8.71	8.65	10	10.50
	10:39		Middle	-	18.90	18.90		8.03	8.03		31.14	31.14		75.9	75.9		5.88	5.87		8.55	8.55		11	

Remarks:

Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

With respect to the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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						
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
28/1/2015	15:22	Fine	Middle	2.5	16.70	16.70	16.60	8.11	8.11	8.12	31.63	31.63	31.57	83.0	82.3	82.2	6.68	6.60	6.60	3.08	3.07	3.07	5	4.50
	15:23		Middle	2.5	16.50	16.50		8.12	8.12		31.51	31.51		81.7	81.7		6.55	6.55		3.07	3.07		4	
30/1/2015	14:20	Fine	Middle	3.0	18.00	18.00	18.15	8.09	8.09	8.09	31.44	31.44	31.41	87.6	88.0	87.4	6.85	6.88	6.83	4.23	4.20	4.19	4	4.00
	14:22		Middle	3.0	18.30	18.30		8.09	8.09		31.38	31.38		87.0	87.1		6.80	6.80		4.18	4.16		4	
2/2/2015	16:59	Fine	Middle	3.0	17.30	17.30	17.40	8.12	8.12	8.12	31.38	31.38	31.37	81.1	81.1	81.2	6.44	6.43	6.45	4.06	4.01	4.02	4	4.00
	17:01		Middle	3.0	17.50	17.50		8.12	8.12		31.36	31.36		81.0	81.6		6.43	6.48		4.00	3.99		4	
5/2/2015	16:40	Cloudy	Middle	3.0	17.20	17.20	17.30	8.22	8.22	8.19	31.35	31.35	31.37	84.5	84.1	84.5	6.71	6.68	6.71	5.21	5.11	5.12	6	6.00
	16:42		Middle	3.0	17.40	17.40		8.16	8.16		31.38	31.38		84.6	84.7		6.72	6.73		5.13	5.02		6	
7/2/2015	22:57	Cloudy	Middle	3.0	16.40	16.40	16.35	7.87	7.87	7.88	31.12	31.12	31.45	72.8	74.0	74.0	5.92	6.00	6.00	4.28	4.22	4.23	4	3.50
	22:58		Middle	3.0	16.30	16.30		7.88	7.88		31.77	31.77		74.8	74.2		6.14	5.92		4.25	4.15		3	
9/2/2015	21:45	Cloudy	Middle	2.5	16.00	16.00	16.05	7.96	7.96	7.97	31.90	31.92	31.94	81.6	81.3	80.9	6.65	6.60	6.57	7.91	7.84	7.82	9	8.50
	21:46		Middle	2.5	16.10	16.10		7.98	7.98		31.96	31.96		80.6	80.2		6.54	6.50		7.71	7.80		8	
11/2/2015	10:41	Fine	Middle	3.0	17.00	17.00	17.10	7.89	7.89	7.90	31.29	31.29	31.30	77.8	77.1	76.4	6.20	6.15	6.09	3.52	3.52	3.45	8	7.50
	10:43		Middle	3.0	17.20	17.20		7.90	7.90		31.31	31.31		75.8	74.9		6.04	5.97		3.39	3.38		7	
13/2/2015	13:55	Fine	Middle	3.0	17.90	17.90	17.85	8.00	8.00	8.00	31.44	31.44	31.43	77.5	77.2	77.2	6.07	6.04	6.04	3.19	3.09	3.08	4	4.00
	13:57		Middle	3.0	17.80	17.80		8.00	8.00		31.41	31.41		76.7	77.3		5.99	6.04		3.04	3.00		4	
16/2/2015	14:20	Cloudy	Middle	3.0	18.70	18.70	18.85	8.03	8.03	8.03	31.45	31.45	31.45	78.8	78.9	78.9	6.19	6.19	6.18	2.26	2.26	2.26	2	2.50
	14:22		Middle	3.0	19.00	19.00		8.03	8.03		31.44	31.44		79.0	78.7		6.19	6.16		2.26	2.26		3	
18/2/2015	15:26	Fine	Middle	3.0	17.60	17.60	13.25	8.10	8.10	8.10	31.59	31.59	31.55	75.3	75.0	75.2	5.94	5.91	5.93	2.68	2.71	2.69	3	3.50
	15:28		Middle	3.0	0.00	17.80		8.10	8.10		31.51	31.51		75.1	75.4		5.91	5.94		2.70	2.67		4	
24/2/2015	7:31	Fine	Middle	2.5	18.00	18.00	18.05	8.12	8.12	8.12	31.22	31.22	31.21	75.2	75.5	75.4	5.89	5.92	5.91	3.82	3.84	3.87	6	5.50
	7:32		Middle	2.5	18.10	18.10		8.12	8.12		31.22	31.19		75.5	75.2		5.92	5.89		3.90	3.92		5	
26/2/2015	14:04	Fine	Middle	2.5	20.30	20.30	20.45	8.05	8.05	8.05	31.54	31.54	31.53	72.4	71.5	70.5	5.42	5.32	5.27	4.68	4.33	4.41	5	4.00
	14:06		Middle	2.5	20.60	20.60		8.05	8.05		31.51	31.51		70.0	68.2		5.23	5.11		4.31	4.30		3	

Remarks:

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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					
28/1/2015	15:37	Fine	Middle	2.5	17.10	17.10	17.10	8.05	8.05	8.05	31.32	31.32	31.32	76.6	76.8	76.9	6.12	6.13	6.15	3.55	3.62	3.61	5	4.50
	15:39		Middle	2.5	17.10	17.10		8.05	8.05		31.32	31.32		77.2	77.1		6.17	6.16		3.62	3.63		4	
30/1/2015	14:42	Fine	Middle	3.0	18.10	18.10	18.15	8.06	8.06	8.06	31.48	31.48	31.48	80.9	80.8	80.8	6.33	6.32	6.32	2.69	2.71	2.66	2	2.00
	14:44		Middle	3.0	18.20	18.20		8.06	8.06		31.48	31.48		80.9	80.7		6.33	6.31		2.63	2.60		2	
2/2/2015	17:30	Fine	Middle	3.0	17.20	17.20	17.20	8.09	8.09	8.09	31.58	31.58	31.58	83.7	84.0	83.7	6.67	6.69	6.66	2.26	2.29	2.22	3	3.50
	17:32		Middle	3.0	17.20	17.20		8.09	8.09		31.58	31.58		83.5	83.5		6.64	6.64		2.16	2.15		4	
5/2/2015	17:01	Cloudy	Middle	3.0	17.00	17.00	16.95	8.13	8.13	8.13	31.32	31.32	31.33	83.0	83.6	83.7	6.68	6.70	6.71	2.24	2.25	2.25	5	4.50
	17:03		Middle	3.0	16.90	16.90		8.12	8.12		31.33	31.33		84.1	84.0		6.73	6.73		2.26	2.26		4	
7/2/2015	22:36	Cloudy	Middle	3.0	16.40	16.40	16.40	7.83	7.83	7.84	31.18	31.18	31.55	78.9	80.4	79.9	6.39	6.47	6.45	5.23	5.10	5.15	4	4.50
	22:37		Middle	3.0	16.40	16.40		7.84	7.84		31.89	31.93		78.8	81.4		6.39	6.56		5.06	5.20		5	
9/2/2015	21:00	Cloudy	Middle	2.5	15.80	15.80	15.80	8.02	8.02	8.02	31.29	31.29	31.63	79.1	79.7	80.1	6.61	6.65	6.61	5.49	5.02	5.20	3	3.00
	21:01		Middle	2.5	15.80	15.80		8.02	8.02		31.96	31.97		80.7	80.9		6.58	6.59		5.11	5.18		3	
11/2/2015	11:02	Fine	Middle	3.0	16.80	16.80	16.85	8.13	8.13	8.13	31.46	31.46	31.46	83.1	83.5	83.4	6.66	6.69	6.68	3.53	3.54	3.55	5	5.00
	11:04		Middle	3.0	16.90	16.90		8.12	8.12		31.46	31.46		83.5	83.3		6.69	6.68		3.58	3.55		5	
13/2/2015	14:10	Fine	Middle	3.0	17.80	17.80	17.85	7.98	7.98	7.99	31.40	31.40	31.40	78.5	78.5	78.7	6.17	6.17	6.18	2.33	2.17	2.28	4	4.50
	14:12		Middle	3.0	17.90	17.90		7.99	7.99		31.39	31.39		78.7	78.9		6.19	6.20		2.31	2.32		5	
16/2/2015	14:41	Cloudy	Middle	3.0	18.10	18.10	18.40	8.03	8.03	8.03	31.43	31.43	31.43	79.3	80.1	80.2	6.20	6.28	6.27	2.33	2.26	2.29	3	3.50
	14:43		Middle	3.0	18.70	18.70		8.03	8.03		31.42	31.42		80.7	80.5		6.30	6.28		2.26	2.30		4	
18/2/2015	15:36	Fine	Middle	3.0	17.40	17.40	17.45	8.07	8.07	8.07	31.39	31.39	31.39	75.6	74.4	75.0	5.99	5.90	5.95	2.34	2.17	2.21	3	3.50
	15:38		Middle	3.0	17.50	17.50		8.07	8.07		31.39	31.39		74.4	75.7		5.90	6.01		2.16	2.15		4	
24/2/2015	7:52	Fine	Middle	2.5	17.90	17.90	17.90	8.10	8.10	8.10	31.19	31.19	31.19	69.4	68.5	68.3	5.46	5.39	5.37	3.96	3.97	3.96	4	5.00
	7:54		Middle	2.5	17.90	17.90		8.10	8.10		31.19	31.20		67.9	67.2		5.34	5.29		3.97	3.95		6	
26/2/2015	14:20	Fine	Middle	2.5	19.20	19.20	19.20	8.05	8.05	8.06	31.49	31.49	31.49	64.5	63.9	63.6	4.94	4.90	4.87	4.55	4.41	4.44	4	3.50
	14:22		Middle	2.5	19.20	19.20		8.06	8.06		31.49	31.49		63.2	62.6		4.84	4.80		4.40	4.40		3	

Remarks:

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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					
28/1/2015	15:33	Fine	Middle	2.5	16.90	16.90	16.90	8.05	8.05	8.05	31.38	31.38	31.39	75.2	74.7	74.3	6.03	5.99	5.95	2.44	2.46	2.46	9	9.00
	15:35		Middle	2.5	16.90	16.90		8.05	8.05		31.39	31.39		74.1	73.0		5.94	5.85		2.47	2.45		9	
30/1/2015	14:36	Fine	Middle	3.0	17.90	17.90	18.00	8.06	8.06	8.06	31.46	31.46	31.45	80.1	80.0	80.0	6.29	6.28	6.28	3.41	3.34	3.34	3	2.50
	14:38		Middle	3.0	18.10	18.10		8.06	8.06		31.44	31.44		79.9	80.1		6.27	6.29		3.31	3.30		2	
2/2/2015	17:18	Fine	Middle	3.0	17.10	17.10	17.10	8.10	8.10	8.10	31.53	31.53	31.53	81.4	81.4	81.4	6.49	6.49	6.49	2.37	2.34	2.30	5	4.50
	17:20		Middle	3.0	17.10	17.10		8.10	8.10		31.53	31.53		81.5	81.1		6.50	6.46		2.27	2.22		4	
5/2/2015	16:56	Cloudy	Middle	3.0	16.90	16.90	16.90	8.14	8.14	8.14	31.36	31.36	31.37	82.4	83.2	82.7	6.61	6.67	6.63	2.05	2.05	2.07	4	4.00
	16:58		Middle	3.0	16.90	16.90		8.13	8.13		31.37	31.37		82.6	82.6		6.62	6.62		2.07	2.10		4	
7/2/2015	22:43	Cloudy	Middle	3.0	16.40	16.40	16.40	7.72	7.72	7.73	31.71	31.71	31.79	80.7	82.9	82.5	6.51	6.62	6.64	7.48	7.47	7.39	4	3.50
	22:44		Middle	3.0	16.40	16.40		7.73	7.73		31.87	31.87		83.5	82.8		6.74	6.69		7.36	7.26		3	
9/2/2015	21:11	Cloudy	Middle	2.5	15.80	15.80	15.80	8.01	8.01	8.01	31.37	31.38	31.43	82.4	82.7	83.2	6.89	6.78	6.83	8.03	8.00	7.96	11	11.00
	21:12		Middle	2.5	15.80	15.80		8.00	8.00		31.44	31.53		83.9	83.7		6.84	6.82		7.97	7.85		11	
11/2/2015	10:55	Fine	Middle	3.0	16.60	16.60	16.65	8.13	8.13	8.13	31.29	31.29	31.34	76.0	75.7	75.7	6.11	6.09	6.09	2.59	2.70	2.69	4	3.50
	10:58		Middle	3.0	16.70	16.70		8.12	8.12		31.39	31.39		75.5	75.5		6.07	6.07		2.73	2.74		3	
13/2/2015	14:18	Fine	Middle	3.0	17.70	17.70	17.75	8.00	8.00	8.00	31.44	31.44	31.44	67.6	68.4	68.0	5.33	5.44	5.37	1.89	1.89	1.86	3	3.00
	14:20		Middle	3.0	17.80	17.80		8.00	8.00		31.44	31.44		68.1	67.7		5.36	5.33		1.85	1.81		3	
16/2/2015	14:37	Cloudy	Middle	3.0	18.20	18.20	18.30	8.02	8.02	8.02	31.44	31.44	31.44	76.7	77.3	77.3	5.99	6.03	6.04	1.75	1.70	1.70	4	4.00
	14:39		Middle	3.0	18.40	18.40		8.02	8.02		31.44	31.44		77.3	78.0		6.03	6.09		1.68	1.67		4	
18/2/2015	15:33	Fine	Middle	3.0	17.40	17.40	17.45	8.08	8.08	8.08	31.40	31.40	31.40	74.1	72.9	72.9	5.88	5.78	5.78	2.16	2.14	2.15	4	3.50
	15:35		Middle	3.0	17.50	17.50		8.07	8.07		31.39	31.39		72.4	72.0		5.74	5.71		2.14	2.14		3	
24/2/2015	7:45	Fine	Middle	2.5	17.90	17.90	17.90	8.09	8.09	8.09	31.23	31.23	31.23	70.2	70.5	70.3	5.53	5.55	5.53	3.27	3.28	3.31	4	4.00
	7:47		Middle	2.5	17.90	17.90		8.09	8.09		31.22	31.22		70.3	70.0		5.53	5.51		3.30	3.37		4	
26/2/2015	14:16	Fine	Middle	2.5	19.20	19.20	19.25	8.06	8.06	8.06	31.51	31.51	31.50	68.0	68.0	67.6	5.21	5.20	5.17	4.49	4.63	4.60	4	4.50
	14:18		Middle	2.5	19.30	19.30		8.06	8.06		31.49	31.49		67.5	66.9		5.16	5.12		4.68	4.59		5	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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					
28/1/2015	15:29	Fine	Middle	2.5	16.70	16.70	16.70	8.12	8.12	8.12	31.47	31.47	31.47	83.4	83.6	83.4	6.70	6.73	6.70	3.06	3.06	3.06	3	3.50
	15:31		Middle	2.5	16.70	16.70	16.70	8.12	8.12	8.12	31.47	31.47	31.47	83.5	82.9	83.4	6.71	6.66	6.70	3.06	3.06	3.06	4	
30/1/2015	14:31	Fine	Middle	3.0	17.60	17.60	17.70	8.07	8.07	8.07	31.40	31.40	31.40	84.7	84.4	84.5	6.69	6.67	6.67	4.67	4.69	4.70	<2	3.00
	14:33		Middle	3.0	17.80	17.80	17.70	8.07	8.07	8.07	31.39	31.39	31.40	84.7	84.1	84.5	6.69	6.63	6.67	4.71	4.73	4.70	3	
2/2/2015	17:09	Fine	Middle	3.0	17.00	17.00	17.05	8.12	8.12	8.12	31.46	31.46	31.46	84.0	83.6	83.5	6.70	6.67	6.66	2.90	2.85	2.94	4	4.00
	17:11		Middle	3.0	17.10	17.10	17.05	8.11	8.11	8.12	31.45	31.45	31.46	83.7	82.7	83.5	6.67	6.60	6.66	2.99	3.00	2.94	4	
5/2/2015	16:50	Cloudy	Middle	3.0	16.90	16.90	16.90	8.15	8.15	8.15	31.34	31.34	31.35	82.4	82.8	82.8	6.61	6.64	6.64	3.57	3.55	3.54	4	4.50
	16:52		Middle	3.0	16.90	16.90	16.90	8.15	8.15	8.15	31.36	31.36	31.35	83.4	82.6	82.8	6.69	6.62	6.64	3.55	3.49	3.54	5	
7/2/2015	22:48	Cloudy	Middle	3.0	16.30	16.30	16.30	7.90	7.90	7.90	31.91	31.91	31.82	82.0	82.9	82.1	6.63	6.70	6.64	4.29	4.63	4.39	3	3.50
	22:49		Middle	3.0	16.30	16.30	16.30	7.90	7.90	7.90	31.72	31.72	31.82	82.3	81.2	82.1	6.66	6.58	6.64	4.26	4.39	4.39	4	
9/2/2015	21:18	Cloudy	Middle	2.5	15.60	15.60	15.65	8.03	8.03	8.03	31.93	31.93	31.65	79.7	81.6	81.3	6.87	6.72	6.75	7.73	7.60	7.78	5	5.00
	21:19		Middle	2.5	15.70	15.70	15.65	8.03	8.03	8.03	31.36	31.36	31.65	82.4	81.6	81.3	6.74	6.68	6.75	7.89	7.91	7.78	5	
11/2/2015	10:51	Fine	Middle	3.0	16.80	16.80	16.85	8.12	8.12	8.12	31.41	31.41	31.40	77.4	78.1	77.6	6.21	6.26	6.22	2.30	2.28	2.35	4	4.00
	10:53		Middle	3.0	16.90	16.90	16.85	8.12	8.12	8.12	31.38	31.38	31.40	77.7	77.2	77.6	6.23	6.19	6.22	2.36	2.45	2.35	4	
13/2/2015	14:05	Fine	Middle	3.0	17.40	17.40	17.45	8.00	8.00	8.00	31.41	31.41	31.41	70.5	70.4	70.6	5.59	5.58	5.59	1.77	1.70	1.62	3	3.00
	14:07		Middle	3.0	17.50	17.50	17.45	8.00	8.00	8.00	31.41	31.41	31.41	70.7	70.6	70.6	5.60	5.59	5.59	1.56	1.45	1.62	3	
16/2/2015	14:31	Cloudy	Middle	3.0	18.30	18.30	18.35	8.03	8.03	8.03	31.45	31.45	23.95	75.8	76.2	76.0	5.90	5.94	5.92	2.35	2.35	2.35	4	4.00
	14:33		Middle	3.0	18.40	18.40	18.35	8.03	8.03	8.03	31.44	1.44	23.95	75.7	76.1	76.0	5.90	5.92	5.92	2.35	2.36	2.35	4	
18/2/2015	15:31	Fine	Middle	3.0	17.40	17.40	17.40	8.11	8.11	8.11	31.44	31.44	31.43	80.3	79.7	79.8	6.38	6.33	6.34	2.82	2.82	2.79	5	5.00
	15:33		Middle	3.0	17.40	17.40	17.40	8.11	8.11	8.11	31.42	31.42	31.43	79.6	79.6	79.8	6.32	6.32	6.34	2.76	2.75	2.79	5	
24/2/2015	7:41	Fine	Middle	2.5	17.90	17.90	17.90	8.12	8.12	8.12	31.22	31.22	31.22	74.2	74.6	74.3	5.84	5.87	5.85	3.98	3.97	3.93	4	4.00
	7:42		Middle	2.5	17.90	17.90	17.90	8.12	8.12	8.12	31.21	31.21	31.22	74.4	74.1	74.3	5.86	5.83	5.85	3.90	3.85	3.93	4	
26/2/2015	14:13	Fine	Middle	2.5	19.20	19.20	19.30	8.05	8.05	8.05	31.50	31.50	31.47	71.5	71.6	71.2	5.47	5.48	5.45	3.38	3.37	3.37	4	4.50
	14:15		Middle	2.5	19.40	19.40	19.30	8.05	8.05	8.05	31.44	31.44	31.47	71.3	70.5	71.2	5.45	5.39	5.45	3.37	3.37	3.37	5	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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	Value	Average			
28/1/2015	15:25	Fine	Middle	2.5	16.70	16.70	16.75	8.13	8.13	8.13	31.45	31.45	31.44	81.0	79.0	79.5	6.50	6.35	6.39	4.04	4.04	4.02	4	3.50
	15:27		Middle	2.5	16.80	16.80		8.13	8.13		31.43	31.43		78.7	79.3		6.32	6.38		4.00	3.99		3	
30/1/2015	14:26	Fine	Middle	3.0	17.50	17.50	17.60	8.11	8.11	8.11	31.46	31.46	31.45	82.0	82.2	82.1	6.48	6.49	6.48	5.09	5.08	5.08	6	5.50
	14:28		Middle	3.0	17.70	17.70		8.11	8.11		31.44	31.44		82.3	81.8		6.50	6.45		5.07	5.09		5	
2/2/2015	17:05	Fine	Middle	3.0	17.00	17.00	17.05	8.12	8.12	8.12	31.41	31.41	31.41	80.7	80.5	80.6	6.44	6.43	6.44	3.97	3.99	3.97	5	5.50
	17:07		Middle	3.0	17.10	17.10		8.12	8.12		31.41	31.41		80.8	80.5		6.45	6.42		4.00	3.92		6	
5/2/2015	16:44	Cloudy	Middle	3.0	16.90	16.90	16.95	8.16	8.16	8.16	31.32	31.32	31.32	81.2	80.7	80.4	6.49	6.45	6.43	3.95	3.97	3.98	5	5.50
	16:46		Middle	3.0	17.00	17.00		8.15	8.15		31.32	31.32		80.6	79.1		6.45	6.33		3.99	3.99		6	
7/2/2015	22:54	Cloudy	Middle	3.0	16.30	16.30	16.30	7.92	7.92	7.92	31.73	31.73	31.70	75.6	75.6	73.8	6.09	6.10	5.95	4.28	4.21	4.26	4	4.00
	22:55		Middle	3.0	16.30	16.30		7.92	7.92		31.66	31.66		72.5	71.4		5.86	5.75		4.30	4.25		4	
9/2/2015	21:27	Cloudy	Middle	2.5	16.10	16.10	16.10	7.91	7.91	7.92	31.71	31.80	31.84	81.7	82.2	82.1	6.63	6.66	6.66	8.01	7.98	7.97	11	11.00
	21:28		Middle	2.5	16.10	16.10		7.92	7.92		31.92	31.92		82.4	82.0		6.68	6.65		7.95	7.92		11	
11/2/2015	10:45	Fine	Middle	3.0	16.90	16.90	17.00	8.09	8.09	8.11	31.38	31.38	31.38	79.3	79.5	78.9	6.35	6.36	6.31	3.93	3.87	3.91	5	4.50
	10:47		Middle	3.0	17.10	17.10		8.12	8.12		31.37	31.37		79.3	77.5		6.34	6.19		3.87	3.98		4	
13/2/2015	14:00	Fine	Middle	3.0	17.20	17.20	17.30	8.01	8.01	8.01	31.47	31.47	31.46	73.2	73.2	73.5	5.82	5.81	5.84	3.00	3.08	3.06	4	4.50
	14:02		Middle	3.0	17.40	17.40		8.01	8.01		31.45	31.45		73.6	73.9		5.85	5.86		3.06	3.09		5	
16/2/2015	14:25	Cloudy	Middle	3.0	18.30	18.30	18.40	8.03	8.03	8.04	31.44	31.44	31.44	74.7	75.5	75.2	5.82	5.87	5.84	2.32	2.32	2.33	3	3.00
	14:27		Middle	3.0	18.50	18.50		8.04	8.04		31.43	31.43		75.2	75.4		5.84	5.81		2.34	2.35		3	
18/2/2015	15:28	Fine	Middle	3.0	17.40	17.40	17.45	8.10	8.10	8.10	31.44	31.44	31.43	75.1	74.4	74.6	5.96	5.90	5.91	2.49	2.43	2.42	6	5.00
	15:30		Middle	3.0	17.50	17.50		8.10	8.10		31.41	31.41		74.5	74.2		5.90	5.88		2.38	2.37		4	
24/2/2015	7:35	Fine	Middle	2.5	17.80	17.80	17.85	8.12	8.12	8.12	31.22	31.22	31.21	73.0	73.9	74.0	5.75	5.82	5.83	4.39	4.42	4.29	4	4.00
	7:37		Middle	2.5	17.90	17.90		8.12	8.12		31.20	31.20		74.3	74.9		5.85	5.90		4.23	4.11		4	
26/2/2015	14:10	Fine	Middle	2.5	19.40	19.40	19.50	8.07	8.07	8.07	31.60	31.60	31.56	70.0	69.7	69.6	5.33	5.31	5.30	5.41	5.38	5.37	6	7.00
	14:12		Middle	2.5	19.60	19.60		8.07	8.07		31.52	31.52		69.4	69.1		5.29	5.27		5.35	5.34		8	

Remarks:

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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					
28/1/2015	9:25	Fine	Middle	3.0	17.70	17.70	17.75	7.98	7.98	7.99	31.12	31.12	31.12	78.9	78.8	78.3	6.23	6.22	6.18	3.64	3.64	3.64	4	4.00
	9:27		Middle	3.0	17.80	17.80		7.99	7.99		31.12	31.12		77.8	77.7		6.14	6.13		3.63	3.63		4	
30/1/2015	14:55	Fine	Middle	3.5	17.80	17.80	17.85	8.12	8.12	8.12	31.53	31.53	31.53	83.9	84.0	83.6	6.68	6.68	6.61	4.27	4.29	4.30	5	5.00
	14:57		Middle	3.5	17.90	17.90		8.12	8.12		31.53	31.53		83.0	83.3		6.52	6.54		4.31	4.32		5	
2/2/2015	15:15	Fine	Middle	3.0	19.00	19.00	19.20	8.09	8.09	8.10	31.84	31.84	31.83	87.4	87.1	87.5	6.69	6.67	6.69	2.26	2.30	2.31	3	2.50
	15:17		Middle	3.0	19.40	19.40		8.10	8.10		31.82	31.82		87.3	88.1		6.68	6.73		2.32	2.34		2	
5/2/2015	19:10	Cloudy	Middle	3.5	16.00	16.00	16.00	7.78	7.78	7.80	31.63	31.63	31.68	86.2	86.1	85.7	7.00	7.01	6.97	5.23	5.13	5.18	6	6.00
	19:11		Middle	3.5	16.00	16.00		7.81	7.81		31.72	31.73		85.1	85.3		6.92	6.95		5.15	5.19		6	
7/2/2015	21:16	Cloudy	Middle	3.5	16.80	16.80	16.80	7.65	7.65	7.66	31.83	31.83	31.90	84.1	83.4	83.6	6.70	6.58	6.65	6.50	6.58	6.56	9	8.00
	21:17		Middle	3.5	16.80	16.80		7.67	7.67		31.96	31.96		83.5	83.2		6.68	6.65		6.61	6.54		7	
9/2/2015	20:07	Cloudy	Middle	3.5	16.30	16.30	16.30	7.92	7.92	7.93	31.96	31.96	31.89	84.4	83.8	84.4	6.82	6.78	6.82	7.74	7.73	7.77	4	4.00
	20:08		Middle	3.5	16.30	16.30		7.94	7.94		31.81	31.81		84.8	84.5		6.84	6.82		7.83	7.77		4	
11/2/2015	9:37	Fine	Middle	3.0	16.60	16.60	16.60	8.10	8.10	8.10	31.39	31.39	31.40	77.7	77.2	77.6	6.27	6.23	6.26	3.34	3.37	3.37	5	4.50
	9:39		Middle	3.0	16.60	16.60		8.10	8.10		31.40	31.40		77.4	78.0		6.24	6.29		3.38	3.38		4	
13/2/2015	9:35	Fine	Middle	3.0	16.70	16.70	16.75	8.02	8.02	8.02	31.54	31.54	31.54	69.6	69.9	69.5	5.56	5.61	5.57	3.75	3.76	3.77	4	4.50
	9:37		Middle	3.0	16.80	16.80		8.02	8.02		31.54	31.54		69.1	69.4		5.54	5.55		3.77	3.78		5	
16/2/2015	14:52	Cloudy	Middle	3.5	17.90	17.90	18.00	8.07	8.07	8.07	31.48	31.48	31.45	78.0	77.3	77.3	6.12	6.06	6.06	3.93	3.85	3.88	6	5.50
	14:54		Middle	3.5	18.10	18.10		8.07	8.07		31.41	31.41		77.0	76.8		6.03	6.02		3.82	3.90		5	
18/2/2015	15:46	Fine	Middle	3.0	17.60	17.60	17.65	8.12	8.12	8.12	31.39	31.39	31.36	78.8	78.0	77.9	6.22	6.15	6.15	3.39	3.35	3.38	4	4.00
	15:48		Middle	3.0	17.70	17.70		8.12	8.12		31.33	31.33		77.4	77.3		6.11	6.10		3.37	3.40		4	
24/2/2015	8:20	Fine	Middle	3.0	17.80	17.80	17.80	8.12	8.12	8.12	31.10	31.10	31.09	70.9	67.4	67.8	5.59	5.31	5.34	3.29	3.33	3.32	5	4.50
	8:22		Middle	3.0	17.80	17.80		8.12	8.12		31.08	31.08		66.7	66.0		5.26	5.20		3.34	3.30		4	
26/2/2015	10:00	Fine	Middle	3.0	18.80	18.80	18.85	8.08	8.08	8.08	31.47	31.47	31.46	70.5	70.3	69.4	5.44	5.42	5.35	4.92	4.85	4.86	4	4.00
	10:02		Middle	3.0	18.90	18.90		8.08	8.08		31.44	31.44		68.6	68.1		5.29	5.25		4.83	4.83		4	

Remarks:

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
28/1/2015	14:10	Fine	Middle	3.5	17.50	17.50	17.50	7.97	7.97	7.97	31.27	31.27	31.27	75.5	75.3	74.8	5.99	5.97	5.93	5.40	5.33	5.34	6	6.50
	14:12		Middle	3.5	17.50	17.50	17.50	7.97	7.97	7.97	31.27	31.27	31.27	74.2	74.0	74.8	5.89	5.87	5.93	5.31	5.31	5.34	7	
30/1/2015	13:45	Fine	Middle	3.5	17.80	17.80	17.90	8.06	8.06	8.06	31.46	31.46	31.47	82.1	82.0	81.8	6.45	6.44	6.42	4.09	4.10	4.11	4	5.00
	13:47		Middle	3.5	18.00	18.00	18.00	8.06	8.06	8.06	31.48	31.48	31.48	81.7	81.4	81.8	6.40	6.38	6.42	4.10	4.13	4.13	6	
2/2/2015	16:15	Fine	Middle	3.5	17.60	17.60	17.60	8.07	8.07	8.07	31.64	31.64	31.67	85.2	85.3	85.3	6.71	6.72	6.72	4.39	4.43	4.40	5	5.50
	16:17		Middle	3.5	17.60	17.60	17.60	8.07	8.07	8.07	31.69	31.69	31.69	86.1	84.7	85.3	6.78	6.66	6.72	4.44	4.33	4.40	6	
5/2/2015	18:05	Cloudy	Middle	2.5	15.70	15.70	15.70	7.85	7.85	7.85	31.86	31.86	31.86	89.9	90.9	90.5	7.36	7.43	7.40	6.82	6.71	6.71	7	6.50
	18:06		Middle	2.5	15.70	15.70	15.70	7.85	7.85	7.85	31.86	31.86	31.86	90.7	90.3	90.5	7.41	7.38	7.40	6.68	6.62	6.71	6	
7/2/2015	19:30	Cloudy	Middle	3.0	17.00	17.00	17.00	7.55	7.55	7.58	31.89	31.89	31.89	90.3	90.7	89.8	7.20	7.23	7.15	5.56	5.48	5.47	5	5.50
	19:31		Middle	3.0	17.00	17.00	17.00	7.60	7.60	7.58	31.89	31.89	31.89	89.2	88.8	89.8	7.11	7.07	7.15	5.44	5.41	5.47	6	
9/2/2015	19:25	Cloudy	Middle	2.5	16.30	16.30	16.30	7.99	7.99	7.99	32.03	32.03	31.93	87.0	85.6	85.5	7.04	7.02	6.98	6.38	6.29	6.25	5	5.50
	19:26		Middle	2.5	16.30	16.30	16.30	7.99	7.99	7.99	31.79	31.86	31.93	84.3	85.1	85.5	6.85	6.99	6.98	6.22	6.12	6.25	6	
11/2/2015	10:45	Fine	Middle	3.0	16.90	16.90	16.95	8.09	8.09	8.09	31.60	31.60	31.59	79.6	79.3	79.1	6.37	6.34	6.32	5.40	5.42	5.41	8	8.50
	10:47		Middle	3.0	17.00	17.00	17.00	8.08	8.08	8.09	31.58	31.58	31.59	79.0	78.3	79.1	6.31	6.25	6.32	5.42	5.41	5.41	9	
13/2/2015	13:15	Fine	Middle	3.5	18.00	18.00	18.10	8.05	8.05	8.03	31.65	31.65	31.63	74.7	74.2	73.9	5.84	5.80	5.78	3.65	3.67	3.67	6	5.50
	13:17		Middle	3.5	18.20	18.20	18.20	8.00	8.00	8.03	31.60	31.60	31.63	74.2	72.6	73.9	5.80	5.67	5.78	3.68	3.67	3.67	5	
16/2/2015	13:40	Cloudy	Middle	3.0	21.20	21.20	21.05	8.07	8.07	8.07	31.79	31.79	31.81	82.7	82.6	82.5	6.34	6.32	6.31	3.53	3.51	3.53	5	4.50
	13:42		Middle	3.0	20.90	20.90	21.05	8.07	8.07	8.07	31.83	31.83	31.81	82.9	81.6	82.5	6.34	6.23	6.31	3.52	3.54	3.53	4	
18/2/2015	18:00	Fine	Middle	3.0	17.50	17.50	17.55	8.08	8.08	8.08	31.37	31.37	31.37	77.5	76.3	76.1	6.13	6.04	6.02	5.67	5.65	5.65	8	8.50
	18:02		Middle	3.0	17.60	17.60	17.55	8.08	8.08	8.08	31.36	31.36	31.37	75.4	75.3	76.1	5.95	5.95	6.02	5.63	5.63	5.65	9	
24/2/2015	6:41	Fine	Middle	3.0	17.90	17.90	17.90	8.16	8.16	8.16	31.69	31.63	31.65	68.8	68.7	68.4	5.40	5.39	5.37	4.10	4.16	4.15	4	4.00
	6:42		Middle	3.0	17.90	17.90	17.90	8.15	8.15	8.16	31.63	31.63	31.65	68.1	67.9	68.4	5.35	5.32	5.37	4.16	4.16	4.15	4	
26/2/2015	10:55	Fine	Middle	3.0	18.80	18.80	18.95	8.06	8.06	8.06	31.39	31.39	31.39	76.4	74.9	74.5	5.89	5.77	5.74	6.36	6.29	6.33	9	9.50
	10:57		Middle	3.0	19.10	19.10	18.95	8.06	8.06	8.06	31.39	31.39	31.39	73.5	73.1	74.5	5.66	5.63	5.74	6.22	6.46	6.33	10	

Remarks:

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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				
28/1/2015	21:59	Cloudy	Middle	-	17.20	17.20	17.20	7.87	7.87	7.87	31.17	31.17	31.33	95.4	94.1	94.5	7.47	7.36	7.40	3.43	3.04	3.15	4	3.50
	22:00		Middle	-	17.20	17.20		7.87	7.87		31.48	31.48		93.6	94.9		7.33	7.43		3.11	3.03		3	
30/1/2015	19:25	Cloudy	Middle	-	17.40	17.40	17.45	7.77	7.77	7.78	31.07	31.07	31.14	98.4	97.4	98.3	7.81	7.73	7.81	5.94	5.25	5.54	4	3.00
	19:26		Middle	-	17.50	17.50		7.78	7.78		31.22	31.21		98.5	98.9		7.81	7.87		5.46	5.50		2	
3/2/2015	23:25	Cloudy	Middle	-	16.90	16.90	16.90	7.93	7.93	7.94	31.29	31.29	31.30	92.0	91.3	92.8	7.38	7.32	7.44	3.22	3.25	3.23	<2	2.00
	23:26		Middle	-	16.90	16.90		7.94	7.94		31.30	31.30		93.5	94.2		7.50	7.55		3.28	3.17		2	
5/2/2015	14:40	Fine	Middle	-	17.50	17.50	17.50	8.14	8.14	8.14	31.05	31.05	31.05	81.1	80.3	80.9	6.43	6.36	6.41	4.72	4.70	4.69	6	7.00
	14:42		Middle	-	17.50	17.50		8.14	8.14		31.05	31.05		80.9	81.2		6.40	6.43		4.66	4.67		8	
7/2/2015	14:30	Fine	Middle	-	17.60	17.60	17.75	8.08	8.08	8.08	31.33	31.33	31.33	81.6	80.8	80.0	6.44	6.37	6.31	4.27	4.25	4.25	6	6.50
	14:32		Middle	-	17.90	17.90		8.08	8.08		31.32	31.32		78.9	78.7		6.21	6.20		4.23	4.23		7	
9/2/2015	15:45	Fine	Middle	-	17.40	17.40	17.50	8.05	8.05	8.06	31.34	31.34	31.34	81.4	82.4	82.0	6.45	6.55	6.51	3.99	4.00	3.93	3	3.50
	15:47		Middle	-	17.60	17.60		8.06	8.06		31.34	31.34		82.5	81.6		6.56	6.46		3.86	3.85		4	
11/2/2015	17:35	Fine	Middle	-	17.00	17.00	17.05	8.10	8.10	8.10	31.33	31.33	31.33	83.2	83.0	82.6	6.65	6.63	6.60	3.40	3.61	3.59	6	5.50
	17:37		Middle	-	17.10	17.10		8.09	8.09		31.33	31.33		82.1	82.0		6.55	6.55		3.69	3.67		5	
13/2/2015	21:32	Cloudy	Middle	-	17.20	17.20	17.20	8.08	8.08	8.08	31.62	31.62	31.63	80.0	80.1	79.8	6.36	6.37	6.35	8.52	8.50	8.47	8	9.00
	21:33		Middle	-	17.20	17.20		8.08	8.08		31.63	31.63		79.7	79.2		6.35	6.30		8.46	8.40		10	
16/2/2015	22:25	Foggy	Middle	-	18.30	18.30	18.30	7.81	7.81	7.81	31.39	31.39	31.47	81.8	82.6	82.3	6.37	6.42	6.40	3.71	3.86	3.78	4	3.50
	22:26		Middle	-	18.30	18.30		7.81	7.81		31.55	31.55		82.6	82.2		6.42	6.39		3.79	3.77		3	
18/2/2015	13:28	Fine	Middle	-	18.00	18.00	18.05	8.03	8.03	8.04	31.18	31.18	31.18	72.5	73.5	73.2	5.69	5.77	5.74	2.61	2.60	2.62	6	5.00
	13:30		Middle	-	18.10	18.10		8.04	8.04		31.17	31.17		73.5	73.1		5.77	5.74		2.61	2.66		4	
24/2/2015	17:25	Fine	Middle	-	18.40	18.40	18.45	8.09	8.09	8.09	31.16	31.16	31.16	78.5	78.4	78.1	6.11	6.11	6.09	2.95	2.93	2.93	<2	<2
	17:27		Middle	-	18.50	18.50		8.09	8.09		31.15	31.15		78.2	77.4		6.09	6.05		2.92	2.91		<2	
26/2/2015	20:15	Cloudy	Middle	-	19.90	19.90	19.93	7.64	7.64	7.64	31.64	31.64	31.64	82.2	82.9	82.1	6.20	6.24	6.19	3.18	3.16	3.11	4	4.50
	20:16		Middle	-	20.00	19.90		7.64	7.64		31.64	31.64		82.5	80.9		6.23	6.10		3.04	3.07		5	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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	Value	Average				
28/1/2015	21:13	Cloudy	Middle	2.5	17.10	17.10	17.05	7.89	7.89	7.89	31.46	31.46	31.46	90.3	90.9	90.8	7.08	7.12	7.11	4.01	3.78	3.88	4	4.50
	21:14		Middle	2.5	17.00	17.00		7.89	7.89		31.46	31.46		91.2	90.7		7.14	7.11		3.82	3.89		5	
30/1/2015	22:38	Cloudy	Middle	2.5	16.80	16.80	16.85	8.01	8.01	8.02	31.47	31.47	31.49	93.3	94.3	94.0	7.48	7.55	7.53	5.36	5.01	5.10	5	4.50
	22:39		Middle	2.5	16.90	16.90		8.02	8.02		31.50	31.50		94.1	94.2		7.54	7.54		5.05	4.98		4	
3/2/2015	2:55	Cloudy	Middle	2.5	16.50	16.50	16.50	7.95	7.95	7.96	31.29	31.31	31.31	91.5	92.3	92.0	7.38	7.45	7.43	4.44	4.52	4.47	4	4.00
	2:56		Middle	2.5	16.50	16.50		7.96	7.96		31.32	31.32		92.2	92.1		7.45	7.44		4.41	4.50		4	
5/2/2015	13:52	Fine	Middle	2.5	16.90	16.90	16.90	8.07	8.07	8.07	31.46	31.46	31.44	74.7	75.0	74.5	5.99	6.01	5.97	4.09	4.00	3.94	8	7.00
	13:54		Middle	2.5	16.90	16.90		8.07	8.07		31.41	31.41		74.7	73.6		5.99	5.90		3.86	3.81		6	
7/2/2015	13:17	Fine	Middle	2.5	17.60	17.60	17.60	8.07	8.07	8.07	31.57	31.57	31.56	79.0	78.5	78.3	6.24	6.20	6.18	2.48	2.47	2.51	8	7.00
	13:19		Middle	2.5	17.60	17.60		8.07	8.07		31.55	31.55		78.0	77.7		6.16	6.10		2.52	2.57		6	
9/2/2015	14:30	Fine	Middle	2.5	17.10	17.10	17.20	8.09	8.09	8.09	31.63	31.63	31.63	82.4	82.0	82.0	6.56	6.52	6.52	2.83	2.83	2.83	4	4.50
	14:32		Middle	2.5	17.30	17.30		8.09	8.09		31.63	31.63		81.8	81.6		6.51	6.49		2.83	2.82		5	
11/2/2015	16:27	Fine	Middle	3.0	16.90	16.90	16.95	8.04	8.04	8.04	31.55	31.55	31.54	88.0	87.9	87.2	7.04	6.99	6.92	2.02	2.02	2.01	4	4.00
	16:29		Middle	3.0	17.00	17.00		8.04	8.04		31.52	31.52		86.6	86.2		6.84	6.81		2.00	2.00		4	
13/2/2015	16:45	Cloudy	Middle	2.5	18.20	18.20	18.40	8.00	8.00	7.99	31.52	31.52	31.56	82.8	83.0	82.7	6.44	6.45	6.43	1.84	1.82	1.83	4	4.00
	16:47		Middle	2.5	18.60	18.60		7.98	7.98		31.60	31.60		82.5	82.5		6.41	6.40		1.83	1.84		4	
16/2/2015	1:53	Foggy	Middle	2.0	17.50	17.50	17.55	7.80	7.80	7.80	31.80	31.80	31.63	73.8	74.4	74.5	5.86	5.88	5.89	4.77	4.79	4.74	5	4.50
	1:54		Middle	2.0	17.60	17.60		7.80	7.80		31.46	31.46		74.9	75.0		5.91	5.91		4.73	4.67		4	
18/2/2015	11:10	Fine	Middle	2.5	17.50	17.50	17.55	8.08	8.08	8.08	31.41	31.41	31.39	75.5	74.8	74.9	5.98	5.92	5.93	2.98	2.99	3.00	4	4.00
	11:12		Middle	2.5	17.60	17.60		8.08	8.08		31.36	31.36		74.7	74.4		5.91	5.89		3.01	3.02		4	
24/2/2015	16:12	Fine	Middle	2.5	18.80	18.80	18.90	8.10	8.10	8.11	31.46	31.46	31.43	75.7	75.2	75.5	5.83	5.80	5.82	4.10	4.05	4.04	3	3.00
	16:14		Middle	2.5	19.00	19.00		8.11	8.11		31.39	31.39		75.5	75.6		5.82	5.82		4.01	3.99		3	
26/2/2015	17:00	Cloudy	Middle	2.5	20.50	20.50	20.60	8.07	8.07	8.07	31.66	31.66	31.66	86.3	86.5	85.9	6.44	6.45	6.40	3.74	3.77	3.79	3	3.00
	17:02		Middle	2.5	20.70	20.70		8.07	8.07		31.66	31.66		85.7	85.0		6.38	6.34		3.82	3.83		3	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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	Value	Average				
28/1/2015	20:35	Cloudy	Middle	2.5	17.10	17.10	17.10	7.86	7.86	7.87	31.43	31.43	31.44	95.1	95.4	94.6	7.45	7.47	7.41	4.27	4.22	4.29	4	4.50
	20:36		Middle	2.5	17.10	17.10		7.87	7.87		31.45	31.45		93.6	94.3		7.33	7.38		4.30	4.36		5	
30/1/2015	22:06	Cloudy	Middle	2.5	16.70	16.70	16.70	7.99	8.00	8.00	31.50	31.50	31.50	90.5	92.0	91.4	7.20	7.39	7.31	5.49	5.42	5.37	4	4.50
	22:07		Middle	2.5	16.70	16.70		8.01	8.01		31.49	31.49		90.0	92.9		7.23	7.40		5.29	5.26		5	
3/2/2015	2:20	Cloudy	Middle	2.5	16.30	16.30	16.35	7.96	7.96	7.96	31.42	31.42	31.43	90.6	90.8	91.3	7.33	7.35	7.39	3.99	4.01	4.02	5	4.50
	2:21		Middle	2.5	16.40	16.40		7.96	7.96		31.43	31.43		91.5	92.2		7.41	7.46		4.11	3.97		4	
5/2/2015	14:04	Fine	Middle	2.5	16.90	17.00	17.03	8.08	8.08	8.08	31.36	31.36	31.37	72.1	70.6	70.8	5.76	5.64	5.66	3.03	3.15	3.09	6	7.00
	14:06		Middle	2.5	17.10	17.10		8.08	8.08		31.37	31.37		70.4	70.0		5.63	5.60		3.10	3.09		8	
7/2/2015	13:20	Fine	Middle	2.5	17.20	17.20	17.25	8.08	8.08	8.07	31.52	31.52	31.52	76.3	76.0	75.8	6.06	6.04	6.03	3.47	3.49	3.38	8	8.00
	13:22		Middle	2.5	17.30	17.30		8.06	8.06		31.51	31.51		75.4	75.5		5.99	6.01		3.36	3.19		8	
9/2/2015	14:55	Fine	Middle	2.5	16.90	16.90	16.95	8.12	8.12	8.12	31.62	31.62	31.62	81.6	81.6	81.7	6.53	6.53	6.53	3.74	3.76	3.74	5	4.50
	14:57		Middle	2.5	17.00	17.00		8.12	8.12		31.61	31.61		81.9	81.6		6.55	6.52		3.74	3.73		4	
11/2/2015	16:45	Fine	Middle	3.0	16.80	16.80	16.80	8.05	8.05	8.05	31.54	31.54	31.54	73.0	73.3	72.9	5.85	5.87	5.84	2.32	2.29	2.24	5	4.50
	16:47		Middle	3.0	16.80	16.80		8.05	8.05		31.54	31.54		72.2	72.9		5.79	5.84		2.18	2.16		4	
13/2/2015	17:05	Cloudy	Middle	2.5	17.40	17.40	17.45	7.99	7.99	7.99	31.47	31.47	31.46	76.2	76.3	76.4	6.04	6.05	6.06	2.84	2.88	2.86	5	4.50
	17:07		Middle	2.5	17.50	17.50		7.99	7.99		31.45	31.45		76.3	76.6		6.05	6.09		2.87	2.86		4	
16/2/2015	1:21	Foggy	Middle	2.0	17.60	17.60	17.60	7.85	7.85	7.85	31.81	31.81	31.81	77.5	77.0	77.3	6.11	6.07	6.09	6.02	6.04	6.08	4	4.00
	1:22		Middle	2.0	17.60	17.60		7.85	7.85		31.81	31.81		77.2	77.4		6.08	6.10		6.11	6.13		4	
18/2/2015	11:45	Fine	Middle	2.5	17.10	17.10	17.10	8.17	8.17	8.18	31.45	31.45	31.45	66.9	67.6	68.4	5.33	5.40	5.46	2.89	2.88	2.90	6	6.00
	11:47		Middle	2.5	17.10	17.10		8.18	8.18		31.45	31.45		70.0	69.2		5.59	5.52		2.90	2.93		6	
24/2/2015	16:31	Fine	Middle	2.5	18.30	18.30	18.35	8.12	8.12	8.12	31.37	31.37	31.35	72.3	72.5	73.1	5.63	5.64	5.68	3.75	3.76	3.77	3	3.50
	16:33		Middle	2.5	18.40	18.40		8.12	8.12		31.33	31.33		73.3	74.1		5.70	5.76		3.77	3.78		4	
26/2/2015	17:27	Cloudy	Middle	2.5	19.80	19.80	19.85	8.09	8.09	8.10	31.55	31.55	31.55	75.9	76.7	76.0	5.78	5.81	5.77	4.08	4.04	4.04	3	3.00
	17:29		Middle	2.5	19.90	19.90		8.10	8.10		31.55	31.55		75.8	75.7		5.74	5.73		4.03	4.02		3	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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				
28/1/2015	20:41	Cloudy	Middle	2.5	17.00	17.00	17.05	7.78	7.78	7.78	30.95	30.89	30.91	98.0	97.5	98.2	7.70	7.67	7.72	4.38	4.27	4.29	4	4.00
	20:42		Middle	2.5	17.10	17.10		7.78	7.78		30.91	30.90		98.6	98.7		7.75	7.75		4.30	4.20		4	
30/1/2015	22:11	Cloudy	Middle	2.5	16.80	16.80	16.80	7.98	7.98	7.98	31.39	31.39	31.44	91.2	91.0	90.9	7.31	7.30	7.29	5.14	5.02	5.07	4	3.50
	22:12		Middle	2.5	16.80	16.80		7.98	7.98		31.48	31.48		90.7	90.8		7.27	7.28		5.04	5.06		3	
3/2/2015	2:27	Cloudy	Middle	2.5	16.40	16.40	16.40	7.88	7.88	7.89	31.19	31.19	31.19	89.2	90.1	89.7	7.22	7.29	7.26	4.24	4.22	4.20	3	3.50
	2:28		Middle	2.5	16.40	16.40		7.89	7.89		31.18	31.18		90.3	89.3		7.31	7.23		4.18	4.16		4	
5/2/2015	14:01	Fine	Middle	2.5	16.80	16.80	16.80	8.07	8.07	8.08	31.39	31.39	31.40	77.4	76.7	76.9	6.21	6.15	6.17	4.23	4.17	4.13	9	8.00
	14:03		Middle	2.5	16.80	16.80		8.08	8.08		31.40	31.40		76.7	76.8		6.15	6.15		4.00	4.12		7	
7/2/2015	13:23	Fine	Middle	2.5	17.00	17.00	17.05	8.08	8.08	8.08	31.56	31.56	31.56	76.4	76.5	76.1	6.10	6.11	6.07	2.72	2.72	2.75	7	6.50
	13:25		Middle	2.5	17.10	17.10		8.08	8.08		31.57	31.54		76.1	75.2		6.07	6.00		2.77	2.80		6	
9/2/2015	14:46	Fine	Middle	2.5	16.90	16.90	16.90	8.11	8.11	8.11	31.63	31.63	31.63	80.4	80.9	81.0	6.44	6.48	6.47	3.76	3.73	3.69	5	5.00
	14:48		Middle	2.5	16.90	16.90		8.11	8.11		31.63	31.63		80.9	81.6		6.43	6.53		3.67	3.59		5	
11/2/2015	16:41	Fine	Middle	3.0	16.80	16.80	16.80	8.05	8.05	8.06	31.54	31.54	31.54	81.6	81.6	81.4	6.55	6.55	6.54	2.32	2.29	2.30	4	4.00
	16:43		Middle	3.0	16.80	16.80		8.06	8.06		31.54	31.54		81.3	81.2		6.52	6.52		2.29	2.31		4	
13/2/2015	16:59	Cloudy	Middle	2.5	17.50	17.50	17.55	8.00	8.00	8.00	31.46	31.46	31.46	77.4	77.0	77.0	6.12	6.08	6.08	2.47	2.47	2.47	4	4.00
	17:01		Middle	2.5	17.60	17.60		7.99	7.99		31.46	31.46		77.0	76.4		6.08	6.04		2.46	2.47		4	
16/2/2015	1:28	Foggy	Middle	2.0	17.50	17.50	17.50	7.83	7.83	7.83	31.81	31.82	31.82	78.6	79.2	78.7	6.20	6.25	6.21	4.14	4.22	4.20	5	5.00
	1:29		Middle	2.0	17.50	17.50		7.82	7.83		31.82	31.82		79.0	78.0		6.23	6.15		4.24	4.20		5	
18/2/2015	11:35	Fine	Middle	2.5	17.00	17.00	17.00	8.16	8.16	8.17	31.44	31.44	31.45	72.9	74.4	73.9	5.82	5.95	5.91	4.18	4.17	4.07	7	7.00
	11:37		Middle	2.5	17.00	17.00		8.17	8.17		31.46	31.46		75.0	73.4		5.99	5.87		4.05	3.87		7	
24/2/2015	16:28	Fine	Middle	2.5	18.30	18.30	18.35	8.11	8.11	8.11	31.36	31.36	31.36	73.0	72.9	72.7	5.69	5.69	5.67	4.22	3.83	3.89	3	3.50
	16:30		Middle	2.5	18.40	18.40		8.11	8.11		31.35	31.35		73.0	71.8		5.69	5.59		3.78	3.74		4	
26/2/2015	17:20	Cloudy	Middle	2.5	19.50	19.50	19.60	8.10	8.10	8.10	31.56	31.56	31.56	77.4	77.6	77.1	5.89	5.90	5.87	3.56	3.54	3.54	4	4.50
	17:22		Middle	2.5	19.70	19.70		8.10	8.10		31.55	31.55		76.7	76.7		5.84	5.84		3.52	3.53		5	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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				
28/1/2015	20:53	Cloudy	Middle	2.5	17.10	17.10	17.10	7.84	7.84	7.84	31.45	31.45	31.45	98.9	98.3	98.2	7.74	7.69	7.68	4.14	4.37	4.18	5	4.50
	20:54		Middle	2.5	17.10	17.10		7.84	7.84		31.45	31.45		97.3	98.1		7.62	7.68		4.10	4.12		4	
30/1/2015	22:23	Cloudy	Middle	2.5	16.80	16.80	16.80	7.99	7.99	7.99	31.51	31.51	31.52	95.3	95.2	94.9	7.69	7.63	7.62	5.84	5.82	5.80	4	4.00
	22:24		Middle	2.5	16.80	16.80		7.99	7.99		31.52	31.52		94.9	94.2		7.61	7.55		5.78	5.76		4	
3/2/2015	2:34	Cloudy	Middle	2.5	16.50	16.50	16.50	7.83	7.83	7.84	30.83	30.83	30.83	97.0	96.7	96.5	7.86	7.83	7.82	4.21	4.26	4.17	3	3.50
	2:35		Middle	2.5	16.50	16.50		7.85	7.85		30.83	30.83		96.2	96.2		7.79	7.79		4.14	4.08		4	
5/2/2015	13:58	Fine	Middle	2.5	16.70	16.70	16.70	8.07	8.07	8.08	31.41	31.41	31.41	77.8	77.0	77.2	6.25	6.19	6.20	3.28	3.29	3.36	4	4.00
	14:00		Middle	2.5	16.70	16.70		8.08	8.08		31.41	31.41		76.9	76.9		6.18	6.18		3.38	3.49		4	
7/2/2015	13:26	Fine	Middle	2.5	17.10	17.10	17.10	8.11	8.11	8.12	31.48	31.48	31.49	78.9	79.0	78.6	6.29	6.31	6.28	2.93	2.94	2.93	3	3.50
	13:28		Middle	2.5	17.10	17.10		8.12	8.12		31.50	31.50		78.7	77.9		6.28	6.22		2.93	2.90		4	
9/2/2015	14:40	Fine	Middle	2.5	16.70	16.70	16.75	8.08	8.08	8.08	31.60	31.60	31.65	78.6	79.5	79.2	6.31	6.38	6.36	2.51	2.55	2.50	4	4.00
	14:42		Middle	2.5	16.80	16.80		8.08	8.08		31.69	31.69		79.7	79.1		6.39	6.36		2.37	2.58		4	
11/2/2015	16:37	Fine	Middle	3.0	16.60	16.60	16.65	8.04	8.04	8.04	31.53	31.53	31.53	85.3	85.3	85.1	6.86	6.86	6.84	1.92	1.91	1.91	4	4.00
	16:39		Middle	3.0	16.70	16.70		8.04	8.04		31.52	31.52		85.2	84.4		6.86	6.79		1.90	1.90		4	
13/2/2015	16:55	Cloudy	Middle	2.5	17.30	17.30	17.40	8.00	8.00	8.00	31.47	31.47	31.47	73.7	74.6	74.3	5.85	5.92	5.90	1.81	1.76	1.73	2	2.00
	16:57		Middle	2.5	17.50	17.50		8.00	8.00		31.46	31.46		74.5	74.5		5.91	5.91		1.66	1.67		2	
16/2/2015	1:37	Foggy	Middle	2.0	17.60	17.60	17.60	7.77	7.77	7.77	31.80	31.81	31.81	75.4	75.7	75.4	5.94	5.96	5.94	3.84	3.81	3.80	4	3.00
	1:38		Middle	2.0	17.60	17.60		7.77	7.77		31.82	31.82		75.5	74.8		5.95	5.89		3.79	3.77		2	
18/2/2015	11:26	Fine	Middle	2.5	17.10	17.10	17.10	8.14	8.14	8.14	31.42	31.42	31.42	76.8	76.3	75.8	6.13	6.09	6.05	2.73	2.87	2.91	3	3.50
	11:28		Middle	2.5	17.10	17.10		8.14	8.14		31.42	31.42		74.8	75.3		5.96	6.01		3.03	2.99		4	
24/2/2015	16:22	Fine	Middle	2.5	18.50	18.50	18.55	8.11	8.11	8.11	31.28	31.28	31.31	75.3	74.5	74.5	5.84	5.79	5.78	3.64	3.64	3.67	3	3.00
	16:24		Middle	2.5	18.60	18.60		8.11	8.11		31.34	31.34		74.0	74.0		5.75	5.74		3.62	3.78		3	
26/2/2015	17:12	Cloudy	Middle	2.5	19.70	19.70	19.75	8.07	8.07	8.04	31.62	31.62	31.60	81.1	81.4	81.4	6.16	6.18	6.18	4.22	4.28	4.32	3	3.00
	17:14		Middle	2.5	19.80	19.80		8.00	8.00		31.58	31.58		81.7	81.5		6.19	6.18		4.30	4.47		3	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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				
28/1/2015	21:03	Cloudy	Middle	2.5	17.10	17.10	17.10	7.90	7.90	7.90	31.08	31.08	31.26	92.6	93.6	92.9	7.28	7.33	7.28	3.07	3.28	3.13	4	4.00
	21:04		Middle	2.5	17.10	17.10		7.90	7.90		31.43	31.43		93.2	92.1		7.31	7.21		3.04	3.11		4	
30/1/2015	22:30	Cloudy	Middle	2.5	16.80	16.80	16.80	7.95	7.95	7.95	31.33	31.33	31.38	88.8	88.5	89.0	7.12	7.10	7.14	6.41	6.28	6.33	4	4.00
	22:31		Middle	2.5	16.80	16.80		7.95	7.95		31.35	31.50		88.9	89.9		7.13	7.21		6.48	6.13		4	
3/2/2015	2:43	Cloudy	Middle	2.5	16.50	16.50	16.50	7.92	7.92	7.93	31.37	31.37	31.37	92.1	92.3	92.4	7.44	7.45	7.47	4.56	4.60	4.62	4	4.00
	2:44		Middle	2.5	16.50	16.50		7.93	7.93		31.36	31.36		91.9	93.3		7.45	7.53		4.71	4.62		4	
5/2/2015	13:55	Fine	Middle	2.5	16.60	16.60	16.65	8.08	8.08	8.08	31.47	31.47	31.47	71.7	71.8	71.1	5.77	5.77	5.72	3.87	3.83	3.86	6	5.50
	13:57		Middle	2.5	16.70	16.70		8.08	8.08		31.46	31.46		70.7	70.3		5.69	5.66		3.81	3.93		5	
7/2/2015	13:30	Fine	Middle	2.5	17.10	17.10	17.10	8.12	8.12	8.12	31.55	31.55	31.55	78.1	77.8	77.3	6.23	7.21	6.41	2.37	2.36	2.36	5	4.50
	13:32		Middle	2.5	17.10	17.10		8.12	8.12		31.55	31.55		77.2	75.9		6.16	6.05		2.33	2.38		4	
9/2/2015	14:35	Fine	Middle	2.5	16.60	16.60	16.70	8.10	8.10	8.11	31.61	31.61	31.61	81.8	81.8	81.7	6.57	6.56	6.55	2.72	2.70	2.71	5	4.50
	14:37		Middle	2.5	16.80	16.80		8.11	8.11		31.61	31.61		81.6	81.4		6.55	6.53		2.70	2.71		4	
11/2/2015	16:31	Fine	Middle	3.0	16.70	16.70	16.75	8.06	8.06	8.06	31.53	31.53	31.53	81.7	81.5	81.5	6.66	6.54	6.60	3.35	3.46	3.61	5	5.00
	16:33		Middle	3.0	16.80	16.80		8.06	8.06		31.52	31.52		81.7	81.1		6.66	6.52		3.78	3.85		5	
13/2/2015	16:50	Cloudy	Middle	2.5	17.50	17.50	17.60	8.01	8.01	8.01	31.52	31.52	31.49	76.7	76.4	76.3	6.06	6.04	6.03	2.85	2.77	2.78	5	5.00
	16:52		Middle	2.5	17.70	17.70		8.01	8.01		31.45	31.45		76.7	75.2		6.07	5.93		2.74	2.76		5	
16/2/2015	1:44	Foggy	Middle	2.0	17.70	17.70	17.75	7.71	7.71	7.72	31.61	31.61	31.62	79.2	80.4	80.1	6.23	6.32	6.29	7.67	7.69	7.65	4	4.00
	1:45		Middle	2.0	17.80	17.80		7.72	7.72		31.62	31.62		80.5	80.1		6.32	6.29		7.64	7.60		4	
18/2/2015	11:15	Fine	Middle	2.5	17.20	17.20	17.20	8.12	8.12	8.13	31.42	31.42	31.42	73.8	73.2	73.6	5.88	5.83	5.87	3.59	3.63	3.64	5	5.50
	11:17		Middle	2.5	17.20	17.20		8.13	8.13		31.41	31.41		73.6	73.9		5.86	5.89		3.68	3.64		6	
24/2/2015	16:18	Fine	Middle	2.5	18.50	18.50	18.60	8.12	8.12	8.12	31.33	31.37	31.37	74.7	74.4	74.2	5.79	5.76	5.75	4.26	4.50	4.42	4	4.00
	16:20		Middle	2.5	18.70	18.70		8.12	8.12		31.38	31.38		74.0	73.7		5.73	5.71		4.65	4.25		4	
26/2/2015	17:05	Cloudy	Middle	2.5	19.90	19.90	19.95	8.09	8.09	8.09	31.61	31.61	31.61	83.6	83.0	82.8	6.31	6.27	6.25	4.60	4.41	4.45	4	4.00
	17:07		Middle	2.5	20.00	20.00		8.09	8.09		31.60	31.60		82.4	82.0		6.22	6.19		4.40	4.37		4	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



**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				
28/1/2015	21:26	Cloudy	Middle	3.0	17.20	17.20	17.20	7.74	7.74	7.77	31.03	31.03	31.06	93.1	93.6	92.5	7.28	7.32	7.25	3.13	3.08	3.09	6	5.50
	21:27		Middle	3.0	17.20	17.20		7.79	7.79		31.08	31.08		90.8	92.5		7.17	7.24		3.06	3.10		5	
30/1/2015	20:10	Cloudy	Middle	3.5	17.10	17.10	17.15	7.70	7.70	7.71	31.20	31.20	31.47	98.7	96.7	97.0	7.83	7.69	7.70	4.31	4.28	4.27	3	3.00
	20:11		Middle	3.5	17.20	17.20		7.71	7.71		31.74	31.74		96.4	96.0		7.65	7.62		4.26	4.24		3	
3/2/2015	0:36	Cloudy	Middle	3.0	16.60	16.60	16.60	7.91	7.91	7.92	31.11	31.11	31.11	92.6	92.9	92.1	7.46	7.50	7.43	5.39	5.43	5.38	5	4.50
	0:37		Middle	3.0	16.60	16.60		7.92	7.92		31.11	31.11		90.5	92.2		7.30	7.44		5.37	5.34		4	
5/2/2015	14:10	Fine	Middle	3.0	17.10	17.10	17.10	8.10	8.10	8.10	31.54	31.54	31.53	75.7	75.3	75.5	6.04	6.01	6.03	2.72	2.72	2.73	4	4.00
	14:11		Middle	3.0	17.10	17.10		8.10	8.10		31.52	31.52		75.3	75.7		6.01	6.04		2.73	2.75		4	
7/2/2015	13:37	Fine	Middle	3.0	17.30	17.30	17.35	8.12	8.12	8.12	31.61	31.61	31.59	79.6	79.9	79.4	6.31	6.33	6.30	3.72	3.70	3.70	6	5.50
	13:39		Middle	3.0	17.40	17.40		8.12	8.12		31.57	31.57		79.7	78.2		6.33	6.23		3.69	3.69		5	
9/2/2015	15:15	Fine	Middle	3.5	16.90	16.90	17.00	8.15	8.15	8.15	31.68	31.68	31.68	84.9	85.1	84.9	6.78	6.79	6.77	4.15	4.20	4.19	4	4.50
	15:17		Middle	3.5	17.10	17.10		8.15	8.15		31.67	31.67		85.0	84.6		6.78	6.74		4.21	4.21		5	
11/2/2015	16:40	Fine	Middle	3.5	17.00	17.00	17.00	8.09	8.09	8.09	31.55	31.55	31.56	77.9	77.6	78.2	6.22	6.20	6.24	4.35	4.32	4.19	8	8.00
	16:42		Middle	3.5	17.00	17.00		8.09	8.09		31.56	31.56		78.5	78.6		6.27	6.27		4.10	4.00		8	
13/2/2015	20:35	Cloudy	Middle	2.5	16.80	16.80	16.80	7.77	7.77	7.78	31.30	31.57	31.63	76.7	77.7	77.5	6.16	6.25	6.22	5.39	5.38	5.26	5	5.00
	20:36		Middle	2.5	16.80	16.80		7.78	7.78		31.82	31.84		78.2	77.3		6.26	6.19		5.05	5.21		5	
16/2/2015	22:58	Foggy	Middle	3.0	18.20	18.20	18.25	7.77	7.77	7.78	31.87	31.87	31.87	74.0	76.6	74.8	5.75	5.95	5.81	3.31	3.51	3.40	4	3.50
	22:59		Middle	3.0	18.30	18.30		7.78	7.78		31.87	31.87		75.0	73.6		5.82	5.71		3.38	3.41		3	
18/2/2015	12:05	Fine	Middle	3.5	17.40	17.40	17.45	8.15	8.15	8.15	31.50	31.50	31.50	82.7	82.3	82.1	6.56	6.52	6.51	3.09	3.07	3.07	4	4.00
	12:07		Middle	3.5	17.50	17.50		8.15	8.15		31.49	31.49		81.9	81.5		6.48	6.48		3.07	3.06		4	
24/2/2015	16:50	Fine	Middle	3.0	18.20	18.20	18.30	8.13	8.13	8.14	31.48	31.48	31.45	76.5	76.3	75.6	5.96	5.95	5.90	3.64	3.63	3.65	4	4.00
	16:52		Middle	3.0	18.40	18.40		8.14	8.14		31.42	31.42		75.4	74.3		5.88	5.79		3.65	3.68		4	
26/2/2015	19:40	Cloudy	Middle	3.0	19.60	19.60	19.65	7.69	7.68	7.69	31.83	31.83	31.91	76.1	78.0	78.1	5.75	5.89	5.90	4.53	4.46	4.50	6	5.50
	19:41		Middle	3.0	19.70	19.70		7.69	7.69		31.98	31.98		79.3	79.1		5.99	5.97		4.49	4.51		5	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.



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

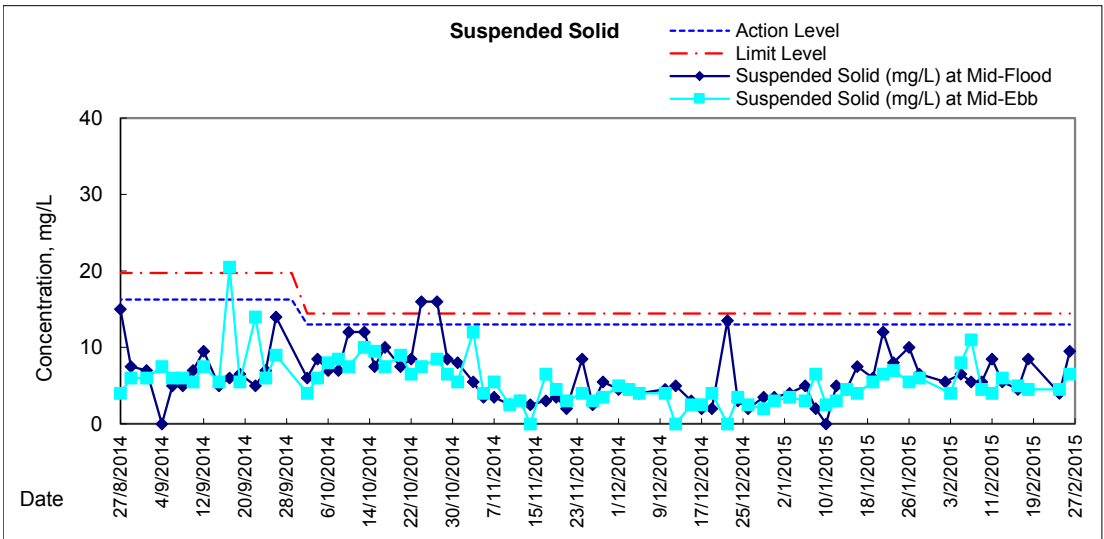
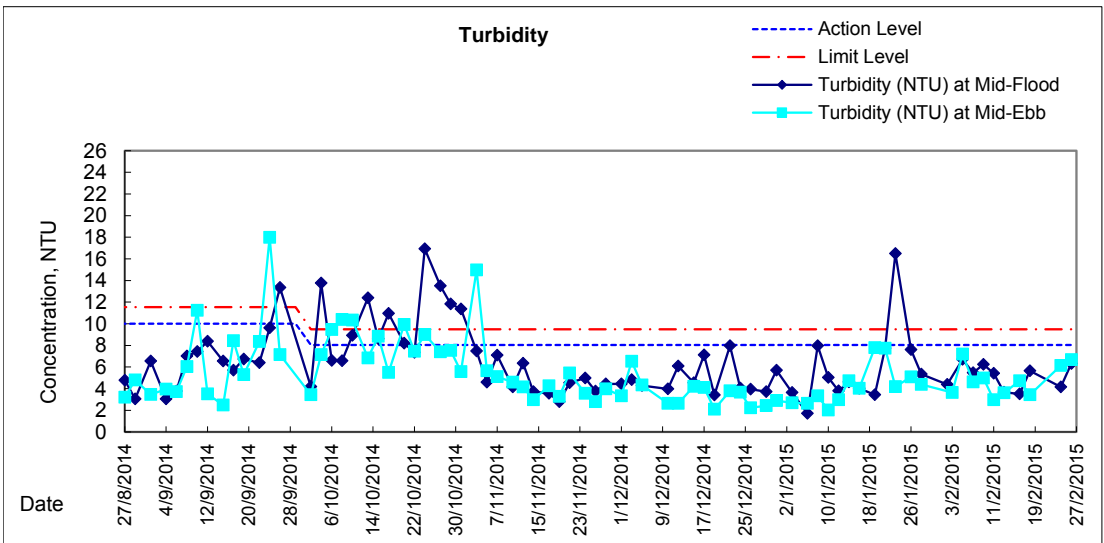
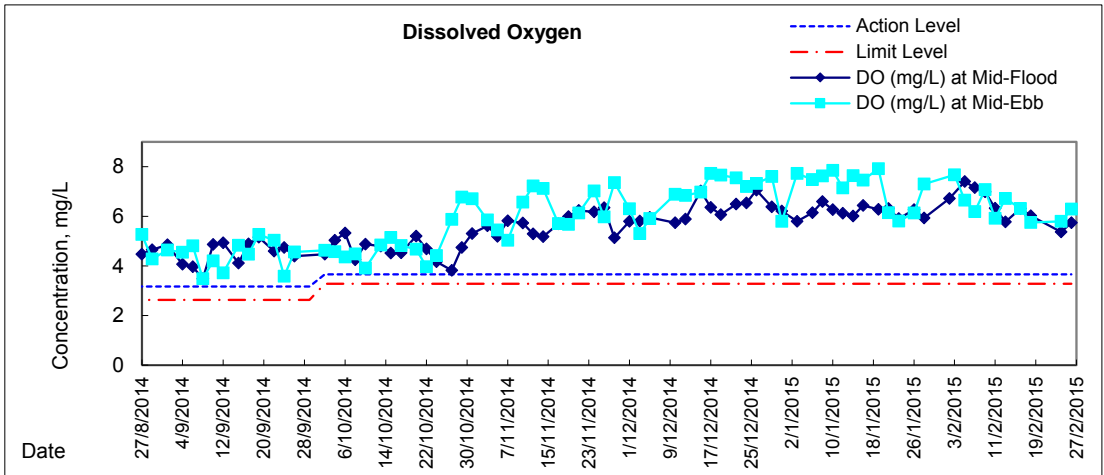
Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
28/1/2015	19:05	Cloudy	Middle	3.0	17.10	17.10	17.10	7.82	7.82	7.83	31.24	31.24	31.30	94.2	94.1	93.2	7.38	7.37	7.30	4.40	4.43	4.38	6	6.00
	19:06		Middle	3.0	17.10	17.10		7.83	7.83		31.35	31.35		92.0	92.6		7.20	7.25		4.38	4.32		6	
30/1/2015	21:25	Cloudy	Middle	3.0	17.10	17.10	17.10	7.98	7.98	7.98	31.31	31.31	31.30	89.9	92.1	91.3	7.17	7.35	7.28	7.21	7.23	7.08	3	3.50
	21:26		Middle	3.0	17.10	17.10		7.98	7.98		31.28	31.29		91.8	91.4		7.32	7.28		6.94	6.92		4	
3/2/2015	1:27	Cloudy	Middle	2.5	16.70	16.70	16.70	7.87	7.87	7.88	31.58	31.58	31.56	95.0	95.7	95.3	7.64	7.70	7.67	3.64	3.61	3.65	4	4.00
	1:28		Middle	2.5	16.70	16.70		7.88	7.88		31.53	31.53		95.7	94.9		7.70	7.63		3.66	3.68		4	
5/2/2015	13:00	Fine	Middle	3.0	17.10	17.10	17.10	8.02	8.02	8.02	31.51	31.51	31.51	83.3	83.7	83.3	6.64	6.67	6.65	7.26	7.24	7.20	8	8.00
	13:02		Middle	3.0	17.10	17.10		8.02	8.02		31.51	31.51		83.3	83.0		6.67	6.61		7.16	7.12		8	
7/2/2015	12:05	Fine	Middle	3.0	17.00	17.00	17.00	8.10	8.10	8.11	31.70	31.70	31.71	77.2	77.7	77.6	6.12	6.20	6.19	4.59	4.59	4.61	11	11.00
	12:07		Middle	3.0	17.00	17.00		8.11	8.11		31.72	31.72		78.1	77.5		6.23	6.19		4.62	4.65		11	
9/2/2015	13:40	Fine	Middle	3.0	17.30	17.30	17.35	8.05	8.05	8.06	31.82	31.82	31.82	89.8	89.6	89.3	7.11	7.10	7.07	5.00	5.01	4.98	5	4.50
	13:42		Middle	3.0	17.40	17.40		8.06	8.06		31.82	31.82		89.0	88.9		7.04	7.04		4.96	4.95		4	
11/2/2015	15:33	Fine	Middle	3.0	17.60	17.60	17.80	8.04	8.04	8.04	31.54	31.54	31.53	77.5	75.3	75.2	6.10	5.92	5.92	2.91	2.91	2.97	4	4.00
	15:35		Middle	3.0	18.00	18.00		8.04	8.04		31.52	31.52		74.0	74.1		5.85	5.82		3.01	3.04		4	
13/2/2015	19:11	Cloudy	Middle	2.5	17.20	17.20	17.25	7.76	7.76	7.76	31.98	32.00	32.00	83.8	85.5	84.7	6.64	6.78	6.71	3.70	3.48	3.62	6	6.00
	19:12		Middle	2.5	17.30	17.30		7.76	7.76		32.01	32.01		85.3	84.2		6.76	6.67		3.78	3.51		6	
16/2/2015	23:45	Foggy	Middle	2.5	18.30	18.30	18.35	7.68	7.68	7.68	31.77	31.77	31.74	81.1	81.9	81.3	6.29	6.39	6.31	4.86	4.64	4.72	5	5.00
	23:46		Middle	2.5	18.40	18.40		7.68	7.68		31.71	31.71		80.5	81.7		6.24	6.32		4.67	4.72		5	
18/2/2015	11:15	Fine	Middle	3.0	17.40	17.40	17.55	8.19	8.19	8.19	31.76	31.76	31.77	74.0	73.3	73.1	5.82	5.77	5.75	3.42	3.44	3.44	4	4.50
	11:17		Middle	3.0	17.70	17.70		8.18	8.18		31.77	31.77		72.5	72.4		5.71	5.71		3.46	3.44		5	
24/2/2015	15:37	Fine	Middle	3.0	18.90	18.90	19.00	8.08	8.08	8.08	31.55	31.55	31.46	75.2	75.9	75.3	5.78	5.84	5.79	6.15	6.14	6.15	4	4.50
	15:39		Middle	3.0	19.10	19.10		8.07	8.07		31.36	31.37		75.8	74.3		5.82	5.71		6.14	6.15		5	
26/2/2015	18:35	Cloudy	Middle	2.5	20.00	20.00	20.05	7.74	7.74	7.74	31.96	31.98	31.98	82.8	83.7	83.7	6.22	6.29	6.29	6.53	6.74	6.67	6	6.50
	18:36		Middle	2.5	20.10	20.10		7.74	7.74		31.98	31.98		84.4	84.0		6.34	6.31		6.72	6.69		7	

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

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during both flood tide and ebb tide were temporarily suspended.

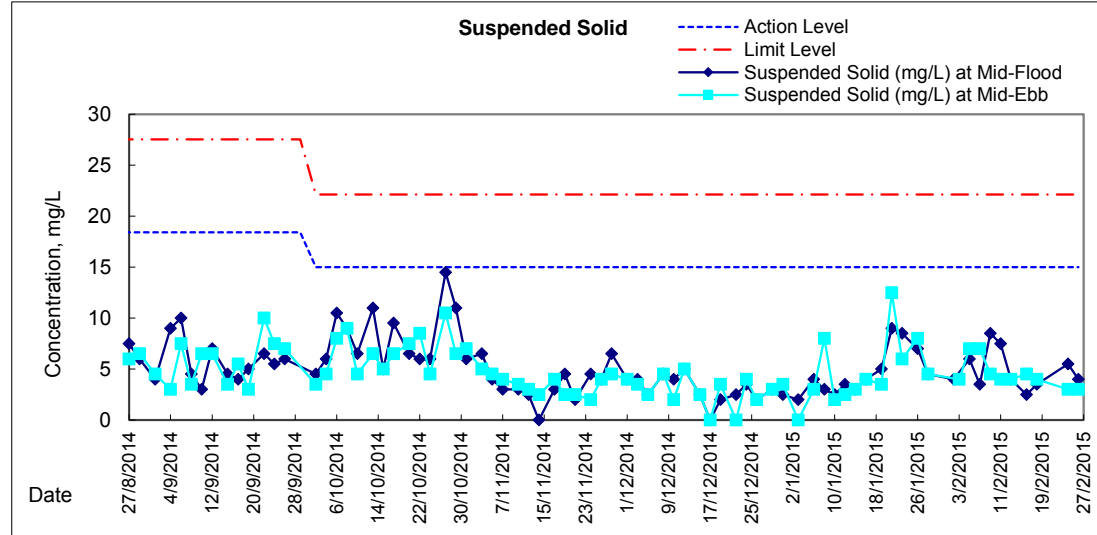
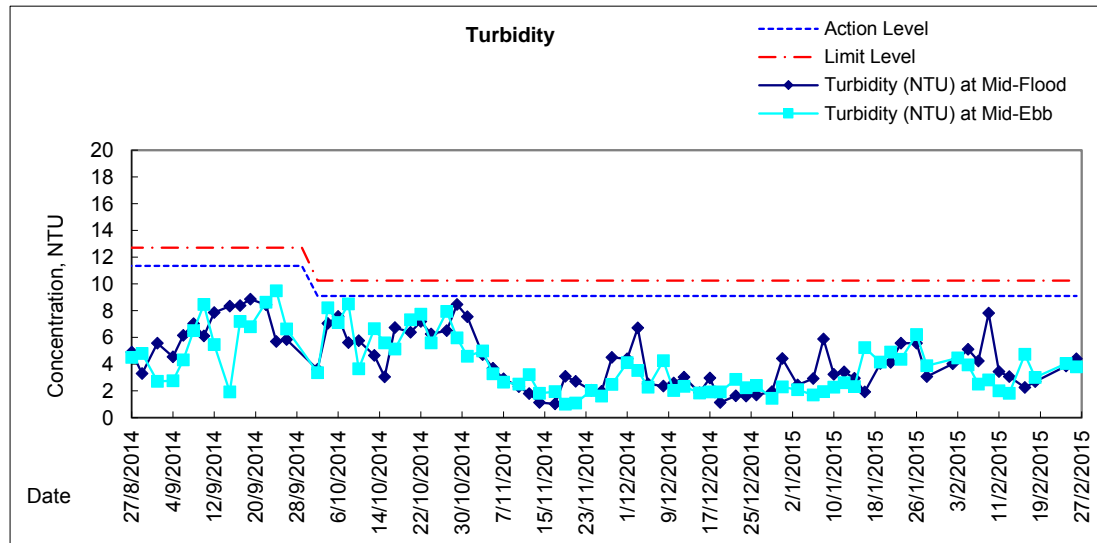
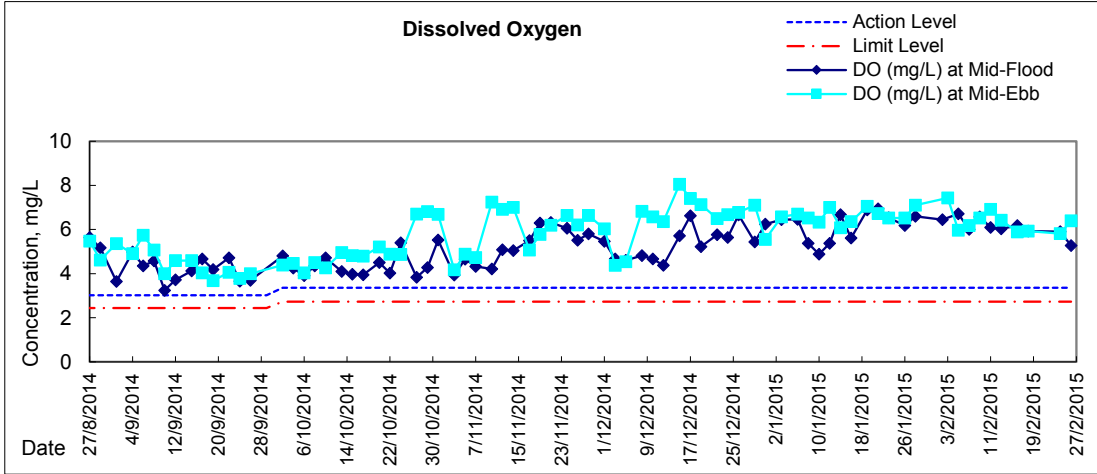


Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan



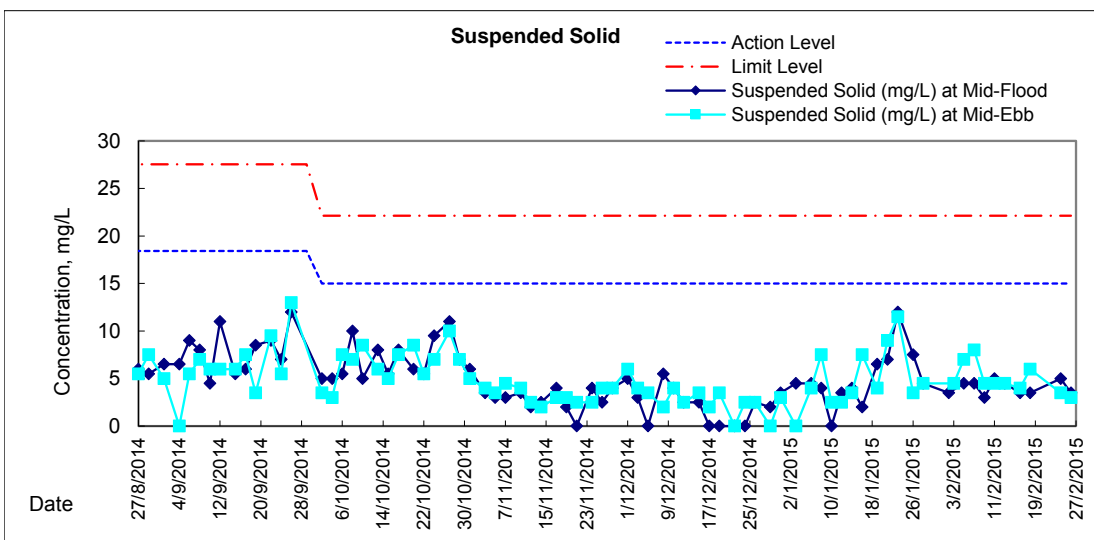
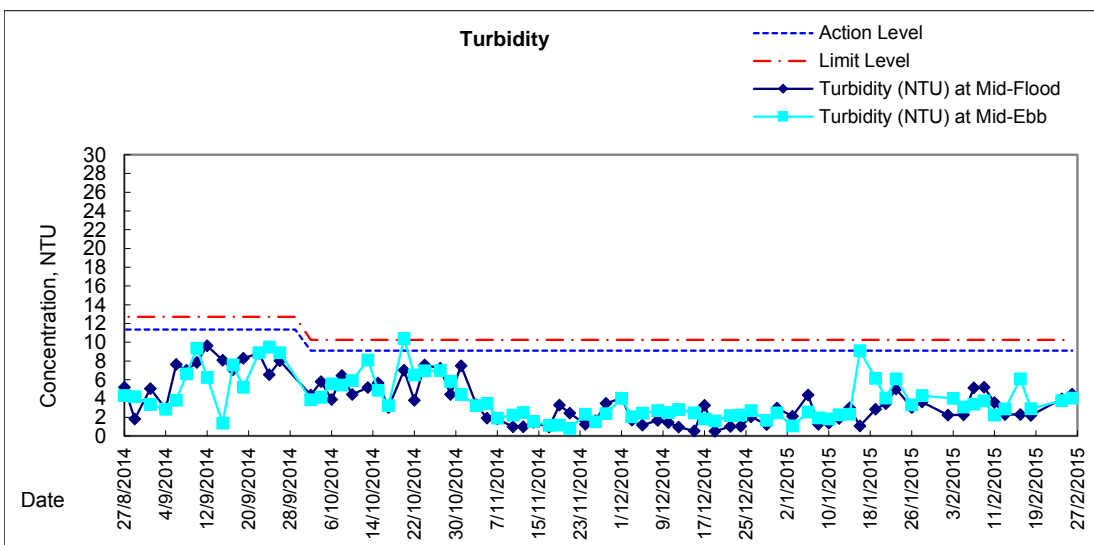
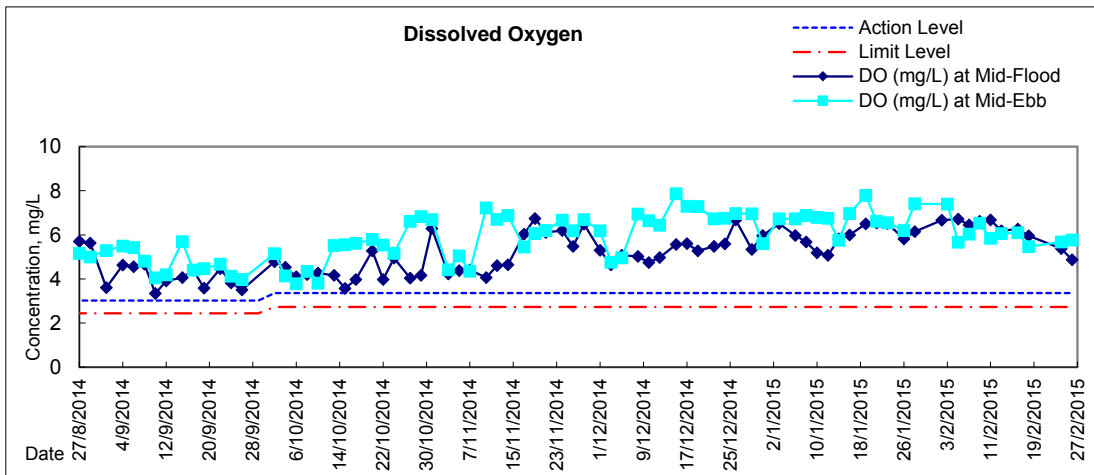


