CONTRACT NO: HK/2015/01

WANCHAI DEVELOPMENT PHASE II AND CENTRAL WANCHAI BYPASS SAMPLING, FIELD MEASUREMENT AND TESTING WORKS (STAGE 3)

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

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

JANUARY 2016 -

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:

5 February 2016



Ref.: AACWBIECEM00_0_7741L.16.docx

15 February 2016

By Post and Fax (3912 3010)

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

Attention: Mr. Peter Poon

Dear Mr. Poon,

Re: Contract No. HK/2015/01
Wan Chai Development Phase II - Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 3)

Monthly Environmental Monitoring and Audit Report (January 2016) for EP-356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009 and FEP-07/356/2009

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for January 2016 received by email on 15 February 2016 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

Encl.

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c.c.

HyDAttn: Mr. Eddy Wuby fax: 2714 5289CEDDAttn: Mr. Stephen Loby fax: 2577 5040AECOMAttn: Mr. Frankie Fanby fax: 2691 2649AECOMAttn: Mr. Conrad Ngby fax: 2691 2649LamAttn: Mr. Raymond Daiby fax: 2882 3331



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Lam Geotechnics Limited

Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (January 2016)

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EXECUTIVE SUMMARY

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report January 2016 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 of 27th December 2015 to 26th January 2016.
- ii. The implementation of the Environmental Monitoring and Audit Programme for the Wan Chai Development phase II and Central-Wan Chai Bypass Project has been taken over by the Lam Geotechnics Limited (LGL) under Contract HK/2015/01 Wan Chai Development Phase II and Central Wanchai Bypass Sampling, Field Measurement and Testing Works (Stage 3) from 27 December 2015 in continuation of the previous Environmental Team employed under Contact HK/2011/07 Wan Chai Development Phase II and Central Wanchai Bypass Sampling, Field Measurement and Testing Works (Stage 2).

Construction Activities for the Reported Period

- iii. During this reporting period, the major work activities for Contract no. HK/2009/01 included:
 - Nil
- iv. During this reporting period, the major work activities for Contract no. HK/2009/02 included:
 - Nil
- v. During this reporting period, the major work activities for Contract no. HY/2009/15 included:
 - Reinstatement of vertical seawall at TPCWAE
- vi. During this reporting period, the major work activities for Contract no. HY/2009/19 included:
 - Nil
- vii. During this reporting period, the major work activities for Contract no. HK/2012/08 included:
 - Construction of culvert
 - Construction of dry dock
 - Trimming of rock bedding
- viii. During this reporting period, the major work activities for Contract no. HY/2010/08.
 - Diversion pipe maintenance

Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (January 2016)

Noise Monitoring

- ix. Two limit level exceedances were recorded at noise monitoring station M1a Habour Road Sports Center on 12 and 19 January 2016. The exceedances were concluded as non-project related.
- x. 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

xi. As the land-based piling and filling works under DP3 at Tin Hau had been completed on 3 September 2012 and the marine piling works at North Point has been completed on 4 March 2013 as confirmed by RSS, the reporting of real-time noise monitoring results for RTN1 - FEHD Hong Kong Transport Section Whitfield Depot and RTN2a – Hong Kong Electric Centre was excluded from EP-356/2009 from November 2012 and January 2016 respectively while the reporting of the real-time noise monitoring result under EP-364/2009/D for the above monitoring stations would be continued

Air Quality Monitoring

- xii. Due to interruption of electricity, the 24hr TSP was rescheduled as follows:
 24hr TSP at CMA5b was rescheduled from 9 and 21 January 2016 to 11 and 22 January 2016 respectively.
- xiii. No action or limit level exceedance for TSP monitoring was recorded in the reporting month.
- xiv. 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 in the reporting month.

Water Quality Monitoring

- xv. With respect to the marine works undertaken at WCR3 by Contract HK/2009/02, the respective water quality monitoring station C1 associated with Contract HK/2009/01 was updated as in association with Contract HK/2009/01 and Contract HK/2009/02.
- xvi. With respect to the marine works undertaken at CBTS by Contract HY/2010/08, the respective water quality monitoring station C7 associated with Contract HY/2009/15 was updated as in association with Contract HY/2009/15 and Contract HY/2010/08.
- xvii. With respect to the marine works undertaken at HKCEC2 by Contract HK/2012/08, the respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08.



Table I Summary of Water Quality Monitoring Exceedances in Reporting Month

	Water quality			Mid-flood Mid-ebb									
Contract no.	monitoring	D	0	Turb	idity	S	S	D	0	Turb	idity	S	S
	Station	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
	WSD19	0	0	5	0	0	0	0	0	0	0	0	0
	P1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	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	4	0	0	0	0	0	1	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	2	0	0	0	0	0	0	1	0	0
Total	Total		0	11	0	0	0	0	0	1	1	0	0

Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011 and the water quality monitoring at C6 was then terminated since 17 May 2011.

- 4-week post construction water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012 and the water quality monitoring at WSD 10 and WSD15 were temporary suspended since 8 Feb 2012, and WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 2012 onwards.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- C8 & C9 were temporary suspended since 30 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
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
- The water quality monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.
- xviii. There were 12 action level and 1 limit level of turbidity exceedances recorded in the reporting month
- xix. Investigation found that the turbidity exceedances recorded in this reporting month were not related to Project works. The details of the recorded exceedance can be referred to the **Section 6.4**.
- xx. 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

		Mid-f	lood	Mid-ebb		
Contract no.	Water quality monitoring Station		O	D	0	
	The state of the s	AL LL		AL	LL	
HY/2009/15 & HY/2010/08	C6	0	0	0	0	
HY/2009/15	Ex-WPCWA SW	0	1	0	1	
Total		0	1	0	1	

Remarks:

- Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
- 2. Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works
- xxi. There was no action level and 2 limit level exceedances recorded for enhanced dissolved oxygen monitoring in this reporting month. Investigation found that the exceedance was not related to Project works. The details of the recorded exceedances can be referred to the **Section 6.4**.

Complaints, Notifications of Summons and Successful Prosecutions

xxii. There was no environmental complaint received in this reporting month.

Site Inspections and Audit

xxiii. 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.

Future Key Issues

xxiv. 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

- Inspection / trimming of rockfill profile in front of seawall
- Placing berm block in front of seawall

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

· Reinstatement of vertical seawall at TPCWAE

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

Nil

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

- Construction of culvert
- · Construction of dry dock
- Trimming of rock bedding

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

• Diversion pipe maintenance



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 27th December 2015 to 26th January 2016.

1.2 Structure of the Report

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



Section 8 Environmental Site Audit – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

Section 9 Complaints, Notification of summons and Prosecution – summarizes the cumulative statistics on complaints, notification of summons and prosecution

Section 10 Conclusion



2 Project Background

2.1 Background

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

2.2 Scope of the Project and Site Description

- 2.2.1. The Project is located mainly in Wan Chai North, Causeway Bay and North Point, and is demarcated by Gloucester Road and Victoria Park Road to the south, Fenwick Pier Street to the west and Tong Shui Road Interchange to the east, as shown in *Figure 2.1*.
- 2.2.2. The study area encompasses existing developments along the Wan Chai, Causeway Bay and North Point shorelines. Major land uses include the Hong Kong Convention & Exhibition Centre (HKCEC) Extension, the Wan Chai Ferry Pier, the ex-Wan Chai Public Cargo Working Area (ex-PCWA), the Royal Hong Kong Yacht Club (RHKYC), the Police Officers' Club, the Causeway Bay Typhoon Shelter (CBTS) and commercial and residential developments.

2.2.3. The scope of the Project comprises:

- Land formation for key transport infrastructure and facilities, including the Trunk Road
 (i.e. CWB) and the associated slip roads for connection to the Trunk Road and for
 through traffic from Central to Wan Chai and Causeway Bay. The land formed for the
 above transport infrastructure will provide opportunities for the development of an
 attractive waterfront promenade for the enjoyment of the public
- Reprovisioning / protection of the existing facilities and structures affected by the land formation works mentioned above
- Extension, modification, reprovisioning or protection of existing storm water drainage outfalls, sewerage outfalls and watermains affected by the revised land use and land formation works mentioned above

- Upgrading of hinterland storm water drainage system and sewerage system, which
 would be rendered insufficient by the land formation works mentioned above
- Provision of the ground level roads, flyovers, footbridges, necessary transport facilities and the associated utility services
- Construction of the new waterfront promenade, landscape works and the associated utility services
- The Trunk Road (i.e. CWB) within the study area and the associated slip roads for connection to the Trunk Road.
- 2.2.4. The project also contains various Schedule 2 DPs that, under the EIAO, require Environmental Permits (Eps) to be granted by the DEP before they may be either constructed or operated. *Table 2.1* summarises the five individual DPs under this Project. *Figure 2.1* shows the locations of these Schedule 2 DPs.

Table 2.1 Schedule 2 Designated Projects under this Project

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

2.3 Division of the Project Responsibility

- 2.3.1. Due to the multi-contract nature of the Project, there are a number of contracts sub-dividing the whole works area into different work areas to be commenced. Contractors of individual contracts will be required by the EP holder to apply Further Environmental Permits (FEP) such that the impact monitoring stations are sub-divided accordingly to facilitate the implementation of EM&A programme and to streamline the EM&A reporting for individual FEP holders correspondingly.
- 2.3.2. The details of individual contracts are summarized in *Table 2.2*.



Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong	DP3, DP6	23 July 2010
	Kong Convention and Exhibition Centre	DP1, DP2	25 August 2011
HK/2009/02	Wan Chai Development Phase II –	DP3, DP5	5 July 2010
	Central – Wan Chai Bypass at WanChai East	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	DP3	10 November 2010
	(Causeway Bay Typhoon Shelter Section)	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	Contractor under Contract no.	Project Manager	Mr. Simon Liu	9304 8355	2587 1878
Joint Venture	HK/2009/01	Site Agent	Mr. Andy Yu	9648 4896	
		Construction Manager	Mr. Terry Wong	9757 9846	
		Construction Manager	Mr. Wyman Wong	9627 2467	
		Construction Manager	Mr. Terry Tsang	6683 9394	
		Environmental Officer	Ms. Wendy Ng	9803 0057	
		Assistant Environmental Engineer	Miss. Connie Chan	6157 7057	
Chun Wo –	Contractor under	Project Manager	Mr. Paul Yu	3658-3085	2827 9996
CRGL Joint Venture	Contract no. HK/2009/02	Quality & Environmental Manager	Mr. C.P. Ho	9191 8856	
China	Contractor under	Project Director	Chris Leung	3557 6393	2566 2192
State Constructi	Contract no. HY/2009/15	Site Manager	Y Huo	3557 6368	
on Engineerin g (HK) Ltd.		Contractor's Representative	Rex Lau	3557 6405	
g (i ii t) Ltd.		Environmental Officer	Andy Mak	3557 6347	
Chun Wo – CRGL –	Contractor under	Project Manager	Rayland Lee	3758 6788	2570 8013
MBEC_	Contract no. HY/2009/19	Site Agent	David Lau	3758 8879	
Joint Venture		Deputy Site Agent	Eric Fong	6191 9337	
		Environmental Manager / Environmental	M.H. Isa	9884 0810	
		Officer			
		Construction Manager (Marine)	Andy Chan	9879 4325	
		Construction Manager (Land)	Bear Ding	6483 6198	
		Operation Manager (Land)	Yung Kwok Wah	9834 1010	
China	Contractor	Project Director	C. N. Lai	9106 5806	2877 1522
State- Leader JV	under Contract no. HK/2012/08	Project Manager	Eddie Chung	9189 8118	
	110. 1117/2012/00	Site Agent	Keith Tse	9037 1839	

Party	Role	Post	Name	Contact No.	Contact Fax
		Environmental Officer	James Ma	9130 9549	
		Environmental Supervisor	Y. L. Ho	9856 5669	
China State	Contractor under Contract no. HY/2010/08	Project Director	Chris Leung	3467 4299	2566 8061
		Project Manager	Chan Ying Lun	3418 3001	
		Site Agent	Dave Chan	3467 4277	
		Environmental Officer	Gabriel Wong	35576466	
		Environmental Supervisor	Desmond Ho Tsz Ho	3557 6466	
Leighton	Contractor under	Project Manager	Paul Evans	2823 1111	21406799
Joint Venture	Contract no. HY/2011/08	Site Agent	Colman Wong	9730 0806	
		Environmental Officer	David Hung	9765 6161	
		Environmental Supervisor	Penny Yiu	2214 7738	
Ramboll Environ Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechni cs 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:
 - Nil
- 2.4.5. For Contract no. HY/2009/15, the principal work activities in this reporting month included:
 - Reinstatement of vertical seawall at TPCWAE
- 2.4.6. For Contract no. HY/2009/19, the principal work activity in this reporting month included:
 - Nil

- am
- 2.4.7. For Contract no. HK/2012/08, the principal work activity in this reporting month included:
 - Construction of culvert
 - Construction of dry dock
 - Trimming of rock bedding
- 2.4.8. For Contract no. HY/2010/08, no principal work activities this reporting month.
 - Diversion pipe maintenance
- 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

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

- Inspection / trimming of rockfill profile in front of seawall
- Placing berm block in front of seawall

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

Reinstatement of vertical 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

- Construction of culvert
- Construction of dry dock
- Trimming of rock bedding

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

Diversion pipe maintenance



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:
 - <u>Contract no. HK/2010/06 Wan Chai Development Phase II Central Wan Chai Bypass</u> 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.

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

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	FEP-02/356/2009	24 Mar 2010	N/A	Valid
Permit	FEP-02/364/2009	21 Apr 2010	N/A	Valid
Notification of Works Under APCO	313088	06 Jan 2010	N/A	Valid
Construction Noise Permit (CNP) for	GW-RS0706-15	30 Jun 2015	2 Jul 2015 to 1 Jan 2016	Superseded by GW-RS1338-15
non-piling equipment	GW-RS0803-15	28 Jul 2015	21 Aug 2015 to 20 Feb 2016	Valid
	GW-RS0804-15	28 Jul 2015	22 Aug 2015 to 21 Feb 2016	Valid
	GW-RS0868-15	13 Aug 2015	14 Aug 2015 to 13 Feb 2016	Valid
	GW-RS1025-15	22 Sep 2015	24 Sep 2015 to 23 Mar 2016	Valid
	GW-RS1134-15	23 Oct 2015	08 Nov 2015 to 07 May 2016	Valid
	GW-RS1135-15	23 Oct 2015	26 Nov 2015 to 25 May 2016	Valid



Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1228-15	13 Nov 2015	16 Nov 2015 to 13 May 2016	Valid
	GW-RS1309-15	27 Nov 2015	30 Nov 2015 to 26 May 2016	Valid
	GW-RS1338-15	11 Dec 2015	1 Jan 2016 to 30 June 2016	Valid
	GW-RS0041-16	22 Jan 2016	25 Jan 2016 to 23 Jul 2016	Valid
Discharge Licence	WT00021138-2015	13 Apr 2015	31 Mar 2020	Valid
	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)	EP/MD/16-094	08 Oct 2015	13 Oct 2015 to 12 Apr 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal)	-	-	-	-

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
	Silt Curtain Deployment Plan (Rev. 5)	24 Aug 2012
Condition 2.8	Silt Curtain Deployment Plan (Rev. 4)	12 July 2012
Condition 2.8	Silt Curtain Deployment Plan (Rev. 3)	27 June 2012
	Silt Curtain Deployment Plan	19 Apr 2010



EP Condition	Submission	Date of Submission
	Silt Screen Deployment Plan (Rev. 9)	5 Nov 2015
	Silt Screen Deployment Plan (Rev. 8)	7 Sep 2015
	Silt Screen Deployment Plan (Rev. 7)	21 Nov 2014
Condition 2.9	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
0	Supplementary Document on Silt Curtain and Silt Screen Deployment Plan	19 Jul 2010
Conditions 2.8 and 2.9	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
	GW-RS0709-15	30 June 2015	2 Jul 2015 to 1 Jan2016	Expired
	GW-RS0716-15	30 June 2015	4 Jul 2015 to 27 Dec 2015	Expired
	GW-RS1006-15	15 Sep 2015	18 Sep 2015 to 14 Mar2016	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS1150-15	26 Oct 2015	28 Oct 2015 to 27 Apr 2016	Valid
equipment	GW-RS1187-15	28 Oct 2015	30 Oct 2015 to 27 Apr 2016	Valid
	GW-RS1413-15	24 Dec 2015	2 Jan 2016 to 1 Jul 2016	Valid
	GW-RS1474-15	5 Jan 2016	8 Jan 2016 to 5 Apr 2016	Valid
	WT00008982-2011	26 Apr 2011	30 April 2016	Valid
Discharge Licence	WT00009691-2011	1 Aug 2011	31 July 2016	Valid
	WT00022295-2015	12 Aug 2015	31 July 2020	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/16-034	26 Jun 2015	1 Jul 2015 to 31 Dec 2015	Expired
, ,	EP/MD/16-146	24 Dec 2015	1 Jan /2016 to 30 Jun 2016	Valid

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

EP Condition	Submission	Date of Submission
Condition 1.12	Commencement Date of Construction of Marine Works	8 April 2010



EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	10 April 2010
Condition 2.7	Works Schedule and Location Plans	8 April 2010
	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
Condition 2.8	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
	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
Condition 2.9	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
	Landscape Plan (Decorative Screen Hoarding)	11 May 2010
0 111 0 10	Landscape Plan (Control of Night Time Lighting)	2 June 2010
Condition 2.18	Landscape Plan (Combined Version)	20 July 2011
	Landscape Plan (Combined Version)	5 Aug 2011
	Acknowledge of Submission	22 Aug 2011

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

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 FEP-04/356/2009 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-RS0893-15	17 Aug 2015	17 Aug 2015 to 16 Feb 2016	Valid
Construction Noise Permit (CNP) for reclamation and d-wall works at Ex-PCWA	GW-RS1160-15	26 Oct 2015	28 Oct 2015 to 25 Apr 2016	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	4 Jan 2016	17 Jan 2016 to 16 Apr 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-051	3 Aug 2015	5 Aug 2015 to 30 Jan 2016	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

Lam Geotechnics Limited

Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (January 2016)

FEP Condition	Submission	Date of Submission
	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
Condition 2.23	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*.

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

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
Construction Noise Permit (CNP) (For Portion Vi Marine)	GW-RS0909-15	21 Aug 2015	21 Aug 2015 to 20 Feb 2016	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	-

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

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 FEP-06/356/2009 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-RS0838-15	31 Jul 2015	3 Aug 2015 to 2 Feb 2016	Valid
	GW-RS0835-15	3 Aug 2015	5 Aug 2015 to 2 Feb 2016	Valid
	GW-RS1012-15	22 Sep 2015	27 Sep 2015 to 26 Mar 2016	Valid
	GW-RS0976-15	7 Sep 2015	23 Sep 2015 to 22 Mar 2016	Valid
	PP-RS0024-15	17 Sep 2015	22 Sep 2015 to 21 Mar 2016	Valid
	GW-RS0921-15	26 Aug 2015	9 Sep 2015 to 8 Mar 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-037	30 Jun 2015	2 Jul 2015 to 1 Jan 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	EP/MD/16-135	27 Nov 2015	2 Dec 2015 to 1 Jan 2016	Expired
	EP/MD/16-156	25 Jan 2016	27 Jan 2016 to 26 Feb 2016	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



FEP Condition	Submission	Date of Submission
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 FEP-07/356/2009 are shown in Table 3.11 and Table 3.12.

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

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-07/356/2009	26 Jul 2013	NA	Valid
	FEP-10/364/2009/B	26 Jul 2013	NA	Valid
Notification of Works Under APCO	357176	2 Apr 2013	NIL	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C11 69-44	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance	7017170	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance (Dumping by Vessel)	7020947	22 Dec 2014	NIL	Valid.
Water Discharge Licence	WT00020753-2015	3 Feb 2015	28 Feb 2017	Valid
Construction Noise Permit	GW-RS1039-15	23 Sep 2015	23 Sep 2015 to 21 Mar 2016	Valid
	GW-RS1137-15	22 Oct 2015	22 Oct 2015 to 20 Apr 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-057	10 Aug 2015	12 Aug 2015 to 11 Feb 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	NIL	NIL	NIL	NIL

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 (rev02)	18 Feb 2015
Condition 2.23	Noise Management Plan (rev02)	25 Mar 2014
Condition 2.24	Landscape Plant (rev04)	23 Sep 2014

Contract No. HK/2015/01

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	
МЗа	Tung Lo Wan Fire Station	
M4b	Victoria Centre	
M5b	City Garden	
M6	HK Baptist Church Henrietta Secondary School	

REAL-TIME NOISE MONITORING STATIONS

As the land-based piling and filling works under DP3 at Tin Hau had been completed on 3 September 2012 and the marine piling works at North Point has been completed on 4 March 2013 as confirmed by RSS, the reporting of real-time noise monitoring results for RTN1 -FEHD Hong Kong Transport Section Whitfield Depot and RTN2a - Hong Kong Electric Centre was excluded from EP-356/2009 from November 2012 and January 2016 respectively while the reporting of the real-time noise monitoring result under EP-364/2009/D for the above monitoring stations would be continued.

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.3. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq). Leq (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, Leg (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.
- 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.
- 4.1.5. 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

- 4.1.6. As referred to in the Technical Memorandum ™ 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.
- 4.1.7. 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 4.2* and *Figure 4.1*. *Appendix 4.1* shows the established Action/Limit Levels for the monitoring works.

Table 4.2 Air Monitoring Station

		I
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 be demonstrated to the satisfaction of the ER and IEC. IEC shall regularly audit to 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 <u>Figure 4.1</u> 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. Water quality monitoring was undertaken at 1 WSD salt water intakes and 7 cooling water intakes along the seafront of the Victoria Harbour in the reporting month. The proposed water quality monitoring stations of the Project are 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 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing	
WSD Salt Water Int	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	
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 / China Resources Building	836268.0	816020.0	

Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011 and the water quality monitoring at C6 was then terminated since 17 May 2011.



- 4-week post construction water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012 and the water quality monitoring at WSD 10 and WSD15 were temporary suspended since 8 Feb 2012, and WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 2012 onwards.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- C8 & C9 were temporary suspended since 30 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
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8
 September 2014 flood tide.
- The water quality monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

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 4.4* 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 4.4 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:

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

DISSOLVED OXYGEN AND TEMPERATURE MEASURING EQUIPMENT

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

TURBIDITY MEASUREMENT INSTRUMENT

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

SAMPLER

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

SAMPLE CONTAINER AND STORAGE

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

WATER DEPTH DETECTOR

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

SALINITY

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

MONITORING POSITION EQUIPMENT



4.3.15. A hand-held or boat-fixed type digital Global Positioning System (GPS) with waypoint bearing indication or other equivalent instrument of similar accuracy shall be provided and used during monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

CALIBRATION OF IN-SITU INSTRUMENTS

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

LABORATORY MEASUREMENT / ANALYSIS

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

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

- 4.3.21. The enhanced water quality monitoring and audit programme is to avoid aggravation of odour nuisance from seawater arising from temporary reclamation in the ex-Wan Chai Public Cargo Working Area and the Causeway Bay Typhoon Shelter.
- 4.3.22. Dissolved oxygen monitoring at the intakes C6 and C7 in Causeway Bay Typhoon Shelter when there is temporary reclamation in Causeway Bay Typhoon Shelter and at the south-western and south-eastern corners of the ex-Wan Chai Public Cargo Working Area. The proposed water quality monitoring stations of the Project are shown in *Table 4.5* and *Figure 4.1*.

Table 4.5 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			



Remarks:

- Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
- 2. Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works
- 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 turbidty 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 sahll 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 DISSOVLED 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 <u>Figure 2.1</u> and <u>Figure 4.1</u>. 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. Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 12 and 19 January 2016 in this reporting month.
- 5.1.3. Breaking and piling works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 12 and 19 January 2016. As such, the exceedance was considered as non-Project related.

5.1.4. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> <u>5.2.</u>

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

5.1.5. 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		
МЗа	Tung Lo Wan Fire Station		

- 5.1.6. No action or limit level exceedance was recorded in this reporting month.
- 5.1.7. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> <u>5.2.</u>

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

5.1.8. 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		

- 5.1.9. No action of limit level exceedance was recorded in this reporting month.
- 5.1.10. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> <u>5.2.</u>



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

5.1.11. 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
МЗа	Tung Lo Wan Fire Station

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

5.2 Air Monitoring Results

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

5.2.1 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

5.2.2 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/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at WanChai East

5.2.3 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.

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

Station	Description		
CMA4a	Society for the Prevention of Cruelty to Animals		

5.2.4 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*.

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

5.2.5 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



5.2.6 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

5.2.7 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		

5.2.8 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*.

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

5.2.9 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

5.2.10 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 <u>Appendix 5.3</u>.

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

The proposed division of air monitoring stations are summarized in *Table 5.11* below.

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

Station	Description
CMA3a	CWB PRE Site Office

5.2.11 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 <u>Appendix 5.3</u>.



5.3 Water quality monitoring Results

- 5.3.1. With respect to the marine works undertaken at WCR3 by Contract HK/2009/02, the respective water quality monitoring station C1 associated with Contract HK/2009/01 was updated as in association with Contract HK/2009/01 and Contract HK/2009/02.
- 5.3.2. With respect to the marine works undertaken at CBTS by Contract HY/2010/08, the respective water quality monitoring station C7 associated with Contract HY/2009/15 was updated as in association with Contract HY/2009/15 and Contract HY/2010/08.
- 5.3.3. With respect to the marine works undertaken at HKCEC2 by Contract HK/2012/08, the respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08.

Table 5.12 Water quality 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 quality 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 ² , 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 quality monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.
- 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)
- 3. The water quality 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. Enhanced DO Monitoring at C6 since the intake abandon in May 2011.

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

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



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

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

5.3.5. No action or limit level exceedances recorded in this reporting month.

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

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

Table 5.14 Water quality 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 Inta	Cooling Water Intake / WSD Salt Water Intake				
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/WSD Wanchai salt water intake / China Resources Building	836268.0	816020.0		

- 5.3.7 There were 5 action level turbidity exceedances recorded at RW21-P789 on 30 December 2015,15, 20, 22 and 25 January 2016 in the reporting month.
- 5.3.8 After checking with the contractor, no marine construction activity was conducted on 30 December 2015, 15, 20, 22 and 25 January 2016. The installed silt screen was generally in order. In view of no marine activity conducted and no exceedance was recorded during the subsequent monitoring on 2 January 2016 ebb tide, 18 January 2016 flood tide, 20 January 2016 ebb tide, 22 January 2016 ebb tide and 27 January 2016 ebb tide, it was considered that the exceedances were not project related.

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

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

Table 5.15 Water quality 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				
P1	HKCEC Phase I	835774.7	816179.4	
P3	The Academy of performing	835824.6	816212.0	



Station Ref.	Location	Easting	Northing
	Arts		
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2

- 5.3.10 There were 5 action level turbidity exceedances recorded at WSD19 on 28 and 30 December 2015, 18, 20 and 25 January 2016 in the reporting month.
- 5.3.11 After checking with contractor, despite trimming of grade 400 rock mound was conducted near Zone D on 28 December 2015, 18, 20 and 25 January 2016, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above, and no exceedance was recorded during the subsequent monitoring on 30 December 2015 ebb tide, 18 January 2016 ebb tide, 20 January 2016 ebb tide and 27 January 2016 ebb tide, the exceedances were considered not project related.
- 5.3.12 Despite trimming of armour rocks was conducted near Zone B/A2 on 30 December 2015, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

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

5.3.13 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 quality monitoring stations are summarized in **Table 5.16** and **Table 5.17** below.

Table 5.16 Water quality 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 quality monitoring at C6 was then terminated since 17 May 2011.

Table 5.17 Enhance Dissolved Oxygen Monitoring Stations for Contract no. HY/2009/15

Station Ref.	Location
C6	Excelsior Hotel
Ex-WPCWA SW	South-western of the ex-Wan Chai Public Cargo Working Area

Remarks:

1.Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.

- 2. Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works
- 5.3.14 There were 2 limit level DO exceedances recorded at Ex-WPCWA SW on 2 January 2016 in the reporting month.
- 5.3.15 After checking with contractor, despite seawall reinstatement works was conducted at TPCWAE on 2 January 2016, contractor mitigation measures including the use of silt curtain was generally in order while upstream discharge from nearby culvert was noted. In view of the above, the exceedance was considered not related to Project works. The DO level has returned to normal level on 4 January 2016 flood tide.
- 5.3.16 There were 2 action level and 1 limit level turbidity exceedances recorded at C7 on 30 December 2015, 4 and 22 January 2016 in the reporting month.
- 5.3.17 After checking with contractor, no marine construction activities was conducted at Causeway Bay Typhoon Shelter on 30 December 2015, 4 and 22 January 2016. In view of no marine construction activities was conducted and no exceedance was recorded during the subsequent monitoring on 30 December 2015 flood tide, 4 January 2016 ebb tide and 22 January 2016 ebb tide, it was considered that the exceedance was not project related.

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

5.3.18 The proposed division of water quality monitoring stations are summarized in *Table 5.18* and *Table 5.19* below:

Table 5.18 Water quality monitoring Stations for Contract no. HY/2010/08

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

Table 5.19 Enhance Dissolved Oxygen Monitoring Stations for Contract no. HY/2010/08

Station Ref.	Location
C6	Excelsior Hotel

Remarks:

- 1.Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
- 5.3.19 There were 2 action and 1 limit level turbidity exceedances recorded at C7 on 30 December 2015, 4 and 22 January 2016 in the reporting month.
- 5.3.20 After checking with contractor, no marine construction activities was conducted on 30 December 2015, 4 and 22 January 2016. The installed silt screen was in place. In view of no marine construction activities was conducted and no exceedance was recorded during the subsequent monitoring on 30 December 2015 flood tide, 4 January 2016 ebb tide and 22 January 2016 ebb tide, it was considered that the exceedance was not project related.

Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (January 2016)

5.3.21 Water quality 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**.



5.4 Waste Monitoring Results

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

5.4.1. 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 5.20 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, m³	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), m³	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

5.4.2. 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.

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

5.4.3. 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 5.21*.

Table 5.21 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, m³	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	NIL	240222 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m ³	NIL	146445 (Bulk volume)	East of Sha Chau

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

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

5.4.5. 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 5.22*

Table 5.22 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
diopeood, m	NIL	65216	TKO137 FB	NIL
Inert C&D materials recycled, m ³	NIL	304	Ex-PCWA	NIL
recycled, m	NIL	111.9	TS4	NIL
Non-inert C&D materials disposed, m³	NIL	252.2	SENT Landfill	NIL
Non-inert C&D materials recycled, kg	NIL	299361.5	N/A	NIL



Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Chemical waste disposed, kg	NIL	8,200	N/A	NIL
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk Volume)	156909 (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)	322796 (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), m³	NIL	9350 (Bulk Volume)	East of Sha Chau	Dredging from Eastern Breakwater of CBTS
Marine Sediment (Type 1 – Open Sea Disposal) , m3	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) , m3	NIL (Bulk Volume)	14,780 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynehetic Containers), m3	NIL (Bulk Volume)	2,760 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

5.4.6. There were no Type 1 Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed, and no Type 1 Open Sea Disposal disposed in this reporting month.

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

5.4.7. 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 5.23*.

Table 5.23 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, m³	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) , m³	NIL	681	East Sha Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3		4976.00	

5.4.8. 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.

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

5.4.9. There was no 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 5.24*.

Table 5.24 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, m³	NIL	4131	TM38
Inert C&D materials recycled, m³	NIL	NIL	N/A
Non-inert C&D materials disposed, m³	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), m³	NIL (Bulk volume)	31759 (Bulk volume)	South of Cheung Chau

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
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)

5.4.10. There were 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)

5.4.11. No 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 5.25*

Table 5.25 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	267660.2	N/A
Inert C&D materials recycled, m³	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	55290	South Cheung Chau / Brothers Island *
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

Remarks: Under the condition of EP/MD/15-169, dredged sediment required to dispose at South of the Brothers since 9 Feb 2015.

5.4.12. 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

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

- 6.1.1 Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 12 and 19 January 2016 in this reporting month.
- 6.1.2 Breaking and piling works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 12 and 19 January 2016. As such, the exceedance was considered as non-Project related.
 - Contract no. HK/2009/02 Wan Chai Development Phase II Central Wan Chai Bypass at WanChai East
- 6.1.3 Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 12 and 19 January 2016 in this reporting month.
- 6.1.4 Breaking and piling works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 12 and 19 January 2016. As such, the exceedance was considered as non-Project related.
 - <u>Contract no. HY/2009/15 Central-Wanchai Bypass Tunnel (Causeway Bay Typhoon</u> Shelter Section)
- 6.1.5 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
- 6.1.6. No exceedance was recorded in the reporting month.
 - Contract no. HY/2010/08 Central-Wanchai Bypass Tunnel (Slip Raod 8 Section)
- 6.1.7. 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. No limit level exceedance was recorded in the reporting month.

6.3 Air Monitoring

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

6.3.1 No exceedance was recorded in the reporting month.



<u>Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel)</u>

6.3.2 No exceedance was recorded in the reporting month.

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

6.3.3 No exceedance was recorded in the reporting month.

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

6.3.4. 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

6.3.5. No exceedance was recorded in the reporting month.

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

6.3.6. 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.

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

- 6.4.2 There were 5 action level turbidity exceedances recorded at RW21-P789 on 30 December 2015, 15, 20, 22 and 25 January 2016 in the reporting month.
- 6.4.3 After checking with the contractor, no marine construction activity was conducted on 30 December 2015, 15, 20, 22 and 25 January 2016. The installed silt screen was generally in order. In view of no marine activity conducted and no exceedance was recorded during the subsequent monitoring on 2 January 2016 ebb tide, 18 January 2016 flood tide, 20 January 2016 ebb tide, 22 January 2016 ebb tide and 27 January 2016 ebb tide, it was considered that the exceedances were not project related.

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

6.4.4 There were 2 limit level DO exceedances recorded at Ex-WPCWA SW on 2 January 2016 in the reporting month.

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- 6.4.5 After checking with contractor, despite seawall reinstatement works was conducted at TPCWAE on 2 January 2016, contractor mitigation measures including the use of silt curtain was generally in order while upstream discharge from nearby culvert was noted. In view of the above, the exceedance was considered not related to Project works. The DO level has returned to normal level on 4 January 2016 flood tide.
- 6.4.6 There were 2 action level and 1 limit level turbidity exceedances recorded at C7 on 30 December 2015, 4 and 22 January 2016 in the reporting month.
- 6.4.7 After checking with contractor, no marine construction activities was conducted at Causeway Bay Typhoon Shelter on 30 December 2015, 4 and 22 January 2016. In view of no marine construction activities was conducted and no exceedance was recorded during the subsequent monitoring on 30 December 2015 flood tide, 4 January 2016 ebb tide and 22 January 2016 ebb tide, it was considered that the exceedance was 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.

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

- 6.4.9 There were 5 action level turbidity exceedances recorded at WSD19 on 28 and 30 December 2015, 18, 20 and 25 January 2016 in the reporting month.
- 6.4.10 After checking with contractor, despite trimming of grade 400 rock mound was conducted near Zone D on 28 December 2015, 18, 20 and 25 January 2016, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above, and no exceedance was recorded during the subsequent monitoring on 30 December 2015 ebb tide, 18 January 2016 ebb tide, 20 January 2016 ebb tide and 27 January 2016 ebb tide, the exceedances were considered not project related.
- 6.4.11 Despite trimming of armour rocks was conducted near Zone B/A2 on 30 December 2015, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

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

- 6.4.12 There were 2 action and 1 limit level turbidity exceedances recorded at C7 on 30 December 2015, 4 and 22 January 2016 in the reporting month.
- 6.4.13 After checking with contractor, no marine construction activities was conducted on 30 December 2015, 4 and 22 January 2016. The installed silt screen was in place. In view of no marine construction activities was conducted and no exceedance was recorded during the subsequent monitoring on 30 December 2015 flood tide, 4 January 2016 ebb tide and 22 January 2016 ebb tide, it was considered that the exceedance was not project related.

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Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (January 2016)

- 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 audit 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 include caisson seawall installation, ELS works, road works and drainage works and Road P1 pedestrian road reinstatement were performed in January 2016 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 tunnel works, ELS works and road works at Wan Chai East and caisson installation, D-wall construction and ELS 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, Tunnel works at Ex-PCWAW, ELS works and retaining wall construction at Victoria Park; D- wall construction, ELS works and tunnel works at TS3; IEC removal works, piling and tunnel works at North Point area in the reporting month. In addition, other non-Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects was observed undertaken at Wan Chai North area.
- 7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.



8. Environmental Site Audit

- 8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08. No non-conformance was identified during the site audits.
- 8.0.2. Four site inspections for Contract no. HK/2009/01 were conducted on 30 December 2015, 6, 13 and 21 January 2016 in reporting month. There was no particular findings observed in this reporting month.
- 8.0.3. Four site inspections for Contract no. HK/2009/02 were carried out on 31 December 2015, 7, 14 and 19 January 2016 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
151231_01	31-Dec-15	Hole of drip tray shall be	The hole of drip tray	Completion as
		covered at Portion 5	was covered at	observed on 7
			Portion 5.	January 2016
160107_1	7-Jan-16	Drip tray shall be provided to	Drip tray was	Completion as
		oil containers (P5)	provided for oil	observed on 14
			container.	January 2016
160114_01	14-Jan-16	Drip tray shall be provided for	Drip tray was	Completion as
		oil containers at Portion 5.	provided for oil	observed on 19
			containers at Portion	January 2016
			5.	

8.0.4. Four site inspections for Contract no. HY/2009/15 were carried out on 29 December 2015, 5, 12 and 26 January 2016 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

ltem	Date	Observations	Action taken by Contractor	Outcome
		Cleared the leaked oil from	Leaked oil was	Completed as
160112_1	12-Jan-2016	PME as chemical waste	cleared as chemical	observed on 12
		(EX-PCWA)	waste.	Jan 2016

- 8.0.5. Four site inspections for Contract no. HY/2009/19 were carried out on 30 December 2015, 7, 13, and 18 January 2016 in reporting month. There was no particular findings observed in this reporting month.
- 8.0.6. Five site inspections for Contract no. HK/2012/08 were carried out on 29 December 2015, 5, 12, 19 and 26 January 2016 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
151229_01	29-Dec-15	Breaker shall be covered with	Breaker was covered	Completion as
		acoustic material at Zone CE	with acoustic material	observed on 5
			at Zone CE.	January 2016

8.0.7. Six site inspections for Contract no. HY/2010/08 were carried out on 29 and 31 December 2015, 8, 12, 13 and 20 January 2016 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
151229_1	29-Dec-15	Drip tray shall be provided to oil container (TS3 North)	Oil container was removed	Completion as observed on 31 December 2015
151231_1	31-Dec-15	The wastewater treatment plant shall be critically review to avoid milky discharge (Victoria Park)	No further milky discharge was observed	Completion as observed on 8 January 2016
151231_2	31-Dec-15	Either exemption / approved of NRMM shall be provided for mechanical equipment deployed on-site (Victoria Park Road)	NRMM label was provided for the mechanical equipment	Completion as observed on 8 January 2016
160112_1	12-Jan-16	Cleaning the floating refuses and grease around the intake location (TS3 West)	Floating refuses and grease around the intake location was cleaned	Completion as observed on 13 January 2016
160112_2	12-Jan-16	NRMM label shall be provide for PME deployed on-site (TS3 North)	No further PME without NRMM label was observed	Completion as observed on 20 January 2016
160112_3	12-Jan-16	Covering shall be provided for cement bags stored on-site (TS3)	Cement bags stored on-site was removed	Completion as observed on 13 January 2016
160113_1	13-Jan-16	Drip tray shall be provide to oil containers and leaked oil shall be cleaned (TS3 North)	Oil container was removed	Completion as observed on 27 January 2016
160120_1	20-Jan-16	Critical review the operation of waste water treatment plant to avoid potential turbid discharge (TS3 North)	No further turbid discharge was observed	Completion as observed on 27 January 2016

9. Complaints, Notification of Summons and Prosecution

- 9.0.1. There was no environmental complaint received in this 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 December 2015	44
January 2016	0
Total	44

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

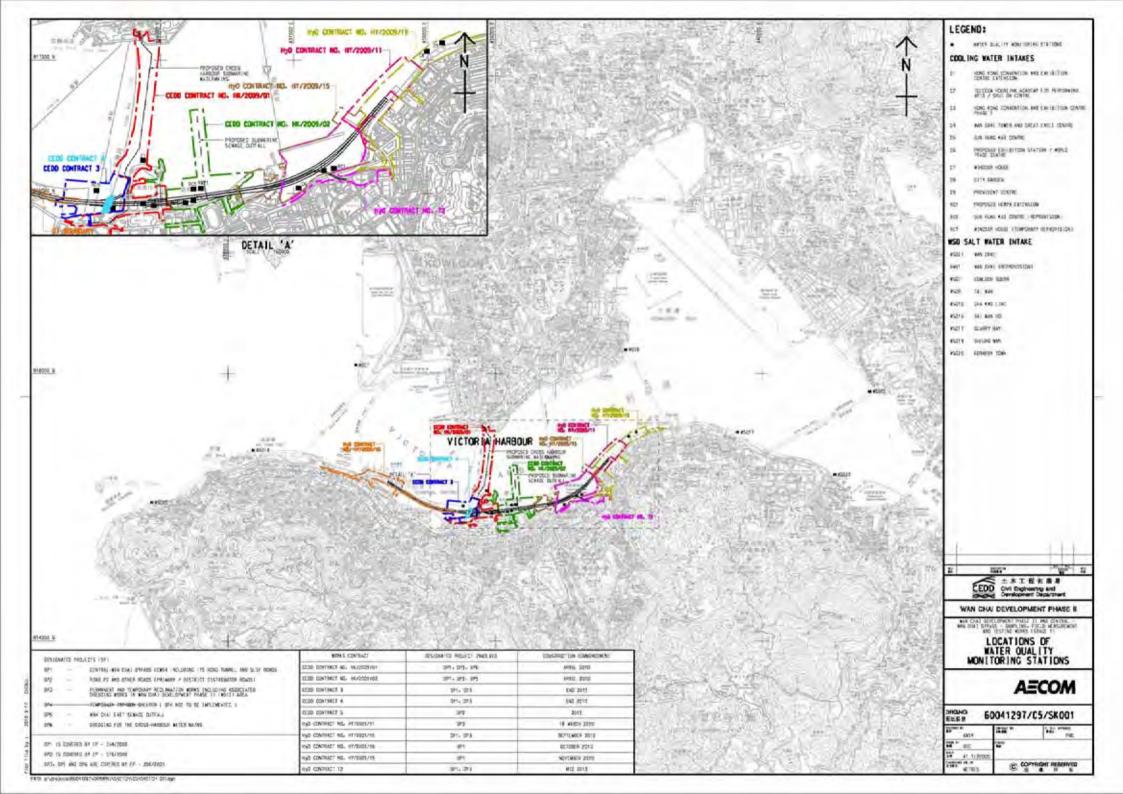
- 10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.
- 10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in *Table 10.1*.

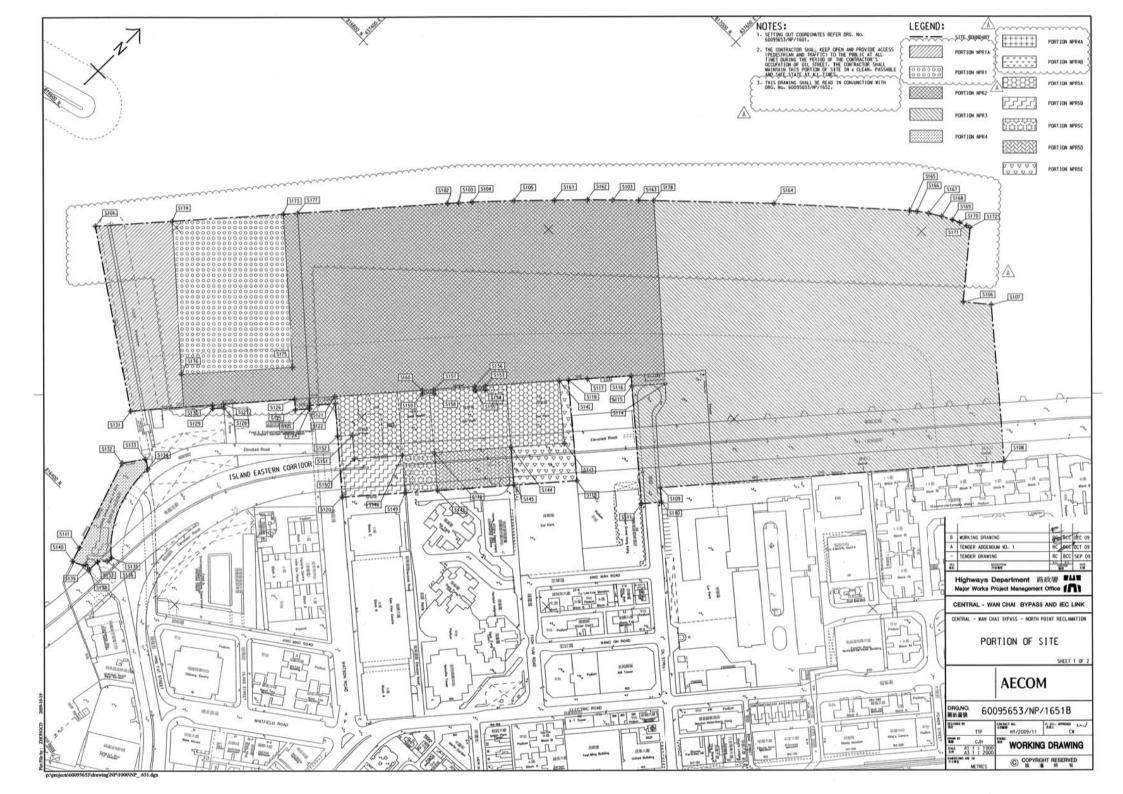
Table 10.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting Month

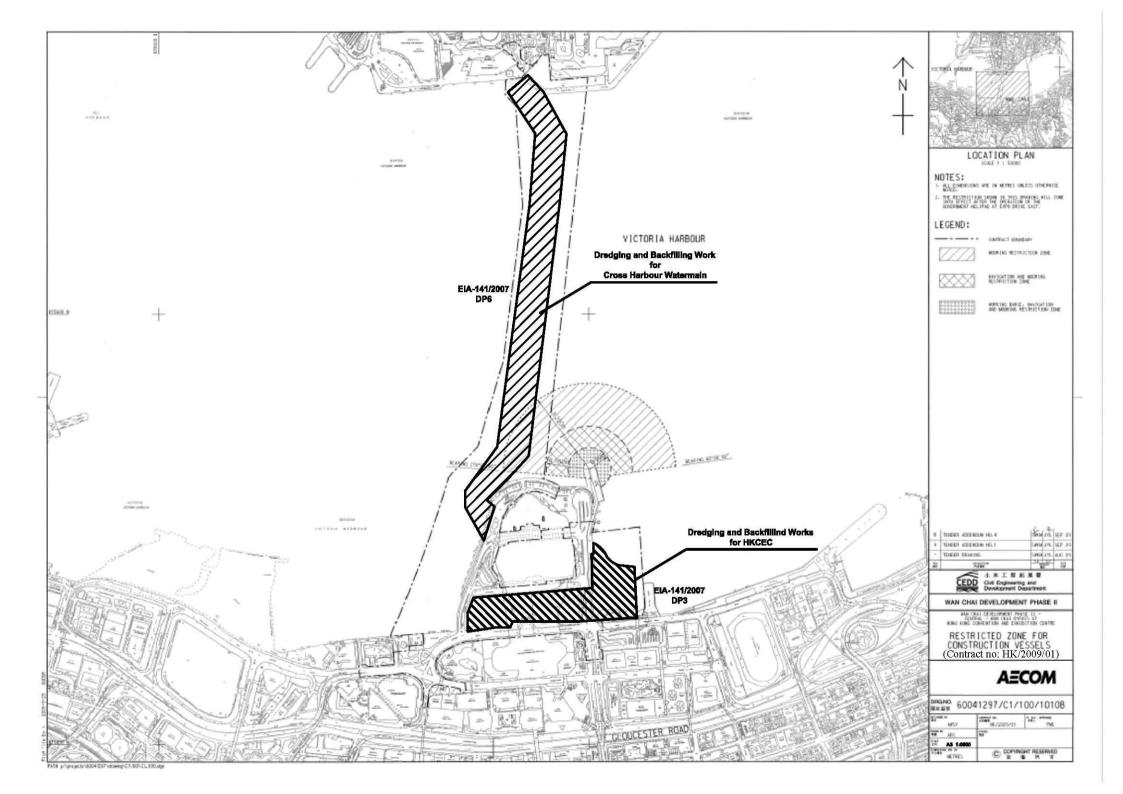
Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2009/01	• Nil	• Nil
HK/2009/02	 Inspection / trimming of rockfill profile in front of seawall Placing berm block in front of seawall 	 Daily visual inspection of silt screen and silt curtain to ensure its operation properly. Implement silt curtain in accordance with the associated plans submitted to EPD.
HY/2009/15	Reinstatement of vertical seawall at TPCWAE	 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	• Nil	• Nil
HK/2012/08	 Construction of culvert Construction of dry dock Trimming of rock bedding 	 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	Diversion pipe maintenance	 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

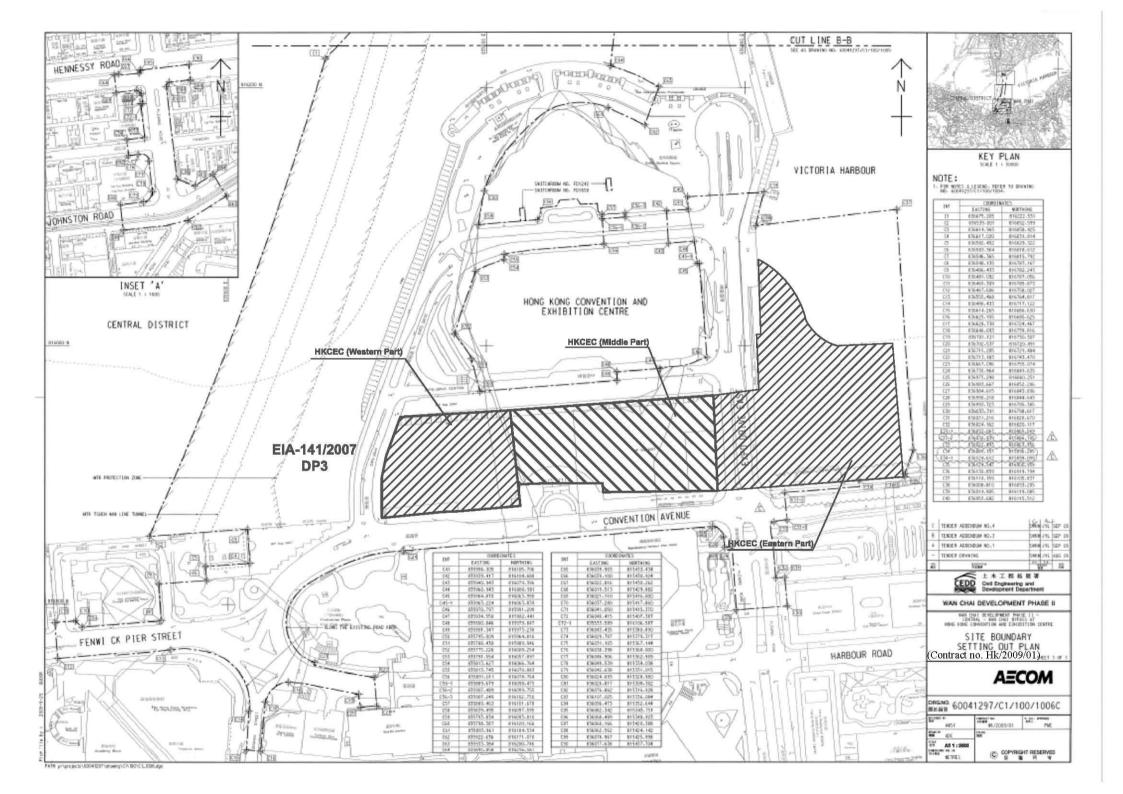
Figure 2.1

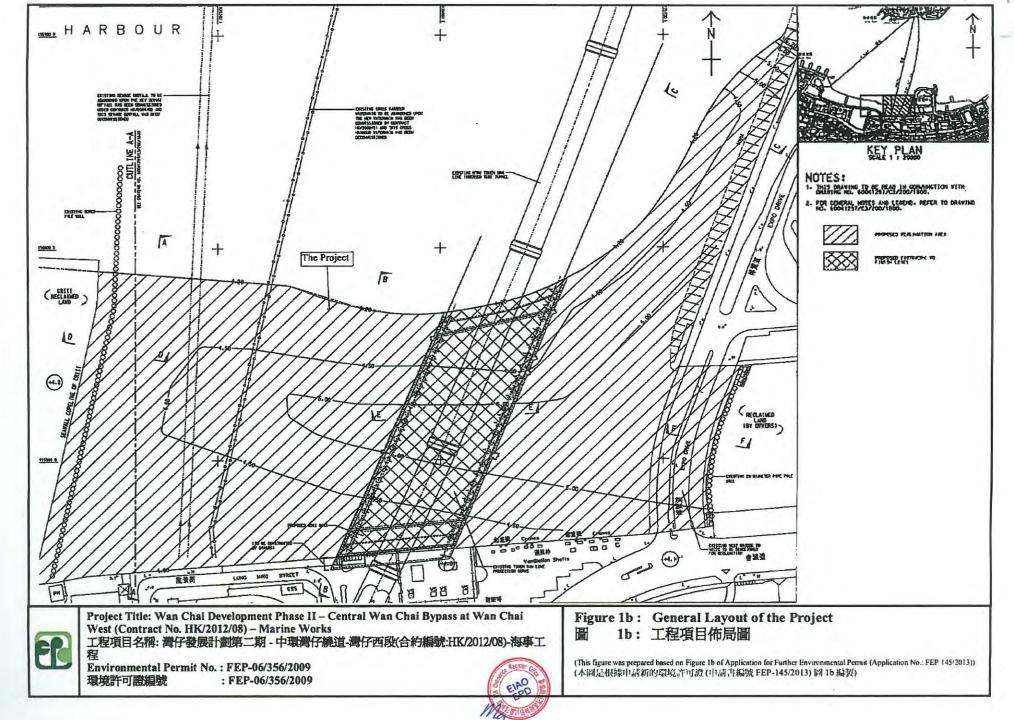
Project Layout



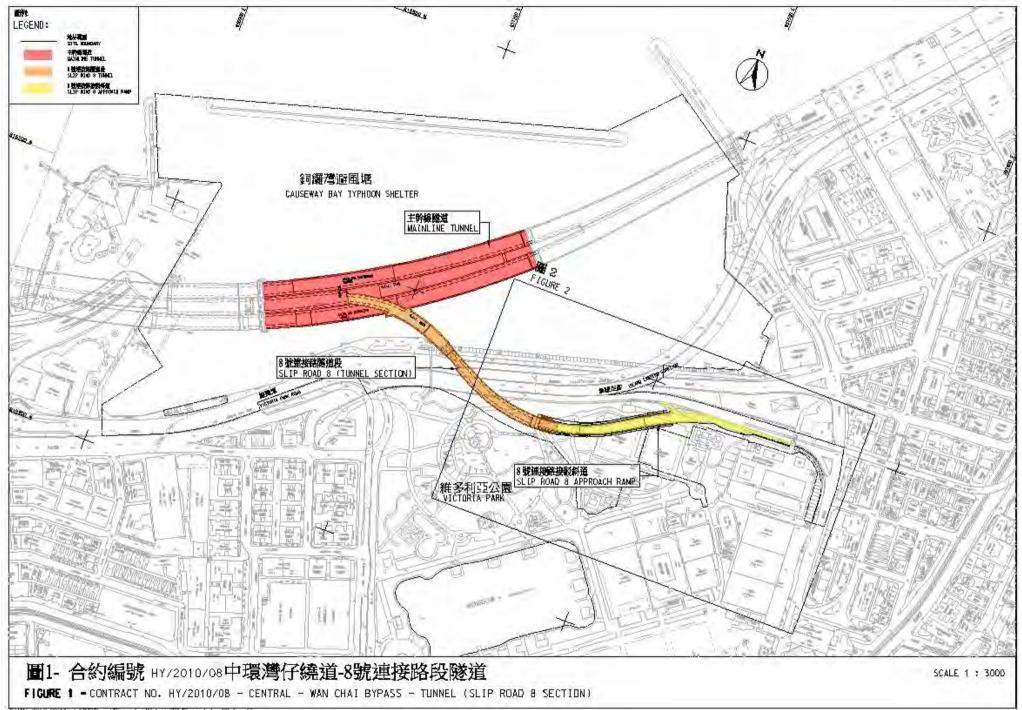


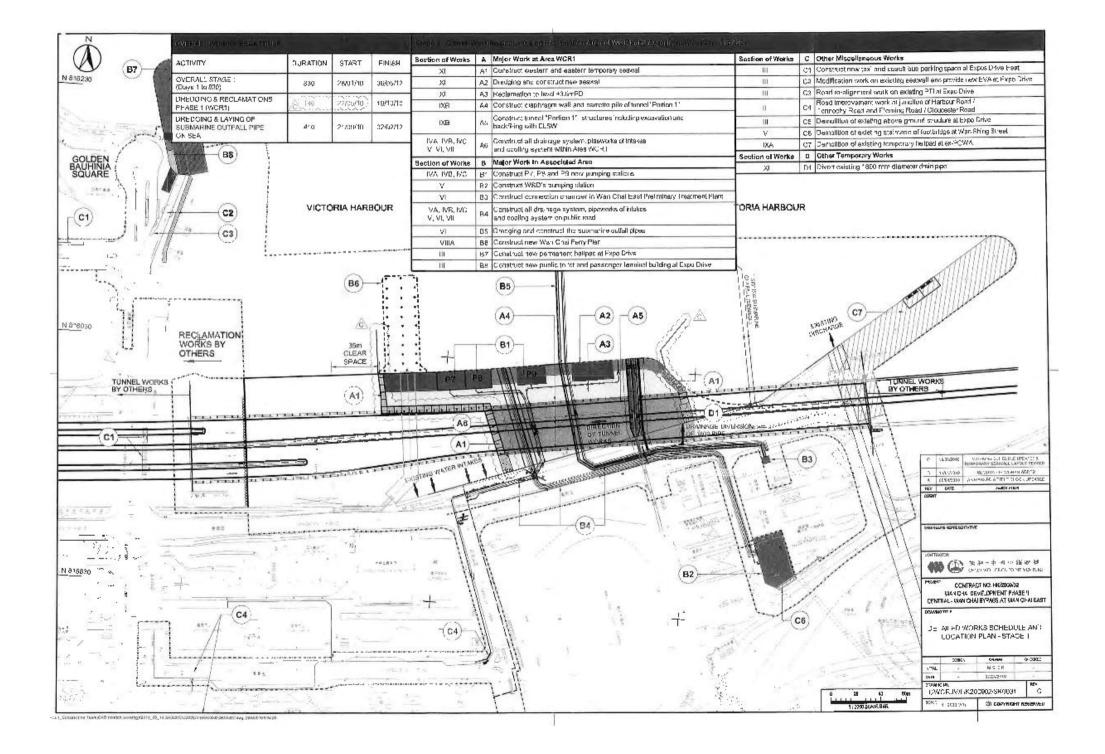












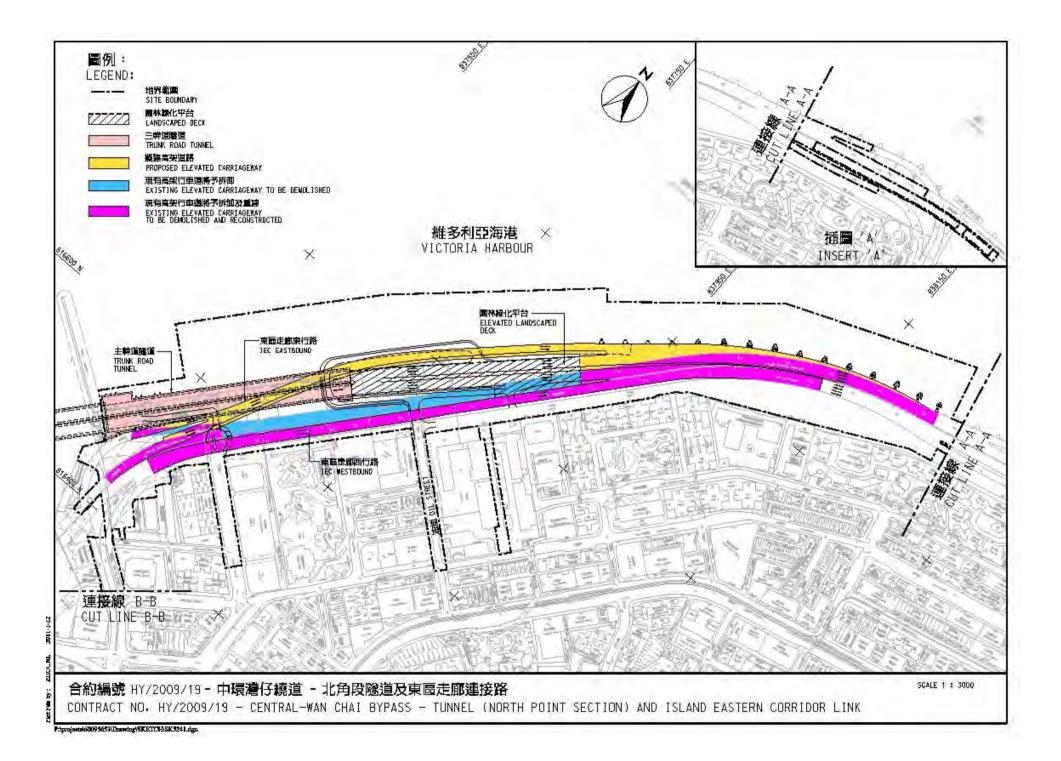


Figure 2.2

Project Organization Chart

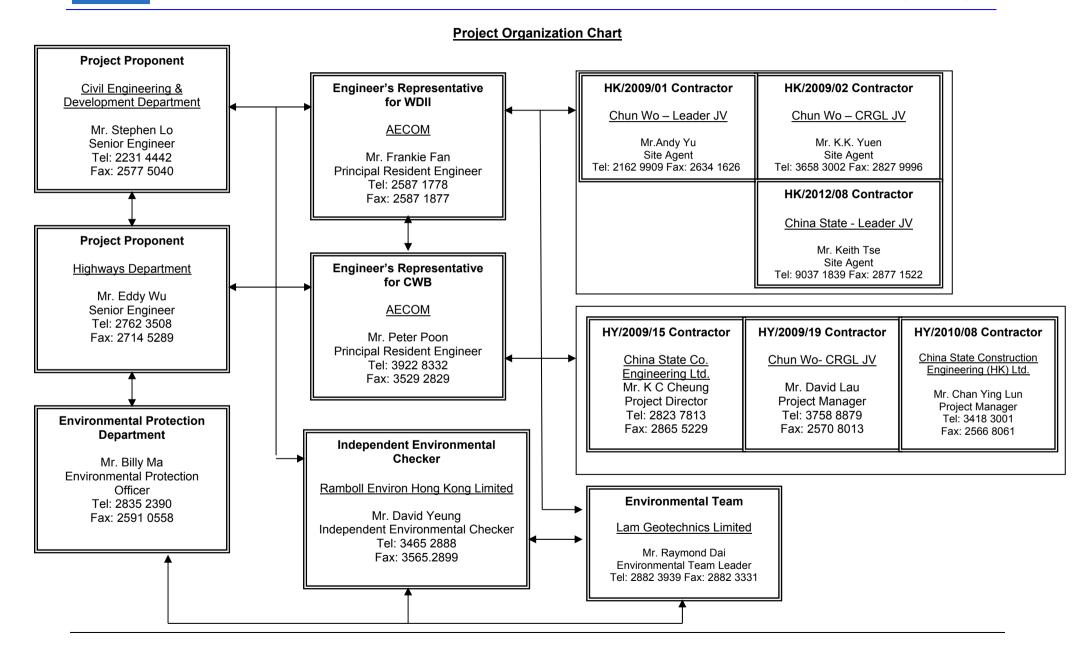
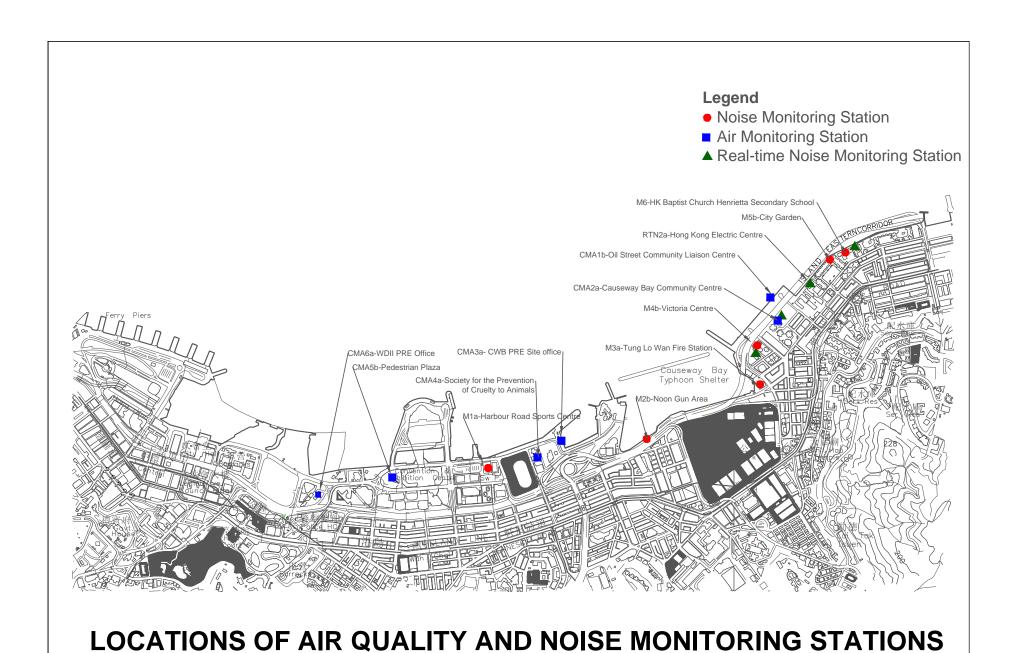
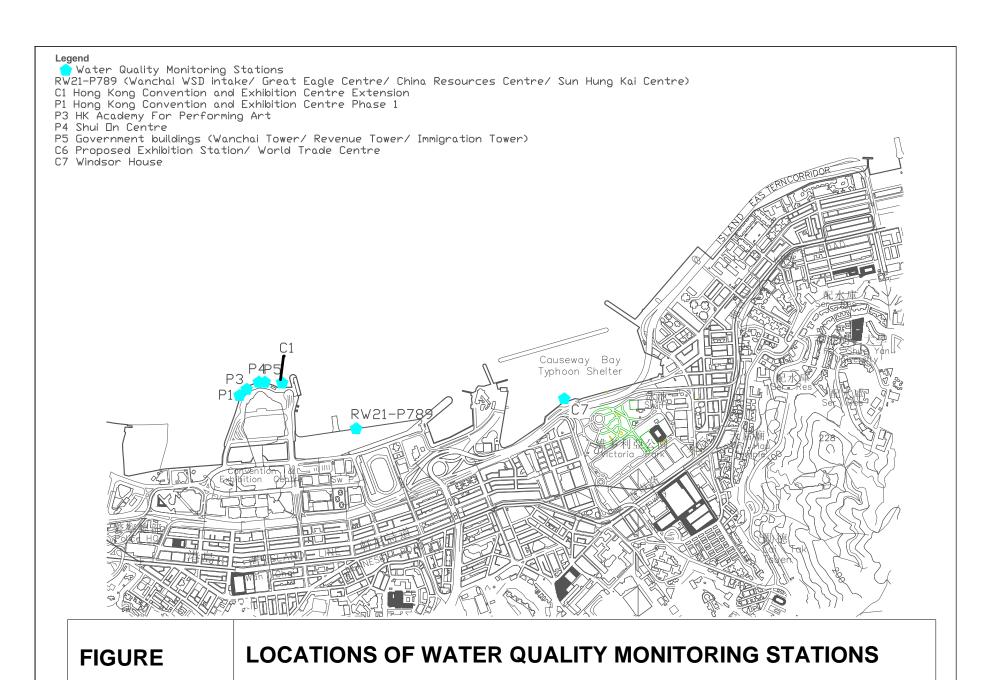
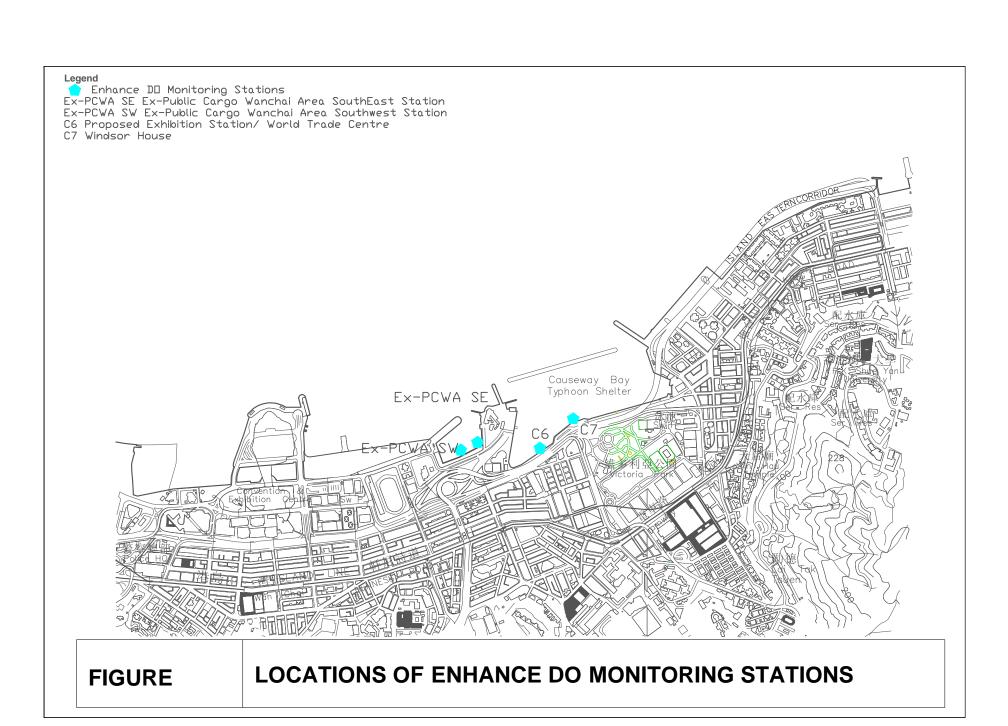


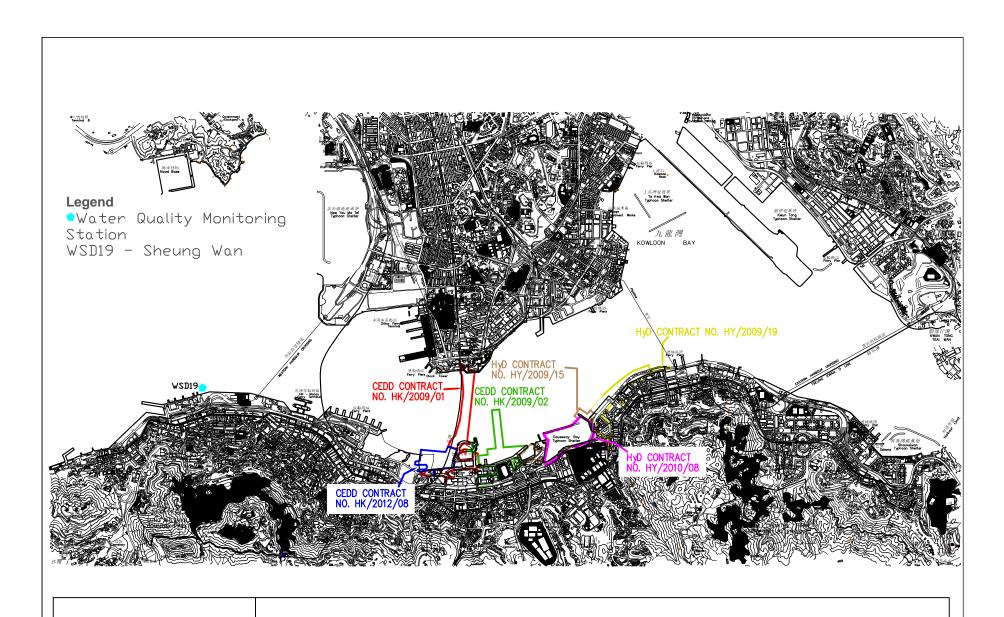
Figure 4.1

Locations of Monitoring Stations



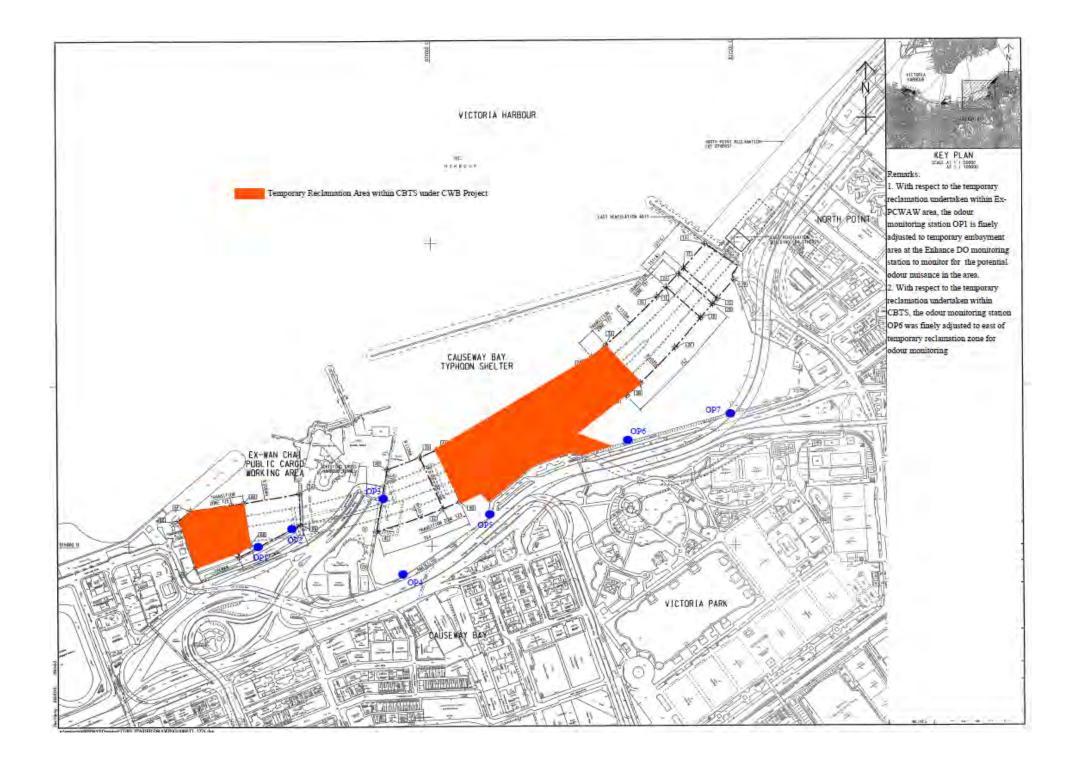






FIGURE

LOCATIONS OF WATER QUALITY MONITORING STATIONS



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	In		entati ges*	on	Relevant Legislation
			Agent	Des	C	0	Dec	and Guidelines
Constructio								
For the Who	9							·
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. • 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		٧			

Appendix 3.1

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Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
ZIII Kei	Division in the state of the st	Docution / Thinning	Agent	Des	С	0	Dec	and Guidelines
		ı	1		,			
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 <u>'</u>		V			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		V			EIAO-TM
Operation I	Phase							
For the Who	ole Project		·					

 $^{^{\}rm 1}$ CEDD will identify an implementation agent.

 $^{^{2}}$ CEDD will identify an implementation agent.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Stages			on	Relevant Legislation
			Agent	Des	C	O	Dec	and Guidelines
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 ongoing odour impacts at the ASRs.	Planned ASRs (CBTS Breakwater)/First 5-year period of operation phase	CEDD ¹			√		EIAO-TM
	CWB (Within the Project Boundary)	T	1	r			T	T
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			V		
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			1		EIAO-TM

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

Appendix 3.1

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Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

Monthly EM&A Report

Table A13.2 Implementation Schedule for Noise Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	tion / Timing	Implementation Stages*				Relevant Legislation
	Ü	_		Des	C	О	Dec	and Guidelines	
Construction	n Phase								
For the Who	ole Project								

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling	Field Measurement and	Teeting Worke	(Stane 3)
- Sampling,	rielu ivieasurement anu	TESTING WORKS	(Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation				
			Agent	Des	C	0	Dec	and Guidelines				
S4.9.4	Good Site Practice:	Work Sites / During	Contractor		√			EIAO-TM, NCO				
	Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.	Construction										
	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.											
For DP1 -	CWB (Within the Project Boundary)											

Appendix 3.1

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation
EIA Kei	Environmental Protection Measures / Mitigation Measures	Location / Tilling	Agent	Des	С	0	Dec	and Guidelines
S4.8.5 S4.8.5	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: 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 Use of PME grouping for the following tasks: At-grade road construction Substructure for IECL connection	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP2 -	WDII Major Roads (Road P2)							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: Temporary road diversion Resurfacing At-grade roadwork	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP3 - I	Reclamation Works							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following task: Filling behind seawall Seawall construction	Work Sites / During Construction	Contractor		V			EIAO-TM, NCO

Monthly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Ir	nplem Sta	entati ges*	on	Relevant Legislation
		-	Agent	Des	C	О	Dec	and Guidelines
For DP5 –	Wan Chai East Sewage Outfall							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section) Use of quiet powered mechanical equipment and movable noise	Work Sites / During Construction	Contractor		1			EIAO-TM, NCO
	barrier for the following tasks: Installation of a new pipeline (land section)							
For DP6 -	Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section) •	Work Sites / During Construction	Contractor					EIAO-TM, NCO

Appendix 3.1

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Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation				on	Relevant Legislation
	Ü	0	Agent	Des	C	O	Dec	and Guidelines
0 " "								
Operation 1								
For DP1 - 0	CWB (Within the Project Boundary)							

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entati ges*	ion	Relevant Legislation
	Ziviromatika 11000000 integration integration integration	Zocaron, Timing	Agent	Des	C	0	Dec	and Guidelines
S4.8.14 – S4.8.18	 For Existing NSRs about 235m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC about 230m length of noise semi-enclosure with transparent panel covering the main carriageways (eastbound and westbound) of the CWB and IEC about 135m length of 5.5m high cantilevered noise barrier with 3m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 95m length of 5.5m high cantilevered noise barrier with 1m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 350m length of 3.5m high vertical noise barrier with transparent panel on the eastbound slip road to the IEC low noise road surfacing for the trunk road (except tunnel section and beneath the landscaped deck at the eastern portal area) with speed limit of 70 km/hour For Future/Planned NSRs about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC 	Near North Point / Before commencement of operation of road project In between the Electric Centre (next to City Garden) and CDA(1) site / Before occupation of Planned NSRs in CDA and CDA(1) sites.	HyD	Des	V #		Dec	EIAO-TM

Appendix 3.1

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Implementation Stages*			on	Relevant Legislation
			Agent	Des	C	0	Dec	and Guidelines
	• The openable windows of the temple, if any, should be	Near Causeway Bay Fire	Project	1				
	orientated so as to avoid direct line of sight to the existing	Station / During detailed	Proponent for					
	Victoria Park Road as far as practicable.	design of the re-	the					
		provisioned Tin Hau	re-provisioned					
		Temple	Tin Hau Temple					

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

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

Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	In		entati ges*	on	Relevant Legislation
		Timing	Agent	Des	C	O	Dec	and Guidelines
Construction	on Phase							
For DP3 Boundary)	Reclamation Works, DP5 (Wan Chai East Sewage Outfall), DP6 (Cross-Harbo	our Water Mains	from Wan Chai to T	sim Sh	a Tsu	i), DP	1 – CW	B (within the Project
\$5.8	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		V			EIAO-TM, WPCO
S5.8	Dredging shall be carried out by closed grab dredger for the following works: 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		1			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: 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		V			EIAO-TM, WPCO

Appendix 3.1

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Pro	tection Measures / I	Mitigatio	n Measures		Location /	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation	
			_			Timing	Agent	Des	C	О	Dec	and Guidelines	
\$5.8		ind the temporary red I not be fully enclosed		s within the	Causeway Bay	Work site / During the construction period	Contractor		٧			EIAO-TM, WPCO	
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between CRIII 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		1			EIAO-TM, WPCO			
S5.8, Figure 5.3	than the maximum	ates in each of the m production rates state hout considering the	ed in the	table below.		Work site / During the construction period	Contractor		√			EIAO-TM, WPCO	
	Reclama	ation Area		m Dredging Rate m³ per hour (for 16 hrs per day)	Maximum Dredging Rate (m³ per week)	redging Rate m³ per							
		Dredging along seawall or breakwater											
	North Point Shoreline Z Causeway Bay Shoreline Zone	one (NPR) TBW TCBR	6,000 1,500 6,000	375 94 375	42,000 10,500 42,000								
	PCWA Zone	•	5,000	313	35,000								

EIA Ref	Environmental Protection Measures / M	litigation Measures		Location /	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation
22.7.40.				Timing	Agent	Des	C	0	Dec	and Guidelines
	Wan Chai Shoreline Zone (WCR) HKCEC Shoreline Zone HKCEC Stage 1 & 3 (HKCEC) HKCEC Stage 2 Cross Harbour Water Mains Wan Chai East Submarine Sewage Pipeline Note: 1,500 m³ per day shall be applie	6,000 375 1,500 94 6,000 375 1,500 94 1,500 94 ed for construction o	42,000 10,500 42,000 10,500 10,500 f the western							
S5.8, Figure 5.3	seawall of WCR1. Dredging along the seawall at WCR1 1,500m ³ per day for construction of the proximity of the WSD intake), followed b western seawall (above high water mark much as possible from further dredging at	western seawall (which y partial seawall const) to protect the adjace	ch is in close truction at the	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	For dredging within the Causeway Bay partially constructed to protect the nea dredging activities. For example, at To seawalls shall be constructed first (abo seawater intakes at the inner water would the remaining dredging activities along the	rby seawater intakes CBR1W, the southern we high water mark be protected from the	from further and eastern) so that the	Work site / During the construction period	Contractor		V			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt curtains shall be deployed around seawall dredging and seawall trench filli TCBR and NP.			Work site / During the construction period	Contractor		V			EIAO-TM, WPCO
S5.8, Figure 5.3	2009 with concurrent dredging activities at Cooling water		n Ho, Quarry South	Work site / During the construction period	Contractor		V			EIAO-TM, WPCO

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection	Measures / Mitigation Measures	Location /	Implementation	In		entati ges*	on	Relevant Legislation
			Timing	Agent	Des	C	o	Dec	and Guidelines
	TBW, NP and Water Mains Zone Scenario 2B in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.	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 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 Reprovisioned WSD Wan Chai saltwater intake. Cooling water intakes for MTR South, Excelsior Hotel & World Trade Centre and reprovisioned Windsor House.							
\$5.8	Other mitigation measures include: • 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	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)	
	propeller wash; • all hopper barges and their bottom openings to	rated by turbulence from vessel movement or dredgers shall be fitted with tight fitting seals to o prevent leakage of material;							
		shall not cause foam, oil, grease, scum, litter or tter to be present on the water within the site or							
ı	dredged material into the	oppers shall be controlled to prevent splashing of ne surrounding water. Barges or hoppers shall not will cause the overflow of materials or polluted transportation; and							

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In		entati ges*	Relevant Legislation	
		Timing	Agent	Des	C	0	Dec	and Guidelines
	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.							
\$5.8	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

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	Implementation Stages*				Relevant Legislation
		Timing	Agent	Des	C	О	Dec	and Guidelines
\$5.8	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 I 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/Imple mentation of harbour-front enhancement.	CEDD <u>3</u>		1			WPCO

EIA Ref	Er	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	In		entati ges*	on	Relevant Legislation
			Timing	Agent	Des	C	0	Dec	and Guidelines
For the Wh	ole l	Project							
S5.8	•	Construction Runoff and Drainage	Work site	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)
	•	use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow;	/ During the constructi on period						wico (im-bss)
	•	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							

 $^{^3}$ CEDD will identify an implementation agent.

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	In	ıplem Staş	entati ges*	on	Relevant Legislation
		Timing	Agent	Des	C	o	Dec	and Guidelines
	required.							
	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.							
	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	Sewage from Construction Work Force 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.	Work site / During the construction period	Contractor		V			ProPECC PN 1/94; WPCO (TM-DSS)
S5.8	Floating Debris and Refuse 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.	Work site and adjacent water / During the construction period.	Contractor		V			WPCO

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	In		entati ges*	on	Relevant Legislation
		Timing	Agent	Des	C	o	Dec	and Guidelines
\$5.8	Storm Water Discharges Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.	Work site and adjacent water / During the design and construction period.	Contractor	1	√			WPCO
Operation 1	Phase							1
	(within the Project Boundary)							
S5.8	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: 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.	CWB/During design and operational period	HyD/TD ³	V		√		WPCO
	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,							

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				Des	C	0	Dec	
	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. • 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

 $^{^{3}\,\}mathrm{if}$ employ Management, Operation and Maintenance (MOM) Contract

Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Stages				Relevant Legislation and Guidelines
			Agent	Des	C	О	Dec	and Guidelines
Construction	on Phase							
For DP3 -	Reclamation Works							
	Marine Sediments	Work site / During the construction period	Contractor		V			ETWB TCW No. 34/2002
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.							
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 Mm³. 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.							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation
			Agent	Des	C	0	Dec	and Guidelines
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: 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.							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation and Guidelines
		g	Agent	Des	C	0	Dec	
	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	Floating Refuse During the construction phase, the project proponent's contractor will be responsible for the collection of any refuse within their works area. Floating booms will be provided on the water surface to confine the refuse from the working barges as well as to avoid the accumulation of pollutants within temporary embayment as mentioned in Table 13.3.	Work site / During the construction period	Contractor		√			

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
	8		Agent	Des	Des C O Dec	and Guidelines		
86.7.7	Recommendations for good site practices during the construction activities include: 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		1			Waste Disposal Ordinance (Cap.354)

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
		g	Agent	Des	C	О	Dec	and Guidelines
S6.7.8	Waste Reduction Measures 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: • 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	Jes V			Dec	
İ	generation of waste.							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Ir		entati ges*	on	Relevant Legislation and Guidelines
			Agent	Des	C	О	Dec	and Guidelines
S6.7.10	General Refuse 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. 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.	Work site / During the construction period	Contractor		V			Public Health and Municipal Services Ordinance (Cap. 132)
\$6.7.11	Chemical Wastes 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.	Work site / During the construction period	Contractor		V			Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
\$6.7.12	Construction and Demolition Material 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.	Work site / During the construction period	Contractor		1			ETWB TCW No. 33/2002, 31/2004, 19/2005

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
22.7 110.7	23. To office and 12 constants of 12 constants	200mion, 1mmg	Agent	Des	C	О	Dec	and Guidelines
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		V			ETWB TCW No. 31/2004
S6.7.14	Bentonite Slurry 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: 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,	Work site / During the construction period	Contractor		V			ProPECC PN 1/94
	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.							

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

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Table A13.5 Implementation Schedule for Land Contamination

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
22.7 2.07	23. To office and 12 consulted 7 to the grander of	Document Timing	Agent	Des	C	0	Dec	and Guidelines
Construction	v== =							
For the Wh	ole Project							
S.12.6	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	V				"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops" published by EPD, HKSAR EPD ProPECC Note No. 3/94
S7.10	During soil remediation works, the Contractor for the excavation works shall take note of the following points for excavation: • 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	V				Air Pollution Control Ordinance Noise Control Ordinance Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In	nplem Sta	entati ges*	on	Relevant Legislation and Guidelines
				Des	C	0	Dec	
	maybe required. The storage site shall include protection facilities for leaching into the ground. eg. Liner maybe required.							
	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. The following environmental mitigation measures shall be strictly followed during the operation and/or maintenance of the CS/S facilities:							Water Pollution Control Ordinance

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
		g	Agent	Des	C	O	Dec	and Guidelines
	 Air Quality Mitigation Measures 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. 							
	Noise Mitigation Measures 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).							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Ir	nplem Sta	entati ges*	on	Relevant Legislation and Guidelines
	8		Agent	Des	C	0	Dec	
	Water Quality Mitigation Measures 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. Waste Mitigation Measures 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

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Table A13.6 Implementation Schedule for Marine Ecology

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In	nplem Sta	entati ges*	ion	Relevant Legislation
22.7.40.		Document, Timing		Des	C	0	Dec	and Guidelines
Construction	on Phase							
For the Wh	ole Project - Schedule 3 DP							
S.9.7.2	Alternative design of the Trunk Road constructed in tunnel shall be adopted to avoid permanent reclamation in CBTS and ex-PWCA Basin.	-	CEDD/HyD	1				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
For DP3 -	Reclamation Works							
S.9.7.3	Translocation of those potentially affected coral colonies to the nearby suitable habitats such as Junk Bay is recommended. A detailed translocation plan (including translocation methodology, monitoring of transplanted corals, etc.) should be drafted and approval by AFCD during the detailed design stage of the Project.	Ex-PCWA Basin and along seawall next to a public pier which is about 250 m away from the CBTS	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entatio ges*	on	Relevant Legislation and Guidelines
	Zininginia Troccioi Measures / Mangaron Measures	Document, 1mmig	Agent	Des	C	0	Dec	
S.9.7.4	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: • 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.
	Adoption of multiple-phase construction schedule							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Ir	nplem Sta	entati ges*	on	Relevant Legislation
22.7.10.7	Zarra omnerana a rottomon racustato y ranaganton racustato	200avion, 1mmg	Agent	Des	C	О	Dec	and Guidelines
S.9.7.6	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: • 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	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.7	effectively implemented. 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		V			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

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

Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Envir	onmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Ir	nplem Sta	entati ges*	ion	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	√	1			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	V	√			EIAO TM
Table 10.5	СМЗ	Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	V	√			EIAO TM
Table 10.5	CM4	Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	V	√			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 - CV	B (With	in 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		V			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	V	V			EIAO TM
Table 10.5	CM3	Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	V	1			EIAO TM
Table 10.5	CM4	Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	V	1			EIAO TM
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		1			EIAO TM

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EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing Implementati Agent	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
					Des	C	О	Dec	
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM
For DP2 - WD	II Majo	r 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	1	1			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	√	V			EIAO TM
Table 10.5	CM3	Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	1	V			EIAO TM
Table 10.5	CM4	Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	1	√			EIAO TM
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM
For DP3 - Rec	lamatio	n Works							
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM
For DP5 - Wa	n Chai I	East Sewage Outfall							
Refer to EIA- 058/2001 Table 10.13	CM2	Minimisation of works areas.	Work site / During Construction Phase	Contractor		1			EIAO TM
Refer to EIA- 058/2001 Table 10.13	CM3	Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		1			EIAO TM

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EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*			on	Relevant Legislation and Guidelines
					Des	C	О	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	CM5	Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.13		programming of the works.	Construction I hase						
For DP6 - Cro	ss-Harb	our 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		V			EIAO TM
Refer to EIA- 058/2001 Table 10.13	CM3	Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		1			EIAO TM
Refer to EIA- 058/2001 Table 10.13	CM4	Control night-time lighting.	Work site / During Construction Phase	Contractor		V			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		V			EIAO TM
Operation Pha	se								
	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	1	√	√		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	V	V	V		ETWB TCW 2/2004

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
					Des	C	0	Dec	
Table 10.6,	OM3	Buffer Tree and Shrub Planting to screen proposed roads	Work site / During	CEDD/HyD/	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-		and associated structures.	Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM4	Aesthetic design of proposed waterfront promenade.	Work site / During	$CEDD_{\underline{}}^{4}$	√	√			ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM5	Aesthetic streetscape design.	Work site / During	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-		. 0	Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM6	Aesthetic design of roadside amenity areas.	Work site / During	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and	-					
10.5.5			Operation Phases						
For DP1 - CWI	B (Withi	n the Project Boundary)							
Table 10.6,	OM1	Aesthetic design of buildings and road-related structures,	Work site / During	HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-		including viaducts, vent buildings, subways, footbridges	Design Stage and						
10.5.5		and noise barriers and enclosure.	Operation Phases						
Table 10.6,	OM2	Shrub and Climbing Plants to soften proposed structures	Work site / During	HyD		√			ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM3	Buffer Tree and Shrub Planting to screen proposed roads	Work site / During	HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-		and associated structures.	Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM5	Aesthetic streetscape design.	Work site / During	HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM6	Aesthetic design of roadside amenity areas.	Work site / During	HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						

⁴ CEDD will identify an implementation agent

EIA Ref	Envir	onmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In	Implementation Stages*		on	Relevant Legislation and Guidelines
				_	Des	С	0	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		V	V		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		V	V		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		V	V		ETWB TCW 2/2004
For DP3 - Reci	lamatio	n 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	√	1	1		ETWB TCW 2/2004

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

 $^{^{\}rm 5}$ CEDD will identify an implementation agent

Appendix 4.1

Action and Limit Level



Lam Geotechnics Limited

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 Quality Monitoring

7.10.11.01.10.10.10.10.10.10.10.10.10.10.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Monitoring Location	1-hour TSP Level in μ g/m ³		24-hour TSP Level in μ g/m ³		
	Action Level	Limit Level	Action Level	Limit Level	
CMA1b	320.1	500	176.7	260	
CMA2a	323.4	500	169.5	260	
CMA3a	311.3	500	171.0	260	
CMA4a	312.5	500	171.2	260	
CMA5b	332.0	500	181.0	260	
CMA6a	300.1	500	187.3	260	

Action and Limit Level for Water Quality Monitoring

Parameters	Dry S	eason	Wet S	Season						
Parameters	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 Inta	ke									
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 Enhance DO Monitoring

Parameters	Depth	Dry Season		Wet Season		
Parameters		Action	Limit	Action	Limit	
C6	Surface and Middle	3.13	2.00	2.60	2.00	
Co	Bottom 4.14		3.33	2.91	2.34	
C7	Surface and Middle	3.87	3.09	3.31	2.57	
C/	Bottom	3.91	3.53	2.75	2.48	
Ex-WPCWA SW	Surface and Middle	3.84	3.73	3.19	3.10	
EX-VVPCVVA SVV	Bottom	4.71	4.63	3.31	3.25	
EV MDOMA CE	Surface and Middle	4.26	3.61	3.55	3.00	
Ex-WPCWA SE	Bottom	5.36	5.35	3.76	3.76	

Action and Limit Levels for Odour Patrol

Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	 When two documented complaint are received; or Odour Intensity of 2 is measured from odour intensity analysis. 	 Five or more consecutive genuine documented complaints within a week; or Odour Intensity of 3 or above is measured from odour intensity analysis.

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

Appendix 4.2

Copies of Calibration Certificates



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT: SAM LAM WORK ORDER: HK1510387

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/10/2015 DATE OF ISSUE: 14/10/2015

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.

Turbidity	
Turbidimeter	
Xin Rui	
WGZ-3B	
1309192	
08/10/2015	
	Turbidimeter Xin Rui WGZ-3B 1309192

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: HK1510387 **DATE OF ISSUE:** 14/10/2015

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/10/2015	
Date of next Calibation:	08/01/2016	

Parameters: Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.14	3.5	
10	9.23	-7.7	
40	39.1	-2.3	
100	105.0	5.0	
400	405.0	1.3	
1000	989	-1.1	
	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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Information supplied by customer:

CONTACT: MR. SAM LAM WORK ORDER: HK1610019

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/01/2016 DATE OF ISSUE: 14/01/2016

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:	08/01/2016	

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.

Approved Signatory:

Issue Date: 14/01/2016

Ms. Wong Po Yan, Pauline Testing Engineer



WORK ORDER: HK1610019 **DATE OF ISSUE:** 14/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/01/2016	
Date of next Calibation:	08/04/2016	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.09	2.3	
10	10.1	1.0	
40	38.7	-3.3	
100	104	4.0	
400	389	-2.8	
1000	991	-0.9	
	Tolerance Limit (±%)	10.0	

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



Information supplied by customer:

CONTACT: SAM LAM WORK ORDER: HK1510384

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/10/2015 DATE OF ISSUE: 14/10/2015

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:	08/10/2015	

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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WORK ORDER: HK1510384 **DATE OF ISSUE:** 14/10/2015

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203015	
Equipment No.:		
Date of Calibration:	08/10/2015	
Date of next Calibation:	08/01/2016	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.01	0.2	
10	10.1	1.0	
40	38.8	-3.0	
100	101.0	1.0	
400	395.0	-1.3	
1000	999.0	-0.1	
	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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Information supplied by customer:

CONTACT: MR. SAM LAM WORK ORDER: HK1610018

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/01/2016 DATE OF ISSUE: 14/01/2016

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:	08/01/2016	

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.

Approved Signatory:

Ms. Wong Po Yan, Pauline

Testing Engineer

Issue Date: 14/01/2016



HK1610018 WORK ORDER: DATE OF ISSUE:

14/01/2016

CLIENT:

LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203015	
Equipment No.:	<u></u>	
Date of Calibration:	08/01/2016	
Date of next Calibation:	08/04/2016	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	3.87	-3.3	
10	10.6	6.0	
40	41.4	3.5	
100	98.4	-1.6	
400	387	-3.3	
1000	976	-2.4	
	Tolerance Limit (±%)	10.0	

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



Information supplied by customer:

CONTACT: SAM LAM WORK ORDER: HK1510427

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 2015-11-06 DATE OF ISSUE: 2015-11-13

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.:	1408039	
Equipment No.:		
Date of Calibration:	06-Nov-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

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



WORK ORDER: HK1510427 **DATE OF ISSUE:** 2015-11-13

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1408039	
Equipment No.:		
Date of Calibration:	06-Nov-15	
Date of next Calibation:	06-Feb-16	

Parameters: Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.12	3.0	
10	9.87	-1.3	
40	39.5	-1.3	
100	104.0	4.0	
400	402	0.5	
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.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510392

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 2015-10-22

Customer : LAM GEOTECHNICS LIMITED

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

Calibration Job No. : HK1510392
Test Item No. : HK1510392-01
Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : YS Model No. : Pr

Test Item Calibration Date

: Professional Plus

Serial No. : 14E100105
Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Gu

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 : 14-Oct-15

15-Oct-15

Test Period : 14/10/2015 - 22/10/2015

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. ± indicates the tolerance limit
- 4. N/A = Not applicable
- 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.
- 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

Issue Date: 2015-10-22



WORK ORDER: HK1510392 DATE OF ISSUE: 2015-10-22

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14E100105	
Date of Calibration	15-Oct-15	
Date of next Calibation	15-Jan-16	

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)
10.3	10.6	+0.3
19.7	19.4	-0.3
31.5	30.1	-1.4
T	olerance 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	6.96	7.06	+0.10
10.0	9.91	10.04	+0.13
	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	ini
0.1000	12.89	12.75	-1.09
0.2000	24.80	24.40	-1.61
0.5000	58.67	58.14	-0.90
	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)
8.62	8.71	+0.09
4.39	4.31	-0.08
2.05	2.11	+0.06
	Tolerance Limit	±0.20

Remarks:

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



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610021

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/01/2016

Customer : LAM GEOTECHNICS LIMITED

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

 Calibration Job No.
 : HK1610021

 Test Item No.
 : HK1610021-01

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 Intermational 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 : 14-Jan-16
Test Item Calibration Date : 15-Jan-16

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. ± indicates the tolerance limit
- 4. N/A = Not applicable
- 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.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer) Issue Date:

21/01/2016



WORK ORDER: HK1610021 DATE OF ISSUE: 21/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14E100105	
Date of Calibration	15-Jan-16	
Date of next Calibation	15-Apr-16	

Parameters:

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

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
9.8	10.1	+0.3
20.6	20.4	-0.2
30.3	30.4	+0.1
T	olerance 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	3.98	4.03	+0.05
7.0	7.11	7.08	-0.03
10.0	10.32	10.24	-0.08
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	-
0.1000	12.89	12.71	-1.40
0.2000	24.80	24.97	+0.69
0.5000	58.67	58.34	-0.56
0.000	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)
8.55	8.64	+0.09
5.47	5.34	-0.13
2.94	3.01	+0.07
	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 (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510386

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 19/10/2015

Customer : LAM GEOTECHNICS LIMITED

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

Calibration Job No. : HK1510386 Test Item No. : HK1510386-01

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 Intermational 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 : 14-Oct-15
Test Item Calibration Date : 16-Oct-15

Test Period : 14/10/2015 - 19/10/2015

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. ± indicates the tolerance limit
- 4. N/A = Not applicable
- 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.

(Director)

Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory : Issue Date: 19/10/2015

Mr. Péter Lee



WORK ORDER: HK1510386 DATE OF ISSUE: 19/10/2015

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14M100277	
Date of Calibration	16-Oct-15	
Date of next Calibation	16-Jan-16	

Parameters:

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

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.2	10.9	+0.7
19.5	20.2	+0.7
30.4	30.5	+0.1
	Folerance 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	3,91	3.98	+0.07
7.0	6.81	6.85	+0.04
10.0	9.73	9.79	+0.06
	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	7-1
0.1000	12.89	12.75	-1.12
0.2000	24.80	25.06	+1.05
0.5000	58.67	57.69	-1.67
0.0000	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)
8.71	8.63	-0.08
4.76	4.83	+0.07
0.54	0.56	+0.02
	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 (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610022

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/01/2016

Customer : LAM GEOTECHNICS LIMITED

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

Calibration Job No. : HK1610022 Test Item No. : HK1610022-01

Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : Y

Model No. : Professional Plus Serial No. : 14M100277

Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational 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 : 14-Jan-16
Test Item Calibration Date : 15-Jan-16

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

- Results relate to item(s) as received.
- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- 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.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer) Issue Date:

21/01/2016



WORK ORDER: HK1610022 DATE OF ISSUE: 21/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14M100277	
Date of Calibration	15-Jan-16	
Date of next Calibation	15-Apr-16	

Parameters:

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

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.3	10.7	+0.4
20.9	20.4	-0.5
30.1	30.3	+0.2
T	olerance 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	3.98	-0.08
7.0	7.05	7.16	+0.11
10.0	10.13	10.06	-0.07
	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	(1)
0.1000	12.89	12.69	-1.55
0.2000	24.80	25.04	+0.97
0.5000	58.67	59.13	+0.78
	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)
8.86	8.71	-0.15
4.59	4.46	-0.13
2.11	2.21	+0.10
	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 (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510391

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 2015-10-22

Customer : LAM GEOTECHNICS LIMITED

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

Calibration Job No. : Test Item No. : Test Item Details

: HK1510391 : HK1510391-01

Test Item Description

: Multifunctional Meter

Manufacturer

YSI

Model No. Serial No. Professional Plus 11F100420

Performance Method

Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Gi 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 Test Item Calibration Date 14-Oct-15 15-Oct-15

Test Period

14/10/2015 - 22/10/2015

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. ± indicates the tolerance limit
- 4. N/A = Not applicable
- 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.

 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:

2015-10-22



WORK ORDER: HK1510391 DATE OF ISSUE: 2015-10-22

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	11F100420	
Date of Calibration	15-Oct-15	
Date of next Calibation	15-Jan-16	

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)
10.5	10.6	+0.1
19.5	20.1	+0.6
31.8	31.8	0.0
	olerance 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	3.90	4.09	+0.19
7.0	6.96	7.04	+0.08
10.0	9.87	9.9	+0.03
	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	100
0.1000	12.89	12.88	-0.08
0.2000	24.80	24.43	-1.49
0.5000	58.67	57.80	-1.48
	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)
8.05	7.92	-0.13
4.39	4.28	-0.11
2.26	2.22	-0.04
	Tolerance Limit	±0.20

Remarks:

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

- End of Report -



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610020

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/01/2016

Customer : LAM GEOTECHNICS LIMITED

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

Calibration Job No. : HK1610020 Test Item No. : HK1610020-01

Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : YSI

Model No. : Professional Plus Serial No. : 11F100420

Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational 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 : 14-Jan-16
Test Item Calibration Date : 15-Jan-16

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. ± indicates the tolerance limit
- 4. N/A = Not applicable
- 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.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer) Issue Date: 21/01/2016



WORK ORDER: HK1610020 DATE OF ISSUE: 21/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	11F100420	
Date of Calibration	15-Jan-16	
Date of next Calibation	15-Apr-16	

Parameters:

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

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.1	10.4	+0.3
19.8	20.3	+0.5
30.4	30.9	+0.5
17	olerance 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	3.97	4.02	+0.05
7.0	7.15	7.08	-0.07
10.0	10.06	9.98	-0.08
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	
0.1000	12.89	12.74	-1.16
0.2000	24.80	24.42	-1.53
0.5000	58.67	58.94	+0.46
	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)
8.43	8.51	+0.08
4.44	4.38	-0.06
2.13	2.02	-0.11
	Tolerance Limit	±0.20

Remarks:

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



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Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

Certificate No.:

15CA1203 04-01

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Item tested

Description:

Sound Level Meter (Type 1)

Microphone

Manufacturer:

B&K

B&K

Type/Model No .:

2236

4188

Serial/Equipment No.:

2288941

Adaptors used:

2100736

Item submitted by

Customer Name:

Lam Geotechnics Limited

Address of Customer:

Request No.

Date of receipt:

03-Dec-2015

Date of test:

04-Dec-2015

Reference equipment used in the calibration

Description:

Model:

Serial No.

Expiry Date:

Traceable to:

Multi function sound calibrator Signal generator

B&K 4226 DS 360

2288444

19-Jun-2016

CIGISMEC

Signal generator

DS 360

33873 61227

16-Apr-2016 16-Apr-2016

CEPREI CEPRE

Ambient conditions

Temperature:

Relative humidity:

22 ± 1 °C 50 ± 10 %

Air pressure:

1010 ± 10 hPa

Test specifications

- 1, 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 2, replaced by an equivalent capacitance within a tolerance of +20%
- The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference 3, between the free-field and pressure responsess 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.

Huang Jian Min/Feng Jun Qi

Actual Measurement data are documented on worksheets.

Approved Signatory:

Date:

05-Dec-2015

Company Chop:

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.

C Soils & Materials Engineering Co., Ltd.

Form No.CARP152-1/Issue 1/Rev.C/01/02/2007



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Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

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15CA1203 04-01

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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 Uncertanity (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
3	C	Pass	1.0	2.1
	Lin	Pass	2.0	2.2
Linearity range for Leq	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
	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	
	Lin	Pass	0.3	
Time weightings	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 1/103 at 4kHz	Pass	0.3	
	1 ms burst duty factor 1/104 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 Uncertanity (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.

Calibrated by:

Date:

Fung Chi Yip 04-Dec-2015 End

Checked by:

Date:

Lam Tze Wai 05-Dec-2015

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.

Soils & Materials Engineering Co., Ltd.

Form No.CARP152-2/Issue 1/Rev.C/01/02/2007



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CERTIFICATE OF CALIBRATION

Certificate No.:

15CA0528 04-03

Page:

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Tel: (852) 2873 6860

Fax: (852) 2555 7533

2

of

Item tested

Description: Manufacturer: Acoustical Calibrator (Class 1)

Type/Model No.: Serial/Equipment No.: Rion Co., Ltd. NC-73 10465798

Adaptors used:

10

Item submitted by

Curstomer:

Lam Geotechnics Ltd.

Address of Customer:

Request No.: Date of receipt:

28-May-2015

Date of test:

30-May-2015

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	15-Apr-2016	SCL
Preamplifier	B&K 2673	2239857	22-Apr-2016	CEPREI
Measuring amplifier	B&K 2610	2346941	22-Apr-2016	CEPREI
Signal generator	DS 360	61227	16-Apr-2016	CEPREI
Digital multi-meter	34401A	US36087050	17-Apr-2016	CEPREI
Audio analyzer	8903B	GB41300350	17-Apr-2016	CEPREI
Universal counter	53132A	MY40003662	16-Apr-2016	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C Relative humidity: 60 ± 10 % Air pressure: 1000 ± 5 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.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 3, 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.

n/Feng Jun Qi

Huano Jian

Approved Signatory:

Date: 01-Jun-2015

Company Chos

SENGINEER SENGI

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.

@ Soils & Materials Engineering Co., Ltd.

Form No. CARP156-1/Issue 1/Rev. D/01/03/2007



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Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

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Certificate No.:

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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	Output Sound Pressure	Measured Output	Estimated Expanded
Shown	Level Setting	Sound Pressure Level	Uncertainty
Hz	dB	dB	dB
1000	94.00	94.06	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 = 966.3 Hz

Estimated expanded uncertainty

0.1 Hz

Coverage factor k = 2.2

Total Noise and Distortion 4,

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 = 0.5 %

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:

End

Fung Chi Yip

Checked by:

Lam Tze Wai

Date:

30-May-2015

Date:

01-Jun-2015

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.

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Form No CARP156-2/Issue 1/Rev C/01/05/2005



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

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

	Tisch	Rootsmeter Orifice I.I		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 2 3 4 5	NA NA NA NA NA	NA NA NA NA NA	1.00 1.00 1.00 1.00	1.3930 0.9800 0.8790 0.8350 0.6900	3.2 6.4 7.9 8.7 12.7	2.00 4.00 5.00 5.50 8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9883 0.9841 0.9820 0.9810 0.9757	0.7095 1.0042 1.1172 1.1749 1.4141	1.4090 1.9926 2.2278 2.3365 2.8179	0.9957 0.9915 0.9894 0.9884 0.9830	0.7148 1.0117 1.1256 1.1837 1.4247	0.8889 1.2570 1.4054 1.4740 1.7777
Qstd slo intercep coeffici y axis =	ent (r) =	2.00072 -0.01209 0.99995 	Qa slope intercept coefficie y axis =	t (b) =	1.25282 -0.00763 0.99995

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



Location :		CMA1b				Calbratio	on Date	:	30-Nov-15
Equipment no.		EL452				Calbratio	on Due Date	:	30-Jan-16
CALIBRATION OF CON	TINUOUS	FLOW RE	CORDER						
				Ambient C	ondition				
Temperature, T _a		295		Kelvin	Pressure, P	a	1	019	mmHg
			Orifice Tr	ansfer Sta	ndard Inforr	nation			
Equipment No.		EL086		Slope, m _c	2.000	72	Intercept, bc	T	-0.01209
Last Calibration Date		30-Jun-1	5	I	(H x	P _a / 101	3.3 x 298 /	T _a)	1/2
Next Calibration Date		30-Jun-1	6		=		$Q_{std} + b_c$		
				Calibratio	n of TSP				
Calibration	Man	ometer R	eading	Q	std	Continu	ious Flow		IC
Point	H (i	nches of	water)	(m ³ ,	/ min.)	Reco	rder, W	(W(Pa	/1013.3x298/T _a) ^{1/2} /35.31)
	(up)	(down)	(difference)	Х-	axis	(C	FM)		Y-axis
1	6.1	6.1	12.2	1.7	7656		58		58.4579
2	4.8	4.8	9.6	1.5	5669		52		52.4105
3	3.7	3.7	7.4	1.3	3764		44		44.3474
4	2.4	2.4	4.8	1.1	1097		36		36.2842
5	1.5	1.5	3.0	0.8	3786		24		24.1895
By Linear Regression of	Y on X								
	Slope, m	=	37.9	882	Inte	ercept, b =	-7.	.7457	
Correlation Co	efficient*	=	0.99	953					
Calibration	Accepted	=	Yes/F	No**					
* if Correlation Coefficier	nt < 0.990.	check and	I recalibration	n again.					
				3.5					
** Delete as appropriate.									
Remarks :									
Calibrated by		Kit Au				Checked	l by	:	Derek Lo
Date :	30	0-Nov-15				Date		:	30-Nov-15



Location :		CMA2a		Calbration Date : 30-Nov-1								
Equipment no.		EL449				Calbratio	on Due Date	:	30-Jan-16			
CALIBRATION OF CON	TINUOUS	FI OW REG	CORDER									
SALIBRATION OF COM		2011 1(2)	JONE LIX	Ambient (Condition							
Temperature, T _a		295			Pressure, P		10)19	mmHg			
Tomporataro, Ta		200	,	TCIVIII	11000410,1	a 			- Illining			
	1		Orifice T	ransfer Sta	andard Infor	mation						
Equipment No.		EL086		Slope, m _c			Intercept, bc		-0.01209			
Last Calibration Date		30-Jun-1	5	$(HxP_a/1013.3x298/T_a)^{1/2}$								
Next Calibration Date		30-Jun-1	6		=	m_c	$(Q_{std} + b_c)$					
				Calibratio	on of TSP							
Calibration	Mai	nometer R	eading	C) _{std}	Contin	uous Flow		IC			
Point	Н (inches of	water)	(m ³	/ min.)	Rec	order, W	(W(P _a /10	13.3x298/T _a) ^{1/2} /35.31)			
	(up)	(down)	(difference)	X-	axis	(CFM)		Y-axis			
1	6.7	6.7	13.4	1.8	8501		62		62.4895			
2	5.3	5.3	10.6	1.0	6462		55		55.4342			
3	4.1	4.1	8.2	1.4	4486		48		48.3789			
4	2.7	2.7	5.4	1.	1767		38		38.3000			
5	1.6	1.6	3.2	0.0	9072		30		30.2368			
By Linear Regression of	Y on X		· I	<u> </u>								
	Slope, m	=	34.6	157	Inte	ercept, b =	-1.6	6936				
Correlation (Coefficient*	=	0.99	994								
Calibration	n Accepted	=	Yes/	Ne**								
* if Correlation Coefficien	nt < 0.990, c	check and i	recalibration	again.								
** Delete as appropriate.												
Remarks :												
		Kit Au				Checked	Lby		Derek Lo			
Calibrated by		0-Nov-15				Date	y	· —	30-Nov-15			
Date	3	0-140V-13				Date		•	20-140A-12			



				_			_	-	
Location :		CMA3a				Calbrati	on Date	:	30-Nov-15
Equipment no.		EL333				Calbrati	on Due Date	:	30-Jan-16
CALIBRATION OF CON	ITINUOUS	S FLOW RI	CORDER						
			,	Ambient C	ondition				
Temperature, T _a		295	;	Kelvin	Pressure, P	a		1019	mmHg
			Orifice Tr	ansfer Star	ndard Inforn	nation			
Equipment No.		EL086		Slope, m _c	2.000		Intercept, bc	Т	-0.01209
Last Calibration Date		30-Jun-1	5	1	(H x	P _a / 101	3.3 x 298 /		
Next Calibration Date		30-Jun-1	6		=		$Q_{std} + b_c$	· a/	
				Calibration	of TCD		0.00		
Calibration	Mar			Calibration		Continu	ous Flow		IC
Calibration		nometer R	_		std			04/D	1013.3x298/T _a) ^{1/2} /35.31)
Point		inches of			min.)		rder, W	(VV(P _a /	Y-axis
1	(up) 5.8	(down)	(difference)		218		56		56.4421
2		4.5							
3	4.5	3.5	9.0 7.0		5173		44		50.3947
4	3.5 2.3	2.3	4.6		3389				
5	1.5	1.5	3.0)865 3786		28		36.2842 28.2211
By Linear Regression of		1.5	5.0	0.0	700		20		20.2211
by Emocr Regrossion of	Slope, m	=	33.3	404	Inte	ercept, b =	-0	.4922	
Correlation Co		=	0.99						
Calibration		=	Yes/						
	·								
* if Correlation Coefficier	nt < 0.990,	, check and	d recalibration	n again.					
** Delete as appropriate.									
Remarks :									
		Kit Au				Checke	d bv		Derek Lo
Calibrated by	3	0-Nov-15				Date	-	: —	30-Nov-15
Date									



Location

Calibration Data for High Volume Sampler (TSP Sampler)

Calbration Date

Equipment no.		EL390			Calbrat	ion Due Date	: 30-Jan-16
CALIBRATION OF CON	TINUOUS	FLOW RE	CORDER				
				Ambient Condition			
Temperature, T _a		295		Kelvin Pressure, F	o a	1	019 mmHg
			Orifice Tr	ansfer Standard Infor	mation		
Equipment No.		EL086		Slope, m _c 2.000)72	Intercept, bc	-0.01209
Last Calibration Date		30-Jun-1	5	(H)	k P _a / 10	13.3 x 298 /	T_a) $^{1/2}$
Next Calibration Date		30-Jun-1	6	=	m _c x	$(Q_{std} + b_c)$	
				Calibration of TSP			
Calibration	Mar	nometer Re	eading	Q _{std}	Contin	uous Flow	IC
Point	Н (і	inches of v	water)	(m ³ / min.)	Rec	order, W	(W(P _a /1013.3x298/T _a) ^{1/2} /35.3
	(up)	(down)	(difference)	X-axis	(CFM)	Y-axis
1	6.4	6.4	12.8	1.8084		58	58.4579
2	5.1	5.1	10.2	1.6149		52	52.4105
3	3.9	3.9	7.8	1.4130		46	46.3632
4	2.6	2.6	5.2	1.1548		34	34.2684
5	1.6	1.6	3.2	0.9072		24	24.1895
By Linear Regression of	Y on X						
	Slope, m	=	38.5	259 In	tercept, b =	-10	.0149
Correlation Co	efficient*	=	0.99	962			
Calibration	Accepted	=	Yes/	\0 **			
* if Correlation Coefficier	nt < 0.990,	, check and	l recalibration	n again.			
** Delete as appropriate.							
Delete as appropriate.							
Remarks :							
Calibrated by		Kit Au			Checke	d by	: Derek Lo
Date :	3	0-Nov-15			Date		: 30-Nov-15