Graphic Presentation of Water Quality Result of C1 - HKCEC



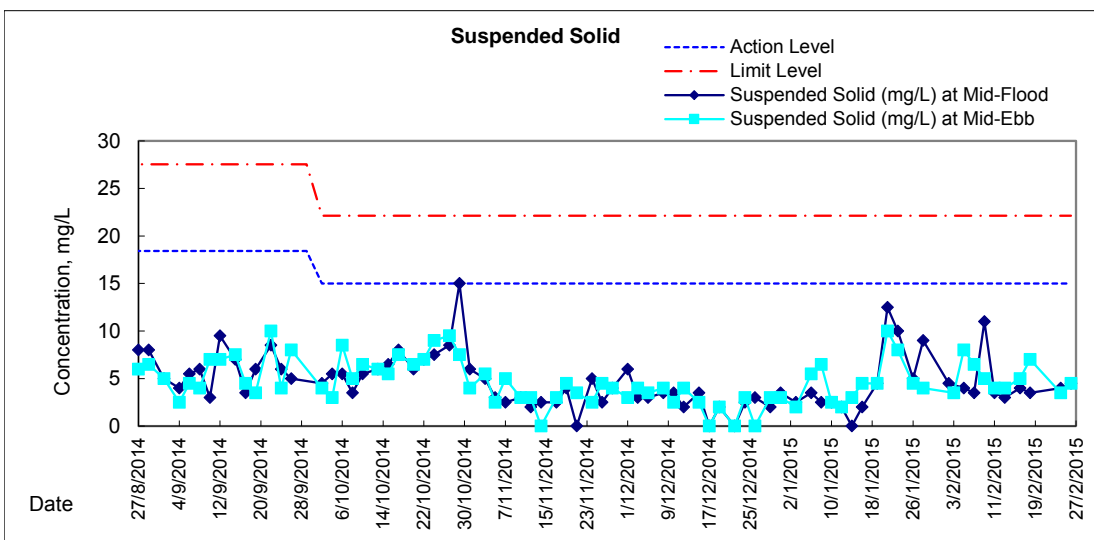
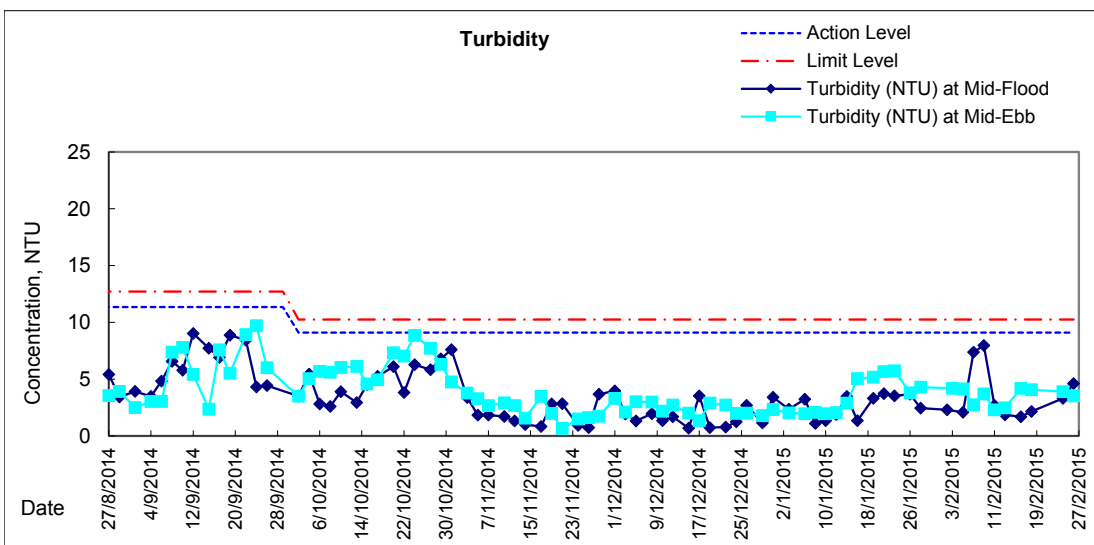
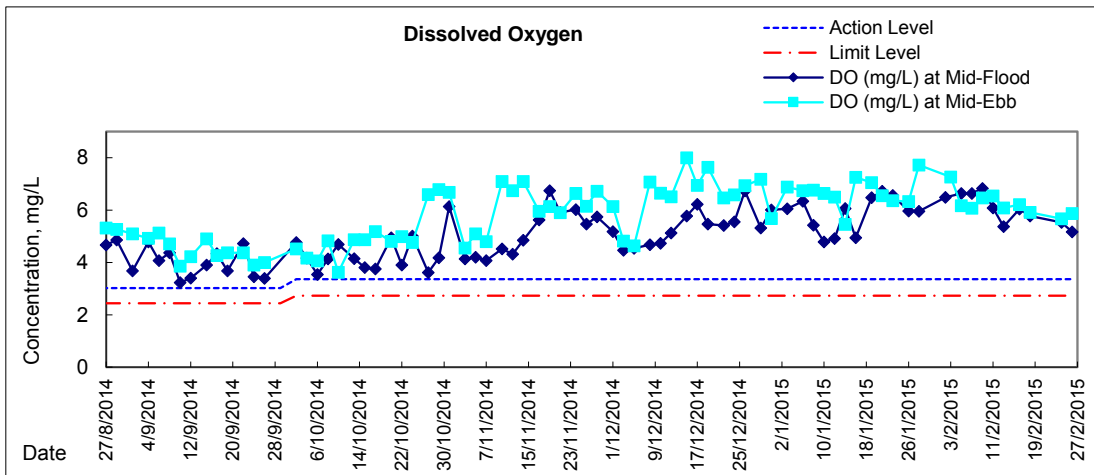


Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I



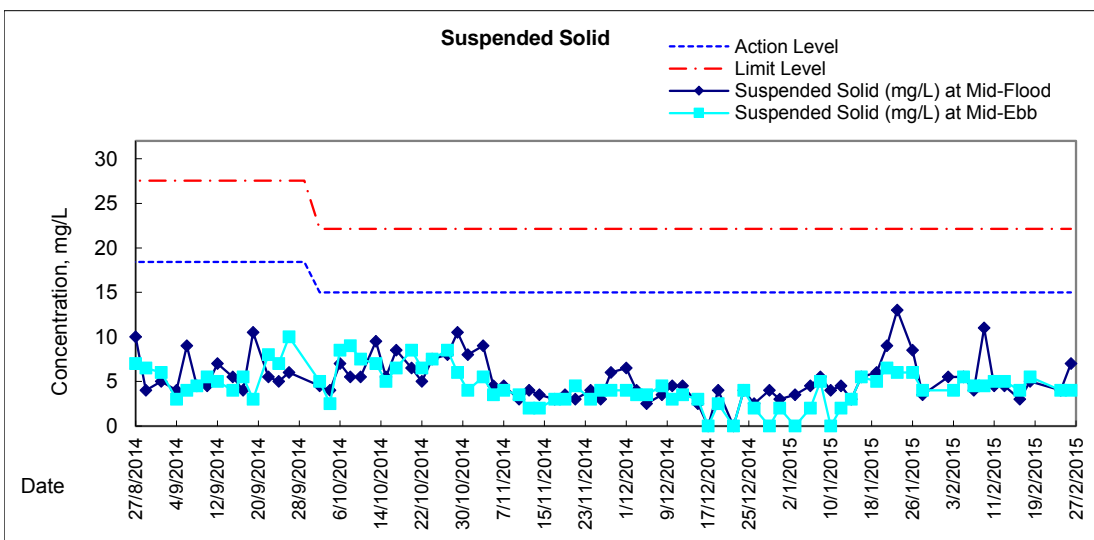
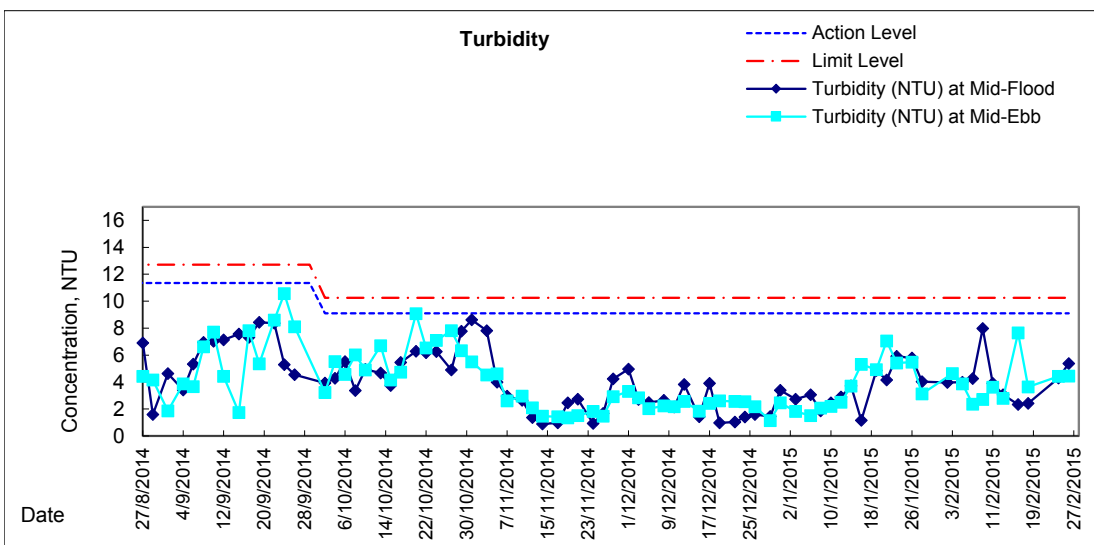
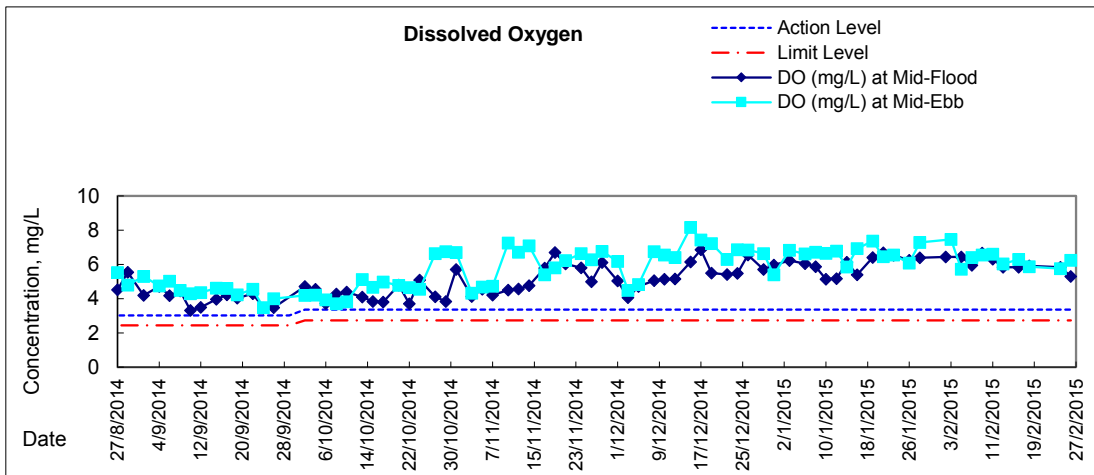


Graphic Presentation of Water Quality Result of P3 - APA



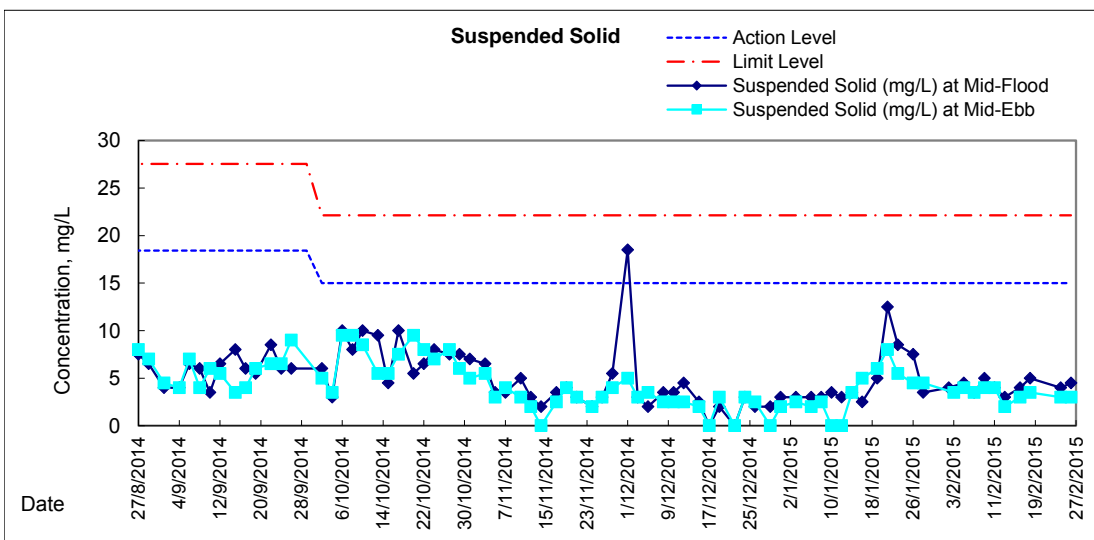
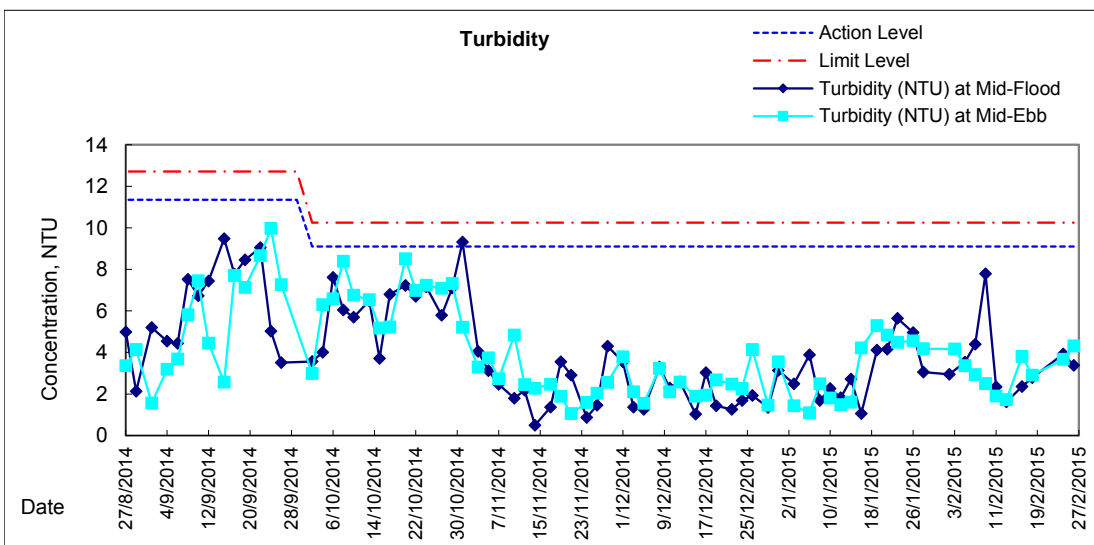
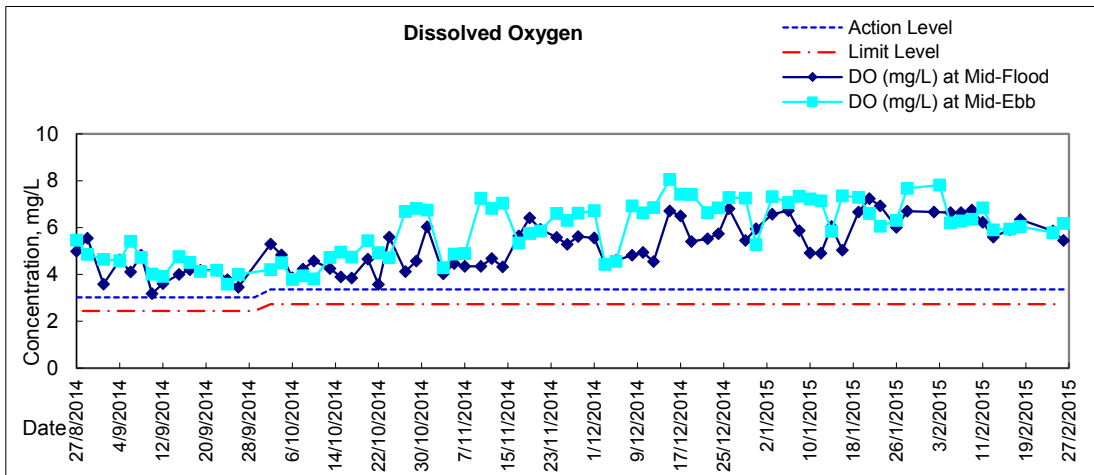


Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT



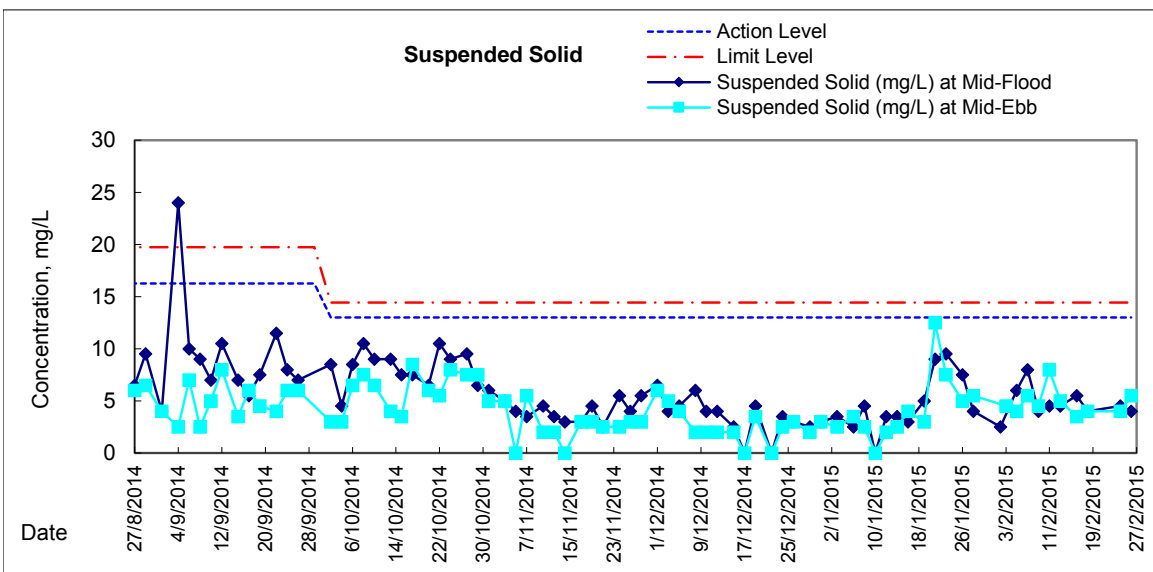
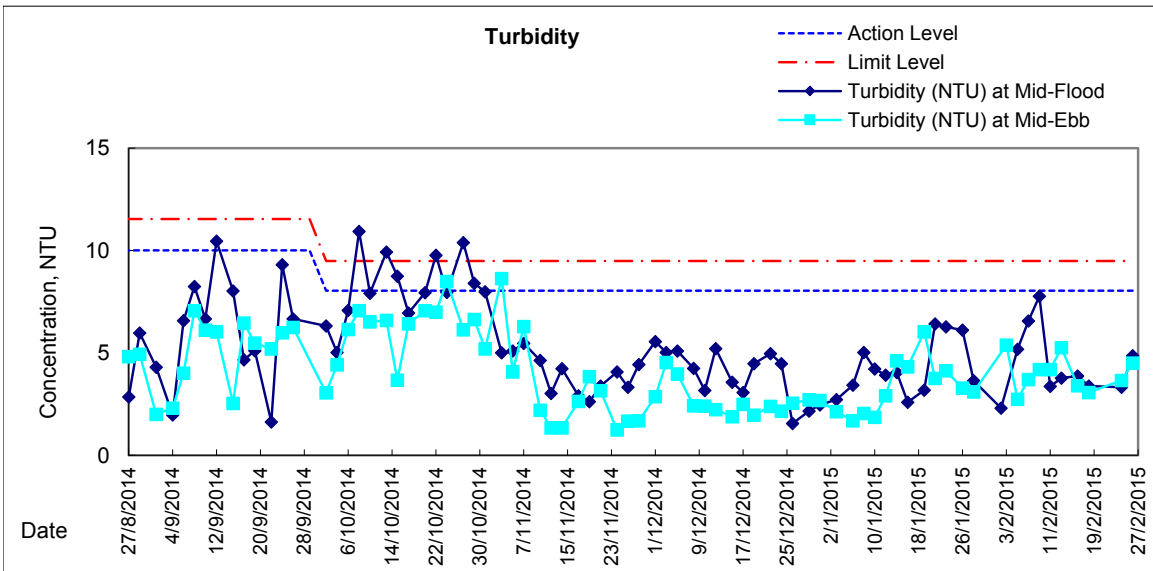
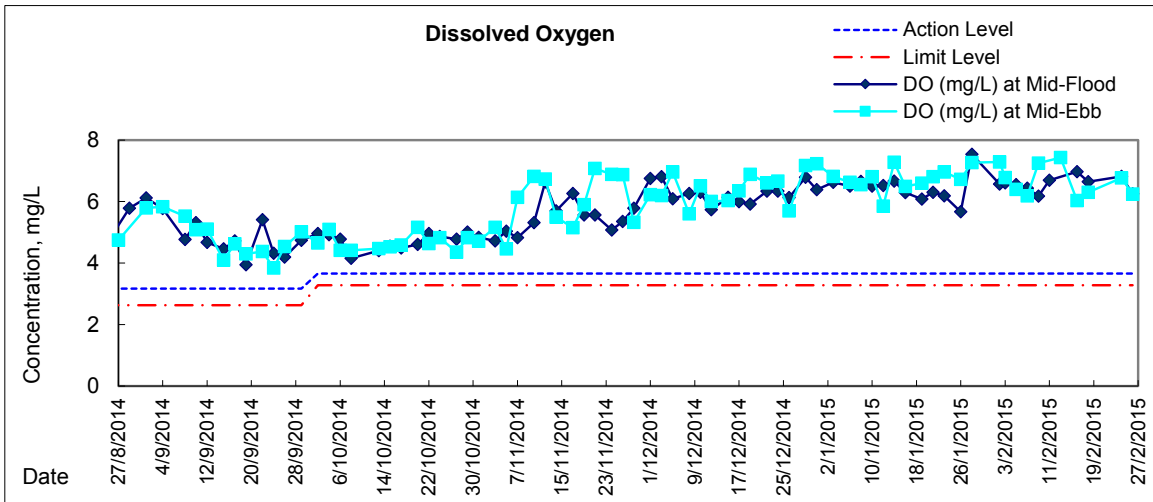


Graphic Presentation of Water Quality Result of P4 - SOC



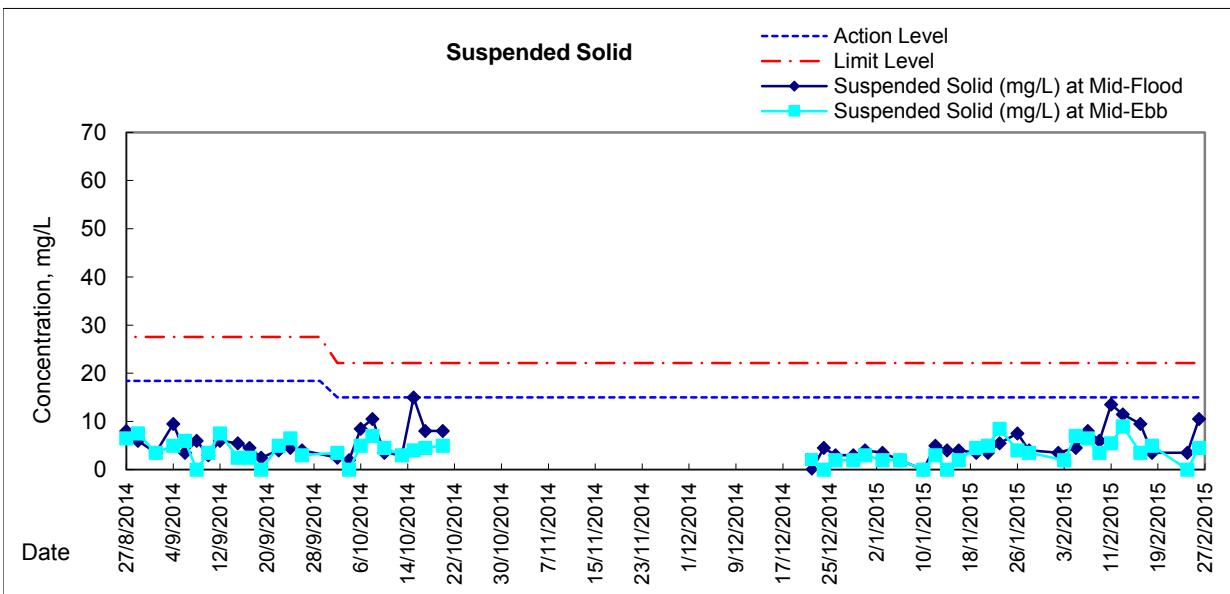
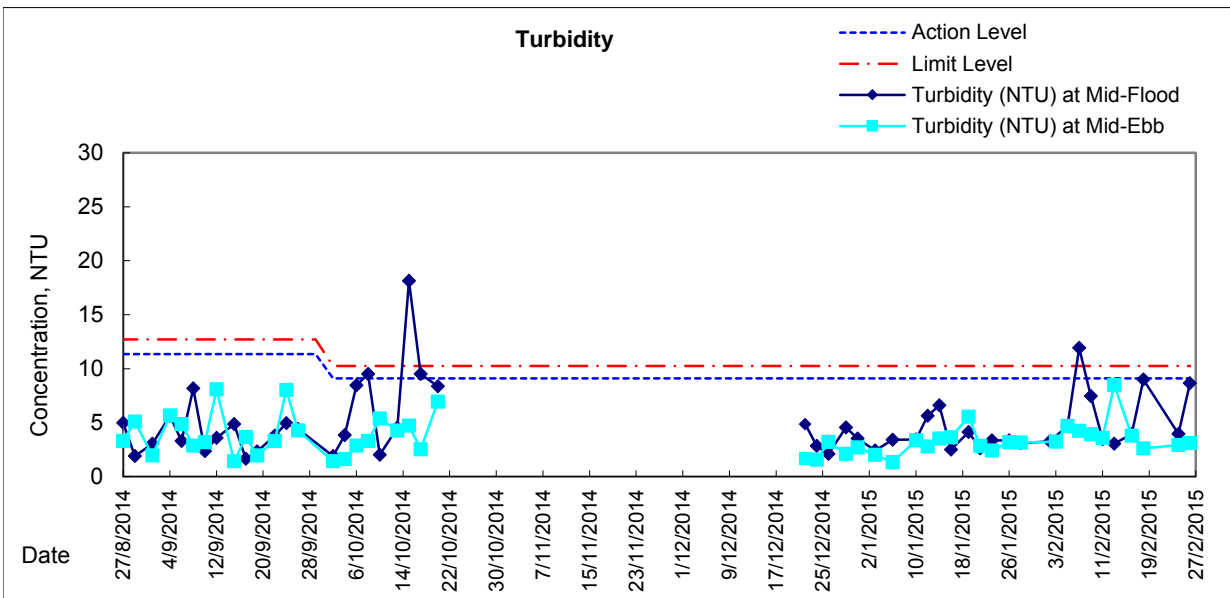
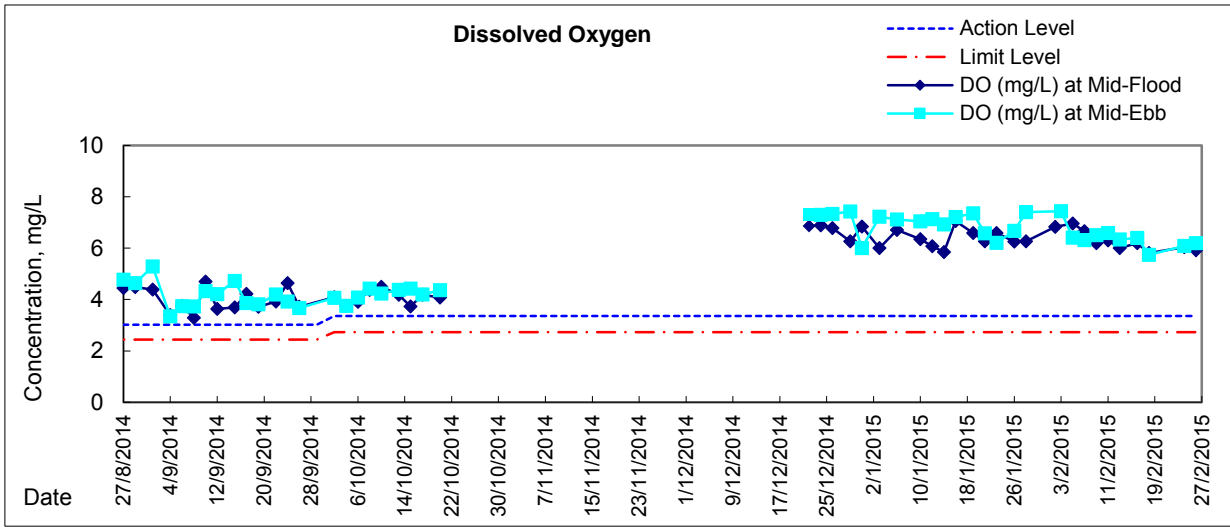


Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK





Graphic Presentation of Water Quality Result of C7 - Windsor House





**Water Monitoring Result at C6 - Excelsior Hotel
Mid-Flood 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						
28/1/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10:00		Middle	1.5	17.80	17.80	17.8	8.00	8.00	8.0	30.74	30.74	30.7	73.2	72.9	73.1	5.77	5.75	5.76
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:28		Middle	1.5	17.40	17.40	17.4	8.17	8.17	8.2	31.08	31.08	31.1	88.0	87.0	87.5	6.98	6.90	6.94
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:45		Middle	1.5	18.00	18.00	18.0	8.18	8.18	8.2	31.11	31.11	31.1	85.2	86.0	85.6	6.67	6.78	6.73
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/2/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	19:45		Middle	1.5	16.00	16.00	16.0	7.78	7.78	7.8	30.78	30.78	30.8	81.5	81.3	81.4	6.67	6.64	6.66
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/2/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	22:15		Middle	1.5	16.80	16.80	16.8	7.81	7.81	7.8	31.12	31.12	31.1	67.8	68.7	68.3	5.47	5.62	5.55
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/2/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18:56		Middle	1.0	16.70	16.70	16.7	7.65	7.66	7.7	31.55	31.55	31.6	81.1	81.9	81.5	6.51	6.57	6.54
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:11		Middle	1.5	16.90	16.90	16.9	8.15	8.15	8.2	31.17	31.17	31.2	82.3	81.0	81.7	6.60	6.50	6.55
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:05		Middle	1.5	17.60	17.60	17.6	8.10	8.10	8.1	30.98	30.98	31.0	72.6	72.1	72.4	5.74	5.71	5.73
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/2/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:52		Middle	1.5	18.50	18.50	18.5	8.10	8.10	8.1	31.05	31.05	31.1	85.4	84.4	84.9	6.64	6.55	6.60
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:20		Middle	1.5	17.70	17.70	17.7	8.10	8.10	8.1	30.31	30.31	30.3	73.4	73.0	73.2	5.82	5.77	5.80
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:55		Middle	1.5	18.00	18.00	18.0	8.13	8.13	8.1	29.32	29.32	29.3	71.8	71.6	71.7	5.70	5.69	5.70
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:33		Middle	1.5	18.90	18.90	18.9	8.10	8.10	8.1	30.93	30.93	30.9	70.0	70.0	70.0	5.41	5.41	5.41
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during flood tide and ebb tide were temporarily suspended



**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
28/1/2015	9:40	Fine	Surface	1.0	17.80	17.80	17.8	7.98	7.98	8.0	28.71	28.71	28.7	63.2	64.2	63.7	5.06	5.14	5.10
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:42		Bottom	3.0	17.40	17.40	17.4	8.01	8.01	8.0	30.93	30.93	30.9	68.1	67.9	68.0	5.42	5.40	5.41
30/1/2015	15:12	Cloudy	Surface	1.0	17.60	17.60	17.6	8.14	8.14	8.1	30.57	30.57	30.6	75.8	74.9	75.4	6.01	5.94	5.98
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15:14		Bottom	4.0	17.30	17.30	17.3	8.15	8.15	8.2	30.78	30.78	30.8	78.4	78.3	78.4	6.25	6.24	6.25
2/2/2015	15:20	Fine	Surface	1.0	17.90	17.90	17.9	8.16	8.16	8.2	31.07	31.07	31.1	83.1	82.6	82.9	6.52	6.48	6.50
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15:22		Bottom	3.0	17.60	17.60	17.6	8.16	8.16	8.2	31.33	31.33	31.3	86.0	86.1	86.1	6.82	6.81	6.82
5/2/2015	19:23	Cloudy	Surface	1.0	15.90	15.90	15.9	7.85	7.85	7.9	28.32	28.32	28.3	60.7	60.9	60.8	5.05	5.07	5.06
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	19:25		Bottom	4.0	15.90	15.90	15.9	7.83	7.83	7.8	28.19	28.07	28.1	61.9	62.6	62.3	5.16	5.22	5.19
7/2/2015	21:31	Cloudy	Surface	1.0	16.70	16.70	16.7	7.86	7.86	7.9	27.65	27.65	27.7	58.6	59.1	58.9	4.96	4.97	4.97
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21:33		Bottom	5.0	16.70	16.70	16.7	7.85	7.85	7.9	27.19	27.19	27.2	57.6	59.2	58.4	4.89	4.95	4.92
9/2/2015	20:22	Cloudy	Surface	1.0	16.20	16.20	16.2	8.05	8.05	8.1	28.39	28.38	28.4	68.4	68.0	68.2	5.66	5.63	5.65
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	20:24		Bottom	4.0	16.20	16.20	16.2	8.04	8.04	8.0	28.40	28.40	28.4	66.4	66.1	66.3	5.49	5.47	5.48
11/2/2015	9:45	Fine	Surface	1.0	16.80	16.80	16.8	8.17	8.17	8.2	24.90	24.90	24.9	61.0	59.5	60.3	5.04	4.93	4.99
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:47		Bottom	4.0	16.80	16.80	16.8	8.23	8.23	8.2	31.19	31.19	31.2	74.8	73.9	74.4	6.01	5.94	5.98
13/2/2015	9:45	Fine	Surface	1.0	17.10	17.10	17.1	8.19	8.19	8.2	28.77	28.77	28.8	60.9	59.6	60.3	4.93	4.82	4.88
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:47		Bottom	3.0	17.10	17.10	17.1	8.20	8.20	8.2	30.71	30.71	30.7	67.4	67.8	67.6	5.39	5.42	5.41
16/2/2015	15:08	Cloudy	Surface	1.0	17.90	17.90	17.9	8.05	8.05	8.1	30.63	30.63	30.6	71.2	71.1	71.2	5.61	5.60	5.61
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15:10		Bottom	4.0	17.90	17.90	17.9	8.05	8.05	8.1	30.39	30.39	30.4	68.1	67.0	67.6	5.38	5.29	5.34
18/2/2015	16:09	Fine	Surface	1.0	17.90	17.90	17.9	7.91	7.91	7.9	26.10	26.10	26.1	70.5	70.7	70.6	5.72	5.74	5.73
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	16:11		Bottom	4.0	17.50	17.50	17.5	8.05	8.05	8.1	29.80	29.80	29.8	64.7	64.6	64.7	5.18	5.17	5.18
24/2/2015	8:35	Fine	Surface	1.0	18.30	18.30	18.3	8.00	8.00	8.0	26.07	26.07	26.1	59.1	58.8	59.0	4.75	4.73	4.74
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8:37		Bottom	4.0	18.20	18.20	18.2	8.01	8.01	8.0	27.36	27.36	27.4	63.4	62.8	63.1	5.07	5.02	5.05
26/2/2015	10:21	Fine	Surface	1.0	19.60	19.60	19.6	7.77	7.77	7.8	22.08	22.08	22.1	52.8	53.0	52.9	4.26	4.27	4.27
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10:23		Bottom	4.0	18.80	18.80	18.8	8.07	8.07	8.1	30.93	30.93	30.9	68.8	69.0	68.9	5.32	5.34	5.33

Remarks:

Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during flood tide and ebb tide were temporarily suspended



**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	Value	Average			
28/1/2015	9:44	Fine	Surface	1.0	17.80	17.80	17.8	8.09	8.09	8.1	30.27	30.27	30.3	69.1	69.8	69.5	5.50	5.55	5.53
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:46		Bottom	4.0	17.40	17.40	17.4	8.07	8.07	8.1	30.84	30.84	30.8	69.9	69.5	69.7	5.57	5.54	5.56
30/1/2015	15:16	Cloudy	Surface	1.0	17.40	17.40	17.4	8.13	8.13	8.1	31.04	31.04	31.0	80.0	79.2	79.6	6.36	6.30	6.33
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15:18		Bottom	4.0	17.30	17.30	17.3	8.14	8.14	8.1	31.39	31.39	31.4	81.2	80.1	80.7	6.45	6.36	6.41
2/2/2015	15:30	Fine	Surface	1.0	18.10	18.10	18.1	8.13	8.13	8.1	27.13	27.13	27.1	69.1	69.1	69.1	5.54	5.55	5.55
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15:32		Bottom	4.0	17.50	17.50	17.5	8.18	8.18	8.2	31.25	31.25	31.3	83.9	85.2	84.6	6.66	6.71	6.69
5/2/2015	19:29	Cloudy	Surface	1.0	15.90	15.90	15.9	7.82	7.82	7.8	28.21	28.21	28.2	57.7	58.1	57.9	4.81	4.94	4.88
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	19:31		Bottom	4.0	15.90	15.90	15.9	7.82	7.82	7.8	28.23	28.23	28.2	65.1	65.9	65.5	5.43	5.49	5.46
7/2/2015	21:39	Cloudy	Surface	1.0	16.70	16.70	16.7	7.84	7.84	7.8	28.26	28.26	28.3	58.6	58.7	58.7	4.95	4.96	4.96
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21:41		Bottom	5.0	16.70	16.70	16.7	7.83	7.83	7.8	28.69	28.69	28.7	66.1	66.5	66.3	5.46	5.44	5.45
9/2/2015	20:28	Cloudy	Surface	1.0	16.10	16.10	16.1	8.03	8.03	8.0	28.18	28.18	28.2	65.5	65.4	65.5	5.43	5.42	5.43
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	20:30		Bottom	4.0	16.10	16.10	16.1	8.03	8.03	8.0	28.24	28.24	28.2	65.5	66.1	65.8	5.46	5.48	5.47
11/2/2015	9:50	Fine	Surface	1.0	16.70	16.70	16.7	8.25	8.25	8.3	30.57	30.57	30.6	79.2	78.6	78.9	6.40	6.34	6.37
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:52		Bottom	4.0	16.70	16.70	16.7	8.24	8.24	8.2	30.57	30.57	30.6	74.4	73.6	74.0	6.02	5.93	5.98
13/2/2015	9:54	Fine	Surface	1.0	17.00	17.00	17.0	8.14	8.14	8.1	30.94	30.94	30.9	70.1	70.2	70.2	5.61	5.62	5.62
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9:56		Bottom	4.0	16.80	16.80	16.8	8.16	8.16	8.2	31.09	31.09	31.1	70.2	70.8	70.5	5.65	5.69	5.67
16/2/2015	15:14	Cloudy	Surface	1.0	17.70	17.70	17.7	8.06	8.06	8.1	30.85	30.85	30.9	73.7	73.2	73.5	5.82	5.79	5.81
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15:16		Bottom	4.0	17.70	17.70	17.7	8.07	8.07	8.1	31.13	31.13	31.1	73.5	72.6	73.1	5.80	5.73	5.77
18/2/2015	16:03	Fine	Surface	1.0	18.00	18.00	18.0	8.11	8.11	8.1	31.13	31.13	31.1	78.5	77.7	78.1	6.16	6.10	6.13
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	16:05		Bottom	4.0	17.80	17.80	17.8	8.09	8.09	8.1	30.28	30.28	30.3	74.2	72.8	73.5	5.88	5.77	5.83
24/2/2015	8:45	Fine	Surface	1.0	18.50	18.50	18.5	7.91	7.91	7.9	22.98	22.98	23.0	60.5	59.0	59.8	4.94	4.82	4.88
	0:00		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8:47		Bottom	4.0	18.10	18.10	18.1	8.02	8.02	8.0	27.83	27.83	27.8	69.1	68.4	68.8	5.53	5.48	5.51
26/2/2015	10:17	Fine	Surface	1.0	18.70	18.70	18.7	8.10	8.10	8.1	30.59	30.59	30.6	66.7	66.6	66.7	5.18	5.17	5.18
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10:19		Bottom	4.0	18.80	18.80	18.8	8.08	8.08	8.1	29.70	29.70	29.7	64.2	63.9	64.1	5.01	4.99	<u>5.00</u>