Location :		CMA5b		J		Calbratio	n Date	: 30-Nov-15	
Equipment no.		EL222				Calbratio	n Due Date	: 30-Jan-16	
CALIBRATION OF CON	TINUOUS	FLOW RE	CORDER						
				Ambient (Condition				
Temperature, T _a		295		Kelvin	Pressure, P	a	1	019 mm	Hg
			Orifice T	ransfer Sta	andard Infor	mation			
Equipment No.		EL086		Slope, m _c	2.000	72	Intercept, bc	-0.01209	
Last Calibration Date		30-Jun-1	5		(H)	(P _a / 101	3.3 x 298 /	T _a) ^{1/2}	
Next Calibration Date		30-Jun-1	6		=		$Q_{std} + b_c$		
				Calibratio	on of TSP				
Calibration	Man	ometer R	eading	C) _{std}	Continu	ious Flow	IC	
Point	H (i	nches of	water)	(m ³	/ min.)	Reco	rder, W	(W(P _a /1013.3x298/T _a) ^{1/2}	/35.31)
	(up)	(down)	(difference)	X-	axis	(C	FM)	Y-axis	
1	5.2	5.2	10.4	1.0	6306		62	62.4895	
2	4.3	4.3	8.6	1.4	4834		58	58.4579	
3	3.3	3.3	6.6	1.3	3002		53	53.4184	
4	2.0	2.0	4.0	1.0	0136		46	46.3632	
5	1.3	1.3	2.6	0.8	8183		38	38.3000	
By Linear Regression of	Y on X								
	Slope, m	=	28.8	602	Inte	ercept, b =	15.	7526	
Correlation Co	pefficient*	=	0.99	958					
Calibration	Accepted	=	Yes/ł	√0 **					
* if Correlation Coefficien	it < 0.990,	check and	recalibration	again.					
	,			Ü					
** Delete as appropriate.									
Remarks :									
Calibrated by		Kit Au				Checked	by	: Derek Lo	

Date

30-Nov-15

30-Nov-15

Date



Location :		CMA6a			Calbratio	on Date	: 30-Nov-15
Equipment no. :		EL448			Calbratio	on Due Date	: 30-Jan-16
CALIBRATION OF CON	TINUOUS	FLOW RE	CORDER				
				Ambient Condition			
Temperature, T _a		295		Kelvin Pressure, P	a	1	019 mmHg
			Orifice Tr	ansfer Standard Infor	mation		
Equipment No.		EL086		Slope , m _c 2.000	72	Intercept, bc	-0.01209
Last Calibration Date		30-Jun-1	5	(H)	(P _a / 101	3.3 x 298 /	$T_a)^{1/2}$
Next Calibration Date		30-Jun-1	6	=	m _c x	$Q_{std} + b_c$	
				Calibration of TSP			
Calibration	Mar	nometer Re	eading	Q _{std}	Continu	uous Flow	IC
Point	H (i	inches of v	water)	(m ³ / min.)	Reco	rder, W	(W(P _a /1013.3x298/T _a) ^{1/2} /35.31)
	(up)	(down)	(difference)	X-axis	(C	CFM)	Y-axis
1	6.6	6.6	13.2	1.8363		60	60.4737
2	5.3	5.3	10.6	1.6462		54	54.4263
3	4.5	4.5	9.0	1.5173		50	50.3947
4	2.6	2.6	5.2	1.1548		40	40.3158
5	1.5	1.5	3.0	0.8786		30	30.2368
By Linear Regression of							
	Slope, m	=	30.9		ercept, b =	3.	5936
Correlation Co		=	0.99				
Calibration	Accepted	=	Yes/P	\0 ^^			
* if Correlation Coefficier	nt < 0.990,	check and	I recalibration	n again.			
** Delete as appropriate.							
Remarks :							
TOHIGINS .							
Calibrated by		Kit Au			Checked	l by	: Derek Lo
Date	3	0-Nov-15			Date		: 30-Nov-15

Appendix 5.1

Monitoring Schedules for Reporting Month and Coming Reporting Month

Contract No. HK/2015/01 Wan Chai Development Phase II and Central-Wan Chai Bypass Sampling, Field Measurement and Testing Works (Stage 3)

Environmental Monitoring Schedule January 2016

Sunday		Monday		Tuesday	Wednesda		Thursday	Friday		Saturday	
	27-Dec		28-Dec	29-Dec		30-Dec	31-Dec		1-Jan		2-Ja
				24hr TSP	1hr TSP						
		Noise (daytime)		Noise (daytime)							
		(M3a, M4b)		(M1a, M2b, M5b, M6)							
		Impact WQM			Impact WQM					Impact WQM	
		Mid-ebb	1:57		Mid-ebb	3:10				Mid-ebb	4:1
		Mid-flood	9:00		Mid-flood	10:22				Mid-flood	12:3
	3-Jan		4-Jan	5-Jar	1	6-Jan	7-Jan		8-Jan		9-Ja
		24hr TSP		1hr TSP						24hr TSP	
		2 10.								2 101	
		Noise (daytime)			Noise (daytime)						
		(M3a, M4b, M5b, M6	6)		(M1a, M2b)						
		Impact WQM Mid-flood	13:59		Mid-flood	15:09		Mid-flood	16:31		
		Mid-ebb	21:36		Mid-ebb	22:31		Mid-ebb	23:35		
	10-Jan		11-Jan			13-Jan	14-Jan		15-Jan		16-Ja
		24hr TSP									
		(CMA5b)									
		1hr TSP						24hr TSP		1hr TSP	
				Noise (daytime)							
				(M1a, M2b, M3a, M4b, M5b, M6)						
				, ., ., ., .,							
		Impact WQM			Impact WQM			Impact WQM			
		Mid-ebb	0:51		Mid-flood	9:13		Mid-flood	10:43		
	17-Jan	Mid-flood	7:54 18-Jan	19-Ja	Mid-ebb	14:55 20-Jan		Mid-ebb	16:40 22-Jan		23-Ja
	17-0011		10-3411	13-04		20-0411	21-001		22-Jan		25-56
								24hr TSP			
								(CMA5b)			
		1hr TSP					24hr TSP	1hr TSP			
				Noise (daytime) (M1a, M2b, M3a, M4b, M5b, M6	J						
				(WITA, WIZD, WISA, WI4D, WISD, WIC	1						
		Impact WQM			Impact WQM			Impact WQM			
		Mid-flood	13:12		Mid-flood	15:04		Mid-flood	16:45		
		Mid-ebb	20:15		Mid-ebb	22:17		Mid-ebb	23:36		
	24-Jan		25-Jan	26-Jai	n e	27-Jan					
				Noise (daytime)	Noise (daytime)						
				(M3a, M4b, M5b, M6)	(M1a, M2b)						
		Impact WQM Mid-ebb	1:03								

Contract No. HK/2015/01

Wan Chai Development Phase II and Central-Wan Chai Bypass Sampling, Field Measurement and Testing Works (Stage 3) Tentative Environmental Monitoring Schedule February 2016

							ruary 2						
Sunday	24-Jan	Monday	25-Jan	Tuesday	26-Jan	Wednesday	27-Jan	Thursday	28-Jan	Friday	29-Jan	Saturday	30-Ja
	∠ u -Jd∏		20-JdN		∠u-Jd∏		∠ı-Jd∏		ZU-Jdfl		∠ə-Jd∏		JU-Ja
						24hr TSP		1hr TSP					
						2411 101		1111 101					
		Noise (daytime)		Noise (daytime)									
		Impact WQM											
		Mid-ebb	1:03			Mid-ebb	2:12			Mid-ebb	3:14		
	31-Jan	Mid-flood	7:55 1-Feb		2-Feb	Mid-flood	8:53 3-Feb		4-Feb	Mid-flood	9:53 5-Feb		6-Fe
		24hr TSP		1hr TSP						24hr TSP		1hr TSP	
		Noise (daytime)		Noise (daytime)									
		Impact WQM				Impact WQM				Impact WQM			
		Mid-flood	11:48			Mid-flood	13:25			Mid-flood	15:16		
		Mid-ebb	18:31			Mid-ebb	21:23			Mid-ebb	22:37		
	7-Feb		8-Feb		9-Feb		10-Feb		11-Feb		12-Feb		13-Fe
								24hr TSP		1hr TSP			
								Noise (daytime)		Noise (daytime)			
				Impact WQM				Impact WQM				Impact WQM	
				Mid-ebb	13:05			Mid-flood	8:35			Mid-flood	9:5
				Mid-flood	18:41			Mid-ebb	14:29			Mid-ebb	16:0
	14-Feb		15-Feb		16-Feb		17-Feb		18-Feb		19-Feb		20-F€
						24hr TSP		1hr TSP					
		Noise (daytime)		Noise (daytime)									
		Impact WQM				Impact WQM				Impact WQM			
		Mid-flood	11:36	i		Mid-flood	13:27			Mid-flood	15:45		
		Mid-ebb	18:30			Mid-ebb	21:08			Mid-ebb	22:51		
	21-Feb		22-Feb	1	23-Feb		24-Feb		25-Feb		26-Feb		
				24hr TSP		1hr TSP							
		Noise (daytime)		Noise (daytime)									
		Impact WQM				Impact WQM				Impact WQM			
		Mid-flood		1									
		IVIIQ-IIOOG	12:28			Mid-ebb	13:24			Mid-flood	8:31		

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

			Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
						Unit: dE	B(A), (30-min)	
29/12/15	11:00	Fine	77.1	78.5	74.0	72	75	75
06/01/16	10:15	Fine	77.0	79.0	76.0	72	75	75
12/01/16	11:00	Fine	79.7	81.0	77.5	72	79	75
19/01/16	10:25	Fine	84.8	86.5	80.5	72	85	75
27/01/16	11:25	Cloudy	76.2	78.0	71.5	72	74	75

Location: M2b - Noon-day gun area

		Measure	ement Noi	se Level		Baseline Level	Construction Noise Level	Limit Level				
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq				
				Unit: dB(A), (30-min)								
29/12/15	13:00	Cloudy	69.5	71.0	66.5	68	65	75				
06/01/16	11:10	Fine	68.6	70.0	67.0	68	62	75				
12/01/16	13:00	Fine	69.6	70.5	67.5	68	65	75				
19/01/16	11:30	Fine	68.0	69.5	66.5	68	57	75				
27/01/16	10:45	Cloudy	70.6	72.0	68.0	68	68	75				

Location: M3a - Tung Lo Wan Fire Station

			Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
						Unit: dl	B(A), (30-min)	
28/12/15	14:22	Cloudy	66.0	67.5	63.5	69	66	75
04/01/16	8:00	Fine	66.5	67.5	65.0	69	67	75
12/01/16	8:00	Fine	65.5	67.5	63.0	69	66	75
19/01/16	13:00	Fine	66.7	67.5	65.0	69	67	75
26/01/16	9:40	Cloudy	65.2	66.5	63.0	69	65	75

Location: M4b - Victoria Centre

			Measure	ement Noi	se Level	Baseline Noise Level	Construction Noise Level	Limit Level			
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq			
				Unit: dB(A), (30min)							
28/12/15	15:05	Cloudy	67.2	69.5	63.0	67	67	75			
04/01/16	8:45	Fine	68.5	69.0	67.0	67	62	75			
12/01/16	8:40	Fine	70.5	71.0	68.0	67	68	75			
19/01/16	13:41	Fine	68.9	71.5	65.5	67	64	75			
26/01/16	10:15	Cloudy	67.2	69.0	64.5	67	67	75			

Location: M5b - City Garden

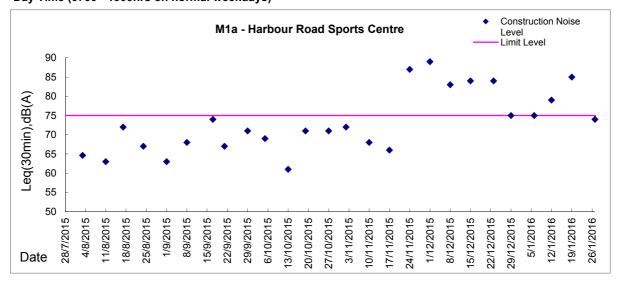
		Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level	
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
				Unit: dB(A), (30min)				
29/12/15	13:47	Fine	67.8	69.0	65.0	68	68	75
04/01/16	9:30	Fine	64.5	66.0	63.5	68	65	75
12/01/16	9:25	Fine	65.5	66.0	64.5	68	66	75
19/01/16	14:24	Fine	71.0	72.5	65.5	68	68	75
26/01/16	10:55	Cloudy	68.2	69.5	65.0	68	55	75

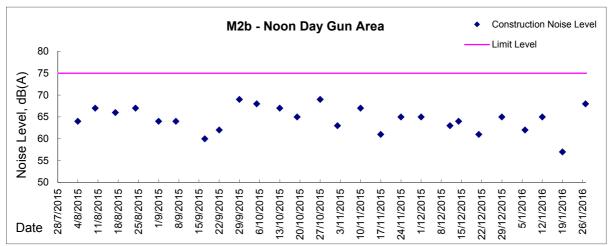
Location: M6 - HK Baptist Church Henrietta Secondary School

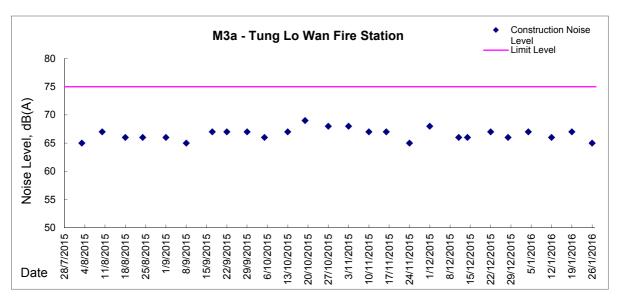
			Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level	
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq	
			Unit: dB(A), (30-min)						
29/12/15	14:26	Fine	70.4	72.0	67.0	71	70	70	
04/01/16	10:05	Fine	72.3	73.0	70.5	71	67	70	
12/01/16	10:00	Fine	72.4	73.5	70.0	71	68	70	
19/01/16	15:00	Fine	72.8	74.0	71.0	71	69	70	
26/01/16	11:30	Cloudy	71.5	72.0	70.0	71	64	70	



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

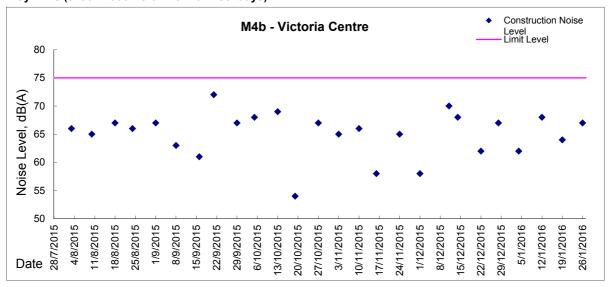


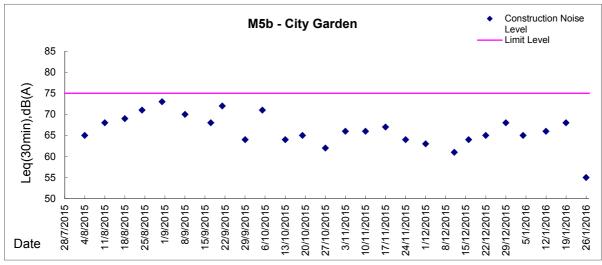


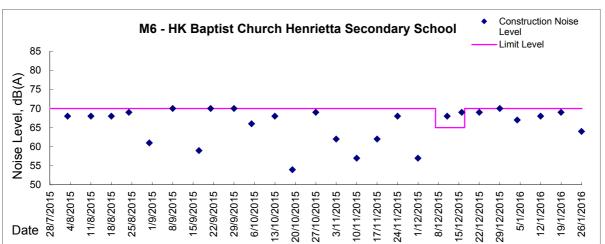




Graphic Presentation of Noise Monitoring Result Day Time (0700 - 1900hrs on normal weekdays)







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 (μ g/m3) - 176.7 Limit Level (μ g/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μ g /m³
29-Dec-15	8:00	Cloudy	014098	2.8945	3.1375	7465.10	7489.10	24.00	1.28	1.29	1.28	1850	131.3
4-Jan-16	8:00	Cloudy	014132	2.8075	2.9708	7492.10	7516.10	24.00	1.28	1.27	1.27	1836	89.0
9-Jan-16	8:00	Cloudy	014373	2.8137	3.0121	7519.10	7543.10	24.00	1.28	1.28	1.28	1844	107.6
15-Jan-16	8:00	Rainy	014483	2.7887	2.9066	7546.10	7570.10	24.00	1.28	1.28	1.28	1847	63.8
21-Jan-16	8:00	Cloudy	014463	2.7733	2.9025	7573.60	7597.60	24.00	1.28	1.29	1.29	1851	69.8

Report on 1-hour TSP monitoring Action Level (μ g/m3) - 320.1 Limit Level (μ g/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Dec-15	9:10	Cloudy	014359	2.7908	2.8019	7489.10	7490.10	1.00	1.29	1.29	1.29	77	143.9
30-Dec-15	13:00	Cloudy	014361	2.8076	2.8195	7490.10	7491.10	1.00	1.29	1.29	1.29	77	154.3
30-Dec-15	15:00	Cloudy	014302	2.8965	2.9095	7491.10	7492.10	1.00	1.29	1.29	1.29	77	168.6
5-Jan-16	9:45	Rainy	014369	2.8261	2.8386	7516.10	7517.10	1.00	1.83	1.83	1.83	110	113.6
5-Jan-16	10:48	Rainy	014337	2.8311	2.8442	7517.10	7518.10	1.00	1.83	1.83	1.83	110	119.0
5-Jan-16	13:00	Rainy	014371	2.8232	2.8344	7518.10	7519.10	1.00	1.83	1.83	1.83	110	101.8
11-Jan-16	9:56	Rainy	014381	2.8030	2.8080	7543.10	7544.10	1.00	1.28	1.28	1.28	77	65.2
11-Jan-16	10:59	Rainy	014491	2.8139	2.8167	7544.10	7545.10	1.00	1.28	1.28	1.28	77	36.5
11-Jan-16	13:00	Rainy	014488	2.8169	2.8219	7545.10	7546.10	1.00	1.28	1.28	1.28	77	65.2
16-Jan-16	9:25	Cloudy	014472	2.7841	2.7957	7570.10	7571.10	1.00	1.28	1.28	1.28	77	150.9
16-Jan-16	10:44	Cloudy	014469	2.8099	2.8196	7571.10	7572.10	1.00	1.28	1.28	1.28	77	126.2
16-Jan-16	13:00	Cloudy	014466	2.8198	2.8373	7572.10	7573.10	1.00	1.28	1.28	1.28	77	227.6
22-Jan-16	8:55	Rainy	014404	2.7952	2.8061	7597.60	7598.60	1.00	1.29	1.29	1.29	77	141.1
22-Jan-16	10:35	Rainy	014407	2.7952	2.8048	7598.60	7599.60	1.00	1.29	1.29	1.29	77	124.3
22-Jan-16	13:00	Rainy	014410	2.7914	2.8074	7599.60	7600.60	1.00	1.29	1.29	1.29	77	207.1



Location: CMA2a - Causeway Bay Community Centre

Report on 24-hour TSP monitoring Action Level (μ g/m3) - 169.5 Limit Level (μ g/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
29-Dec-15	8:00	Cloudy	014261	2.8820	3.0305	17115.01	17139.01	24.00	1.23	1.24	1.24	1779	83.5
4-Jan-16	8:00	Cloudy	014365	2.8229	2.9015	17142.01	17166.01	24.00	1.11	1.11	1.11	1601	49.1
9-Jan-16	8:00	Cloudy	014372	2.8174	2.9294	17169.02	17193.02	24.00	1.17	1.17	1.17	1691	66.2
15-Jan-16	8:00	Rainy	014338	2.8186	2.9042	17196.02	17220.02	24.00	1.23	1.23	1.23	1775	48.2
21-Jan-16	8:00	Cloudy	014465	2.8336	2.9304	17223.02	17247.02	24.00	1.23	1.24	1.24	1780	54.4

Report on 1-hour TSP monitoring Action Level (µg/m3) - 323.4 Limit Level (µg/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Tim	e, hr	Sampling	Flo	w Rate, m³/r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m ³
30-Dec-15	9:09	Cloudy	014094	2.8857	2.8946	17139.01	17140.01	1.00	1.24	1.24	1.24	74	120.0
30-Dec-15	13:15	Cloudy	014344	2.8178	2.8260	17140.01	17141.01	1.00	1.24	1.24	1.24	74	110.6
30-Dec-15	15:15	Cloudy	014297	2.9060	2.9153	17141.01	17142.01	1.00	1.24	1.24	1.24	74	125.4
5-Jan-16	9:44	Rainy	014127	2.8069	2.8140	17166.01	17167.01	1.00	1.11	1.11	1.11	67	106.5
5-Jan-16	10:49	Rainy	014122	2.7876	2.7934	17167.01	17168.01	1.00	1.11	1.11	1.11	67	87.0
5-Jan-16	13:00	Rainy	014385	2.8197	2.8268	17168.01	17169.01	1.00	1.11	1.11	1.11	67	106.5
11-Jan-16	10:06	Rainy	014498	2.7917	2.7964	17193.02	17194.02	1.00	1.23	1.23	1.23	74	63.7
11-Jan-16	13:00	Rainy	014490	2.8020	2.8048	17194.02	17195.02	1.00	1.23	1.23	1.23	74	38.0
11-Jan-16	14:05	Rainy	014489	2.7948	2.7968	17195.02	17196.02	1.00	1.23	1.23	1.23	74	27.1
16-Jan-16	9:04	Cloudy	014505	2.7965	2.8040	17220.02	17221.02	1.00	1.23	1.23	1.23	74	101.5
16-Jan-16	10:39	Cloudy	014509	2.8165	2.8239	17221.02	17222.02	1.00	1.23	1.23	1.23	74	100.2
16-Jan-16	13:00	Cloudy	014513	2.7867	2.7979	17222.02	17223.02	1.00	1.23	1.23	1.23	74	151.6
22-Jan-16	9:04	Rainy	014388	2.8154	2.8186	17247.02	17248.02	1.00	1.24	1.24	1.24	74	43.1
22-Jan-16	10:31	Rainy	014392	2.8363	2.8378	17248.02	17249.02	1.00	1.24	1.24	1.24	74	20.2
22-Jan-16	13:00	Rainy	014396	2.8318	2.8397	17249.02	17250.02	1.00	1.24	1.24	1.24	74	106.4



Location: CMA3a - CWB PRE Site Office Area

Report on 24-hour TSP monitoring Action Level (μ g/m3) - 171 Limit Level (μ g/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
29-Dec-15	8:00	Cloudy	014275	2.8627	3.0136	4607.15	4631.15	24.00	1.25	1.25	1.25	1800	83.9
4-Jan-16	8:00	Cloudy	014301	2.8710	2.9349	4634.15	4658.15	24.00	1.22	1.21	1.22	1750	36.5
9-Jan-16	8:00	Cloudy	014375	2.8154	2.9456	4661.15	4685.15	24.00	1.22	1.22	1.22	1757	74.1
15-Jan-16	8:00	Rainy	014482	2.7936	2.9525	4688.15	4712.15	24.00	1.32	1.32	1.32	1906	83.4
21-Jan-16	8:00	Cloudy	014477	2.7941	2.8649	4715.15	4739.15	24.00	1.32	1.33	1.33	1910	37.1

Report on 1-hour TSP monitoring Action Level (µg/m3) - 311.3 Limit Level (µg/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Tim	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Dec-15	8:50	Cloudy	014358	2.8175	2.8274	4631.15	4632.15	1.00	1.25	1.25	1.25	75	132.3
30-Dec-15	10:45	Cloudy	014360	2.8186	2.8251	4632.15	4633.15	1.00	1.25	1.25	1.25	75	86.9
30-Dec-15	14:35	Cloudy	014364	2.7787	2.7866	4633.15	4634.15	1.00	1.25	1.25	1.25	75	105.6
5-Jan-16	9:25	Rainy	014368	2.8314	2.8356	4658.15	4659.15	1.00	1.12	1.12	1.12	67	62.6
5-Jan-16	10:30	Rainy	014340	2.8343	2.8417	4659.15	4660.15	1.00	1.23	1.23	1.23	74	100.0
5-Jan-16	13:00	Rainy	014348	2.8044	2.8136	4660.15	4661.15	1.00	1.29	1.29	1.29	78	118.7
11-Jan-16	9:35	Rainy	014380	2.7975	2.8020	4685.15	4686.15	1.00	1.18	1.18	1.18	71	63.5
11-Jan-16	13:00	Rainy	014500	2.8069	2.8108	4686.15	4687.15	1.00	1.21	1.21	1.21	73	53.7
11-Jan-16	14:12	Rainy	014484	2.8000	2.8038	4687.15	4688.15	1.00	1.21	1.21	1.21	73	52.3
16-Jan-16	8:55	Cloudy	014473	2.7899	2.7953	4712.15	4713.15	1.00	1.13	1.13	1.13	68	80.0
16-Jan-16	10:26	Cloudy	014470	2.8081	2.8147	4713.15	4714.15	1.00	1.13	1.13	1.13	68	97.7
16-Jan-16	13:00	Cloudy	014467	2.7745	2.7856	4714.15	4715.15	1.00	1.24	1.24	1.24	75	148.9
22-Jan-16	8:40	Rainy	014403	2.7949	2.7967	4739.15	4740.15	1.00	1.22	1.22	1.22	73	24.6
22-Jan-16	10:15	Rainy	014406	2.7806	2.7843	4740.15	4741.15	1.00	1.22	1.25	1.23	74	49.9
22-Jan-16	13:00	Rainy	014409	2.7895	2.7972	4741.15	4742.15	1.00	1.25	1.25	1.25	75	102.7



Location: CMA4a - SPCA

Report on 24-hour TSP monitoring Action Level (µg/m3) - 171.2 Limit Level (µg/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
29-Dec-15	8:00	Cloudy	014255	2.8650	3.1169	21392.00	21416.00	24.00	1.33	1.33	1.33	1909	131.9
4-Jan-16	8:00	Cloudy	014366	2.8351	2.9713	21419.00	21443.00	24.00	1.32	1.32	1.32	1895	71.9
9-Jan-16	8:00	Cloudy	014374	2.8135	2.9867	21446.00	21470.00	24.00	1.32	1.32	1.32	1903	91.0
15-Jan-16	8:00	Rainy	014339	2.8324	2.9450	21473.00	21497.00	24.00	1.32	1.32	1.32	1906	59.1
21-Jan-16	8:00	Cloudy	014478	2.7803	2.8979	21500.00	21524.00	24.00	1.27	1.28	1.28	1837	64.0

Report on 1-hour TSP monitoring
Action Level (µg/m3) - 312.5
Limit Level (µg/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m ³
30-Dec-15	8:09	Cloudy	014095	2.8832	2.8914	21416.00	21417.00	1.00	1.33	1.33	1.33	80	103.0
30-Dec-15	10:41	Cloudy	014342	2.8165	2.8264	21417.00	21418.00	1.00	1.33	1.33	1.33	80	124.4
30-Dec-15	14:38	Cloudy	014133	2.7929	2.8016	21418.00	21419.00	1.00	1.33	1.33	1.33	80	109.3
5-Jan-16	9:21	Rainy	014129	2.7824	2.7925	21443.00	21444.00	1.00	1.32	1.32	1.32	79	128.0
5-Jan-16	10:26	Rainy	014124	2.8033	2.8128	21444.00	21445.00	1.00	1.32	1.32	1.32	79	120.4
5-Jan-16	13:00	Rainy	014383	2.8072	2.8152	21445.00	21446.00	1.00	1.32	1.32	1.32	79	101.4
11-Jan-16	9:35	Rainy	014497	2.7939	2.7989	21470.00	21471.00	1.00	1.32	1.32	1.32	79	63.1
11-Jan-16	13:00	Rainy	014499	2.8095	2.8136	21471.00	21472.00	1.00	1.32	1.32	1.32	79	51.8
11-Jan-16	14:05	Rainy	014356	2.7949	2.8023	21472.00	21473.00	1.00	1.32	1.32	1.32	79	93.4
16-Jan-16	8:59	Cloudy	014504	2.7911	2.7989	21497.00	21498.00	1.00	1.32	1.32	1.32	79	98.3
16-Jan-16	10:22	Cloudy	014508	2.8019	2.8136	21498.00	21499.00	1.00	1.32	1.32	1.32	79	147.5
16-Jan-16	13:00	Cloudy	014512	2.7922	2.8028	21499.00	21500.00	1.00	1.32	1.32	1.32	79	133.6
22-Jan-16	8:44	Rainy	014521	2.8639	2.8676	21524.00	21525.00	1.00	1.28	1.28	1.28	77	48.3
22-Jan-16	10:18	Rainy	014391	2.8259	2.8285	21525.00	21526.00	1.00	1.28	1.28	1.28	77	33.9
22-Jan-16	13:00	Rainy	014395	2.8083	2.8204	21526.00	21527.00	1.00	1.28	1.28	1.28	77	157.9



Location: CMA5b - Pedestrian Plaza

Report on 24-hour TSP monitoring Action Level (μ g/m3) - 181 Limit Level (μ g/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
29-Dec-15	8:00	Cloudy	014284	2.8777	3.0825	5922.03	5946.03	24.00	0.81	0.81	0.81	1165	175.7
4-Jan-16	8:00	Cloudy	014134	2.7954	2.9188	5949.03	5973.03	24.00	0.80	0.80	0.80	1147	107.6
11-Jan-16	15:20	Rainy	014476	2.7770	2.8254	5979.03	6003.03	24.00	0.73	0.74	0.74	1060	45.6
15-Jan-16	8:00	Rainy	014501	2.7884	2.8376	6003.03	6027.03	24.00	0.74	0.74	0.74	1064	46.3
22-Jan-16	14:00	Cloudy	014464	2.7580	2.8283	6047.07	6071.07	24.00	0.81	0.83	0.82	1182	59.5

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 9 and 21 January 2016 to 11 and 22 January 2016 respectively.

Report on 1-hour TSP monitoring Action Level (µg/m3) - 332 Limit Level (µg/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q_{sf}	Average	Volume, m ³	μg/m³
30-Dec-15	8:41	Cloudy	014096	2.8800	2.8857	5946.03	5947.03	1.00	0.74	0.74	0.74	45	128.0
30-Dec-15	9:45	Cloudy	014341	2.8254	2.8316	5947.03	5948.03	1.00	0.74	0.74	0.74	45	139.2
30-Dec-15	13:00	Cloudy	014345	2.8339	2.8407	5948.03	5949.03	1.00	0.78	0.78	0.78	47	146.0
5-Jan-16	9:08	Rainy	014130	2.8063	2.8116	5973.03	5974.03	1.00	0.73	0.73	0.73	44	121.3
5-Jan-16	10:15	Rainy	014125	2.8053	2.8111	5974.03	5975.03	1.00	0.73	0.73	0.73	44	132.7
5-Jan-16	13:00	Rainy	014382	2.8059	2.8119	5975.03	5976.03	1.00	0.73	0.73	0.73	44	137.3
11-Jan-16	8:34	Rainy	014496	2.7943	2.7963	5976.03	5977.03	1.00	0.80	0.80	0.80	48	41.6
11-Jan-16	10:45	Rainy	014494	2.7957	2.8004	5977.03	5978.03	1.00	0.87	0.87	0.87	52	90.1
11-Jan-16	13:30	Rainy	014485	2.8273	2.8316	5978.03	5979.03	1.00	0.73	0.73	0.73	44	97.6
16-Jan-16	8:40	Cloudy	014503	2.7979	2.8033	6027.03	6028.03	1.00	0.74	0.74	0.74	44	122.1
16-Jan-16	10:09	Cloudy	014507	2.7989	2.8047	6028.03	6029.03	1.00	0.74	0.74	0.74	44	131.1
16-Jan-16	13:00	Cloudy	014511	2.7986	2.8099	6029.03	6030.03	1.00	0.74	0.74	0.74	44	255.4
22-Jan-16	8:30	Rainy	014520	2.8739	2.8752	6044.07	6045.07	1.00	0.74	0.74	0.74	45	29.1
22-Jan-16	10:05	Rainy	014390	2.8280	2.8303	6045.07	6046.07	1.00	0.81	0.81	0.81	49	47.2
22-Jan-16	13:00	Rainy	014394	2.8188	2.8207	6046.07	6047.07	1.00	0.74	0.74	0.74	45	42.5



Location: CMA6a - WD2 PRE Office

 $\begin{array}{ccc} \text{Report on 24-hour TSP monitoring} \\ \text{Action Level -} & 187.3 & \mu\text{g/m3} \\ \text{Limit Level -} & 260 & \mu\text{g/m3} \end{array}$

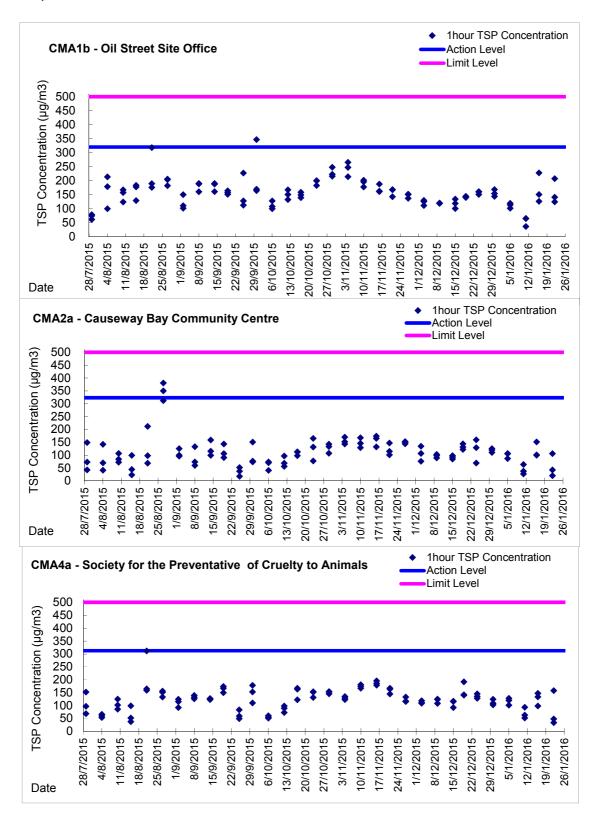
Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m ³ /	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
29-Dec-15	8:00	Cloudy	014260	2.8895	3.0876	20972.29	20996.29	24.00	1.21	1.21	1.21	1742	113.7
4-Jan-16	8:00	Cloudy	014363	2.8034	2.9580	20999.29	21023.29	24.00	1.20	1.20	1.20	1724	89.7
9-Jan-16	8:00	Cloudy	014377	2.8135	3.0566	21026.29	21050.29	24.00	1.21	1.20	1.20	1734	140.2
15-Jan-16	8:00	Rainy	014481	2.7994	2.8940	21053.29	21077.29	24.00	1.21	1.21	1.21	1738	54.4
21-Jan-16	8:00	Cloudy	014514	2.7900	2.9128	21080.29	21104.29	24.00	1.21	1.21	1.21	1743	70.5

Report on 1-hour TSP monitoring Action Level - 300.1 μ g/m³ Limit Level - 500 μ g/m3

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Dec-15	8:25	Cloudy	014357	2.8035	2.8132	20996.29	20997.29	1.00	1.21	1.21	1.21	73	133.6
30-Dec-15	9:35	Cloudy	014360	2.7959	2.8052	20997.29	20998.29	1.00	1.21	1.21	1.21	73	128.1
30-Dec-15	10:40	Cloudy	014362	2.8024	2.8116	20998.29	20999.29	1.00	1.21	1.21	1.21	73	126.7
5-Jan-16	8:50	Rainy	014367	2.8182	2.8255	21023.29	21024.29	1.00	1.76	1.76	1.76	106	69.2
5-Jan-16	10:00	Rainy	014370	2.8284	2.8358	21024.29	21025.29	1.00	1.76	1.76	1.76	106	70.1
5-Jan-16	13:00	Rainy	014347	2.8112	2.8225	21025.29	21026.29	1.00	1.76	1.76	1.76	106	107.1
11-Jan-16	8:20	Rainy	014379	2.8205	2.8255	21050.29	21051.29	1.00	1.20	1.20	1.20	72	69.3
11-Jan-16	10:56	Rainy	014493	2.7860	2.7923	21051.29	21052.29	1.00	1.20	1.20	1.20	72	87.3
11-Jan-16	13:00	Rainy	014486	2.8148	2.8207	21052.29	21053.29	1.00	1.20	1.20	1.20	72	81.8
16-Jan-16	8:06	Cloudy	014474	2.8196	2.8296	21077.29	21078.29	1.00	1.21	1.21	1.21	72	138.3
16-Jan-16	9:56	Cloudy	014471	2.7911	2.7982	21078.29	21079.29	1.00	1.21	1.21	1.21	72	98.2
16-Jan-16	11:00	Cloudy	014468	2.7894	2.7988	21079.29	21080.29	1.00	1.21	1.21	1.21	72	130.0
22-Jan-16	8:25	Rainy	014402	2.8027	2.8052	21104.29	21105.29	1.00	1.21	1.21	1.21	73	34.4
22-Jan-16	9:50	Rainy	014405	2.7885	2.7900	21105.29	21106.29	1.00	1.21	1.21	1.21	73	20.6
22-Jan-16	11:00	Rainy	014408	2.7867	2.7965	21106.29	21107.29	1.00	1.21	1.21	1.21	73	134.7

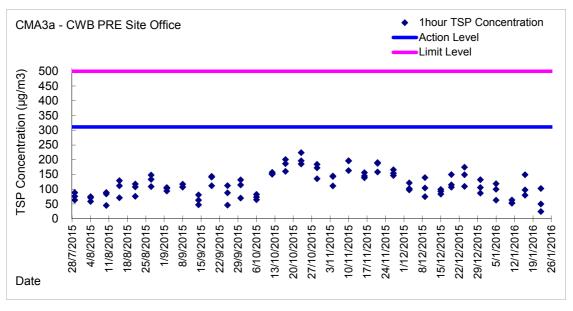


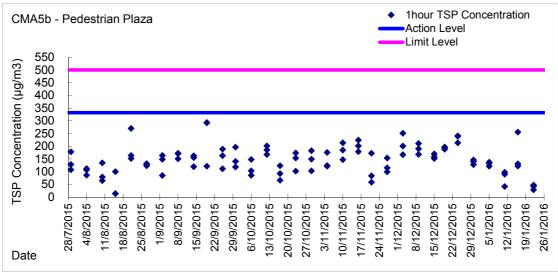
Graphic Presentation of 1 hour TSP Result

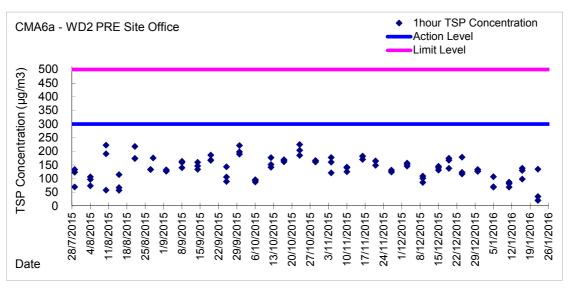




Graphic Presentation of 1 hour TSP Result

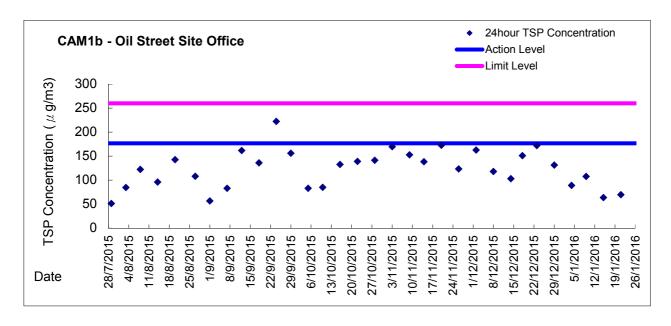


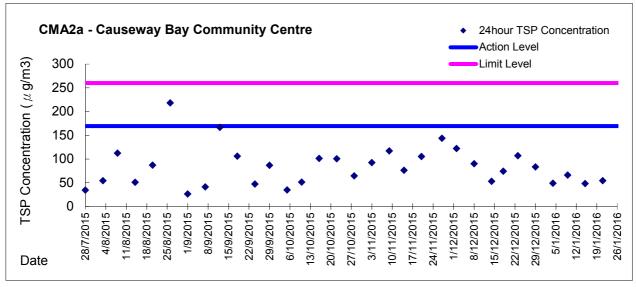


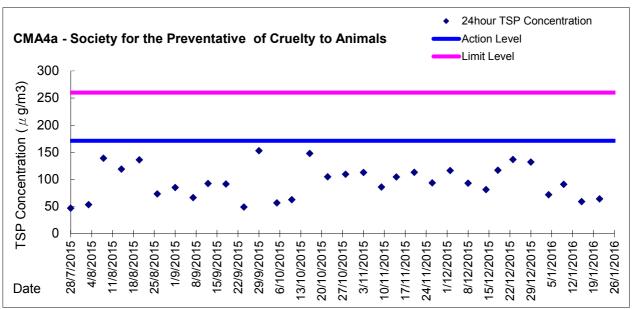




Graphic Presentation of 24 hour TSP Result

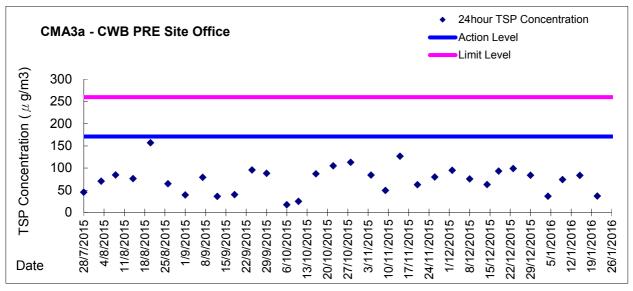


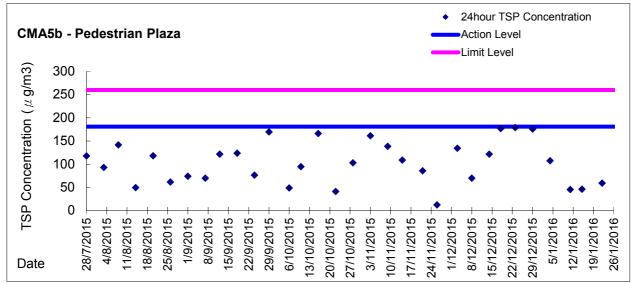


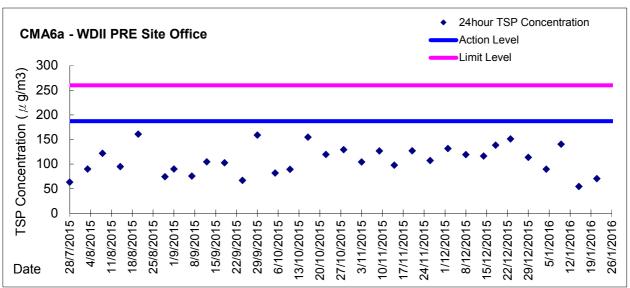




Graphic Presentation of 24 hour TSP Result







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	Weater Condition		g Depth	Wat	er Temp	erature		pH -			Salini ppt	ty	D	O Satur	ation		DO mg/L			Turbid NTU		Suspend	led Solids
		00114111011	r	n	Va	lue	Average	Va	lue	Average	Va		Average	Va	, -	Average	Va	lue	Average	Va	llue	Average		Average
28/12/2015	10:10	Fine	Middle	-	19.80	19.80	19.75	8.23	8.23	8.26	31.97	31.97	31.98	90.8	90.3	90.2	6.86	6.83	6.82	6.36	6.35	6.34	3	2.50
	10:12		Middle	-	19.70	19.70		8.29	8.29		31.98	31.98		89.6	89.9		6.78	6.80		6.32	6.31		2	
30/12/2015	11:00	Fine	Middle	-	19.90	19.90	19.90	8.36	8.36	8.37	32.14	32.14	32.15	91.1	91.3	90.7	6.86	6.89	6.84	5.48	5.47	5.48	5	5.50
	11:02		Middle	-	19.90	19.90		8.37	8.37		32.15	32.15		90.2	90.0		6.80	6.79		5.47	5.48		6	
2/1/2016	12:50	Fine	Middle	-	20.50	20.50	20.45	8.32	8.32	8.36	25.40	25.40	25.41	85.5	83.6	82.6	6.64	6.50	6.42	5.75	5.68	5.69	<2	<2
	12:52		Middle	-	20.40	20.40		8.40	8.40		25.41	25.41		81.1	80.2		6.30	6.23		5.68	5.66		<2	<u> </u>
4/1/2016	10:48	Fine	Middle	-	21.10	21.10	21.15	8.39	8.39	8.39	23.53	23.53	23.54	91.9	93.2	92.7	7.12	7.22	7.18	9.69	9.77	9.72	<2	2.00
	10:50		Middle	-	21.20	21.20		8.39	8.39		23.54	23.54		92.9	92.8		7.19	7.19		9.73	9.69		2	<u> </u>
6/1/2016	11:55	Fine	Middle	-	22.20	22.20	22.30	8.23	8.23	8.25	23.34	23.34	23.33	90.5	92.2	91.8	6.87	7.00	6.96	9.05	8.98	8.95	4	4.50
	11:57		Middle	-	22.40	22.40		8.26	8.26		23.31	23.31		92.0	92.6		6.98	6.97		8.90	8.88		5	<u> </u>
8/1/2016	13:40	Fine	Middle	-	21.30	21.30	21.40	8.26	8.26	8.28	24.42	24.42	24.42	93.1	93.6	93.0	7.14	7.17	7.11	3.67	3.68	3.70	3	3.50
	13:42		Middle	-	21.50	21.50		8.30	8.30		24.41	24.41		93.2	92.2		7.13	7.00		3.72	3.73		4	<u> </u>
11/1/2016	9:50	Rainy	Middle	-	19.90	19.90	19.85	8.37	8.37	8.38	31.16	31.16	31.16	92.2	91.5	91.6	6.99	6.94	6.95	6.16	6.06	6.07	<2	<2
	9:52		Middle	-	19.80	19.80		8.38	8.38		31.15	31.15		91.7	91.0		6.96	6.90		6.03	6.02		<2	<u> </u>
13/1/2016	10:45	Fine	Middle Middle	-	19.70	19.70 19.80	19.75	8.38	8.38	8.39	30.80	30.80	30.80	79.8	79.5	79.9	6.12	6.10	6.09	5.62	5.62	5.61	8	8.00
	12:46		Middle	-	18.50	18.50		8.29	8.29		30.72	30.72		80.0	79.5		6.26	6.08		8.88	8.84		5	<u> </u>
15/1/2016	12:48	Rainy	Middle		18.40	18.40	18.45	8.33	8.33	8.31	30.72	30.72	30.72	76.2	75.4	76.1	5.95	5.89	6.05	8.84	8.83	8.85	3	4.00
	9:58		Middle	_	18.70	18.70		8.34	8.34		30.63	30.63		82.1	82.1		6.38	6.39		8.27	8.26		4	
18/1/2016	10:00	Fine	Middle	-	18.60	18.60	18.65	8.37	8.37	8.36	30.67	30.67	30.65	81.9	82.1	82.1	6.37	6.39	6.38	8.27	8.27	8.27	3	3.50
	16:05		Middle	-	18.40	18.40		8.42	8.42		31.02	31.02		96.3	95.8		7.52	7.49		7.36	7.39		3	
20/1/2016	16:07	Cloudy	Middle	-	18.20	18.20	18.30	8.46	8.46	8.44	31.04	31.04	31.03	94.7	93.7	95.1	7.41	7.30	7.43	7.41	7.39	7.39	4	3.50
	17:15		Middle	-	17.70	17.70		8.24	8.24		30.92	30.92		97.5	97.2		7.72	7.70		9.32	9.32		3	
22/1/2016	17:17	Rainy	Middle	-	17.60	17.60	17.65	8.37	8.37	8.31	30.94	30.94	30.93	96.0	95.6	96.6	7.61	7.58	7.65	9.32	9.33	9.32	4	3.50
27//22/2	10:00		Middle	-	14.90	14.90		8.36	8.36		31.02	31.02		92.0	91.8		7.70	7.68		7.48	7.47		3	<u> </u>
25/1/2016	10:02	Fine	Middle	-	14.70	14.70	14.80	8.42	8.42	8.39	31.05	31.05	31.04	91.6	91.1	91.6	7.67	7.64	7.67	7.47	7.48	7.48	2	2.50



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

Date	Time	Weater Condition		g Depth	Wat	er Temp	erature		pH -			Salinit	ty	D	O Satur	ation		DO mg/L			Turbid NTU			led Solids g/L
			r	n	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	alue	Average	Va		Average	Va	lue	Average		Average
28/12/2015	9:29	Fine	Middle	2.5	19.10	19.10	19.05	8.40	8.40	8.40	32.22	32.22	32.22	77.5	75.4	75.4	5.93	5.77	5.77	7.98	7.97	7.96	9	8.00
20/12/2010	9:31	1 1110	Middle	2.5	19.00	19.00	10.00	8.40	8.40	0.40	32.22	32.22	UZ.ZZ	74.7	74.1	70.4	5.71	5.65	0.77	7.94	7.94	7.00	7	0.00
30/12/2015	10:15	Fine	Middle	2.5	19.10	19.10	19.05	8.41	8.41	8.41	32.20	32.20	32.21	82.8	82.4	81.5	6.34	6.31	6.24	7.24	7.35	7.31	5	5.00
30/12/2013	10:17	Tillo	Middle	2.5	19.00	19.00	10.00	8.41	8.41	0.41	32.21	32.21	32.21	81.4	79.3	01.0	6.23	6.07	0.24	7.36	7.27	7.01	5	3.00
2/1/2016	10:08	Fine	Middle	2.5	19.70	19.70	19.70	8.38	8.38	8.39	31.94	31.94	31.94	82.1	81.1	80.3	6.21	6.15	6.08	4.24	4.24	4.16	<2	<2
2/1/2010	10:10	Tille	Middle	2.5	19.70	19.70	19.70	8.39	8.39	0.59	31.94	31.94	31.94	79.6	78.3	00.5	6.03	5.93	0.00	4.10	4.04	4.10	<2	\2
4/1/2016	14:18	Fine	Middle	2.5	20.60	20.60	20.60	8.33	8.33	8.33	31.76	31.76	31.76	76.9	77.2	77.3	5.73	5.76	5.76	5.93	5.92	5.92	3	3.50
47 172010	14:20	Tille	Middle	2.5	20.60	20.60	20.00	8.33	8.33	0.33	31.75	31.75	31.70	77.7	77.3	77.5	5.79	5.76	3.70	5.91	5.90	J.92	4	3.50
6/1/2016	15:40	Fine	Middle	3.0	20.80	20.80	20.85	8.32	8.32	8.33	31.32	31.32	31.32	90.5	90.9	91.0	6.74	6.77	6.78	5.92	5.99	5.95	3	3.50
0/1/2010	15:42	Tillo	Middle	3.0	20.90	20.90	20.00	8.33	8.33	0.55	31.32	31.32	31.02	91.3	91.4	31.0	6.80	6.80	0.70	5.93	5.96	0.00	4	3.30
8/1/2016	16:17	Fine	Middle	2.5	20.10	20.10	20.10	8.37	8.37	8.37	31.45	31.45	31.46	80.9	80.8	80.9	6.10	6.09	6.10	6.22	6.21	6.22	2	2.00
0/1/2010	16:19	Tille	Middle	2.5	20.10	20.10	20.10	8.37	8.37	0.57	31.47	31.47	31.40	81.1	80.7	00.5	6.12	6.09	0.10	6.18	6.27	0.22	2	2.00
11/1/2016	9:09	Rainy	Middle	2.5	19.20	19.20	19.20	8.46	8.46	8.47	31.46	31.46	31.49	84.4	84.9	84.4	6.48	6.50	6.47	5.49	5.44	5.50	3	3.00
11/1/2010	9:11	runiy	Middle	2.5	19.20	19.20	10.20	8.47	8.47	0.47	31.51	31.51	01.40	84.6	83.8	04.4	6.47	6.41	0.41	5.45	5.61	0.00	<2	0.00
13/1/2016	9:54	Fine	Middle	2.5	18.50	18.50	18.65	8.45	8.45	8.45	30.15	30.15	30.62	85.3	84.0	82.8	6.61	6.49	6.41	5.11	5.22	5.14	2	2.00
10/11/2010	9:56		Middle	2.5	18.80	18.80	10.00	8.45	8.45	0.10	31.08	31.08	00.02	81.8	80.2	02.0	6.33	6.21	0	5.12	5.09	0	2	2.00
15/1/2016	11:15	Rainy	Middle	2.5	18.00	18.00	18.00	8.47	8.47	8.48	31.11	31.11	31.12	82.4	80.0	79.3	6.47	6.28	6.23	8.13	8.11	8.12	4	3.50
10/1/2010	11:17	. idii.iy	Middle	2.5	18.00	18.00	10.00	8.48	8.48	0.10	31.12	31.12	02	78.1	76.7	7 0.0	6.13	6.02	0.20	8.11	8.12	02	3	0.00
18/1/2016	11:14	Fine	Middle	3.0	18.40	18.40	13.78	8.49	8.49	8.50	31.15	31.15	31.16	92.5	92.8	92.4	7.21	7.24	7.21	9.13	9.10	9.09	4	4.00
10/1/2010	11:16		Middle	3.0	0.00	18.30	10.10	8.50	8.50	0.00	31.16	31.16	00	92.0	92.2	02	7.18	7.19		9.08	9.06	0.00	4	1.00
20/1/2016	15:35	Cloudy	Middle	3.0	17.60	17.60	17.60	8.54	8.54	8.55	31.32	31.32	31.32	96.3	95.5	95.1	7.61	7.55	7.52	7.07	7.16	7.26	5	4.50
20/1/20/10	15:37	oloudy	Middle	3.0	17.60	17.60		8.56	8.56	0.00	31.32	31.32	01.02	94.2	94.2	00	7.45	7.45	2	7.36	7.43	7.20	4	1.00
22/1/2016	16:22	Rainy	Middle	2.5	17.60	17.60	17.60	8.52	8.52	8.53	31.42	31.42	31.23	84.7	83.5	83.0	6.71	6.61	6.58	8.30	8.29	8.29	3	2.50
	16:24	,	Middle	2.5	17.60	17.60		8.53	8.53		31.03	31.03		82.2	81.7		6.51	6.47		8.29	8.29		2	
25/1/2016	10:50	Fine	Middle	2.5	14.90	14.90	14.95	8.51	8.51	8.51	31.32	31.32	31.34	85.8	85.2	84.7	7.14	7.10	7.05	8.66	8.65	8.63	4	4.00
	10:52		Middle	2.5	15.00	15.00		8.51	8.51		31.35	31.35		84.0	83.7		7.00	6.97		8.63	8.59		4	



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

Date	Time	Weater Condition		g Depth	Wat	er Temp	erature		pH -			Salini	ty	D	O Satur	ation		DO mg/L			Turbid		Suspend	led Solids
		Condition	n	n	Va	lue	Average	Va	lue	Average	Va		Average	Va	, -	Average	Va	lue	Average	Va	lue	Average		Average
28/12/2015	9:13	Fine	Middle	2.5	18.50	18.50	18.50	8.33	8.34	8.35	31.99	31.99	32.03	84.0	81.9	81.6	6.48	6.34	6.31	6.41	6.42	6.40	4	4.00
	9:15		Middle	2.5	18.50	18.50		8.37	8.37		32.07	32.07	0	80.2	80.3		6.21	6.22		6.42	6.35		4	
30/12/2015	9:59	Fine	Middle	2.5	18.90	18.90	18.75	8.30	8.30	8.33	32.20	32.20	32.21	87.9	85.7	84.8	6.78	6.61	6.54	5.78	5.76	5.77	5	4.00
	10:01		Middle	2.5	18.60	18.60		8.35	8.35		32.21	32.21		84.3	81.3		6.50	6.27		5.76	5.78		3	
2/1/2016	9:52	Fine	Middle	2.5	19.50	19.50	19.50	8.36	8.36	8.37	32.04	32.04	32.04	80.1	79.3	78.7	6.09	6.02	5.98	5.06	4.88	4.87	2	2.00
	9:54		Middle	2.5	19.50	19.50		8.37	8.37		32.04	32.04		78.1	77.4		5.93	5.88		4.84	4.69		<2	
4/1/2016	14:02	Fine	Middle	2.5	21.50	21.50	21.50	8.28	8.28	8.29	31.86	31.86	31.87	77.4	76.9	76.5	5.67	5.63	5.61	4.28	4.32	4.33	2	2.00
	14:04		Middle	2.5	21.50	21.50		8.29	8.29		31.87	31.87		76.2	75.6		5.58	5.54		4.34	4.39		2	<u> </u>
6/1/2016	15:20	Fine	Middle	3.0	22.10	22.10	22.20	8.26	8.26	8.27	31.41	31.41	31.34	97.7	98.2	97.6	7.10	7.13	7.09	7.12	7.08	7.08	4	4.50
	15:22		Middle	3.0	22.30	22.30		8.28	8.28		31.27	31.27		97.6	97.0		7.09	7.04		7.07	7.04		5	
8/1/2016	16:01	Fine	Middle	2.5	20.20	20.20	20.25	8.22	8.22	8.25	31.60	31.60	31.56	84.6	84.5	84.4	6.36	6.35	6.35	5.10	4.89	4.92	3	2.50
	16:03		Middle	2.5	20.30	20.30		8.27	8.27		31.52	31.52		84.2	84.3		6.33	6.34		4.85	4.83		2	
11/1/2016	8:53	Rainy	Middle	2.5	19.10	19.10	19.05	8.35	8.35	8.38	31.38	31.38	31.39	96.9	94.9	94.3	7.45	7.30	7.24	4.00	4.00	4.00	3	3.00
	8:55		Middle	2.5	19.00	19.00		8.41	8.41		31.40	31.40		93.1	92.2		7.11	7.09		4.00	4.01		3	
13/1/2016	9:38	Fine	Middle	2.5	18.00	18.00	18.00	8.37	8.37	8.39	30.99	30.99	31.01	79.3	80.6	80.2	6.24	6.34	6.31	6.54	6.54	6.54	2	2.50
	9:40		Middle	2.5	18.00	18.00		8.40	8.40		31.02	31.02		80.6	80.2		6.34	6.30		6.54	6.53		3	
15/1/2016	10:59	Rainy	Middle	2.5	17.50	17.50	17.45	8.38	8.38	8.40	30.90	30.90	30.92	81.7	81.4	80.9	6.49	6.47	6.43	8.06	8.01	8.00	2	2.00
	11:01		Middle	2.5	17.40	17.40		8.41	8.41		30.93	30.93		80.5	80.0		6.40	6.34		8.01	7.90		2	
18/1/2016	14:58	Fine	Middle	3.0	18.30	18.30	18.40	8.28	8.28	8.33	30.95	30.95	30.94	91.1	91.2	90.8	7.11	7.12	7.09	7.62	7.64	7.65	<2	<2
	15:00		Middle	3.0	18.50	18.50		8.38	8.38		30.93	30.93		90.7	90.3		7.08	7.05		7.68	7.65		<2	
20/1/2016	15:10	Cloudy	Middle	3.0	17.30	17.30	17.30	8.47	8.47	8.49	31.33	31.33	31.44	95.3	96.3	95.5	7.58	7.66	7.61	7.48	7.48	7.47	3	2.50
	15:12		Middle	3.0	17.30	17.30		8.51	8.51		31.55	31.55		95.9	94.5		7.62	7.57		7.47	7.45		2	<u> </u>
22/1/2016	16:06	Rainy	Middle	2.5	17.20	17.20	17.15	8.40	8.40	8.42	31.02	31.02	31.05	86.4	86.6	86.8	6.90	6.91	6.93	6.55	6.52	6.51	3	2.50
	16:08		Middle	2.5	17.10	17.10		8.43	8.43		31.07	31.07		86.9	87.2		6.95	6.97		6.48	6.48		2	
25/1/2016	10:34	Fine	Middle	2.5	13.50	13.50	13.45	8.44	8.44	8.47	31.00	31.00	31.08	90.1	89.3	88.3	7.75	7.68	7.60	8.62	8.64	8.65	4	4.00
	10:36		Middle	2.5	13.40	13.40		8.49	8.49		31.15	31.15		87.6	86.0		7.54	7.41		8.66	8.67		4	