Remarks:

Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during flood tide and ebb tide were temporarily suspended



**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						
28/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	22:11		Middle	1.0	17.20	17.20	17.2	7.85	7.85	7.9	30.12	30.12	30.1	85.1	84.7	84.9	6.69	6.66	6.68
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30/1/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	19:35		Middle	1.5	17.40	17.40	17.4	7.82	7.82	7.8	30.57	30.58	30.6	87.1	87.6	87.4	6.95	6.99	6.97
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/2/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23:56		Middle	1.5	16.80	16.80	16.8	7.97	7.97	8.0	30.45	30.45	30.5	83.2	83.7	83.5	6.72	6.76	6.74
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:35		Middle	1.5	26.90	26.90	26.9	8.14	8.14	8.1	30.91	30.91	30.9	88.3	87.4	87.9	7.06	6.99	7.03
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:20		Middle	1.5	17.50	17.50	17.5	8.12	8.12	8.1	31.10	31.10	31.1	79.1	78.8	79.0	6.27	6.24	6.26
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:40		Middle	1.5	17.20	17.20	17.2	8.12	8.12	8.1	31.26	31.26	31.3	80.7	80.4	80.6	6.43	6.41	6.42
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:20		Middle	1.5	16.90	16.90	16.9	8.17	8.17	8.2	30.68	30.68	30.7	74.3	74.5	74.4	5.99	6.00	6.00
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/2/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21:40		Middle	1.0	16.90	16.90	16.9	8.08	8.08	8.1	30.07	30.06	30.1	68.7	68.6	68.7	5.55	5.54	5.55
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/2/2015	-	Foggy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	22:05		Middle	1.0	18.40	18.40	18.4	7.77	7.77	7.8	29.57	29.57	29.6	71.1	71.4	71.3	5.59	5.62	5.61
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13:22		Middle	1.5	17.80	17.80	17.8	8.12	8.12	8.1	30.88	30.88	30.9	75.0	75.0	75.0	5.91	5.91	5.91
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:18		Middle	1.5	18.30	18.30	18.3	8.11	8.11	8.1	30.55	30.55	30.6	78.1	77.7	77.9	6.12	6.08	6.10
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/2/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:31		Middle	1.0	20.00	20.00	20.0	7.60	7.60	7.6	30.56	30.56	30.6	71.7	72.0	71.9	5.46	5.48	5.47
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during flood tide and ebb tide were temporarily suspended



**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	Value	Average	
28/1/2015	21:40	Cloudy	Surface	1.0	17.20	17.20	17.2	7.90	7.90	7.9	25.04	25.04	25.0	62.1	62.5	62.3	5.03	5.06	5.05
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21:42		Bottom	4.0	17.20	17.20	17.2	7.88	7.88	7.9	25.52	25.52	25.5	65.9	67.0	66.5	5.34	5.43	5.39
30/1/2015	21:00	Cloudy	Surface	1.0	17.20	17.20	17.2	8.01	8.01	8.0	27.97	27.97	28.0	70.6	70.4	70.5	5.74	5.73	5.74
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21:02		Bottom	5.0	17.20	17.20	17.2	8.00	7.99	8.0	28.01	28.01	28.0	70.2	70.3	70.3	5.71	5.72	5.72
3/2/2015	0:47	Cloudy	Surface	1.0	16.90	16.90	16.9	8.10	8.10	8.1	20.47	20.47	20.5	52.1	51.8	52.0	4.46	4.44	4.45
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:49		Bottom	4.0	16.90	16.90	16.9	8.05	8.05	8.1	20.48	20.48	20.5	55.4	56.4	55.9	4.74	4.83	4.79
5/2/2015	14:22	Fine	Surface	1.0	17.20	17.20	17.2	8.06	8.06	8.1	30.95	30.95	31.0	77.7	77.4	77.6	6.21	6.18	6.20
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:24		Bottom	4.0	17.00	17.00	17.0	8.06	8.06	8.1	30.66	30.66	30.7	72.3	71.5	71.9	5.79	5.73	5.76
7/2/2015	13:50	Fine	Surface	1.0	17.60	17.60	17.6	8.01	8.01	8.0	28.20	28.20	28.2	70.8	69.8	70.3	5.68	5.60	5.64
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13:52		Bottom	4.0	17.40	17.40	17.4	8.00	8.00	8.0	28.46	28.46	28.5	66.9	64.2	65.6	5.32	5.18	5.25
9/2/2015	15:27	Fine	Surface	1.0	17.10	17.10	17.1	8.25	8.25	8.3	31.01	31.01	31.0	71.8	70.6	71.2	5.74	5.64	5.69
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:29		Bottom	4.0	16.90	16.90	16.9	8.20	8.20	8.2	31.04	31.04	31.0	71.9	72.3	72.1	5.78	5.80	5.79
11/2/2015	16:55	Fine	Surface	1.0	17.30	17.30	17.3	8.14	8.14	8.1	26.61	26.61	26.6	58.7	57.9	58.3	4.81	4.74	4.78
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:57		Bottom	4.0	16.80	16.80	16.8	8.17	8.17	8.2	30.43	30.43	30.4	70.0	68.9	69.5	5.65	5.52	5.59
13/2/2015	20:51	Cloudy	Surface	1.0	17.50	17.50	17.5	7.90	7.90	7.9	22.42	22.42	22.4	51.2	51.3	51.3	4.30	4.29	4.30
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:53		Bottom	4.0	17.30	17.30	17.3	8.07	8.07	8.1	22.97	22.97	23.0	57.0	57.6	57.3	4.81	4.86	4.84
16/2/2015	23:12	Foggy	Surface	1.0	18.30	18.30	18.3	7.85	7.85	7.9	24.81	24.81	24.8	49.2	49.8	49.5	3.96	4.01	3.99
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23:14		Bottom	4.0	18.50	18.50	18.5	7.75	7.75	7.8	26.61	26.61	26.6	60.3	60.9	60.6	4.82	4.86	4.84
18/2/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:12		Middle	1.5	17.40	17.40	17.4	8.31	8.31	8.3	31.13	31.13	31.1	72.1	70.8	71.5	5.72	5.61	5.67
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/2/2015	17:01	Fine	Surface	1.0	18.90	18.90	18.9	7.89	7.89	7.9	24.21	24.21	24.2	62.0	60.2	61.1	4.98	4.83	4.91
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:03		Bottom	4.0	18.30	18.30	18.3	8.02	8.02	8.0	28.53	28.53	28.5	68.3	68.4	68.4	5.42	5.42	5.42
26/2/2015	19:52	Cloudy	Surface	1.0	20.40	20.40	20.4	7.92	7.92	7.9	19.79	19.79	19.8	50.5	51.4	51.0	4.05	4.13	4.09
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	19:54		Bottom	4.0	20.50	20.50	20.5	7.88	7.88	7.9	19.87	19.87	19.9	60.0	61.8	60.9	4.80	4.95	4.88

Remarks:

Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during flood tide and ebb tide were temporarily suspended



**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	Value	Average		
28/1/2015	21:45	Cloudy	Surface	1.0	17.20	17.20	17.2	7.85	7.85	7.9	25.39	25.39	25.4	59.8	60.7	60.3	4.85	4.92	4.89
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21:47		Bottom	4.0	17.20	17.20	17.2	7.84	7.84	7.8	25.39	25.39	25.4	66.8	67.7	67.3	5.42	5.48	5.45
30/1/2015	21:06	Cloudy	Surface	1.0	17.20	17.20	17.2	7.99	7.99	8.0	27.85	27.85	27.9	67.6	67.2	67.4	5.49	5.46	5.48
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21:08		Bottom	5.0	17.20	17.20	17.2	7.97	7.97	8.0	27.89	27.89	27.9	69.0	69.5	69.3	5.61	5.65	5.63
3/2/2015	0:54	Cloudy	Surface	1.0	16.90	16.90	16.9	8.02	8.02	8.0	20.12	20.13	20.1	51.8	52.4	52.1	4.44	4.50	4.47
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:56		Bottom	4.0	16.90	16.90	16.9	8.00	8.00	8.0	20.11	20.11	20.1	63.3	64.4	63.9	5.48	5.53	5.51
5/2/2015	14:26	Fine	Surface	1.0	17.70	17.70	17.7	7.91	7.91	7.9	26.37	26.37	26.4	59.0	58.0	58.5	4.79	4.72	4.76
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:28		Bottom	4.0	17.10	17.10	17.1	8.10	8.10	8.1	31.33	31.33	31.3	73.0	73.2	73.1	5.93	5.94	5.94
7/2/2015	14:00	Fine	Surface	1.0	17.40	17.40	17.4	8.04	8.04	8.0	29.82	29.82	29.8	72.7	71.1	71.9	5.82	5.69	5.76
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:02		Bottom	4.0	17.50	17.50	17.5	8.00	8.00	8.0	28.23	28.23	28.2	64.5	62.3	63.4	5.20	5.02	<u>5.11</u>
9/2/2015	15:31	Fine	Surface	1.0	16.90	16.90	16.9	8.13	8.13	8.1	30.43	30.43	30.4	71.5	71.2	71.4	5.75	5.74	5.75
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:33		Bottom	4.0	16.70	16.70	16.7	8.16	8.16	8.2	31.32	31.32	31.3	77.3	78.1	77.7	6.22	6.28	6.25
11/2/2015	16:59	Fine	Surface	1.0	16.80	16.80	16.8	8.15	8.15	8.2	30.58	30.58	30.6	71.7	71.8	71.8	5.78	5.79	5.79
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:01		Bottom	4.0	16.90	16.90	16.9	8.15	8.15	8.2	30.99	30.99	31.0	75.1	74.5	74.8	6.03	5.99	6.01
13/2/2015	20:58	Cloudy	Surface	1.0	17.20	17.20	17.2	7.93	7.93	7.9	23.95	24.02	24.0	53.1	52.5	52.8	4.40	4.36	4.38
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21:00		Bottom	4.0	16.90	16.90	16.9	8.00	8.00	8.0	30.55	30.55	30.6	67.5	67.8	67.7	5.43	5.45	5.44
16/2/2015	23:20	Foggy	Surface	1.0	18.40	18.40	18.4	7.76	7.76	7.8	25.88	25.88	25.9	54.9	55.6	55.3	4.40	4.44	4.42
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23:22		Bottom	4.0	18.60	18.60	18.6	7.74	7.74	7.7	26.60	26.60	26.6	68.5	69.1	68.8	5.45	5.49	5.47
18/2/2015	12:17	Fine	Surface	1.0	17.40	17.40	17.4	8.07	8.07	8.1	29.94	29.94	29.9	71.0	70.5	70.8	5.56	5.54	5.55
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:19		Bottom	3.0	17.50	17.50	17.5	8.10	8.10	8.1	30.12	30.12	30.1	76.0	76.1	76.1	5.84	5.85	5.85
24/2/2015	17:06	Fine	Surface	1.0	18.80	18.80	18.8	7.87	7.87	7.9	24.41	24.41	24.4	59.1	57.5	58.3	4.75	4.64	4.70
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:08		Bottom	4.0	18.40	18.40	18.4	7.98	7.98	8.0	28.02	28.02	28.0	65.9	64.3	65.1	5.24	5.11	<u>5.18</u>
26/2/2015	20:00	Cloudy	Surface	1.0	20.60	20.60	20.6	7.80	7.80	7.8	19.35	19.41	19.4	55.2	55.5	55.4	4.42	4.43	4.43
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20:02		Bottom	4.0	20.70	20.70	20.7	7.77	7.77	7.8	19.42	19.42	19.4	68.2	68.6	68.4	5.44	5.47	5.46

Remarks:

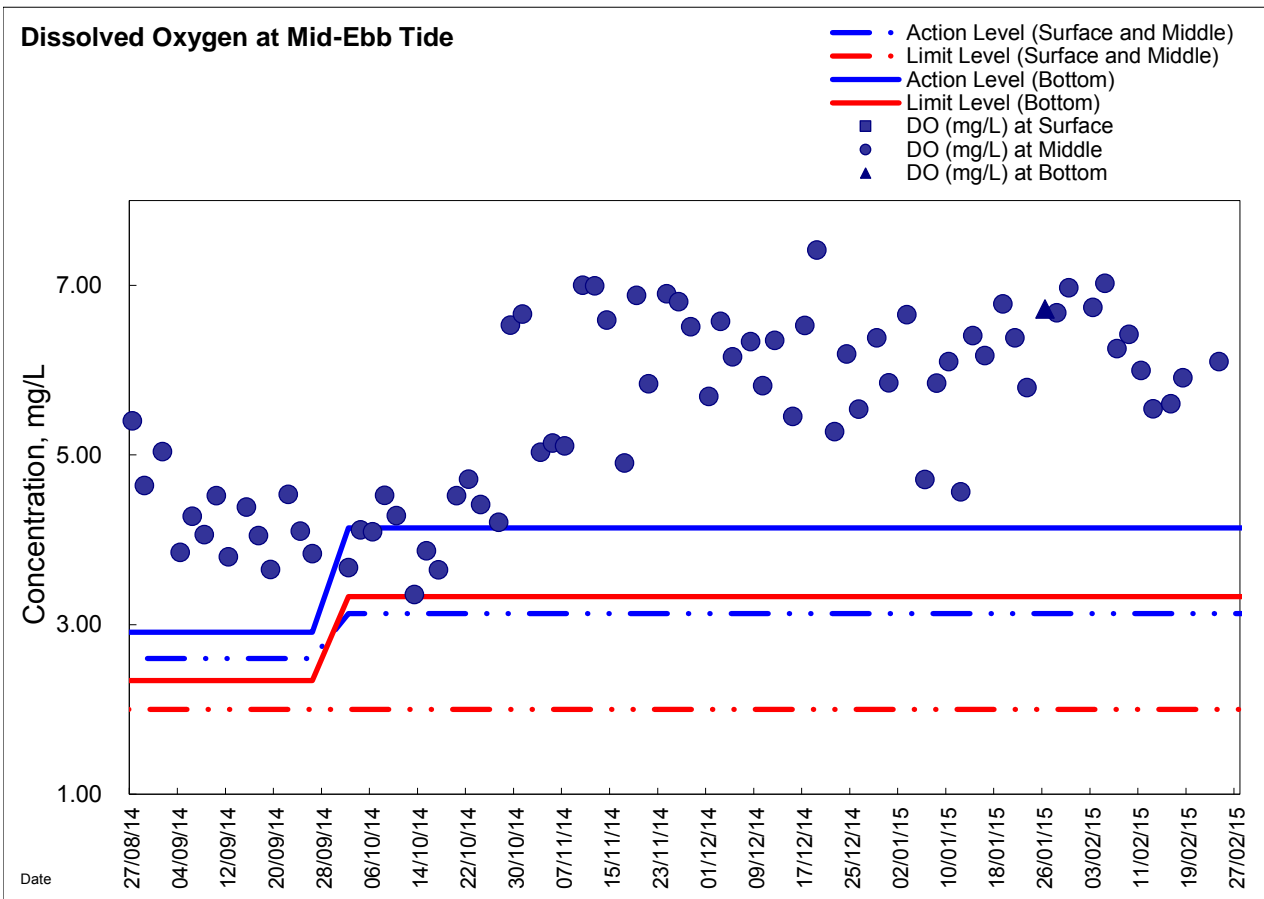
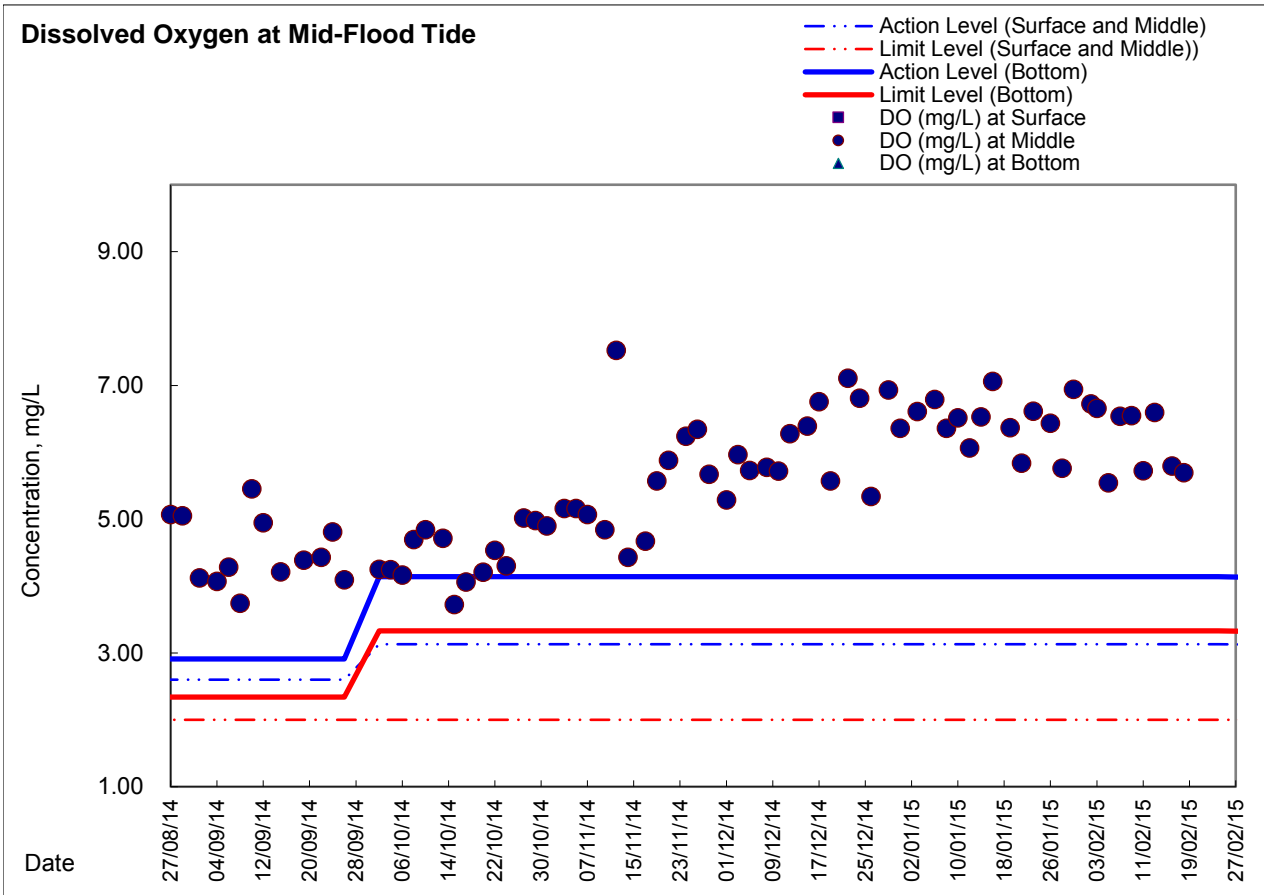
Single underline denotes exceedance over Action Level.

Double underline denotes exceedance over Limit Level.

With respect the suspension of marine construction activities under the contract during Chinese New Year Holiday, the water quality monitoring event on 20 February 2015 during flood tide and ebb tide were temporarily suspended

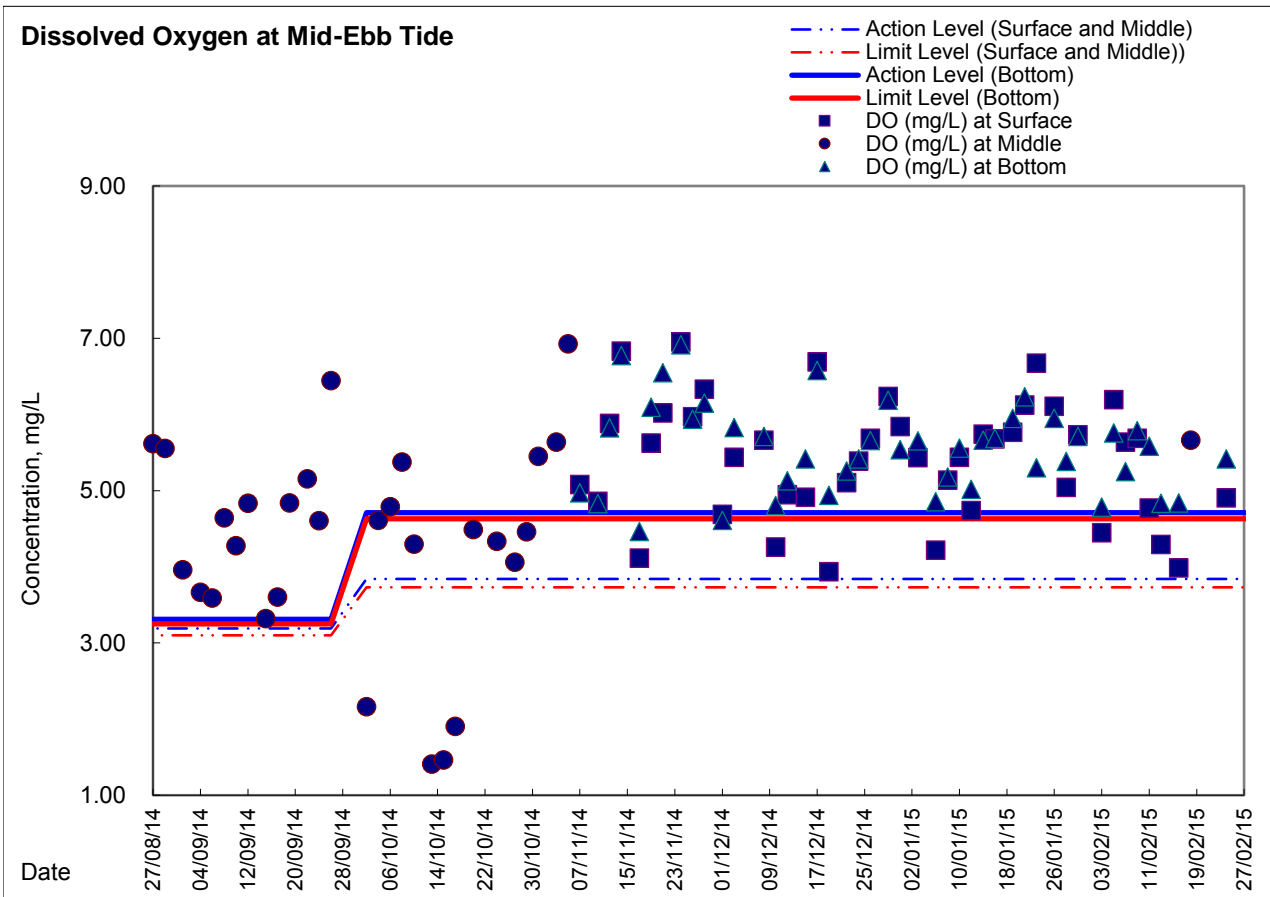
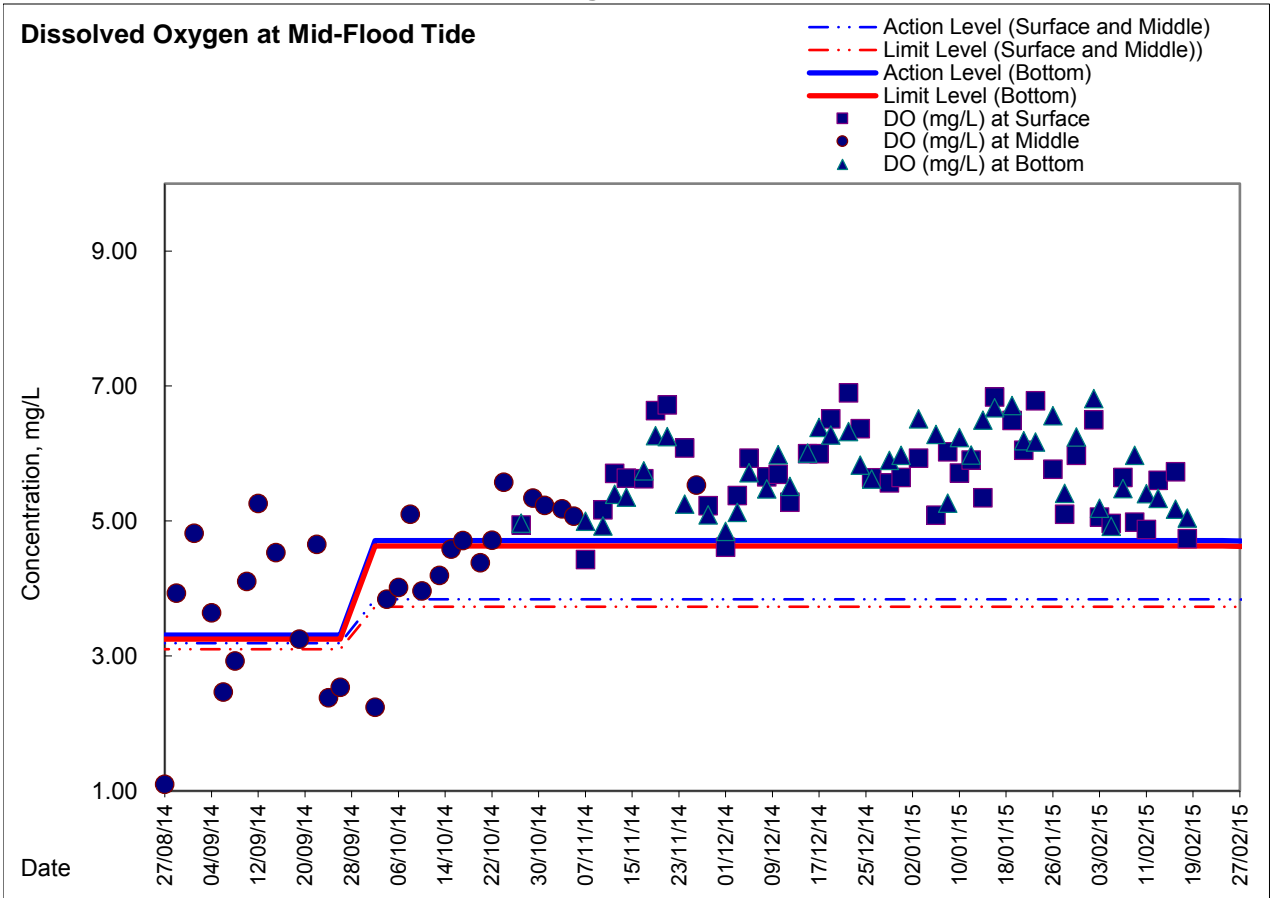


Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel



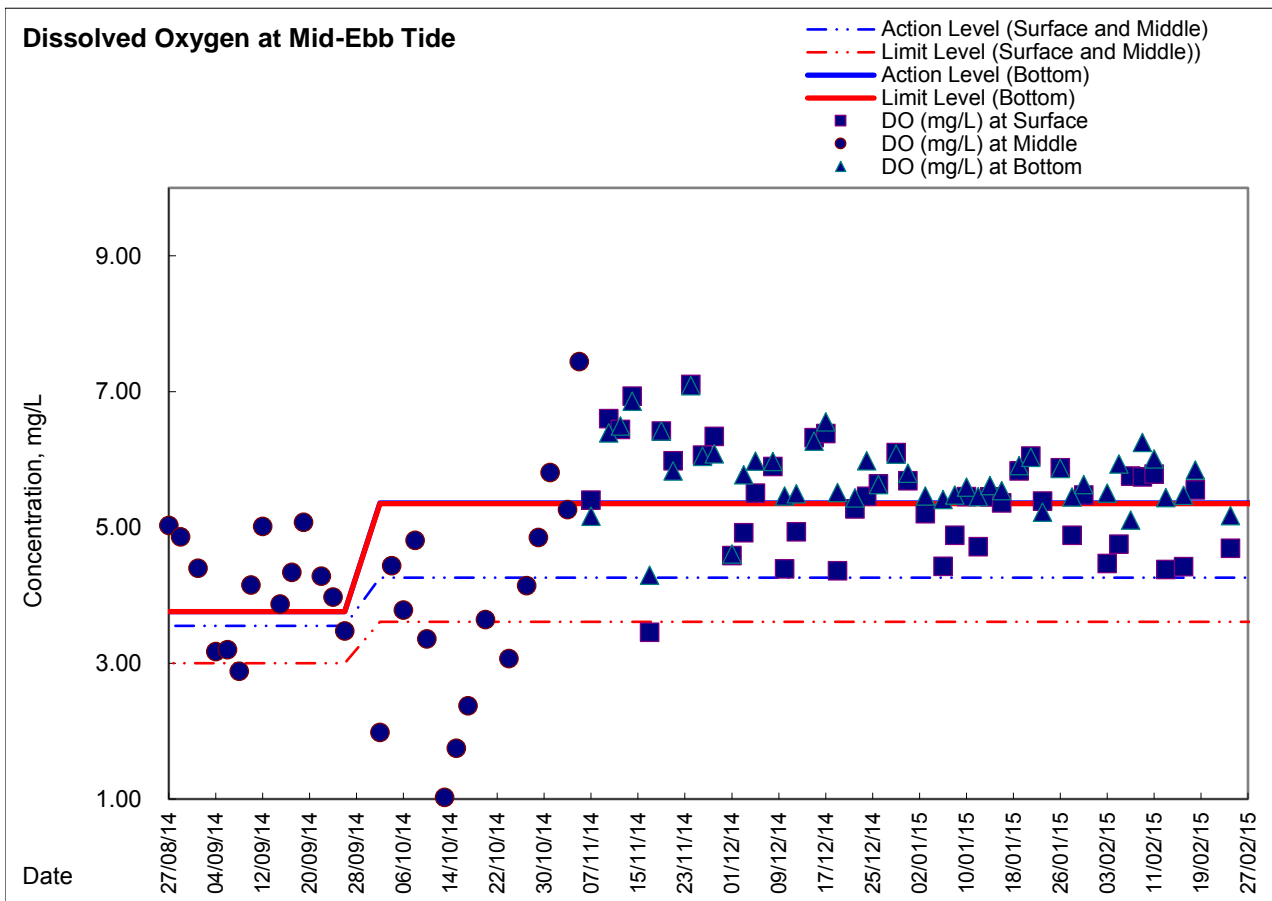
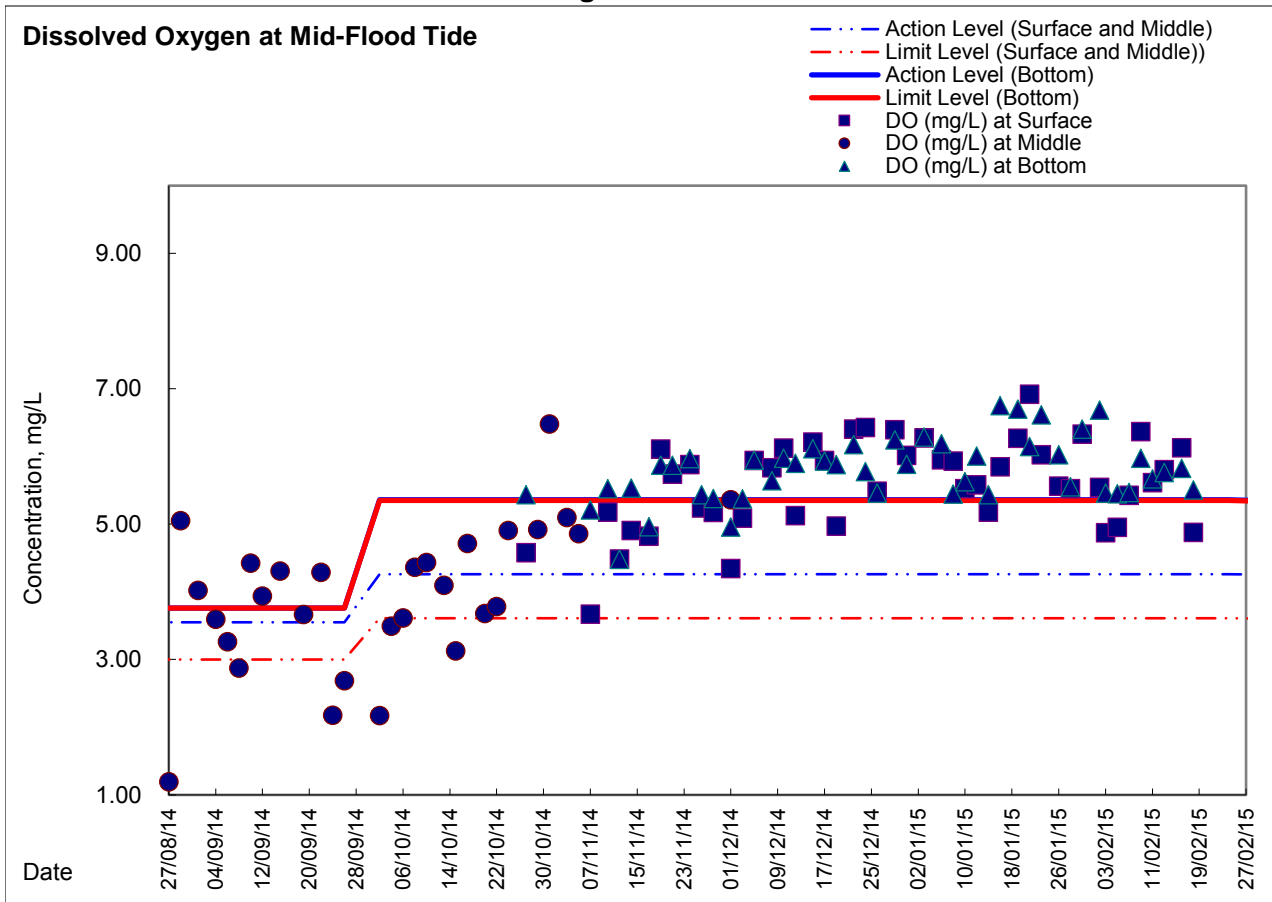


Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area





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)									
29/1/2015 20:56	61.2	31/1/2015 22:01	61.8	1/2/2015 15:06	63.0	2/2/2015 20:11	61.9	4/2/2015 21:16	60.8	6/2/2015 22:21	62.9
29/1/2015 21:01	61.0	31/1/2015 22:06	60.7	1/2/2015 15:11	62.6	2/2/2015 20:16	62.5	4/2/2015 21:21	62.0	6/2/2015 22:26	62.3
29/1/2015 21:06	60.9	31/1/2015 22:11	61.2	1/2/2015 15:16	62.7	2/2/2015 20:21	62.5	4/2/2015 21:26	61.9	6/2/2015 22:31	63.2
29/1/2015 21:11	62.6	31/1/2015 22:16	60.9	1/2/2015 15:21	61.7	2/2/2015 20:26	61.7	4/2/2015 21:31	60.8	6/2/2015 22:36	62.1
29/1/2015 21:16	61.8	31/1/2015 22:21	62.6	1/2/2015 15:26	61.5	2/2/2015 20:31	62.3	4/2/2015 21:36	61.2	6/2/2015 22:41	62.8
29/1/2015 21:21	62.3	31/1/2015 22:26	61.4	1/2/2015 15:31	63.1	2/2/2015 20:36	62.2	4/2/2015 21:41	61.8	6/2/2015 22:46	63.1
29/1/2015 21:26	61.3	31/1/2015 22:31	59.9	1/2/2015 15:36	62.9	2/2/2015 20:41	61.0	4/2/2015 21:46	61.7	6/2/2015 22:51	65.2
29/1/2015 21:31	61.4	31/1/2015 22:36	61.4	1/2/2015 15:41	62.8	2/2/2015 20:46	61.8	4/2/2015 21:51	61.3	6/2/2015 22:56	62.6
29/1/2015 21:36	61.4	31/1/2015 22:41	61.3	1/2/2015 15:46	62.1	2/2/2015 20:51	61.1	4/2/2015 21:56	61.2	7/2/2015 19:01	61.4
29/1/2015 21:41	60.0	31/1/2015 22:46	61.6	1/2/2015 15:51	62.8	2/2/2015 20:56	60.9	4/2/2015 22:01	59.9	7/2/2015 19:06	61.7
29/1/2015 21:46	61.2	31/1/2015 22:51	60.7	1/2/2015 15:56	62.6	2/2/2015 21:01	62.6	4/2/2015 22:06	61.4	7/2/2015 19:11	61.4
29/1/2015 21:51	60.8	31/1/2015 22:56	60.3	1/2/2015 16:01	62.0	2/2/2015 21:06	60.9	4/2/2015 22:11	62.7	7/2/2015 19:16	62.4
29/1/2015 21:56	60.8	1/2/2015 7:01	61.7	1/2/2015 16:06	62.3	2/2/2015 21:11	61.9	4/2/2015 22:16	61.1	7/2/2015 19:21	61.6
29/1/2015 22:01	62.2	1/2/2015 7:06	53.4	1/2/2015 16:11	63.6	2/2/2015 21:16	61.7	4/2/2015 22:21	64.0	7/2/2015 19:26	62.3
29/1/2015 22:06	61.9	1/2/2015 7:11	48.6	1/2/2015 16:16	62.3	2/2/2015 21:21	62.3	4/2/2015 22:26	61.7	7/2/2015 19:31	62.3
29/1/2015 22:11	59.9	1/2/2015 7:16	45.1	1/2/2015 16:21	63.5	2/2/2015 21:26	62.3	4/2/2015 22:31	61.8	7/2/2015 19:36	62.8
29/1/2015 22:16	62.3	1/2/2015 7:21	54.6	1/2/2015 16:26	62.3	2/2/2015 21:31	62.4	4/2/2015 22:36	61.3	7/2/2015 19:41	61.8
29/1/2015 22:21	61.8	1/2/2015 7:26	60.1	1/2/2015 16:31	63.9	2/2/2015 21:36	63.7	4/2/2015 22:41	62.4	7/2/2015 19:46	62.5
29/1/2015 22:26	61.3	1/2/2015 7:31	53.9	1/2/2015 16:36	62.9	2/2/2015 21:41	63.0	4/2/2015 22:46	61.1	7/2/2015 19:51	62.5
29/1/2015 22:31	61.6	1/2/2015 7:36	56.5	1/2/2015 16:41	63.2	2/2/2015 21:46	61.9	4/2/2015 22:51	61.2	7/2/2015 19:56	61.6
29/1/2015 22:36	61.2	1/2/2015 7:41	55.2	1/2/2015 16:46	62.4	2/2/2015 21:51	62.6	4/2/2015 22:56	61.1	7/2/2015 20:01	61.4
29/1/2015 22:41	63.0	1/2/2015 7:46	56.8	1/2/2015 16:51	62.3	2/2/2015 21:56	62.0	5/2/2015 19:01	64.4	7/2/2015 20:06	60.8
29/1/2015 22:46	61.7	1/2/2015 7:51	59.9	1/2/2015 16:56	62.4	2/2/2015 22:01	61.4	5/2/2015 19:06	63.3	7/2/2015 20:11	61.0
29/1/2015 22:51	62.5	1/2/2015 7:56	59.0	1/2/2015 17:01	61.6	2/2/2015 22:06	61.9	5/2/2015 19:11	63.6	7/2/2015 20:16	61.7
29/1/2015 22:56	61.2	1/2/2015 8:01	57.1	1/2/2015 17:06	61.7	2/2/2015 22:11	61.0	5/2/2015 19:16	64.1	7/2/2015 20:21	60.6
30/1/2015 19:01	64.8	1/2/2015 8:06	60.1	1/2/2015 17:11	61.8	2/2/2015 22:16	61.4	5/2/2015 19:21	62.6	7/2/2015 20:26	61.0
30/1/2015 19:06	62.8	1/2/2015 8:11	60.2	1/2/2015 17:16	62.0	2/2/2015 22:21	61.4	5/2/2015 19:26	63.2	7/2/2015 20:31	61.1
30/1/2015 19:11	62.9	1/2/2015 8:16	60.4	1/2/2015 17:21	62.2	2/2/2015 22:26	62.2	5/2/2015 19:31	64.5	7/2/2015 20:36	61.0
30/1/2015 19:16	62.8	1/2/2015 8:21	61.6	1/2/2015 17:26	63.3	2/2/2015 22:31	61.2	5/2/2015 19:36	62.5	7/2/2015 20:41	59.2
30/1/2015 19:21	63.0	1/2/2015 8:26	61.4	1/2/2015 17:31	64.8	2/2/2015 22:36	60.7	5/2/2015 19:41	63.3	7/2/2015 20:46	61.9
30/1/2015 19:26	63.1	1/2/2015 8:31	60.9	1/2/2015 17:36	63.3	2/2/2015 22:41	61.1	5/2/2015 19:46	62.9	7/2/2015 20:51	60.8
30/1/2015 19:31	63.3	1/2/2015 8:36	60.5	1/2/2015 17:41	63.4	2/2/2015 22:46	60.6	5/2/2015 19:51	63.0	7/2/2015 20:56	59.9
30/1/2015 19:36	63.1	1/2/2015 8:41	60.9	1/2/2015 17:46	62.6	2/2/2015 22:51	60.2	5/2/2015 19:56	63.1	7/2/2015 21:01	61.7
30/1/2015 19:41	62.8	1/2/2015 8:46	61.8	1/2/2015 17:51	63.0	2/2/2015 22:56	60.1	5/2/2015 20:01	61.6	7/2/2015 21:06	60.9
30/1/2015 19:46	62.6	1/2/2015 8:51	66.0	1/2/2015 17:56	63.0	3/2/2015 19:01	63.9	5/2/2015 20:06	63.2	7/2/2015 21:11	61.1
30/1/2015 19:51	62.4	1/2/2015 8:56	60.9	1/2/2015 18:01	64.2	3/2/2015 19:06	62.8	5/2/2015 20:11	63.3	7/2/2015 21:16	60.9
30/1/2015 19:56	63.7	1/2/2015 9:01	60.9	1/2/2015 18:06	63.6	3/2/2015 19:11	63.4	5/2/2015 20:16	63.5	7/2/2015 21:21	60.9
30/1/2015 20:01	62.3	1/2/2015 9:06	60.9	1/2/2015 18:11	63.2	3/2/2015 19:16	62.9	5/2/2015 20:21	61.7	7/2/2015 21:26	61.2
30/1/2015 20:06	62.7	1/2/2015 9:11	61.8	1/2/2015 18:16	63.2	3/2/2015 19:21	62.7	5/2/2015 20:26	61.9	7/2/2015 21:31	60.2
30/1/2015 20:11	62.6	1/2/2015 9:16	62.0	1/2/2015 18:21	63.1	3/2/2015 19:26	63.2	5/2/2015 20:31	61.4	7/2/2015 21:36	60.4
30/1/2015 20:16	62.4	1/2/2015 9:21	61.1	1/2/2015 18:26	66.0	3/2/2015 19:31	64.5	5/2/2015 20:36	61.6	7/2/2015 21:41	60.9
30/1/2015 20:21	62.8	1/2/2015 9:26	62.2	1/2/2015 18:31	62.7	3/2/2015 19:36	63.6	5/2/2015 20:41	63.3	7/2/2015 21:46	60.9
30/1/2015 20:26	63.1	1/2/2015 9:31	60.4	1/2/2015 18:36	63.0	3/2/2015 19:41	63.2	5/2/2015 20:46	61.3	7/2/2015 21:51	60.7
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30/1/2015 20:36	62.8	1/2/2015 9:41	61.1	1/2/2015 18:46	62.9	3/2/2015 19:51	63.1	5/2/2015 20:56	61.1	7/2/2015 22:01	60.9
30/1/2015 20:41	63.6	1/2/2015 9:46	60.8	1/2/2015 18:51	63.2	3/2/2015 19:56	64.0	5/2/2015 21:01	61.8	7/2/2015 22:06	61.0
30/1/2015 20:46	62.7	1/2/2015 9:51	61.6	1/2/2015 18:56	62.9	3/2/2015 20:01	64.1	5/2/2015 21:06	60.5	7/2/2015 22:11	61.0
30/1/2015 20:51	61.9	1/2/2015 9:56	62.3	1/2/2015 19:01	64.0	3/2/2015 20:06	62.2	5/2/2015 21:11	60.4	7/2/2015 22:16	62.6
30/1/2015 20:56	61.2	1/2/2015 10:01	60.8	1/2/2015 19:06	62.7	3/2/2015 20:11	62.0	5/2/2015 21:16	61.0	7/2/2015 22:21	61.4
30/1/2015 21:01	60.9	1/2/2015 10:06	61.4	1/2/2015 19:11	62.5	3/2/2015 20:16	61.8	5/2/2015 21:21	60.6	7/2/2015 22:26	60.6
30/1/2015 21:06	61.6	1/2/2015 10:11	61.1	1/2/2015 19:16	63.6	3/2/2015 20:21	63.7	5/2/2015 21:26	61.6	7/2/2015 22:31	61.3
30/1/2015 21:11	61.4	1/2/2015 10:16	61.7	1/2/2015 19:21	62.3	3/2/2015 20:26	64.2	5/2/2015 21:31	62.3	7/2/2015 22:36	61.0
30/1/2015 21:16	60.9	1/2/2015 10:21	62.3	1/2/2015 19:26	62.4	3/2/2015 20:31	62.4	5/2/2015 21:36	60.8	7/2/2015 22:41	60.9
30/1/2015 21:21	61.7	1/2/2015 10:26	60.5	1/2/2015 19:31	61.9	3/2/2015 20:36	61.6	5/2/2015 21:41	62.3	7/2/2015 22:46	60.2
30/1/2015 21:26	62.2	1/2/2015 10:31	60.6	1/2/2015 19:36	61.8	3/2/2015 20:41	63.6	5/2/2015 21:46	61.3	7/2/2015 22:51	61.6
30/1/2015 21:31	61.2	1/2/2015 10:36	60.0	1/2/2015 19:41	62.0	3/2/2015 20:46	61.7	5/2/2015 21:51	61.0	7/2/2015 22:56	61.3
30/1/2015 21:36	61.2	1/2/2015 10:41	59.5	1/2/2015 19:46	61.4	3/2/2015 20:51	61.0	5/2/2015 21:56	60.8	8/2/2015 7:01	45.1
30/1/2015 21:41	60.9	1/2/2015 10:46	60.0	1/2/2015 19:51	61.6	3/2/2015 20:56	61.8	5/2/2015 22:01	60.8	8/2/2015 7:06	61.2
30/1/2015 21:46	61.2	1/2/2015 10:51	58.8	1/2/2015 19:56	61.6	3/2/2015 21:01	61.6	5/2/2015 22:06	63.1	8/2/2015 7:11	54.0
30/1/2015 21:51	60.1	1/2/2015 10:56	60.2	1/2/2015 20:01	61.7	3/2/2015 21:06	62.1	5/2/2015 22:11	61.7	8/2/2015 7:16	60.0
30/1/2015 21:56	61.4	1/2/2015 11:01	59.5	1/2/2015 20:06	63.6	3/2/2015 21:11	61.3	5/2/2015 22:16	61.7	8/2/2015 7:21	47.1
30/1/2015 22:01	60.7	1/2/2015 11:06	59.8	1/2/2015 20:11	61.3	3/2/2015 21:16	61.8	5/2/2015 22:21	63.6	8/2/2015 7:26	61.3
30/1/2015 22:06	61.5	1/2/2015 11:11	61.4	1/2/2015 20:16	62.1	3/2/2015 21:21	63.5	5/2/2015 22:26	61.5	8/2/2015 7:31	61.5
30/1/2015 22:11	61.2	1/2/2015 11:16	60.9	1/2/2015 20:21	62.3	3/2/2015 21:26	61.1	5/2/2015 22:31	60.9	8/2/2015 7:36	60.9
30/1/2015 22:16	61.4	1/2/2015 11:21	62.2	1/2/2015 20:26	62.7	3/2/2015 21:31	60.8	5/2/2015 22:36	62.9	8/2/2015 7:41	35.5
30/1/2015 22:21	63.1	1/2/2015 11:26	59.8	1/2/2015 20:31	62.8	3/2/2015 21:36	62.3	5/2/2015 22:41	61.9	8/2/2015 7:46	49.6
30/1/2015 22:26	62.8	1/2/2015 11:31	60.3	1/2/2015 20:36	62.1	3/2/2015 21:41	61.3	5/2/2015 22:46	60.5	8/2/2015 7:51	55.6
30/1/2015 22:31	61.5	1/2/2015 11:36	59.8	1/2/2015 20:41	61.2	3/2/2015 21:46	59.6	5/2/2015 22:51	62.6	8/2/2015 7:56	61.3
30/1/2015 22:36	61.1	1/2/2015 11:41	58.5	1/2/2015 20:46	61.7	3/2/2015 21:51	62.6	5/2/2015 22:56	63.5	8/2/2015 8:01	61.5
30/1/2015 22:41	61.3	1/2/2015 11:46	61.1	1/2/2015 20:51	62.0	3/2/2015 21:56	60.9	6/2/2015 19:01	66.1	8/2/2015 8:06	61.8
30/1/2015 22:46	61.5	1/2/2015 11:51	60.6	1/2/2015 20:56	62.0	3/2/2015 22:01	61.7	6/2/2015 1			

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
8/2/2015 11:26	54.7	8/2/2015 20:31	60.0	10/2/2015 21:36	62.5	12/2/2015 22:41	62.4	15/2/2015 7:46	58.5	15/2/2015 16:51	62.5
8/2/2015 11:31	53.4	8/2/2015 20:36	60.1	10/2/2015 21:41	62.3	12/2/2015 22:46	60.1	15/2/2015 7:51	53.7	15/2/2015 16:56	62.4
8/2/2015 11:36	53.6	8/2/2015 20:41	62.8	10/2/2015 21:46	62.8	12/2/2015 22:51	58.9	15/2/2015 7:56	55.1	15/2/2015 17:01	63.4
8/2/2015 11:41	56.4	8/2/2015 20:46	61.4	10/2/2015 21:51	60.8	12/2/2015 22:56	61.0	15/2/2015 8:01	57.7	15/2/2015 17:06	62.6
8/2/2015 11:46	53.6	8/2/2015 20:51	60.4	10/2/2015 21:56	63.5	13/2/2015 19:01	61.7	15/2/2015 8:06	55.9	15/2/2015 17:11	62.4
8/2/2015 11:51	60.6	8/2/2015 20:56	58.8	10/2/2015 22:01	62.4	13/2/2015 19:06	60.1	15/2/2015 8:11	54.3	15/2/2015 17:16	62.3
8/2/2015 11:56	63.3	8/2/2015 21:01	60.2	10/2/2015 22:06	62.6	13/2/2015 19:11	60.8	15/2/2015 8:16	57.5	15/2/2015 17:21	62.8
8/2/2015 12:01	50.9	8/2/2015 21:06	60.6	10/2/2015 22:11	62.2	13/2/2015 19:16	60.8	15/2/2015 8:21	59.8	15/2/2015 17:26	62.3
8/2/2015 12:06	52.7	8/2/2015 21:11	59.8	10/2/2015 22:16	63.5	13/2/2015 19:21	63.0	15/2/2015 8:26	58.4	15/2/2015 17:31	65.7
8/2/2015 12:11	57.6	8/2/2015 21:16	61.0	10/2/2015 22:21	61.8	13/2/2015 19:26	63.3	15/2/2015 8:31	58.2	15/2/2015 17:36	62.4
8/2/2015 12:16	55.1	8/2/2015 21:21	59.5	10/2/2015 22:26	62.1	13/2/2015 19:31	62.6	15/2/2015 8:36	63.0	15/2/2015 17:41	62.3
8/2/2015 12:21	56.4	8/2/2015 21:26	59.8	10/2/2015 22:31	61.9	13/2/2015 19:36	62.3	15/2/2015 8:41	57.8	15/2/2015 17:46	62.6
8/2/2015 12:26	54.3	8/2/2015 21:31	59.9	10/2/2015 22:36	61.5	13/2/2015 19:41	62.4	15/2/2015 8:46	58.7	15/2/2015 17:51	61.7
8/2/2015 12:31	56.4	8/2/2015 21:36	60.2	10/2/2015 22:41	61.3	13/2/2015 19:46	62.3	15/2/2015 8:51	58.9	15/2/2015 17:56	62.5
8/2/2015 12:36	58.6	8/2/2015 21:41	60.7	10/2/2015 22:46	62.7	13/2/2015 19:51	62.5	15/2/2015 8:56	59.5	15/2/2015 18:01	62.0
8/2/2015 12:41	60.4	8/2/2015 21:46	59.0	10/2/2015 22:51	62.2	13/2/2015 19:56	63.2	15/2/2015 9:01	59.3	15/2/2015 18:06	62.2
8/2/2015 12:46	58.7	8/2/2015 21:51	59.9	10/2/2015 22:56	62.9	13/2/2015 20:01	62.1	15/2/2015 9:06	60.2	15/2/2015 18:11	62.5
8/2/2015 12:51	59.7	8/2/2015 21:56	60.5	11/2/2015 19:01	62.2	13/2/2015 20:06	62.9	15/2/2015 9:11	59.4	15/2/2015 18:16	62.1
8/2/2015 12:56	57.8	8/2/2015 22:01	60.8	11/2/2015 19:06	63.9	13/2/2015 20:11	62.6	15/2/2015 9:16	60.5	15/2/2015 18:21	62.5
8/2/2015 13:01	58.3	8/2/2015 22:06	57.0	11/2/2015 19:11	63.4	13/2/2015 20:16	62.7	15/2/2015 9:21	62.0	15/2/2015 18:26	61.5
8/2/2015 13:06	61.2	8/2/2015 22:11	54.4	11/2/2015 19:16	64.1	13/2/2015 20:21	61.7	15/2/2015 9:26	62.2	15/2/2015 18:31	60.8
8/2/2015 13:11	59.3	8/2/2015 22:16	53.7	11/2/2015 19:21	64.4	13/2/2015 20:26	62.7	15/2/2015 9:31	59.5	15/2/2015 18:36	60.6
8/2/2015 13:16	57.7	8/2/2015 22:21	64.2	11/2/2015 19:26	63.9	13/2/2015 20:31	64.7	15/2/2015 9:36	60.4	15/2/2015 18:41	60.7
8/2/2015 13:21	57.2	8/2/2015 22:26	54.3	11/2/2015 19:31	63.0	13/2/2015 20:36	61.8	15/2/2015 9:41	59.4	15/2/2015 18:46	59.6
8/2/2015 13:26	57.0	8/2/2015 22:31	53.4	11/2/2015 19:36	63.9	13/2/2015 20:41	62.1	15/2/2015 9:46	59.3	15/2/2015 18:51	60.6
8/2/2015 13:31	59.7	8/2/2015 22:36	61.1	11/2/2015 19:41	65.3	13/2/2015 20:46	61.2	15/2/2015 9:51	58.6	15/2/2015 18:56	60.3
8/2/2015 13:36	60.5	8/2/2015 22:41	53.8	11/2/2015 19:46	63.4	13/2/2015 20:51	62.3	15/2/2015 9:56	60.9	15/2/2015 19:01	60.2
8/2/2015 13:41	61.0	8/2/2015 22:46	53.5	11/2/2015 19:51	63.7	13/2/2015 20:56	60.5	15/2/2015 10:01	60.1	15/2/2015 19:06	61.0
8/2/2015 13:46	57.6	8/2/2015 22:51	50.6	11/2/2015 19:56	63.3	13/2/2015 21:01	61.1	15/2/2015 10:06	59.2	15/2/2015 19:11	62.4
8/2/2015 13:51	56.5	8/2/2015 22:56	41.6	11/2/2015 20:01	62.1	13/2/2015 21:06	61.4	15/2/2015 10:11	59.8	15/2/2015 19:16	61.0
8/2/2015 13:56	59.6	9/2/2015 19:01	64.5	11/2/2015 20:06	61.8	13/2/2015 21:11	61.2	15/2/2015 10:16	60.3	15/2/2015 19:21	61.5
8/2/2015 14:01	57.2	9/2/2015 19:06	63.4	11/2/2015 20:11	62.7	13/2/2015 21:16	61.4	15/2/2015 10:21	60.0	15/2/2015 19:26	61.0
8/2/2015 14:06	58.2	9/2/2015 19:11	63.6	11/2/2015 20:16	63.6	13/2/2015 21:21	62.0	15/2/2015 10:26	60.0	15/2/2015 19:31	61.6
8/2/2015 14:11	58.5	9/2/2015 19:16	64.2	11/2/2015 20:21	62.8	13/2/2015 21:26	61.6	15/2/2015 10:31	59.5	15/2/2015 19:36	61.5
8/2/2015 14:16	58.6	9/2/2015 19:21	64.2	11/2/2015 20:26	63.2	13/2/2015 21:31	60.6	15/2/2015 10:36	59.3	15/2/2015 19:41	60.9
8/2/2015 14:21	58.5	9/2/2015 19:26	63.9	11/2/2015 20:31	63.0	13/2/2015 21:36	62.6	15/2/2015 10:41	60.2	15/2/2015 19:46	61.4
8/2/2015 14:26	58.0	9/2/2015 19:31	63.5	11/2/2015 20:36	63.0	13/2/2015 21:41	61.8	15/2/2015 10:46	60.1	15/2/2015 19:51	62.1
8/2/2015 14:31	62.6	9/2/2015 19:36	64.3	11/2/2015 20:41	63.1	13/2/2015 21:46	61.6	15/2/2015 10:51	59.8	15/2/2015 19:56	60.2
8/2/2015 14:36	58.4	9/2/2015 19:41	64.2	11/2/2015 20:46	63.1	13/2/2015 21:51	62.2	15/2/2015 10:56	61.7	15/2/2015 20:01	61.9
8/2/2015 14:41	60.8	9/2/2015 19:46	64.2	11/2/2015 20:51	62.9	13/2/2015 21:56	61.0	15/2/2015 11:01	63.1	15/2/2015 20:06	59.6
8/2/2015 14:46	60.3	9/2/2015 19:51	64.2	11/2/2015 20:56	62.4	13/2/2015 22:01	60.5	15/2/2015 11:06	61.7	15/2/2015 20:11	61.0
8/2/2015 14:51	61.0	9/2/2015 19:56	63.9	11/2/2015 21:01	62.6	13/2/2015 22:06	60.7	15/2/2015 11:11	59.5	15/2/2015 20:16	61.4
8/2/2015 14:56	60.5	9/2/2015 20:01	63.5	11/2/2015 21:06	62.3	13/2/2015 22:11	60.6	15/2/2015 11:16	58.7	15/2/2015 20:21	61.3
8/2/2015 15:01	60.8	9/2/2015 20:06	65.1	11/2/2015 21:11	61.5	13/2/2015 22:16	62.3	15/2/2015 11:21	56.6	15/2/2015 20:26	60.8
8/2/2015 15:06	60.5	9/2/2015 20:11	63.7	11/2/2015 21:16	60.9	13/2/2015 22:21	61.3	15/2/2015 11:26	60.0	15/2/2015 20:31	62.2
8/2/2015 15:11	61.0	9/2/2015 20:16	63.0	11/2/2015 21:21	61.6	13/2/2015 22:26	62.2	15/2/2015 11:31	59.4	15/2/2015 20:36	59.9
8/2/2015 15:16	63.6	9/2/2015 20:21	64.3	11/2/2015 21:26	61.6	13/2/2015 22:31	61.1	15/2/2015 11:36	56.6	15/2/2015 20:41	60.3
8/2/2015 15:21	61.4	9/2/2015 20:26	63.8	11/2/2015 21:31	62.7	13/2/2015 22:36	62.2	15/2/2015 11:41	55.4	15/2/2015 20:46	61.0
8/2/2015 15:26	62.2	9/2/2015 20:31	64.6	11/2/2015 21:36	62.6	13/2/2015 22:41	61.5	15/2/2015 11:46	58.9	15/2/2015 20:51	59.3
8/2/2015 15:31	62.4	9/2/2015 20:36	64.1	11/2/2015 21:41	62.8	13/2/2015 22:46	61.9	15/2/2015 11:51	58.6	15/2/2015 20:56	60.2
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8/2/2015 15:41	62.2	9/2/2015 20:46	63.8	11/2/2015 21:51	62.8	13/2/2015 22:56	61.5	15/2/2015 12:01	58.7	15/2/2015 21:06	60.5
8/2/2015 15:46	61.3	9/2/2015 20:51	63.1	11/2/2015 21:56	63.5	14/2/2015 19:01	62.2	15/2/2015 12:06	56.5	15/2/2015 21:11	61.3
8/2/2015 15:51	62.3	9/2/2015 20:56	63.1	11/2/2015 22:01	62.0	14/2/2015 19:06	61.6	15/2/2015 12:11	57.7	15/2/2015 21:16	60.7
8/2/2015 15:56	61.9	9/2/2015 21:01	62.6	11/2/2015 22:06	62.0	14/2/2015 19:11	61.4	15/2/2015 12:16	57.2	15/2/2015 21:21	60.5
8/2/2015 16:01	62.7	9/2/2015 21:06	61.8	11/2/2015 22:11	62.0	14/2/2015 19:16	62.1	15/2/2015 12:21	58.0	15/2/2015 21:26	61.3
8/2/2015 16:06	62.2	9/2/2015 21:11	62.6	11/2/2015 22:16	61.7	14/2/2015 19:21	62.0	15/2/2015 12:26	57.6	15/2/2015 21:31	60.8
8/2/2015 16:11	62.5	9/2/2015 21:16	62.8	11/2/2015 22:21	63.3	14/2/2015 19:26	61.8	15/2/2015 12:31	55.1	15/2/2015 21:36	61.4
8/2/2015 16:16	62.7	9/2/2015 21:21	63.1	11/2/2015 22:26	61.5	14/2/2015 19:31	63.3	15/2/2015 12:36	56.0	15/2/2015 21:41	60.9
8/2/2015 16:21	61.8	9/2/2015 21:26	62.3	11/2/2015 22:31	61.4	14/2/2015 19:36	62.6	15/2/2015 12:41	56.0	15/2/2015 21:46	60.9
8/2/2015 16:26	61.6	9/2/2015 21:31	62.3	11/2/2015 22:36	62.7	14/2/2015 19:41	63.0	15/2/2015 12:46	57.3	15/2/2015 21:51	61.0
8/2/2015 16:31	61.7	9/2/2015 21:36	64.1	11/2/2015 22:41	61.9	14/2/2015 19:46	62.2	15/2/2015 12:51	57.7	15/2/2015 21:56	61.5
8/2/2015 16:36	61.2	9/2/2015 21:41	62.2	11/2/2015 22:46	61.8	14/2/2015 19:51	62.4	15/2/2015 12:56	58.5	15/2/2015 22:01	61.7
8/2/2015 16:41	61.5	9/2/2015 21:46	61.9	11/2/2015 22:51	61.4	14/2/2015 19:56	62.3	15/2/2015 13:01	60.1	15/2/2015 22:06	61.3
8/2/2015 16:46	61.2	9/2/2015 21:51	63.1	11/2/2015 22:56	61.6	14/2/2015 20:01	61.9	15/2/2015 13:06	60.5	15/2/2015 22:11	62.1
8/2/2015 16:51	62.6	9/2/2015 21:56	62.1	12/2/2015 19:01	62.9	14/2/2015 20:06	61.9	15/2/2015 13:11	61.8	15/2/2015 22:16	60.7
8/2/2015 16:56	61.3	9/2/2015 22:01	62.8	12/2/2015 19:06	62.6	14/2/2015 20:11	60.6	15/2/2015 13:16	62.9	15/2/2015 22:21	62.1
8/2/2015 17:01	61.0	9/2/2015 22:06	63.1	12/2/2015 19:11	62.6	14/2/2015 20:16	59.6	15/2/2015 13:21	61.1	15/2/2015 22:26	62.4
8/2/2015 17:06	61.0	9/2/2015 22:11	62.9	12/2/2015 19:16	63.3	14/2/2015 20:21	61.8	15/2/2015 13:26	61.4	15/2/2015 22:31	63.0
8/2/2015 17:11	60.4	9/2/2015 22:16	62.5	12/2/2015 19:21	62.6	14					

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
16/2/2015 21:56	61.1	19/2/2015 7:01	61.7	19/2/2015 16:06	62.3	20/2/2015 9:11	60.6	20/2/2015 18:16	60.5	21/2/2015 11:21	56.6
16/2/2015 22:01	62.3	19/2/2015 7:06	53.4	19/2/2015 16:11	63.6	20/2/2015 9:16	59.7	20/2/2015 18:21	59.5	21/2/2015 11:26	60.0
16/2/2015 22:06	61.3	19/2/2015 7:11	48.6	19/2/2015 16:16	62.3	20/2/2015 9:21	59.9	20/2/2015 18:26	60.3	21/2/2015 11:31	59.4
16/2/2015 22:11	60.7	19/2/2015 7:16	45.1	19/2/2015 16:21	63.5	20/2/2015 9:26	60.8	20/2/2015 18:31	58.9	21/2/2015 11:36	56.6
16/2/2015 22:16	62.1	19/2/2015 7:21	54.6	19/2/2015 16:26	62.3	20/2/2015 9:31	61.9	20/2/2015 18:36	58.8	21/2/2015 11:41	55.4
16/2/2015 22:21	61.2	19/2/2015 7:26	60.1	19/2/2015 16:31	63.9	20/2/2015 9:36	59.9	20/2/2015 18:41	59.5	21/2/2015 11:46	58.9
16/2/2015 22:26	61.2	19/2/2015 7:31	53.9	19/2/2015 16:36	62.9	20/2/2015 9:41	60.2	20/2/2015 18:46	59.4	21/2/2015 11:51	58.6
16/2/2015 22:31	61.3	19/2/2015 7:36	56.5	19/2/2015 16:41	63.2	20/2/2015 9:46	61.0	20/2/2015 18:51	59.6	21/2/2015 11:56	59.2
16/2/2015 22:36	60.7	19/2/2015 7:41	55.2	19/2/2015 16:46	62.4	20/2/2015 9:51	60.8	20/2/2015 18:56	58.8	21/2/2015 12:01	58.7
16/2/2015 22:41	60.8	19/2/2015 7:46	56.8	19/2/2015 16:51	62.3	20/2/2015 9:56	60.3	20/2/2015 19:01	58.0	21/2/2015 12:06	56.5
16/2/2015 22:46	61.3	19/2/2015 7:51	59.9	19/2/2015 16:56	62.4	20/2/2015 10:01	61.6	20/2/2015 19:06	56.5	21/2/2015 12:11	57.7
16/2/2015 22:51	60.2	19/2/2015 7:56	59.0	19/2/2015 17:01	61.6	20/2/2015 10:06	63.6	20/2/2015 19:11	57.6	21/2/2015 12:16	57.2
16/2/2015 22:56	61.1	19/2/2015 8:01	57.1	19/2/2015 17:06	61.7	20/2/2015 10:11	61.4	20/2/2015 19:16	60.1	21/2/2015 12:21	58.0
17/2/2015 19:01	60.6	19/2/2015 8:06	60.1	19/2/2015 17:11	61.8	20/2/2015 10:16	60.9	20/2/2015 19:21	60.0	21/2/2015 12:26	57.6
17/2/2015 19:06	61.0	19/2/2015 8:11	60.2	19/2/2015 17:16	62.0	20/2/2015 10:21	59.4	20/2/2015 19:26	60.0	21/2/2015 12:31	55.1
17/2/2015 19:11	61.2	19/2/2015 8:16	60.4	19/2/2015 17:21	62.2	20/2/2015 10:26	59.8	20/2/2015 19:31	59.6	21/2/2015 12:36	56.0
17/2/2015 19:16	63.0	19/2/2015 8:21	61.6	19/2/2015 17:26	63.3	20/2/2015 10:31	59.6	20/2/2015 19:36	60.3	21/2/2015 12:41	56.0
17/2/2015 19:21	63.9	19/2/2015 8:26	61.4	19/2/2015 17:31	64.8	20/2/2015 10:36	57.7	20/2/2015 19:41	59.0	21/2/2015 12:46	57.3
17/2/2015 19:26	62.5	19/2/2015 8:31	60.9	19/2/2015 17:36	63.3	20/2/2015 10:41	59.1	20/2/2015 19:46	60.8	21/2/2015 12:51	57.7
17/2/2015 19:31	61.6	19/2/2015 8:36	60.5	19/2/2015 17:41	63.4	20/2/2015 10:46	59.9	20/2/2015 19:51	61.6	21/2/2015 12:56	58.5
17/2/2015 19:36	62.7	19/2/2015 8:41	60.9	19/2/2015 17:46	62.6	20/2/2015 10:51	61.2	20/2/2015 19:56	61.1	21/2/2015 13:01	60.1
17/2/2015 19:41	62.4	19/2/2015 8:46	61.8	19/2/2015 17:51	63.0	20/2/2015 10:56	58.5	20/2/2015 20:01	61.9	21/2/2015 13:06	60.5
17/2/2015 19:46	63.1	19/2/2015 8:51	66.0	19/2/2015 17:56	63.0	20/2/2015 11:01	59.4	20/2/2015 20:06	67.2	21/2/2015 13:11	61.8
17/2/2015 19:51	63.4	19/2/2015 8:56	60.9	19/2/2015 18:01	64.2	20/2/2015 11:06	57.4	20/2/2015 20:11	73.2	21/2/2015 13:16	62.9
17/2/2015 19:56	61.7	19/2/2015 9:01	60.9	19/2/2015 18:06	63.6	20/2/2015 11:11	60.8	20/2/2015 20:16	71.9	21/2/2015 13:21	61.1
17/2/2015 20:01	61.7	19/2/2015 9:06	60.9	19/2/2015 18:11	63.2	20/2/2015 11:16	58.8	20/2/2015 20:21	71.9	21/2/2015 13:26	61.4
17/2/2015 20:06	61.9	19/2/2015 9:11	61.8	19/2/2015 18:16	63.2	20/2/2015 11:21	56.6	20/2/2015 20:26	73.3	21/2/2015 13:31	61.0
17/2/2015 20:11	61.5	19/2/2015 9:16	62.0	19/2/2015 18:21	63.1	20/2/2015 11:26	54.7	20/2/2015 20:31	70.8	21/2/2015 13:36	62.2
17/2/2015 20:16	62.6	19/2/2015 9:21	61.1	19/2/2015 18:26	66.0	20/2/2015 11:31	53.4	20/2/2015 20:36	64.2	21/2/2015 13:41	64.2
17/2/2015 20:21	61.9	19/2/2015 9:26	62.2	19/2/2015 18:31	62.7	20/2/2015 11:36	53.6	20/2/2015 20:41	57.3	21/2/2015 13:46	63.9
17/2/2015 20:26	63.3	19/2/2015 9:31	60.4	19/2/2015 18:36	63.0	20/2/2015 11:41	56.4	20/2/2015 20:46	61.4	21/2/2015 13:51	62.9
17/2/2015 20:31	61.6	19/2/2015 9:36	61.1	19/2/2015 18:41	64.4	20/2/2015 11:46	53.6	20/2/2015 20:51	60.4	21/2/2015 13:56	62.1
17/2/2015 20:36	62.5	19/2/2015 9:41	61.1	19/2/2015 18:46	62.9	20/2/2015 11:51	60.6	20/2/2015 20:56	58.8	21/2/2015 14:01	62.0
17/2/2015 20:41	62.3	19/2/2015 9:46	60.8	19/2/2015 18:51	63.2	20/2/2015 11:56	63.3	20/2/2015 21:01	60.2	21/2/2015 14:06	63.6
17/2/2015 20:46	62.1	19/2/2015 9:51	61.6	19/2/2015 18:56	62.9	20/2/2015 12:01	50.9	20/2/2015 21:06	60.6	21/2/2015 14:11	63.2
17/2/2015 20:51	61.5	19/2/2015 9:56	62.3	19/2/2015 19:01	64.0	20/2/2015 12:06	52.7	20/2/2015 21:11	59.8	21/2/2015 14:16	62.6
17/2/2015 20:56	61.5	19/2/2015 10:01	60.8	19/2/2015 19:06	62.7	20/2/2015 12:11	57.6	20/2/2015 21:16	61.0	21/2/2015 14:21	62.5
17/2/2015 21:01	61.8	19/2/2015 10:06	61.4	19/2/2015 19:11	62.5	20/2/2015 12:16	55.1	20/2/2015 21:21	59.5	21/2/2015 14:26	61.2
17/2/2015 21:06	61.6	19/2/2015 10:11	61.1	19/2/2015 19:16	63.6	20/2/2015 12:21	56.4	20/2/2015 21:26	59.8	21/2/2015 14:31	61.9
17/2/2015 21:11	61.7	19/2/2015 10:16	61.7	19/2/2015 19:21	62.3	20/2/2015 12:26	54.3	20/2/2015 21:31	59.9	21/2/2015 14:36	62.3
17/2/2015 21:16	62.2	19/2/2015 10:21	62.3	19/2/2015 19:26	62.4	20/2/2015 12:31	56.4	20/2/2015 21:36	60.2	21/2/2015 14:41	62.3
17/2/2015 21:21	62.2	19/2/2015 10:26	60.5	19/2/2015 19:31	61.9	20/2/2015 12:36	58.6	20/2/2015 21:41	60.7	21/2/2015 14:46	62.4
17/2/2015 21:26	61.9	19/2/2015 10:31	60.6	19/2/2015 19:36	61.8	20/2/2015 12:41	60.4	20/2/2015 21:46	59.0	21/2/2015 14:51	63.2
17/2/2015 21:31	61.4	19/2/2015 10:36	60.0	19/2/2015 19:41	62.0	20/2/2015 12:46	58.7	20/2/2015 21:51	59.9	21/2/2015 14:56	61.7
17/2/2015 21:36	61.5	19/2/2015 10:41	59.5	19/2/2015 19:46	61.4	20/2/2015 12:51	59.7	20/2/2015 21:56	60.5	21/2/2015 15:01	62.7
17/2/2015 21:41	61.1	19/2/2015 10:46	60.0	19/2/2015 19:51	61.6	20/2/2015 12:56	57.8	20/2/2015 22:01	60.8	21/2/2015 15:06	62.4
17/2/2015 21:46	61.3	19/2/2015 10:51	58.8	19/2/2015 19:56	61.6	20/2/2015 13:01	58.3	20/2/2015 22:06	57.0	21/2/2015 15:11	64.5
17/2/2015 21:51	61.1	19/2/2015 10:56	60.2	19/2/2015 20:01	61.7	20/2/2015 13:06	61.2	20/2/2015 22:11	54.4	21/2/2015 15:16	64.0
17/2/2015 21:56	61.8	19/2/2015 11:01	59.5	19/2/2015 20:06	63.6	20/2/2015 13:11	59.3	20/2/2015 22:16	53.7	21/2/2015 15:21	63.8
17/2/2015 22:01	61.3	19/2/2015 11:06	59.8	19/2/2015 20:11	61.3	20/2/2015 13:16	57.7	20/2/2015 22:21	64.2	21/2/2015 15:26	62.6
17/2/2015 22:06	61.7	19/2/2015 11:11	61.4	19/2/2015 20:16	62.1	20/2/2015 13:21	57.2	20/2/2015 22:26	54.3	21/2/2015 15:31	62.1
17/2/2015 22:11	61.3	19/2/2015 11:16	60.9	19/2/2015 20:21	62.3	20/2/2015 13:26	57.0	20/2/2015 22:31	53.4	21/2/2015 15:36	61.8
17/2/2015 22:16	60.8	19/2/2015 11:21	62.2	19/2/2015 20:26	62.7	20/2/2015 13:31	59.7	20/2/2015 22:36	61.1	21/2/2015 15:41	62.3
17/2/2015 22:21	60.5	19/2/2015 11:26	59.8	19/2/2015 20:31	62.8	20/2/2015 13:36	60.5	20/2/2015 22:41	53.8	21/2/2015 15:46	62.3
17/2/2015 22:26	60.9	19/2/2015 11:31	60.3	19/2/2015 20:36	62.1	20/2/2015 13:41	61.0	20/2/2015 22:46	53.5	21/2/2015 15:51	63.1
17/2/2015 22:31	61.5	19/2/2015 11:36	59.8	19/2/2015 20:41	61.2	20/2/2015 13:46	57.6	20/2/2015 22:51	50.6	21/2/2015 15:56	62.0
17/2/2015 22:36	61.3	19/2/2015 11:41	58.5	19/2/2015 20:46	61.7	20/2/2015 13:51	56.5	20/2/2015 22:56	41.6	21/2/2015 16:01	62.0
17/2/2015 22:41	61.0	19/2/2015 11:46	61.1	19/2/2015 20:51	62.0	20/2/2015 13:56	59.6	21/2/2015 7:01	50.3	21/2/2015 16:06	62.9
17/2/2015 22:46	60.7	19/2/2015 11:51	60.6	19/2/2015 20:56	62.0	20/2/2015 14:01	57.2	21/2/2015 7:06	61.9	21/2/2015 16:11	62.5
17/2/2015 22:51	60.8	19/2/2015 11:56	61.2	19/2/2015 21:01	61.5	20/2/2015 14:06	58.2	21/2/2015 7:11	61.5	21/2/2015 16:16	63.3
17/2/2015 22:56	61.1	19/2/2015 12:01	60.9	19/2/2015 21:06	60.5	20/2/2015 14:11	58.5	21/2/2015 7:16	61.4	21/2/2015 16:21	63.5
18/2/2015 19:01	64.2	19/2/2015 12:06	60.4	19/2/2015 21:11	61.8	20/2/2015 14:16	58.6	21/2/2015 7:21	65.6	21/2/2015 16:26	63.2
18/2/2015 19:06	63.5	19/2/2015 12:11	59.6	19/2/2015 21:16	60.6	20/2/2015 14:21	58.5	21/2/2015 7:26	38.5	21/2/2015 16:31	63.1
18/2/2015 19:11	63.1	19/2/2015 12:16	61.4	19/2/2015 21:21	61.4	20/2/2015 14:26	58.0	21/2/2015 7:31	46.0	21/2/2015 16:36	62.5
18/2/2015 19:16	62.8	19/2/2015 12:21	60.5	19/2/2015 21:26	64.6	20/2/2015 14:31	62.6	21/2/2015 7:36	53.5	21/2/2015 16:41	62.1
18/2/2015 19:21	62.8	19/2/2015 12:26	60.5	19/2/2015 21:31	61.9	20/2/2015 14:36	58.4	21/2/2015 7:41	55.5	21/2/2015 16:46	62.4
18/2/2015 19:26	63.0	19/2/2015 12:31	62.6	19/2/2015 21:36	60.6	20/2/2015 14:41	60.8	21/2/2015 7:46	58.5	21/2/2015 16:51	62.5
18/2/2015 19:31	63.1	19/2/2015 12:36	62.7	19/2/2015 21:41	61.2	20/2/2015 14:46	60.3	21/2/2015 7:51	53.7	21/2/2015 16:56	62.4
18/2/2015 19:36	63.3	19/2/2015 12:41	63.0	19/2/2015 21:46	61.0	20/2/2015 14:51	61.0	21/2/2015 7:56	55.1	21/2/2015 17:0	

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
21/2/2015 20:26	60.8	22/2/2015 13:31	61.7	22/2/2015 22:36	60.5	25/2/2015 19:41	62.2	27/2/2015 20:46	60.9	28/1/2015 6:36	61.2
21/2/2015 20:31	62.2	22/2/2015 13:36	61.5	22/2/2015 22:41	59.7	25/2/2015 19:46	62.4	27/2/2015 20:51	61.0	28/1/2015 6:41	61.3
21/2/2015 20:36	59.9	22/2/2015 13:41	62.4	22/2/2015 22:46	60.5	25/2/2015 19:51	61.9	27/2/2015 20:56	61.4	28/1/2015 6:46	62.3
21/2/2015 20:41	60.3	22/2/2015 13:46	62.6	22/2/2015 22:51	60.0	25/2/2015 19:56	60.9	27/2/2015 21:01	61.0	28/1/2015 6:51	62.3
21/2/2015 20:46	61.0	22/2/2015 13:51	62.0	22/2/2015 22:56	59.7	25/2/2015 20:01	61.6	27/2/2015 21:06	60.6	28/1/2015 6:56	62.4
21/2/2015 20:51	59.3	22/2/2015 13:56	61.1	23/2/2015 19:01	64.6	25/2/2015 20:06	62.5	27/2/2015 21:11	60.6	28/1/2015 23:01	63.2
21/2/2015 20:56	60.2	22/2/2015 14:01	63.8	23/2/2015 19:06	63.8	25/2/2015 20:11	60.7	27/2/2015 21:16	60.5	28/1/2015 23:06	62.5
21/2/2015 21:01	60.3	22/2/2015 14:06	61.9	23/2/2015 19:11	63.8	25/2/2015 20:16	62.1	27/2/2015 21:21	59.9	28/1/2015 23:11	62.7
21/2/2015 21:06	60.5	22/2/2015 14:11	62.3	23/2/2015 19:16	64.0	25/2/2015 20:21	61.7	27/2/2015 21:26	60.4	28/1/2015 23:16	62.6
21/2/2015 21:11	61.3	22/2/2015 14:16	62.6	23/2/2015 19:21	64.1	25/2/2015 20:26	60.6	27/2/2015 21:31	60.9	28/1/2015 23:21	62.7
21/2/2015 21:16	60.7	22/2/2015 14:21	62.1	23/2/2015 19:26	63.8	25/2/2015 20:31	61.9	27/2/2015 21:36	61.1	28/1/2015 23:26	62.7
21/2/2015 21:21	60.5	22/2/2015 14:26	62.5	23/2/2015 19:31	63.9	25/2/2015 20:36	60.1	27/2/2015 21:41	61.6	28/1/2015 23:31	62.5
21/2/2015 21:26	61.3	22/2/2015 14:31	62.2	23/2/2015 19:36	64.0	25/2/2015 20:41	61.8	27/2/2015 21:46	60.5	28/1/2015 23:36	62.2
21/2/2015 21:31	60.8	22/2/2015 14:36	62.7	23/2/2015 19:41	64.2	25/2/2015 20:46	61.3	27/2/2015 21:51	61.1	28/1/2015 23:41	62.3
21/2/2015 21:36	61.4	22/2/2015 14:41	62.3	23/2/2015 19:46	64.2	25/2/2015 20:51	60.9	27/2/2015 21:56	61.3	28/1/2015 23:46	61.6
21/2/2015 21:41	60.9	22/2/2015 14:46	62.5	23/2/2015 19:51	64.1	25/2/2015 20:56	60.1	27/2/2015 22:01	61.4	28/1/2015 23:51	62.0
21/2/2015 21:46	60.9	22/2/2015 14:51	64.8	23/2/2015 19:56	63.9	25/2/2015 21:01	60.5	27/2/2015 22:06	61.7	28/1/2015 23:56	62.0
21/2/2015 21:51	61.0	22/2/2015 14:56	62.5	23/2/2015 20:01	64.2	25/2/2015 21:06	60.3	27/2/2015 22:11	61.1	29/1/2015 0:01	63.0
21/2/2015 21:56	61.5	22/2/2015 15:01	61.8	23/2/2015 20:06	64.1	25/2/2015 21:11	60.4	27/2/2015 22:16	61.3	29/1/2015 0:06	61.5
21/2/2015 22:01	61.7	22/2/2015 15:06	63.5	23/2/2015 20:11	63.9	25/2/2015 21:16	61.1	27/2/2015 22:21	61.6	29/1/2015 0:11	62.1
21/2/2015 22:06	61.3	22/2/2015 15:11	62.6	23/2/2015 20:16	63.7	25/2/2015 21:21	61.7	27/2/2015 22:26	61.2	29/1/2015 0:16	61.5
21/2/2015 22:11	62.1	22/2/2015 15:16	62.5	23/2/2015 20:21	63.7	25/2/2015 21:26	60.9	27/2/2015 22:31	60.2	29/1/2015 0:21	61.8
21/2/2015 22:16	60.7	22/2/2015 15:21	62.7	23/2/2015 20:26	64.2	25/2/2015 21:31	62.0	27/2/2015 22:36	61.6	29/1/2015 0:26	61.7
21/2/2015 22:21	62.1	22/2/2015 15:26	63.4	23/2/2015 20:31	64.2	25/2/2015 21:36	60.7	27/2/2015 22:41	59.8	29/1/2015 0:31	61.4
21/2/2015 22:26	62.4	22/2/2015 15:31	63.1	23/2/2015 20:36	64.4	25/2/2015 21:41	60.7	27/2/2015 22:46	60.4	29/1/2015 0:36	60.2
21/2/2015 22:31	63.0	22/2/2015 15:36	63.3	23/2/2015 20:41	64.2	25/2/2015 21:46	60.7	27/2/2015 22:51	60.4	29/1/2015 0:41	59.7
21/2/2015 22:36	59.9	22/2/2015 15:41	62.3	23/2/2015 20:46	63.9	25/2/2015 21:51	60.7	27/2/2015 22:56	61.1	29/1/2015 0:46	60.3
21/2/2015 22:41	60.8	22/2/2015 15:46	63.6	23/2/2015 20:51	63.3	25/2/2015 21:56	61.6			29/1/2015 0:51	60.7
21/2/2015 22:46	60.9	22/2/2015 15:51	64.0	23/2/2015 20:56	62.9	25/2/2015 22:01	61.5			29/1/2015 0:56	60.5
21/2/2015 22:51	60.6	22/2/2015 15:56	63.5	23/2/2015 21:01	62.5	25/2/2015 22:06	61.0			29/1/2015 1:01	59.9
21/2/2015 22:56	60.9	22/2/2015 16:01	62.4	23/2/2015 21:06	62.3	25/2/2015 22:11	61.5			29/1/2015 1:06	59.2
22/2/2015 7:01	52.9	22/2/2015 16:06	62.9	23/2/2015 21:11	62.4	25/2/2015 22:16	61.4	28/1/2015 0:06	61.6	29/1/2015 1:11	60.1
22/2/2015 7:06	52.9	22/2/2015 16:11	62.3	23/2/2015 21:16	62.9	25/2/2015 22:21	63.4	28/1/2015 0:11	61.5	29/1/2015 1:16	62.5
22/2/2015 7:11	55.7	22/2/2015 16:16	61.9	23/2/2015 21:21	62.8	25/2/2015 22:26	63.7	28/1/2015 0:16	62.7	29/1/2015 1:21	59.1
22/2/2015 7:16	55.7	22/2/2015 16:21	62.5	23/2/2015 21:26	62.5	25/2/2015 22:31	59.7	28/1/2015 0:21	61.3	29/1/2015 1:26	58.5
22/2/2015 7:21	63.5	22/2/2015 16:26	62.4	23/2/2015 21:31	62.9	25/2/2015 22:36	60.2	28/1/2015 0:26	60.8	29/1/2015 1:31	57.9
22/2/2015 7:26	55.2	22/2/2015 16:31	61.7	23/2/2015 21:36	62.8	25/2/2015 22:41	62.5	28/1/2015 0:31	62.6	29/1/2015 1:36	56.9
22/2/2015 7:31	47.9	22/2/2015 16:36	61.9	23/2/2015 21:41	62.8	25/2/2015 22:46	60.7	28/1/2015 0:36	60.3	29/1/2015 1:41	58.0
22/2/2015 7:36	55.9	22/2/2015 16:41	62.0	23/2/2015 21:46	62.4	25/2/2015 22:51	59.6	28/1/2015 0:41	59.8	29/1/2015 1:46	61.4
22/2/2015 7:41	56.0	22/2/2015 16:46	62.1	23/2/2015 21:51	62.4	25/2/2015 22:56	60.6	28/1/2015 0:46	59.7	29/1/2015 1:51	56.3
22/2/2015 7:46	56.0	22/2/2015 16:51	62.8	23/2/2015 21:56	62.7	26/2/2015 19:01	62.9	28/1/2015 0:51	60.1	29/1/2015 1:56	56.5
22/2/2015 7:51	59.2	22/2/2015 16:56	62.3	23/2/2015 22:01	62.7	26/2/2015 19:06	62.7	28/1/2015 0:56	59.7	29/1/2015 2:01	56.9
22/2/2015 7:56	58.1	22/2/2015 17:01	61.8	23/2/2015 22:06	62.9	26/2/2015 19:11	62.8	28/1/2015 1:01	59.8	29/1/2015 2:06	56.1
22/2/2015 8:01	54.2	22/2/2015 17:06	63.9	23/2/2015 22:11	62.8	26/2/2015 19:16	62.1	28/1/2015 1:06	58.9	29/1/2015 2:11	56.4
22/2/2015 8:06	57.7	22/2/2015 17:11	62.0	23/2/2015 22:16	63.1	26/2/2015 19:21	62.9	28/1/2015 1:11	58.7	29/1/2015 2:16	57.2
22/2/2015 8:11	56.5	22/2/2015 17:16	62.0	23/2/2015 22:21	63.4	26/2/2015 19:26	62.7	28/1/2015 1:16	58.7	29/1/2015 2:21	55.1
22/2/2015 8:16	58.8	22/2/2015 17:21	61.8	23/2/2015 22:26	63.7	26/2/2015 19:31	62.1	28/1/2015 1:21	58.1	29/1/2015 2:26	57.7
22/2/2015 8:21	59.8	22/2/2015 17:26	62.6	23/2/2015 22:31	63.6	26/2/2015 19:36	64.3	28/1/2015 1:26	58.8	29/1/2015 2:31	55.9
22/2/2015 8:26	59.3	22/2/2015 17:31	61.9	23/2/2015 22:36	63.4	26/2/2015 19:41	62.8	28/1/2015 1:31	59.5	29/1/2015 2:36	52.9
22/2/2015 8:31	59.9	22/2/2015 17:36	61.7	23/2/2015 22:41	63.1	26/2/2015 19:46	62.6	28/1/2015 1:36	57.5	29/1/2015 2:41	53.9
22/2/2015 8:36	59.8	22/2/2015 17:41	61.3	23/2/2015 22:46	62.6	26/2/2015 19:51	62.7	28/1/2015 1:41	57.5	29/1/2015 2:46	54.0
22/2/2015 8:41	58.9	22/2/2015 17:46	61.8	23/2/2015 22:51	61.9	26/2/2015 19:56	63.0	28/1/2015 1:46	58.4	29/1/2015 2:51	55.8
22/2/2015 8:46	61.0	22/2/2015 17:51	61.7	23/2/2015 22:56	61.0	26/2/2015 20:01	61.7	28/1/2015 1:51	56.1	29/1/2015 2:56	53.2
22/2/2015 8:51	60.5	22/2/2015 17:56	61.9	24/2/2015 19:01	61.6	26/2/2015 20:06	62.7	28/1/2015 1:56	57.7	29/1/2015 3:01	54.1
22/2/2015 8:56	59.5	22/2/2015 18:01	61.6	24/2/2015 19:06	63.4	26/2/2015 20:11	62.2	28/1/2015 2:01	56.0	29/1/2015 3:06	53.8
22/2/2015 9:01	60.2	22/2/2015 18:06	61.2	24/2/2015 19:11	61.2	26/2/2015 20:16	62.5	28/1/2015 2:06	54.8	29/1/2015 3:11	55.4
22/2/2015 9:06	59.7	22/2/2015 18:11	61.8	24/2/2015 19:16	62.4	26/2/2015 20:21	62.2	28/1/2015 2:11	53.7	29/1/2015 3:16	51.0
22/2/2015 9:11	60.3	22/2/2015 18:16	62.1	24/2/2015 19:21	61.6	26/2/2015 20:26	61.1	28/1/2015 2:16	55.6	29/1/2015 3:21	52.4
22/2/2015 9:16	60.7	22/2/2015 18:21	62.9	24/2/2015 19:26	63.4	26/2/2015 20:31	61.7	28/1/2015 2:21	54.3	29/1/2015 3:26	51.6
22/2/2015 9:21	61.1	22/2/2015 18:26	62.1	24/2/2015 19:31	61.5	26/2/2015 20:36	61.8	28/1/2015 2:26	54.1	29/1/2015 3:31	52.2
22/2/2015 9:26	60.9	22/2/2015 18:31	62.1	24/2/2015 19:36	61.9	26/2/2015 20:41	62.4	28/1/2015 2:31	52.5	29/1/2015 3:36	52.3
22/2/2015 9:31	60.6	22/2/2015 18:36	61.9	24/2/2015 19:41	62.4	26/2/2015 20:46	61.5	28/1/2015 2:36	52.9	29/1/2015 3:41	51.5
22/2/2015 9:36	61.2	22/2/2015 18:41	61.4	24/2/2015 19:46	63.6	26/2/2015 20:51	61.4	28/1/2015 2:41	54.2	29/1/2015 3:46	58.2
22/2/2015 9:41	60.4	22/2/2015 18:46	61.9	24/2/2015 19:51	61.8	26/2/2015 20:56	60.1	28/1/2015 2:46	52.0	29/1/2015 3:51	50.8
22/2/2015 9:46	59.9	22/2/2015 18:51	61.8	24/2/2015 19:56	61.4	26/2/2015 21:01	60.2	28/1/2015 2:51	52.1	29/1/2015 3:56	48.6
22/2/2015 9:51	60.9	22/2/2015 18:56	61.8	24/2/2015 20:01	61.5	26/2/2015 21:06	59.3	28/1/2015 2:56	52.9	29/1/2015 4:01	50.9
22/2/2015 9:56	60.2	22/2/2015 19:01	61.6	24/2/2015 20:06	61.2	26/2/2015 21:11	60.1	28/1/2015 3:01	49.0	29/1/2015 4:06	49.2
22/2/2015 10:01	60.3	22/2/2015 19:06	61.1	24/2/2015 20:11	60.8	26/2/2015 21:16	60.9	28/1/2015 3:06	52.0	29/1/2015 4:11	54.0
22/2/2015 10:06	61.4	22/2/2015 19:11	61.4	24/2/2015 20:16	61.1	26/2/2015 21:21	61.3	28/1/2015 3:11	50.7	29/1/2015 4:16	52.5
22/2/2015 10:11	61.3	22/2/2015 19:16	61.1	24/2/2015 20:21	62.7	26/2/2015 21:26	60.7	28/1/2015 3:16	58		