Water Monitoring Result at P3 - APA Mid-Flood Tide

Date	Time	Weater Condition		g Depth	Wat	er Temp	erature		pH -			Salini	,	D	O Satur	ation		DO mg/L			Turbid		Suspend	led Solids
		Condition	n	n	Va	lue	Average	Va	lue	Average	Va		Average	Va	, -	Average	Va	lue	Average	Va	lue	Average		Average
28/12/2015	9:17	Fine	Middle	2.5	18.80	18.80	18.80	8.37	8.37	8.37	32.07	32.07	32.09	74.6	73.2	72.9	5.74	5.63	5.61	7.89	7.93	7.92	5	5.50
26/12/2010	9:19	0	Middle	2.5	18.80	18.80	10.00	8.37	8.37	0.01	32.10	32.10	02.00	72.1	71.6	7 2.0	5.55	5.51	0.0 .	7.93	7.91	1.02	6	0.00
30/12/2015	10:03	Fine	Middle	2.5	18.50	18.50	18.50	8.37	8.37	8.38	32.18	32.18	32.19	86.1	84.7	84.4	6.65	6.55	6.52	6.97	6.90	6.82	4	4.00
	10:05		Middle	2.5	18.50	18.50		8.38	8.38		32.19	32.19		83.8	83.0		6.48	6.41		6.54	6.87		4	
2/1/2016	9:56	Fine	Middle	2.5	19.40	19.40	19.40	8.38	8.38	8.38	32.04	32.04	32.04	82.8	82.2	82.0	6.30	6.25	6.23	4.42	4.33	4.32	3	2.50
	9:58		Middle	2.5	19.40	19.40		8.38	8.38		32.04	32.04		81.7	81.1		6.21	6.17		4.28	4.25		2	<u> </u>
4/1/2016	14:06	Fine	Middle	2.5	21.00	21.00	20.95	8.31	8.31	8.31	31.74	31.74	31.80	84.6	83.0	81.8	6.28	6.16	6.07	5.37	5.20	5.29	2	2.00
	14:08		Middle	2.5	20.90	20.90		8.31	8.31		31.85	31.85		81.0	78.7		6.01	5.84		5.28	5.30		<2	<u> </u>
6/1/2016	15:25	Fine	Middle	3.0	21.10	21.10	21.15	8.30	8.30	8.30	31.39	31.39	31.39	93.4	93.8	93.6	6.92	6.95	6.93	4.90	4.90	4.87	2	2.00
	15:27		Middle	3.0	21.20	21.20		8.30	8.30		31.38	31.38		93.7	93.4		6.94	6.91		4.85	4.82		2	<u> </u>
8/1/2016	16:05	Fine	Middle	2.5	19.90	19.90	19.95	8.30	8.30	8.32	31.51	31.51	31.51	85.1	83.3	82.9	6.47	6.29	6.27	6.00	6.04	6.03	<2	<2
	16:07		Middle	2.5	20.00	20.00		8.33	8.33		31.50	31.50		82.4	80.8		6.22	6.10		6.07	6.01		<2	<u> </u>
11/1/2016	8:57	Rainy	Middle	2.5	19.10	19.10	19.10	8.42	8.42	8.43	31.25	31.25	31.32	88.0	86.4	86.1	6.76	6.68	6.63	3.55	3.54	3.59	2	3.00
	8:59		Middle	2.5	19.10	19.10		8.43	8.43		31.38	31.38		86.0	84.1		6.61	6.46		3.63	3.63		4	<u> </u>
13/1/2016	9:42	Fine	Middle Middle	2.5	18.10	18.10	18.10	8.41	8.41	8.42	30.84	30.84	30.96	85.3 84.0	84.5	84.5	6.69	6.63	6.63	6.77	6.75	6.70	3	3.50
	11:03		Middle	2.5	17.40	17.40		8.42	8.42		31.07	31.07		83.0	82.4		6.60	6.55		6.72	6.92		2	<u> </u>
15/1/2016	11:05	Rainy	Middle	2.5	17.40	17.40	17.40	8.43	8.43	8.43	31.04	31.04	31.05	81.0	79.8	81.6	6.44	6.32	6.48	6.90	6.88	6.92	2	2.00
	11:02		Middle	3.0	18.20	18.20		8.41	8.41		30.98	30.98		92.4	92.4		7.24	7.24		7.21	7.20		3	
18/1/2016	11:04	Fine	Middle	3.0	18.20	18.20	18.20	8.44	8.44	8.43	30.98	30.98	30.98	92.5	92.4	92.4	7.25	7.24	7.24	7.20	7.20	7.20	2	2.50
	15:15		Middle	3.0	17.30	17.30		8.52	8.52		31.31	31.31		94.5	95.4		7.52	7.59		7.35	7.26		2	
20/1/2016	15:20	Cloudy	Middle	3.0	17.30	17.30	17.30	8.53	8.53	8.53	31.31	31.31	31.31	94.3	95.3	94.9	7.50	7.58	7.55	7.23	7.10	7.24	2	2.00
	16:10		Middle	2.5	17.20	17.20		8.45	8.45		32.06	32.06		87.2	86.3		6.95	6.88		7.96	7.97		2	
22/1/2016	16:12	Rainy	Middle	2.5	17.20	17.20	17.20	8.47	8.47	8.46	31.19	32.19	31.88	85.0	84.3	85.7	6.77	6.72	6.83	7.89	7.95	7.94	3	2.50
	10:38		Middle	2.5	13.60	13.60		8.50	8.50		31.33	31.33		84.7	84.3		7.26	7.22		8.95	8.95		4	<u> </u>
25/1/2016	10:40	Fine	Middle	2.5	13.60	13.60	13.60	8.50	8.50	8.50	31.32	31.32	31.33	83.8	83.4	84.1	7.18	7.15	7.20	8.97	8.97	8.96	4	4.00



Water Monitoring Result at P4 - SOC Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty	D	O Satur	ation		DO mg/L			Turbid NTU			ed Solids
		Condition	r	n	Va		Average	Va	llue	Average	Va		Average	Va	ilue	Average	Va	lue	Average	Va		Average		Average
28/12/2015	9:21	Fine	Middle	2.5	18.80	18.80	18.80	8.37	8.37	8.38	32.22	32.22	32.23	81.5	81.1	81.1	6.26	6.24	6.23	8.67	8.55	8.58	7	7.50
20/12/2013	9:23	TING	Middle	2.5	18.80	18.80	10.00	8.38	8.38	0.50	32.23	32.23	02.20	80.9	80.9	01.1	6.22	6.21	0.25	8.54	8.54	0.50	8	7.50
30/12/2015	10:07	Fine	Middle	2.5	18.60	18.60	18.65	8.38	8.38	8.39	32.07	32.07	32.13	85.2	84.5	83.7	6.57	6.52	6.46	8.68	8.72	8.61	5	5.50
00/12/2010	10:09	1 1110	Middle	2.5	18.70	18.70	10.00	8.39	8.39	0.00	32.19	32.19	02.10	83.2	82.0	00.1	6.42	6.32	0.40	8.55	8.49	0.01	6	0.00
2/1/2016	10:00	Fine	Middle	2.5	19.50	19.50	19.50	8.38	8.38	8.39	32.02	32.04	32.03	78.8	78.6	78.2	5.99	5.98	5.95	4.40	4.44	4.46	3	3.00
2///2010	10:02	0	Middle	2.5	19.50	19.50	10.00	8.39	8.39	0.00	32.03	32.03	02.00	78.2	77.1	7 0.2	5.95	5.86	0.00	4.50	4.49	0	3	0.00
4/1/2016	14:10	Fine	Middle	2.5	20.70	20.70	20.70	8.32	8.32	8.32	31.57	31.57	31.68	84.0	82.8	82.0	6.26	6.16	6.11	4.14	4.01	4.05	<2	<2
	14:12		Middle	2.5	20.70	20.70		8.32	8.32		31.78	31.78		81.2	80.0		6.05	5.95	-	4.00	4.03		<2	
6/1/2016	15:30	Fine	Middle	3.0	20.80	20.80	20.85	8.31	8.31	8.31	31.32	31.32	31.32	90.2	90.3	90.1	6.72	6.72	6.70	2.74	2.73	2.73	2	2.00
	15:32		Middle	3.0	20.90	20.90		8.31	8.31		31.32	31.32		90.0	89.8		6.69	6.67		2.72	2.71		2	
8/1/2016	16:09	Fine	Middle	2.5	20.00	20.00	20.05	8.34	8.34	8.35	31.44	31.44	31.44	83.5	82.1	81.7	6.31	6.20	6.17	5.21	5.21	5.22	2	2.00
	16:11		Middle	2.5	20.10	20.10		8.36	8.36		31.44	31.44		81.2	80.0		6.13	6.05		5.22	5.22		<2	
11/1/2016	9:01	Rainy	Middle	2.5	19.10	19.10	19.15	8.43	8.43	8.44	31.42	31.42	31.44	86.9	85.1	84.5	6.66	6.52	6.48	6.45	6.42	6.62	5	4.50
	9:03		Middle	2.5	19.20	19.20		8.44	8.44		31.46	31.46		83.5	82.4		6.41	6.32		6.90	6.70		4	
13/1/2016	9:46	Fine	Middle	2.5	18.10	18.10	18.15	8.42	8.42	8.43	30.67	30.67	30.89	86.2	84.0	83.1	6.74	6.57	6.50	5.75	5.63	5.72	3	4.00
	9:48		Middle	2.5	18.20	18.20		8.44	8.44		31.11	31.11		81.8	80.5		6.40	6.30		5.74	5.75		5	
15/1/2016	11:07	Rainy	Middle	2.5	17.60	17.60	17.60	8.44	8.44	8.42	31.07	31.07	31.08	83.0	81.0	81.0	6.57	6.42	6.42	6.79	6.81	6.75	2	3.00
	11:09		Middle	2.5	17.60	17.60		8.40	8.40		31.07	31.10		80.3	79.7		6.36	6.31		6.71	6.69		4	<u> </u>
18/1/2016	11:06	Fine	Middle	3.0	18.40	18.40	18.40	8.45	8.45	8.45	31.07	31.07	31.07	90.2	89.8	88.5	7.03	7.01	6.90	7.97	7.95	7.97	5	5.50
	11:08		Middle	3.0	18.40	18.40		8.45	8.45		31.07	31.07		88.8	85.1		6.93	6.64		7.97	7.99		6	
20/1/2016	15:25	Cloudy	Middle	3.0	17.40	17.40	17.40	8.54	8.54	8.55	31.30	31.30	31.31	95.0	95.8	95.8	7.54	7.60	7.60	8.13	8.21	8.14	3	3.00
	15:27		Middle	3.0	17.40	17.40		8.55	8.55		31.31	31.31		96.2	96.0		7.64	7.62		8.15	8.07		3	<u> </u>
22/1/2016	16:14	Rainy	Middle	2.5	17.30	17.30	17.35	8.49	8.49	8.50	30.84	30.84	31.15	86.0	84.6	84.7	6.89	6.73	6.61	8.79	8.81	8.80	2	3.00
	16:16		Middle	2.5	17.40	17.40		8.50	8.50		31.96	30.95		88.4	79.6		6.47	6.33		8.82	8.77		4	<u> </u>
25/1/2016	10:42	Fine	Middle	2.5	14.40	14.40	14.40	8.50	8.50	8.51	31.26	31.26	31.27	80.6	79.6	79.6	6.79	6.71	6.71	8.57	8.56	8.57	4	4.00
	10:44		Middle	2.5	14.40	14.40		8.51	8.51		31.27	31.27		79.3	78.8		6.68	6.64		8.57	8.59		4	



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

Date	Time	Weater	Samplin	g Depth	Wat	er Temp	erature		рН			Salinit	у	D	O Satur	ation		DO			Turbid			led Solids
Bute		Condition	n	n	Va	lue	Average	Va	lue -	Average	Va	ppt lue	Average	Va	% alue	Average	Va	mg/L lue	Average	Va	NTU lue	Average	mç Value	g/L Average
20/42/2045	9:25	Fine	Middle	2.5	19.00	19.00	10.05	8.39	8.39	0.00	32.20	32.20	22.24	78.2	77.5	77.0	6.00	5.94	F 00	8.08	8.04	0.00	10	0.00
28/12/2015	9:27	Fine	Middle	2.5	18.90	18.90	18.95	8.39	8.39	8.39	32.22	32.22	32.21	76.5	75.6	77.0	5.87	5.80	5.90	8.07	8.13	8.08	8	9.00
30/12/2015	10:11	Fine	Middle	2.5	18.80	18.80	18.80	8.40	8.40	8.40	32.20	32.20	32.21	86.9	84.4	83.6	6.68	6.49	6.43	8.54	8.54	8.55	5	5.50
30/12/2015	10:13	rine	Middle	2.5	18.80	18.80	10.00	8.40	8.40	0.40	32.21	32.21	32.21	82.1	81.1	63.0	6.31	6.23	0.43	8.55	8.57	0.55	6	5.50
2/1/2016	10:04	Fine	Middle	2.5	19.70	19.70	19.70	8.39	8.39	8.39	31.84	31.84	31.85	82.3	81.0	80.4	6.23	6.14	6.09	3.19	3.16	3.16	<2	- <2
2/1/2010	10:06	rille	Middle	2.5	19.70	19.70	19.70	8.39	8.39	0.39	31.86	31.86	31.00	80.0	78.3	00.4	6.06	5.93	0.09	3.15	3.14	3.10	<2	\2
4/4/0040	14:14	i	Middle	2.5	20.60	20.60	00.05	8.33	8.33	0.00	31.64	31.64	04.00	82.8	81.0	70.0	6.17	6.04	5.00	5.31	5.32	5.00	<2	2.22
4/1/2016	14:16	Fine	Middle	2.5	20.70	20.70	20.65	8.33	8.33	8.33	31.74	31.74	31.69	78.5	77.4	79.9	5.85	5.77	5.96	5.33	5.07	5.26	2	2.00
6/1/2016	15:35	Fine	Middle	3.0	20.70	20.70	20.75	8.31	8.31	8.32	31.30	31.30	31.32	91.4	90.7	91.0	6.82	6.76	6.79	5.89	5.89	5.90	4	4.00
6/1/2016	15:37	rine	Middle	3.0	20.80	20.80	20.75	8.32	8.32	0.32	31.33	31.33	31.32	91.1	90.8	91.0	6.79	6.77	0.79	5.90	5.90	5.90	4	4.00
8/1/2016	16:13	Fine	Middle	2.5	20.00	20.00	20.05	8.36	8.36	8.37	31.41	31.41	31.42	84.2	82.5	81.8	6.36	6.23	6.18	3.96	3.76	3.82	<2	- <2
6/1/2010	16:15	rille	Middle	2.5	20.10	20.10	20.05	8.37	8.37	0.37	31.42	31.42	31.42	80.9	79.7	01.0	6.10	6.02	0.10	3.73	3.83	3.02	<2	~2
11/1/2016	9:05	Rainy	Middle	2.5	19.20	19.20	19.20	8.45	8.45	8.46	31.53	31.53	31.53	85.7	84.9	85.6	6.56	6.52	6.56	6.43	6.43	6.37	4	3.50
11/1/2010	9:07	Railly	Middle	2.5	19.20	19.20	19.20	8.46	8.46	0.40	31.53	31.53	31.33	85.7	86.2	65.0	6.57	6.60	0.50	6.31	6.30	0.37	3	3.50
13/1/2016	9:50	Fine	Middle	2.5	18.30	18.30	18.40	8.43	8.43	8.44	30.18	30.18	30.65	86.0	84.7	85.5	6.69	6.58	6.65	7.21	7.27	7.16	6	6.00
13/1/2010	9:52	Tille	Middle	2.5	18.50	18.50	10.40	8.45	8.45	0.44	31.11	31.11	30.03	85.4	86.0	05.5	6.65	6.68	0.03	7.01	7.15	7.10	6	0.00
15/1/2016	11:11	Rainy	Middle	2.5	17.90	17.90	17.90	8.46	8.46	8.46	31.13	31.13	31.15	80.1	79.3	79.0	6.31	6.24	6.22	7.08	7.08	7.13	4	3.50
13/1/2010	11:13	Railly	Middle	2.5	17.90	17.90	17.90	8.46	8.46	0.40	31.16	31.16	31.13	78.7	78.0	7 9.0	6.20	6.14	0.22	7.16	7.18	7.13	3	3.30
18/1/2016	11:10	Fine	Middle	3.0	18.40	18.40	18.40	8.47	8.47	8.48	31.12	31.12	31.12	90.9	88.7	89.1	7.09	6.92	6.95	8.00	8.00	8.00	3	3.00
16/1/2016	11:12	Fine	Middle	3.0	18.40	18.40	16.40	8.48	8.48	0.40	31.12	31.12	31.12	88.2	88.6	69.1	6.88	6.91	0.95	8.00	8.00	6.00	3	3.00
20/1/2016	15:30	Cloudy	Middle	3.0	17.60	17.60	17.60	8.51	8.51	8.53	31.34	31.34	31.33	99.1	99.3	98.3	7.84	7.86	7.80	8.62	8.62	8.62	4	3.00
20/1/2010	15:32	Cloudy	Middle	3.0	17.60	17.60	17.00	8.54	8.54	6.55	31.32	31.32	31.33	98.2	96.7	90.3	7.82	7.66	7.00	8.62	8.63	0.02	2	3.00
22/1/2016	16:18	Rainy	Middle	2.5	17.40	17.40	17.40	8.51	8.51	8.52	30.70	30.70	30.82	86.8	84.9	84.4	6.90	6.75	6.71	8.22	8.26	8.24	4	4.00
22/1/2010	16:20	Isality	Middle	2.5	17.40	17.40	17.40	8.52	8.52	0.32	30.93	30.93	30.02	83.3	82.5	04.4	6.63	6.56	0.71	8.25	8.22	0.24	4	4.00
25/1/2016	10:46	Fine	Middle	2.5	14.50	14.50	14.50	8.51	8.51	8.51	31.31	31.31	31.33	87.3	85.9	85.5	7.33	7.21	7.18	8.83	8.86	8.91	3	3.00
25/1/2010	10:48	FIIIE	Middle	2.5	14.50	14.50	14.50	8.51	8.51	0.01	31.35	31.35	31.33	84.8	84.1	00.0	7.12	7.07	7.10	8.97	8.98	0.81	3	3.00



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

Date	Time	Weater Condition		g Depth	Wat	er Temp	perature		pН			Salinit	ty	D	O Satur	ation		DO mg/L			Turbid		Suspende	led Solids
		Condition	r	n	Va	lue	Average	Va	llue	Average	Va	lue	Average	Va	alue	Average	Va	lue	Average	Va	lue	Average	Value	Average
28/12/2015	9:41	Fine	Middle	3.5	19.10	19.10	19.10	8.35	8.35	8.37	32.14	32.14	32.17	84.3	82.6	82.3	6.44	6.31	6.29	6.41	6.14	6.23	4	3.50
20/12/2010	9:48	1 1110	Middle	3.5	19.10	19.10	10.10	8.38	8.38	0.07	32.19	32.19	02.11	81.5	80.6	02.0	6.23	6.16	0.20	6.29	6.09	0.20	3	0.00
30/12/2015	10:35	Fine	Middle	3.5	19.00	19.00	19.00	8.40	8.40	8.40	32.19	32.19	32.20	80.9	80.4	80.3	6.20	6.16	6.16	8.57	8.55	8.54	7	7.50
00/12/2010	10:37	1 1110	Middle	3.5	19.00	19.00	10.00	8.40	8.40	0.40	32.20	32.20	02.20	80.2	79.7	00.0	6.15	6.11	0.10	8.52	8.50	0.04	8	7.00
2/1/2016	10:24	Fine	Middle	3.5	19.60	19.60	19.60	8.36	8.36	8.37	32.04	32.04	32.04	82.4	81.9	82.4	6.25	6.21	6.25	5.90	5.89	5.89	3	3.50
27172010	10:26	1 1110	Middle	3.5	19.60	19.60	10.00	8.38	8.38	0.07	32.03	32.03	02.04	82.1	83.2	0 2 .4	6.21	6.31	0.20	5.89	5.89	0.00	4	0.00
4/1/2016	14:33	Fine	Middle	3.5	20.60	20.60	20.65	8.25	8.25	8.27	31.92	31.92	31.90	88.4	86.9	86.3	6.58	6.47	6.43	5.30	5.35	5.34	3	3.00
	14:35		Middle	3.5	20.70	20.70	20.00	8.29	8.29	0.2.	31.87	31.87	01.00	85.9	84.1	00.0	6.40	6.26	0.10	5.35	5.37	0.01	3	0.00
6/1/2016	13:15	Fine	Middle	3.5	22.00	22.00	22.25	8.22	8.22	8.24	31.24	31.24	31.24	91.3	91.6	91.1	6.63	6.64	6.60	6.00	6.03	5.97	<2	2.00
	13:17		Middle	3.5	22.50	22.50		8.25	8.25		31.23	31.23		90.9	90.4		6.58	6.54		5.93	5.91		2	
8/1/2016	16:41	Fine	Middle	3.5	20.20	20.20	20.20	8.27	8.27	8.29	31.49	31.49	31.49	80.7	79.6	79.5	6.07	5.99	5.97	3.32	3.31	3.32	2	2.50
	16:43		Middle	3.5	20.20	20.20		8.31	8.31		31.49	31.49		79.0	78.8		5.94	5.89		3.31	3.34		3	
11/1/2016	10:30	Rainy	Middle	3.5	19.60	19.60	19.65	8.37	8.37	8.40	31.45	31.45	31.45	99.5	97.3	97.6	7.57	7.40	7.42	4.90	4.85	4.85	3	2.50
	10:32	·	Middle	3.5	19.70	19.70		8.42	8.42		31.44	31.44		97.3	96.2		7.40	7.31		4.83	4.82		2	
13/1/2016	10:14	Fine	Middle	3.5	18.90	18.90	18.90	8.36	8.36	8.39	30.99	30.99	31.04	87.5	86.4	86.1	6.77	6.68	6.66	7.18	7.35	7.25	5	5.00
	10:16		Middle	3.5	18.90	18.90		8.42	8.42		31.08	31.08		85.5	85.1		6.61	6.58		7.25	7.22		5	
15/1/2016	11:40	Rainy	Middle	3.5	18.10	18.10	18.10	8.40	8.40	8.42	30.99	30.99	31.01	83.0	81.7	81.1	6.52	6.42	6.38	7.71	7.70	7.71	3	3.00
	11:42	-	Middle	3.5	18.10	18.10		8.43	8.43		31.02	31.02		80.4	79.5		6.31	6.25		7.70	7.71		3	
18/1/2016	13:44	Fine	Middle	3.0	18.80	18.80	18.80	8.31	8.31	8.34	30.92	30.92	30.92	94.4	94.5	93.9	7.32	7.32	7.28	7.28	7.24	7.33	2	2.50
	13:46		Middle	3.0	18.80	18.80		8.37	8.37		30.92	30.92		93.6	93.2		7.25	7.22		7.35	7.43		3	
20/1/2016	15:43	Cloudy	Middle	3.5	18.10	18.10	18.05	8.48	8.48	8.50	31.26	31.26	31.29	90.1	89.1	88.8	7.07	6.99	6.97	9.12	9.11	<u>9.10</u>	3	3.00
	15:45	-	Middle	3.5	18.00	18.00		8.52	8.52		31.31	31.31		88.3	87.8		6.92	6.89		9.07	9.08		3	
22/1/2016	16:41	Rainy	Middle	3.5	17.30	17.30	17.30	8.42	8.42	6.45	31.00	31.00	31.02	89.1	87.3	86.4	7.10	6.96	6.88	8.26	8.26	<u>8.23</u>	3	3.00
	16:43		Middle	3.5	17.30	17.30		8.48	0.47		31.04	31.04		85.5	83.6		6.81	6.66		8.22	8.18		3	
25/1/2016	9:35	Fine	Middle	3.5	14.10	14.10	14.00	8.38	8.38	8.41	30.94	30.94	30.95	83.4	82.7	82.5	7.11	7.06	7.03	8.85	8.84	<u>8.85</u>	2	3.00
	9:37		Middle	3.5	13.90	13.90		8.44	8.44		30.96	30.96		82.1	81.7		7.00	6.96		8.85	8.84		4	



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

Date	Time	Weater	Samplin	g Depth	Wat	er Temp	perature		рН			Salinit	ту	D	O Satur	ation		DO			Turbid		Suspende	
Date		Condition	n	n	Va	ilue	Average	Va	lue -	Average	Va	ppt lue	Average	Va	% ilue	Average	Va	mg/L lue	Average	Va	NTU lue	Average	mg Value	g/L Average
00/40/0045	8:21	Ein -	Middle	3.5	19.00	19.00	40.00	8.19	8.19	0.00	32.25	32.25	20.00	85.5	85.3	05.0	6.54	6.53	0.55	8.14	8.14	0.44	7	7.50
28/12/2015	8:23	Fine	Middle	3.5	19.00	19.00	19.00	8.25	8.25	8.22	32.26	32.26	32.26	86.5	85.0	85.6	6.62	6.51	6.55	8.14	8.14	<u>8.14</u>	8	7.50
30/12/2015	7:56	Fine	Middle	3.5	19.00	19.00	18.90	8.15	8.15	8.18	31.88	31.88	31.93	72.9	73.3	73.7	5.60	5.66	5.68	8.85	8.82	8.81	7	6.50
30/12/2013	7:58	FILLE	Middle	3.5	18.80	18.80	16.90	8.20	8.20	0.10	31.48	32.48	31.93	74.3	74.3	73.7	5.72	5.72	3.00	8.80	8.78	0.01	6	0.50
2/1/2016	9:10	Fine	Middle	3.5	19.40	19.40	19.40	8.32	8.32	8.33	31.91	31.91	31.91	81.5	80.5	80.3	6.20	6.13	6.11	6.91	6.98	6.99	4	4.00
2/1/2010	9:12	i iiie	Middle	3.5	19.40	19.40	19.40	8.33	8.33	0.33	31.91	31.91	31.91	80.0	79.1	00.5	6.09	6.02	0.11	6.94	7.13	0.99	4	4.00
4/4/0040	13:21	Ein.	Middle	3.5	21.00	21.00	04.00	8.17	8.17	0.00	31.85	31.85	04.00	90.8	92.8	00.4	6.68	6.84	0.00	6.17	6.14	0.40	2	0.50
4/1/2016	13:23	Fine	Middle	3.5	21.40	21.40	21.20	8.23	8.23	8.20	31.79	31.79	31.82	93.5	92.3	92.4	6.89	6.80	6.80	6.14	6.02	6.12	3	2.50
6/1/2016	14:30	Fine	Middle	3.5	21.60	21.60	21.85	8.12	8.12	8.17	31.39	31.39	31.37	99.4	98.2	97.9	7.24	7.16	7.13	5.46	5.43	5.45	5	4.50
0/1/2010	14:32	FILLE	Middle	3.5	22.10	22.10	21.00	8.21	8.21	0.17	31.35	31.35	31.37	97.3	96.5	97.9	7.09	7.03	7.13	5.33	5.59	5.45	4	4.50
8/1/2016	14:25	Fine	Middle	3.5	20.80	20.80	20.95	8.21	8.21	8.24	31.28	31.28	31.28	97.9	98.2	97.7	7.28	7.29	7.26	6.09	6.28	6.19	2	2.00
6/1/2010	14:27	Tille	Middle	3.5	21.10	21.10	20.93	8.27	8.27	0.24	31.28	31.28	31.20	98.2	96.6	91.1	7.29	7.16	7.20	6.22	6.17	0.19	2	2.00
11/1/2016	7:25	Rainy	Middle	3.5	19.00	19.00	19.00	8.30	8.30	8.32	31.47	31.47	31.47	82.4	85.5	84.4	6.34	6.58	6.50	5.30	5.31	5.35	4	4.50
11/1/2010	7:27	reality	Middle	3.5	19.00	19.00	13.00	8.34	8.34	0.52	31.47	31.47	31.47	85.5	84.3	04.4	6.58	6.49	0.50	5.37	5.43	0.00	5	4.50
13/1/2016	8:52	Fine	Middle	3.5	18.10	18.10	18.10	8.25	8.25	8.28	30.98	30.98	30.99	78.3	77.8	77.3	6.15	6.10	6.06	5.98	5.93	5.94	4	4.00
10/1/2010	8:54		Middle	3.5	18.10	18.10	10.10	8.30	8.30	0.20	31.00	31.00	00.00	76.9	76.2	11.0	6.03	5.97	0.00	5.91	5.92	0.01	4	
15/1/2016	10:12	Rainy	Middle	3.5	17.80	17.80	17.80	8.29	8.29	8.31	30.96	30.96	30.97	82.6	82.3	81.9	6.52	6.50	6.47	6.80	6.89	6.87	4	5.00
10/1/2010	10:14		Middle	3.5	17.80	17.80	11.00	8.32	8.32	0.01	30.97	30.97	00.01	81.7	80.9	01.0	6.45	6.39	0	6.89	6.89	0.01	6	0.00
18/1/2016	10:34	Fine	Middle	3.5	18.30	18.30	18.25	8.34	8.34	8.38	31.01	31.01	31.02	99.4	98.9	97.1	7.77	7.74	7.59	8.13	8.11	8.10	4	4.00
10/1/2010	10:36	Tille	Middle	3.5	18.20	18.20	10.23	8.41	8.41	0.50	31.02	31.02	31.02	96.3	93.7	57.1	7.53	7.33	7.55	8.09	8.08	0.10	4	4.00
20/1/2016	14:30	Cloudy	Middle	3.5	18.00	18.00	18.00	8.01	8.01	8.16	31.28	31.28	31.30	105.6	104.2	103.2	8.31	8.20	8.12	8.30	8.32	8.35	5	4.50
20/1/2010	14:32	oloddy	Middle	3.5	18.00	18.00	10.00	8.31	8.31	0.10	31.31	31.31	01.00	102.2	100.9	100.2	8.05	7.93	0.12	8.39	8.38	0.00	4	4.00
22/1/2016	15:14	Rainy	Middle	3.5	17.70	17.70	17.65	8.07	8.07	8.08	31.25	31.25	31.26	93.5	93.7	92.8	7.39	7.41	7.34	6.90	6.97	6.98	3	2.50
	15:16		Middle	3.5	17.60	17.60		8.08	8.08	2.30	31.26	31.26		91.7	92.2		7.25	7.29		6.99	7.06	5.50	2	,
25/1/2016	7:34	Fine	Middle	3.5	13.80	13.80	13.55	8.12	8.12	8.18	30.68	30.68	31.00	77.6	77.7	77.7	6.67	6.69	6.69	8.80	8.80	<u>8.79</u>	5	4.50
25. 1/2010	7:37		Middle	3.5	13.30	13.30		8.23	8.23	5.10	31.32	31.32	000	77.9	77.7	,	6.71	6.70	0.50	8.79	8.78	5.70	4	



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

Date	Time	Weater Condition	Samplin	•	Wat	er Temp	erature		pH -			Salinit	у	D	O Satur	ation		DO mg/L			Turbidi		Suspend	led Solids
		Ooridition	n	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va		Average		Average
28/12/2015	2:40	Cloudy	Middle	-	18.40	18.60	18.55	8.32	8.32	8.33	32.38	32.38	32.38	78.4	77.9	78.1	6.05	6.03	6.03	3.03	3.01	2.97	<2	<2
20/12/2010	2:41	Oloudy	Middle	-	18.60	18.60	10.00	8.33	8.33	0.00	32.38	32.38	02.00	78.0	77.9	70.1	6.03	6.02	0.00	2.95	2.90	2.07	<2	
30/12/2015	1:25	Cloudy	Middle	-	19.10	19.10	19.05	8.32	8.32	8.33	32.32	32.32	32.33	74.4	77.4	76.7	5.72	5.92	5.87	23.77	23.40	23.42	3	3.00
00/12/2010	1:26	Cicaay	Middle	-	19.00	19.00	.0.00	8.34	8.34	0.00	32.34	32.34	02.00	77.8	77.1	7 0	5.95	5.90	0.01	23.27	23.23		3	0.00
2/1/2016	5:35	Fine	Middle	-	19.70	19.70	19.70	8.01	8.01	8.01	31.79	31.79	31.79	92.9	92.7	92.4	7.05	7.03	7.01	8.92	8.72	8.89	3	4.00
	5:37		Middle	-	19.70	19.70		8.01	8.01		31.78	31.78		91.8	92.0		6.96	6.98		9.02	8.90		5	
4/1/2016	18:15	Cloudy	Middle	-	20.80	20.80	20.80	8.29	8.29	8.30	23.75	23.74	23.75	81.4	81.0	81.7	6.34	6.32	6.37	3.07	3.12	3.04	<2	<2
	18:16		Middle	-	20.80	20.80		8.31	8.31		23.75	23.75		81.9	82.5		6.38	6.43		3.01	2.97		<2	
6/1/2016	19:18	Fine	Middle	-	21.10	21.10	21.10	8.08	8.08	8.10	20.89	20.89	20.89	76.0	78.8	78.5	5.98	6.19	6.18	3.43	3.53	3.50	<2	2.00
	19:19	-	Middle	-	21.10	21.10		8.12	8.12		20.89	20.89		79.8	79.4		6.28	6.25		3.55	3.50		2	
8/1/2016	1:30	Cloudy	Middle	-	19.10	19.10	19.10	8.19	8.19	8.19	31.45	31.45	31.45	78.0	78.1	77.7	5.99	6.00	5.97	2.03	2.06	2.04	<2	<2
	1:31		Middle	-	19.10	19.10		8.20	8.19		31.45	31.45		77.8	77.0		5.97	5.90		2.08	2.00		<2	
11/1/2016	2:12	Cloudy	Middle	-	18.70	18.70	18.70	8.30	8.30	8.33	31.57	31.57	31.58	78.6	78.9	78.6	6.08	6.10	6.10	2.10	2.07	2.10	2	2.50
	2:13	•	Middle	-	18.70	18.70		8.36	8.36		31.58	31.58		78.3	78.4		6.06	6.14		2.09	2.14		3	
13/1/2016	16:21	Fine	Middle	-	19.90	19.90	19.90	8.37	8.37	8.38	30.82	30.82	30.82	73.6	72.9	72.7	5.58	5.54	5.52	5.36	5.34	5.34	4	4.50
	16:23		Middle	-	19.90	19.90		8.38	8.38		30.81	30.81		72.4	72.0		5.50	5.46		5.34	5.33		5	
15/1/2016	16:27	Rainy	Middle	-	18.60	18.60	18.45	8.39	8.39	8.41	30.35	30.35	30.35	88.9	86.7	87.3	6.86	6.79	6.81	7.11	7.09	7.09	2	2.50
	16:29		Middle	-	18.30	18.30		8.42	8.42		30.35	30.35		87.0	86.5		6.82	6.78		7.08	7.08		3	
18/1/2016	17:42	Cloudy	Middle	-	18.10	18.10	18.05	8.41	8.41	8.42	30.80	30.80	30.81	82.9	83.3	82.9	6.54	6.58	6.54	2.04	2.07	2.04	3	3.50
	17:43		Middle	-	18.00	18.00		8.42	8.42		30.82	30.82		82.8	82.6		6.53	6.52		2.02	2.04		4	
20/1/2016	19:17	Cloudy	Middle	-	17.80	17.80	17.75	8.13	8.13	8.16	31.03	31.03	31.04	79.7	81.1	80.0	6.30	6.42	6.33	2.94	2.91	2.89	2	2.00
	19:18	-	Middle	-	17.70	17.70		8.18	8.18		31.05	31.05		80.7	78.6		6.39	6.22		2.85	2.87		<2	
22/1/2016	23:01	Cloudy	Middle	-	16.00	16.00	16.00	8.43	8.43	8.44	31.21	31.21	31.15	80.3	80.3	80.4	6.56	6.56	6.57	2.52	2.53	2.56	3	3.00
	23:02		Middle	-	16.00	16.00		8.44	8.44		31.08	31.08		80.5	80.6		6.58	6.59		2.58	2.61		3	
25/1/2016	1:30	Fine	Middle	-	10.00	10.00	9.95	8.50	8.50	8.52	31.29	31.29	31.28	81.6	81.8	81.9	7.56	7.58	7.59	3.48	3.40	3.41	<2	<2
	1:31		Middle	-	9.80	10.00		8.53	8.53		31.26	31.26		82.0	82.0		7.60	7.60		3.38	3.36		<2	



Water Monitoring Result at C1 - HKCEC Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	perature		pН			Salinit	ty	D	O Satur	ation		DO mg/L			Turbidi		Suspend	ded Solids
		Condition	n	n	Va	lue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va		Average		Average
28/12/2015	4:53	Cloudy	Middle	2.0	18.90	18.90	18.90	8.12	8.12	8.14	31.95	31.95	31.96	71.4	72.0	72.0	5.49	5.54	5.54	6.50	6.44	6.43	5	4.50
20/12/2013	4:54	Cloudy	Middle	2.0	18.90	18.90	10.90	8.15	8.15	0.14	31.97	31.97	31.90	72.5	72.0	72.0	5.57	5.54	5.54	6.41	6.36	0.43	4	4.30
30/12/2015	0:40	Cloudy	Middle	2.5	18.30	18.30	18.30	8.49	8.49	8.49	32.43	32.43	32.43	76.3	76.9	77.0	5.91	5.97	5.97	3.82	3.86	3.82	4	4.00
30/12/2013	0:41	Gloudy	Middle	2.5	18.30	18.30	10.50	8.49	8.49	0.43	32.43	32.43	02.40	77.5	77.4	77.0	6.00	6.00	5.57	3.84	3.77	0.02	4	4.00
2/1/2016	5:05	Fine	Middle	3.0	19.20	19.20	19.15	8.41	8.41	8.41	32.15	32.15	32.15	87.6	88.3	87.6	6.69	6.75	6.70	5.18	5.14	5.14	<2	<2
2/1/2010	5:07	Tille	Middle	3.0	19.10	19.10	19.13	8.41	8.41	0.41	32.15	32.15	32.13	87.2	87.4	67.0	6.69	6.68	0.70	5.12	5.11	3.14	<2	
4/1/2016	19:45	Cloudy	Middle	2.5	20.30	20.30	20.30	8.39	8.39	8.39	32.09	32.09	32.09	81.1	80.6	80.9	6.07	6.03	6.06	2.04	1.85	1.87	3	3.00
4/1/2010	19:46	Cloudy	Middle	2.5	20.30	20.30	20.50	8.40	8.39	0.55	32.09	32.09	32.03	80.8	81.1	00.5	6.06	6.06	0.00	1.79	1.81	1.07	3	3.00
6/1/2016	20:15	Fine	Middle	2.5	20.40	20.40	20.50	8.27	8.27	8.28	31.67	31.67	31.67	79.7	79.5	80.0	5.94	5.93	5.96	1.29	1.31	1.32	3	3.00
0/1/2010	20:16	Tille	Middle	2.5	20.60	20.60	20.00	8.29	8.29	0.20	31.67	31.67	01.07	80.3	80.4	00.0	5.98	5.99	0.00	1.33	1.35	1.02	3	0.00
8/1/2016	2:58	Cloudy	Middle	2.0	18.90	18.90	18.90	8.00	8.00	8.03	30.55	30.55	30.56	72.6	73.8	73.4	5.62	5.72	5.68	2.40	2.53	2.53	4	3.50
0.112010	2:59	o.ouu,	Middle	2.0	18.90	18.90	10.00	8.06	8.06	0.00	30.57	30.57	00.00	73.5	73.7	7 0	5.67	5.71	0.00	2.57	2.61	2.00	3	0.00
11/1/2016	3:47	Cloudy	Middle	2.0	18.70	18.70	18.70	8.47	8.47	8.48	30.84	30.84	30.84	77.7	78.1	77.9	6.03	6.06	6.05	2.25	2.52	2.35	3	3.00
	3:48		Middle	2.0	18.70	18.70		8.48	8.48		30.84	30.84		78.1	77.8		6.06	6.04		2.43	2.19		3	
13/1/2016	15:30	Fine	Middle	2.5	19.10	9.10	14.10	8.48	8.48	8.48	31.33	31.33	31.34	79.3	81.4	81.4	6.09	6.26	6.25	5.75	5.75	5.78	3	3.00
	15:32		Middle	2.5	19.10	9.10		8.48	8.48		31.34	31.34		82.2	82.6		6.31	6.35		5.81	5.79		3	
15/1/2016	18:09	Rainy	Middle	2.5	18.30	18.30	18.30	8.47	8.47	8.47	31.01	31.01	31.02	84.1	82.2	83.9	6.56	6.42	6.55	5.89	5.82	5.87	2	3.00
	18:11	,	Middle	2.5	18.30	18.30		8.48	8.47		31.03	31.03		83.6	85.5		6.53	6.68		5.87	5.88		4	
18/1/2016	20:52	Cloudy	Middle	2.5	18.10	18.10	18.10	8.45	8.45	8.46	31.22	31.22	31.23	80.7	80.4	81.0	6.32	6.30	6.35	2.05	2.11	1.96	3	3.50
	20:53		Middle	2.5	18.10	18.10		8.48	8.47		31.23	31.23		80.8	81.9		6.34	6.43		1.91	1.77		4	
20/1/2016	20:40	Cloudy	Middle	2.5	17.70	17.70	17.65	8.39	8.39	8.40	31.43	31.43	31.44	80.3	83.6	83.1	6.35	6.61	6.58	2.16	2.04	2.17	2	2.50
	20:41	, i	Middle	2.5	17.60	17.60		8.41	8.39		31.44	31.44		84.7	83.9		6.70	6.64		2.20	2.26		3	<u> </u>
22/1/2016	0:55	Cloudy	Middle	2.0	16.40	16.40	16.35	8.51	8.51	8.51	31.44	31.44	31.45	80.8	80.9	80.8	6.54	6.55	6.54	2.67	2.88	2.74	3	3.00
	0:56	-	Middle	2.0	16.30	16.30		8.51	8.51		31.45	31.45		81.0	80.6		6.55	6.53		2.69	2.72		3	
25/1/2016	3:31	Fine	Middle	2.0	11.10	11.10	11.00	8.36	8.37	8.41	31.22	31.22	31.26	79.4	81.0	80.5	7.19	7.33	7.29	3.00	2.96	2.95	4	4.00
	3:32		Middle	2.0	10.90	10.90		8.46	8.46		31.30	31.30		80.8	80.8		7.32	7.32		2.92	2.90		4	



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

Date	Time	Weater Condition	Samplin	•	Wat	er Temp	erature		pH -			Salinit	у	D	O Satur	ation		DO mg/L			Turbid NTU		Suspend	led Solids
		Condition	n	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va		Average	Value	Average
28/12/2015	4:25	Cloudy	Middle	2.0	18.70	18.70	18.70	8.32	8.32	8.34	32.09	32.09	32.09	74.8	75.3	75.1	5.77	5.80	5.79	3.45	3.49	3.44	4	5.00
26/12/2010	4:26	Cicacy	Middle	2.0	18.70	18.70	10.10	8.35	8.35	0.0 .	32.09	32.09	02.00	75.2	75.0		5.80	5.78	00	3.51	3.31	0	6	0.00
30/12/2015	0:15	Cloudy	Middle	2.5	18.40	18.40	18.40	8.48	8.48	8.48	32.43	32.43	32.43	77.2	77.3	77.3	5.98	5.99	5.99	3.56	3.67	3.61	3	3.00
00/12/2010	0:16	Cicacy	Middle	2.5	18.40	18.40	10.10	8.48	8.48	0.10	32.43	32.43	02.10	77.8	77.0	11.0	6.03	5.96	0.00	3.69	3.52	0.01	3	0.00
2/1/2016	4:45	Fine	Middle	3.0	19.00	19.00	19.00	8.34	8.34	8.37	32.15	32.15	32.15	95.3	95.4	95.0	7.30	7.31	7.28	5.15	5.14	5.16	<2	<2
	4:47		Middle	3.0	19.00	19.00		8.39	8.39		32.15	32.15		94.6	94.6		7.25	7.25		5.16	5.18		<2	
4/1/2016	19:20	Cloudy	Middle	2.5	20.50	20.50	20.55	8.34	8.34	8.35	32.08	32.08	32.08	80.5	80.9	80.7	5.99	6.02	6.00	1.55	1.59	1.58	<2	<2
	19:21		Middle	2.5	20.60	20.60		8.35	8.35		32.08	32.08		80.6	80.8		5.99	6.01		1.61	1.57		<2	
6/1/2016	19:48	Fine	Middle	2.5	20.30	20.30	20.35	8.34	8.34	8.34	31.71	31.71	31.71	81.5	81.8	81.5	6.10	6.12	6.10	3.09	3.01	3.00	2	2.00
	19:49	-	Middle	2.5	20.40	20.40		8.34	8.34		31.71	31.71		81.2	81.5		6.07	6.09		2.98	2.90		2	
8/1/2016	2:35	Cloudy	Middle	2.0	18.60	18.60	18.65	8.41	8.41	8.41	31.49	31.49	31.49	77.7	78.3	77.8	6.02	6.03	6.01	2.15	2.08	2.32	3	2.50
	2:36		Middle	2.0	18.70	18.70		8.41	8.41		31.49	31.49		77.4	77.6		5.99	6.01		2.05	2.98		2	
11/1/2016	3:21	Cloudy	Middle	2.0	18.50	18.50	18.50	8.47	8.47	8.47	31.38	31.38	31.39	78.1	78.6	78.6	6.07	6.11	6.11	1.79	1.87	1.87	2	2.00
	3:22	•	Middle	2.0	18.50	18.50		8.47	8.47		31.39	31.39		78.7	78.9		6.11	6.13		1.89	1.91		<2	
13/1/2016	15:14	Fine	Middle	2.5	19.10	19.10	19.15	8.39	8.39	8.41	31.41	31.41	31.46	90.8	89.0	89.0	6.97	6.83	6.83	5.22	5.27	5.27	<2	<2
	15:16		Middle	2.5	19.20	19.20		8.42	8.42		31.50	31.53		88.6	87.5		6.79	6.71		5.29	5.30		<2	
15/1/2016	17:53	Rainy	Middle	2.5	17.50	17.50	17.50	8.35	8.35	8.38	30.91	30.91	30.94	84.0	82.4	82.0	6.67	6.04	6.38	7.30	7.05	7.12	4	3.50
	17:55		Middle	2.5	17.50	17.50		8.41	8.41		30.96	30.96		81.2	80.3		6.45	6.36		7.08	7.06		3	
18/1/2016	20:25	Cloudy	Middle	2.5	17.80	17.80	17.75	8.52	8.52	8.53	31.20	31.20	31.20	84.2	84.6	84.4	6.65	6.68	6.67	1.37	1.30	1.33	2	2.50
	20:26		Middle	2.5	17.70	17.70		8.53	8.53		31.20	31.20		84.5	84.3		6.67	6.66		1.28	1.35		3	
20/1/2016	20:13	Cloudy	Middle	2.5	17.30	17.30	17.30	8.51	8.51	8.53	31.51	31.51	31.51	84.9	84.7	84.9	6.74	6.73	6.74	3.09	3.06	3.04	3	4.00
	20:14		Middle	2.5	17.30	17.30		8.54	8.54		31.50	31.50		84.9	84.9		6.74	6.74		3.03	2.96		5	<u> </u>
22/1/2016	0:30	Cloudy	Middle	2.0	15.20	15.20	15.20	8.55	8.55	8.55	31.47	31.47	31.47	82.9	82.8	82.6	6.85	6.84	6.82	3.01	3.04	3.03	3	3.00
	0:31		Middle	2.0	15.20	15.20		8.55	8.55		31.47	31.47		82.5	82.1		6.82	6.78		3.06	3.02		3	
25/1/2016	2:55	Fine	Middle	2.0	10.00	10.00	9.95	8.52	8.52	8.54	31.58	31.58	31.58	83.9	84.0	84.1	7.75	7.76	7.77	2.87	2.84	2.82	4	3.50
	2:56		Middle	2.0	9.90	9.90		8.56	8.56		31.57	31.57		84.1	84.2		7.77	7.78		2.76	2.80		3	



Water Monitoring Result at P3 - APA Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salinit	ty	D	O Satur	ation		DO mg/L			Turbid		Suspend	led Solids
		Condition	n	n	Va		Average	Va	lue	Average	Va	ilue	Average	Va	lue	Average	Va		Average	Va		Average		Average
00/40/0045	4:32	Ol de	Middle	2.0	18.70	18.70		8.37	8.37	J	32.20	32.20		74.0	74.7	J	5.71	5.76		3.86	3.81		3	
28/12/2015	4:33	Cloudy	Middle	2.0	18.70	18.70	18.70	8.38	8.38	8.38	32.20	32.20	32.20	74.6	74.0	74.3	5.75	5.70	5.73	3.76	3.74	3.79	4	3.50
30/12/2015	0:19	Cloudy	Middle	2.5	18.30	18.30	18.30	8.46	8.46	8.47	32.43	32.43	32.43	74.2	74.5	74.9	5.75	5.77	5.80	4.34	4.20	4.18	3	3.00
30/12/2013	0:02	Cloudy	Middle	2.5	18.30	18.30	10.30	8.47	8.47	0.47	32.43	32.43	32.43	75.4	75.5	74.9	5.84	5.85	5.60	4.10	4.08	4.10	3	3.00
2/1/2016	4:50	Fine	Middle	3.0	19.00	19.00	19.00	8.40	8.40	8.41	32.17	32.17	32.17	92.7	92.7	92.5	7.10	7.10	7.09	5.22	5.22	5.21	<2	<2
27 172010	4:52	Tille	Middle	3.0	19.00	19.00	15.00	8.41	8.41	0.41	32.17	32.17	32.17	92.5	92.0	32.3	7.09	7.05	7.00	5.21	5.20	J.Z 1	<2	٠,٢
4/1/2016	19:24	Cloudy	Middle	2.5	20.40	20.40	20.45	8.40	8.40	8.40	32.10	32.10	32.10	78.5	78.6	78.9	5.86	5.87	5.89	2.02	2.01	1.98	<2	2.00
2010	19:25		Middle	2.5	20.50	20.50	20.10	8.40	8.40	0.10	32.10	32.10	02.10	79.3	79.2	7 0.0	5.91	5.91	0.00	1.95	1.93		2	2.00
6/1/2016	19:52	Fine	Middle	2.5	20.20	20.20	20.30	8.36	8.36	8.37	31.72	31.72	31.72	80.6	80.9	80.6	6.04	6.06	6.04	1.40	1.36	1.39	3	3.00
	19:53		Middle	2.5	20.40	20.40		8.37	8.37		31.72	31.72		80.9	80.0		6.05	5.99		1.38	1.42		3	
8/1/2016	2:40	Cloudy	Middle	2.0	18.70	18.70	18.70	8.42	8.42	8.43	31.36	31.36	31.36	76.3	76.6	76.6	5.90	5.93	5.93	1.89	1.93	1.83	<2	2.00
	2:41		Middle	2.0	18.70	18.70		8.43	8.43		31.36	31.36		76.6	76.8		5.92	5.95		1.78	1.72		2	
11/1/2016	3:26	Cloudy	Middle	2.0	18.70	18.70	18.70	8.46	8.46	8.46	31.42	31.42	31.42	80.3	80.4	80.5	6.22	6.23	6.24	2.08	2.05	2.04	2	2.50
	3:27		Middle	2.0	18.70	18.70		8.46	8.46		31.41	31.42		80.6	80.8		6.25	6.26		2.03	2.00		3	
13/1/2016	15:18	Fine	Middle	2.5	19.10	19.10	19.05	8.43	8.43	8.45	31.10	31.10	31.20	87.3	86.0	85.5	6.74	6.63	6.59	5.76	5.80	5.77	3	2.50
	15:20		Middle	2.5	19.00	19.00		8.46	8.46		31.30	31.30		84.7	83.8		6.54	6.46		5.76	5.76		2	
15/1/2016	17:57	Rainy	Middle	2.5	17.70	17.70	17.70	8.43	8.43	8.44	30.94	30.94	30.94	83.0	81.5	80.9	6.57	6.45	6.41	5.79	5.83	5.84	2	2.00
	17:59		Middle	2.5	17.70	17.70		8.44	8.44		30.93	30.93		80.1	79.0		6.34	6.26		5.84	5.88		2	
18/1/2016	20:32	Cloudy	Middle	2.5	17.90	17.90	17.85	8.55	8.55	8.56	31.19	31.19	31.20	83.0	83.5	83.2	6.54	6.58	6.56	1.55	1.53	1.48	2	2.00
	20:33		Middle	2.5	17.80	17.80		8.56	8.56		31.20	31.20		83.2	83.1		6.56	6.55		1.46	1.36		2	
20/1/2016	20:18	Cloudy	Middle	2.5	17.30	17.30	17.30	8.56	8.56	8.56	31.51	31.51	31.51	81.0	80.9	81.7	6.43	6.42	6.49	2.35	2.38	2.42	2	2.50
	20:19		Middle	2.5	17.30	17.30		8.56	8.56		31.51	31.51		82.3	82.7		6.54	6.57		2.46	2.49		3	
22/1/2016	0:37	Cloudy	Middle	2.0	15.30	15.30	15.30	8.57	8.57	8.58	31.50	31.50	31.50	80.8	81.3	81.7	6.58	6.72	6.72	2.77	2.75	2.81	3	3.50
	0:38		Middle	2.0	15.30	15.30		8.58	8.58		31.49	31.49		82.4	82.1		6.80	6.78		2.88	2.83		4	
25/1/2016	3:04	Fine	Middle	2.0	9.60	9.60	9.55	8.59	8.59	8.60	31.58	31.58	31.58	86.2	86.5	86.8	8.03	8.05	8.08	3.85	3.88	3.88	2	3.00
	3:05		Middle	2.0	9.50	9.50		8.61	8.61		31.58	31.58		87.0	87.3		8.11	8.13		3.91	3.89		4	



Water Monitoring Result at P4 - SOC Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	•	Wat	er Temp	erature		pH -			Salinit	у	D	O Satur	ation		DO mg/L			Turbid		Suspended Solids mg/L	
		Condition	n	n	Va	ilue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va		Average	Value	Average
28/12/2015	4:40	Cloudy	Middle	2.0	18.50	18.50 18.50		8.41	8.41	8.41	32.20	32.20	32.20	79.0	79.3	79.6	6.11	6.13	6.16	3.97	3.99	4.02	4	4.00
20/12/2010	4:41		Middle	2.0	18.50	18.50	18.50	8.41 8.41	0.11	32.20	32.20	02.20	79.9	80.1	7 0.0	6.19	6.19	0.10	4.05	4.07		4		
30/12/2015	0:25	Cloudy	Middle	2.5	18.30	18.30	18.30	8.37	8.37	8.39	32.29	32.29	32.31	77.9	79.0	78.9	6.04	6.13	6.12	3.65	3.63	3.50	4	3.50
	0:26		Middle	2.5	18.30	18.30		8.41	8.41		32.33	32.33		79.4	79.2		6.16	6.15		3.37	3.35		3	
2/1/2016	4:55	Fine	Middle	3.0	19.00	19.00	19.00	8.41	8.41	8.41	32.15	32.15	32.16	91.0	91.2	91.0	6.97	6.98	6.97	5.08	5.04	5.04	<2	<2
	4:57		Middle	3.0	19.00	19.00		8.41	8.41		32.16	32.16		91.0	90.9		6.97	6.96		5.02	5.02		<2	
4/1/2016	19:29	Cloudy	Middle	2.5	20.50	20.50	20.55	8.41	8.41	8.41	32.09	32.09	32.10	80.3	81.6	81.8	5.98	6.07	6.09	2.03	1.79	1.82	<2	<2
	19:30		Middle	2.5	20.60	20.60		8.41	8.41		32.10	32.10		82.3	83.0		6.12	6.18		1.73	1.72		<2	
6/1/2016	19:58	Fine	Middle	2.5	20.20		20.25	8.38	8.38	8.38	31.72	31.71	31.71	81.7	82.1	82.1	6.12	6.15	6.15	2.21	2.18	2.22	2	3.00
	19:59		Middle	2.5	20.30	20.30		8.37	8.37		31.71	31.71		82.4	82.1		6.17	6.15		2.17	2.31		4	
8/1/2016	2:45	Cloudy	Middle	2.0	18.60	18.60	18.60	8.31	8.31	8.33	31.25	31.25	31.25	80.6	81.7	81.2	6.25	6.34	6.29	1.53	1.50	1.49	<2	2.00
	2:46		Middle	2.0	18.60	18.60		8.34	8.34		31.25	31.25		80.8	81.6		6.25	6.32		1.47	1.45		2	
11/1/2016	3:34	Cloudy	Middle	2.0	18.60	18.60	18.60	8.44	8.44	8.45	31.21	31.21	31.22	82.2	82.5	82.5	6.39	6.41	6.41	3.90	3.61	3.60	3	3.50
	3:35 15:22		Middle Middle	2.0	18.60	18.60		8.45 8.48	8.45		31.22	31.22		82.8	82.5		6.43	6.41		3.50 4.82	3.40 4.82		4	
13/1/2016	15:24	Fine	Middle	2.5	18.60	18.60	18.60	8.48	8.48	8.48	31.33	31.33	31.34	79.7	79.1	80.1	6.28	6.13	6.21	4.82	4.82	4.82	3	3.50
	18:01		Middle	2.5	18.00	18.00		8.45	8.45		30.97	30.97		82.5	81.3		6.49	6.40		7.01	6.98		2	
15/1/2016	18:03	Rainy	Middle	2.5	17.90	17.90	17.95	8.45	8.45	8.45	30.98	30.98	30.98	80.3	79.2	80.8	6.32	6.24	6.36	6.88	6.85	6.93	2	2.00
	20:39		Middle	2.5	17.80	17.80		8.56	8.56		31.22	31.22		83.9	84.7		6.62	6.68		1.83	1.80		5	
18/1/2016	20:40	Cloudy	Middle	2.5	17.70	17.70	17.75	8.57	8.57	8.57	31.23	31.23	31.23	84.7	84.9	84.6	6.68	6.70	6.67	1.78	1.75	1.79	4	4.50
	20:27		Middle	2.5	17.20	17.20		8.58	8.58		31.56	31.56		85.8	86.5		6.83	6.89		2.37	2.39		3	
20/1/2016	20:28	Cloudy	Middle	2.5	17.20	17.20	17.20	8.59	8.59	8.59	31.56	31.56	31.56	86.4	85.5	86.1	6.88	6.81	6.85	2.41	2.43	2.40	2	2.50
22117215	0:43		Middle	2.0	15.60	15.60		8.43	8.43		31.48	31.47		83.8	84.0		6.88	6.90		3.13	3.10		2	
22/1/2016	0:44	Cloudy	Middle	2.0	15.60	15.60	15.60	8.45	8.44	8.44	31.47	31.47	31.47	84.1	83.8	83.9	6.91	6.88	6.89	3.26	3.12	3.15	3	2.50
0514 100 40	3:13	E:	Middle	2.0	10.70	10.60	40.50	8.64	8.64	0.01	31.57	31.57	04.50	81.1	81.2	04.0	7.39	7.41	7.4	2.55	2.57	0.65	3	0.50
25/1/2016	3:14	Fine	Middle	2.0	10.50	10.50	10.58	8.64	8.64	8.64	31.60	31.60	31.59	81.3	81.1	81.2	7.42	7.40	7.41	2.70	2.77	2.65	2	2.50