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
29/1/2015 23:41	61.7	31/1/2015 0:46	62.4	1/2/2015 1:51	59.0	2/2/2015 2:56	51.9	3/2/2015 4:01	58.3	4/2/2015 5:06	53.2
29/1/2015 23:46	62.8	31/1/2015 0:51	63.6	1/2/2015 1:56	60.2	2/2/2015 3:01	49.3	3/2/2015 4:06	50.1	4/2/2015 5:11	52.8
29/1/2015 23:51	62.2	31/1/2015 0:56	61.0	1/2/2015 2:01	60.0	2/2/2015 3:06	57.8	3/2/2015 4:11	54.0	4/2/2015 5:16	52.8
29/1/2015 23:56	62.0	31/1/2015 1:01	60.1	1/2/2015 2:06	59.4	2/2/2015 3:11	57.6	3/2/2015 4:16	45.2	4/2/2015 5:21	54.6
30/1/2015 0:01	62.6	31/1/2015 1:06	59.9	1/2/2015 2:11	58.8	2/2/2015 3:16	58.0	3/2/2015 4:21	51.8	4/2/2015 5:26	56.6
30/1/2015 0:06	62.6	31/1/2015 1:11	61.2	1/2/2015 2:16	59.0	2/2/2015 3:21	44.8	3/2/2015 4:26	54.5	4/2/2015 5:31	56.2
30/1/2015 0:11	62.2	31/1/2015 1:16	60.9	1/2/2015 2:21	57.8	2/2/2015 3:26	57.5	3/2/2015 4:31	52.1	4/2/2015 5:36	53.6
30/1/2015 0:16	61.7	31/1/2015 1:21	60.1	1/2/2015 2:26	58.2	2/2/2015 3:31	57.9	3/2/2015 4:36	57.8	4/2/2015 5:41	55.0
30/1/2015 0:21	61.9	31/1/2015 1:26	60.9	1/2/2015 2:31	57.9	2/2/2015 3:36	34.9	3/2/2015 4:41	49.7	4/2/2015 5:46	55.8
30/1/2015 0:26	61.6	31/1/2015 1:31	60.9	1/2/2015 2:36	57.7	2/2/2015 3:41	50.6	3/2/2015 4:46	50.3	4/2/2015 5:51	56.8
30/1/2015 0:31	62.0	31/1/2015 1:36	60.7	1/2/2015 2:41	58.5	2/2/2015 3:46	57.9	3/2/2015 4:51	45.8	4/2/2015 5:56	56.8
30/1/2015 0:36	63.8	31/1/2015 1:41	61.9	1/2/2015 2:46	58.5	2/2/2015 3:51	58.2	3/2/2015 4:56	53.3	4/2/2015 6:01	56.4
30/1/2015 0:41	60.7	31/1/2015 1:46	59.4	1/2/2015 2:51	58.1	2/2/2015 3:56	57.7	3/2/2015 5:01	52.0	4/2/2015 6:06	58.2
30/1/2015 0:46	60.6	31/1/2015 1:51	59.8	1/2/2015 2:56	57.6	2/2/2015 4:01	57.3	3/2/2015 5:06	55.8	4/2/2015 6:11	58.6
30/1/2015 0:51	60.2	31/1/2015 1:56	60.2	1/2/2015 3:01	58.8	2/2/2015 4:06	57.8	3/2/2015 5:11	47.9	4/2/2015 6:16	60.4
30/1/2015 0:56	60.6	31/1/2015 2:01	59.6	1/2/2015 3:06	56.8	2/2/2015 4:11	57.2	3/2/2015 5:16	48.4	4/2/2015 6:21	59.6
30/1/2015 1:01	59.3	31/1/2015 2:06	60.3	1/2/2015 3:11	58.5	2/2/2015 4:16	57.9	3/2/2015 5:21	53.2	4/2/2015 6:26	60.7
30/1/2015 1:06	60.3	31/1/2015 2:11	59.8	1/2/2015 3:16	56.5	2/2/2015 4:21	49.3	3/2/2015 5:26	51.6	4/2/2015 6:31	60.8
30/1/2015 1:11	59.9	31/1/2015 2:16	59.2	1/2/2015 3:21	58.4	2/2/2015 4:26	58.2	3/2/2015 5:31	46.8	4/2/2015 6:36	61.6
30/1/2015 1:16	59.1	31/1/2015 2:21	58.6	1/2/2015 3:26	56.7	2/2/2015 4:31	57.6	3/2/2015 5:36	51.9	4/2/2015 6:41	61.6
30/1/2015 1:21	60.7	31/1/2015 2:26	59.4	1/2/2015 3:31	56.5	2/2/2015 4:36	36.7	3/2/2015 5:41	56.7	4/2/2015 6:46	62.0
30/1/2015 1:26	63.8	31/1/2015 2:31	58.5	1/2/2015 3:36	56.0	2/2/2015 4:41	41.5	3/2/2015 5:46	56.9	4/2/2015 6:51	62.6
30/1/2015 1:31	59.2	31/1/2015 2:36	59.7	1/2/2015 3:41	56.5	2/2/2015 4:46	46.0	3/2/2015 5:51	55.6	4/2/2015 6:56	62.3
30/1/2015 1:36	59.6	31/1/2015 2:41	59.1	1/2/2015 3:46	56.1	2/2/2015 4:51	49.2	3/2/2015 5:56	57.2	4/2/2015 23:01	63.2
30/1/2015 1:41	59.3	31/1/2015 2:46	59.0	1/2/2015 3:51	57.7	2/2/2015 4:56	49.4	3/2/2015 6:01	56.6	4/2/2015 23:06	62.9
30/1/2015 1:46	58.8	31/1/2015 2:51	58.7	1/2/2015 3:56	54.4	2/2/2015 5:01	49.0	3/2/2015 6:06	57.6	4/2/2015 23:11	63.0
30/1/2015 1:51	57.3	31/1/2015 2:56	59.2	1/2/2015 4:01	57.2	2/2/2015 5:06	46.0	3/2/2015 6:11	58.3	4/2/2015 23:16	62.9
30/1/2015 1:56	57.3	31/1/2015 3:01	57.8	1/2/2015 4:06	56.5	2/2/2015 5:11	43.1	3/2/2015 6:16	57.1	4/2/2015 23:21	63.8
30/1/2015 2:01	56.5	31/1/2015 3:06	57.4	1/2/2015 4:11	57.2	2/2/2015 5:16	52.2	3/2/2015 6:21	60.1	4/2/2015 23:26	63.0
30/1/2015 2:06	57.1	31/1/2015 3:11	55.9	1/2/2015 4:16	54.1	2/2/2015 5:21	46.0	3/2/2015 6:26	59.7	4/2/2015 23:31	62.6
30/1/2015 2:11	56.1	31/1/2015 3:16	58.1	1/2/2015 4:21	55.8	2/2/2015 5:26	50.0	3/2/2015 6:31	60.3	4/2/2015 23:36	63.1
30/1/2015 2:16	56.1	31/1/2015 3:21	58.0	1/2/2015 4:26	55.8	2/2/2015 5:31	53.5	3/2/2015 6:36	60.9	4/2/2015 23:41	62.8
30/1/2015 2:21	55.7	31/1/2015 3:26	56.5	1/2/2015 4:31	56.0	2/2/2015 5:36	53.6	3/2/2015 6:41	61.8	4/2/2015 23:46	61.6
30/1/2015 2:26	57.8	31/1/2015 3:31	59.0	1/2/2015 4:36	56.6	2/2/2015 5:41	53.6	3/2/2015 6:46	61.7	4/2/2015 23:51	61.5
30/1/2015 2:31	54.8	31/1/2015 3:36	55.7	1/2/2015 4:41	55.4	2/2/2015 5:46	55.9	3/2/2015 6:51	62.3	4/2/2015 23:56	62.4
30/1/2015 2:36	55.3	31/1/2015 3:41	56.1	1/2/2015 4:46	54.9	2/2/2015 5:51	56.3	3/2/2015 6:56	62.5	5/2/2015 0:01	60.6
30/1/2015 2:41	54.0	31/1/2015 3:46	56.8	1/2/2015 4:51	55.1	2/2/2015 5:56	56.6	3/2/2015 23:01	63.6	5/2/2015 0:06	61.9
30/1/2015 2:46	54.5	31/1/2015 3:51	57.3	1/2/2015 4:56	53.8	2/2/2015 6:01	57.1	3/2/2015 23:06	62.7	5/2/2015 0:11	61.6
30/1/2015 2:51	55.2	31/1/2015 3:56	56.4	1/2/2015 5:01	55.3	2/2/2015 6:06	57.7	3/2/2015 23:11	62.7	5/2/2015 0:16	60.6
30/1/2015 2:56	55.1	31/1/2015 4:01	54.9	1/2/2015 5:06	56.5	2/2/2015 6:11	57.4	3/2/2015 23:16	62.7	5/2/2015 0:21	60.4
30/1/2015 3:01	49.4	31/1/2015 4:06	55.1	1/2/2015 5:11	55.7	2/2/2015 6:16	58.6	3/2/2015 23:21	63.3	5/2/2015 0:26	62.2
30/1/2015 3:06	51.6	31/1/2015 4:11	54.5	1/2/2015 5:16	56.5	2/2/2015 6:21	59.6	3/2/2015 23:26	61.9	5/2/2015 0:31	60.6
30/1/2015 3:11	50.6	31/1/2015 4:16	55.5	1/2/2015 5:21	55.3	2/2/2015 6:26	59.9	3/2/2015 23:31	62.5	5/2/2015 0:36	59.2
30/1/2015 3:16	58.2	31/1/2015 4:21	55.4	1/2/2015 5:26	54.9	2/2/2015 6:31	60.0	3/2/2015 23:36	62.7	5/2/2015 0:41	59.6
30/1/2015 3:21	46.4	31/1/2015 4:26	54.9	1/2/2015 5:31	54.5	2/2/2015 6:36	60.7	3/2/2015 23:41	61.5	5/2/2015 0:46	59.3
30/1/2015 3:26	58.3	31/1/2015 4:31	54.8	1/2/2015 5:36	55.4	2/2/2015 6:41	61.9	3/2/2015 23:46	62.2	5/2/2015 0:51	60.0
30/1/2015 3:31	48.8	31/1/2015 4:36	54.9	1/2/2015 5:41	55.3	2/2/2015 6:46	61.3	3/2/2015 23:51	61.6	5/2/2015 0:56	59.1
30/1/2015 3:36	51.8	31/1/2015 4:41	53.6	1/2/2015 5:46	56.5	2/2/2015 6:51	62.3	3/2/2015 23:56	61.9	5/2/2015 1:01	58.6
30/1/2015 3:41	52.3	31/1/2015 4:46	54.8	1/2/2015 5:51	55.3	2/2/2015 6:56	63.0	4/2/2015 0:01	60.4	5/2/2015 1:06	58.2
30/1/2015 3:46	58.1	31/1/2015 4:51	49.3	1/2/2015 5:56	57.5	2/2/2015 23:01	62.7	4/2/2015 0:06	61.5	5/2/2015 1:11	58.8
30/1/2015 3:51	56.3	31/1/2015 4:56	54.1	1/2/2015 6:01	55.3	2/2/2015 23:06	62.9	4/2/2015 0:11	61.7	5/2/2015 1:16	57.8
30/1/2015 3:56	53.4	31/1/2015 5:01	55.7	1/2/2015 6:06	57.2	2/2/2015 23:11	63.3	4/2/2015 0:16	60.7	5/2/2015 1:21	58.3
30/1/2015 4:01	45.2	31/1/2015 5:06	55.8	1/2/2015 6:11	56.7	2/2/2015 23:16	62.1	4/2/2015 0:21	60.3	5/2/2015 1:26	58.8
30/1/2015 4:06	52.2	31/1/2015 5:11	52.6	1/2/2015 6:16	56.8	2/2/2015 23:21	61.9	4/2/2015 0:26	61.3	5/2/2015 1:31	58.7
30/1/2015 4:11	48.7	31/1/2015 5:16	54.3	1/2/2015 6:21	57.2	2/2/2015 23:26	62.3	4/2/2015 0:31	60.4	5/2/2015 1:36	57.6
30/1/2015 4:16	58.1	31/1/2015 5:21	54.0	1/2/2015 6:26	59.1	2/2/2015 23:31	63.6	4/2/2015 0:36	60.9	5/2/2015 1:41	56.8
30/1/2015 4:21	51.2	31/1/2015 5:26	56.7	1/2/2015 6:31	57.7	2/2/2015 23:36	62.9	4/2/2015 0:41	60.2	5/2/2015 1:46	57.2
30/1/2015 4:26	58.2	31/1/2015 5:31	53.0	1/2/2015 6:36	59.3	2/2/2015 23:41	61.8	4/2/2015 0:46	60.5	5/2/2015 1:51	57.2
30/1/2015 4:31	49.3	31/1/2015 5:36	52.9	1/2/2015 6:41	60.8	2/2/2015 23:46	61.9	4/2/2015 0:51	60.0	5/2/2015 1:56	56.3
30/1/2015 4:36	58.1	31/1/2015 5:41	54.7	1/2/2015 6:46	61.7	2/2/2015 23:51	61.8	4/2/2015 0:56	58.5	5/2/2015 2:01	55.8
30/1/2015 4:41	48.3	31/1/2015 5:46	56.7	1/2/2015 6:51	61.5	2/2/2015 23:56	61.8	4/2/2015 1:01	58.8	5/2/2015 2:06	55.8
30/1/2015 4:46	47.7	31/1/2015 5:51	56.4	1/2/2015 6:56	59.9	3/2/2015 0:01	61.5	4/2/2015 1:06	59.9	5/2/2015 2:11	55.7
30/1/2015 4:51	52.9	31/1/2015 5:56	57.9	1/2/2015 23:01	62.3	3/2/2015 0:06	62.0	4/2/2015 1:11	58.5	5/2/2015 2:16	57.1
30/1/2015 4:56	50.2	31/1/2015 6:01	57.0	1/2/2015 23:06	63.1	3/2/2015 0:11	61.5	4/2/2015 1:16	58.8	5/2/2015 2:21	55.6
30/1/2015 5:01	51.4	31/1/2015 6:06	56.0	1/2/2015 23:11	65.3	3/2/2015 0:16	61.3	4/2/2015 1:21	59.1	5/2/2015 2:26	56.0
30/1/2015 5:06	50.0	31/1/2015 6:11	57.8	1/2/2015 23:16	62.0	3/2/2015 0:21	61.1	4/2/2015 1:26	59.1	5/2/2015 2:31	51.6
30/1/2015 5:11	54.1	31/1/2015 6:16	57.1	1/2/2015 23:21	62.0	3/2/2015 0:26	61.1	4/2/2015 1:31	57.8	5/2/2015 2:36	56.7
30/1/2015 5:16	48.1	31/1/2015 6:21	59.2	1/2/2015 23:26	62.3	3/2/2015 0:31	61.4	4/2/2015 1:36	58.8	5/2/2015 2:41	51.7
30/1/2015 5:21	54.9	31/1/2015 6:26	60.7	1/2/2015 23:31	62.0	3/2/2015 0:36	60.5	4/2/2015 1:41	66.1	5/2/2015 2:46	54.0
30/1/2015 5:26	51.9	31/1/2015 6:31	60.4	1/2/2015 23:36	61.2	3/2/2015 0:41	60.1	4/2/2015 1:46	57.9	5/2/2015 2:51	54.0
30/1/2015 5:31	55.6	31/1/2015 6:36	59.5	1/2/2015 23:41	61.6	3/2/2015 0:46	60.4	4/2/2015 1:51	55.8	5/2/2015 2:56	54.2
30/1/2015 5:36	55.8	31/1/2015 6:41	60.8	1/2/2015 23:46	61.2	3/2/2015 0:51	59.2	4/2/2015 1:56	57.3	5/2/2015 3:01	54.0
30/1/2015 5:41	52.2	31/1/2015 6:46									

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
5/2/2015 6:11	57.8	6/2/2015 23:16	63.8	8/2/2015 0:21	61.8	9/2/2015 1:26	56.5	10/2/2015 2:31	52.7	11/2/2015 3:36	53.2
5/2/2015 6:16	58.7	6/2/2015 23:21	63.3	8/2/2015 0:26	63.3	9/2/2015 1:31	54.9	10/2/2015 2:36	55.9	11/2/2015 3:41	53.8
5/2/2015 6:21	59.8	6/2/2015 23:26	63.9	8/2/2015 0:31	63.0	9/2/2015 1:36	56.5	10/2/2015 2:41	52.7	11/2/2015 3:46	45.5
5/2/2015 6:26	60.6	6/2/2015 23:31	63.0	8/2/2015 0:36	61.2	9/2/2015 1:41	55.8	10/2/2015 2:46	48.3	11/2/2015 3:51	50.7
5/2/2015 6:31	60.9	6/2/2015 23:36	63.3	8/2/2015 0:41	62.4	9/2/2015 1:46	54.4	10/2/2015 2:51	54.9	11/2/2015 3:56	50.5
5/2/2015 6:36	61.2	6/2/2015 23:41	63.2	8/2/2015 0:46	62.7	9/2/2015 1:51	54.4	10/2/2015 2:56	52.1	11/2/2015 4:01	48.3
5/2/2015 6:41	61.5	6/2/2015 23:46	62.9	8/2/2015 0:51	61.1	9/2/2015 1:56	54.4	10/2/2015 3:01	50.1	11/2/2015 4:06	49.4
5/2/2015 6:46	62.1	6/2/2015 23:51	63.2	8/2/2015 0:56	60.0	9/2/2015 2:01	59.4	10/2/2015 3:06	53.1	11/2/2015 4:11	57.7
5/2/2015 6:51	62.7	6/2/2015 23:56	62.8	8/2/2015 1:01	59.6	9/2/2015 2:06	54.1	10/2/2015 3:11	46.0	11/2/2015 4:16	50.2
5/2/2015 6:56	62.9	7/2/2015 0:01	63.3	8/2/2015 1:06	60.1	9/2/2015 2:11	48.1	10/2/2015 3:16	53.6	11/2/2015 4:21	45.2
5/2/2015 23:01	62.6	7/2/2015 0:06	63.4	8/2/2015 1:11	58.1	9/2/2015 2:16	51.1	10/2/2015 3:21	53.1	11/2/2015 4:26	48.4
5/2/2015 23:06	69.3	7/2/2015 0:11	63.1	8/2/2015 1:16	58.6	9/2/2015 2:21	52.9	10/2/2015 3:26	55.4	11/2/2015 4:31	54.1
5/2/2015 23:11	68.9	7/2/2015 0:16	63.2	8/2/2015 1:21	58.8	9/2/2015 2:26	49.5	10/2/2015 3:31	50.5	11/2/2015 4:36	47.5
5/2/2015 23:16	63.3	7/2/2015 0:21	63.0	8/2/2015 1:26	59.7	9/2/2015 2:31	53.2	10/2/2015 3:36	51.5	11/2/2015 4:41	58.0
5/2/2015 23:21	63.1	7/2/2015 0:26	62.0	8/2/2015 1:31	59.4	9/2/2015 2:36	52.5	10/2/2015 3:41	52.2	11/2/2015 4:46	46.7
5/2/2015 23:26	62.7	7/2/2015 0:31	62.7	8/2/2015 1:36	58.4	9/2/2015 2:41	58.1	10/2/2015 3:46	45.0	11/2/2015 4:51	45.7
5/2/2015 23:31	62.9	7/2/2015 0:36	62.8	8/2/2015 1:41	57.4	9/2/2015 2:46	51.1	10/2/2015 3:51	53.4	11/2/2015 4:56	48.4
5/2/2015 23:36	62.8	7/2/2015 0:41	62.6	8/2/2015 1:46	57.0	9/2/2015 2:51	49.4	10/2/2015 3:56	47.3	11/2/2015 5:01	54.0
5/2/2015 23:41	62.0	7/2/2015 0:46	61.4	8/2/2015 1:51	58.6	9/2/2015 2:56	58.0	10/2/2015 4:01	58.1	11/2/2015 5:06	53.1
5/2/2015 23:46	60.7	7/2/2015 0:51	62.4	8/2/2015 1:56	60.3	9/2/2015 3:01	58.2	10/2/2015 4:06	44.6	11/2/2015 5:11	48.5
5/2/2015 23:51	60.7	7/2/2015 0:56	61.3	8/2/2015 2:01	56.9	9/2/2015 3:06	51.4	10/2/2015 4:11	49.0	11/2/2015 5:16	51.1
5/2/2015 23:56	61.0	7/2/2015 1:01	61.4	8/2/2015 2:06	58.3	9/2/2015 3:11	58.3	10/2/2015 4:16	52.8	11/2/2015 5:21	55.0
6/2/2015 0:01	61.2	7/2/2015 1:06	61.4	8/2/2015 2:11	57.3	9/2/2015 3:16	48.5	10/2/2015 4:21	49.4	11/2/2015 5:26	55.4
6/2/2015 0:06	61.4	7/2/2015 1:11	64.5	8/2/2015 2:16	57.2	9/2/2015 3:21	57.8	10/2/2015 4:26	58.3	11/2/2015 5:31	54.2
6/2/2015 0:11	60.7	7/2/2015 1:16	61.8	8/2/2015 2:21	57.5	9/2/2015 3:26	42.0	10/2/2015 4:31	57.8	11/2/2015 5:36	55.3
6/2/2015 0:16	60.9	7/2/2015 1:21	60.9	8/2/2015 2:26	57.6	9/2/2015 3:31	57.4	10/2/2015 4:36	31.9	11/2/2015 5:41	54.5
6/2/2015 0:21	61.0	7/2/2015 1:26	61.7	8/2/2015 2:31	59.2	9/2/2015 3:36	38.0	10/2/2015 4:41	49.2	11/2/2015 5:46	56.0
6/2/2015 0:26	61.3	7/2/2015 1:31	65.9	8/2/2015 2:36	58.7	9/2/2015 3:41	57.9	10/2/2015 4:46	43.8	11/2/2015 5:51	56.2
6/2/2015 0:31	60.5	7/2/2015 1:36	61.2	8/2/2015 2:41	57.3	9/2/2015 3:46	58.2	10/2/2015 4:51	49.5	11/2/2015 5:56	57.3
6/2/2015 0:36	58.9	7/2/2015 1:41	60.2	8/2/2015 2:46	56.0	9/2/2015 3:51	58.0	10/2/2015 4:56	51.6	11/2/2015 6:01	58.5
6/2/2015 0:41	60.0	7/2/2015 1:46	60.4	8/2/2015 2:51	57.3	9/2/2015 3:56	57.5	10/2/2015 5:01	55.3	11/2/2015 6:06	57.8
6/2/2015 0:46	59.1	7/2/2015 1:51	59.9	8/2/2015 2:56	57.5	9/2/2015 4:01	57.7	10/2/2015 5:06	55.5	11/2/2015 6:11	58.4
6/2/2015 0:51	59.3	7/2/2015 1:56	60.3	8/2/2015 3:01	55.8	9/2/2015 4:06	57.9	10/2/2015 5:11	50.5	11/2/2015 6:16	58.5
6/2/2015 0:56	59.1	7/2/2015 2:01	60.5	8/2/2015 3:06	53.2	9/2/2015 4:11	57.6	10/2/2015 5:16	52.7	11/2/2015 6:21	59.4
6/2/2015 1:01	60.1	7/2/2015 2:06	59.1	8/2/2015 3:11	56.5	9/2/2015 4:16	57.4	10/2/2015 5:21	53.2	11/2/2015 6:26	59.8
6/2/2015 1:06	57.2	7/2/2015 2:11	59.4	8/2/2015 3:16	59.2	9/2/2015 4:21	47.3	10/2/2015 5:26	54.2	11/2/2015 6:31	60.3
6/2/2015 1:11	58.1	7/2/2015 2:16	60.3	8/2/2015 3:21	56.0	9/2/2015 4:26	58.1	10/2/2015 5:31	54.2	11/2/2015 6:36	60.8
6/2/2015 1:16	57.5	7/2/2015 2:21	61.6	8/2/2015 3:26	57.3	9/2/2015 4:31	46.8	10/2/2015 5:36	52.0	11/2/2015 6:41	62.5
6/2/2015 1:21	58.1	7/2/2015 2:26	58.7	8/2/2015 3:31	58.3	9/2/2015 4:36	57.5	10/2/2015 5:41	54.9	11/2/2015 6:46	62.4
6/2/2015 1:26	58.7	7/2/2015 2:31	58.3	8/2/2015 3:36	55.0	9/2/2015 4:41	58.0	10/2/2015 5:46	54.5	11/2/2015 6:51	62.4
6/2/2015 1:31	58.6	7/2/2015 2:36	58.8	8/2/2015 3:41	53.1	9/2/2015 4:46	58.1	10/2/2015 5:51	56.0	11/2/2015 6:56	62.6
6/2/2015 1:36	57.2	7/2/2015 2:41	59.8	8/2/2015 3:46	54.4	9/2/2015 4:51	48.5	10/2/2015 5:56	62.3	11/2/2015 23:01	62.2
6/2/2015 1:41	56.5	7/2/2015 2:46	60.5	8/2/2015 3:51	55.4	9/2/2015 4:56	49.3	10/2/2015 6:01	55.9	11/2/2015 23:06	62.5
6/2/2015 1:46	56.2	7/2/2015 2:51	58.8	8/2/2015 3:56	54.8	9/2/2015 5:01	41.5	10/2/2015 6:06	60.6	11/2/2015 23:11	62.7
6/2/2015 1:51	57.4	7/2/2015 2:56	59.1	8/2/2015 4:01	56.7	9/2/2015 5:06	57.6	10/2/2015 6:11	58.2	11/2/2015 23:16	62.7
6/2/2015 1:56	55.8	7/2/2015 3:01	59.2	8/2/2015 4:06	51.2	9/2/2015 5:11	48.5	10/2/2015 6:16	58.2	11/2/2015 23:21	62.9
6/2/2015 2:01	52.0	7/2/2015 3:06	58.1	8/2/2015 4:11	51.0	9/2/2015 5:16	48.5	10/2/2015 6:21	60.8	11/2/2015 23:26	63.3
6/2/2015 2:06	57.0	7/2/2015 3:11	59.2	8/2/2015 4:16	56.6	9/2/2015 5:21	49.0	10/2/2015 6:26	60.6	11/2/2015 23:31	63.1
6/2/2015 2:11	54.4	7/2/2015 3:16	62.0	8/2/2015 4:21	53.2	9/2/2015 5:26	49.9	10/2/2015 6:31	61.0	11/2/2015 23:36	62.9
6/2/2015 2:16	55.1	7/2/2015 3:21	58.4	8/2/2015 4:26	52.3	9/2/2015 5:31	43.5	10/2/2015 6:36	61.0	11/2/2015 23:41	62.8
6/2/2015 2:21	56.6	7/2/2015 3:26	59.6	8/2/2015 4:31	56.3	9/2/2015 5:36	49.4	10/2/2015 6:41	62.2	11/2/2015 23:46	62.4
6/2/2015 2:26	55.5	7/2/2015 3:31	55.8	8/2/2015 4:36	52.1	9/2/2015 5:41	53.8	10/2/2015 6:46	62.6	11/2/2015 23:51	62.5
6/2/2015 2:31	54.0	7/2/2015 3:36	56.6	8/2/2015 4:41	51.3	9/2/2015 5:46	54.9	10/2/2015 6:51	62.2	11/2/2015 23:56	61.7
6/2/2015 2:36	52.1	7/2/2015 3:41	58.5	8/2/2015 4:46	52.0	9/2/2015 5:51	55.4	10/2/2015 6:56	62.5	12/2/2015 0:01	62.4
6/2/2015 2:41	48.8	7/2/2015 3:46	56.8	8/2/2015 4:51	52.8	9/2/2015 5:56	55.0	10/2/2015 23:01	62.7	12/2/2015 0:06	62.0
6/2/2015 2:46	47.5	7/2/2015 3:51	55.9	8/2/2015 4:56	53.8	9/2/2015 6:01	54.8	10/2/2015 23:06	62.8	12/2/2015 0:11	62.1
6/2/2015 2:51	52.2	7/2/2015 3:56	55.4	8/2/2015 5:01	56.1	9/2/2015 6:06	53.7	10/2/2015 23:11	63.4	12/2/2015 0:16	61.6
6/2/2015 2:56	51.4	7/2/2015 4:01	56.9	8/2/2015 5:06	54.1	9/2/2015 6:11	56.2	10/2/2015 23:16	63.4	12/2/2015 0:21	61.9
6/2/2015 3:01	46.0	7/2/2015 4:06	55.5	8/2/2015 5:11	52.7	9/2/2015 6:16	58.3	10/2/2015 23:21	62.7	12/2/2015 0:26	61.8
6/2/2015 3:06	49.3	7/2/2015 4:11	55.4	8/2/2015 5:16	52.1	9/2/2015 6:21	59.6	10/2/2015 23:26	63.5	12/2/2015 0:31	60.6
6/2/2015 3:11	58.2	7/2/2015 4:16	55.2	8/2/2015 5:21	53.5	9/2/2015 6:26	60.0	10/2/2015 23:31	63.1	12/2/2015 0:36	60.7
6/2/2015 3:16	41.0	7/2/2015 4:21	56.2	8/2/2015 5:26	56.0	9/2/2015 6:31	60.2	10/2/2015 23:36	62.4	12/2/2015 0:41	60.2
6/2/2015 3:21	58.0	7/2/2015 4:26	56.3	8/2/2015 5:31	54.4	9/2/2015 6:36	61.1	10/2/2015 23:41	62.1	12/2/2015 0:46	60.4
6/2/2015 3:26	34.9	7/2/2015 4:31	56.5	8/2/2015 5:36	54.9	9/2/2015 6:41	61.3	10/2/2015 23:46	61.6	12/2/2015 0:51	59.8
6/2/2015 3:31	52.6	7/2/2015 4:36	55.9	8/2/2015 5:41	50.1	9/2/2015 6:46	62.7	10/2/2015 23:51	62.1	12/2/2015 0:56	59.9
6/2/2015 3:36	58.0	7/2/2015 4:41	55.4	8/2/2015 5:46	56.1	9/2/2015 6:51	62.0	10/2/2015 23:56	62.3	12/2/2015 1:01	59.9
6/2/2015 3:41	58.2	7/2/2015 4:46	55.3	8/2/2015 5:51	55.8	9/2/2015 6:56	62.7	11/2/2015 0:01	61.2	12/2/2015 1:06	59.8
6/2/2015 3:46	58.2	7/2/2015 4:51	57.1	8/2/2015 5:56	55.3	9/2/2015 23:01	62.7	11/2/2015 0:06	61.8	12/2/2015 1:11	58.7
6/2/2015 3:51	48.5	7/2/2015 4:56	57.4	8/2/2015 6:01	54.6	9/2/2015 23:06	62.4	11/2/2015 0:11	61.6	12/2/2015 1:16	59.5
6/2/2015 3:56	58.1	7/2/2015 5:01	56.6	8/2/2015 6:06	56.3	9/2/2015 23:11	63.4	11/2/2015 0:16	61.5	12/2/2015 1:21	58.8
6/2/2015 4:01	57.9	7/2/2015 5:06	57.0	8/2/2015 6:11	55.3	9/2/2015 23:16	63.2	11/2/2015 0:21	64.1	12/2/2015 1:26	58.5
6/2/2015 4:06	58.0	7/2/2015 5:11	57.1	8/2/2015 6:16	55.5	9/2/2015 23:21	63.0	11/2/2015 0:26	61.4	12/2/2015 1:31	59.2
6/2/2015 4:11	42.4	7/2/2015 5:16	56								

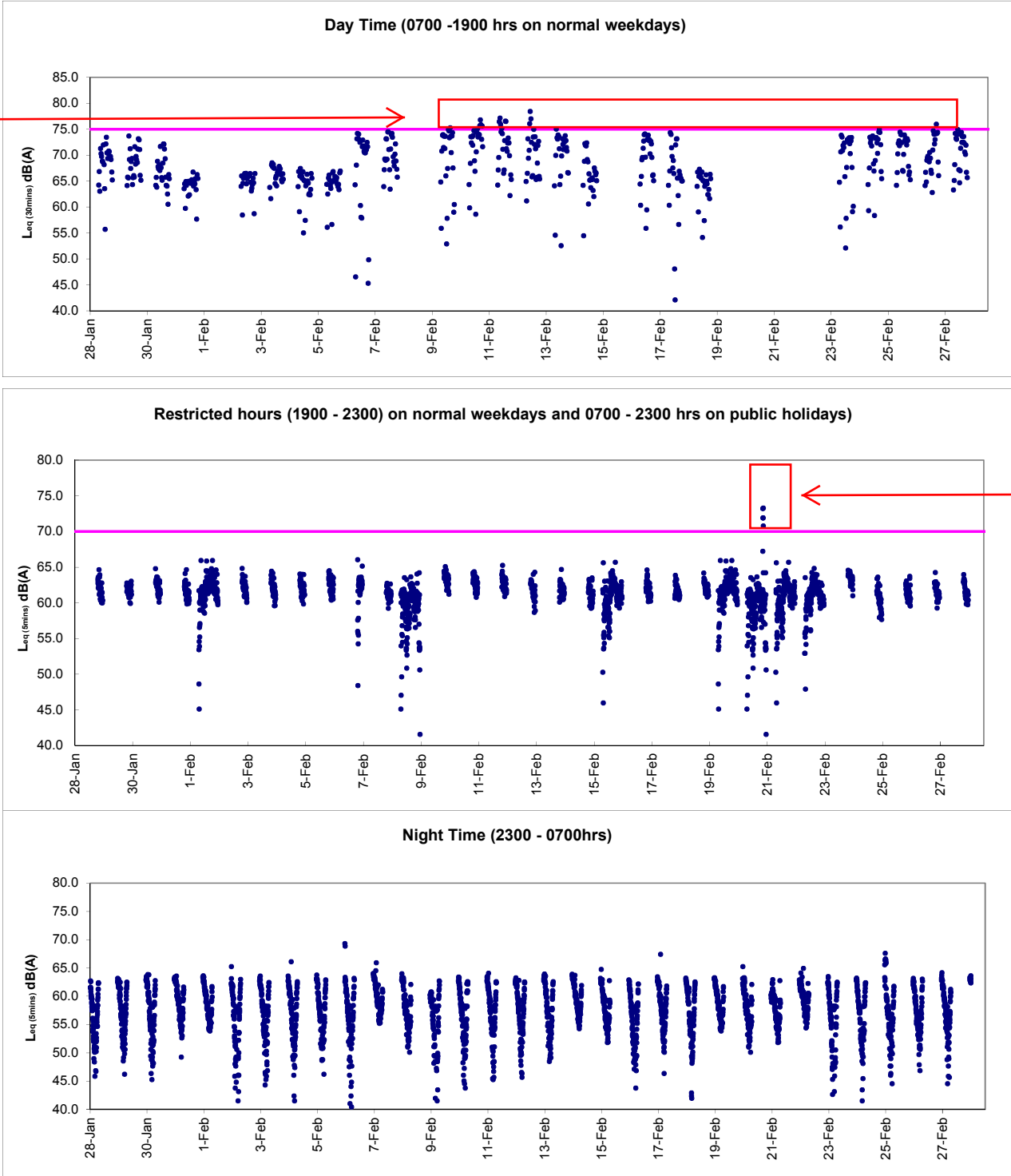
Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
12/2/2015 4:41	46.4	13/2/2015 5:46	56.3	14/2/2015 6:51	61.2	15/2/2015 23:56	61.3	17/2/2015 1:01	61.8	18/2/2015 2:06	55.7
12/2/2015 4:46	53.7	13/2/2015 5:51	55.8	14/2/2015 6:56	61.9	16/2/2015 0:01	60.9	17/2/2015 1:06	59.1	18/2/2015 2:11	55.2
12/2/2015 4:51	55.4	13/2/2015 5:56	57.6	14/2/2015 23:01	63.2	16/2/2015 0:06	60.9	17/2/2015 1:11	59.2	18/2/2015 2:16	55.8
12/2/2015 4:56	54.3	13/2/2015 6:01	55.7	14/2/2015 23:06	62.9	16/2/2015 0:11	60.3	17/2/2015 1:16	59.7	18/2/2015 2:21	55.8
12/2/2015 5:01	54.5	13/2/2015 6:06	57.7	14/2/2015 23:11	62.5	16/2/2015 0:16	59.7	17/2/2015 1:21	59.1	18/2/2015 2:26	54.8
12/2/2015 5:06	51.9	13/2/2015 6:11	57.9	14/2/2015 23:16	62.3	16/2/2015 0:21	60.0	17/2/2015 1:26	60.2	18/2/2015 2:31	53.9
12/2/2015 5:11	53.4	13/2/2015 6:16	59.5	14/2/2015 23:21	63.0	16/2/2015 0:26	60.0	17/2/2015 1:31	59.2	18/2/2015 2:36	53.3
12/2/2015 5:16	54.9	13/2/2015 6:21	59.9	14/2/2015 23:26	62.3	16/2/2015 0:31	59.1	17/2/2015 1:36	59.2	18/2/2015 2:41	54.0
12/2/2015 5:21	54.0	13/2/2015 6:26	59.9	14/2/2015 23:31	62.8	16/2/2015 0:36	58.1	17/2/2015 1:41	58.9	18/2/2015 2:46	53.7
12/2/2015 5:26	53.3	13/2/2015 6:31	60.3	14/2/2015 23:36	64.7	16/2/2015 0:41	58.2	17/2/2015 1:46	67.5	18/2/2015 2:51	56.4
12/2/2015 5:31	53.6	13/2/2015 6:36	61.0	14/2/2015 23:41	62.2	16/2/2015 0:46	58.8	17/2/2015 1:51	60.0	18/2/2015 2:56	55.5
12/2/2015 5:36	55.3	13/2/2015 6:41	60.9	14/2/2015 23:46	62.1	16/2/2015 0:51	58.7	17/2/2015 1:56	58.8	18/2/2015 3:01	55.4
12/2/2015 5:41	58.2	13/2/2015 6:46	62.1	14/2/2015 23:51	62.6	16/2/2015 0:56	58.0	17/2/2015 2:01	58.5	18/2/2015 3:06	53.7
12/2/2015 5:46	56.3	13/2/2015 6:51	62.3	14/2/2015 23:56	62.3	16/2/2015 1:01	57.3	17/2/2015 2:06	58.2	18/2/2015 3:11	54.3
12/2/2015 5:51	57.5	13/2/2015 6:56	62.6	15/2/2015 0:01	62.3	16/2/2015 1:06	57.3	17/2/2015 2:11	57.5	18/2/2015 3:16	55.2
12/2/2015 5:56	56.9	13/2/2015 23:01	63.7	15/2/2015 0:06	62.3	16/2/2015 1:11	57.0	17/2/2015 2:16	57.2	18/2/2015 3:21	53.3
12/2/2015 6:01	57.4	13/2/2015 23:06	63.9	15/2/2015 0:11	62.4	16/2/2015 1:16	58.0	17/2/2015 2:21	57.4	18/2/2015 3:26	53.0
12/2/2015 6:06	57.8	13/2/2015 23:11	63.1	15/2/2015 0:16	62.2	16/2/2015 1:21	56.7	17/2/2015 2:26	57.5	18/2/2015 3:31	50.9
12/2/2015 6:11	58.9	13/2/2015 23:16	63.5	15/2/2015 0:21	61.3	16/2/2015 1:26	56.4	17/2/2015 2:31	56.7	18/2/2015 3:36	51.6
12/2/2015 6:16	59.4	13/2/2015 23:21	63.0	15/2/2015 0:26	62.9	16/2/2015 1:31	57.0	17/2/2015 2:36	57.1	18/2/2015 3:41	51.0
12/2/2015 6:21	59.6	13/2/2015 23:26	63.2	15/2/2015 0:31	61.4	16/2/2015 1:36	55.6	17/2/2015 2:41	55.3	18/2/2015 3:46	49.4
12/2/2015 6:26	60.2	13/2/2015 23:31	63.3	15/2/2015 0:36	61.0	16/2/2015 1:41	54.6	17/2/2015 2:46	55.8	18/2/2015 3:51	42.9
12/2/2015 6:31	60.1	13/2/2015 23:36	63.0	15/2/2015 0:41	61.1	16/2/2015 1:46	54.2	17/2/2015 2:51	58.5	18/2/2015 3:56	42.4
12/2/2015 6:36	61.1	13/2/2015 23:41	63.0	15/2/2015 0:46	60.8	16/2/2015 1:51	53.2	17/2/2015 2:56	56.9	18/2/2015 4:01	40.0
12/2/2015 6:41	61.4	13/2/2015 23:46	62.9	15/2/2015 0:51	59.9	16/2/2015 1:56	54.2	17/2/2015 3:01	55.3	18/2/2015 4:06	42.1
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12/2/2015 6:51	62.4	13/2/2015 23:56	63.0	15/2/2015 1:01	60.3	16/2/2015 2:06	52.9	17/2/2015 3:11	57.8	18/2/2015 4:16	49.0
12/2/2015 6:56	62.6	14/2/2015 0:01	62.6	15/2/2015 1:06	60.3	16/2/2015 2:11	51.9	17/2/2015 3:16	56.3	18/2/2015 4:21	51.8
12/2/2015 23:01	63.1	14/2/2015 0:06	62.5	15/2/2015 1:11	59.6	16/2/2015 2:16	53.4	17/2/2015 3:21	54.0	18/2/2015 4:26	48.6
12/2/2015 23:06	62.7	14/2/2015 0:11	62.9	15/2/2015 1:16	59.0	16/2/2015 2:21	55.9	17/2/2015 3:26	56.7	18/2/2015 4:31	49.5
12/2/2015 23:11	63.7	14/2/2015 0:16	62.7	15/2/2015 1:21	59.0	16/2/2015 2:26	55.0	17/2/2015 3:31	53.7	18/2/2015 4:36	49.0
12/2/2015 23:16	63.0	14/2/2015 0:21	62.3	15/2/2015 1:26	59.4	16/2/2015 2:31	54.0	17/2/2015 3:36	53.2	18/2/2015 4:41	49.7
12/2/2015 23:21	63.2	14/2/2015 0:26	63.2	15/2/2015 1:31	59.3	16/2/2015 2:36	49.8	17/2/2015 3:41	52.5	18/2/2015 4:46	49.4
12/2/2015 23:26	63.5	14/2/2015 0:31	62.1	15/2/2015 1:36	60.2	16/2/2015 2:41	51.5	17/2/2015 3:46	55.5	18/2/2015 4:51	50.2
12/2/2015 23:31	62.7	14/2/2015 0:36	62.2	15/2/2015 1:41	59.6	16/2/2015 2:46	51.9	17/2/2015 3:51	54.0	18/2/2015 4:56	51.1
12/2/2015 23:36	63.4	14/2/2015 0:41	61.5	15/2/2015 1:46	60.1	16/2/2015 2:51	52.3	17/2/2015 3:56	53.0	18/2/2015 5:01	52.3
12/2/2015 23:41	63.9	14/2/2015 0:46	61.6	15/2/2015 1:51	58.9	16/2/2015 2:56	48.4	17/2/2015 4:01	52.0	18/2/2015 5:06	52.5
12/2/2015 23:46	63.1	14/2/2015 0:51	61.8	15/2/2015 1:56	58.5	16/2/2015 3:01	50.7	17/2/2015 4:06	54.4	18/2/2015 5:11	52.9
12/2/2015 23:51	63.3	14/2/2015 0:56	61.9	15/2/2015 2:01	59.8	16/2/2015 3:06	51.6	17/2/2015 4:11	54.2	18/2/2015 5:16	53.5
12/2/2015 23:56	62.4	14/2/2015 1:01	61.6	15/2/2015 2:06	57.9	16/2/2015 3:11	48.3	17/2/2015 4:16	55.4	18/2/2015 5:21	54.8
13/2/2015 0:01	62.3	14/2/2015 1:06	62.2	15/2/2015 2:11	57.5	16/2/2015 3:16	51.7	17/2/2015 4:21	51.9	18/2/2015 5:26	55.8
13/2/2015 0:06	62.7	14/2/2015 1:11	63.0	15/2/2015 2:16	59.0	16/2/2015 3:21	52.7	17/2/2015 4:26	53.6	18/2/2015 5:31	55.5
13/2/2015 0:11	62.3	14/2/2015 1:16	60.9	15/2/2015 2:21	58.1	16/2/2015 3:26	47.1	17/2/2015 4:31	50.2	18/2/2015 5:36	55.0
13/2/2015 0:16	62.4	14/2/2015 1:21	63.7	15/2/2015 2:26	59.8	16/2/2015 3:31	50.4	17/2/2015 4:36	50.9	18/2/2015 5:41	54.9
13/2/2015 0:21	61.6	14/2/2015 1:26	60.0	15/2/2015 2:31	59.6	16/2/2015 3:36	48.6	17/2/2015 4:41	46.4	18/2/2015 5:46	55.9
13/2/2015 0:26	63.6	14/2/2015 1:31	60.7	15/2/2015 2:36	57.2	16/2/2015 3:41	48.8	17/2/2015 4:46	51.1	18/2/2015 5:51	56.5
13/2/2015 0:31	62.2	14/2/2015 1:36	60.4	15/2/2015 2:41	57.1	16/2/2015 3:46	50.3	17/2/2015 4:51	53.5	18/2/2015 5:56	56.7
13/2/2015 0:36	60.4	14/2/2015 1:41	60.2	15/2/2015 2:46	55.9	16/2/2015 3:51	58.1	17/2/2015 4:56	50.1	18/2/2015 6:01	57.2
13/2/2015 0:41	60.7	14/2/2015 1:46	60.5	15/2/2015 2:51	58.0	16/2/2015 3:56	49.5	17/2/2015 5:01	51.9	18/2/2015 6:06	57.8
13/2/2015 0:46	60.9	14/2/2015 1:51	59.8	15/2/2015 2:56	56.4	16/2/2015 4:01	57.2	17/2/2015 5:06	52.1	18/2/2015 6:11	59.1
13/2/2015 0:51	61.0	14/2/2015 1:56	60.1	15/2/2015 3:01	56.6	16/2/2015 4:06	48.8	17/2/2015 5:11	54.4	18/2/2015 6:16	59.6
13/2/2015 0:56	60.6	14/2/2015 2:01	60.4	15/2/2015 3:06	59.4	16/2/2015 4:11	49.3	17/2/2015 5:16	54.7	18/2/2015 6:21	60.2
13/2/2015 1:01	60.4	14/2/2015 2:06	60.6	15/2/2015 3:11	57.2	16/2/2015 4:16	57.9	17/2/2015 5:21	54.0	18/2/2015 6:26	60.4
13/2/2015 1:06	59.8	14/2/2015 2:11	60.4	15/2/2015 3:16	56.4	16/2/2015 4:21	50.8	17/2/2015 5:26	54.7	18/2/2015 6:31	61.0
13/2/2015 1:11	60.0	14/2/2015 2:16	59.5	15/2/2015 3:21	54.6	16/2/2015 4:26	51.0	17/2/2015 5:31	55.3	18/2/2015 6:36	61.3
13/2/2015 1:16	59.9	14/2/2015 2:21	58.7	15/2/2015 3:26	54.6	16/2/2015 4:31	57.6	17/2/2015 5:36	56.6	18/2/2015 6:41	61.7
13/2/2015 1:21	61.0	14/2/2015 2:26	59.0	15/2/2015 3:31	55.6	16/2/2015 4:36	48.9	17/2/2015 5:41	55.0	18/2/2015 6:46	62.1
13/2/2015 1:26	58.3	14/2/2015 2:31	59.6	15/2/2015 3:36	54.4	16/2/2015 4:41	43.8	17/2/2015 5:46	57.0	18/2/2015 6:51	62.3
13/2/2015 1:31	59.7	14/2/2015 2:36	58.8	15/2/2015 3:41	55.9	16/2/2015 4:46	58.3	17/2/2015 5:51	56.9	18/2/2015 6:56	62.5
13/2/2015 1:36	59.0	14/2/2015 2:41	59.5	15/2/2015 3:46	55.9	16/2/2015 4:51	47.9	17/2/2015 5:56	58.3	18/2/2015 23:01	63.2
13/2/2015 1:41	57.3	14/2/2015 2:46	59.1	15/2/2015 3:51	55.9	16/2/2015 4:56	52.1	17/2/2015 6:01	56.4	18/2/2015 23:06	63.1
13/2/2015 1:46	58.8	14/2/2015 2:51	59.0	15/2/2015 3:56	54.1	16/2/2015 5:01	53.1	17/2/2015 6:06	57.5	18/2/2015 23:11	63.0
13/2/2015 1:51	57.0	14/2/2015 2:56	58.8	15/2/2015 4:01	56.9	16/2/2015 5:06	52.5	17/2/2015 6:11	57.3	18/2/2015 23:16	63.3
13/2/2015 1:56	58.1	14/2/2015 3:01	59.3	15/2/2015 4:06	55.3	16/2/2015 5:11	46.8	17/2/2015 6:16	59.1	18/2/2015 23:21	63.3
13/2/2015 2:01	57.7	14/2/2015 3:06	58.0	15/2/2015 4:11	55.1	16/2/2015 5:16	52.7	17/2/2015 6:21	59.6	18/2/2015 23:26	63.1
13/2/2015 2:06	56.3	14/2/2015 3:11	58.7	15/2/2015 4:16	54.8	16/2/2015 5:21	49.3	17/2/2015 6:26	59.5	18/2/2015 23:31	62.9
13/2/2015 2:11	56.3	14/2/2015 3:16	58.9	15/2/2015 4:21	53.4	16/2/2015 5:26	52.8	17/2/2015 6:31	58.7	18/2/2015 23:36	62.8
13/2/2015 2:16	57.1	14/2/2015 3:21	57.8	15/2/2015 4:26	56.2	16/2/2015 5:31	51.8	17/2/2015 6:36	60.6	18/2/2015 23:41	62.5
13/2/2015 2:21	54.8	14/2/2015 3:26	57.6	15/2/2015 4:31	59.2	16/2/2015 5:36	49.5	17/2/2015 6:41	61.3	18/2/2015 23:46	62.0
13/2/2015 2:26	56.4	14/2/2015 3:31	57.4	15/2/2015 4:36	54.8	16/2/2015 5:41	54.2	17/2/2015 6:46	60.6	18/2/2015 23:51	61.9
13/2/2015 2:31	57.2	14/2/2015 3:36	57.4	15/2/2015 4:41	56.6	16/2/2015 5:46	55.5				

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
19/2/2015 3:11	58.5	20/2/2015 4:16	56.6	21/2/2015 5:21	51.9	22/2/2015 6:26	60.5	23/2/2015 23:31	62.7	25/2/2015 0:36	59.7
19/2/2015 3:16	56.5	20/2/2015 4:21	53.2	21/2/2015 5:26	56.8	22/2/2015 6:31	59.4	23/2/2015 23:36	62.6	25/2/2015 0:41	59.5
19/2/2015 3:21	58.4	20/2/2015 4:26	52.3	21/2/2015 5:31	54.5	22/2/2015 6:36	60.5	23/2/2015 23:41	62.1	25/2/2015 0:46	59.9
19/2/2015 3:26	56.7	20/2/2015 4:31	56.3	21/2/2015 5:36	54.3	22/2/2015 6:41	59.9	23/2/2015 23:46	61.9	25/2/2015 0:51	58.0
19/2/2015 3:31	56.5	20/2/2015 4:36	52.1	21/2/2015 5:41	54.4	22/2/2015 6:46	60.4	23/2/2015 23:51	61.5	25/2/2015 0:56	59.4
19/2/2015 3:36	56.0	20/2/2015 4:41	51.3	21/2/2015 5:46	56.2	22/2/2015 6:51	60.3	23/2/2015 23:56	61.0	25/2/2015 1:01	59.2
19/2/2015 3:41	56.5	20/2/2015 4:46	52.0	21/2/2015 5:51	54.1	22/2/2015 6:56	60.4	24/2/2015 0:01	60.8	25/2/2015 1:06	59.2
19/2/2015 3:46	56.1	20/2/2015 4:51	52.8	21/2/2015 5:56	55.3	22/2/2015 23:01	62.4	24/2/2015 0:06	60.6	25/2/2015 1:11	59.2
19/2/2015 3:51	57.7	20/2/2015 4:56	53.8	21/2/2015 6:01	55.9	22/2/2015 23:06	62.5	24/2/2015 0:11	61.0	25/2/2015 1:16	57.4
19/2/2015 3:56	54.4	20/2/2015 5:01	56.1	21/2/2015 6:06	55.6	22/2/2015 23:11	62.1	24/2/2015 0:16	61.0	25/2/2015 1:21	56.8
19/2/2015 4:01	57.2	20/2/2015 5:06	54.1	21/2/2015 6:11	56.5	22/2/2015 23:16	63.3	24/2/2015 0:21	61.0	25/2/2015 1:26	58.2
19/2/2015 4:06	56.5	20/2/2015 5:11	52.7	21/2/2015 6:16	56.0	22/2/2015 23:21	63.5	24/2/2015 0:26	60.3	25/2/2015 1:31	57.7
19/2/2015 4:11	57.2	20/2/2015 5:16	52.1	21/2/2015 6:21	56.5	22/2/2015 23:26	62.3	24/2/2015 0:31	59.9	25/2/2015 1:36	58.1
19/2/2015 4:16	54.1	20/2/2015 5:21	53.5	21/2/2015 6:26	58.1	22/2/2015 23:31	61.3	24/2/2015 0:36	59.3	25/2/2015 1:41	57.3
19/2/2015 4:21	55.8	20/2/2015 5:26	56.0	21/2/2015 6:31	56.2	22/2/2015 23:36	62.4	24/2/2015 0:41	59.1	25/2/2015 1:46	56.2
19/2/2015 4:26	55.8	20/2/2015 5:31	54.4	21/2/2015 6:36	62.8	22/2/2015 23:41	62.0	24/2/2015 0:46	59.1	25/2/2015 1:51	57.6
19/2/2015 4:31	56.0	20/2/2015 5:36	54.9	21/2/2015 6:41	59.0	22/2/2015 23:46	61.6	24/2/2015 0:51	58.9	25/2/2015 1:56	58.3
19/2/2015 4:36	56.6	20/2/2015 5:41	50.1	21/2/2015 6:46	59.4	22/2/2015 23:51	60.2	24/2/2015 0:56	58.6	25/2/2015 2:01	57.4
19/2/2015 4:41	55.4	20/2/2015 5:46	56.1	21/2/2015 6:51	58.9	22/2/2015 23:56	60.9	24/2/2015 1:01	58.7	25/2/2015 2:06	57.0
19/2/2015 4:46	54.9	20/2/2015 5:51	55.8	21/2/2015 6:56	58.8	23/2/2015 0:01	60.5	24/2/2015 1:06	58.6	25/2/2015 2:11	53.2
19/2/2015 4:51	55.1	20/2/2015 5:56	55.3	21/2/2015 7:01	62.9	23/2/2015 0:06	60.2	24/2/2015 1:11	58.3	25/2/2015 2:16	57.5
19/2/2015 4:56	53.8	20/2/2015 6:01	54.6	21/2/2015 23:06	62.1	23/2/2015 0:11	60.2	24/2/2015 1:16	57.9	25/2/2015 2:21	56.4
19/2/2015 5:01	55.3	20/2/2015 6:06	56.3	21/2/2015 23:11	62.8	23/2/2015 0:16	59.8	24/2/2015 1:21	58.0	25/2/2015 2:26	54.6
19/2/2015 5:06	56.5	20/2/2015 6:11	55.3	21/2/2015 23:16	62.4	23/2/2015 0:21	59.6	24/2/2015 1:26	57.7	25/2/2015 2:31	55.1
19/2/2015 5:11	55.7	20/2/2015 6:16	55.5	21/2/2015 23:21	62.7	23/2/2015 0:26	58.9	24/2/2015 1:31	57.2	25/2/2015 2:36	56.1
19/2/2015 5:16	56.5	20/2/2015 6:21	54.9	21/2/2015 23:26	62.6	23/2/2015 0:31	58.9	24/2/2015 1:36	57.0	25/2/2015 2:41	54.4
19/2/2015 5:21	55.3	20/2/2015 6:26	59.9	21/2/2015 23:31	62.0	23/2/2015 0:36	58.6	24/2/2015 1:41	57.3	25/2/2015 2:46	52.9
19/2/2015 5:26	54.9	20/2/2015 6:31	58.6	21/2/2015 23:36	61.3	23/2/2015 0:41	58.6	24/2/2015 1:46	57.7	25/2/2015 2:51	56.2
19/2/2015 5:31	54.5	20/2/2015 6:36	56.4	21/2/2015 23:41	61.5	23/2/2015 0:46	58.3	24/2/2015 1:51	57.4	25/2/2015 2:56	52.9
19/2/2015 5:36	55.4	20/2/2015 6:41	62.1	21/2/2015 23:46	61.0	23/2/2015 0:51	57.8	24/2/2015 1:56	57.8	25/2/2015 3:01	53.9
19/2/2015 5:41	55.3	20/2/2015 6:46	55.6	21/2/2015 23:51	61.1	23/2/2015 0:56	57.6	24/2/2015 2:01	57.3	25/2/2015 3:06	54.8
19/2/2015 5:46	56.5	20/2/2015 6:51	38.0	21/2/2015 23:56	61.3	23/2/2015 1:01	56.9	24/2/2015 2:06	57.0	25/2/2015 3:11	50.7
19/2/2015 5:51	55.3	20/2/2015 6:56	59.3	22/2/2015 0:01	62.2	23/2/2015 1:06	57.0	24/2/2015 2:11	56.0	25/2/2015 3:16	54.0
19/2/2015 5:56	57.5	20/2/2015 23:01	60.2	22/2/2015 0:06	62.9	23/2/2015 1:11	56.1	24/2/2015 2:16	55.5	25/2/2015 3:21	53.0
19/2/2015 6:01	55.3	20/2/2015 23:06	59.6	22/2/2015 0:11	64.1	23/2/2015 1:16	56.3	24/2/2015 2:21	55.8	25/2/2015 3:26	49.5
19/2/2015 6:06	57.2	20/2/2015 23:11	59.7	22/2/2015 0:16	62.7	23/2/2015 1:21	56.1	24/2/2015 2:26	55.3	25/2/2015 3:31	52.7
19/2/2015 6:11	56.7	20/2/2015 23:16	60.1	22/2/2015 0:21	62.3	23/2/2015 1:26	56.0	24/2/2015 2:31	55.3	25/2/2015 3:36	47.7
19/2/2015 6:16	56.8	20/2/2015 23:21	60.2	22/2/2015 0:26	62.3	23/2/2015 1:31	56.0	24/2/2015 2:36	54.0	25/2/2015 3:41	52.6
19/2/2015 6:21	57.2	20/2/2015 23:26	59.0	22/2/2015 0:31	62.7	23/2/2015 1:36	55.8	24/2/2015 2:41	53.1	25/2/2015 3:46	53.6
19/2/2015 6:26	59.1	20/2/2015 23:31	60.6	22/2/2015 0:36	62.0	23/2/2015 1:41	55.6	24/2/2015 2:46	52.6	25/2/2015 3:51	54.5
19/2/2015 6:31	57.7	20/2/2015 23:36	59.0	22/2/2015 0:41	61.3	23/2/2015 1:46	54.9	24/2/2015 2:51	52.4	25/2/2015 3:56	50.5
19/2/2015 6:36	59.3	20/2/2015 23:41	59.7	22/2/2015 0:46	60.8	23/2/2015 1:51	54.4	24/2/2015 2:56	52.7	25/2/2015 4:01	50.8
19/2/2015 6:41	60.8	20/2/2015 23:46	60.4	22/2/2015 0:51	61.8	23/2/2015 1:56	56.4	24/2/2015 3:01	51.9	25/2/2015 4:06	46.0
19/2/2015 6:46	61.7	20/2/2015 23:51	60.8	22/2/2015 0:56	60.3	23/2/2015 2:01	56.4	24/2/2015 3:06	50.5	25/2/2015 4:11	46.4
19/2/2015 6:51	61.5	20/2/2015 23:56	60.5	22/2/2015 1:01	60.0	23/2/2015 2:06	55.4	24/2/2015 3:11	51.9	25/2/2015 4:16	47.7
19/2/2015 6:56	59.9	21/2/2015 0:01	62.3	22/2/2015 1:06	60.4	23/2/2015 2:11	51.7	24/2/2015 3:16	51.8	25/2/2015 4:21	49.0
19/2/2015 23:01	62.3	21/2/2015 0:06	62.3	22/2/2015 1:11	60.5	23/2/2015 2:16	51.1	24/2/2015 3:21	54.1	25/2/2015 4:26	55.1
19/2/2015 23:06	63.1	21/2/2015 0:11	62.4	22/2/2015 1:16	63.4	23/2/2015 2:21	51.4	24/2/2015 3:26	53.3	25/2/2015 4:31	52.9
19/2/2015 23:11	65.3	21/2/2015 0:16	62.2	22/2/2015 1:21	60.9	23/2/2015 2:26	52.1	24/2/2015 3:31	52.9	25/2/2015 4:36	50.2
19/2/2015 23:16	62.0	21/2/2015 0:21	61.3	22/2/2015 1:26	60.7	23/2/2015 2:31	52.0	24/2/2015 3:36	51.4	25/2/2015 4:41	39.7
19/2/2015 23:21	62.0	21/2/2015 0:26	62.9	22/2/2015 1:31	59.9	23/2/2015 2:36	50.4	24/2/2015 3:41	50.4	25/2/2015 4:46	52.2
19/2/2015 23:26	62.3	21/2/2015 0:31	61.4	22/2/2015 1:36	61.1	23/2/2015 2:41	49.3	24/2/2015 3:46	51.3	25/2/2015 4:51	55.6
19/2/2015 23:31	62.0	21/2/2015 0:36	61.0	22/2/2015 1:41	61.0	23/2/2015 2:46	47.5	24/2/2015 3:51	49.9	25/2/2015 4:56	50.0
19/2/2015 23:36	61.2	21/2/2015 0:41	61.1	22/2/2015 1:46	60.1	23/2/2015 2:51	47.1	24/2/2015 3:56	48.5	25/2/2015 5:01	51.8
19/2/2015 23:41	61.6	21/2/2015 0:46	60.8	22/2/2015 1:51	60.0	23/2/2015 2:56	35.6	24/2/2015 4:01	41.5	25/2/2015 5:06	56.9
19/2/2015 23:46	61.2	21/2/2015 0:51	59.9	22/2/2015 1:56	59.7	23/2/2015 3:01	42.7	24/2/2015 4:06	43.5	25/2/2015 5:11	51.6
19/2/2015 23:51	60.8	21/2/2015 0:56	60.5	22/2/2015 2:01	60.2	23/2/2015 3:06	45.3	24/2/2015 4:11	49.8	25/2/2015 5:16	55.3
19/2/2015 23:56	60.5	21/2/2015 1:01	60.3	22/2/2015 2:06	60.5	23/2/2015 3:11	48.1	24/2/2015 4:16	50.7	25/2/2015 5:21	44.6
20/2/2015 0:01	63.3	21/2/2015 1:06	60.3	22/2/2015 2:11	60.2	23/2/2015 3:16	58.3	24/2/2015 4:21	49.4	25/2/2015 5:26	54.8
20/2/2015 0:06	62.6	21/2/2015 1:11	59.6	22/2/2015 2:16	59.0	23/2/2015 3:21	30.2	24/2/2015 4:26	34.9	25/2/2015 5:31	51.2
20/2/2015 0:11	62.5	21/2/2015 1:16	59.0	22/2/2015 2:21	58.7	23/2/2015 3:26	57.1	24/2/2015 4:31	58.1	25/2/2015 5:36	49.8
20/2/2015 0:16	62.3	21/2/2015 1:21	59.0	22/2/2015 2:26	64.9	23/2/2015 3:31	58.0	24/2/2015 4:36	34.1	25/2/2015 5:41	55.8
20/2/2015 0:21	61.8	21/2/2015 1:26	59.4	22/2/2015 2:31	58.6	23/2/2015 3:36	57.9	24/2/2015 4:41	45.5	25/2/2015 5:46	54.0
20/2/2015 0:26	63.3	21/2/2015 1:31	59.3	22/2/2015 2:36	59.2	23/2/2015 3:41	58.2	24/2/2015 4:46	48.1	25/2/2015 5:51	55.8
20/2/2015 0:31	63.0	21/2/2015 1:36	60.2	22/2/2015 2:41	60.8	23/2/2015 3:46	58.0	24/2/2015 4:51	49.3	25/2/2015 5:56	55.9
20/2/2015 0:36	61.2	21/2/2015 1:41	59.6	22/2/2015 2:46	60.1	23/2/2015 3:51	57.9	24/2/2015 4:56	52.7	25/2/2015 6:01	55.3
20/2/2015 0:41	62.4	21/2/2015 1:46	60.1	22/2/2015 2:51	59.8	23/2/2015 3:56	57.7	24/2/2015 5:01	54.4	25/2/2015 6:06	56.1
20/2/2015 0:46	62.7	21/2/2015 1:51	58.9	22/2/2015 2:56	57.8	23/2/2015 4:01	57.7	24/2/2015 5:06	54.2	25/2/2015 6:11	58.0
20/2/2015 0:51	61.1	21/2/2015 1:56	58.5	22/2/2015 3:01	58.7	23/2/2015 4:06	57.7	24/2/2015 5:11	53.2	25/2/2015 6:16	58.4
20/2/2015 0:56	60.0	21/2/2015 2:01	59.8	22/2/2015 3:06	58.8	23/2/2015 4:11	57.6	24/2/2015 5:16	52.2	25/2/2015 6:21	60.1
20/2/2015 1:01	59.6	21/2/2015 2:06	57.9	22/2/2015 3:11	59.1	23/2/2015 4:16	57.9				

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)	
26/2/2015 1:41	57.1	27/2/2015 2:46	57.7
26/2/2015 1:46	57.1	27/2/2015 2:51	55.3
26/2/2015 1:51	55.2	27/2/2015 2:56	58.2
26/2/2015 1:56	55.6	27/2/2015 3:01	54.5
26/2/2015 2:01	56.1	27/2/2015 3:06	55.9
26/2/2015 2:06	56.7	27/2/2015 3:11	56.3
26/2/2015 2:11	55.9	27/2/2015 3:16	55.3
26/2/2015 2:16	56.6	27/2/2015 3:21	54.7
26/2/2015 2:21	56.4	27/2/2015 3:26	55.5
26/2/2015 2:26	57.2	27/2/2015 3:31	55.8
26/2/2015 2:31	56.7	27/2/2015 3:36	54.0
26/2/2015 2:36	56.4	27/2/2015 3:41	48.8
26/2/2015 2:41	54.7	27/2/2015 3:46	53.7
26/2/2015 2:46	55.5	27/2/2015 3:51	54.4
26/2/2015 2:51	53.2	27/2/2015 3:56	51.1
26/2/2015 2:56	56.0	27/2/2015 4:01	52.7
26/2/2015 3:01	54.4	27/2/2015 4:06	53.5
26/2/2015 3:06	54.5	27/2/2015 4:11	44.6
26/2/2015 3:11	54.1	27/2/2015 4:16	58.1
26/2/2015 3:16	54.9	27/2/2015 4:21	51.5
26/2/2015 3:21	54.3	27/2/2015 4:26	54.6
26/2/2015 3:26	53.2	27/2/2015 4:31	53.1
26/2/2015 3:31	52.9	27/2/2015 4:36	51.9
26/2/2015 3:36	53.4	27/2/2015 4:41	52.7
26/2/2015 3:41	54.6	27/2/2015 4:46	45.8
26/2/2015 3:46	54.0	27/2/2015 4:51	55.2
26/2/2015 3:51	52.3	27/2/2015 4:56	47.7
26/2/2015 3:56	55.5	27/2/2015 5:01	49.3
26/2/2015 4:01	53.2	27/2/2015 5:06	54.9
26/2/2015 4:06	49.7	27/2/2015 5:11	50.7
26/2/2015 4:11	47.9	27/2/2015 5:16	57.1
26/2/2015 4:16	52.6	27/2/2015 5:21	49.0
26/2/2015 4:21	50.8	27/2/2015 5:26	51.8
26/2/2015 4:26	51.3	27/2/2015 5:31	53.1
26/2/2015 4:31	54.3	27/2/2015 5:36	55.8
26/2/2015 4:36	50.9	27/2/2015 5:41	54.4
26/2/2015 4:41	31.9	27/2/2015 5:46	45.7
26/2/2015 4:46	51.4	27/2/2015 5:51	54.5
26/2/2015 4:51	53.2	27/2/2015 5:56	56.3
26/2/2015 4:56	46.8	27/2/2015 6:01	55.9
26/2/2015 5:01	50.9	27/2/2015 6:06	55.3
26/2/2015 5:06	50.6	27/2/2015 6:11	57.3
26/2/2015 5:11	53.9	27/2/2015 6:16	56.8
26/2/2015 5:16	54.8	27/2/2015 6:21	57.2
26/2/2015 5:21	52.4	27/2/2015 6:26	59.0
26/2/2015 5:26	53.6	27/2/2015 6:31	59.1
26/2/2015 5:31	53.6	27/2/2015 6:36	59.9
26/2/2015 5:36	54.5	27/2/2015 6:41	60.1
26/2/2015 5:41	54.9	27/2/2015 6:46	60.8
26/2/2015 5:46	57.5	27/2/2015 6:51	61.2
26/2/2015 5:51	56.2	27/2/2015 6:56	60.7
26/2/2015 5:56	57.1	27/2/2015 23:01	63.3
26/2/2015 6:01	56.3	27/2/2015 23:06	63.0
26/2/2015 6:06	56.1	27/2/2015 23:11	62.8
26/2/2015 6:11	56.9	27/2/2015 23:16	62.8
26/2/2015 6:16	58.2	27/2/2015 23:21	62.9
26/2/2015 6:21	59.7	27/2/2015 23:26	62.9
26/2/2015 6:26	59.7	27/2/2015 23:31	62.5
26/2/2015 6:31	58.9	27/2/2015 23:36	63.2
26/2/2015 6:36	61.1	27/2/2015 23:41	62.7
26/2/2015 6:41	61.4	27/2/2015 23:46	62.4
26/2/2015 6:46	61.7	27/2/2015 23:51	63.1
26/2/2015 6:51	63.0	27/2/2015 23:56	63.6
26/2/2015 6:56	62.7		
26/2/2015 23:01	62.8		
26/2/2015 23:06	63.2		
26/2/2015 23:11	63.7		
26/2/2015 23:16	63.3		
26/2/2015 23:21	62.9		
26/2/2015 23:26	63.0		
26/2/2015 23:31	64.2		
26/2/2015 23:36	62.7		
26/2/2015 23:41	62.0		
26/2/2015 23:46	62.8		
26/2/2015 23:51	62.1		
26/2/2015 23:56	61.4		
27/2/2015 0:01	61.5		
27/2/2015 0:06	61.9		
27/2/2015 0:11	61.5		
27/2/2015 0:16	62.1		
27/2/2015 0:21	61.5		
27/2/2015 0:26	61.5		
27/2/2015 0:31	61.8		
27/2/2015 0:36	61.7		
27/2/2015 0:41	61.4		
27/2/2015 0:46	60.1		
27/2/2015 0:51	60.4		
27/2/2015 0:56	60.7		
27/2/2015 1:01	60.3		
27/2/2015 1:06	59.5		
27/2/2015 1:11	59.7		
27/2/2015 1:16	59.9		
27/2/2015 1:21	58.3		
27/2/2015 1:26	59.6		
27/2/2015 1:31	59.4		
27/2/2015 1:36	59.1		
27/2/2015 1:41	59.2		
27/2/2015 1:46	58.1		
27/2/2015 1:51	58.6		
27/2/2015 1:56	58.6		
27/2/2015 2:01	58.7		
27/2/2015 2:06	56.8		
27/2/2015 2:11	56.9		
27/2/2015 2:16	58.6		
27/2/2015 2:21	55.6		
27/2/2015 2:26	56.5		
27/2/2015 2:31	54.4		
27/2/2015 2:36	57.3		
27/2/2015 2:41	57.9		



Graphic Presentation of Real Time Noise Monitoring Result (RTN2a- Hong Kong Electric Centre)



After checking with Contractor HY/2009/19, no major noise generating construction activities were undertaken at the concerned location during the recorded period while breaking works and excavation works was observed at the construction site next to the monitoring station across February 2015. As such, the exceedances were considered to be non Project related and contributed by nearby non-CWB Project construction works.

After checking with contractor HY/2009/19, no construction activity was undertaken at the concerned location during the recorded period. The exceedances were considered to be contributed by pyrotechnic display during Chinese New Year.



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 3 working 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	<ol style="list-style-type: none">1. Identify source/reason of exceedance;2. Repeat odour patrol to confirm finding.	<ol style="list-style-type: none">1. Carry out investigation to identify the source/reason of exceedance;2. Rectify any unacceptable practice3. 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	<ol style="list-style-type: none">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.	<ol style="list-style-type: none">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_15A010	9-Feb-15	10:40	CMA5b- Pedestrian Plaza	431.8	1hr TSP (ug/m ³)	332.0	500	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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/2009/01</p> <p>Remarks / Other Obs: Although tunnel construction, road barrier construction and retaining wall construction were conducted under HK/2009/01 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, the implemented measures were considered effective and exceedance was considered as non-project related.</p>
X_15A011	9-Feb-15	13:00	CMA5b- Pedestrian Plaza	356.3	1hr TSP (ug/m ³)	332.0	500	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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, road barrier construction and retaining wall construction were conducted under HK/2009/01 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, the implemented measures were considered effective and exceedance was considered as non-project related.</p>
X_15A012	9-Feb-15	14:05	CMA5b- Pedestrian Plaza	543.4	1hr TSP (ug/m ³)	332.0	500	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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, road barrier 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 and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among construction dust monitoring stations located at WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, 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_15A008	7-Feb-15	18:19	CMA5b- Pedestrian Plaza	228.8	24 hr TSP (ug/m ³)	181.0	260	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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/2009/01.</p> <p>Remarks / Other Obs: Although tunnel construction, road barrier 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 and Causeway Bay road-side station during the monitoring period was ranged from 5 to 7 and from 5 to 10+ respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact.</p> <p>In view of similar construction activities and mitigation measures were undertaken in previous and subsequent monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, the implemented measures were considered effective and the 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_15A013	9-Feb-15	10:40	CMA5b- Pedestrian Plaza	431.8	1hr TSP (ug/m ³)	332.0	500	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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 concrete breaking was implemented by contractor of HK/2012/08.</p> <p>Remarks / Other Obs: Although concrete breaking was conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded, the implemented measures were considered effective and exceedance was considered as non-project related while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015. Nevertheless, the Contractor of HK/2012/08 was reminded to further enhance the dust mitigation implemented to minimize for potential cumulative impact in the area.</p>
X_15A014	9-Feb-15	13:00	CMA5b- Pedestrian Plaza	356.3	1hr TSP (ug/m ³)	332.0	500	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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 concrete breaking was conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded, the implemented measures were considered effective and exceedance was considered as non-project related while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015. Nevertheless, the Contractor of HK/2012/08 was reminded to further enhance the dust mitigation implemented to minimize for potential cumulative impact in the area.</p>
X_15A015	9-Feb-15	14:05	CMA5b- Pedestrian Plaza	543.4	1hr TSP (ug/m ³)	332.0	500	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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 concrete breaking was conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015, the implemented measures were considered effective and exceedance was considered as non-project related. Nevertheless, the Contractor of HK/2012/08 was reminded to further enhance the dust mitigation implemented to minimize for potential cumulative impact in the area.</p>



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A009	7-Feb-15	18:19	CMA5b- Pedestrian Plaza	228.8	24 hr TSP (ug/m ³)	181.0	260	<p>Possible reason: Elevated ambient air pollution level and nearby road traffic 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, diaphragm wall excavation and cage installation 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 and Causeway Bay road-side station during the monitoring period was ranged from 5 to 7 and from 5 to 10+ respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area.</p> <p>In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact.</p> <p>In view of similar construction activities and mitigation measures were undertaken in previous and subsequent monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015, the implemented measures were considered effective and the 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_10C628	7-Feb-15	Mid-flood	C7	DO(mg/l)	6.66	3.36	2.73	Possible reason:	Natural variation or changes of water quality in the vicinity of water abstraction location for the water quality monitoring station.
				Turbidity	11.92	9.10	10.25	Action taken/ to be taken:	Immediate repeated in-situ measurement had conducted to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	8.00	15.00	22.13	Remarks/ Other Obs:	No marine works was conducted in the vicinity of the water quality monitoring station under Contractor of HY/2010/08 and Contractor of HY/2009/15 at CBTS on the monitoring date. Mitigation measures including implementation of silt screen system was in implemented by Contractor HY/2010/08 and the silt screen was found in order during monitoring. In addition, suspended solid level recorded during monitoring was found well below action level indicating no significant suspended solid impact which may affect cooling water intake operation. In view of the above findings and the exceedance was non- continuous, the exceedance was considered not related to the Project. Nevertheless, the Contractor of HY/2010/08 was reminded to maintain regular checking and cleaning for the silt screen and water holding tank of the diversion scheme to avoid any potential particulates concern within silt screen and water holding tank to safeguard the water quality for the cooling water intake station.