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

Date	Time	Weater	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty	С	O Satur	ation		DO			Turbidi		Suspended Solids	
Bute		Condition	n	n	Va	lue	Average	Va	lue	Average	Va	ppt alue	Average	Va	lue %	Average	Va	mg/L lue	Average	Va	NTU lue	Average	mg Value	g/L Average
00/40/0045	4:46	Olt	Middle	2.0	18.80		40.75	8.42	8.42	8.43	32.17	32.17	20.40	75.2	75.4	75.0	5.80	5.81	F 04	3.94	3.76	0.70	5	4.50
28/12/2015	4:47	Cloudy	Middle	2.0	18.70	18.70	18.75	8.43	8.43		32.18	32.18	32.18	75.6	75.1	75.3	5.83	5.78	5.81	3.82	3.65	3.79	4	4.50
30/12/2015	0:31	Cloudy	Middle	2.5	18.40	18.40	18.40	8.43	8.43	8.44	32.42	32.42	32.43	78.5	78.4	78.5	6.08	6.07	6.07	3.80	3.88	3.84	4	3.00
30/12/2013	0:32	Cloudy	Middle	2.5	18.40	18.40	10.40	8.44 8.44	8.44		32.43	32.43	32.43	78.6	78.3		6.08	6.06		3.85	3.81		2	3.00
2/1/2016	5:00	Fine	Middle	3.0	19.20	19.20	19.20	8.41	8.41	8.41	32.13	32.13	32.14	89.2	89.8	89.4	6.82	6.89	6.84	4.22	4.05	4.12	<2	<2
27172010	5:02	Tille	Middle	3.0	19.20	19.20	10.20	8.41	8.41	0.41	32.15	32.15	02.14	89.5	89.1	00.4	6.84	6.81	0.04	4.08	4.12	7.12	<2	-2
4/1/2016	19:40	Cloudy	Middle	2.5	20.30	20.30	20.35	8.41	8.41	8.41	32.10	32.10	32.10	78.1	78.6	78.2	5.83	5.87	5.83	1.56	1.58	1.56	<2	<2
2010	19:41		Middle	2.5	20.40	20.40	20.00	8.41	8.41	0	32.10	32.10	02.10	78.0	77.9	7 0.2	5.80	5.80	0.00	1.55	1.53	1.00	<2	
6/1/2016	20:07	Fine	Middle	2.5	20.20		20.25	8.38	8.38	8.38	31.73	31.73	31.72	77.9	78.3	78.1	5.84	5.87	5.85	2.40	2.46	2.31	3	2.50
	20:08		Middle	2.5	20.30	20.30		8.38	8.38		31.71	31.71	· · · · ·	78.4	77.6		5.87	5.81		2.19	2.17		2	
8/1/2016	2:51	Cloudy	Middle	2.0	18.70	18.70	18.75	8.42	8.42	8.43	31.17	31.15	31.16	72.7	73.3	73.1	5.63	5.67	5.63	2.32	2.26	2.22	2	2.00
	2:52		Middle	2.0	18.80	18.80		8.42	8.45		31.18	31.15		74.3	72.0	_	5.65	5.57		2.18	2.12		2	
11/1/2016	3:40	Cloudy	Middle	2.0	18.70	18.70	18.70	8.49	8.49	8.49	30.00	30.00	30.00	76.7	6.9	59.1	5.99	6.00	5.98	3.12	3.10	3.02	3	3.00
	3:41		Middle	2.0	18.70	18.70		8.48	8.48		30.00	30.00		76.3	76.5		5.95	5.97		3.00	2.87		3	
13/1/2016	15:26	Fine	Middle	2.5	18.90	18.90	18.90	8.48	8.48	8.48	31.33	31.33	31.33	84.3	84.0	83.7	6.50	6.48	6.45	6.06	6.07	6.08	2	2.00
	15:28		Middle	2.5	18.90	18.90		8.48	8.48		31.32	31.32		83.4	82.9		6.43	6.39		6.09	6.10		2	
15/1/2016	18:05	Rainy	Middle	2.5	18.00	18.00	18.10	8.45	8.45	8.46	30.99	30.99	31.01	83.8	82.9	82.6	6.57	6.50	6.47	6.50	6.61	6.54	2	2.00
	18:07		Middle	2.5	18.20	18.20		8.46	8.46		31.03	31.03		82.0	81.6		6.42	6.39		6.54	6.50		2	
18/1/2016	20:47	Cloudy	Middle	2.5	18.10	18.10	18.10	8.56	8.56	8.57	31.20	31.20	31.21	80.4	80.3	80.8	6.30	6.29	6.33	1.65	1.70	1.73	4	3.50
	20:48		Middle	2.5	18.10	18.10		8.57	8.57		31.21	31.21		80.9	81.5		6.34	6.39		1.72	1.83		3	
20/1/2016	20:33	Cloudy	Middle	2.5	17.50	17.50	17.50	8.59	8.59	8.60	31.59	31.59	31.59	84.2	84.6	84.0	6.66	6.69	6.64	2.14	2.10	2.12	3	2.50
	20:34		Middle	2.5	17.50	17.50		8.60	8.60		31.59	31.59		84.1	83.0		6.66	6.56		2.09	2.13		2	
22/1/2016	0:50	Cloudy	Middle	2.0	15.90	15.90	15.90	8.26	8.26	8.29	31.14	31.14	31.14	84.5	84.8	84.6	6.92	6.93	6.92	3.12	3.10	3.08	4	4.00
	0:51	· ·	Middle	2.0	15.90	15.90		8.31	8.31		31.14	31.14		84.7	84.5		6.93	6.91		3.05	3.05		4	
25/1/2016	3:22	Fine	Middle	2.0	10.80	10.80	10.65	8.62	8.62	8.63	31.60	31.60	31.60	80.9	79.1	79.6	7.36	7.20	7.25	3.60	3.62	3.64	4	3.00
	3:23		Middle	2.0	10.50	10.50		8.63	8.63		31.60	31.60		78.8	79.7		7.19	7.26		3.69	3.64		2	



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

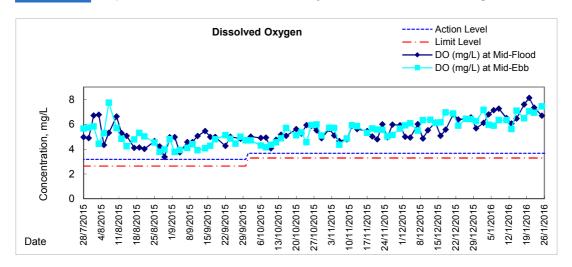
Date	Time	Weater Condition	Samplin	•	Wat	er Temp	erature		pH -			Salinit	ty	D	O Satur	ation		DO mg/L			Turbid		Suspended Solids mg/L	
		Condition	n	n	Va	ilue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	ilue	Average		Average
28/12/2015	3:45	Cloudy	Middle	3.0	18.40	18.40		8.25	8.25	8.27	31.44	31.44	31.46	72.7	72.9	72.6	5.66	5.68	5.66	2.77	2.80	2.87	4	4.50
26/12/2010	3:46	o.ouu,	Middle	3.0	18.30	18.30	10.00	8.28 8.28	8.28		31.47	31.47	00	72.6	72.3		5.65	5.64	0.00	2.92	2.98	2.01	5	
30/12/2015	0:57	Cloudy	Middle	3.5	18.70	18.70	18.70	8.40	8.40	8.41	32.45	32.45	32.45	75.6	76.5	76.4	5.84	5.89	5.88	2.39	2.45	2.38	2	2.00
	0:58	,	Middle	3.5	18.70	18.70	8.41	8.41	8.41		32.45	32.45		76.8	76.5		5.91	5.89		2.44	2.23		2	
2/1/2016	5:13	Fine	Middle	3.5	19.30	19.30	19.30	8.40	8.40	8.41	32.12	32.12	32.13	85.9	84.5	84.6	6.54	6.44	6.44	4.52	4.46	4.46	<2	<u><2</u>
	5:15		Middle	3.5	19.30	19.30		8.41	8.41		32.14	32.14		83.6	84.2		6.37	6.41		4.43	4.41		<2	
4/1/2016	18:37	Cloudy	Middle	3.5	20.40	20.40	20.40	8.21	8.21	8.23	31.78	31.78	31.81	76.7	76.9	77.1	5.73	5.76	5.76	1.60	1.77	1.63	<2	<u><2</u>
	18:38		Middle	3.5	20.40	20.40		8.24	8.24		31.83	31.83		77.4	77.4		5.78	5.78		1.73	1.43		<2	
6/1/2016	18:58	Fine	Middle 3.5 21.50	21.50	21.40	8.10	8.10	8.13	31.37	31.37	31.48	80.0	80.5	80.4	5.89	5.92	5.92	2.08	2.01	2.10	2	2.00		
	18:59		Middle	3.5	21.30	21.30		8.15	8.15		31.59	31.59		80.8	80.3		5.94	5.91		2.14	2.18		2	
8/1/2016	2:10	Cloudy	Middle	3.0	19.00	19.00	19.00	8.29	8.29	8.30	30.83	30.83	30.82	71.1	72.5	72.0	5.49	5.60	5.56	2.93	2.77	2.78	3	2.50
	2:11		Middle	3.0	19.00	19.00	1	8.30	8.30		30.81	30.81		73.0	71.4		5.65	5.51		2.72	2.69		2	
11/1/2016	2:52	Cloudy	Middle	3.0	18.60	18.60	18.65	8.21	8.21	8.24	30.57	30.57	30.59	79.9	80.0	80.0	6.22	6.23	6.23	5.57	5.16	5.24	3	3.50
	2:53		Middle	3.0	18.70	18.70		8.26	8.26		30.61	30.61		80.0	80.2		6.23	6.24		5.13	5.11		4	
13/1/2016	15:50 15:52	Fine	Middle Middle	3.5	19.40	19.40	19.40	8.42	8.42 8.45	8.44	31.36	31.36	31.36	88.0	86.4 82.5	85.1	6.73	6.61	6.51	5.33	5.36	5.35	<2 <2	<u><2</u>
	18:26		Middle	3.5	18.20	18.20		8.43	8.43		30.56	30.56		79.0	79.2		6.21	6.23		8.97	8.95		5	
15/1/2016	18:28	Rainy	Middle	3.5	18.20	18.20	18.20	8.45	8.45	8.44	30.57	30.57	30.57	82.5	83.6	81.1	6.49	6.57	6.38	8.93	8.92	<u>8.94</u>	6	5.50
	18:15		Middle	3.5	17.50	17.50		8.31	8.31		31.27	31.27		82.2	83.0		6.52	6.69		2.19	2.00		<2	
18/1/2016	18:16	Cloudy	Middle	3.5	17.50	17.50	17.50	8.32	8.32	8.32	31.26	32.18	31.50	83.8	83.7	83.2	6.66	6.65	6.63	1.93	1.76	1.97	<2	<u><2</u>
	19:36		Middle	3.5	17.70	17.70		8.48	8.48		31.51	31.51		88.8	88.9		7.01	7.02		2.28	2.35		<2	
20/1/2016	19:37	Cloudy	Middle	3.5	17.60	17.60	17.65	8.53	8.49	8.50	31.54	31.54	31.53	88.5	87.9	88.5	6.99	6.94	6.99	2.56	2.58	2.44	<2	<u><2</u>
	23:51		Middle	3.5	15.80	15.80		8.52	8.52		31.40	31.40		79.1	79.8		6.48	6.53		2.62	2.64		2	
22/1/2016	23:52	Cloudy	Middle	3.5	15.80	15.80	15.80	8.53	8.53	8.53	31.40	31.40	31.40	79.9	79.6	79.6	6.55	6.51	6.52	2.55	2.25	2.52	2	2.00
05/4/2010	2:15	F:	Middle	3.0	10.70	10.70	40.05	8.47	8.47	0.40	31.31	31.31	04.04	79.2	79.3	70.	7.23	7.24	7.05	2.66	2.89	0.00	3	0.50
25/1/2016	2:16	Fine	Middle	3.0	10.60	10.60	10.65	8.51	8.51	8.49	31.30	31.30	31.31	79.4	79.7	79.4	7.25	7.27	7.25	2.99	3.01	2.89	2	2.50

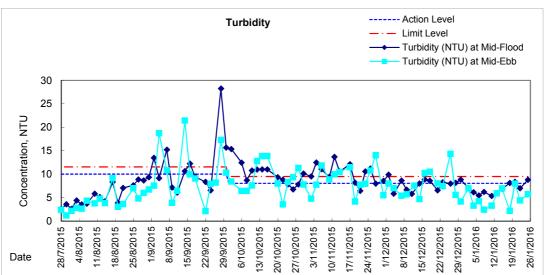


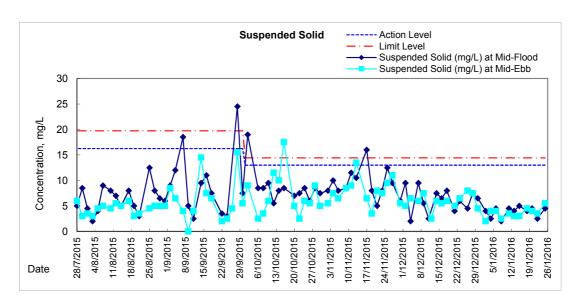
Water Monitoring Result at WSD19 - Sheung Wan Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	•	Wat	er Temp	erature		pH -			Salinit	у	D	O Satur	ation		DO mg/L			Turbidi		Suspended Solids mg/L	
		Condition	n	n	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va		Average		Average
28/12/2015	1:06	Cloudy	Middle	Middle 2.5 18.5		18.50	18.54	8.37	8.37	8.38	32.06	32.06	32.06	83.0	82.5	82.7	6.43	6.40	6.41	5.61	5.57	5.54	7	7.50
20/12/2013	1:07	Oloddy	Middle	2.5	18.74	18.40	10.54	8.38 8.38	8.38	0.00	32.06	32.06	32.00	82.7	82.4	02	6.41	6.38	0.41	5.50	5.49	3.54	8	7.50
30/12/2015	1:58	Cloudy	Middle	3.0	18.90	18.90	18.90	8.19	8.19	8.23	32.23	32.23	32.25	81.7	81.5	- 81.4	6.27	6.25	6.25	4.16	4.30	4.15	4	4.50
00/12/2010	1:59	Oloudy	Middle	3.0	18.90	18.90	10.00	8.27 8.27	8.27		32.27	32.27	02.20	81.3	81.0		6.24	6.22	0.20	4.10	4.05	4.10	5	4.00
2/1/2016	3:55	Fine	Middle	3.0	18.90	18.90	18.75	8.28	8.28	8.31	32.16	32.16	32.16	93.9	92.8	93.0	7.22	7.14	7.15	6.95	6.94	6.94	2	2.00
27 17 20 10	3:57	Tille	Middle	3.0	18.60	18.60	10.70	8.33	8.33	0.01	32.16	32.16	02.10	93.0	92.4	00.0	7.15	7.10	7.10	6.94	6.93	0.04	2	2.00
4/1/2016	20:30	Cloudy	Middle	3.5	20.30	20.30	20.35	8.37	8.37	8.38	32.04	32.04	32.04	78.8	79.9	79.7	5.89	5.98	5.96	3.69	3.12	3.27	4	4.00
	20:31		Middle	3.5	20.40	20.40		8.38	8.38		32.04	32.04		80.1	80.0		5.98	5.97		3.14	3.11		4	
6/1/2016	20:45	Fine	Middle 3.5 20.40 20.40	20.40	20.45	8.37 8.37	8.37	31.56	31.56	31.57	77.9	78.7	78.8	5.86	5.82	5.88	4.07	4.60	4.21	4	4.00			
	20:46	-	Middle	3.5	20.50	20.50		8.37	8.37		31.57	31.57		79.0	79.5		5.91	5.94		4.10	4.07		4	
8/1/2016	22:56	Cloudy	Middle	3.5	19.10	19.10	19.10	8.02	8.02	8.03	31.18	31.18	31.23	81.7	82.0	82.6	6.26	6.30	6.33	2.48	2.41	2.40	3	2.50
	22:57		Middle	3.5	19.10	19.10		8.04	8.04		31.27	31.27		83.5	83.0		6.42	6.34		2.36	2.33		2	
11/1/2016	0:05	Cloudy	Middle	3.0	18.50	18.50	18.50	8.38	8.38	8.39	31.14	31.14	31.14	80.4	81.6	81.5	6.25	6.34	6.34	3.43	3.39	3.26	3	3.50
	0:06		Middle	3.0	18.50	18.50		8.40	8.40		31.14	31.15		82.0	81.8		6.38	6.37		3.12	3.10		4	
13/1/2016	14:14	Fine	Middle	3.5	19.80	19.80	19.80	8.39	8.39	8.40	31.13	31.13	31.13	75.0	74.5	73.9	5.69	5.66	5.61	5.89	5.89	5.89	3	3.00
	14:16		Middle	3.5	19.80	19.80		8.40	8.40		31.12	31.12		73.3	72.8		5.56	5.52		5.89	5.89		3	
15/1/2016	17:05	Rainy	Middle	3.5	18.30	18.30	18.30	8.35	8.35	8.38	30.62	30.62	30.59	91.0	90.4	90.4	7.14	7.09	7.09	6.96	6.96	6.97	3	3.00
	17:07		Middle	3.5	18.30	18.30		8.40	8.40		30.55	30.55		90.1	90.0		7.06	7.06		6.97	6.98		3	
18/1/2016	19:25	Cloudy	Middle	3.5	17.90	17.90	17.80	8.42	8.42	8.43	31.18	31.17	31.18	81.7	81.9	81.9	6.46	6.48	6.48	2.23	2.18	2.18	4	4.50
	19:26		Middle	3.5	17.70	17.70		8.44	8.44		31.18	31.18		82.1	81.9		6.50	6.48		2.16	2.16		5	
20/1/2016	20:58	Cloudy	Middle	3.0	16.70	16.70	16.70	8.46	8.46	8.47	31.39	31.39	31.40	87.8	87.4	87.7	7.05	7.02	7.05	8.02	8.00	7.99	4	4.00
	20:59		Middle	3.0	16.70	16.70		8.48	8.48		31.40	31.40		87.9	87.8		7.06	7.05		7.98	7.96		4	
22/1/2016	2:10	Cloudy	Middle	2.5	15.00	15.00	15.05	8.45	8.45	8.47	31.30	31.30	31.31	83.6	83.2	83.3	6.95	6.91	6.92	4.35	4.33	4.39	3	3.50
	2:11		Middle	2.5	15.10	15.10		8.48	8.48		31.31	31.31		83.2	83.3		6.91	6.92		4.38	4.49		4	
25/1/2016	0:16	Fine	Middle	3.0	11.50	11.50	11.40	8.40	8.40	8.41	31.28	31.28	31.28	82.3	82.6	82.5	7.41	7.45	7.44	5.77	5.75	5.73	6	5.50
	0:17		Middle	3.0	11.30	11.30		8.41	8.41		31.28	31.28		82.7	82.5		7.46	7.44		5.71	5.69		5	

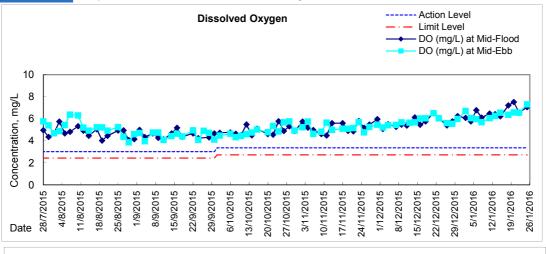
Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan

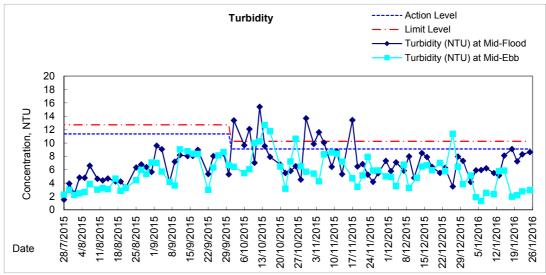


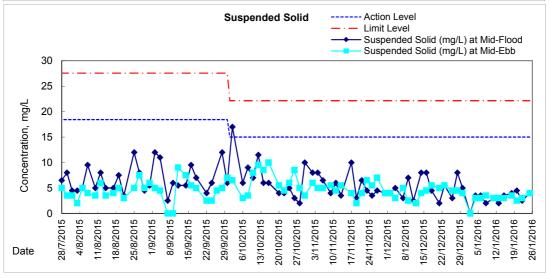




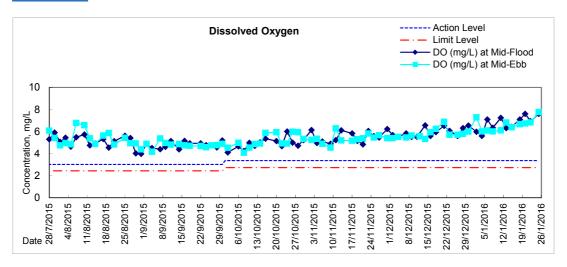
Graphic Presentation of Water Quality Result of C1 - HKCEC

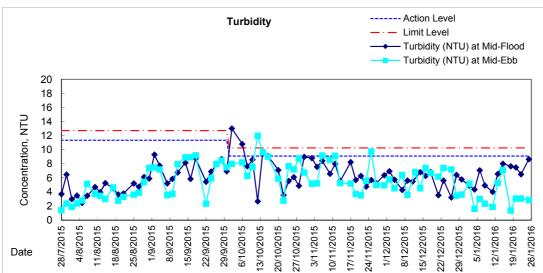


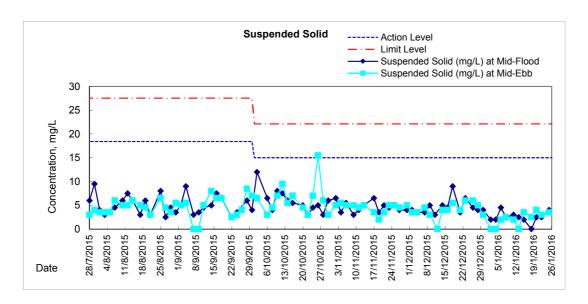




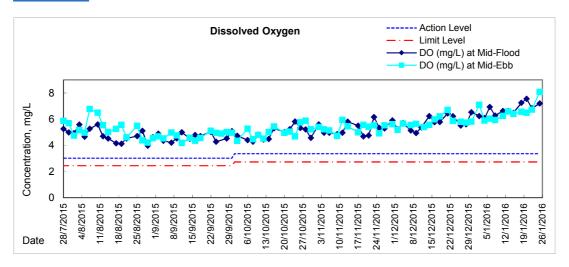
Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I

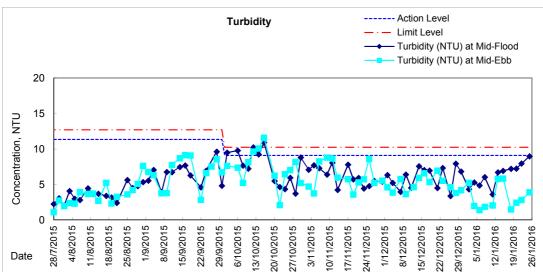


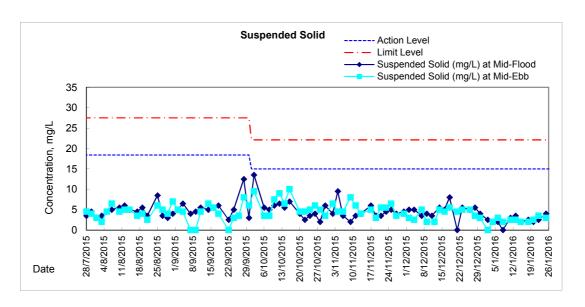




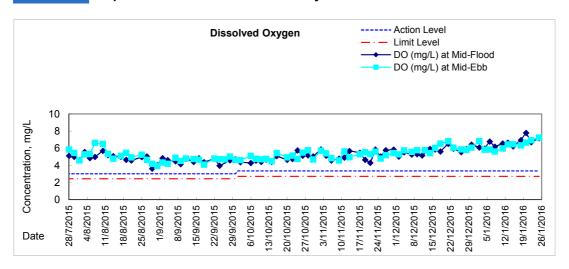


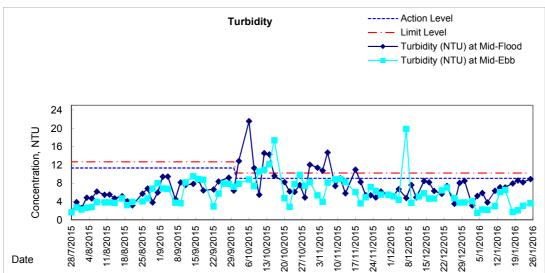


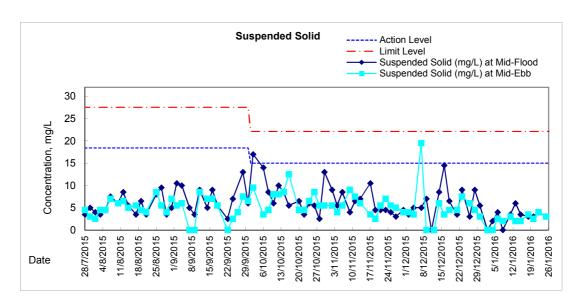




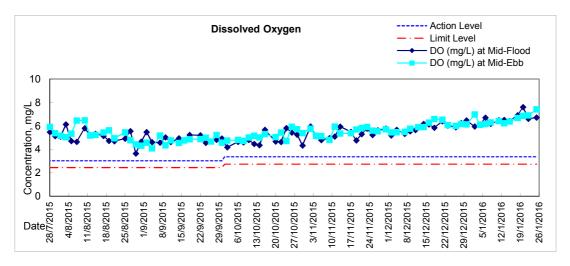
Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT

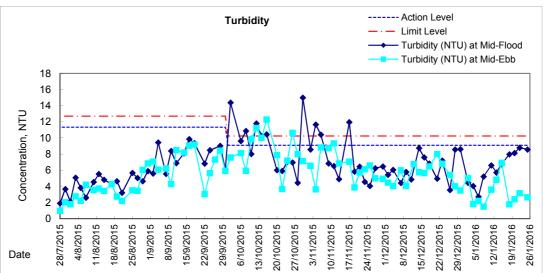


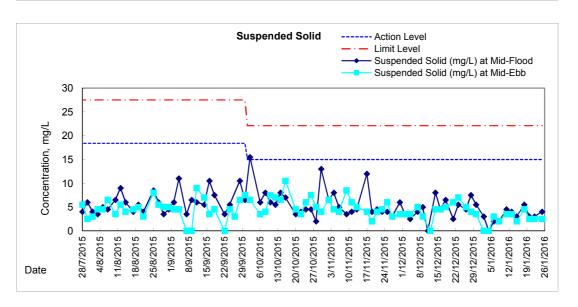




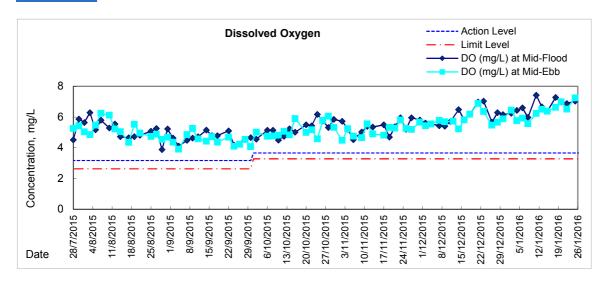
Graphic Presentation of Water Quality Result of P4 - SOC

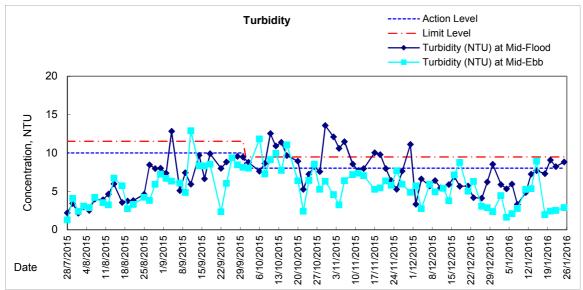


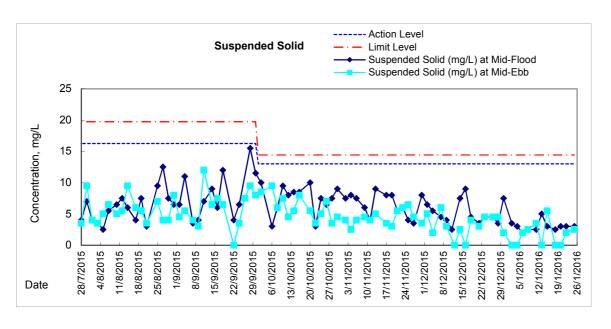




Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK

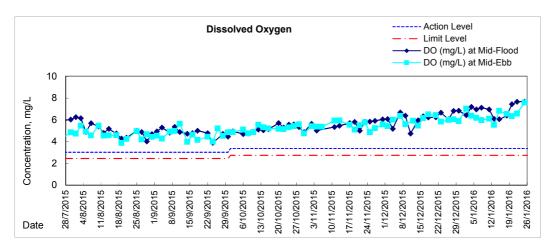


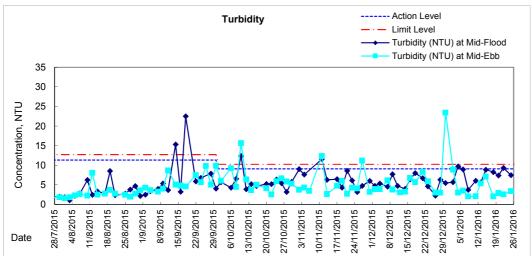


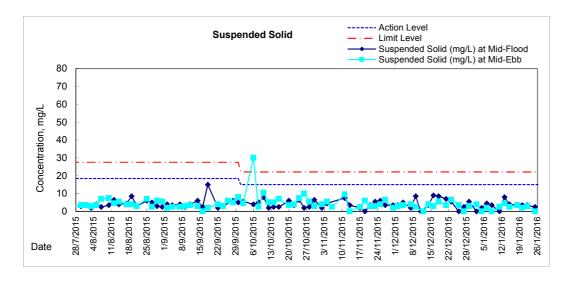




Graphic Presentation of Water Quality Result of C7 - Windsor House









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

Date	Time	Weater	Samplin	g Depth	Wat		erature		рН			Salinit	у	D	O Satur	ation		DO	
Date		Condition	n	n	Va	<u>°C</u> lue	Average	Va	lue -	Average	Va	ppt lue	Average	Va	llue	Average	Va	mg/L alue	Average
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28/12/2015	10:15	Fine	Middle	1.5	19.50	19.50	19.5	8.32	8.32	8.3	31.35	31.35	31.4	88.5	88.88	88.7	6.76	6.77	6.77
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30/12/2015	11:10	Fine	Middle	1.5	19.60	19.60	19.6	8.39	8.39	8.4	31.28	31.28	31.3	81.2	81.0	81.1	6.19	6.17	6.18
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/1/2016	10:50	Fine	Middle	1.5	19.90	19.90	19.9	8.20	8.20	8.2	29.16	29.16	29.2	80.6	80.5	80.6	6.18	6.17	6.18
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/1/2016	10:43	Fine	Middle	1.5	21.00	21.00	21.0	8.26	8.26	8.3	30.35	30.35	30.4	83.0	82.6	82.8	6.19	6.16	6.18
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/1/2016	11:59	Fine	Middle	1.5	21.70	21.70	21.7	8.36	8.36	8.4	31.13	31.13	31.1	89.4	89.6	89.5	6.73	6.74	6.74
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/1/2016	13:50	Fine	Middle	1.5	20.70	20.70	20.7	8.25	8.25	8.3	29.14	29.14	29.1	84.9	84.6	84.8	6.41	6.38	6.40
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:00		Surface	1.0	19.70	19.70	19.7	8.47	8.47	8.5	27.92	27.92	27.9	83.2	83.5	83.4	6.45	6.47	6.46
11/1/2016	-	Rainy	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:02		Bottom	3.0	19.70	19.70	19.7	8.46	8.46	8.5	28.72	28.72	28.7	85.5	86.3	85.9	6.59	6.67	6.63
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/1/2016	10:38	Fine	Middle	1.5	19.30	19.30	19.3	8.35	8.35	8.4	27.93	27.93	27.9	86.8	86.3	86.6	6.79	6.75	6.77
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/1/2016	12:24	Rainy	Middle	1.5	17.60	17.60	17.6	8.22	8.22	8.2	29.12	29.12	29.1	83.9	81.3	82.6	6.72	6.50	6.61
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/1/2016	9:50	Fine	Middle	1.0	18.30	18.30	18.3	8.27	8.27	8.3	27.64	27.64	27.6	79.4	80.0	79.7	6.54	6.39	6.47
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:15		Surface	1.0	18.00	18.00	18.0	8.49	8.49	8.5	30.22	30.22	30.2	90.3	91.1	90.7	7.13	7.19	7.16
20/1/2016	-	Cloudy	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:17		Bottom	3.0	18.10	18.10	18.1	8.50	8.50	8.5	30.38	30.38	30.4	91.7	91.5	91.6	7.22	7.20	7.21
	17:20		Surface	1.0	17.50	17.50	17.5	8.46	8.46	8.5	29.76	29.76	29.8	87.6	88.8	88.2	7.01	7.11	7.06
22/1/2016	-	Rainy	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:22		Bottom	3.0	17.60	17.60	17.6	8.49	8.49	8.5	29.52	29.52	29.5	93.2	93.4	93.3	7.46	7.47	7.47
	9:50		Surface	1.0	14.90	14.90	14.9	8.47	8.47	8.5	29.86	29.86	29.9	88.8	89.7	89.3	7.49	7.58	7.54
25/1/2016	-	Fine	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:52		Bottom	3.0	15.00	15.00	15.0	8.46	8.46	8.5	30.92	30.92	30.9	92.4	92.2	92.3	7.69	7.68	7.69



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

Date	Time	Weater	Samplin	g Depth	Wat		perature		рН			Salinit	ty	D	O Satur	ation		DO	
Date		Condition	n	n	Va	llue	Average	Va	lue -	Average	Va	ppt ilue	Average	Va	llue	Average	Va	mg/L alue	Average
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28/12/2015	10:00	Fine	Middle	1.5	19.90	19.90	19.9	8.38	8.38	8.4	22.57	22.57	22.6	57.4	56.8	57.1	4.58	4.55	4.57
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30/12/2015	10:45	Fine	Middle	1.5	19.60	19.60	19.6	8.30	8.30	8.3	30.92	30.92	30.9	76.3	75.5	75.9	5.83	5.77	5.80
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/1/2016	10:33	Fine	Middle	1.0	20.60	20.60	20.6	8.39	8.39	8.4	16.40	16.40	16.4	38.4	38.2	38.3	3.13	3.12	<u>3.13</u>
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/1/2016	14:45	Fine	Middle	1.0	20.40	20.40	20.4	8.26	8.26	8.3	29.79	29.79	29.8	68.6	67.5	68.1	5.19	5.11	5.15
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/1/2016	13:30	Fine	Middle	1.5	21.30	21.30	21.3	8.24	8.24	8.2	27.47	27.47	27.5	57.0	56.2	56.6	4.29	4.22	4.26
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/1/2016	17:10	Fine	Middle	1.0	20.50	20.50	20.5	8.34	8.34	8.3	28.97	28.97	29.0	60.7	60.3	60.5	4.67	4.63	4.65
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/1/2016	9:35	Rainy	Middle	1.5	19.50	19.50	19.5	8.42	8.42	8.4	30.02	30.02	30.0	89.3	88.88	89.1	6.87	6.83	6.85
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/1/2016	10:20	Fine	Middle	1.0	19.40	19.40	19.4	8.39	8.39	8.4	28.85	28.85	28.9	70.1	68.7	69.4	5.43	5.33	5.38
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/1/2016	11:46	Rainy	Middle	1.0	18.80	18.80	18.8	8.49	8.49	8.5	20.10	20.10	20.1	60.2	59.1	59.7	4.98	4.88	4.93
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/1/2016	13:53	Fine	Middle	1.0	19.00	19.00	19.0	8.33	8.33	8.3	28.29	28.29	28.3	88.1	85.7	86.9	6.91	6.72	6.82
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
00/4/0040	-	o	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20/1/2016	15:52	Cloudy	Middle	1.0	18.30	18.30	18.3	8.51	8.51	8.5	30.12	30.12	30.1	85.0	83.8	84.4	6.69	6.59	6.64
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20/4/2012	- 40.50	Delini	Surface	-	-	-	-	-		-	-	-	- 40.7	- 04.7	-	-		-	-
22/1/2016	16:50	Rainy	Middle	1.0	18.00	18.00	18.0	8.57	8.57	8.6	19.68	19.68	19.7	61.7	60.3	61.0	5.19	5.07	5.13
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/4/2040	- 0.45	Eige	Surface	-	- 45.20	- 45.20	- 45.2	- 0.40	- 0.40	- 0.5	-	-	- 20.0	- 62.0	-	-			
25/1/2016	9:45	Fine	Middle	1.5	15.30	15.30	15.3	8.49	8.49	8.5	20.02	20.02	20.0	63.0	62.2	62.6	5.60	5.53	5.57
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

<u> </u>	Time	Weater	Samplin	ng Depth	Wat	er Temp	erature		pН			Salinit	y	С	O Satur	ation		DO	
Date		Condition		n .		°C lue	Average	Va	lue	Average	Va	ppt ilue	Average		% ilue	Average	\/a	mg/L ilue	Average
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28/12/2015	2:52	Cloudy	Middle	1.0	18.80	18.80	18.8	8.05	8.06	8.1	26.55	26.55	26.6	53.9	55.9	54.9	4.39	4.45	4.42
	-		Bottom	-	-	-	-	-	-	·	-	-	1	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30/12/2015	1:37	Cloudy	Middle	1.5	18.70	18.70	18.7	8.33	8.33	8.3	29.78	29.78	29.8	62.4	62.6	62.5	4.88	4.91	4.90
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/1/2016	17:40	Fine	Middle	1.5	19.60	19.60	19.6	8.22	8.22	8.2	31.64	31.64	31.6	71.1	70.1	70.6	5.40	5.32	5.36
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/1/2016	18:22	Cloudy	Surface Middle	1.5	20.70	20.70	20.7	8.05	8.05	8.1	30.89	30.89	30.9	75.9	76.6	76.3	5.69	5.74	5.72
4/ 1/2010	-	Cloudy	Bottom	-	20.70	20.70	-	6.05	6.05	-	30.09	30.69	30.9	75.9	70.0	-	5.09	5.74	5.72
	_		Surface	_	_	-	_	_	_	_	_	_	_	-	_	_	_	_	_
6/1/2016	19:27	Fine	Middle	1.5	20.50	20.50	20.5	8.09	8.09	8.1	29.75	29.75	29.8	70.0	69.8	69.9	5.28	5.26	5.27
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/1/2016	1:50	Cloudy	Middle	1.0	19.00	19.00	19.0	8.36	8.36	8.4	32.34	32.34	32.3	58.9	58.1	58.5	4.69	4.58	4.64
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
11/1/2016	2:32	Cloudy	Middle	1.0	18.80	18.80	18.8	8.28	8.29	8.3	26.69	26.69	26.7	65.2	67.4	66.3	5.18	5.36	5.27
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/1/2016	16:15	Fine	Middle	1.5	19.70	19.70	19.7	8.28	8.28	8.3	29.55	29.55	29.6	73.7	72.9	73.3	5.66	5.60	5.63
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/1/2016	16:25	Rainy	Surface Middle	- 10	18.30	18.30	18.3	8.48	8.48	8.5	27.69	27.69	27.7	83.7	82.7	83.2	6.68	6.61	6.65
13/1/2010	16:35	Rally	Bottom	1.0	10.30	10.30	10.3	0.40	0.40	-	27.09	27.09	-	-	- 02.1		0.00	0.01	0.00
	_		Surface	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_
18/1/2016	17:55	Cloudy	Middle	1.5	18.10	18.00	18.1	8.40	8.40	8.4	29.14	29.47	29.3	73.9	75.2	74.6	5.87	5.97	5.92
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20/1/2016	19:25	Cloudy	Middle	1.5	17.80	17.80	17.8	8.36	8.36	8.4	30.55	30.55	30.6	77.4	77.3	77.4	6.13	6.12	6.13
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/1/2016	23:23	Cloudy	Middle	1.5	15.90	15.90	15.9	8.47	8.47	8.5	25.71	25.71	25.7	68.7	69.8	69.3	5.80	5.89	5.85
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/1/2016	1:56	Fine	Middle	1.0	10.70	10.70	10.7	8.46	8.45	8.5	27.71	27.71	27.7	59.9	60.3	60.1	5.72	5.76	5.74
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

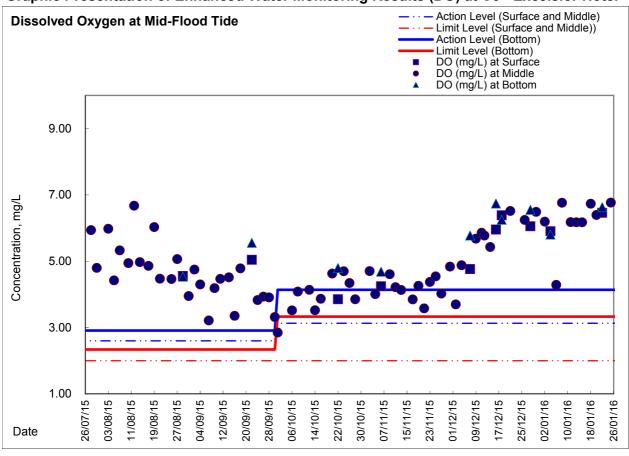


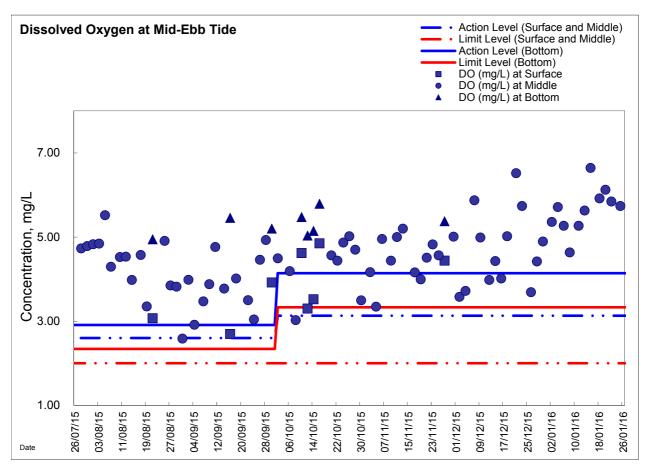
Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area Mid-Ebb Tide

	Time	Weater	Samplin	g Depth	Wat	er Temp	erature		pН			Salinit	v	Г	O Satur	ation		DO	
Date	111110	Condition	·	n		°C		Va	-	Average	Va	ppt			%		Va	mg/L	Average
	_		Surface	_	va -	lue -	Average -	va -	lue -	Average -	_ va	lue -	Average -	va -	lue -	Average	va -	lue -	Average -
28/12/2015	4:05	Cloudy	Middle	1.0	19.10	19.10	19.1	8.25	8.25	8.3	18.24	18.24	18.2	55.9	54.8	55.4	4.86	4.77	4.82
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30/12/2015	1:10	Cloudy	Middle	1.5	18.80	18.80	18.8	8.44	8.44	8.4	25.13	25.13	25.1	63.8	62.9	63.4	5.13	5.04	5.09
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/1/2016	17:19	Fine	Middle	1.0	20.90	20.90	20.9	8.72	8.72	8.7	8.59	8.59	8.6	23.6	23.4	23.5	2.00	1.99	2.00
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/1/2016	18:55	Cloudy	Middle	1.5	20.60	20.60	20.6	7.98	7.99	8.0	29.77	29.77	29.8	67.4	68.7	68.1	5.09	5.18	5.14
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0/4/0040	-	Elia -	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/1/2016	19:06	Fine	Middle Bottom	1.5	21.20	21.20	21.2	8.29	8.29	8.3	22.22	22.22	22.2	57.3	57.0	57.2	4.51	4.48	4.50
	-		Surface	-	-	-	-		_	-		_	-	-	_	_	_	_	
8/1/2016	2:21	Cloudy	Middle	1.0	19.10	19.10	19.1	8.37	8.37	8.4	19.76	19.76	19.8	53.0	50.3	51.7	4.83	4.66	4.75
	-	,	Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/1/2016	3:10	Cloudy	Middle	1.0	18.70	18.70	18.7	8.62	8.62	8.6	14.65	14.65	14.7	67.7	63.6	65.7	5.74	5.44	5.59
	-		Bottom	-	-	-	-	1	-	-	·	-	1	1	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/1/2016	15:58	Fine	Middle	1.0	20.10	20.10	20.1	8.40	8.40	8.4	21.89	21.89	21.9	49.7	49.1	49.4	3.96	3.91	3.94
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/1/2016	18:34	Rainy	Middle	1.0	18.40	18.40	18.4	8.54	8.54	8.5	19.77	19.77	19.8	65.7	68.9	67.3	5.48	5.75	5.62
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/1/2016	18:25	Cloudy	Middle	1.5	18.40	18.40	18.4	8.49	8.49	8.5	25.74	25.74	25.7	65.7	64.9	65.3	5.24	5.22	5.23
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20/4/2046	- 40.50	Classells	Surface	- 4.5	- 47.00	- 47.00	17.9	- 0.54	- 0.54	-	- 24.00	- 24.00	- 24.0	70.0	74.4	75.0	- 000	- 0.40	- 0.45
20/1/2016	19:50	Cloudy	Middle Bottom	1.5	17.90	17.90	17.9	8.54	8.54	8.5	24.89	24.89	24.9	76.0	74.4	75.2	6.20	6.10	6.15
	_		Surface	-	_	_	_		_	-	_	_	-	-		_		_	-
22/1/2016	0:10	Cloudy	Middle	1.5	16.20	16.20	16.2	8.80	8.80	8.8	14.89	14.89	14.9	66.5	64.7	65.6	5.91	5.80	5.86
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/1/2016	2:28	Fine	Middle	1.0	10.90	10.90	10.9	8.77	8.77	8.8	15.33	15.33	15.3	61.4	60.2	60.8	5.84	5.72	5.78
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

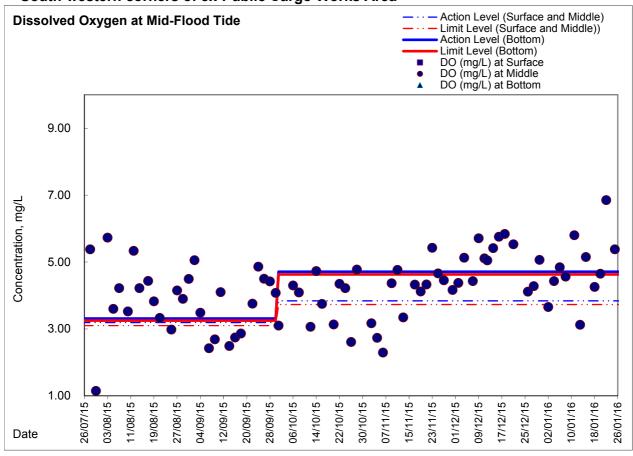


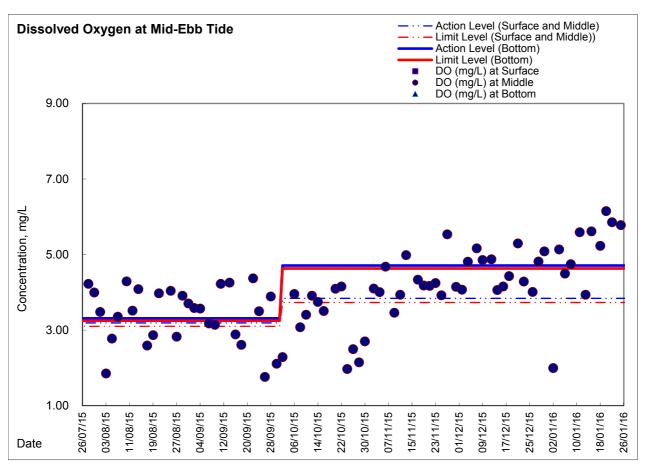




Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW

- South-western corners of ex-Public Cargo Works Area





Appendix 6.1

Event Action Plans

Event/Action Plan for Construction Noise

EVENT		AC	CTION	
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	 Notify ER, IEC and Contractor; Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss with the IEC and Contractor on remedial measures required; Increase monitoring frequency to check mitigation effectiveness. (The above actions should be taken within 2 working days after the exceedance is identified) 	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. (The above actions should be taken within 2 working days after the exceedance is identified)	 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; Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified) 	Submit noise mitigation proposals to IEC and ER; Implement noise mitigation proposals. (The above actions should be taken within 2 working days after the exceedance is identified)



EVENT		AC	CTION					
	ET	IEC	ER	CONTRACTOR				
Limit Level being exceeded	 Inform IEC, ER, Contractor and EPD; Repeat measurements to confirm findings; 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; 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) 	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. (The above actions should be taken within 2 working days after the exceedance is identified)	 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; Supervise the implementation of remedial measures; 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) 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC and ER within 3 working days of notification; Implement the agreed proposals; Submit further proposal if problem still not under control; 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 Dian for Construction Air Quality

FVENT		ACTION		
EVENT	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	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)	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)	Notify Contractor. (The above actions should be taken within 2 working days after the exceedance is identified)	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	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	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)	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)	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				
Exceedance for one sample	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)	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)	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)	Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals; Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
Exceedance for two or more consecutive samples	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)	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.	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)	Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification 3. 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 Dian 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 agree 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)

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am	Lam Geotechnic

EVENT		ACTION							
	ET	IEC	ER	CONTRACTOR					
Limit level being exceeded by one sampling day	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)	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, 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)	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)					
Limit level being exceeded by more than one consecutive sampling days	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)	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, 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)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)					

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	Identify source/reason of exceedance; Repeat odour patrol to confirm finding.	 Carry out investigation to identify the source/reason of exceedance; Rectify any unacceptable practice Implement more mitigation measures if necessary; Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.
Limit Level	·	· · · · · · · · · · · · · · · · · · ·
Exceedance of Limit Level	Identify source / reason of exceedance; Repeat odour patrol to confirm findings; Increase odour patrol frequency; If exceedance stops, cease additional odour patrol.	 Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks; Rectify any unacceptable practice; Formulate remedial actions; Ensure remedial actions properly implemented; If exceedance continues, consider what more/enhanced mitigation measures shall be implemented; 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	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action	
X_16N001	12-Jan-16	11:00	M1a-Habour Road Sports Centre	79	Leq(30-min)	when one documented complaint was received.	75	Possible reason:	Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre) under non WDII-CWB Contractor.
								Action taken / to be taken: Remarks / Other Obs:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure. Backfilling and formation works at Portion 2 and bored pile and ground investigation at Portion 5 were conducted under Contract HK/2009/02 around the concerned location during the time of measurement while breaking works at Ex-Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.
X_16N002	12-Jan-16	11:00	M1a-Habour Road Sports Centre	79	Leq(30-min)	when one documented complaint was received.	75	Possible reason:	Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre) under non WDII-CWB Contractor.
						100011041		Action taken / to be taken: Remarks / Other Obs:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure. Excavation works was conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.
X_16N004	19-Jan-16	10:25	M1a-Habour Road Sports Centre	85	Leq(30-min)	when one documented complaint was received.	75	Possible reason:	Breaking and piling works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre) under non WDII-CWB Contractor.
								Action taken / to be taken: Remarks / Other Obs:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure. Backfilling at Portion 2 and bored pile, diaphragm wall construction and ground investigation at Portion 5 were conducted under Contract HK/2009/02 around the concerned location during the time of measurement while pilling and breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.
X_16N005	19-Jan-16	10:25	M1a-Habour Road Sports Centre	85	Leq(30-min)	when one documented complaint was received.	75	Possible reason:	Breaking and piling works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre) under non WDII-CWB Contractor.
								Action taken / to be taken: Remarks / Other Obs:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure. Welding works was conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement while piling and breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.



Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
	28-Dec-15		WSD19	DO(mg/l)	6.55	3.66		Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.14	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	7.50	13.00	14.43	Remarks/ Other Obs:	Despite trimming of grade 400 rock mound was conducted under Contract HK/2012/08 near Zone D on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W002	30-Dec-15	Mid-flood	WSD19	DO(mg/l)	5.68	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.81	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	6.50	13.00	14.43	Remarks/ Other Obs:	Despite trimming of armour rocks was conducted under Contract HK/2012/08 near Zone B/A2 on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W003	30-Dec-15	Mid-flood	RW21-P789	DO(mg/l)	6.16	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.54	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	7.50	13.00	14.43	Remarks/ Other Obs:	No marine construction activity was conducted under Contract HK/2009/02 on the monitoring date. The installed silt screen was generally in order. In view of the no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W004	15-Jan-16	Mid-ebb	RW21-P789	DO(mg/l)	6.38	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.94	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	5.50	13.00	14.43	Remarks/ Other Obs:	No marine construction activity was conducted under Contract HK/2009/02 on the monitoring date. The installed silt screen was generally in order. In view of the no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.



Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X 16W005	18-Jan-16		WSD19	DO(mg/l)	7.59	3.66		Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring
				(g)			5.25		station.
				Turbidity	8.10	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				ss	4.00	13.00	14.43	Remarks/ Other Obs:	Despite trimming of grade 400 rock mound was conducted under Contract HK/2012/08 near Zone D on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W006	20-Jan-16	Mid-flood	RW21-P789	DO(mg/l)	6.97	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	9.10	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	3.00	13.00	14.43	Remarks/ Other Obs:	No marine construction activity was conducted under Contract HK/2009/02 on the monitoring date. The installed silt screen was generally in order. In view of the no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W007	20-Jan-16	Mid-flood	WSD19	DO(mg/l)	8.12	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.35	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				ss	4.50	13.00	14.43	Remarks/ Other Obs:	Despite trimming of grade 400 rock mound was conducted under Contract HK/2012/08 near Zone D on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W008	22-Jan-16	Mid-flood	RW21-P789	DO(mg/l)	6.88	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.23	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	3.00	13.00	14.43	Remarks/ Other Obs:	No marine construction activity was conducted under Contract HK/2009/02 on the monitoring date. The installed silt screen was generally in order. In view of the no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.



Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_16W009	25-Jan-16	Mid-flood	WSD19	DO(mg/l)	6.69	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.79	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	4.50	13.00	14.43	Remarks/ Other Obs:	Despite trimming of grade 400 rock mound was conducted under Contract HK/2012/08 near Zone D on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W010	25-Jan-16	Mid-flood	RW21-P789	DO(mg/l)	7.03	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.85	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	3.00	13.00	14.43	Remarks/ Other Obs:	No marine construction activity was conducted under Contract HK/2009/02 on the monitoring date. The installed silt screen was generally in order. In view of the no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.



Lam Geotechnics Limited

Ref no.	Date	Tidal	Location	Depth	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_16D001	2-Jan-16	Mid-ebb		Middle	DO(mg/l)	2.00	3.84		Possible reason:	Possible in relation to the upstream organic discharge.
									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.
									Remarks/ Other Obs:	Despite seawall reinstatement was conducted at TPCWAE on the monitoring date, contractor mitigation measures including the use of silt curtain was generally in order while upstream discharge from nearby culvert was noted. In view of the above, the exceedance was considered not related to the Project works.
X_16D002	2-Jan-16	Mid-flood	Ex-WPCWA SW	Middle	DO(mg/l)	3.13	3.84	3.73	Possible reason:	Possible in relation to the upstream organic discharge.
									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.
									Remarks/ Other Obs:	Despite seawall reinstatement was conducted at TPCWAE on the monitoring date, contractor mitigation measures including the use of silt curtain was generally in order while upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to the Project works. The DO level has returned to normal level on 4 January 2016 flood tide.

Lam Geotechnics Limited

Ref no.	Date	Tidal	Lagation	Deservatore (Unit)	Manageman	Action Level	Limit Level	Follow-up action	
			Location	Parameters (Unit)				<u>'</u>	Natural variation or shouses of water available in the visitity of water above
X_16C001	30-Dec-15	Mid-ebb	C7	DO(mg/I)	5.87	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	23.42	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	3.00	15.00	22.13	Remarks/ Other Obs:	No marine construction activities was conducted under HY/2009/15 at Causeway Bay Typhoon Shelter on the monitoring date. No marine construction activity was conducted under HY/2010/08 on the monitoring date, and the installed silt screen was in place. In view of no marine construction activity was conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16C002	4-Jan-16	Mid-flood	C7	DO(mg/l)	7.18	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	9.72	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	2.00	15.00	22.13	Remarks/ Other Obs:	No marine construction activities was conducted under HY/2009/15 at Causeway Bay Typhoon Shelter on the monitoring date. No marine construction activity was conducted under HY/2010/08 on the monitoring date, and the installed silt screen was in place. In view of no marine construction activity was conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16C003	22-Jan-16	Mid-flood	C7	DO(mg/l)	7.65	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	9.32	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	3.50	15.00	22.13	Remarks/ Other Obs:	No marine construction activities was conducted under HY/2009/15 at Causeway Bay Typhoon Shelter on the monitoring date. No marine construction activity was conducted under HY/2010/08 on the monitoring date, and the installed silt screen was in place. In view of no marine construction activity was conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

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	Out	come	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).	'	A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18 th Feb. 2010 for the dredging works which carry out at area for North Point Reclamation.	Closed
					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.	
100321b	21/3/2010	Unknown	breakwater of the	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		A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18 th 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.	Closed
				2010(Monday).	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.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status
100504	4/5/2010	Public complainant received by ICC (ICC case: 1-	Watson Road	Complaint on the noise nuisance due to the large scale of dredging machine (face to Island East Corridor) in particular the	,	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.	Closed
		233384048)		hours 1900 to 0800 and request to reduce the noise level.	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.	
100731	31/7/2010	Mr. Lee received by ICC (CC Case:		Complaint on the noise nuisance due to the dredging works.		Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works.	Closed
		1-250702681)		Three construction plants were operated concurrently.	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. $ \\$	
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	,	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.	Closed
				works area adjacent to the Harbour Height during the period from 0700 to 2200.		No noise exceedance was recorded at noise monitoring station at Victoria Centre on 10 and 17 August 2010 during daytime and evening time period.	
						It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	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)	1)	Contractor for HY/2009/11has 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.	Closed	
				,	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.		
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		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.	Closed	
						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.		
101203	3/12/2010, 01:45a.m.	The resident of Block 11, City Garden by ICC referral from Marine	North Point	Bad odour was generated from the dredging plant off North Point	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.	Closed	
		Department			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.		
101206	6/12/2010	Ms Lui, the resident of 27/F, Block 10, City	,	Two barges were generating noise at 22:00 on 6 December 2010 in which the noise from	1)	ET confirmed the following information with resident site staff on the complaint: • 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)		filling operation was louder than the traffic noise & visual impact was generated due to the spotlight pointing directly to the complainant flat, suspected the filling operation was part of Wanchai Development Phase II; 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.	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;	
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.	 The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work. 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. It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant. 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 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. 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
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.	According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period. 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. 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	 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. 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. 	Closed
					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.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status
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, nylonwire 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.	2)	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 period 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. 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.	Closed
					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.	
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.	',	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.	Closed
					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	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	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.	1) 2) 3)	It was referred by AECOM to ET on 28 July 2011 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. As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be	
				Holiday.	4)	August 2011. 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.	Closed
				5	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.	
110723b	23/07/2011	Ms. Yau at Block	North Point	Reclamation work was conducted at Causeway Bay	1)	It was referred by AECOM to ET on 8 August 2011	
		2, Victoria Centre by ICC no. 1- 304013959		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	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	
				to the vicinity of the residents in early morning	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.	Closed
					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.	
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	2)	It was referred by AECOM to ET on 28 July 2011 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. 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	Dutcome	Statu	us
				Central-Wanchai Bypass at noon rather than in morning at 7am.	monitoring station at Victoria Centre of August 2011 during daytime while excavation works were undertaken during	e breaking and g monitoring.	
					 In conclusion, it was related to the cunder Contract HY/2009/15 and mitigate provided. No further complaint from received after proposed the mitigation metals. 	ion measure was complainant was	
110727b	27/07/2011	Ms. Chiu by ICC	North Point	Noise nuisance from the) It was referred by AECOM to ET on 28 J	uly 2011	
	no	no.1-304615409		excavation works for the Highways Department adjacent to the Victoria Centre was conducted from 7am	With reference to the construction no Vitoria Centre, no exceedance was rec and 4 and 10 August 2011 during dayting and excavation works were undertaken of	orded on 25 July ne while breaking	
					As a mitigation measure to minimize the the vicinity of the residents, rock breakir started at 8am.		
	08/08/2011					However, complainant did not satisfy w on the noise nuisance from the rock morning in front of Victoria Centre a complaint via 1823 on 7 August 2011.	-breaking during
				 Highways contacted the complainant or that the noisy rock breaking oper completed. 			
					Remarks: There will be counted as two or complaint log.	complaints in this	
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.	l) It was referred by AECOM to ET on 17 A 2) Confirmed with RE, Muddy water was ca earth being washed to the sea by heavy earth was referred as a small stockpile properties of the seaffont in front of Oil Street within the handover transition period from contract Contract HY/2009/19. The necessary mit to protect the small stockpile against rai at the time of complaint.	used by a heap of rain. The heap of laced close to the e site area under ct HY/2009/11 to tigation measures	sed
			B) Due to the missing of mitigation measus mall stockpile during handover transimaterial was washed into the harbour came. Muddy water was formed and distinct caused the water quality and visus public. The complaint was considered as Contractors were advised to relocate the	ion period, loose when heavy rain persed in the sea al concern to the valid.			