Ref no.	Date	Tidal	Location	Depth	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action
X_10D507	7-Feb-15	Mid-ebb	Ex-WPCWA SE	Bottom	DO(mg/l)	5.11	5.36	5.35	<p>Possible reason: Possible in relation to the upstream organic discharge.</p> <p>Action taken/ to be taken: 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: 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>
X_10D508	24-Feb-15	Mid-ebb	Ex-WPCWA SE	Bottom	DO(mg/l)	5.18	5.36	5.35	<p>Possible reason: Possible in relation to the upstream organic discharge.</p> <p>Action taken/ to be taken: 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: 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>
X_10D509	26-Feb-15	Mid-flood	Ex-WPCWA SE	Bottom	DO(mg/l)	5.00	5.36	5.35	<p>Possible reason: Possible in relation to the upstream organic discharge.</p> <p>Action taken/ to be taken: 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: 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



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		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



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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	<p>EPD Ref.: H05/RS/000278 15-14</p> <p>EPD complaint received by ET on 10 November 2014</p>	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	Interim report submitted to EPD on 9 February 2015



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 -	
TTAM-A3-1060	TTA Implementation - Zone A3-2D (Sewer)	0	0	28-Feb-15		0%	-152					TTA Implementati	
TTAM-A3-1070	TTA Completion - Zone A3-2D (Sewer)	0	0		26-Mar-15	0%	507					TTA Completion -	
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		
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			
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																					

- 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		
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)

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		
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																				

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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	

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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			
A9430	Bridge E (Pier 19 - D1) - Formworks > Diaphragm	4	04-Feb-15	09-Feb-15	7																					
A9440	Bridge E (Pier 19 - D1) - Erect Scaffolding & 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																						

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						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
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- 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
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- █ 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	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 6 (Zone C - P4, ME4-D12 to ME4-D16 & 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
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- 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
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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																			
S87670	Remove general fill /sea wall block	7d/wk-1	24d	20-May-14 08A	08-Oct-14 18	-296d													
S87675	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													
S87755	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

Prepared by William Caluza			
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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													
S67887	Complete Reinstatement of Vertical Seawall (near PRE Office)	7d/wk-2	0d		27-Oct-14 18	-322d													
Reinstate Mucking Out Access Shaft "C"																			
S67240	Start reinstatement works (after completion of TPCWAW OHVD works)	6d/wk	0d	28-Mar-16 08		-102d													
S67225	Cast slab opening at top of CCT West bound (access shaft)	6d/wk	18d	28-Mar-16 08	16-Apr-16 18	-102d													
S67230	Removal of vertical shaft and backfilling	6d/wk	48d	11-Apr-16 08	04-Jun-16 18	-102d													
S67235	Reinstatement of pavement	6d/wk	12d	30-May-16 08	11-Jun-16 18	-102d													
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													
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													
S5_59840	Completion of Section 5 - TPCWAE Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d													
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													
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													
S6_9465	TPCWAW - place levelling stone and tamping, North side	7d/wk-1	6d	02-Nov-14 08	07-Nov-14 18	-122d													
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													
S6_9495	TPCWAW - General fill to +2 within the seawall	7d/wk-1	17d	15-Nov-14 08	01-Dec-14 18	-122d													
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													
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 - Diaphragm Wall																			
Diaphragm Wall																			
S6_9385	Site investigation	7d/wk-1	49d	01-Dec-14 08	21-Jan-15 18	-113d													
S6_8960	Install guide wall	7d/wk-1	40d	17-Dec-14 08	28-Jan-15 18	-120d													
S6_8955	Curtain grout along proposed diaphragm wall	7d/wk-1	40d	19-Dec-14 08	30-Jan-15 18	-122d													
S6_9382	Set up bentonite silo/plants and equipments	7d/wk-1	30d	19-Dec-14 08	20-Jan-15 18	-112d													
S6_9345	Diaphragm wall construction (34 panels @ 3 panels/ week)	7d/wk-1	68d	30-Jan-15 08	14-Apr-15 18	-141d													
S6_9350	Install shear pins on diaphragm wall	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d													

-  Summary Bar
-  Actual Level of Effort
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4 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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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_9355	Install king posts	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d			■	Install king posts				
S6_8970	Diaphragm Wall Pile test	7d/wk-1	40d	20-Mar-15 08	03-May-15 18	-129d			■	Diaphragm Wall Pile test				
S6_9375	Carry out contact/fissure grouting	7d/wk-1	29d	21-Mar-15 08	22-Apr-15 18	-141d			■	Carry out contact/fissure grouting				
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			■	Install dewatering wells and piezometers				
S6_9365	Install inclinometers inside D-wall	7d/wk-1	20d	15-Apr-15 08	05-May-15 18	-141d			■	Install inclinometers inside D-wall				
S6_8975	Carry out pumping tests	7d/wk-1	12d	23-Apr-15 08	05-May-15 18	-141d			■	Carry out pumping tests				
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			■	1st Layer - D Wall conc over break if any & Soft Excavation				
S6_9260	Submit pumping test report	7d/wk-1	1d	06-May-15 08	06-May-15 18	-137d				Submit pumping test report				
S6_8985	1st Layer - install lateral support	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			■	1st Layer - install lateral support				
S6_8990	Install vibrating wire strain gauge	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			■	Install vibrating wire strain gauge				
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			■	2nd Layer - D Wall conc over break if any & Soft Excavation				
S6_9000	2nd Layer - install lateral support	7d/wk-1	10d	29-May-15 08	07-Jun-15 18	-141d			■	2nd Layer - install lateral support				
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			■	3rd Layer - D Wall conc over break if any & Soft Excavation				
S6_9010	3rd Layer - install lateral support	7d/wk-1	10d	10-Jun-15 08	19-Jun-15 18	-141d			■	3rd Layer - install lateral support				
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			■	4th Layer - D Wall conc over break if any & Soft Excavation				
S6_9020	4th Layer - install lateral support	7d/wk-1	10d	23-Jun-15 08	03-Jul-15 18	-141d			■	4th Layer - install lateral support				
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			■	5th Layer - D Wall conc over break if any & Soft Excavation				
S6_9030	5th Layer - install lateral support	7d/wk-1	10d	27-Jun-15 08	07-Jul-15 18	-141d			■	5th Layer - install lateral support				
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			■	6th Layer - D Wall conc over break if any & Soft Excavation				
S6_9040	6th Layer - install lateral support	7d/wk-1	10d	18-Jul-15 08	27-Jul-15 18	-69d			■	6th Layer - install lateral support				
TPCWAW - ROCK EXCAVATION														
S6_6180	Rock excavation to formation	7d/wk-1	112d	18-Jul-15 08	09-Nov-15 18	-141d			■	Rock excavation to formation				
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			■	Install tie back anchor to D- Walls (area on west side, near Portion 11)				
S6_9415	Install tie back anchor to D- Walls (east area)	7d/wk-1	20d	20-Jul-15 08	08-Aug-15 18	-69d			■	Install tie back anchor to D- Walls (east area)				
S6_9055	Provide Access to WDII Contractor for demolition of bulkhead at Portion 11	7d/wk-2	0d		10-Nov-15 18	-133d			◆	Provide Access to WDII Contractor for demolition of bulkhead				
TPCWAW- CCT RC Structure														
TPCWAW - CCT / OHVD														

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5 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
S6_9070	TPCWAW Construct tunnel base slab	7d/wk-1	50d	23-Oct-15 08	11-Dec-15 18	-141d					TPCWAW Construct tunnel base slab		
S6_9075	TPCWAW Construct tunnel wall + OHVD + roof slab	7d/wk-1	80d	13-Nov-15 08	02-Feb-16 18	-141d					TPCWAW Construct tunnel wall + OHVD +		
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					TPCWAW - external waterproofing or		
S6_9076	TPCWAW King post load transfer	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d					TPCWAW King post load transfer		
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					Backfilling/Removal of ELS/ Reinsta		
S6_9105	Remove general fill/ seawall block (concurrent activities)	7d/wk-1	25d	06-Mar-16 08	30-Mar-16 18	-120d					Remove general fill/ seawall bloc		
S6_9120	Saw cut diaphragm wall	7d/wk-1	63d	21-Mar-16 08	23-May-16 18	-120d					Saw cut diaphragm w		
S6_7550	Completion of Section 6- (KD11), above - 20mPD	7d/wk-2	0d		23-May-16 18	-121d					Completion of Section		
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					TPCWAW - Cable Trough (access		
S6_9135	Completion of Section 5 - TPCWAW Area (KD10), below -20mPD	7d/wk-2	0d		25-Mar-16 18	-144d					Completion of Section 5 - TPCWA		
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	Installation of Hoarding						
S4_2720	Remove existing rock mound	7d/wk-1	24d	21-Oct-14 08	13-Nov-14 18	-61d	Remove existing rock mound						
S4_2750	Carry out Site Investigation for BW1/BW2	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-61d	Carry out Site Investigation for BW1/BW2						
S4_2755	BW1/BW2 Engineers confirmation of provisional Barrettes	7d/wk-1	0d		07-Nov-14 18	-61d	BW1/BW2 Engineers confirmation of provisional Barrettes						
Allow Access to WDII													
S4_2785	Complete Section 4 - Portion 11 (KD9)	7d/wk-2	0d		10-Nov-15 18	-132d					Complete Section 4 - Portion 11 (KD9)		
S4_2775	Return Portion 11 to WDII	7d/wk-1	0d		10-Nov-15 18	-129d					Return Portion 11 to WDII		
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	SR8 Heading Excavation From West, CH 4095- 4107 = 8m @2d/m						
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	SR8 Bench Excavation From West, CH 4055- 4065 = 10m						

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6 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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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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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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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
A8595	SR8, From West, CH 4015 - 4020 = 1bay, lining	7d/wk-1a	9d	01-Nov-14 08	09-Nov-14 18	137d												
A8600	SR8, From West, CH 4020 - 4025 = 1bay, lining	7d/wk-1a	9d	10-Nov-14 08	18-Nov-14 18	137d												
A8605	SR8, From West, CH 4025 - 4030 = 1bay, lining	7d/wk-1a	5d	19-Nov-14 08	23-Nov-14 18	137d												
A8610	SR8, From West, CH 4030 - 4035 = 1bay, lining	7d/wk-1a	5d	24-Nov-14 08	28-Nov-14 18	137d												
A8615	SR8, From West, CH 4035 - 4040 = 1bay, lining	7d/wk-1a	5d	29-Nov-14 08	03-Dec-14 18	137d												
A8620	SR8, From West, CH 4040 - 4045 = 1bay, lining	7d/wk-1a	5d	04-Dec-14 08	08-Dec-14 18	137d												
A8625	SR8, From West, CH 4045 - 4050 = 1bay, lining	7d/wk-1a	5d	09-Dec-14 08	13-Dec-14 18	137d												
A8630	SR8, From West, CH 4050 - 4055 = 1bay, lining	7d/wk-1a	5d	14-Dec-14 08	18-Dec-14 18	137d												
A8635	SR8, From West, CH 4055 - 4060 = 1bay, lining	7d/wk-1a	5d	19-Dec-14 08	23-Dec-14 18	137d												
A8640	SR8, From West, CH 4060 - 4065 = 1bay, lining	7d/wk-1a	5d	24-Dec-14 08	29-Dec-14 18	137d												
A8645	SR8, From West, CH 4065 - 4070 = 1bay, lining	7d/wk-1a	5d	30-Dec-14 08	04-Jan-15 18	137d												
A8647	SR8, From West, CH 4070 - 4075 = 1bay, lining	7d/wk-1a	5d	05-Jan-15 08	09-Jan-15 18	137d												
A8648	SR8, From West, CH 4075 - 4080 = 1bay, lining	7d/wk-1a	5d	10-Jan-15 08	14-Jan-15 18	137d												
A8649	SR8, From West, CH 4080 - 4085 = 1bay, lining	7d/wk-1a	5d	15-Jan-15 08	19-Jan-15 18	137d												
A8651	SR8, From West, CH 4085 - 4090 = 1bay, lining	7d/wk-1a	5d	20-Jan-15 08	24-Jan-15 18	137d												
A8652	SR8, From West, CH 4090 - 4095 = 1bay, lining	7d/wk-1a	5d	25-Jan-15 08	29-Jan-15 18	137d												
A8653	SR8, From West, CH 4095 - 4100 = 1bay, lining	7d/wk-1a	5d	30-Jan-15 08	03-Feb-15 18	137d												
A8654	SR8, From West, CH 4100 - 4105 = 1bay, lining	7d/wk-1a	5d	04-Feb-15 08	08-Feb-15 18	137d												
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												
A9780	SR8 From East, CH 4145 - 4135 = 10m/bay, base slab	7d/wk-1a	8d	10-Dec-14 08	17-Dec-14 18	0d												
A9785	SR8 From East, CH 4135 - 4125 = 10m/bay, base slab	7d/wk-1a	8d	18-Dec-14 08	26-Dec-14 18	8d												
A9786	SR8 From East, CH 4125 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	27-Dec-14 08	04-Jan-15 18	10d												
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												
A9815	From East, SR8 CH 4145 - 4140 = 1bay, lining	7d/wk-1a	5d	23-Dec-14 08	28-Dec-14 18	6d												
A9810	From East, SR8 CH 4140 - 4135 = 1bay, lining	7d/wk-1a	5d	29-Dec-14 08	03-Jan-15 18	6d												
A9805	From East, SR8 CH 4135 - 4130 = 1bay, lining	7d/wk-1a	5d	04-Jan-15 08	08-Jan-15 18	6d												

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8 of 18

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

9 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	
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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- Remaining Work
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- ◆ Milestone

10 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	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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- Milestone

11 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
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				
A9080	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				

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12 of 18

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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		
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
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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
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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- Remaining Work
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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.

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							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										
A9280	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										

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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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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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							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				

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 Critical Remaining Work
 Milestone

16 of 18

China State Construction Engineering (Hong Kong) Ltd

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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
SB_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 (13A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIII (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 (14A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIV (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 (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 (20B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d							◆ Portion Handover - Portion	

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17 of 18

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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
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.

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-CR III 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

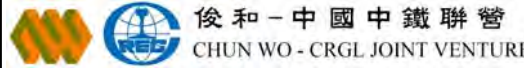
Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015		
						Nov	Dec	Jan	Feb	Mar
SIIA11140	Sec II A - CWB A1 - Construct pre-bored H-pile	31-Oct-14 A	10-Jan-15	33	43.1%					
SIIA11165	SIIA - CWB A1 - install shear pins to existing bored piles	31-Dec-14	15-Jan-15	12	0%					
SIIA11220	Sec II A - CWB A1 - D-wall Sonic test	15-Dec-14	09-Jan-15	20	0%					
SIIA11240	Sec II A - CWB A1 - install dewater/ recharge / observation well	13-Dec-14	15-Jan-15	25	0%					
SIIA11255	Sec II A - CWB A1- 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 - CWB A1: Shoring & Excavation	24-Jan-15	15-Jun-15	111	0%					
SIIA11300	Sec II A - CWB A1: 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 - CWB A2(1): Predrilling for Dwall & piles	01-Dec-14	04-Feb-15	54	0%					
SIIA13360	Sec II A - CWB A2(1): ground pretreatment	08-Dec-14	02-Feb-15	46	0%					
SIIA13380	Sec II A - CWB A2(1): Guide Wall	10-Dec-14	26-Feb-15	60	0%					
SIIA13400	Sec II A - CWB A2(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
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		31-Dec-14	09-Jun-15	126						
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		01-Dec-14	23-May-15	137						
Area 8A & 8C - Seawall Modification (Reviewed)		01-Dec-14	24-Mar-15	90						
Modification of Seawall		01-Dec-14	24-Mar-15	90						
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)		01-Dec-14	06-Mar-15	75						
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		29-Jan-15	23-May-15	89						
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		08-Dec-14	30-Apr-15	112						
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		15-Jan-15	04-Apr-15	80						
WDII Box 1 Construction (Reviewed)		15-Jan-15	04-Apr-15	80						
WDII Box 1 Submission and Approval / Material Procurement		15-Jan-15	04-Apr-15	80						
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		16-Jan-15	05-Feb-15	18						
Landing Steps Construction		16-Jan-15	05-Feb-15	18						
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		20-Nov-13 A	11-Mar-15	79						
Soft Landscaping Works		20-Nov-13 A	11-Mar-15	79						
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	2014					2015													
								Jan 61	Feb 62	Mar 63	Apr 64	May 65	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)																										
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*	-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*	-344	Calendar Day																			
KDC0150	Section 8D Works (1838 days) - Establishment Works in Area 8 (10-Feb-15)	0	0		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	-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	-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*		-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*	-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													

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																									
		184	123	05-Dec-14 08:00 A	23-May-15 18:00	-486	Calendar Day																		



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

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		

Page 2 of 3
 TASK filter: 3-Month Rolling.
 Print on: 23-Jan-15 14:59

Remaining Work	Actual Work	Summary Bar	Critical Remaining Work	Milestone
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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.)	60	30	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)	24	12	22-Dec-14 08:00 A	01-Feb-15 18:00	-486	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	90	77	07-Oct-14 08:00 A	07-Apr-15 18:00	-421	Calendar Day																	
Section 8D of the Works - Establishment Works in Area 8																								
S8D-0010	Carry out establishment work on new ferry pier	365	365	08-Apr-15 08:00	06-Apr-16 18:00	-421	Calendar Day																	
Section 12 of the Works - Protection and Preservation of Existing Trees																								
S12-0010	Protection and preservation of existing trees	2375	587	24-Feb-10 18:00 A	29-Aug-16 18:00	0	Calendar Day																	
SUMMARY PROGRAMME																								
		992	381	07-May-13 08:00 A	05-Feb-16 17:43	1003	Calendar Day																	
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	134	15	17-Oct-14 08:00 A	04-Feb-15 13:30	13	Calendar Day																	
SUM-CWB-23000	CWB Tunnel Portion 2 Construction	261	285	19-Jan-15 08:00 A	01-Nov-15 18:00	-62	Calendar Day																	
CWB Tunnel Works in WCR3																								
SUM-CWB-30000	Reclamation at WCR3 & Ferry Pier Demolition (Except Water Channel Maintained for HK/2009/02)	209	158	30-Aug-14 08:00 A	27-Jun-15 18:00	-486	Calendar Day																	
SUM-CWB-35000B	Foundation for Tunnel Portion 6 - Bored Pile	64	64	07-May-15 08:00	09-Jul-15 18:00	-29	Calendar Day																	
CWB Tunnel Works in WCR4/TWCR4																								
SUM-CWB-41000B	Foundation for Tunnel Portion 3&4 (except Eastern Bulkhead Wall)	457	80	11-Nov-13 08:00 A	10-Apr-15 17:43	-67	Calendar Day																	
SUM-CWB-42000	Pump Test & Excavation for Tunnel Portion 3&4	301	301	10-Apr-15 17:43	05-Feb-16 17:43	-422	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	249	81	08-Oct-14 00:00 A	11-Apr-15 18:00	-1069	Calendar Day																	
Reprovisioning of Wan Chai Ferry Pier & Covered Walkway (Section 8A & 8B)																								
SUM-FAC-65000	ABWF Works on Observation Deck under Section 8B	150	36	07-May-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day																	



■ 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	Original Duration	Start	Finish	Qtr 1, 2015		Qtr 2, 2015			Qtr 3, 2015	
					Feb	Mar	Apr	May	Jun	Jul	
HY/2010/08: CWB-SR8 Three Months Rolling Programm					1488	21-Mar-13 A	14-Dec-17				
Key Dates					28	20-Feb-15	19-Mar-15				
Executive Summary Programme					1488	21-Mar-13 A	14-Dec-17				
Works in TS3					365	17-Jul-14 A	08-Oct-15				
TS3 East & West Reclamation Works					105	20-Dec-14 A	20-Apr-15				
TS3W - Reclamation Works (new scheme)					105	20-Dec-14 A	20-Apr-15				
TS3W.MW.2140	TS3W - Handover to D-wall (Phase 1)	0		27-Feb-15							
TS3W.MW.2110	TS3W - General Fill Area 2 (3 Barges)	40	20-Dec-14 A	13-Mar-15							
TS3W.MW.2120	TS3W - General Fill Area 3 (1 Barges)	22	29-Mar-15	20-Apr-15							
TS3W.MW.2190	TS3W - Completion of Reclamation Works	0		20-Apr-15							
TS3W - North					38	21-Jan-15 A	29-Mar-15				
TS3W.MW.2040	TS3W North - Rockfill	21	21-Jan-15 A	28-Feb-15							
TS3W.MW.2040A	TS3W North - Levelling	4	01-Feb-15 A	02-Mar-15							
TS3W.MW.2050	TS3W North - Phase 1 Seawall Block Installation	28	01-Feb-15 A	16-Mar-15							
TS3W.MW.2060	TS3W North - Phase 2 Seawall Block Installation	13	16-Mar-15	29-Mar-15							
TS3W - South					16	28-Jan-15 A	27-Feb-15				
TS3W.MW.2090	TS3W South - Seawall Block Installation	16	28-Jan-15 A	27-Feb-15							
Works for Box Culvert Q & Water Intake					12	28-Jan-15 A	14-Feb-15 A				
Box Culvert Q					12	28-Jan-15 A	14-Feb-15 A				
Box Culvert Q Outfall Diversion					12	28-Jan-15 A	14-Feb-15 A				
TS3_1145.50	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works	12	28-Jan-15 A	14-Feb-15 A							
Works in TS3-East					290	17-Jul-14 A	09-Jul-15				
Diaphragm Wall					182	28-Nov-14 A	15-Jun-15				
TS3-East Pre-D/wall Works					117	28-Nov-14 A	16-Feb-15 A				
TS3E_2540	Guidewall construction	51	20-Dec-14 A	10-Feb-15 A							
TS3E_2530	Curtain grout/soil pre-treatment/slurry wall	49	01-Dec-14 A	11-Feb-15 A							
TS3E_2520A	Pre-Drilling / Ground Investigation (SI) - Stage 2	27	28-Nov-14 A	16-Feb-15 A							
TS3-East Diaphragm Construction					80	24-Dec-14 A	03-May-15				
TS3E_3110	Diaphragm wall construction Phase 1 (16/50 panels @ proposed bulkhead)	37	24-Dec-14 A	16-Feb-15 A							
TS3E_3120	Diaphragm wall construction Phase 2 (34/50 panels @ proposed bulkhead)	80	10-Feb-15 A	03-May-15							
TS3-East Post D/wall Works					73	03-Apr-15	15-Jun-15				
TS3E_4100	D/wall Interface coring + grouting	60	03-Apr-15	02-Jun-15							
TS3E_4110	D/wall coring + fissure grouting	60	03-Apr-15	02-Jun-15							
TS3E_4120	D/wall integrity test	60	03-Apr-15	02-Jun-15							
TS3E_4130	Dewatering & observation well installation	36	03-May-15	08-Jun-15							
TS3E_4140	Pumping test	7	08-Jun-15	15-Jun-15							
ELS					290	17-Jul-14 A	09-Jul-15				
ELS Fabrication Works					260	17-Jul-14 A	02-Jun-15				
TS3E_2055	Shop drawing re-submission	24	17-Jul-14 A	20-Feb-15 A							
TS3E_2065	Review and approval by AECOM	24	20-Feb-15 A	03-Mar-15							
TS3E_2070	Start Fabrication works	0	04-Mar-15								
TS3E_5510	ELS struts & waling fabrication	72	04-Mar-15	02-Jun-15							
TS3-East ELS Works					140	20-Feb-15	09-Jul-15				
TS3E_5515	King Post installation	38	20-Feb-15	29-Mar-15							
TS3E_5520	ELS Layer 1 - Soft Excav + Strut installation	12	15-Jun-15	27-Jun-15							



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.

- Remaining Level of Effort
- Remaining Work
- Critical Remaining Work
- ◆ Milestone
- ◆ Milestone - Non C

Page 1 of 6

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2010/08 - Central Wan Chai By Pass - Tunnel (SR8 Section)

Date	Revision	Checked	Approved
20-Feb-14	3 Month Rolling Programme	DL	

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015			Qtr 2, 2015			Qtr 3, 2015
					Feb	Mar	Apr	May	Jun	Jul	
TS3E_5540	ELS Layer 1 - Soft Excav + Strut installation	12	27-Jun-15	09-Jul-15							
Cut & Cover Tunnel Structure		96	23-Feb-15	22-Jun-15							
Temporary Works Design		48	23-Feb-15	23-Apr-15							
TS3E_2080	(01) RC Temp Work Design - submission	24	23-Feb-15	21-Mar-15							
TS3E_2085	(01) RC Temp Work Design - review and approval by AECOM	24	23-Mar-15	23-Apr-15							
Method Statement		48	24-Apr-15	22-Jun-15							
TS3E_2090	(01)RC works method statement - submission	24	24-Apr-15	22-May-15							
TS3E_2095	(01)RC works method statement - review and approval by AECOM	24	23-May-15	22-Jun-15							
Works in TS3-West		206	03-Dec-14 A	08-Oct-15							
Diaphragm Wall		206	03-Dec-14 A	08-Oct-15							
Method Statement		24	29-Dec-14 A	07-Mar-15							
TS3W_2025	(01) D Wall works method statement - submission	24	29-Dec-14 A	03-Feb-15 A							
TS3W_2030	(01) D Wall works method statement - review and approval by AECOM	24	04-Feb-15 A	07-Mar-15							
TS3-West Pre-D/wall Works		199	03-Dec-14 A	03-Aug-15							
TS3W_2520	Pre-drilling / Ground Investigation (SI) - Phase 1	20	03-Dec-14 A	02-Feb-15 A							
TS3W_2510	Bentonite silo & plant establishment	48	11-Feb-15 A	23-Mar-15							
TS3W_2540	Guidewall construction	106	26-Jan-15 A	15-Jun-15							
TS3W_2530	Curtain grout/soil pre-treatment/slurry wall	137	28-Feb-15	14-Jul-15							
TS3W_2520A	Pre-drilling / Ground Investigation (SI) - Phase 2	107	03-Feb-15 A	03-Aug-15							
TS3-West Diaphragm Construction		201	21-Mar-15	08-Oct-15							
TS3W_3110	Diaphragm wall construction Phase 1 (53/137 panels-include SR8)	145	21-Mar-15	12-Aug-15							
TS3W_3120	Diaphragm wall construction Phase 2 (84/137 panels)	152	09-May-15	08-Oct-15							
ELS & Rock Excavation		120	23-Feb-15	21-Jul-15							
ELS Fabrication Works		96	23-Feb-15	22-Jun-15							
TS3W_2095	Shop drawing submission	24	23-Feb-15	21-Mar-15							
TS3W_2100	Review and approval by AECOM	24	23-Mar-15	23-Apr-15							
TS3W_2105	Shop drawing re-submission	24	24-Apr-15	22-May-15							
TS3W_2110	Review and approval by AECOM	24	23-May-15	22-Jun-15							
Method Statement		24	23-Jun-15	21-Jul-15							
TS3W_2115	(01) ELS works method statement - submission	24	23-Jun-15	21-Jul-15							
Works in SR8 (Open Cut Method)		367	19-Sep-14 A	22-Aug-15							
SR8 - Cofferdam & Cut & Cover Tunnel Works		304	01-Nov-14 A	22-Aug-15							
SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)		201	01-Nov-14 A	22-Aug-15							
Method Statement		24	05-Jun-15	04-Jul-15							
ELS		24	05-Jun-15	04-Jul-15							
SR8_2260	ELS Method statement - submission	24	05-Jun-15	04-Jul-15							
TTA Stage 1 - East Bound		127	01-Nov-14 A	24-Apr-15							
Stage 2 - East Bound (Ref. DRG. No.CDD/SR8/083)		127	01-Nov-14 A	24-Apr-15							
SR8.EB.1340	Stage 2 - Sheet Pile Work	18	01-Nov-14 A	07-Feb-15 A							
SR8.EB.1360	Stage 2 - TAM Grout	18	20-Feb-15 A	04-Mar-15							
SR8.EB.1400	Ground Treatment - Jet Grout	21	20-Feb-15 A	10-Mar-15							
SR8.EB.1380	Demolish part of the Wing Wall of Abutment M	14	23-Feb-15	10-Mar-15							
SR8.EB.1385	Install Dewatering Wells and Observation Wells & Pump Test	14	10-Mar-15	26-Mar-15							
SR8.EB.1390	Construct Traffic Deck	35	05-Mar-15	18-Apr-15							
SR8.EB.1530	Construct IEC East Bound Up Ramp	60	11-Feb-15 A	24-Apr-15							
TTA Stage 2 - East Bound		98	26-Apr-15	22-Aug-15							



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.

- Remaining Level of Effort
- Remaining Work
- Critical Remaining Work
- Milestone
- Milestone - Non C

Page 2 of 6

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2010/08 - Central Wan Chai By Pass - Tunnel (SR8 Section)

Date	Revision	Checked	Approved
20-Feb-14	3 Month Rolling Programme	DL	

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015		Qtr 2, 2015			Qtr 3, 2015	
					Feb	Mar	Apr	May	Jun	Jul	
Stage 3 - East Bound (Ref. DRG. No.CDD/SR8/084)					98	26-Apr-15	22-Aug-15				
SR8.EB.1410	Implement TTA Stage 2 - Traffic Diversion at East Bound (DRG REF.4843/011/030B and 4843/011/040B)	0	26-Apr-15						◆ Implement TTA Stage 2 - Traffic Diversion at East Bound (DRG REF.4843/011/030B and 4843/011/040B)		
SR8.EB.1420	Demolish Part of EB Existing Abutment M and Part of the Central Divider	12	27-Apr-15	11-May-15					■ Demolish Part of EB Existing Abutment M and Part of the Central Divider		
SR8.EB.1430	Carry out Pre-boring for Sheet Pile	24	27-Apr-15	26-May-15					■ Carry out Pre-boring for Sheet Pile		
SR8.EB.1440	Carry out Stage 3 - Sheet Pile Work	21	20-May-15	13-Jun-15						■ Carry out Stage 3 - Sheet Pile Work	
SR8.EB.1450	Carry out Stage 3 - Pipe Piling Work	60	12-Jun-15	22-Aug-15						■ Carry out Stage 3 - Pipe Piling Work	
Stage 4 - East Bound (Ref. DRG. No.CDD/SR8/084)					24	15-Jun-15	14-Jul-15				
SR8.EB.1470	Commence Stage 4 (After Completion of reclamation works)	0	15-Jun-15							◆ Commence Stage 4 (After Completion of reclamation works)	
SR8.EB.1480	Carry out Stage 4 Sheet Piling Works	24	15-Jun-15	14-Jul-15						■ Carry out Stage 4 Sheet Piling Works	
SR8 West Bound - Ch. 459.000 to 385.000 (Victoria Road / IEC Central D					109	29-Dec-14 A	08-Jul-15				
TTA Stage 1 - West Bound					26	29-Dec-14 A	08-Feb-15 A				
Stage 2B - West Bound (Ref. DRG. No.CDD/SR8/086)					26	29-Dec-14 A	08-Feb-15 A				
SR8.WB.2110	Construct Temporary Traffic Deck	26	29-Dec-14 A	02-Feb-15 A	Construct Temporary Traffic Deck						
SR8.WB.2150	Asphalt Laying + Temporary Street Furniture	3	02-Feb-15 A	08-Feb-15 A	Asphalt Laying + Temporary Street Furniture						
TTA Stage 2 - West Bound					109	08-Feb-15 A	08-Jul-15				
Stage 3 - West Bound (Ref. DRG. No.CDD/SR8/087)					109	08-Feb-15 A	08-Jul-15				
SR8.WB.3010	Implement TTA Stage 2 - Traffic Diversion at West Bound	0	08-Feb-15 A		◆ Implement TTA Stage 2 - Traffic Diversion at West Bound						
SR8.WB.3020	Shift / Divert HEC Cable (Fibre Optic) during Construction of Sheet Pile and Pipe Pile Works	12	11-Feb-15 A	16-Feb-15 A	Shift / Divert HEC Cable (Fibre Optic) during Construction of Sheet Pile and Pipe Pile Works						
SR8.WB.3015	Excavate and expose U/G Utilities (HEC Fiber Optic)	12	11-Feb-15 A	16-Feb-15 A	Excavate and expose U/G Utilities (HEC Fiber Optic)						
SR8.WB.3030	Carry out Stage 3 Sheet Pile works	27	17-Feb-15 A	25-Mar-15	■ Carry out Stage 3 Sheet Pile works						
SR8.WB.3040	Carry out Stage 3 Pipe Piling Works	45	26-Mar-15	22-May-15	■ Carry out Stage 3 Pipe Piling Works						
SR8.WB.3050	Carry out Stage 3 TAM Grout	17	23-May-15	12-Jun-15	■ Carry out Stage 3 TAM Grout						
SR8.WB.3060	Install Dewatering Wells & Carry out Pump Test	20	13-Jun-15	08-Jul-15	■ Install Dewatering Wells & Carry out Pump Test						
SR8 Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)					108	16-Jan-15 A	07-Jul-15				
SR8 Tunnel - ELS / CCT / BF Works (7 Bays Ch. 385.000 to Ch.317.500)					108	16-Jan-15 A	07-Jul-15				
ELS					38	16-Jan-15 A	11-Apr-15				
SR8.VP.5070	ELS Layer 2 - Soft Excavation + Strut Installation	24	16-Jan-15 A	10-Feb-15 A	■ ELS Layer 2 - Soft Excavation + Strut Installation						
SR8.VP.5070A	ELS Layer 3 - Soft Excavation + Strut Installation	8	11-Feb-15 A	19-Mar-15	■ ELS Layer 3 - Soft Excavation + Strut Installation						
SR8.VP.5080	Soft Excavation down to Formation Level	16	20-Mar-15	11-Apr-15	■ Soft Excavation down to Formation Level						
Portal Structure					70	13-Apr-15	07-Jul-15				
Blinding + Waterproofing					14	13-Apr-15	28-Apr-15				
SR8.VP.5030	Blinding for Bay 1 to Bay 7	7	13-Apr-15	20-Apr-15	■ Blinding for Bay 1 to Bay 7						
SR8.VP.5090	Waterproofing for Bay 1 to Bay 7	7	21-Apr-15	28-Apr-15	■ Waterproofing for Bay 1 to Bay 7						
Base Slab + Drainage					56	29-Apr-15	07-Jul-15				
SR8.VP.5100	Base Slab - Bay 1	8	29-Apr-15	08-May-15	■ Base Slab - Bay 1						
SR8.VP.5110	Base Slab - Bay 2	8	09-May-15	18-May-15	■ Base Slab - Bay 2						
SR8.VP.5120	Base Slab - Bay 3	8	19-May-15	28-May-15	■ Base Slab - Bay 3						
SR8.VP.5130	Base Slab - Bay 4	8	29-May-15	06-Jun-15	■ Base Slab - Bay 4						
SR8.VP.5140	Base Slab - Bay 5	8	08-Jun-15	16-Jun-15	■ Base Slab - Bay 5						
SR8.VP.5150	Base Slab - Bay 6	8	17-Jun-15	26-Jun-15	■ Base Slab - Bay 6						
SR8.VP.5160	Base Slab - Bay 7	8	27-Jun-15	07-Jul-15	■ Base Slab - Bay 7						
Pump Sump E					50	29-Apr-15	29-Jun-15				
SR8.VP.5360	Base Slab	8	29-Apr-15	08-May-15	■ Base Slab						
SR8.VP.5370	Wall Up to Portal Base Slab Bottom	10	09-May-15	20-May-15	■ Wall Up to Portal Base Slab Bottom						
SR8.VP.5380	Fill Up Void Up to Portal Base Slab Bottom	7	21-May-15	29-May-15	■ Fill Up Void Up to Portal Base Slab Bottom						
SR8.VP.5390	Wall Up to Portal Roof Bottom	10	17-Jun-15	29-Jun-15	■ Wall Up to Portal Roof Bottom						



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.

- Remaining Level of Effort
- Remaining Work
- Critical Remaining Work
- ◆ Milestone
- ◆ Milestone - Non C

Page 3 of 6

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2010/08 - Central Wan Chai By Pass - Tunnel (SR8 Section)

Date	Revision	Checked	Approved
20-Feb-14	3 Month Rolling Programme	DL	

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015		Qtr 2, 2015			Qtr 3, 2015
					Feb	Mar	Apr	May	Jun	Jul
SR8 Ch 317.500 to Ch 210.000 - U-Structure & Slab (Victoria Park)										
Excavation and Lateral Support										
SR8_2300	Form Temporary Access to Bowling Green at Bay 3(CH230 to CH240)	7	08-Apr-15	15-Apr-15	Form Temporary Access to Bowling Green at Bay 3(CH230 to CH240)					
SR8_2310	ELS - Excavation to Formation Level + Lateral Support for UBA2 to UBA5	21	16-Apr-15	11-May-15	ELS - Excavation to Formation Level + Lateral Support for UBA2 to UBA5					
RC CCT & Backfill Ch317.5000 to Ch240.000										
Structure										
Blinding + Waterproofing										
SR8_1840	Remove Bulk Head at CH317.5	7	13-Apr-15	20-Apr-15	Remove Bulk Head at CH317.5					
SR8_1860	Blinding & Waterproofing Bay UBA8	4	21-Apr-15	24-Apr-15	Blinding & Waterproofing Bay UBA8					
SR8_1830	Blinding & Waterproofing Bay UBA2 to UBA5	4	12-May-15	15-May-15	Blinding & Waterproofing Bay UBA2 to UBA5					
Base Slab										
SR8_1800	SR8 U-structure Base slab (UBA6 - UBA7 & UBA1)	24	18-Nov-14 A	17-Mar-15	SR8 U-structure Base slab (UBA6 - UBA7 & UBA1)					
SR8_1801	Remove SL3 - (UBA6 - UBA7 & UBA1)	14	18-Mar-15	02-Apr-15	Remove SL3 - (UBA6 - UBA7 & UBA1)					
SR8_1812	SR8 U-structure Base slab (UBA8)	24	25-Apr-15	23-May-15	SR8 U-structure Base slab (UBA8)					
SR8_1813	Remove SL3 - (UBA8)	14	26-May-15	10-Jun-15	Remove SL3 - (UBA8)					
SR8_1810	SR8 U-structure Base slab (UBA2 - UBA5)	48	16-May-15	14-Jul-15	SR8 U-structure Base slab (UBA2 - UBA5)					
Wall										
SR8_1850	SR8 U-structure Wall (UBA6-UBA7) - Stage 1	14	23-Feb-15	10-Mar-15	SR8 U-structure Wall (UBA6-UBA7) - Stage 1					
SR8_1850A	Remove SL2, 1 (UBA6-UBA7)	14	11-Mar-15	26-Mar-15	Remove SL2, 1 (UBA6-UBA7)					
SR8_1850B	SR8 U-structure Wall (UBA6-UBA7) - Stage 2	14	27-Mar-15	16-Apr-15	SR8 U-structure Wall (UBA6-UBA7) - Stage 2					
SR8_2060	SR8 U-structure Wall (UBA8) - Stage 1	7	11-Jun-15	18-Jun-15	SR8 U-structure Wall (UBA8) - Stage 1					
SR8_2100	Remove SL2, 1 (UBA8)	7	19-Jun-15	27-Jun-15	Remove SL2, 1 (UBA8)					
SR8_2110	SR8 U-structure Wall (UBA8) - Stage 2	7	29-Jun-15	07-Jul-15	SR8 U-structure Wall (UBA8) - Stage 2					
SR8 Structural Slab Ch.240.000 to Ch.210.000										
SR8_2080	Drainage Works	60	03-Jan-15 A	03-Feb-15 A	Drainage Works					
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_1370	TFS New Ret. Wall - backfilling & compaction works	24	23-Feb-15	21-Mar-15	TFS New Ret. Wall - backfilling & compaction works					
VP_1770	Install Steel Railing on Top of RW8C	14	23-Mar-15	11-Apr-15	Install Steel Railing on Top of RW8C					
VP_1390	Demolish Top Portion of Existing Wall Head and Kerb	18	13-Apr-15	04-May-15	Demolish Top Portion of Existing Wall Head and Kerb					
VP_1400	Road Formation - Subbase + Kerb + U-shape Channel	48	05-May-15	02-Jul-15	Road Formation - Subbase + Kerb + U-shape Channel					
Bay 3 & Bay 4										
VP_1760	TFS New Ret. Wall - wall stem Bay 3 & Bay 4	21	14-Jan-15 A	07-Feb-15 A	TFS New Ret. Wall - wall stem Bay 3 & Bay 4					
Retaining Wall + Toe Wall at Hing Fat Street										
Subway Extension at Tsing Fung Street (Portion VIII)										
West Side										
VP_1330	Divert Footpath for Closing West Part of Subway	2	05-May-15	06-May-15	Divert Footpath for Closing West Part of Subway					
VP_1365	Excavation and Demolition (West Part) of Subway	14	07-May-15	22-May-15	Excavation and Demolition (West Part) of Subway					
VP_1375.10	TFS Subway extension - Blinding and Waterproofing	8	23-May-15	02-Jun-15	TFS Subway extension - Blinding and Waterproofing					
VP_1375.20	TFS Subway extension - Base slab + Drainage	21	03-Jun-15	27-Jun-15	TFS Subway extension - Base slab + Drainage					
VP_1375.30	TFS Subway extension - Walls	18	29-Jun-15	20-Jul-15	TFS Subway extension - Walls					
Tree Transplanting at Portion VIII (Tree Zone 20) (6 trees)										
VP_1700	Preparation and Site Hoarding	36	19-Sep-14 A	24-Mar-15	Preparation and Site Hoarding					
RC Works - Toe Wall (RW8E)										
VP_6152	Construct and divert Temporary Footpath	36	05-May-15	16-Jun-15	Construct and divert Temporary Footpath					



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.

- Remaining Level of Effort
- Remaining Work
- Critical Remaining Work
- ◆ Milestone
- ◆ Milestone - Non C

Page 4 of 6

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2010/08 - Central Wan Chai By Pass - Tunnel (SR8 Section)

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20-Feb-14	3 Month Rolling Programme	DL	

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					Feb	Mar	Apr	May	Jun	Jul		
VP_6160	Sheet Piling and Excavation to Formation level	45	17-Jun-15	10-Aug-15								
Works in Victoria Park		1488	21-Mar-13 A	14-Dec-17								
Re-Provisioning Works		236	23-Sep-14 A	21-Jul-15								
VP_1650	KD4 - Completion of Section 1B of Works (Children Playground & BGO)	0		20-Feb-15		◆ KD4 - Completion of Section 1B of Works (Children Playground & BGO)						
Bowling Green Office		0	20-Feb-15	20-Feb-15								
BGO - Construction Works		0	20-Feb-15	20-Feb-15								
VP_1270	BGO - Completion of KD4 - Works in Section1B	0		20-Feb-15		◆ BGO - Completion of KD4 - Works in Section1B						
Pavilion		104	03-Feb-15 A	02-Jul-15								
Temp. Works Design		31	17-Feb-15 A	30-Mar-15								
VP_0210	(01) Temp. Work Design + ICE - submission	7	17-Feb-15 A	02-Mar-15								
VP_0230	(01) Temp. Work Design - review and approval by AECOM	24	03-Mar-15	30-Mar-15								
Materials Submission		76	03-Feb-15 A	28-May-15								
VP_6640	Materials submission (Specification and Samples)	7	03-Feb-15 A	26-Feb-15								
VP_6650	Materials - ER review and approval	24	27-Feb-15	26-Mar-15								
VP_6660	Issue P.O. / Manufacturing / Fabrication	48	27-Mar-15	28-May-15								
Shop Drawings		31	31-Mar-15	11-May-15								
VP_0195	Shopdrawing submission	7	31-Mar-15	11-Apr-15								
VP_0215	Shopdrawing - ER review and approval	24	13-Apr-15	11-May-15								
Method Statement		31	31-Mar-15	11-May-15								
VP_6680	(01) Method statement - submission	7	31-Mar-15	11-Apr-15								
VP_6690	(01)Method statement - review and approval by AECOM	24	13-Apr-15	11-May-15								
Construction Works - BG Pavilion		104	23-Feb-15	02-Jul-15								
VP_1310	PV - Site Possession, Portion VI/VII	0	23-Feb-15			◆ PV - Site Possession, Portion VI/VII						
VP_1340	Demolish existing BGO	24	12-Mar-15	13-Apr-15								
VP_1300	PV - Initial works (Site Clearance, underground utilities etc.)	24	14-Apr-15	12-May-15								
VP_1360	PV - foundation works	21	12-May-15	05-Jun-15								
VP_1380	PV- structural works, G/F to Roof	24	03-Jun-15	02-Jul-15								
Bowling Green		236	23-Sep-14 A	21-Jul-15								
Design Submissions for Bowling Green Lighting		24	23-Sep-14 A	02-Mar-15								
VP_0330	Engineer's Review and Approval	24	23-Sep-14 A	02-Mar-15								
Method Statement		24	20-Nov-14 A	11-Mar-15								
VP_0260	(01)Method statement - review and approval by AECOM	24	20-Nov-14 A	11-Mar-15								
Procurement		93	03-Feb-15 A	26-Jun-15								
VP_1010.164	Material submission	7	03-Feb-15 A	13-Feb-15 A								
VP_1010.174	Materials - ER review and approval	24	14-Feb-15 A	30-Mar-15								
VP_1010.184	Issue PO / Manufacturing	42	31-Mar-15	23-May-15								
VP_1010.194	Delivery	11	26-May-15	06-Jun-15								
VP_6670	Materials Delivery - Green Turf	24	29-May-15	26-Jun-15								
Portion VII Tree Transplanting, DBH <300mm		12	05-Nov-14 A	07-Mar-15								
VP_1330.04	<300mm dia trees (3months) - Stage 4 root pruning & removal/Transplanting	12	05-Nov-14 A	07-Mar-15								
Construction Works		120	23-Feb-15	21-Jul-15								
VP_1320	BG - Site Possession, Portion VI, VII	0	23-Feb-15			◆ BG - Site Possession, Portion VI, VII						
VP_1170	Demolish existing CP / BGO / Site Clearance	24	12-Mar-15	13-Apr-15								
VP_1180	Site Survey / Setting up	12	14-Apr-15	27-Apr-15								
VP_1710	BG - Install U/G Sewerage System	24	21-Apr-15	19-May-15								
VP_1720	BG - Install Drainage System	24	06-May-15	03-Jun-15								



中國建築工程(香港)有限公司
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- Remaining Level of Effort
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- Critical Remaining Work
- Milestone
- Milestone - Non C

Page 5 of 6

China State Construction Engineering (Hong Kong) Ltd






Contract No. HY/2010/08 - Central Wan Chai By Pass - Tunnel (SR8 Section)

Date	Revision	Checked	Approved
20-Feb-14	3 Month Rolling Programme	DL	

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015			Qtr 2, 2015			Qtr 3, 2015
					Feb	Mar	Apr	May	Jun	Jul	
VP_1730	BG - Install Irrigation System	24	20-May-15	17-Jun-15							
VP_1740	BG - Install Conduit and Lighting System	36	08-Jun-15	21-Jul-15							
Establishment Works for Landscape Softworks		901	16-Dec-14 A	14-Dec-17							
KD11 - Section 7A: Portion XIV & XV (Victoria Park Open Space)		901	16-Dec-14 A	14-Dec-17							
EW_1000	Establishment Works - for Landscape Softworks and transplanted trees in Portion XIV & XV	901	16-Dec-14 A	14-Dec-17							
Preservation and Protection of Trees		1088	21-Mar-13 A	20-Nov-16							
PPT_0000	Preservation and Protection of Existing Trees	1088	21-Mar-13 A	20-Nov-16							
Mooring Components Upkeep (CBTS and ATS)		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							
MAR_2000	Mooring Upkeep at Portion XIX(19) & XX(20) - ATS (if instructed by Engineer)	1399	21-Mar-13 A	17-Jan-17							
Works for Public Works Regional Laboratory (North Lantau)		1301	19-Jul-13 A	21-Nov-17							
Maintenance and Upkeep of New PWRL (Portion XVII)		1301	19-Jul-13 A	21-Nov-17							
PWRL_1050	Maintenance/ Upkeep of New PWRL	1301	19-Jul-13 A	21-Nov-17							



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Page 6 of 6

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2010/08 - Central Wan Chai By Pass - Tunnel (SR8 Section)

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