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						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.	1)	Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01. 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.	Closed
					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.	
110826A	26/08/2011	A complaint letter from Mr. Au of Cayley Property of City	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	1)	It was referred by AECOM to ET on 29 August 2011. Confirmed with the Resident Site Staff that the • construction works were referred to the Contractors HY/2009/11 and HY/2009/19.	Closed
		Garden		August 2011.		 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 excluse the outfall. 	
						 An ad hoc inspection of the effectiveness of garbage defender was conducted with RSS (CWB project 	

The complainant, Tam

complained via

hotline 1823

Wan Chai

111014

14/10/2011

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					team), contractor of HY/200911 and HY/2009/19 and IECon 29 August 2011. Inspection report of it was submitted to RSS on 19 September 2011.	
					 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 	
					 According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying wih their expectation. 	
					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.	
					All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site.	
					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.	
					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.	
					7) Contractors have fulfilled the requirement of site cleanness and no exceedance was recorded during Water Quality Monitoring. It is consider 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	

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)

1)

2)

2011.

Closed

RSS notified ET to carry out investigation on 17 October

ET confirmed with the Resident Site Staff that the location

of the excavator was within site area of Contract no.

reprovision works along the Harbour Road. The plants including the excavator have been checked before using

HK/2009/02 undertaking the water cooling main



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					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. 3) After receiving the complaint, the excavator was then removal off-site for checking and maintenance works on 17 October 2011. 4) Contractor was reminded to enhance regular checking and maintenance to all plants at site. 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	
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.	by the Contractor. 1) ET confirmed with the Resident Site Staff that	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	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	Keep in view for three months from the date of complaint recevied



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					2)	CNP was checked by the police officer. 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.	
					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.	
					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. Futhermore, Construction Noise Permit should be checked and in place for the construction works during restricted hour	
					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.	
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.	2)	RSS notified ET on 5 April 2012. ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period. 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. 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	Closed



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					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.	 RSS notified ET on 8 March 2013 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. 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. 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. The contracotr was advised and committed to implement preventive meaures to miminize the potential impact of work including conducting regular diver check to ensure the integrity and the extend of silt curtain deployment and to provide adequtae back up stock of silt curtain for emergency use. 	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.	 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. 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 	Interim Report was submitted to EPD on 20 June 2014.



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	·				3)	the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested. 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. 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.	
						The Contractor's investigation report on the complaint case was submitted to EPA via email on 18 June 2014.	
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.	0)	Construction noise impact referred by RSS was received by ET on 25 July 2014 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. 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 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	Final report (Issue1) issued on 31 July 2014. Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.



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					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. 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.	
141016	14/10/2014	EPD Ref.: EP860/E2/24 Annex IV ICC complaint received by ET on 10 October 2014	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.	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.	Interim investigation report submitted to EPD on 23 October 2014.
					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. 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. 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.	Updated interim investigatio n with supplement ary information submitted to EPD on 17 November 2014

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					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.	
					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.	
					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.	
					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.	
					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.	
					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.	
					In view of the above findings, no direct information associated with the noise concern was considered available.	



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141110	07/11/2014	EPD Ref.: H05/RS/000278 15-14 EPD complaint received by ET on 10 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.	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). 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. 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). 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. Dredging works was conducted on 7 November 2014 during daytime at WCR3 (East of old Wan Chai Ferry Pier) Total 1 no .of dredger, 1 no. of hopper and 1 no. of tug boat were operated. 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. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating onsite. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to 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.	Interim investigation report submitted to EPD on 17 November 2014. EPD advised no comment on the interim report and case closed on 1 Dec 2014.



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					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 thatMalodour 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 onsite 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.



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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/00001 725-15) 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 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



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-					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.	
					Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place.	
					In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a, no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants.	
					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.	
150622	18 June 2015	EPD Ref.:H05/RS/ 00015054-15 dated 8 June	A mooring location near shore and at location outside Wan Chai Sports	Dark smoke and malodour emission was observed from a hopper barge moored near shore and	A public complaint regarding dark smoke and malodour concern referred by EPD was received by ET on 22 June 2015 (EPD Ref.: H05/RS/00015054-15 dated 22 June 2015). The complainant reported that dark smoke and malodour emission was observed from a hopper barge	Interim report submitted to EPD on 29 June 2015



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		2015	Ground	other construction plants under operation from the reclamation construction site	moored near shore and other construction plants under operation from the reclamation construction site with Contract no. HK/2009/02 at location outside Wan Chai Sports Ground caused air pollution. The complainant alleged that the said situation had been observed for a prolonged period.	
					ET confirmed with the Resident Site Staff that reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 from 15 June 2015 to 19 June 2015. Total 3 nos. of mobile crane were in operation. On 17 June 2015, one no. of concrete pump truck and two nos. of concrete mixer were in operation. Excavation and Lateral Support was conducted at Portions 3 & 4 from 15 June 2015 to 19 June 2015. Total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. In addition, on 15 June 2015, 17 June 2015 and 19 June 2015, 1 no. of derrick barge was moored near Portions 3 & 4 for transportation of the excavated material away from site. According to the relevant site records under Contract HK/2009/02, from 15 June 2015 to 19 June 2015, reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 and total 3 nos. of mobile crane, one no. of concrete pump truck (on 17 June 2015 only) and two nos. of concrete mixer (on 17 June 2015 only) were in operation; excavation and lateral support was conducted at Portions 3 & 4 and total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. Based on relevant site record, no hopper barge was moored under Contract HK/2009/02 around the concerned location while 1 no. of derrick barge was moored under Contract HK/2009/02 near Portions 3 & 4 for transportation of the excavated material from Portions 3 & 4 away from site on 15 June 2015,17 June 2015 and 19 June 2015 respectively.	
					Follow-up inspection was conducted during weekly	



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					environmental inspection on 25 June 2015, no dark smoke and malodour emission was observed from the PMEs operating on-site. A derrick barge was observed moored near Portions 3 & 4 and excavated material was transferred to the derrick barge by the excavators on land without barge operation and no particular dark smoke and malodour emission was observed. Nevertheless, the Contractor was reminded to conduct regular checking on the condition of the derrick barge and other PMEs deployed on site to ensure only well maintained PMEs are used to avoid potential dark smoke and maldour emission affecting nearby public.	
150723	20 July 2015	EPD Ref.:H05/RS/ 00018040-15 dated 23 July 2015	Ex-Wanchai Ferry Pier near 720 & & 722 Bus stop	Malodour from marine sediment	A public complaint regarding malodour referred by EPD was received by ET on 23 July 2015 (EPD Ref.: H05/RS/00018040-15 dated 23 July 2015). The complainant reported that malodour from marine sediment was scented at ex-Wanchai ferry pier near route 720 & 722 bus stop. (Contract HK/2009/02). ET confirmed with the Resident Site Staff that Rockfill placing works was conducted by one derrick barge at the concerned location (WCR3) under Contract HK/2009/02 on 20 July 2015. No marine sediment was stored or placed on site at the concerned location under Contract HK/2009/02 on 20 July 2015. According to the relevant site records under Contract HK/2009/02, rockfill placing works was conducted by one derrick barge at WCR3 area on 20 July 2015 and no marine sediment was stored or placed on site at the concerned location on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 29 July 2015. No marine sediment was observed stored or placed at the concerned location while it was noted that a culvert outfall with potential odour concern is located adjacent to the concerned location.	Interim report submitted to EPD on 30 July 2015.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Nevertheless, the Contractor was reminded to review the handling procedures in case of any future marine sediment handling at the concerned location and to consider the implementation of mitigation measures as appropriate to minimize potential malodour impact to nearby public.	
150904	01 Sept 2015	EPD Ref.: H05/RS/0002 2241-15 dated 04 September 2015 received by ET on 4 September 2015	East of New WanChai Ferry Pier	Dropping of excavated material from land to sea during laoding of material	A public complaint regarding dropping of excavated material from land to sea referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H05/RS/00022241-15 dated 04 September 2015). The complainant reported that dropping of excavated materials from land to sea during loading of materials by excavator at the construction site to work boat. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was undertaken by Contract HK/2009/02 on 01 September 2015. Mitigation measure including providing tarpaulin sheet to cover the gap between seawall and the hopper barge to prevent dropping of material to the sea was implemented by the Contractor. According to the relevant site records under Contract HK/2009/02, transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was carried out on 01 September 2015 and mitigation measures including provision of tarpaulin sheet between seawall and the hopper barge was implemented by the Contractor of HK/2009/02 on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 10 September 2015. Transferring of C&D materials from land to barge by excavator was observed at the concerned location and mitigation measures including provision of tarpaulin sheet between seawall and hopper	Interim report submitted to EPD on 14 September 2015. EPD advised no comment on 5 October 2015 on the interim report submitted and case closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					barge and the material transfer works was generally in order. Nevertheless, the Contractor of HK/2009/02 was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.	
					The Contractor was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.	
150904	02 Sept 2015	EPD Ref.: H04/RS/0002 2385-15 dated 04 September 2015 received by ET on 04 September 2015	Location outside Fleet Arcade	Construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site.	A public complaint regarding construction noise and dust and exhaust emission referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H04/RS/00022385-15 dated 04 September 2015). The complainant reported that construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site. (Contract HK/2012/08) ET confirmed with the Resident Site Staff that from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation.	Interim report submitted to EPD on 14 September 2015.
					2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					From 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation. From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. One derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location.	
					Based on the relevant site records, from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation and the relevant Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.	
					From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location and from 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.	
					From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation and the Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.	

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. In view of the above, the construction activities conducted under Contract HK/2012/08 during the concerned period was in compliance with the statutory requirement.	
					In addition, one derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location. Follow-up inspection was conducted during weekly environmental inspection on 08 September 2015 and no dark smoke emission was observed from the derrick barge moored outside the concerned location. Nevertheless, the Contractor of HK/2012/08 was reminded to conduct regular checking on the condition of the all derrick barges deployed on site to ensure only well maintained equipment are used to avoid potential dark smoke emission affecting nearby public and the Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.	
					The Contractor was reminded to conduct regular checking on the condition of derrick barges deployed on site to ensure only well maintained equipments are used on site to avoid potential dark smoke emission affecting nearby public.	
					The Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.	
150917	17 Sep 2015	A public complaint regarding water quality referred by EPD was	Central and Wan Chai Reclamation coastline (between LUNG WUI ROAD to LUNG WO ROAD,	Silt from Central and Wan Chai Reclamation was spotted along the coastline (between LUNG WUI ROAD to LUNG WO ROAD, Central & Wan	Based on the site records confirmed by RSS, removal of seawall blocks by derrick barge was undertaken by Contract HK/2012/08 at Central Reclamation Phase III works area while mitigation measures including provision of silt curtain implemented by the Contractor of HK/2012/08 during the	Interim investigation report submitted to EPD on 25



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		received by ET on 17 September 2015	Central & Wan Chai, Hong Kong)	Chai, Hong Kong)	seawall block removal works. According to relevant record, muddy dispersion at HKCEC2W (area opposite to Lung King Street) was observed by the Environmental Team on 14 September 2015 afternoon. The muddy patch was observed dispersing outside the outer layer silt curtain deployed by the Contractor of HK/2012/08 towards the Central Reclamation Phase III area while the outer layer silt curtain was observed partially opened.	September 2015
					In view of the above observations, the Contractor was advised to rectify any environmental deficiencies such that adequate protection such as silt curtain shall be provided for exposed soil slope to mitigate for potential runoff related water quality impact to the surrounding waters; outer layer silt curtain deployed shall be entirely closed during works to safeguard the surrounding water quality. Any opening for marine vessel shall be closed promptly after passage and localized silt curtain deployed on site shall be properly maintained to avoid any gap or opening to effectively safeguard the nearby waters.	
151015	11 Oct 2015	A public complaint regarding direct discharge of muddy effluent referred by RSS was received by ET on 14 October 2015	Seafront opposite to Watson Road adjacent to Eastern Breakwater	Pink fluid was observed discharged into marine waters at seafront opposite to Watson Road adjacent to the Eastern Breakwater on 11 October 2015.	Based on the site records confirmed by RSS, no construction activity near the seaside between Eastern Breakwater and the Dumping Jetty was undertaken by Contract HY/2009/19 while at site area away from the seawall, construction of EVB substructure, EVB and APS structure was undertaken on 11 October 2015. In addition, no works involving the use of paint was carried out at the concerned site area (Site Portion between Eastern Breakwater and the Dumping Jetty) and along the alignment of the Culvert T1 under Contract HY/2009/19 and no temporary storage of paint was located at the concerned site area and along the alignment of the Culvert T1 under HY/2009/19 on 11 October 2015.	HyD will consolidate all input from relevant parties to form a reply to ICC.
					Follow-up inspection was conducted during weekly environmental inspection on 14 October 2015. No construction works involving the use of paint was observed undertaken at the concerned location while a few number of small containers of paint was observed placed around the concerned location and the paint containers were sealed and no sign of leakage was observed. The few containers were further checked and was found not matching the pink fluid observed on the complaint date. On the other hand, a culvert discharge outfall was found located within the concerned area where the pink fluid was observed. Based on the above, no direct information indicating the pink	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					fluid was originated from the worksarea under HY/2009/19 was considered available. Nevertheless, the Contractor was reminded that paints stored on site shall be properly labelled and stored in sealed container at weather proof location to avoid potential spillage.	
151028	26 Oct 2015	A public complaint regarding construction noise impact referred by EPD was received by ET on 28 October 2015 (EPD Ref:H05/RS/00 027330-15 Dated 28 October 2015)	Construction Site next to ex-Wan Chai Ferry Pier	Operation of grab dredger at construction site near the ex-Wan Chai Ferry Pier from around 0100 to 0400 hours on 26 October 2015 caused noise nuisance.	According to the relevant site records under Contract HK/2009/02, from 01:00hrs to 04:00hrs on 26 October 2015, rock filling 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 and the relevant Construction Noise Permit GW-RS1121-15 for the concerned construction works was in place. The construction activity conducted under Contract HK/2009/02 during the concerned period was in compliance with the statutory requirement. Nevertheless, the Contractor was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance in view of the nearby public concern.	The interim report would be submitted to EPD on 05 November 2015
151116	13 November 2015	A public complaint regarding water quality referred by EPD was received by ET on 16 November 2015 (EPD Ref: H05/RS/000291 26-15)	Construction Site at HKCEC and seafront outside Lung Wo Road	Muddy water was discharged from the construction site at HKCEC and dispersed to seafront outside Lung Wo Road on 13 November 2015 afternoon. The complainant also alleged that the deployment of the silt curtain did not follow the design requirement under the environmental permit that the curtain should be hanged to seabed level	Based on the site records, rock mound trimming works was conducted under Contract HK/2012/08 at HKECE2 area on 13 November 2015 and mitigation measures including provision of localized silt curtain around the works area was implemented by the Contractor. Follow-up inspection was conducted during weekly environmental inspection on 17 November 2015, both outer layer silt curtain and localized layer of silt curtain around the active works area were observed deployed while the localized silt curtain deployed around the marine works area was observed partially opened for marine access. Despite no muddy dispersion was generated around the localized silt curtain enclosed area, the Contractor was advised to promptly improve the condition of the silt curtain to ensure the effectiveness of the mitigation measure deployed and to ensure the silt curtain is closed after marine vessel movement. Based on further review on the current construction stage at HKECE2, the dredging works and trench filling works were completed and filling works were conducted behind seawall or temporarily seawall in form of rockbund, the outer layer of silt curtain currently serves as the additional mitigation measure to	The interim investigation report would be submitted to EPD on 1 December 2015.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
151117	Not specified	EPD complaint received by	Causeway Bay Typhoon Shelter	Improper handling or bentonite and marine sediment generated from	the required silt curtain deployment for safeguarding the water quality in the area. To clarify for the current silt curtain arrangement, the Contractor was advised to submit an updated silt curtain deployment plan with respect to the latest silt curtain arrangement for the current construction stage. In addition, contaminated discharge at Culvert L originating from upstream locations was intermittently observed based on previous site records. Nevertheless, in view of the public concern, the Contractor was reminded to conduct regular checking on the condition and maintenance for the silt curtain deployed on site to ensure the effectiveness of the mitigation measure. A joint meeting for the complaint was held amongst the EPD, WDII RSS team, the ET and the Contractor of HK/2012/08 on 24 November 2015 and a joint silt curtain diver inspection check amongst EPD, ET, IEC, WDII RSS and the Contractor was conducted on 27 November 2015 to confirm the silt curtain condition and the silt curtain deployed at the HKCEC2 water channel was found generally in order. A public complaint regarding illegal disposal of construction waste referred by EPD was received by ET on 17 November 2015. The complainant reported that over 10,000 m3 of	Interim investigation report submitted to
		ET on 17 Novmeber 2015		construction works and contaminated discharge from water treatment plant into Victoria Habour	bentonite after usage for construction of diaphragm wall was disposed of at Victoria Habour. The Contractor recently deployed mobile crane to transfer the bentonite from mud pit on to works barge. The bentonite was then mixed with soil and transported to the Public Fill. During the course, seepage of slurry through grab generated drop off to marine waters and the soil mixing generated dust impact to nearby yacht club, typhoon shelter and affect nearby public and boats. Disposal of dredged marine sediment was not carried out in accordance with the Management of Dredged/Excavated Sediment. Instead the marine sediment was covered by sand and soil and transported to the Public Fill. White or greyish effluent was discharged directly into Victoria Habour marine waters from wastewater treatment plant on construction site.	EPD on 24 November 2015. 2nd interim investigation report submitted to EPD on 17 December 2015. 3rd interim investigation report submitted to EPD on 31 December 2015. Final



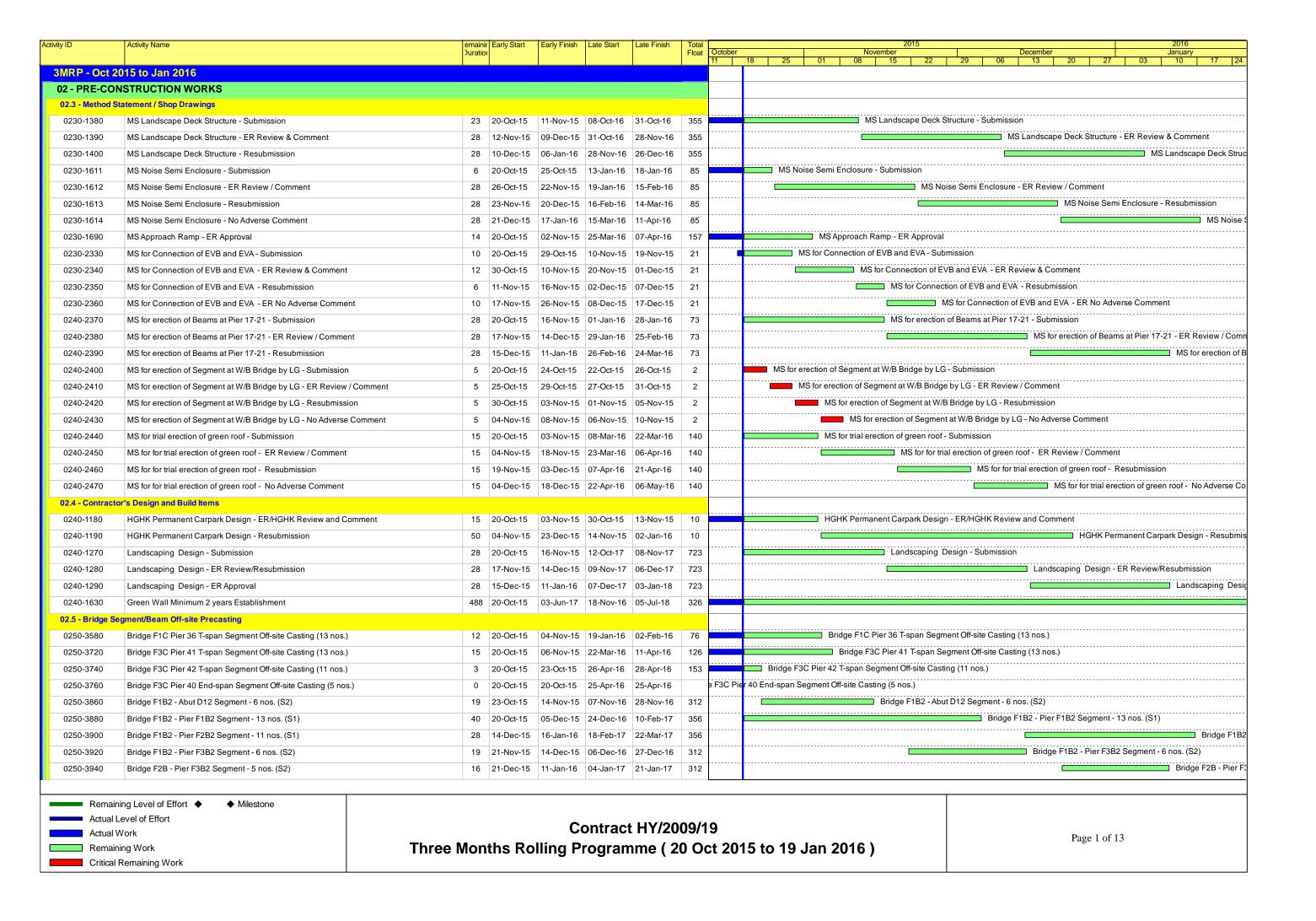
Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					In response to the complaint concern, additional water quality monitoring and additional site inspections have been conducted by the ET and the investigation findings were included in the interim investigation reports separately submitted to the EPD. In addition, the ET and IEC have conducted checking on the waste disposal records and site construction records with the CWB RSS team to confirm the key construction activities during the concerned period and the quantities of inert C&D material disposed. Upon further review on relevant records and follow up inspections on the implementation of site measures, the final investigation would be issued.	investigation report to be submitted in January 2016.

Appendix 10.1

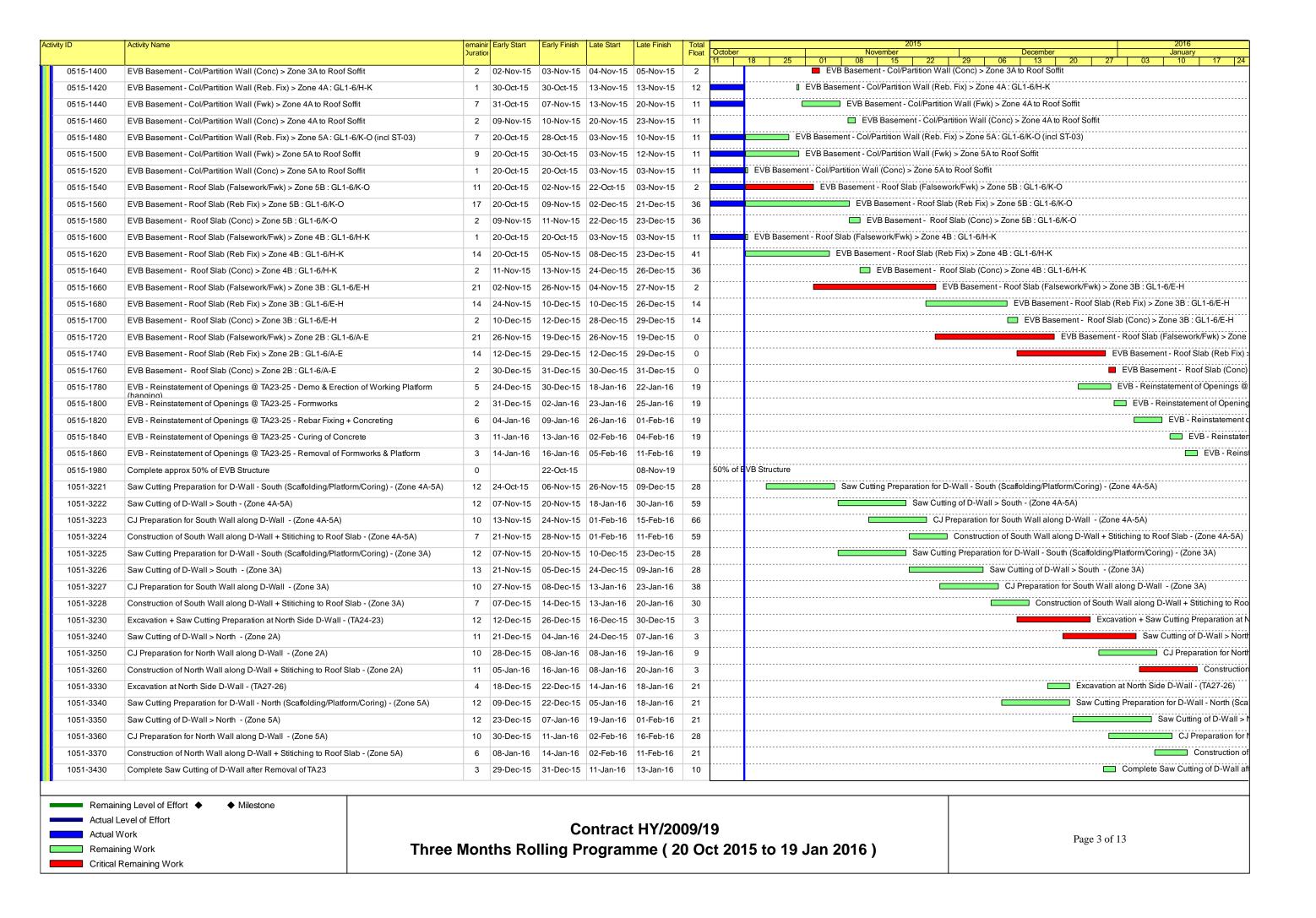
Construction Programme of Individual Contracts

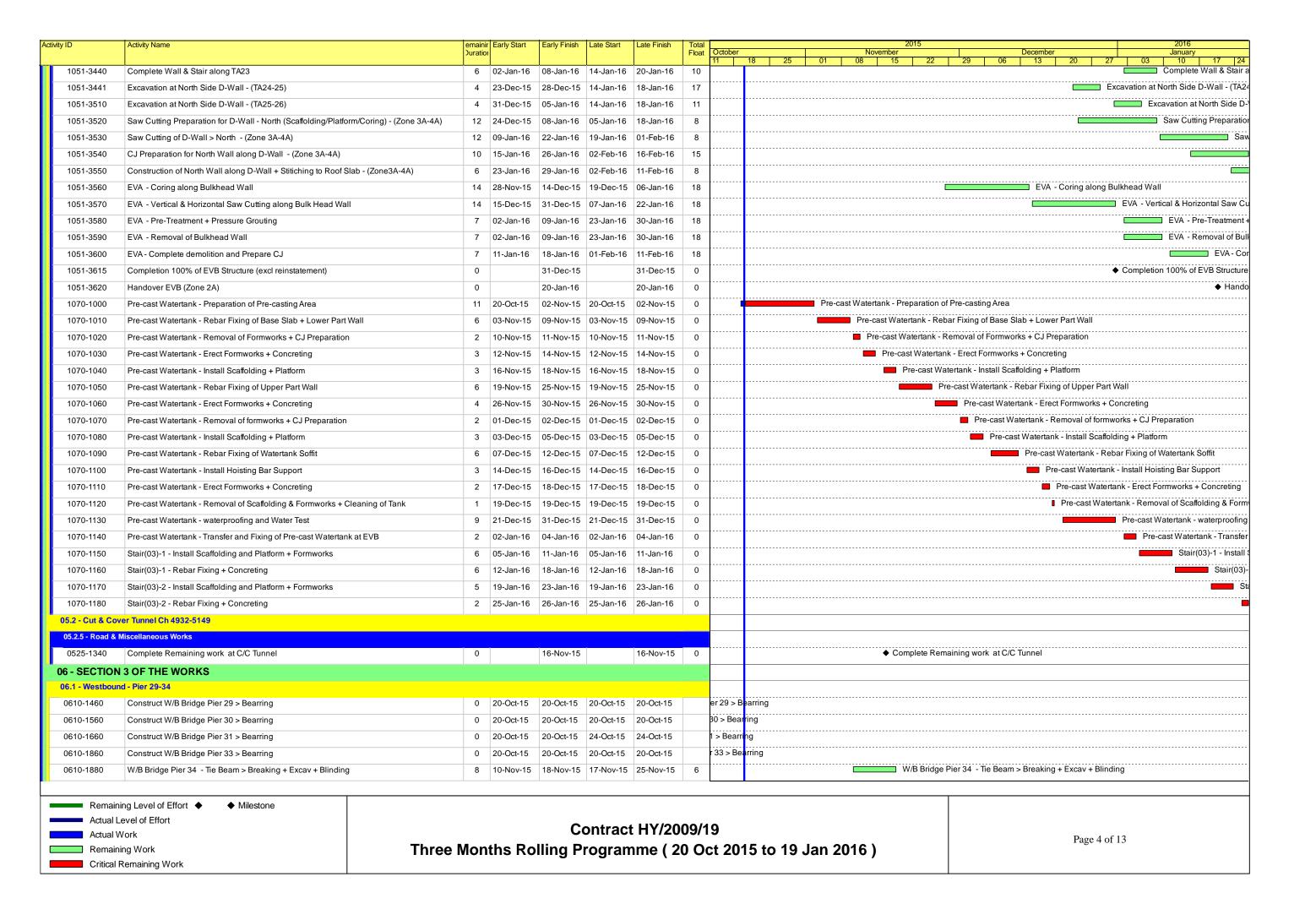
CEDD CONTRACT HK/2009/01 **CHUN WO - LEADER JOINT VENTURE** Activity ID Start Activity Name Finish Qtr 1 Qtr 2 Mar Jan Feb Apr HK/2009/01 - Revised Works Progress Rev. 6H (Data Date: 20 Jan 16) Section 3 of the Works - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8 CWB Tunnelling Works (Stage 1 : CH2947 - CH3045) Stage 1 - Tunnel Structure Works (Bay 1 to Bay 7 : Ch2947 - Ch 3045) Tunnel Structure at Stage 1A & 1B (CH2947 - CH3045) S3A-TS-2080 Backfilling to formation level for Stage 1B (CH 80 to CH 120) Backfilling to formation level for Stage 1B (CH 80 to CH 120) 200d 19/01/15 A 05/02/16 CWB Tunnelling Works (Stage 2 : Ch3045 - Ch3129) Stage 2 - Tunnel Structure Works (Bay 7 to Bay 10 : CH3045 - CH3129) S3B-TS-9000A Backfilling to Formation Level (CWB) - 12,000cu.m 29/12/15 A 05/02/16 Backfilling to Formation Level (CWB) - 12,000cu.m CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245) Stage 3 - Tunnel Structure Works (Bay 11 to Bay 20 : Ch3129 - Ch3245) Tunnel Structure at Stage 3A & 3B (CH3129 - CH3245) S3C-TS-2000E Bay 10 to Bay 13 Slip Road 3 Top Slab 15d 25/12/15 A 22/01/16 Bay 10 to Bay 13 Slip Road 3 Top Slab S3C-TS-2000E Bay 10 to Bay 13 Slip Road 3 Scaffold Removal 14d 23/01/16 05/02/16 Bay 10 to Bay 13 Slip Road 3 \$caffold Removal S3C-TS-2000E Bay 10 to Bay 13 Slip Road 3 Road Barrier 13d 06/02/16 18/02/16 Bay 10 to Bay 13 Slip Road 3 Road Barrier S3C-TS-2000L(Removal of 1st layer of strut/waling 9d 04/12/15 A 05/02/16 Removal of 1st layer of strut/waling S3C-TS-2000N Construction of Bay 10 Slip Road 3 Road Barrier 28/01/16 18/02/16 Construction of Bay 10 Slip Road 3 Road Barrier 7d Bay 14 CWB and Slip Road 3 Road Barrier S3C-TS-2030H Bay 14 CWB and Slip Road 3 Road Barrier 19/11/15 A 18/02/16 14d S3C-TS-2030K Backfilling to Road formation level from Bay 10 to Bay 14 12/01/16 A 05/02/16 ■ Backfilling to Road formation level from Bay 10 to Bay 14 S3C-TS-2090C Bay 15,16 & 17 Slip Road 3 Road Barrier 25/01/16* 10/02/16 14d Bay 15,16 & 17 Slip Road 3 Road Barrier S3C-TS-2090D Bay 15,16 & 17 Slip Road 2 Road Barrier 25/01/16* 10/02/16 Bay 15,16 & 17 Slip Road 2 Road Barrier 14d S3C-TS-2110E Removal Scaffold at Bay 18 to 20 13/01/16 A 05/02/16 Removal Scaffold at Bay 18 to 20 17d S3C-TS-2110F Bay 18, 19 & 20 CWB, Slip Road 3 and Slip Road 2 Road Barrier 06/02/16 14/02/16 Bay 18, 19 & 20 CWB, Slip Road 3 and Slip Road 2 Road Barrier S3C-TS-2150 Backfilling up to Future Road Formation for Bay 19 - Bay20 32d 06/04/16 07/05/16 CEDD CONTRACT NO. HK/2009/01 Date Revision Checked Appro... Page 1 of 2 Remaining Work Summa... 15-Sep-15 Master Programme 6H Actual Work Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1) Progress Updated on 20 Jan 2016 執ASK filters: 3-Month (Works), Summary Bar 3-Month Rolling Prog. Critical Remaining Work WORKS PROGRAMME Rev.4 - 3 Month Programme starting from 20/01/16 蘯Print on: 25/01/16 08:57

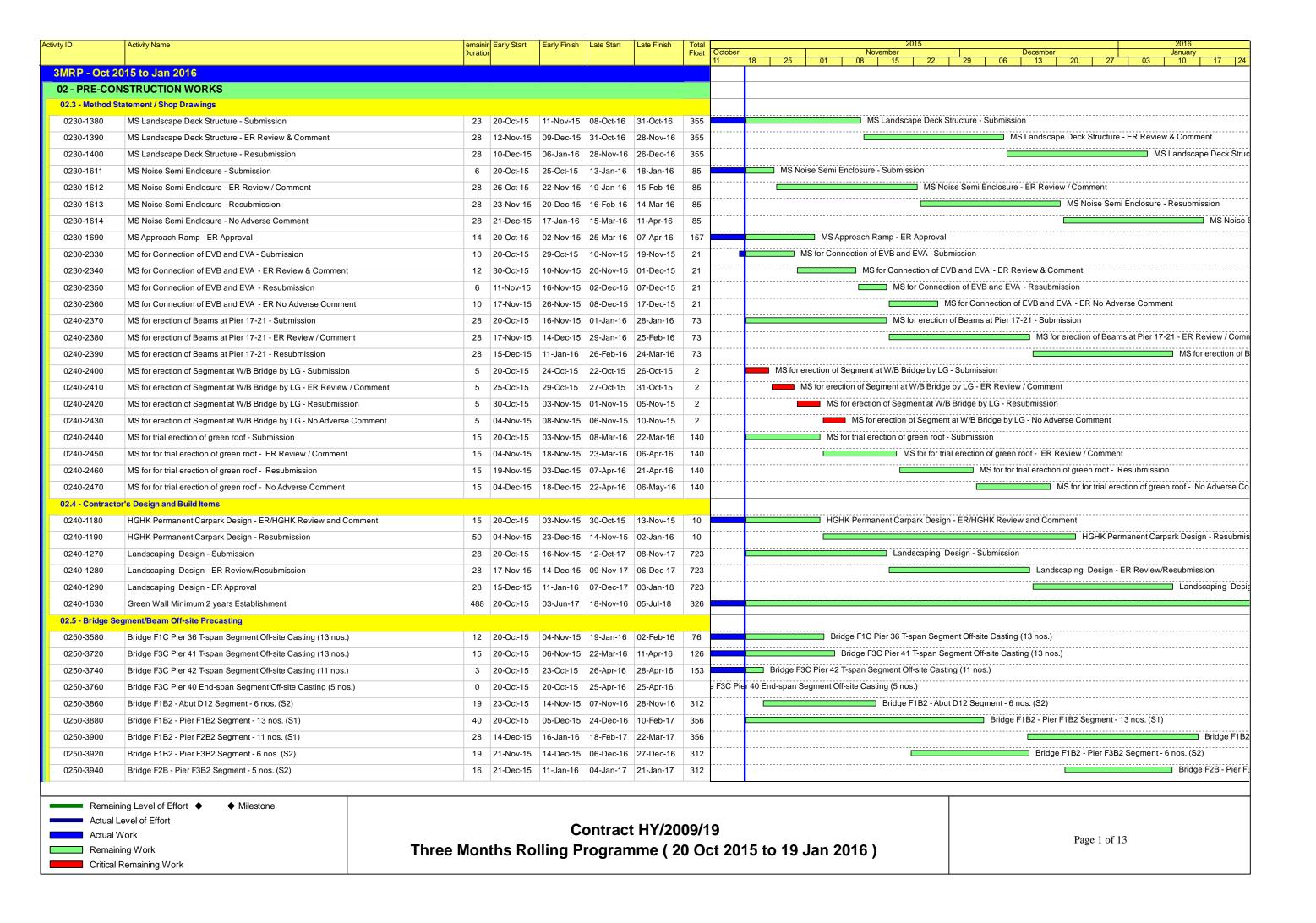
CEDD CONTRACT HK/2009/01 **CHUN WO - LEADER JOINT VENTURE** Activity ID Start Activity Name Finish Qtr 1 Qtr 2 Mar Jan Feb Apr Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street) **Sewerage Works** S8-3010 Planter Reinstatement 29/07/15 A 05/02/16 Planter Reinstatement Road Reinstatement 05/02/16 S8-3020 21d 25/09/15 A Road Reinstatement Section 9 of the Works - Remaindar of the Works **Box Culvert Construction** S9-1070 Backfill the Temporary Water Channel from East to West (BG/BI Connection 30d 02/06/15 A 05/02/16 Backfill the Temporary Water Channel from East to West (BG/BI Connection Point at Water Chan Point at Water Channel) Reprovision of Expo Drive East Construction of Retaining Wall Extension to Top of Box Culvert Bay 7 01/03/16 01/02/16* Construction of Retaining Wall Extension to Top of Box Culvert B S9-2060 30d Waterworks in Area 9 **Abandaned Pipes Removal** S9-7090 Zone A4-4 Abandoned Pipes P7/P9 Removal Works 30d 14/10/15 A 01/02/16 Zone A4-4 Abandoned Pipes P7/P9 Removal Works S9-7100 05/02/16 Zone X1-4a Abandoned Pipes P5 Removal Works/ grouting Zone X1-4a Abandoned Pipes P5 Removal Works/ grouting 14d 27/10/15 A Variation Order No.153 - Design and Construct CWB Bypass Tunnel from CH3246 to CH3278 Works at Area 8 - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8 CWB Tunnelling Works (Stage 4: Ch3246 - Ch3278) Stage 4 - Tunnel Structure Works (Bay 21 to Bay 22 : CH3246 - CH3278) S4-TS-0005 Pile Head Fabrication 15d 18/01/16 A 23/01/16 Pile Head Fabrication S4-TS-0010 Bay 21 Base Slab 18/01/16 A 28/01/16 Bay 21 Base Slab Bay 22 Base Slab 21/01/16 04/02/16 Bay 22 Base Slab S4-TS-0020 10d S4-TS-0030 Removal of 3rd and 4th layer of Strut/Waling 05/02/16 04/03/16 28d Removal of 3rd and 4th layer of Strut/Waling Bay 21 & 22 Wall S4-TS-0040 Bay 21 & 22 Wall 15d 05/03/16 20/03/16 S4-TS-0050 Bay 21 & 22 Wall & OHVD Base Slab 15d 21/03/16 04/04/16 Bay 21 & 22 Wall S4-TS-0060 Bay 21 & 22 OHVD Wall Stem and Top Slab 15d 05/04/16 20/04/16 CEDD CONTRACT NO. HK/2009/01 Date Revision Checked Appro... Page 2 of 2 Remaining Work Summa... 15-Sep-15 Master Programme 6H Actual Work Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1) Progress Updated on 20 Jan 2016 執ASK filters: 3-Month (Works), Summary Bar 3-Month Rolling Prog. Critical Remaining Work WORKS PROGRAMME Rev.4 - 3 Month Programme starting from 20/01/16 Milestone 蘯Print on: 25/01/16 08:57



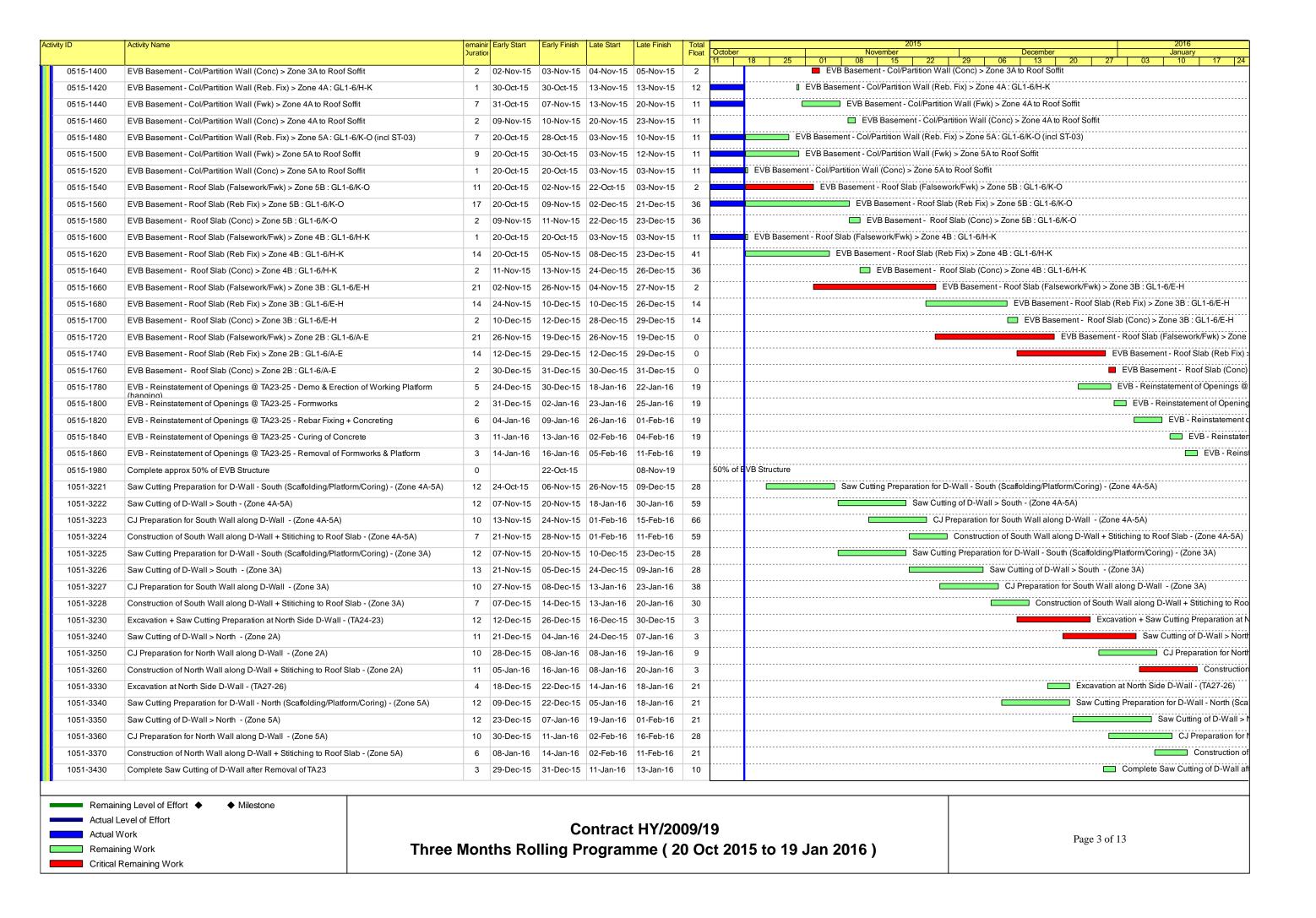
Activity ID	Activity Name		emainir Juration	Early Start	Early Finish	Late Start	Late Finish	Total Float	October	2015 2016 November December January
02.6 - Fabrication	on & Delivery of Noise Enclosure								11	18 25 01 08 15 22 29 06 13 20 27 03 10 17 2
0260-5000	Int. Noise Enclosure Main + Sub Frames Fab / Del		68	20-Oct-15	09-Jan-16	16-Jan-16	11-Apr-16	74		Int. Noise Enclosure
0260-5010	Int. Noise Enclosure Noise Panel Fab / Del				31-Oct-15		· .	131		Int. Noise Enclosure Noise Panel Fab / Del
	NARY WORKS		. 0	20 001 10	0. 00. 10	00 mai 10	,			
03.3 - Interface										
0261-1000	Constr. of DN75 Storm Drain (Oil street) - ELS and Excavation		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Storm D	ain (Oil street) - ELS and Excavation
0261-1010	Constr. of DN75 Storm Drain (Oil street) - Casting of Blinding	Layer	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Storm D	ain (Oil street) - Casting of Blinding Layer
0261-1020	Constr. of DN75 Storm Drain (Oil street) - Pipe Laying + Air tes	t	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		of DN75	Storm Drain (Oil street) - Pipe Laying + Air test
0261-1030	Constr. of DN75 Storm Drain (Oil street) - Constr. of Manhole	-56 (Lower portion)	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		nstr. of D	N75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Lower portion)
0261-1040	Constr. of DN75 Storm Drain (Oil street) - Constr. of Manhole	-56 (Upper portion)	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		l	str. of DN75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Upper portion)
0261-1050	Constr. of DN75 Storm Drain (Oil street) - Concreting Pipeline	intersection	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		I Co	rstr. of DN75 Storm Drain (Oil street) - Concreting Pipeline intersection
0261-1060	Constr. of DN75 Storm Drain (Oil street) - Trench Backfilling		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		■ C	onstr. of DN75 Storm Drain (Oil street) - Trench Backfilling
0261-1070	Constr. of DN75 Storm Drain (Oil street) - Removing ELS		2	20-Oct-15	22-Oct-15	23-Oct-15	24-Oct-15	2		Constr. of DN75 Storm Drain (Oil street) - Removing ELS
0261-1080	Constr. of DN75 Storm Drain (Oil street) - Pavement Reinstate	ment	3	23-Oct-15	26-Oct-15	26-Oct-15	28-Oct-15	2		Constr. of DN75 Storm Drain (Oil street) - Pavement Reinstatement
0261-1090	Complete Drainage work at Oil Street		0		28-Oct-15		28-Oct-15	0		♦ Complete Drainage work at Oil Street
05 - SECTION	I 2 & 2A OF THE WORKS									
	ver Tunnel Ch 4855-4932 (APS Footprint)									
05.1.3 - APS & T	unnel Structure									
0513-3060	APS Basement (Bay 21-South) - Staircase Landing 8 > Stairca	ase Landing 12	20	20-Oct-15	12-Nov-15	20-Oct-15	12-Nov-15	0		APS Basement (Bay 21-South) - Staircase Landing 8 > Staircase Landing 12
0513-3080	Tunnel Level - South Side Additional Beam at Bay 21	·	5	07-Nov-15	12-Nov-15	07-Nov-15	12-Nov-15	0		Tunnel Level - South Side Additional Beam at Bay 21
0513-3081	Remedial Works - Concrete defect on partition wall		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		medial W	orks - Concrete defect on partition wall
0513-3082	Remedial Works - Panel installation		3	13-Nov-15	16-Nov-15	13-Nov-15	16-Nov-15	0		Remedial Works - Panel installation
0513-3083	Remedial Works - Ttrapped gullies		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15			Remedial Works - Ttrapped gullies
0513-3084	Remedial Works - Water seepage on soffit, diaphragm wall ar	nd floor slab	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15			Remedial Works - Water seepage on soffit, diaphragm wall and floor slab
0513-3085	Remedial Works - Concrete defect on completed staircase		3	20-Oct-15	23-Oct-15	13-Nov-15	16-Nov-15	20		Remedial Works - Concrete defect on completed staircase
0513-3086	Remedial Works - Cleaning of 150mm & 50mm dia. Cross rd.	ducts & Pipes	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		Remed	ial Works - Cleaning of 150mm & 50mm dia. Cross rd. ducts & Pipes
0513-3087	Remedial Works - Concrete defect on walls and slabs at pum	sump E & Tunnel	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15			Remedial Works - Concrete defect on walls and slabs at pump sump E & Tunnel
0513-3580	Completion of Outstanding Works at APS & Tunnel		0		16-Nov-15		16-Nov-15	0		◆ Completion of Outstanding Works at APS & Tunnel
05.1.5 - EVB Sul	b-structure & Tunnel									
0515-1120	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 1A: GL1	-2/A-E, 2-3/B-E, 3-6/C-F,	4	20-Oct-15	24-Oct-15	20-Oct-15	24-Oct-15	0		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 1A: GL1-2/A-E, 2-3/B-E, 3-6/C-F, 4-6/F-J
0515-1140	4-6/F-J EVB Basement - Col/Partition Wall (Fwk) > Zone 1A to Mezz (-	1.40) Soffit	7	20-Oct-15	28-Oct-15	20-Oct-15	28-Oct-15	0		EVB Basement - Col/Partition Wall (Fwk) > Zone 1A to Mezz (-1.40) Soffit
0515-1160	EVB Basement - Col/Partition Wall (Conc) > Zone 1A to Mezz	(-1.40) Soffit	2	29-Oct-15	30-Oct-15	13-Nov-15	14-Nov-15	13		■ EVB Basement - Col/Partition Wall (Conc) > Zone 1A to Mezz (-1.40) Soffit
0515-1180	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Falsework/Fw	k) > Zone 1A	10	20-Oct-15	31-Oct-15	04-Nov-15	14-Nov-15	12		EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Falsework/Fwk) > Zone 1A
0515-1200	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Reb. Fix) > Zo	ne 1A	6	02-Nov-15	07-Nov-15	16-Nov-15	21-Nov-15	12		EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Reb. Fix) > Zone 1A
0515-1220	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Conc) > Zone	1A	2	09-Nov-15	10-Nov-15	23-Nov-15	24-Nov-15	12		■ EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Conc) > Zone 1A
0515-1240	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 2A: GL1	-6/A-D (incl ST-04)	8	20-Oct-15	29-Oct-15	23-Oct-15	31-Oct-15	2		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 2A : GL1-6/A-D (incl ST-04)
0515-1260	EVB Basement - Col/Partition Wall (Fwk) > Zone 2A to Roof S	offit	12	29-Oct-15	11-Nov-15	29-Oct-15	11-Nov-15	0		EVB Basement - Col/Partition Wall (Fwk) > Zone 2A to Roof Soffit
0515-1280	EVB Basement - Col/Partition Wall (Conc) > Zone 2A to Roof	Soffit	2	12-Nov-15	13-Nov-15	12-Nov-15	13-Nov-15	0		■ EVB Basement - Col/Partition Wall (Conc) > Zone 2A to Roof Soffit
0515-1300	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Falsework/F	wk) > Zone 2A	6	14-Nov-15	20-Nov-15	14-Nov-15	20-Nov-15	0		EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Falsework/Fwk) > Zone 2A
0515-1320	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Reb. Fix) > 2	Zone 2A	3	21-Nov-15	24-Nov-15	21-Nov-15	24-Nov-15	0		EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Reb. Fix) > Zone 2A
0515-1340	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Conc) > Zon	e 2A	1	25-Nov-15	25-Nov-15	25-Nov-15	25-Nov-15	0		■ EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Conc) > Zone 2A
0515-1360	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 3A: GL1		4	20-Oct-15		23-Oct-15		2		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 3A: GL1-6/E-H
0515-1380	EVB Basement - Col/Partition Wall (Fwk) > Zone 3A to Roof So	offit	8	26-Oct-15	03-Nov-15	28-Oct-15	05-Nov-15	2		EVB Basement - Col/Partition Wall (Fwk) > Zone 3A to Roof Soffit
Remair	ning Level of Effort ◆									
	Level of Effort				_	4		0011	_	
Actual \	Actual Work Contract HY/2009/19 Page 2 of 13									Page 2 of 13
	ning Work	Three N	/lon	ths Ro	Iling P	rogran	nme (2	0 O	ct 20	15 to 19 Jan 2016)
Critical	Remaining Work									

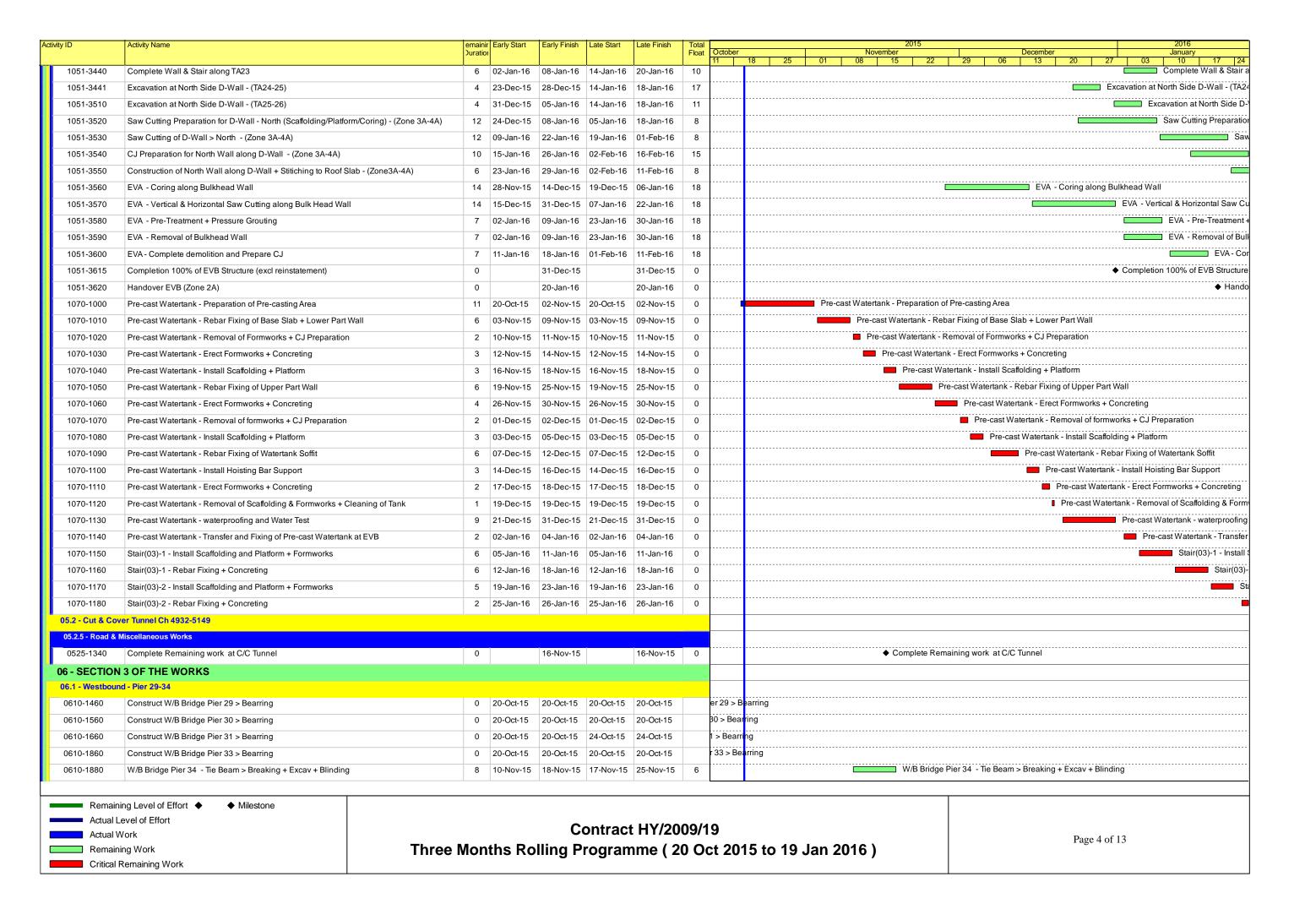


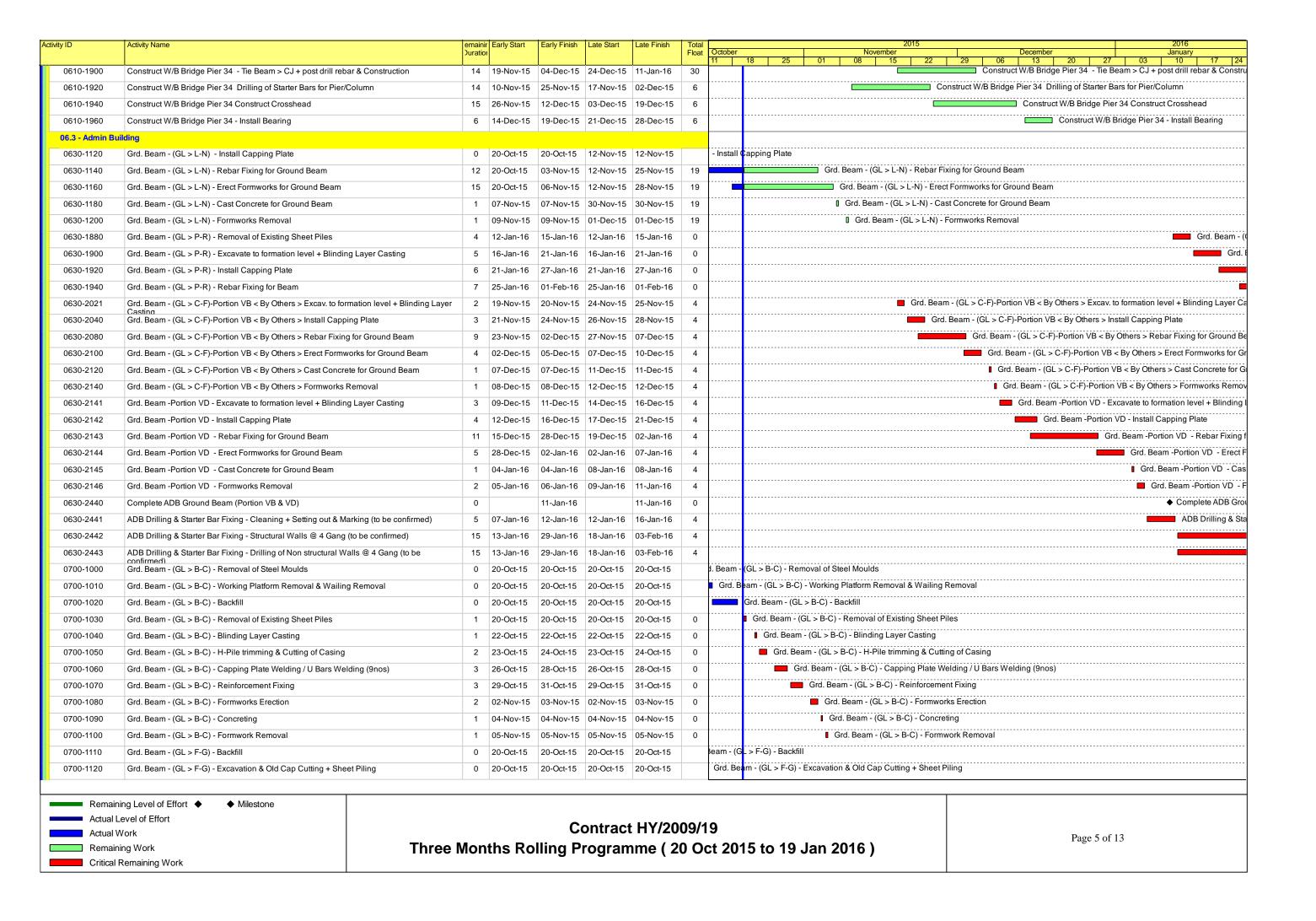




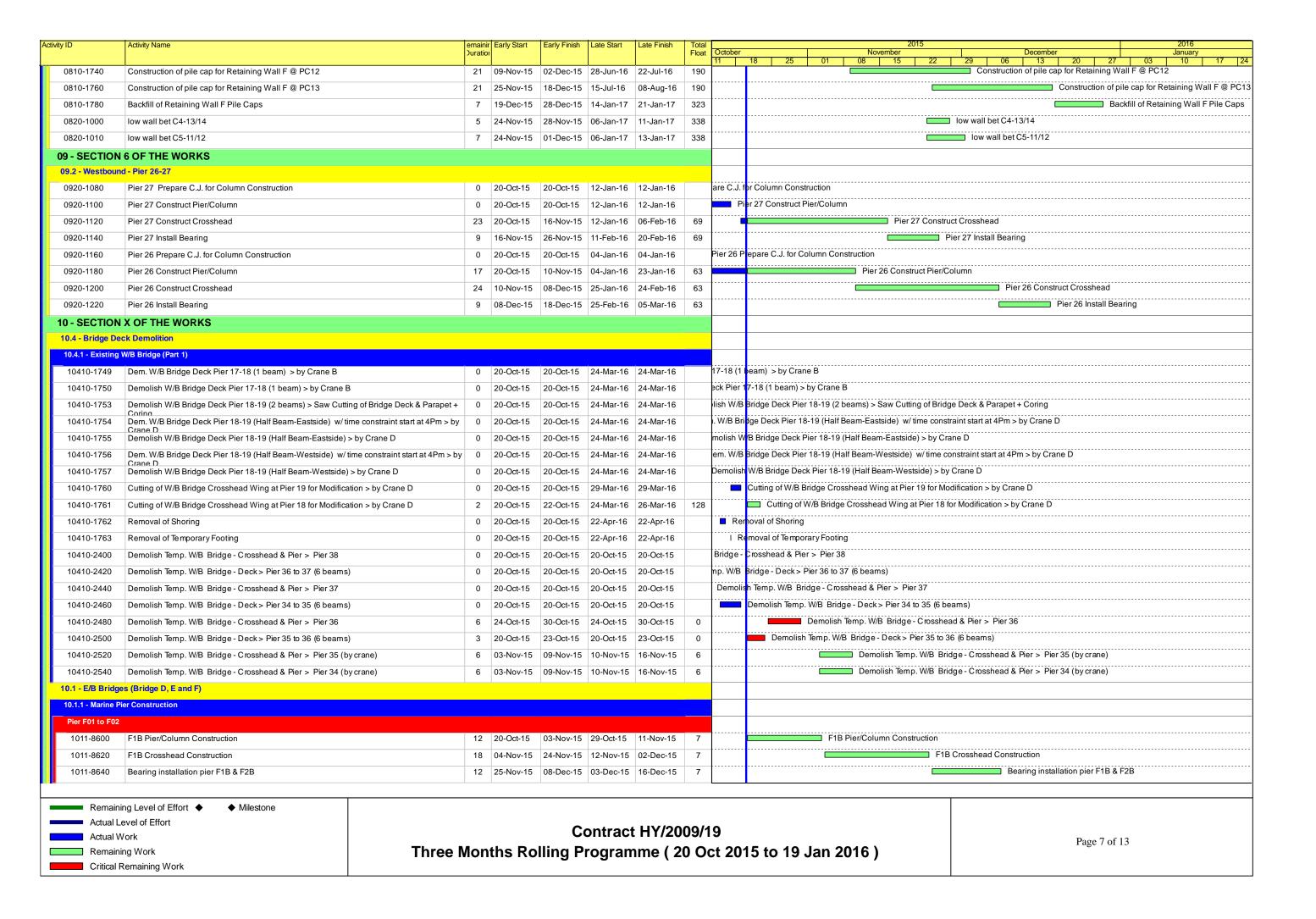
Activity ID	Activity Name		emainir Juration	Early Start	Early Finish	Late Start	Late Finish	Total Float	October	2015 2016 November December January
02.6 - Fabrication	on & Delivery of Noise Enclosure								11	18 25 01 08 15 22 29 06 13 20 27 03 10 17 2
0260-5000	Int. Noise Enclosure Main + Sub Frames Fab / Del		68	20-Oct-15	09-Jan-16	16-Jan-16	11-Apr-16	74		Int. Noise Enclosure
0260-5010	Int. Noise Enclosure Noise Panel Fab / Del				31-Oct-15		· .	131		Int. Noise Enclosure Noise Panel Fab / Del
	NARY WORKS		. 0	20 001 10	0. 00. 10	00 mai 10	,			
03.3 - Interface										
0261-1000	Constr. of DN75 Storm Drain (Oil street) - ELS and Excavation		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Storm D	ain (Oil street) - ELS and Excavation
0261-1010	Constr. of DN75 Storm Drain (Oil street) - Casting of Blinding	Layer	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Storm D	ain (Oil street) - Casting of Blinding Layer
0261-1020	Constr. of DN75 Storm Drain (Oil street) - Pipe Laying + Air tes	t	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		of DN75	Storm Drain (Oil street) - Pipe Laying + Air test
0261-1030	Constr. of DN75 Storm Drain (Oil street) - Constr. of Manhole	-56 (Lower portion)	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		nstr. of D	N75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Lower portion)
0261-1040	Constr. of DN75 Storm Drain (Oil street) - Constr. of Manhole	-56 (Upper portion)	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		l	str. of DN75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Upper portion)
0261-1050	Constr. of DN75 Storm Drain (Oil street) - Concreting Pipeline	intersection	0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		I Co	rstr. of DN75 Storm Drain (Oil street) - Concreting Pipeline intersection
0261-1060	Constr. of DN75 Storm Drain (Oil street) - Trench Backfilling		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		■ C	onstr. of DN75 Storm Drain (Oil street) - Trench Backfilling
0261-1070	Constr. of DN75 Storm Drain (Oil street) - Removing ELS		2	20-Oct-15	22-Oct-15	23-Oct-15	24-Oct-15	2		Constr. of DN75 Storm Drain (Oil street) - Removing ELS
0261-1080	Constr. of DN75 Storm Drain (Oil street) - Pavement Reinstate	ment	3	23-Oct-15	26-Oct-15	26-Oct-15	28-Oct-15	2		Constr. of DN75 Storm Drain (Oil street) - Pavement Reinstatement
0261-1090	Complete Drainage work at Oil Street		0		28-Oct-15		28-Oct-15	0		♦ Complete Drainage work at Oil Street
05 - SECTION	I 2 & 2A OF THE WORKS									
	ver Tunnel Ch 4855-4932 (APS Footprint)									
05.1.3 - APS & T	unnel Structure									
0513-3060	APS Basement (Bay 21-South) - Staircase Landing 8 > Stairca	ase Landing 12	20	20-Oct-15	12-Nov-15	20-Oct-15	12-Nov-15	0		APS Basement (Bay 21-South) - Staircase Landing 8 > Staircase Landing 12
0513-3080	Tunnel Level - South Side Additional Beam at Bay 21	·	5	07-Nov-15	12-Nov-15	07-Nov-15	12-Nov-15	0		Tunnel Level - South Side Additional Beam at Bay 21
0513-3081	Remedial Works - Concrete defect on partition wall		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		medial W	orks - Concrete defect on partition wall
0513-3082	Remedial Works - Panel installation		3	13-Nov-15	16-Nov-15	13-Nov-15	16-Nov-15	0		Remedial Works - Panel installation
0513-3083	Remedial Works - Ttrapped gullies		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15			Remedial Works - Ttrapped gullies
0513-3084	Remedial Works - Water seepage on soffit, diaphragm wall ar	nd floor slab	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15			Remedial Works - Water seepage on soffit, diaphragm wall and floor slab
0513-3085	Remedial Works - Concrete defect on completed staircase		3	20-Oct-15	23-Oct-15	13-Nov-15	16-Nov-15	20		Remedial Works - Concrete defect on completed staircase
0513-3086	Remedial Works - Cleaning of 150mm & 50mm dia. Cross rd.	ducts & Pipes	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		Remed	ial Works - Cleaning of 150mm & 50mm dia. Cross rd. ducts & Pipes
0513-3087	Remedial Works - Concrete defect on walls and slabs at pum	sump E & Tunnel	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15			Remedial Works - Concrete defect on walls and slabs at pump sump E & Tunnel
0513-3580	Completion of Outstanding Works at APS & Tunnel		0		16-Nov-15		16-Nov-15	0		◆ Completion of Outstanding Works at APS & Tunnel
05.1.5 - EVB Sul	b-structure & Tunnel									
0515-1120	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 1A: GL1	-2/A-E, 2-3/B-E, 3-6/C-F,	4	20-Oct-15	24-Oct-15	20-Oct-15	24-Oct-15	0		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 1A: GL1-2/A-E, 2-3/B-E, 3-6/C-F, 4-6/F-J
0515-1140	4-6/F-J EVB Basement - Col/Partition Wall (Fwk) > Zone 1A to Mezz (-	1.40) Soffit	7	20-Oct-15	28-Oct-15	20-Oct-15	28-Oct-15	0		EVB Basement - Col/Partition Wall (Fwk) > Zone 1A to Mezz (-1.40) Soffit
0515-1160	EVB Basement - Col/Partition Wall (Conc) > Zone 1A to Mezz	(-1.40) Soffit	2	29-Oct-15	30-Oct-15	13-Nov-15	14-Nov-15	13		■ EVB Basement - Col/Partition Wall (Conc) > Zone 1A to Mezz (-1.40) Soffit
0515-1180	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Falsework/Fw	k) > Zone 1A	10	20-Oct-15	31-Oct-15	04-Nov-15	14-Nov-15	12		EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Falsework/Fwk) > Zone 1A
0515-1200	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Reb. Fix) > Zo	ne 1A	6	02-Nov-15	07-Nov-15	16-Nov-15	21-Nov-15	12		EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Reb. Fix) > Zone 1A
0515-1220	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Conc) > Zone	1A	2	09-Nov-15	10-Nov-15	23-Nov-15	24-Nov-15	12		■ EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Conc) > Zone 1A
0515-1240	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 2A: GL1	-6/A-D (incl ST-04)	8	20-Oct-15	29-Oct-15	23-Oct-15	31-Oct-15	2		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 2A : GL1-6/A-D (incl ST-04)
0515-1260	EVB Basement - Col/Partition Wall (Fwk) > Zone 2A to Roof S	offit	12	29-Oct-15	11-Nov-15	29-Oct-15	11-Nov-15	0		EVB Basement - Col/Partition Wall (Fwk) > Zone 2A to Roof Soffit
0515-1280	EVB Basement - Col/Partition Wall (Conc) > Zone 2A to Roof	Soffit	2	12-Nov-15	13-Nov-15	12-Nov-15	13-Nov-15	0		■ EVB Basement - Col/Partition Wall (Conc) > Zone 2A to Roof Soffit
0515-1300	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Falsework/F	wk) > Zone 2A	6	14-Nov-15	20-Nov-15	14-Nov-15	20-Nov-15	0		EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Falsework/Fwk) > Zone 2A
0515-1320	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Reb. Fix) > 2	Zone 2A	3	21-Nov-15	24-Nov-15	21-Nov-15	24-Nov-15	0		EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Reb. Fix) > Zone 2A
0515-1340	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Conc) > Zon	e 2A	1	25-Nov-15	25-Nov-15	25-Nov-15	25-Nov-15	0		■ EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Conc) > Zone 2A
0515-1360	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 3A: GL1		4	20-Oct-15		23-Oct-15		2		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 3A: GL1-6/E-H
0515-1380	EVB Basement - Col/Partition Wall (Fwk) > Zone 3A to Roof So	offit	8	26-Oct-15	03-Nov-15	28-Oct-15	05-Nov-15	2		EVB Basement - Col/Partition Wall (Fwk) > Zone 3A to Roof Soffit
Remair	ning Level of Effort ◆									
	Level of Effort				_	4		0011	_	
Actual \	Actual Work Contract HY/2009/19									Page 2 of 13
	ning Work	Three N	/lon	ths Ro	Iling P	rogran	nme (2	0 O	ct 20	15 to 19 Jan 2016)
Critical	Remaining Work									



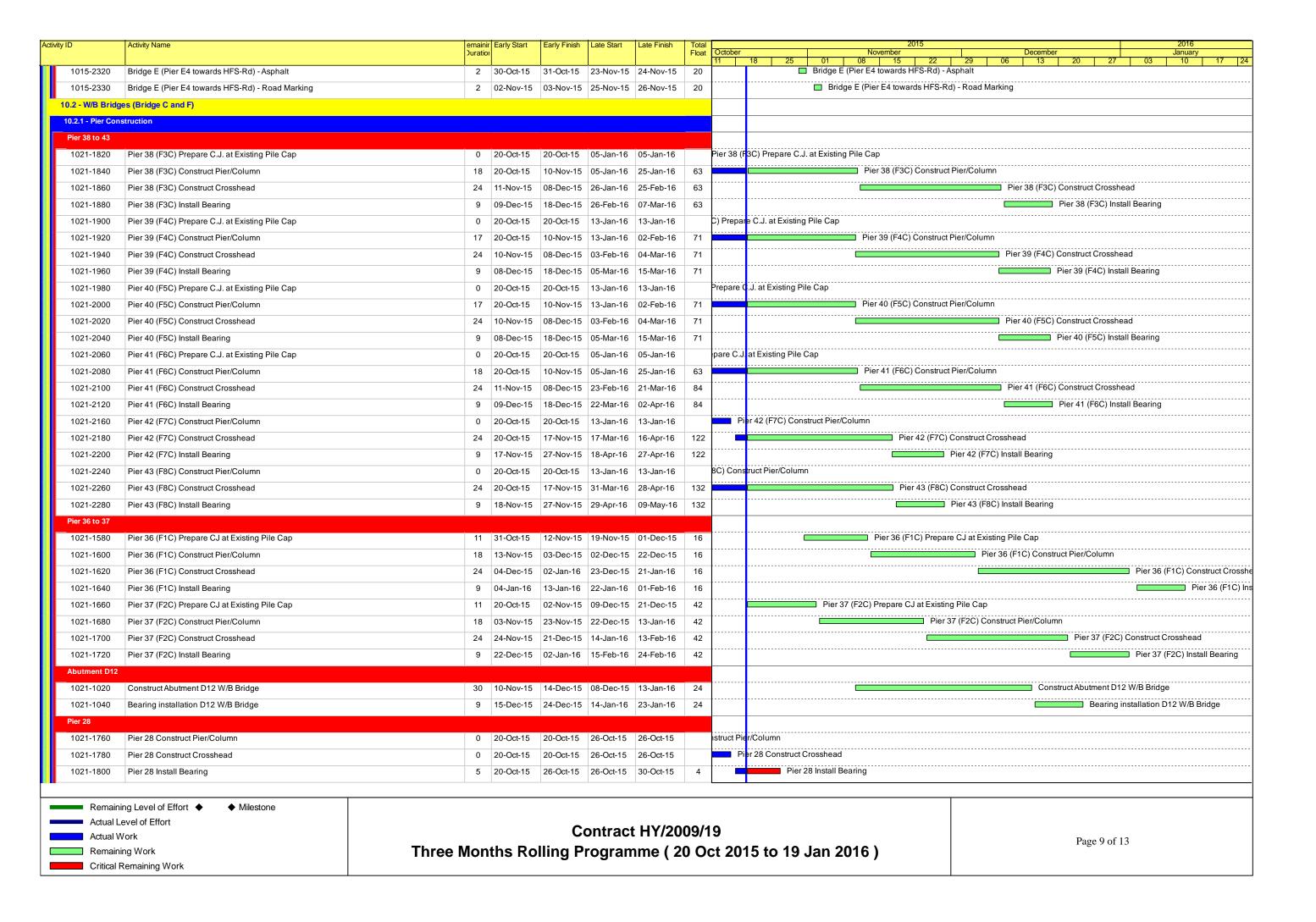


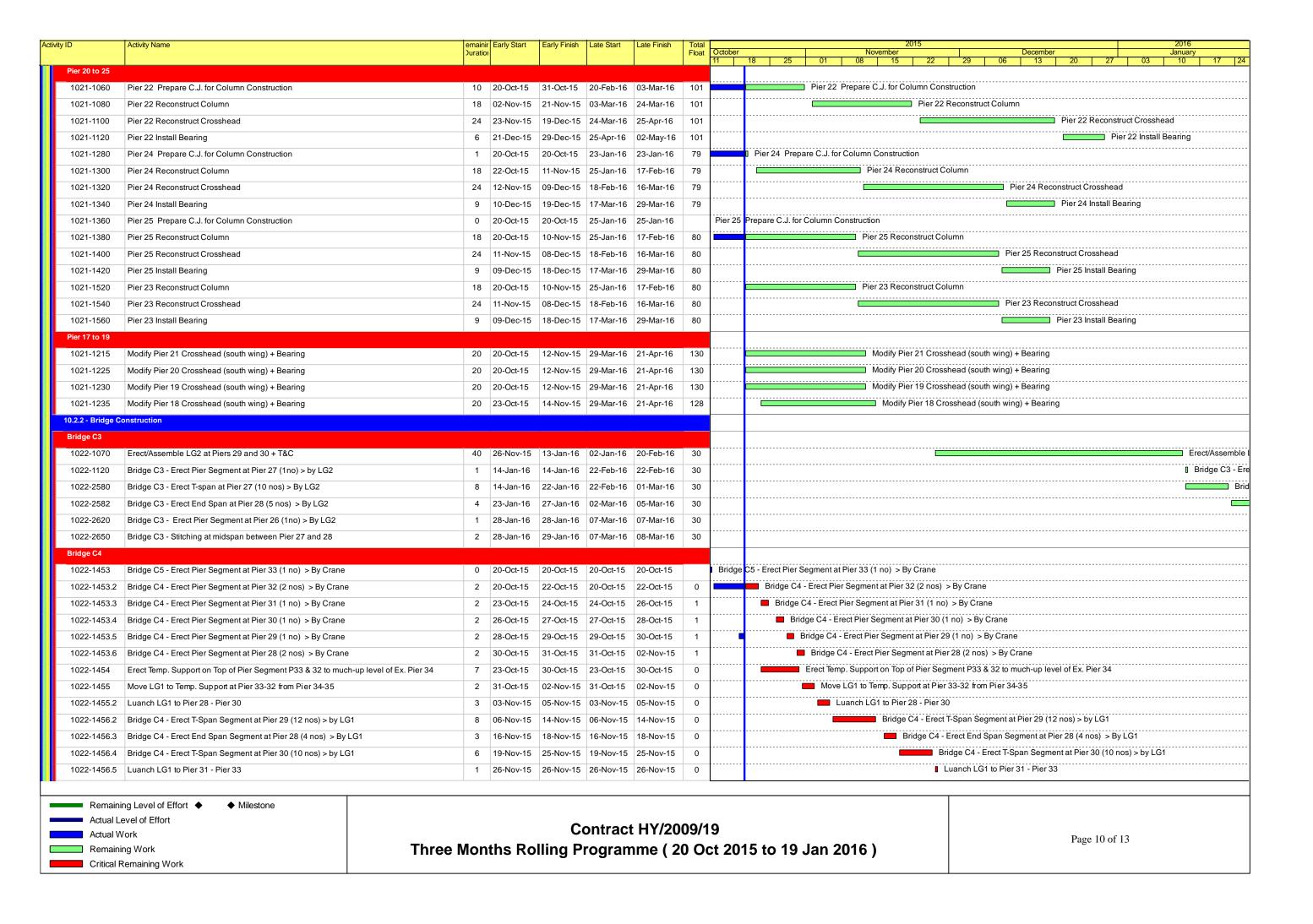


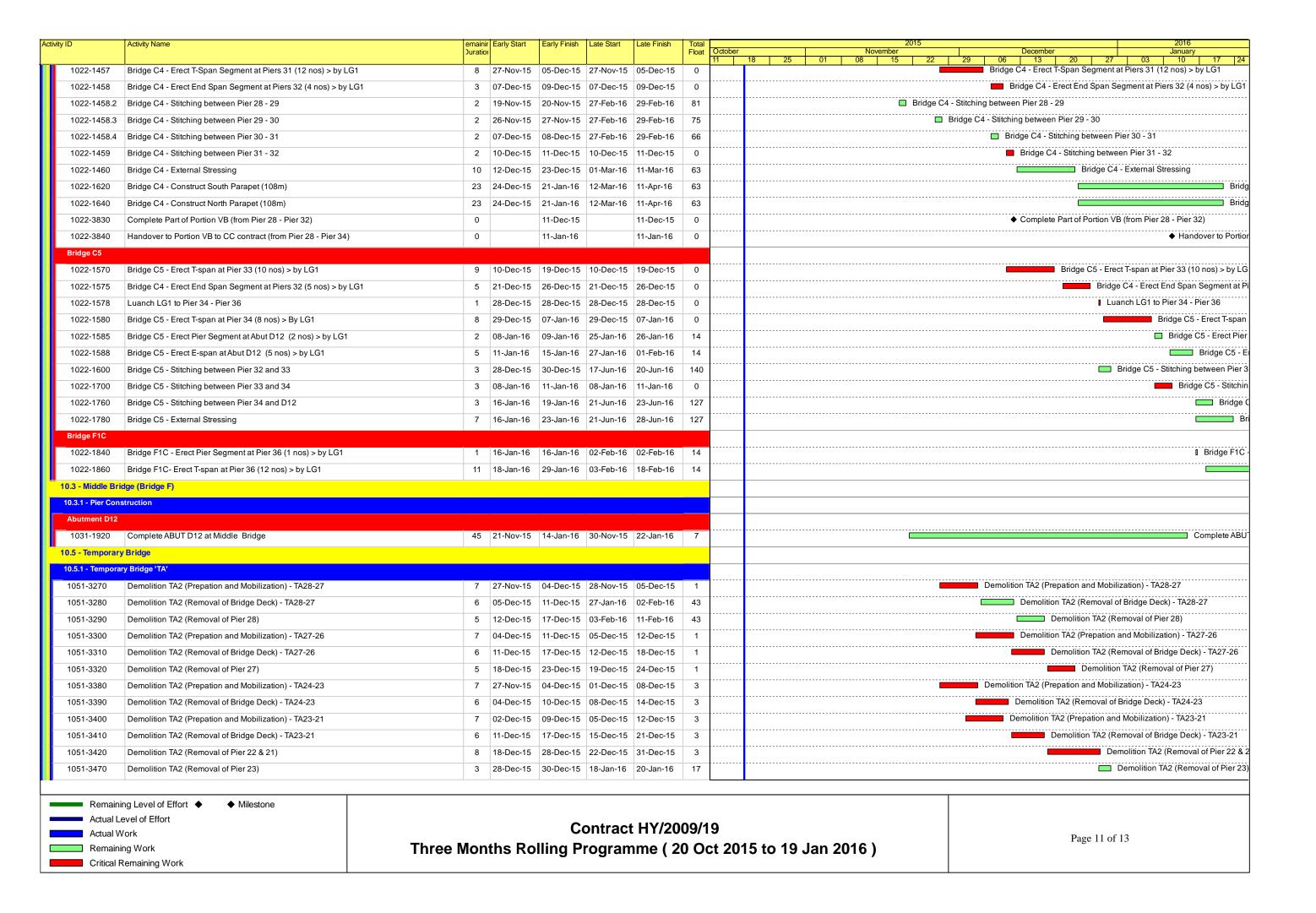
Activity ID	Activity Name		emainir E Ouration	Early Start	Early Finish	Late Start	Late Finish	Total Float October	2015 2016 November December January
0700-1130	Grd. Beam - (GL > F-G) - Tie Beam Construction		0 2	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15	1 11	18 25 01 08 15 22 29 06 13 20 27 03 10 17 2 Grd. Beam - (GL > F-G) - Tie Beam Construction
0700-1140	Grd. Beam - (GL > F-G) - Backfill		3 2	20-Oct-15	23-Oct-15	22-Oct-15	24-Oct-15	1	Grd. Beam - (GL > F-G) - Backfill
0700-1150	Grd. Beam - (GL > F-G) - (Part A) - Blinding Layer Casting				24-Oct-15			1	■ Grd. Beam - (GL > F-G) - (Part A) - Blinding Layer Casting
0700-1160	Grd. Beam - (GL > F-G) - (Part A) - H-Pile Trimming / Cutting Ca	sing	1 2	26-Oct-15	26-Oct-15	27-Oct-15	27-Oct-15	1	■ Grd. Beam - (GL > F-G) - (Part A) - H-Pile Trimming / Cutting Casing
0700-1170	Grd. Beam - (GL > F-G) - (Part A) - Capping Plate Welding / U E				27-Oct-15			1	■ Grd. Beam - (GL > F-G) - (Part A) - Capping Plate Welding / U Bars Welding
0700-1180	Grd. Beam - (GL > F-G) - (Part A) - Reinforcement Fixing	, , , , , , , , , , , , , , , , , , ,			30-Oct-15			1	Grd. Beam - (GL > F-G) - (Part A) - Reinforcement Fixing
0700-1190	Grd. Beam - (GL > F-G) - (Part A) - Formworks Erection		2 3		02-Nov-15			1	Grd. Beam - (GL > F-G) - (Part A) - Formworks Erection
0700-1200	Grd. Beam - (GL > F-G) - (Part A) - Concreting				03-Nov-15			1	■ Grd. Beam - (GL > F-G) - (Part A) - Concreting
0700-1210	Grd. Beam - (GL > F-G) - (Part A) - Formwork Removal				04-Nov-15			1	■ Grd. Beam - (GL > F-G) - (Part A) - Formwork Removal
0700-1220	Grd. Beam - (GL > F-G) - (Part B) - Blinding Layer Casting				20-Oct-15			Beam - (BL > F-G) - (Part B) - Blinding Layer Casting
0700-1230	Grd. Beam - (GL > F-G) - (Part B) - H-Pile Trimming / Cutting Ca	sina			20-Oct-15			` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	n - (GL > F-G) - (Part B) - H-Pile Trimming / Cutting Casing
0700-1240	Grd. Beam - (GL > F-G) - (Part B) - Capping Plate Welding / U E				20-Oct-15				eam - (GL > F-G) - (Part B) - Capping Plate Welding / U Bars Welding
0700-1250	Grd. Beam - (GL > F-G) - (Part B) - Reinforcement Fixing	ars vvoiding			20-Oct-15			- 0.0.0	Grd. Beam - (GL > F-G) - (Part B) - Reinforcement Fixing
0700-1230	Grd. Beam - (GL > F-G) - (Part B) - Formworks Erection				22-Oct-15			7	Grd. Beam - (GL > F-G) - (Part B) - Formworks Erection
	, , , ,				1 1111		1 1 1 1 1 1 1		Grd. Beam - (GL > F-G) - (Part B) - Concreting Grd. Beam - (GL > F-G) - (Part B) - Concreting
0700-1270	Grd. Beam - (GL > F-G) - (Part B) - Concreting				23-Oct-15			7	☐ Grd. Beam - (GL > F-G) - (Part B) - Condreung ☐ Grd. Beam - (GL > F-G) - (Part B) - Formwork Removal
0700-1280	Grd. Beam - (GL > F-G) - (Part B) - Formwork Removal				24-Oct-15			7	
0700-1290	Grd. Beam - (GL > K-L) - Backfill				20-Oct-15			am - (GL	> K-L) - Backfill L > K-L) - Removal of existing Sheet Pile
0700-1300	Grd. Beam - (GL > K-L) - Removal of existing Sheet Pile				20-Oct-15				
0700-1310	Grd. Beam - (GL > K-L) - Blinding Layer Casting		0 2		20-Oct-15			Beam - (GL > K-L) - Blinding Layer Casting n - (GL > K-L) - H-Pile Trimming / Cutting Casing
0700-1320	Grd. Beam - (GL > K-L) - H-Pile Trimming / Cutting Casing		0 2	20-Oct-15	20-Oct-15	27-Oct-15	27-Oct-15	Grd. Bean	n - (GL > K-L) - H-Pile Trimming / Cutting Casing Beam - (GL > K-L) - Capping Plate Welding / U Bars Welding
0700-1330	Grd. Beam - (GL > K-L) - Capping Plate Welding / U Bars Weld	ng	0 2	20-Oct-15	20-Oct-15	27-Oct-15	27-Oct-15	Grd.	Beam - (GL > K-L) - Capping Plate Welding / U Bars Welding Grd. Beam - (GL > K-L) - Reinforcement Fixing
0700-1340	Grd. Beam - (GL > K-L) - Reinforcement Fixing		1 2	20-Oct-15	20-Oct-15	27-Oct-15	27-Oct-15	5	Grd. Beam - (GL > K-L) - Reinforcement Fixing
0700-1350	Grd. Beam - (GL > K-L) - Formworks Erection		3 2	22-Oct-15	24-Oct-15	28-Oct-15	30-Oct-15	5	Grd. Beam - (GL > K-L) - Formworks Erection
0700-1360	Grd. Beam - (GL > K-L) - Concreting		1 2	26-Oct-15	26-Oct-15	31-Oct-15	31-Oct-15	5	■ Grd. Beam - (GL > K-L) - Concreting
0700-1370	Grd. Beam - (GL > K-L) - Formwork Removal		1 2	27-Oct-15	27-Oct-15	02-Nov-15	02-Nov-15	5	■ Grd. Beam - (GL > K-L) - Formwork Removal
0700-1380	Storm Water Drain at Portion VB		5 2	21-Nov-15	26-Nov-15	02-Dec-15	07-Dec-15	9	Storm Water Drain at Portion VB
0700-1390	Install Irrigation Watermain within Portion V		5 2	21-Nov-15	26-Nov-15	08-Dec-15	12-Dec-15	14	Install Irrigation Watermain within Portion V
0700-1400	Construction of pile cap for PC21		0 2	20-Oct-15	20-Oct-15	24-Dec-16	24-Dec-16		Construction of pile cap for PC21
0700-1410	Construction of pile cap for PC22		0 2	20-Oct-15	20-Oct-15	24-Dec-16	24-Dec-16	nstruction	of pile cap for PC22
0700-1420	Construction of Column for Landscape Dect at PC21 & 22 up to	Gnd Level	18 1	10-Nov-15	30-Nov-15	24-Dec-16	13-Jan-17	339	Construction of Column for Landscape Dect at PC21 & 22 up to Gnd Level
0700-1430	Install underground drainage at Portion VB		7 2	21-Nov-15	28-Nov-15	30-Nov-15	07-Dec-15	7	Install underground drainage at Portion VB
0700-1440	Construct Road Pavement Between P31-32 within Porion VB i	ncl sub-base	21 0	04-Dec-15	29-Dec-15	08-Dec-15	02-Jan-16	3	Construct Road Pavement Betweer
0700-1450	Remove Temp Container/Storage within Admin Area		9 3	30-Nov-15	09-Dec-15	22-Dec-15	02-Jan-16	19	Remove Temp Container/Storage within Admin Area
0700-1460	Erect Temporary/Removable Hoarding along portion VB		9 3	30-Dec-15	09-Jan-16	04-Jan-16	13-Jan-16	3	Erect Temporary/Re
A1540	Modify Temporary Support of Pier obstructing construction of A	OB along Portion VB	25 0	05-Nov-15	03-Dec-15	11-Oct-19	08-Nov-19	1179	Modify Temporary Support of Pier obstructing construction of ADB along
08 - SECTION	5 WORK								
	Wall 'F' Substructure								
0810-1650	Retaining Wall F > Temp Excav Support/Open cut Excav works		18 2	20-Oct-15	10-Nov-15	08-Jun-16	29-Jun-16	190	Retaining Wall F > Temp Excav Support/Open cut Excav works
0810-1660	Retaining Wall F > Excavation Works for Pile caps		21 2	28-Oct-15	20-Nov-15			190	Retaining Wall F > Excavation Works for Pile caps
0810-1670	Construction of pile cap for Retaining Wall F @ PC8			30-Oct-15	23-Nov-15			190	Construction of pile cap for Retaining Wall F @ PC8
0810-1680	Construction of pile cap for Retaining Wall F @ PC9				09-Nov-15				of pile cap for Retaining Wall F @ PC9
0810-1700	Construction of pile cap for Retaining Wall F @ PC10				09-Nov-15				of pile cap for Retaining Wall F @ PC10
0810-1720	Construction of pile cap for Retaining Wall F @ PC11				09-Nov-15				of pile cap for Retaining Wall F @ PC11
33.3 23	Constitution of pilo cap to recall ling frame (C. C.)				00 1101 10	20 04 10	20 00		
Pomoini	ng Level of Effort ◆ ◆ Milestone								
	evel of Effort								
Actual W					Co	ontrac	t HY/20	09/19	P. (512
					llina Pi	rogran	nme (20	0 Oct 201	Page 6 of 13
	Remaining Work	• • • • • • • • • • • • • • • • •			g · '	- g. w.i	,	 -	

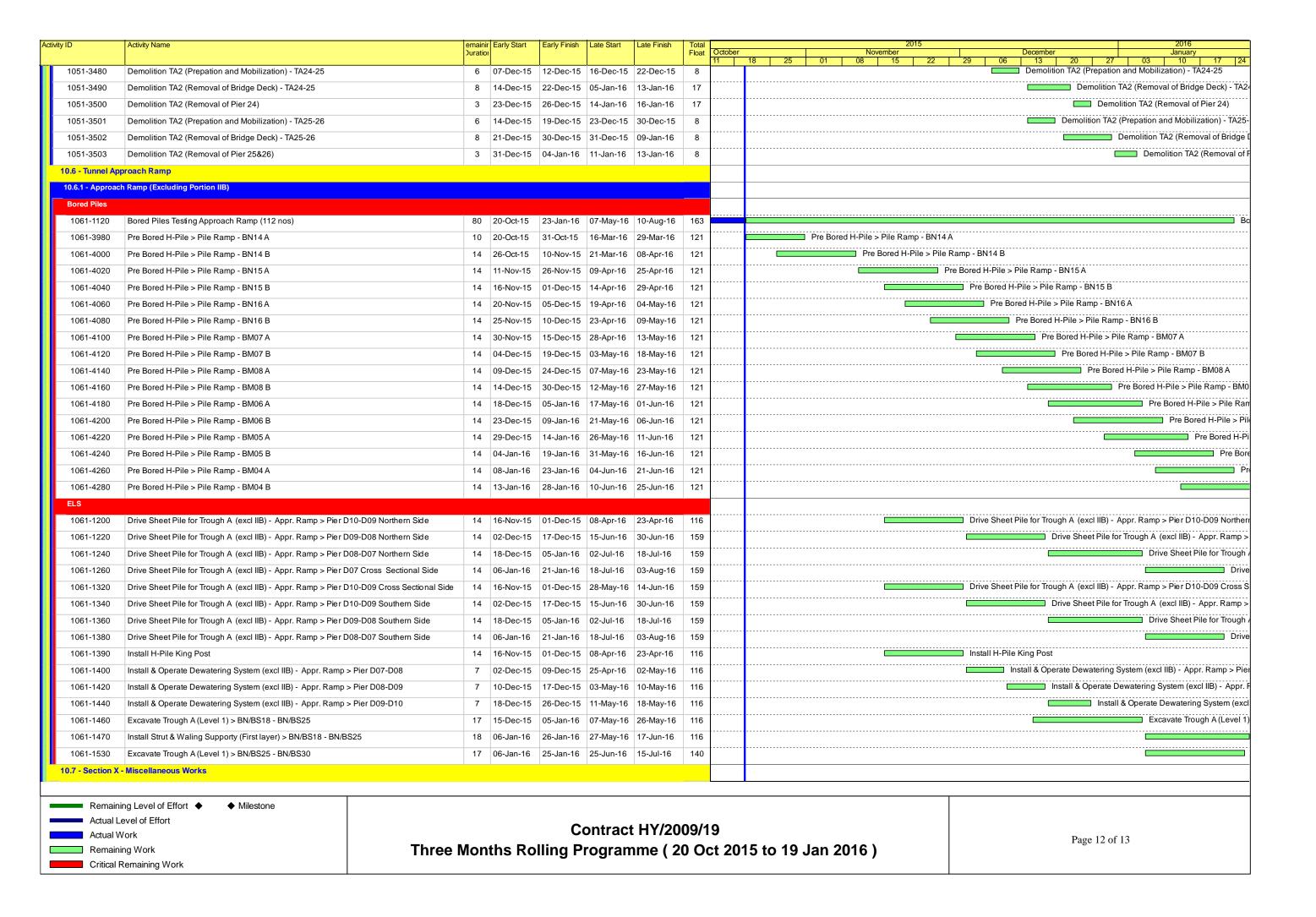


Activity ID	Activity Name	emainir Juratior	Early Start	Early Finish	Late Start	Late Finish	Total Float	October	
10.1.4 - Bridge E	/ Hing Fat Slip Road							11	18 25 01 08 15 22 29 06 13 20 27 03 10 17
Bridge Construc	ction								
1014-1880	Construction (Pier E4 - Pier E2) > Construct Crosshead + Bearing at Pier E3	0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		(Pier E4	24 Pier E2) > Construct Crosshead + Bearing at Pier E3
1014-1900	Construction (Pier E4 - Pier E2) > Modification of Crosshead + Bearing at Pier E4 & E2	0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19	r	F4 - Pie	Pier F2) > Modification of Crosshead + Rearing at Pier F4 & F2
1014-1920	Construction (Pier E4 - Pier E2) > Erect 3nos Beams > Pier E3-E2	0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15	ļ ,	ction (Pi	Pier E4 - Pier E2) > Erect 3nos Beams > Pier E3-E2
1014-1940	Construction (Pier E4 - Pier E2) > Erect 3nos Beams > Pier E4-E3	0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		Constru	trubion (Dior E4 Dior E2) > Erect 2 non Deceme > Dior E4 E2
1015-1950	Bridge E (Pier E2 - E3) - Planking	0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		■ Bridg	dge E (Pier E2 - E3) - Planking
1015-1960	Bridge E (Pier E2 - E3) - Scaffolding	0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15			Table F (D) - FO FO O - #-Ub-
1015-1970	Bridge E (Pier E2 - E3) - Soffit Formworks	1	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15	4		Bridge E (Pier E2 - E3) - Scarrolding Bridge E (Pier E2 - E3) - Soffit Formworks
1015-1980	Bridge E (Pier E2 - E3) - (Diaphgram + Decking) - Rebar Fixing	3	22-Oct-15	24-Oct-15	27-Oct-15	29-Oct-15	4		Bridge E (Pier E2 - E3) - (Diaphgram + Decking) - Rebar Fixing
1015-1990	Bridge E (Pier E2 - E3) - D(Diaphgram + Decking) - Install Shutter	1	24-Oct-15	24-Oct-15	29-Oct-15	29-Oct-15	4		■ Bridge E (Pier E2 - E3) - D(Diaphgram + Decking) - Install Shutter
1015-2000	Bridge E (Pier E2 - E3) - (Diaphgram + Decking) - Concreting	1	26-Oct-15	26-Oct-15	30-Oct-15	30-Oct-15	4		■ Bridge E (Pier E2 - E3) - (Diaphgram + Decking) - Concreting
1015-2010	Bridge E (Pier E2 - E3) - (Wing Extension) - Hanger platform (Sea Side)	5	27-Oct-15	31-Oct-15	31-Oct-15	05-Nov-15	4		Bridge E (Pier E2 - E3) - (Wing Extension) - Hanger platform (Sea Side)
1015-2020	Bridge E (Pier E2 - E3) - (Wing Extension) - Rebar fixing	3	02-Nov-15	04-Nov-15	06-Nov-15	09-Nov-15	4		Bridge E (Pier E2 - E3) - (Wing Extension) - Rebar fixing
1015-2030	Bridge E (Pier E2 - E3) - (Wing Extension) - Install shutter	1	04-Nov-15	04-Nov-15	09-Nov-15	09-Nov-15	4		■ Bridge E (Pier E2 - E3) - (Wing Extension) - Install shutter
1015-2040	Bridge E (Pier E2 - E3) - (Wing Extension) - Concreting	1	05-Nov-15	05-Nov-15	10-Nov-15	10-Nov-15	4		■ Bridge E (Pier E2 - E3) - (Wing Extension) - Concreting
1015-2050	Bridge E (Pier E2 - E3) - Parapet - Stage 2	6	06-Nov-15	12-Nov-15	11-Nov-15	17-Nov-15	4		Bridge E (Pier E2 - E3) - Parapet - Stage 2
1015-2060	Bridge E (Pier E2 - E3) - Duct Laying - Satage 2	6	06-Nov-15	12-Nov-15	12-Nov-15	18-Nov-15	5		Bridge E (Pier E2 - E3) - Duct Laying - Satage 2
1015-2070	Bridge E (Pier E2 - E3) - M.J	2	13-Nov-15	14-Nov-15	19-Nov-15	20-Nov-15	5		■ Bridge E (Pier E2 - E3) - M.J
1015-2080	Bridge E (Pier E2 - E3) - L3 Railing - Stage 2	3	13-Nov-15	16-Nov-15	18-Nov-15	20-Nov-15	4		Bridge E (Pier E2 - E3) - L3 Railing - Stage 2
1015-2090	Bridge E (Pier E2 - E3) - Asphalt	3	17-Nov-15	19-Nov-15	21-Nov-15	24-Nov-15	4		Bridge E (Pier E2 - E3) - Asphalt
1015-2100	Bridge E (Pier E2 - E3) - Road Marking	2	20-Nov-15	21-Nov-15	25-Nov-15	26-Nov-15	4		■ Bridge E (Pier E2 - E3) - Road Marking
1015-2110	Bridge E (Pier E2 - E3) - Parapet - Stage 1	6	27-Oct-15	02-Nov-15	04-Nov-15	10-Nov-15	7		P. I. F. (P FO. FO. P O 4
1015-2120	Bridge E (Pier E2 - E3) - Duct Laying - Satage 1	6	27-Oct-15	02-Nov-15	05-Nov-15	11-Nov-15	8		Bridge E (Pier E2 - E3) - Parapet - Stage 1 Bridge E (Pier E2 - E3) - Duct Laying - Satage 1
1015-2130	Bridge E (Pier E2 - E3) - L3 Railing - Stage 1	4	03-Nov-15	06-Nov-15	13-Nov-15	17-Nov-15	9		Bridge E (Pier E2 - E3) - L3 Railing - Stage 1
1015-2140	Bridge E (Pier E3 - E4) - Planking	0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19	9	e E (Pier	ier E3 - E4) - Planking
1015-2150	Bridge E (Pier E3 - E4) - Scaffolding	0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		■ Bridg	dge E (Pier E3 - E4) - Scaffolding
1015-2160	Bridge E (Pier E3 - E4) - Soffit Formwork	0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19			Bridge E (Pier E3 - E4) - Soffit Formwork
1015-2170	Bridge E (Pier E3 - E4) - (Diaphgram + Additional Diaphgram + Decking) - Rebar Fixing	2	20-Oct-15	22-Oct-15	31-Oct-15	02-Nov-15	9		Bridge E (Pier E3 - E4) - (Diaphgram + Additional Diaphgram + Decking) - Rebar Fixing
1015-2180	Bridge E (Pier E3 - E4) - (Diaphgram + Additional Diaphgram + Decking) - Shutter	1	22-Oct-15	22-Oct-15	02-Nov-15	02-Nov-15	9		□ Bridge E (Pier E3 - E4) - (Diaphgram + Additional Diaphgram + Decking) - Shutter
1015-2190	Bridge E (Pier E3 - E4) - (Diaphgram + Additional Diaphgram + Decking) - Concreting	1	23-Oct-15	23-Oct-15	03-Nov-15	03-Nov-15	9		
1015-2200	Bridge E (Pier E3 - E4) - Parapet	7	23-Oct-15	30-Oct-15	03-Nov-15	10-Nov-15	9		Bridge E (Pier E3 - E4) - Parapet
1015-2210	Bridge E (Pier E3 - E4) - Drain Pipe Laying	7	23-Oct-15	30-Oct-15	03-Nov-15	10-Nov-15	9		Bridge E (Pier E3 - E4) - Drain Pipe Laying
1015-2220	Bridge E (Pier E3 - E4) - M.J	2	31-Oct-15	02-Nov-15	11-Nov-15	12-Nov-15	9		Bridge E (Pier E3 - E4) - M.J
1015-2230	Bridge E (Pier E3 - E4) - L3 Railing	7	03-Nov-15	10-Nov-15	13-Nov-15	20-Nov-15	9		Bridge E (Pier E3 - E4) - L3 Railing
1015-2240	Bridge E (Pier E3 - E4) - Asphalt	3	11-Nov-15	13-Nov-15	21-Nov-15	24-Nov-15	9		Bridge E (Pier E3 - E4) - Asphalt
1015-2250	Bridge E (Pier E3 - E4) - Road Marking	2	14-Nov-15	16-Nov-15	25-Nov-15	26-Nov-15	9		Bridge E (Pier E3 - E4) - Road Marking
1015-2260	Bridge E (Pier E4 towards HFS-Rd) - Scaffolding	0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		Bridge E	e E (Pier E4 towards HFS-Rd) - Scaffolding
1015-2270	Bridge E (Pier E4 towards HFS-Rd) - Formwork	0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		E	Bridge E (Pier E4 towards HFS-Rd) - Formwork
1015-2280	Bridge E (Pier E4 towards HFS-Rd) - Wing Extension	1	20-Oct-15	20-Oct-15	13-Nov-15	13-Nov-15	20		☐ Bridge E (Pier E4 towards HFS-Rd) - Wing Extension
1015-2290	Bridge E (Pier E4 towards HFS-Rd) - Parapet	4	22-Oct-15	26-Oct-15	14-Nov-15	18-Nov-15	20		Bridge E (Pier E4 towards HFS-Rd) - Parapet
1015-2300	Bridge E (Pier E4 towards HFS-Rd) - Draine - pipe Laying	4	22-Oct-15	26-Oct-15	14-Nov-15	18-Nov-15	20		Bridge E (Pier E4 towards HFS-Rd) - Draine - pipe Laying
1015-2310	Bridge E (Pier E4 towards HFS-Rd) - L3 Railing	3	27-Oct-15	29-Oct-15	19-Nov-15	21-Nov-15	20		Bridge E (Pier E4 towards HFS-Rd) - L3 Railing
Daniel of	ng Lovel of Effort A Milestone								
	ng Level of Effort ◆ Milestone evel of Effort								
Actual Work Contract HY/2009/19								P 0 -612	
	Remaining Work Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)								Page 8 of 13
Critical R	Remaining Work			J	J	- , -		-	,

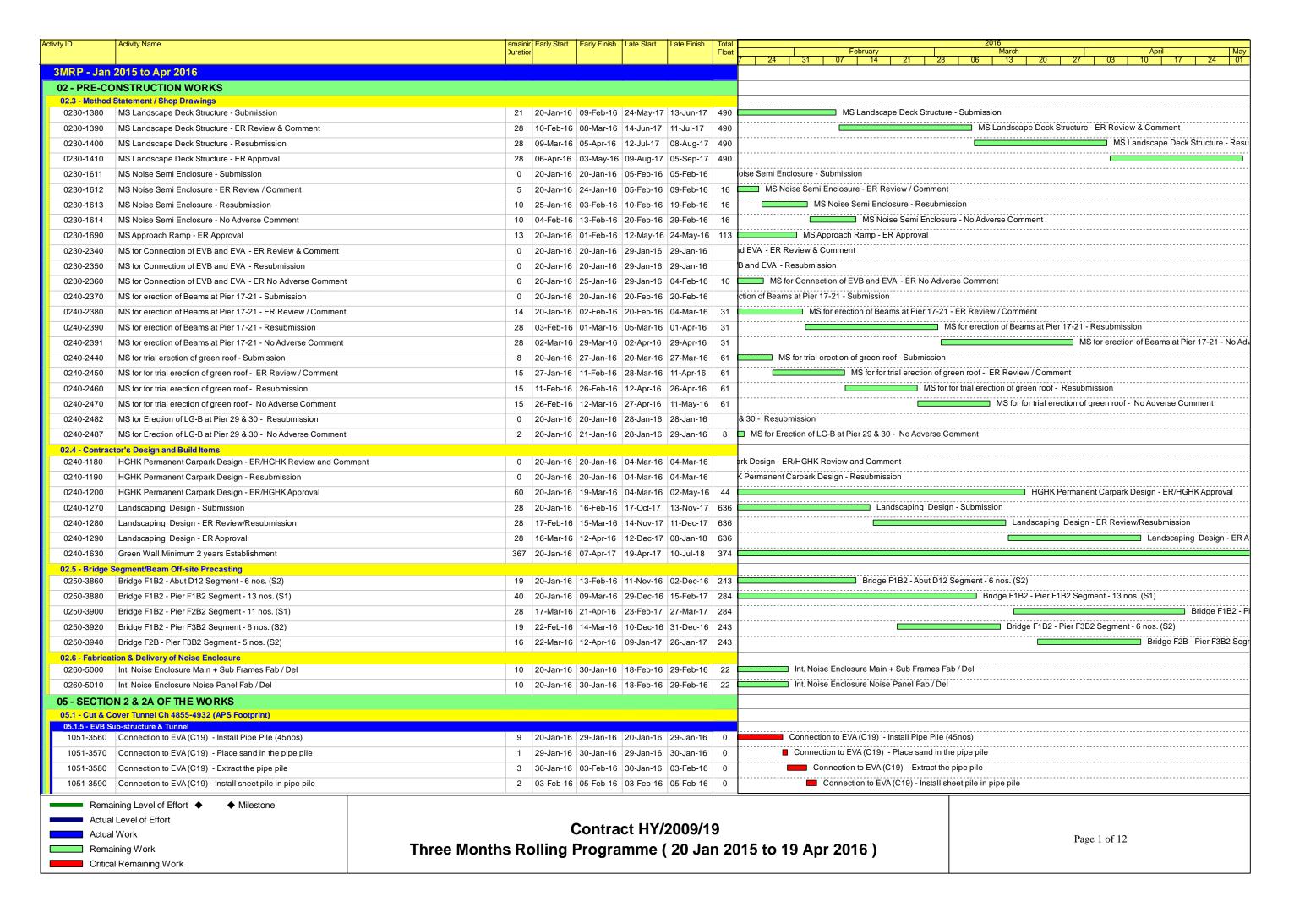


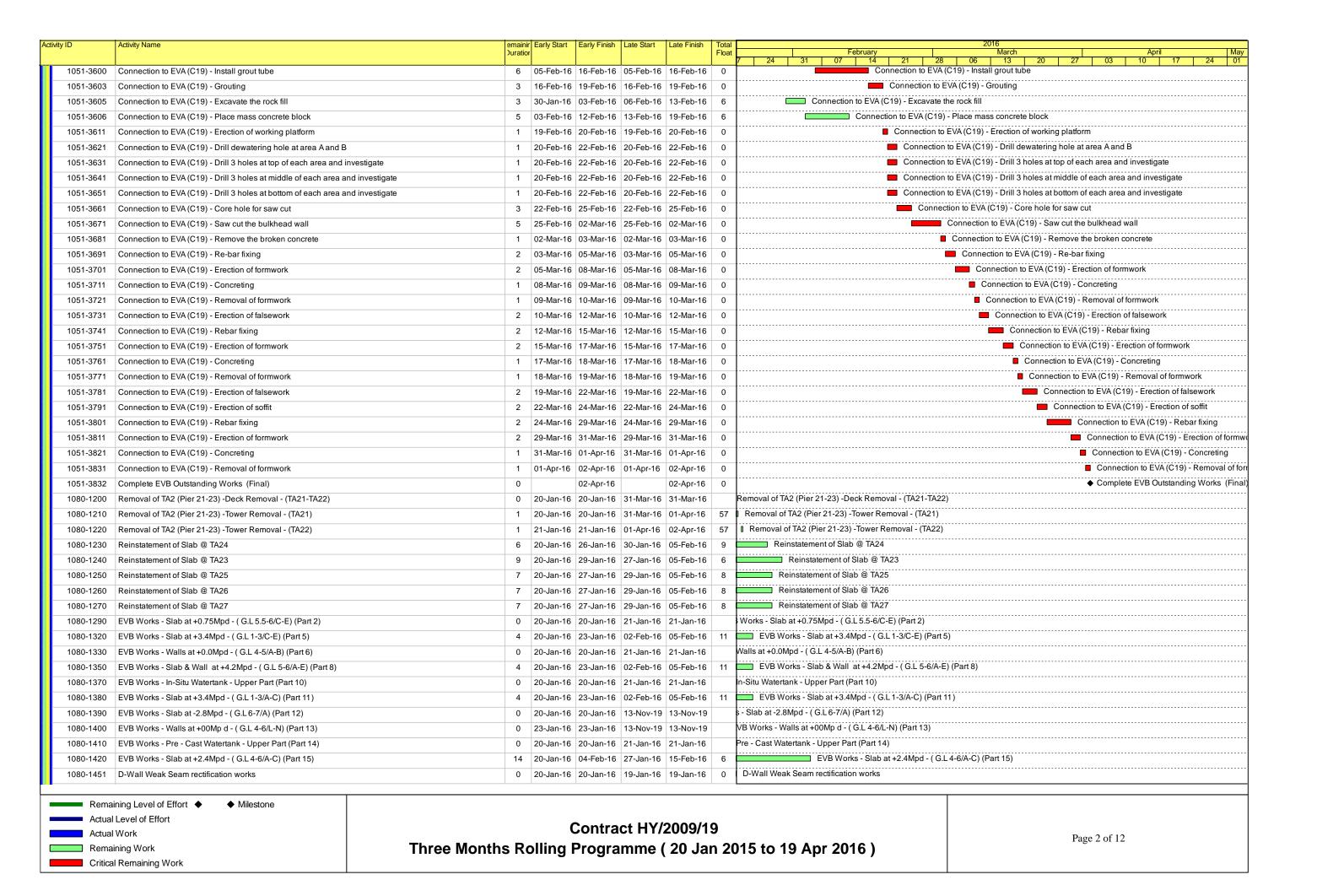


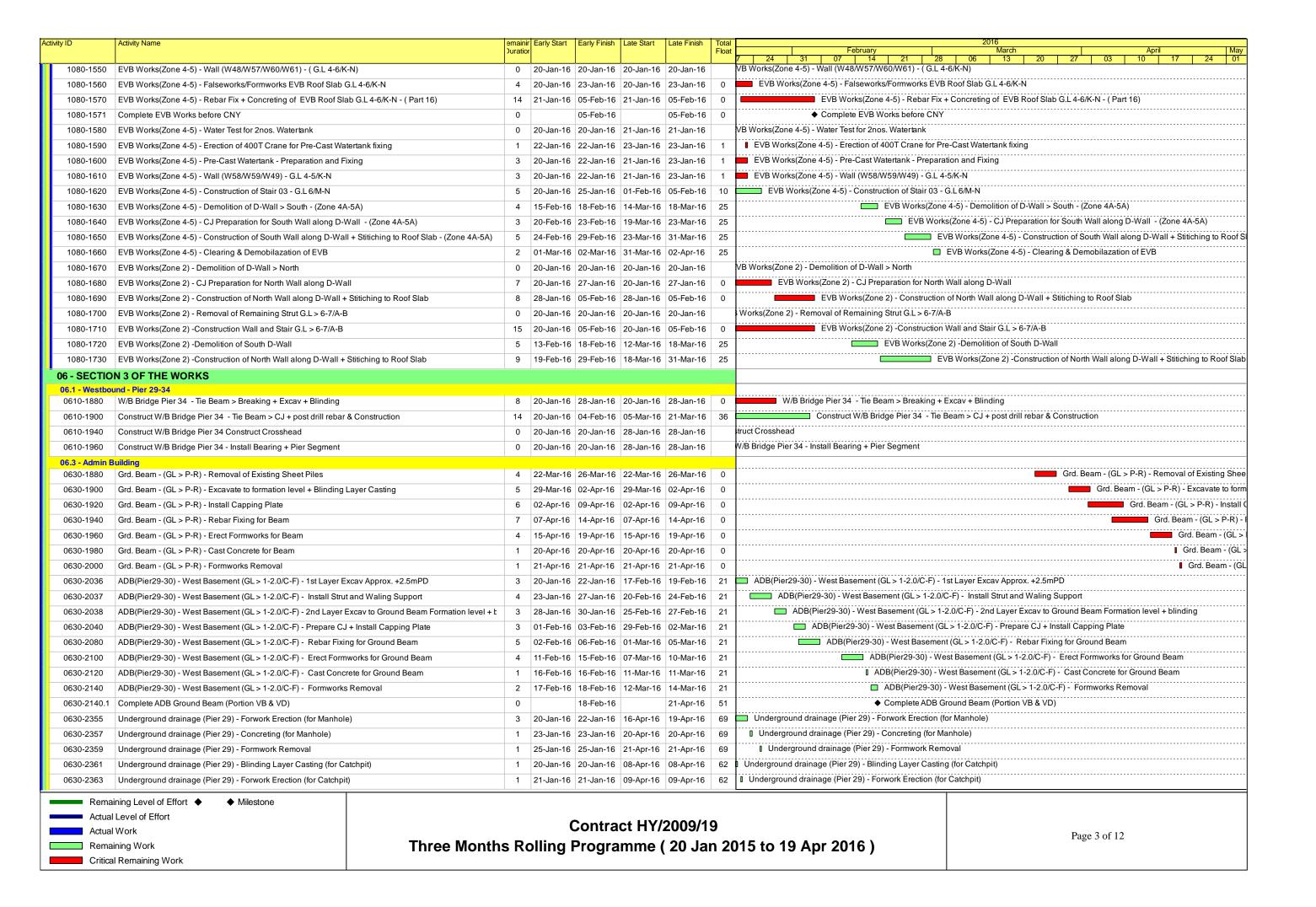


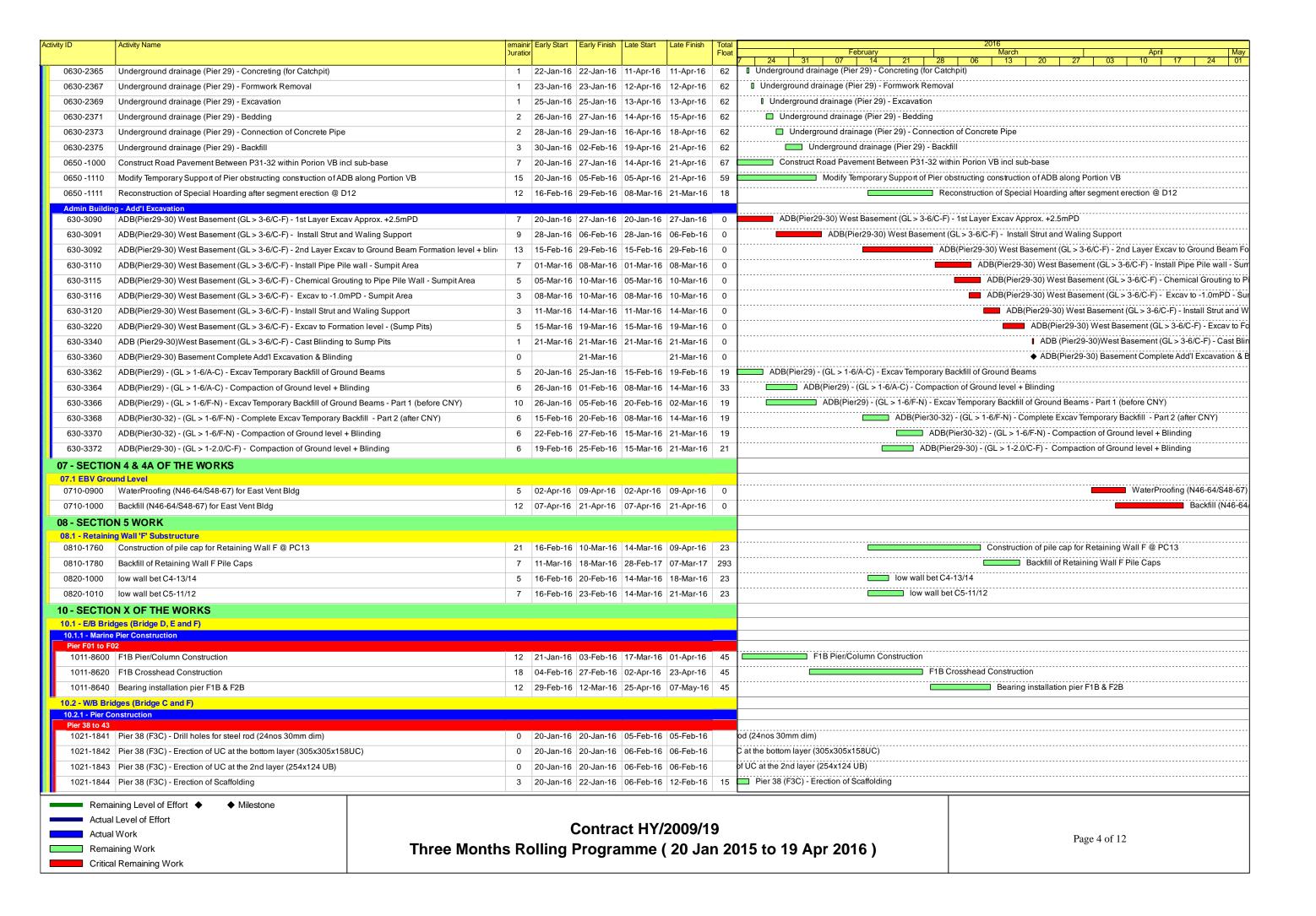


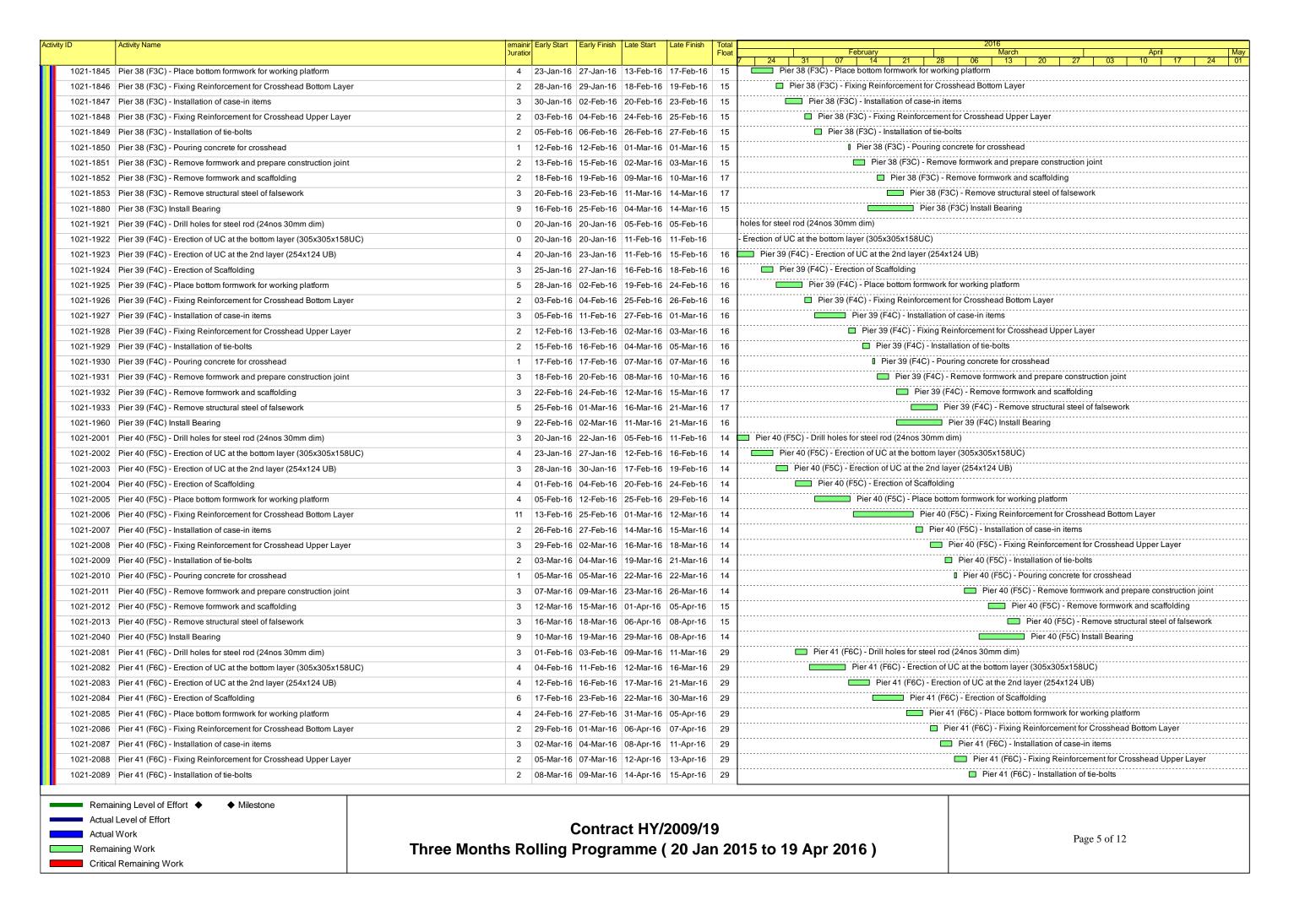
rity ID	Activity Name	emainir	Early Start	Early Finish	Late Start	Late Finish	Total		2015 2016
,		Duration	. ,	, ,			Float	October	November December January
								11	18 25 01 08 15 22 29 06 13 20 27 03 10 17
10.7.1 - TTM St	ages								
1071-1240	TTM Stage 5 - TMLG Consultation and Endorsement	37	20-Oct-15	25-Nov-15	21-Oct-15	26-Nov-15	1		TTM Stage 5 - TMLG Consultation and Endorsement
1071-1260	TTM Stage 5 - TTM Enabling Works	1	26-Nov-15	26-Nov-15	27-Nov-15	27-Nov-15	1		■ TTM Stage 5 - TTM Enabling Works
1071-1280	TTM Stage 5 - Hing Fat Slip Road Divert 1 Lane through 'Bridge From Pier E4 to Pier E2' to Release "TA2"	0		26-Nov-15		27-Nov-15	1		◆ TTM Stage 5 - Hing Fat Slip Road Divert 1 Lane through 'Bridge From Pier E4 to
11 - SECTIOI	11 OF THE WORKS								
11.2 - Roadwoi	ks								
1110-2710	Watermains at Portion XIIA - Stage 3 (parking Meters)	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		- Stage 3	(parking Meters)
1110-2720	Watermains at Portion XIIA - Stage 4 (parking Meters)	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		nains at F	ortion XIIA - Stage 4 (parking Meters)
1110-2730	Watermains at Portion XIIA - Stage 5 (parking Meters)	3	20-Oct-15	23-Oct-15	16-Nov-15	18-Nov-15	22		Watermains at Portion XIIA - Stage 5 (parking Meters)
1110-2740	Watermains at Portion XIIA - Stage 6 (King Ming Rd. junction)	0	20-Oct-15	20-Oct-15	17-Nov-15	17-Nov-15		ortion XII	- Stage 6 (King Ming Rd. junction)
1110-2750	Watermains at Portion XIIA - Stage 7 (King Ming Rd. junction & connection pt.)	0	20-Oct-15	20-Oct-15	17-Nov-15	17-Nov-15		■ Wate	rmains at Portion XIIA - Stage 7 (King Ming Rd. junction & connection pt.)
1110-2760	Watermains at Portion XIIA - Stage 8 (Run-in/out to carpark at Victoria Ctr.)	2	22-Oct-15	23-Oct-15	17-Nov-15	18-Nov-15	22		☐ Watermains at Portion XIIA - Stage 8 (Run-in/out to carpark at Victoria Ctr.)
1110-2770	Watermains at Portion XIIA - Stage 9 (Run-in/out to carpark at Victoria Ctr.)	13	24-Oct-15	07-Nov-15	19-Nov-15	03-Dec-15	22		Watermains at Portion XIIA - Stage 9 (Run-in/out to carpark at Victoria Ctr.)
1110-2780	Watermains at Portion XIIA - Stage 10 (motor cycle parking)	13	24-Oct-15	07-Nov-15	19-Nov-15	03-Dec-15	22		Watermains at Portion XIIA - Stage 10 (motor cycle parking)
1110-2790	Watermains at Portion XIIA - Stage 11 (motor cycle parking)	12	09-Nov-15	21-Nov-15	04-Dec-15	17-Dec-15	22	·	Watermains at Portion XIIA - Stage 11 (motor cycle parking)
1110-2800	Watermains at Portion XIIA - Testing & commissioning of Watermains	4	23-Nov-15	26-Nov-15	18-Dec-15	22-Dec-15	22		Watermains at Portion XIIA - Testing & commissioning of Watermains
1110-2810	Watermains at Portion XIIA - Reinstatement of Pavement at connection Pt.	4	27-Nov-15	01-Dec-15	23-Dec-15	28-Dec-15	22	 	Watermains at Portion XIIA - Reinstatement of Pavement at connection P

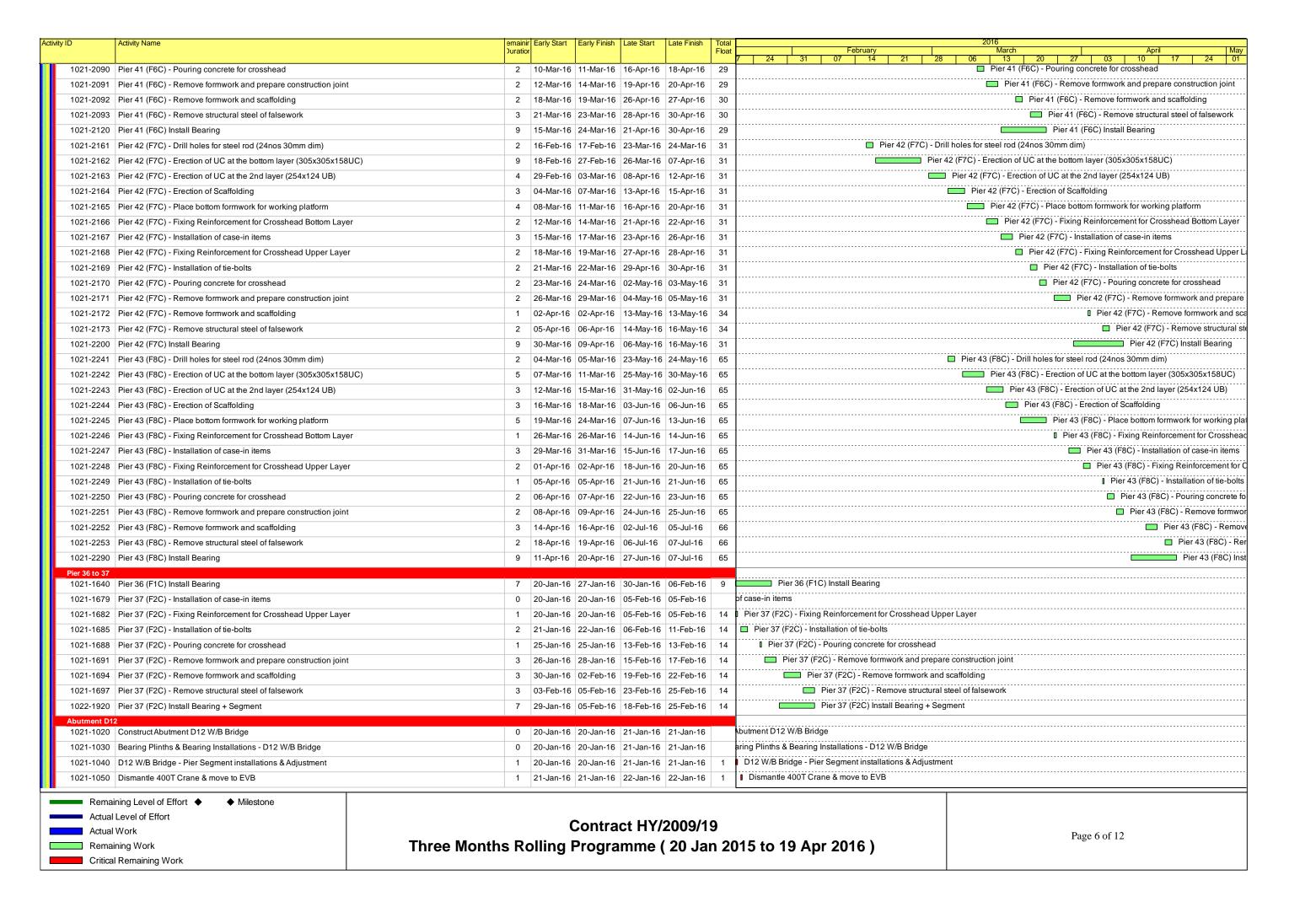


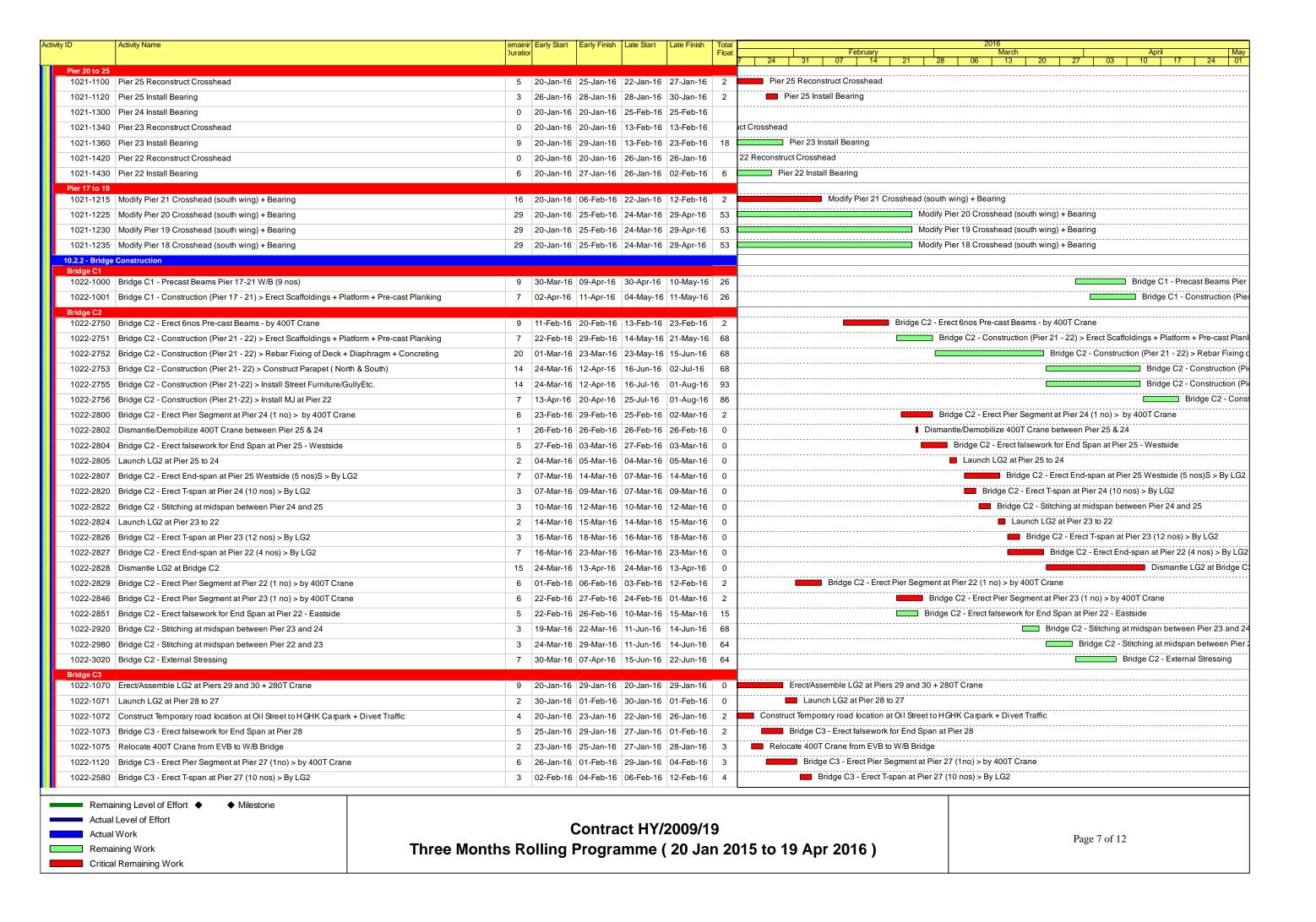


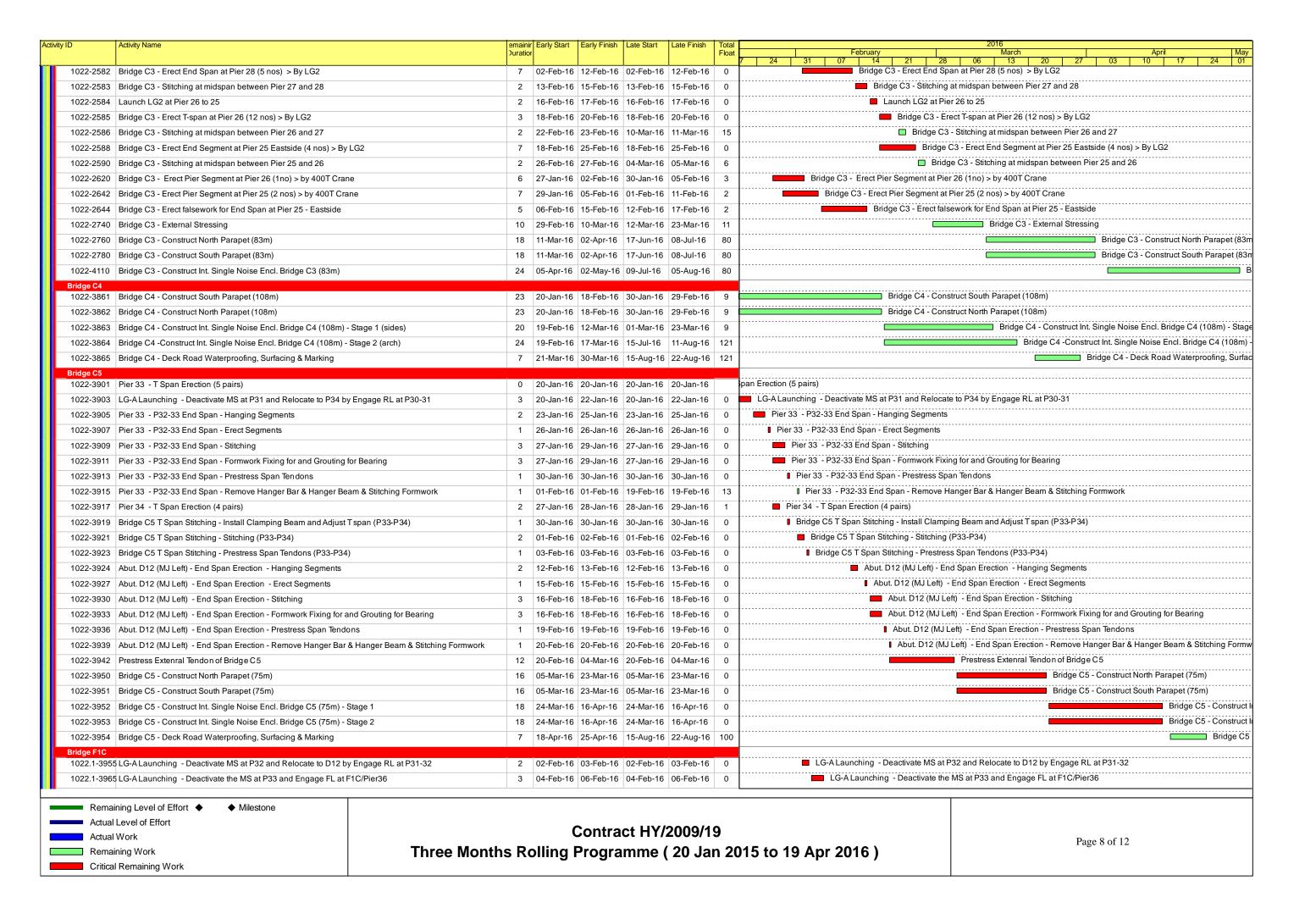






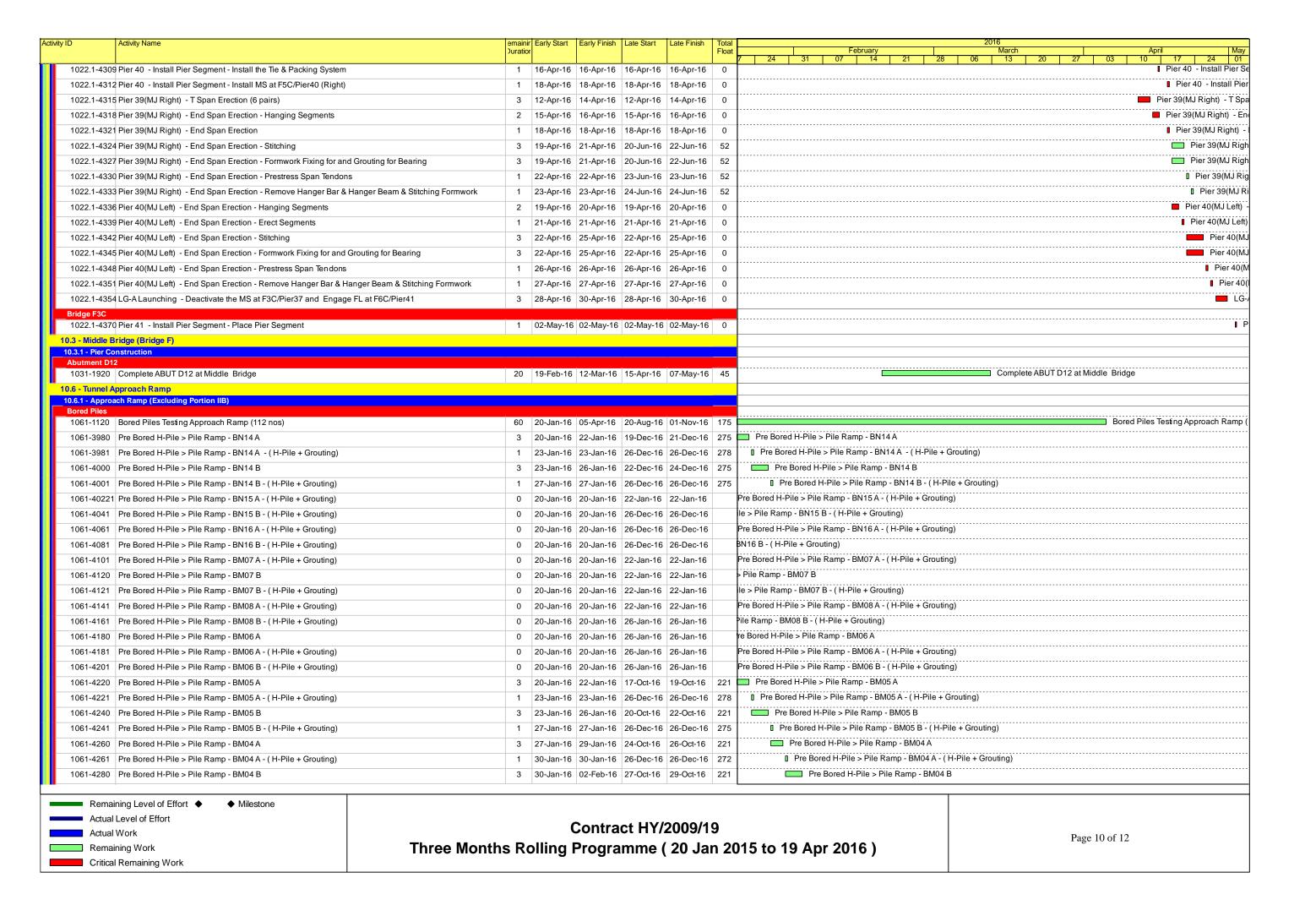


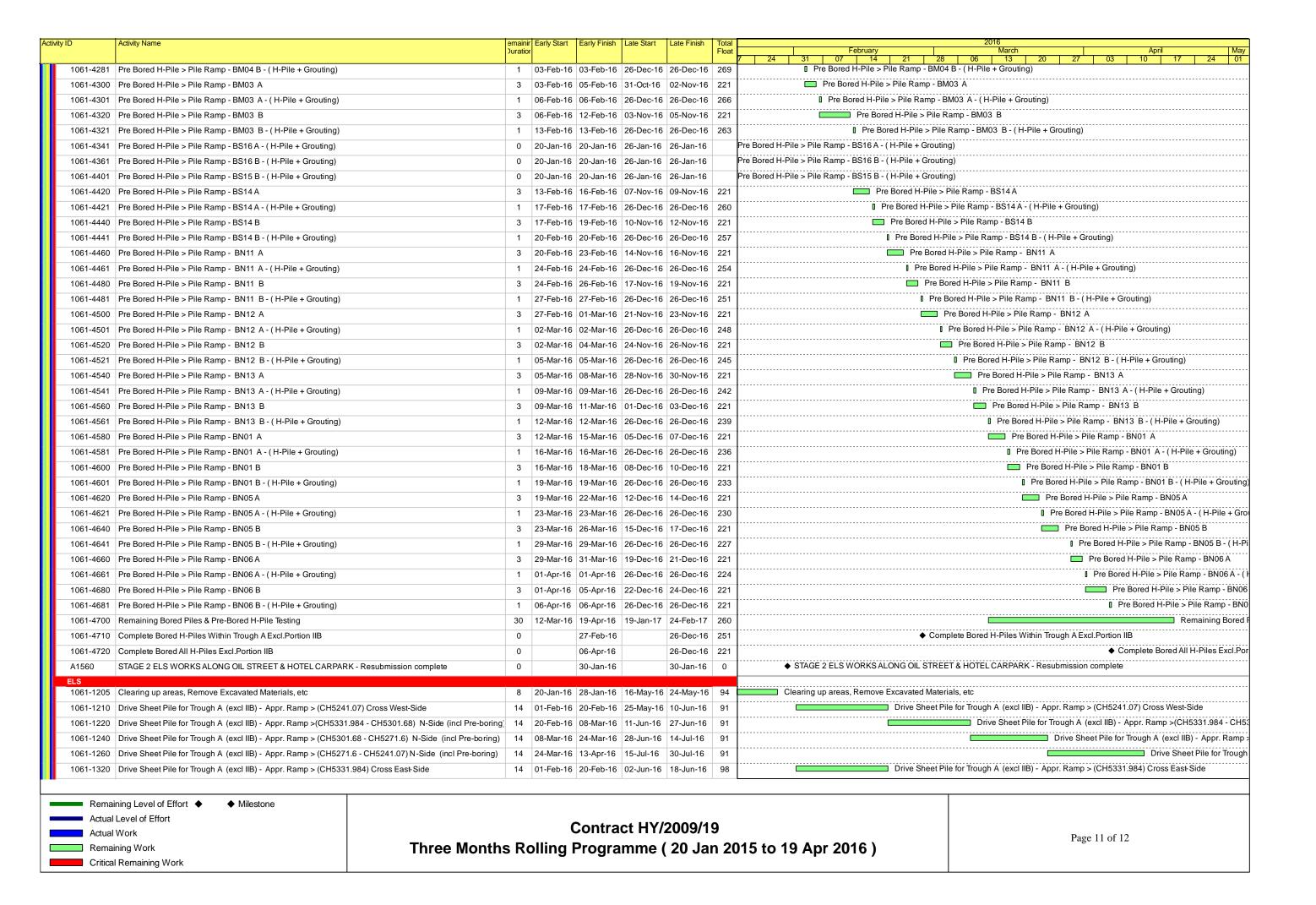


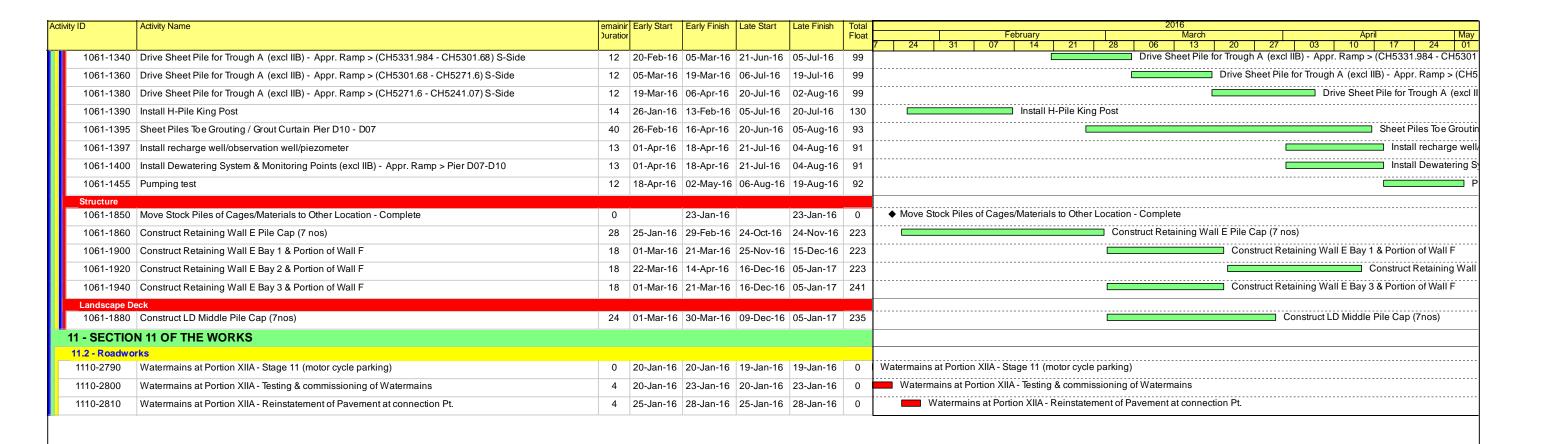


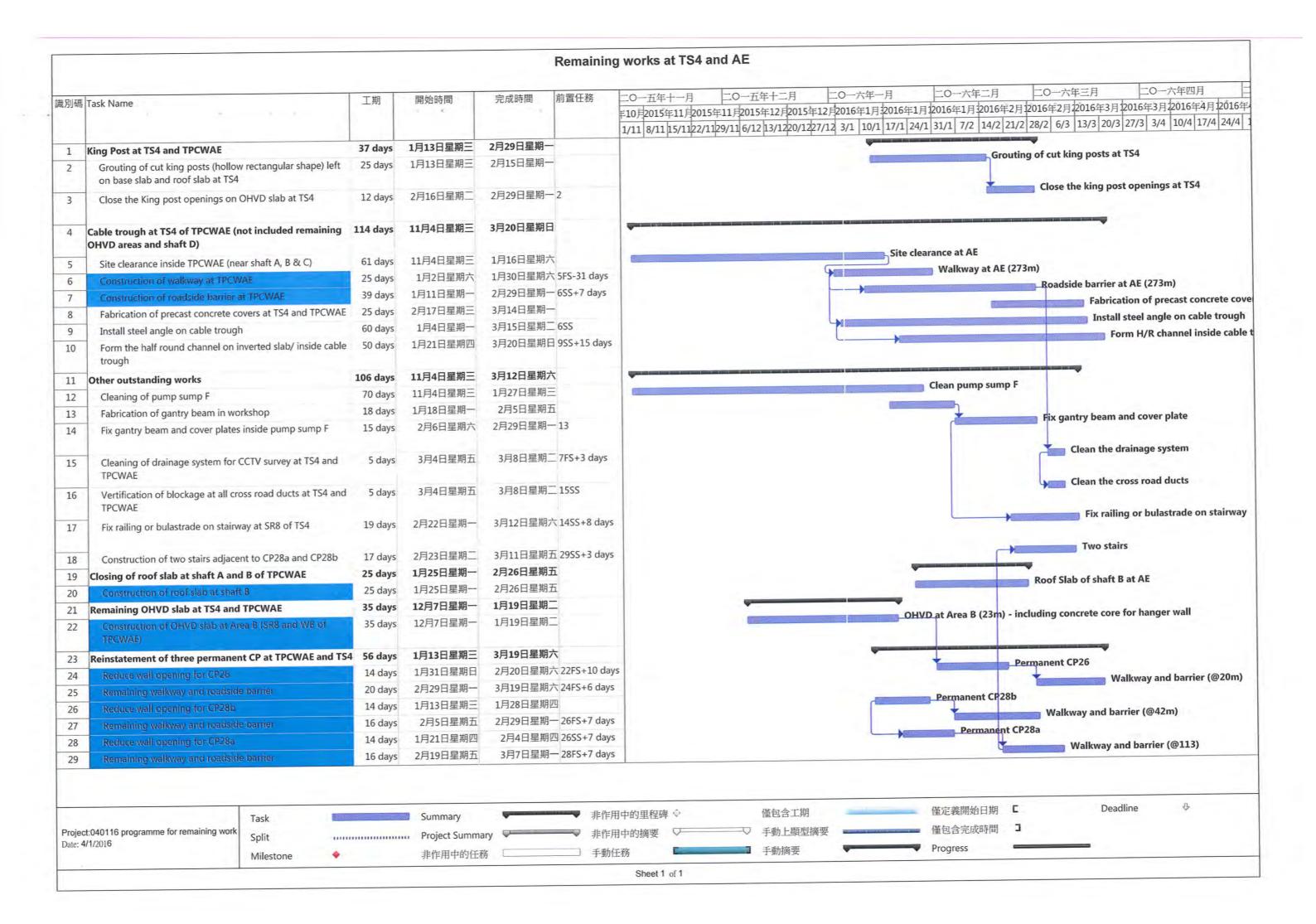
y ID Activity Name	emainir Early Sta	ert Early Finish	Late Start Late Fir	nish Total Float	2016 February March April
1022.1-3975 Pier 36 - Install Pier Segment - Place Pier Segment	1 11-Feb-	16 11-Feb-16	11-Feb-16 11-Feb	o-16 0	7 24 31 07 14 21 28 06 13 20 27 03 10 17 24 24 24 24 24 24 25 26 27 27 27 27 28 27 28 27 28 27 28 28
1022.1-3985 Pier 36 - Install Pier Segment - Adjust Segment Level and Location	2 12-Feb	-16 13-Feb-16	12-Feb-16 13-Feb	o-16 0	■ Pier 36 - Install Pier Segment - Adjust Segment Level and Location
1022.1-3995 Pier 36 - Install Pier Segment - Grouting the Bearing Upper Plinth	4 15-Feb	-16 18-Feb-16	15-Feb-16 18-Feb	o-16 0	Pier 36 - Install Pier Segment - Grouting the Bearing Upper Plinth
1022.1-4005 Pier 36 - Install Pier Segment - Stressing Nailing	1 19-Feb	-16 19-Feb-16	19-Feb-16 19-Feb	o-16 0	■ Pier 36 - Install Pier Segment - Stressing Nailing
1022.1-4015 Pier 36 - Install MS at Pier 36	1 20-Feb	-16 20-Feb-16	20-Feb-16 20-Feb	o-16 0	Pier 36 - Install MS at Pier 36
1022.1-4025 LG-A Launching - Shift the MS from D12 Right to Left	1 22-Feb	-16 22-Feb-16	22-Feb-16 22-Feb	o-16 0	■ LG-A Launching - Shift the MS from D12 Right to Left
1022.1-4035 LG-A Launching - Deactivate the MS at P34 and Engage FL at F2C/Pier37			23-Feb-16 25-Feb		LG-A Launching - Deactivate the MS at P34 and Engage FL at F2C/Pier37
1022.1-4045 Pier 37 - Install Pier Segment - Place Pier Segment			26-Feb-16 26-Feb		Pier 37 - Install Pier Segment - Place Pier Segment
1022.1-4055 Pier 37 - Install Pier Segment - Adjust Segment Level and Location			29-Feb-16 01-Ma		Pier 37 - Install Pier Segment - Adjust Segment Level and Location
1022.1-4065 Pier 37 - Install Pier Segment - Grouting the Bearing Upper Plinth			02-Mar-16 05-Ma		Pier 37 - Install Pier Segment - Grouting the Bearing Upper Plinth
1022.1-4075 Pier 37 - Install Pier Segment - Stressing Nailing			07-Mar-16 07-Ma		Pier 37 - Install Pier Segment - Stressing Nailing
1022.1-4085 Pier 37 - Install MS at F2C/Pier37			08-Mar-16 08-Ma		■ Pier 37 - Install MS at F2C/Pier37
1022.1-4095 Pier 36 - T Span Erection (6 pairs)			27-Feb-16 02-Ma		Pier 36 - T Span Erection (6 pairs)
1022.1-4105 Abut. D12 (MJ Right) - End Span Erection - Hanging Segments			03-Mar-16 05-Ma		Abut. D12 (MJ Right) - End Span Erection - Hanging Segments
			07-Mar-16 08-Ma		Abut. D12 (MJ Right) - End Span Erection - Frect Segments
1022.1-4115 Abut. D12 (MJ Right) - End Span Erection - Erect Segments					, , , , , , , , , , , , , , , , , , , ,
1022.1-4125 Abut. D12 (MJ Right) - End Span Erection - Stitching			09-Mar-16 11-Ma		Abut. D12 (MJ Right) - End Span Erection - Stitching Abut. D12 (MJ Right) - End Span Erection - Formwork Fixing for a
1022.1-4135 Abut. D12 (MJ Right) - End Span Erection - Formwork Fixing for and Grouting for Bearing			09-Mar-16 11-Ma		, 3 , , .
1022.1-4145 Abut. D12 (MJ Right) - End Span Erection - Prestress Span Tendons			12-Mar-16 12-Ma		■ Abut. D12 (MJ Right) - End Span Erection - Prestress Span Tenc ■ Abut. D12 (MJ Right) - End Span Erection - Remove Hanger B
1022.1-4155 Abut. D12 (MJ Right) - End Span Erection - Remove Hanger Bar & Hanger Beam & Stitching Formwork			14-Mar-16 14-Ma		■ Abut. D12 (MJ Right) - End Span Erection - Remove Hanger I ■ Pier 37 - T Span Erection (3 pairs)
1022.1-4165 Pier 37 - T Span Erection (3 pairs)			09-Mar-16 10-Ma		Pier 37 - T Span Erection (3 pairs) LG-A Launching - Deactivate the MS at D12 and Engage FL
1022.1-4175 LG-A Launching - Deactivate the MS at D12 and Engage FL at F3C/Pier38			11-Mar-16 14-Ma		
1022.1-4185 Pier 38 - Install Pier Segment - Place Pier Segment	2 15-Mar	-16 16-Mar-16	15-Mar-16 16-Ma	r-16 0	■ Pier 38 - Install Pier Segment - Place Pier Segment
1022.1-4195 Pier 38 - Install Pier Segment - Adjust Segment Level and Location	4 17-Mar	-16 21-Mar-16	17-Mar-16 21-Ma	r-16 0	Pier 38 - Install Pier Segment - Adjust Segment Leve
1022.1-4205 Pier 38 - Install Pier Segment - Install the Tie & Packing System	1 22-Mar	-16 22-Mar-16	22-Mar-16 22-Ma	r-16 0	Pier 38 - Install Pier Segment - Install the Tie & Pac
1022.1-4215 Pier 38 - Install MS at F3C/Pier38 (Left)	1 23-Mar	-16 23-Mar-16	23-Mar-16 23-Ma	r-16 0	■ Pier 38 - Install MS at F3C/Pier38 (Left)
1022.1-4225 Pier 37 - T Span Erection (2 pairs)	1 17-Mar	-16 17-Mar-16	17-Mar-16 17-Ma	r-16 0	■ Pier 37 - T Span Erection (2 pairs)
1022.1-4235 LG-A Launching - Deactivate the MS at F1C and Engage FL at F4C/Pier39	3 18-Mar	-16 21-Mar-16	18-Mar-16 21-Ma	r-16 0	LG-A Launching - Deactivate the MS at F1C and En
1022.1-4240 Prestress Extenral Tendon of Bridge F1C	13 05-Apr-	16 19-Apr-16	14-Jun-16 28-Jur	n-16 59	Prestress Extremediate Prestress Extremediat
Bridge F2C 1022.1-4255 Pier 39 - Install Pier Segment - Place Pier Segment	1 22-Mar	-16 22-Mar-16	22-Mar-16 22-Ma	r-16 0	■ Pier 39 - Install Pier Segment - Place Pier Segmen
1022.1-4258 Pier 39 - Install Pier Segment - Adjust Segment Level and Location	2 23-Mar	-16 24-Mar-16	23-Mar-16 24-Ma	r-16 0	■ Pier 39 - Install Pier Segment - Adjust Segment
1022.1-4261 Pier 39 - Install Pier Segment - Grouting the Bearing Upper Plinth	4 26-Mar	-16 31-Mar-16	26-Mar-16 31-Ma	r-16 0	Pier 39 - Install Pier Segment - Groutin
1022.1-4264 Pier 39 - Install Pier Segment - Stressing Nailing	1 01-Apr-	16 01-Apr-16	01-Apr-16 01-Apr	r-16 0	Pier 39 - Install Pier Segment - Stress
1022.1-4267 Pier 39 - Install MS at F4C/Pier39	1 02-Apr-	16 02-Apr-16	02-Apr-16 02-Apr	r-16 0	■ Pier 39 - Install MS at F4C/Pier39
1022.1-4270 Bridge F1-F2 T Span Stitching - Install Clamping Beam and Adjust T span (F1-F2)	1 22-Mar	-16 22-Mar-16	08-Jun-16 08-Jur	n-16 64	☐ Bridge F1-F2 T Span Stitching - Install Clamping B
1022.1-4273 Bridge F1-F2 T Span Stitching - Stitching (F1-F2)	2 23-Mar	-16 24-Mar-16	10-Jun-16 11-Jun	ı-16 64	☐ Bridge F1-F2 T Span Stitching - Stitching (F1-F2
1022.1-4276 Bridge F1-F2 T Span Stitching - Prestress Span Tendons (F1-F2)			13-Jun-16 13-Jur		■ Bridge F1-F2 T Span Stitching - Prestress Span
1022.1-4279 Pier 38 - End Span Erection - Hanging Segments	2 23-Mar	-16 24-Mar-16	23-Mar-16 24-Ma	r-16 0	■ Pier 38 - End Span Erection - Hanging Segmen
1022.1-4282 Pier 38 - End Span Erection - Erect Segments			26-Mar-16 26-Ma		Pier 38 - End Span Erection - Erect Segment
1022.1-4285 Pier 38 - End Span Erection - Stitching			29-Mar-16 31-Ma		Pier 38 - End Span Erection - Stitching
1022.1-4288 Pier 38 - End Span Erection - Formwork Fixing for and Grouting for Bearing			29-Mar-16 31-Ma		■ Pier 38 - End Span Erection - Formwo
1022.1-4291 Pier 38 - End Span Erection - Prestress Span Tendons			01-Apr-16 01-Apr		■ Pier 38 - End Span Erection - Prestre
		•	02-Apr-16 02-Apr		Pier 38 - End Span Erection - Rem
1022 1-4294 Pier 38 - End Span Frection - Remove Hanger Bar & Hanger Beam & Stitching Formwork	1 \02_Apr		102 API-10 UZ-API	10 0	'
1022.1-4294 Pier 38 - End Span Erection - Remove Hanger Bar & Hanger Beam & Stitching Formwork	· ·	•	05-Δpr-16 05-Δpr	-16 0	
1022.1-4297 LG-A Launching - Shift the MS from F3C/Pier38 Right to Left	1 05-Apr-	16 05-Apr-16	05-Apr-16 05-Apr		
1022.1-4297 LG-A Launching - Shift the MS from F3C/Pier38 Right to Left 1022.1-4300 LG-A Launching - Deactivate the MS at F2C/Pier37 and Engage FL at F5C/Pier40	1 05-Apr-	16 05-Apr-16 16 08-Apr-16	06-Apr-16 08-Apr	r-16 0	LG-ALaunching - Deactiva
1022.1-4297 LG-A Launching - Shift the MS from F3C/Pier38 Right to Left 1022.1-4300 LG-A Launching - Deactivate the MS at F2C/Pier37 and Engage FL at F5C/Pier40 1022.1-4303 Pier 40 - Install Pier Segment - Place Pier Segment (2nos.)	1 05-Apr- 3 06-Apr- 2 09-Apr-	16 05-Apr-16 16 08-Apr-16 16 11-Apr-16	06-Apr-16 08-Apr 09-Apr-16 11-Apr	r-16 0	LG-ALaunching - Deactiva
1022.1-4297 LG-A Launching - Shift the MS from F3C/Pier38 Right to Left 1022.1-4300 LG-A Launching - Deactivate the MS at F2C/Pier37 and Engage FL at F5C/Pier40	1 05-Apr- 3 06-Apr- 2 09-Apr-	16 05-Apr-16 16 08-Apr-16 16 11-Apr-16	06-Apr-16 08-Apr	r-16 0	LG-A Launching - Deactiva
1022.1-4297 LG-A Launching - Shift the MS from F3C/Pier38 Right to Left 1022.1-4300 LG-A Launching - Deactivate the MS at F2C/Pier37 and Engage FL at F5C/Pier40 1022.1-4303 Pier 40 - Install Pier Segment - Place Pier Segment (2nos.) 1022.1-4306 Pier 40 - Install Pier Segment - Adjust Segment Level and Location	1 05-Apr- 3 06-Apr- 2 09-Apr-	16 05-Apr-16 16 08-Apr-16 16 11-Apr-16	06-Apr-16 08-Apr 09-Apr-16 11-Apr	r-16 0	LG-A Launching - Deactival
1022.1-4297 LG-A Launching - Shift the MS from F3C/Pier38 Right to Left 1022.1-4300 LG-A Launching - Deactivate the MS at F2C/Pier37 and Engage FL at F5C/Pier40 1022.1-4303 Pier 40 - Install Pier Segment - Place Pier Segment (2nos.) 1022.1-4306 Pier 40 - Install Pier Segment - Adjust Segment Level and Location Remaining Level of Effort ◆ Milestone	1 05-Apr- 3 06-Apr- 2 09-Apr-	16 05-Apr-16 16 08-Apr-16 16 11-Apr-16 16 15-Apr-16	06-Apr-16 08-Apr 09-Apr-16 11-Apr 12-Apr-16 15-Apr	r-16 0 r-16 0 r-16 0	LG-A Launching - Deactival
1022.1-4297 LG-A Launching - Shift the MS from F3C/Pier38 Right to Left 1022.1-4300 LG-A Launching - Deactivate the MS at F2C/Pier37 and Engage FL at F5C/Pier40 1022.1-4303 Pier 40 - Install Pier Segment - Place Pier Segment (2nos.) 1022.1-4306 Pier 40 - Install Pier Segment - Adjust Segment Level and Location	1 05-Apr- 3 06-Apr- 2 09-Apr-	16 05-Apr-16 16 08-Apr-16 16 11-Apr-16 16 15-Apr-16	06-Apr-16 08-Apr 09-Apr-16 11-Apr	r-16 0 r-16 0 r-16 0	LG-ALaunching - Shift the MS fi LG-ALaunching - Deactivat Pier 40 - Install Pier Seg Pier 40 - Install Pier

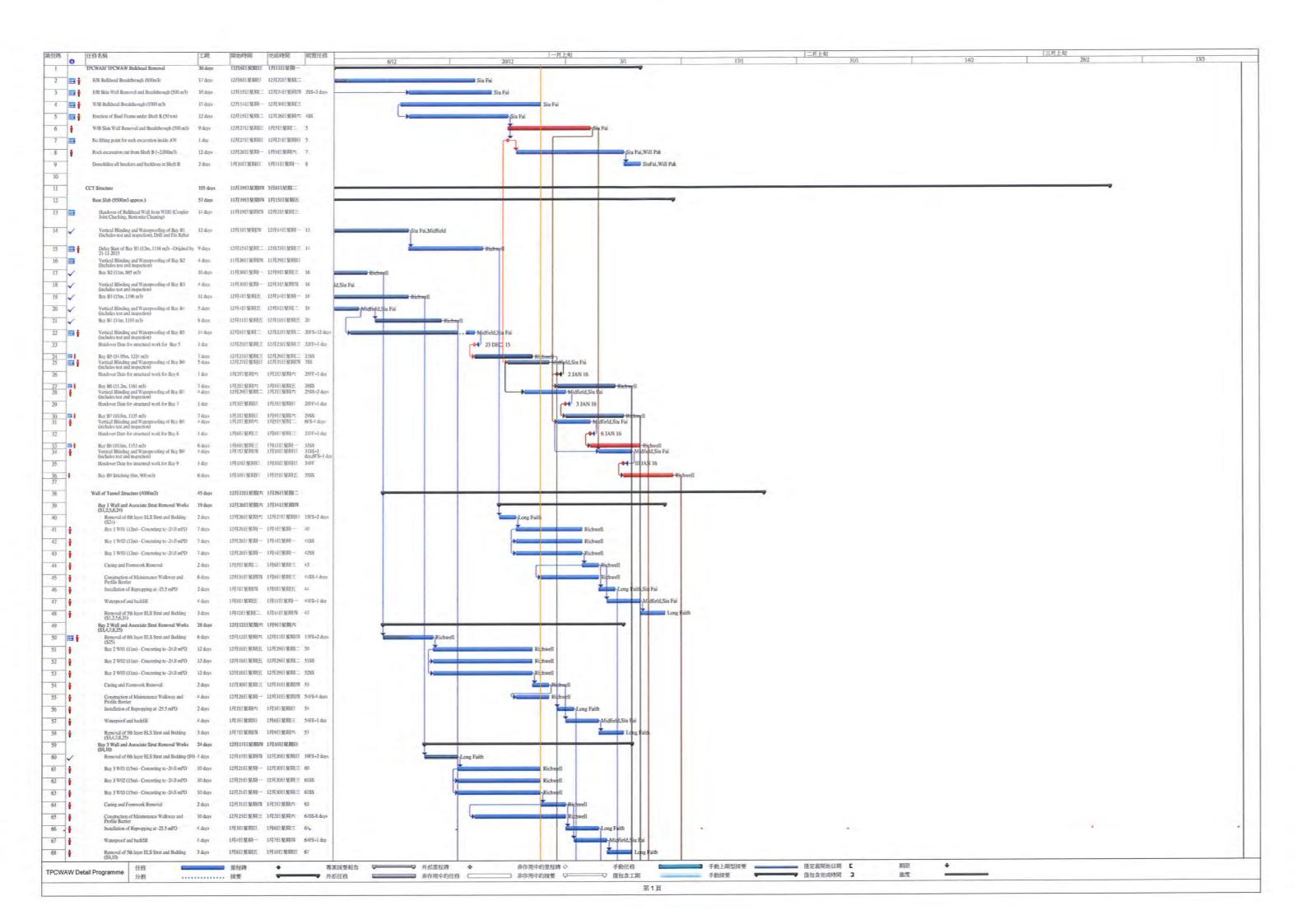
Critical Remaining Work

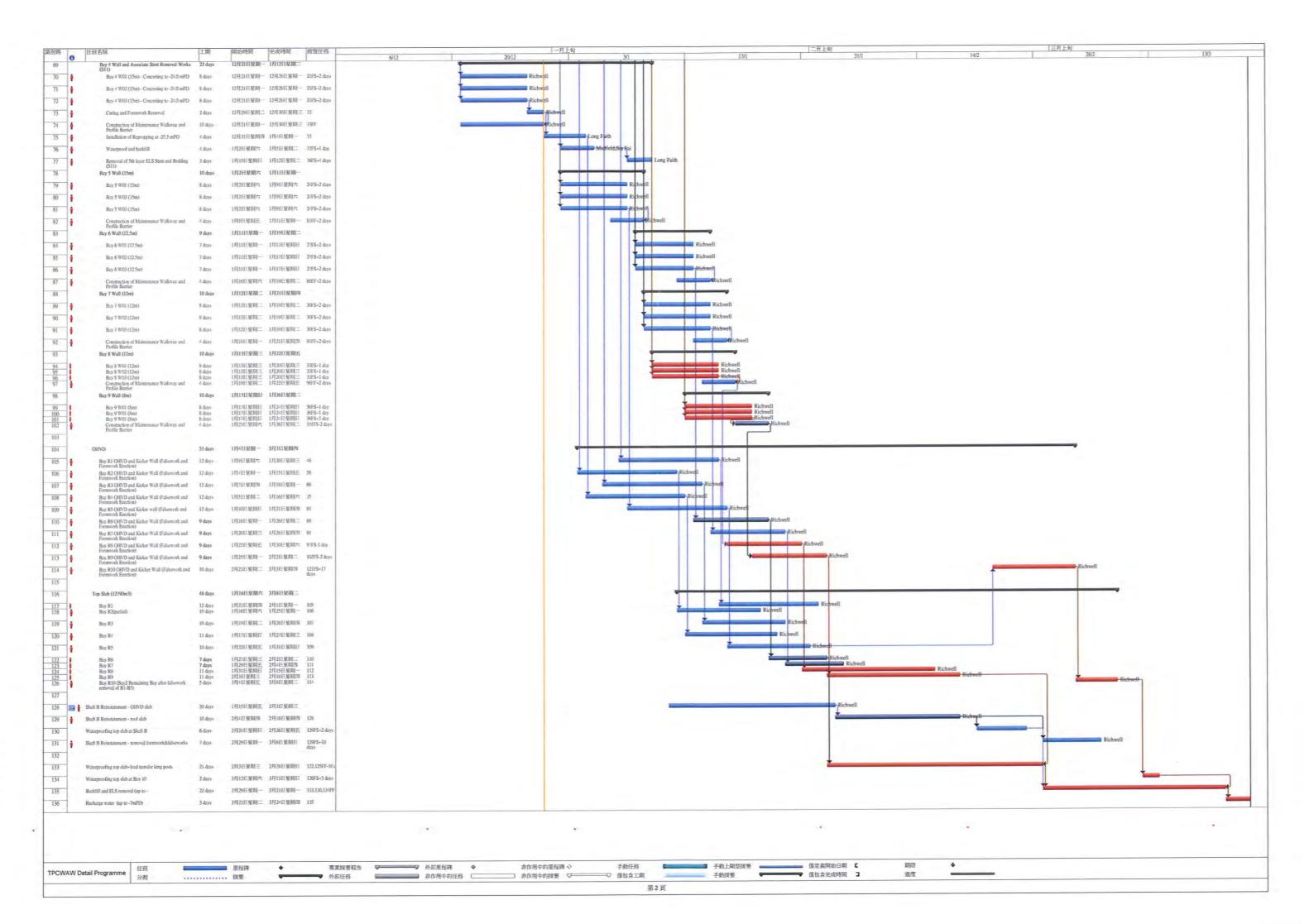












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CEDD CONTRACT HK/2009/02

CEDD CONTRACT HK/2009/02

		On	Dur	Actual Start	Actual Finish		2015	2016
			400	The second second			Dec	Jan Feb Mar Apr
S9B-T34-B3-1020	Base Slab - Rebar Fixing	7		08-Feb-16	14-Feb-16	-680 Calandar Day		Base Slab - Rebar Fixing, Base Slab - Reber Fixing
98-T34-B3-1030	Base Slab - Concrete			15-Feb-16	15-Feb-16	-662 Calendar Day		Base Slab - Concrete, Base Slab - Concrete
S9B-T34-B3-1040	Base Slab - Curing			16-Feb-16	19-Feb-16	-662 Calandar Day		Base Stab - Curing, Base Stab - Curing
S9B-T34-B3-1150	Wall (Middle) - Rebar Fixing & Working Platform		4	15-Mar-16	18-Mar-16	-657 Calendar Day		Wall (Middle) + Rebar Fixing & Warking
598-T34-84-1000	Base Stati - Trim Bored Pile & Blinding	7	7	11-Feb-16	17-Feb-16	-677 Calendar Day		Base Slab + Trim Bored Pile & Blinding, Base Slab - Trim Bored Pile & Blindi
S9B-T34-B4-1010	Base Statt - Waterproofing	4	4	18-Feb-16	21-Feb-16	-677 Calendar Day		Base Slab - Waterproofing, Base Slab - Waterproofing
S9B-T34-B4-1020	Base Slab - Rebar Fixing	7		25-Feb-16	02-Mar-16	-680 Calendar Day		Base Stab - Rebar Fixing, Base Stab - Rebar Fixing
S9B-T34-B4-1030	Base Slab - Concrete	1	1	03-Mar-16	03-Mar-16	-679 Calendar Day		Base Sleb - Concrete, Base Slab - Concrete
59B-T34-B4-1040	Base Slab - Curing	4		04-Mar-15	07-Mar-16	-679 Calendar Day		Base Stab - Curing, Base Stab - Curing
lay 5								
S9B-734-85-1000	Base Slab - Trim Borad Pile & Blinding	7		16-Feb-16	23-Feb-16	-668 Calendar Day		Base Slab - Trim Bored Pile & Brinding, Base Slab - Trim Bored Pile
S9B-T34-B5-1010	Base Steb - Waterproofing	14.	4	23-Feb-18	27-Feb-16	-668 Calendar Day		Base Stab - Waterproofing, Base Stab - Waterproofing
S9B-T34-86-1000	Base Slab - Trim Bored PAs & Blinding	7	7	26-Feb-16	04-Mar-18	-666 Calendar Day		Base Stab - Trim Bored Pile & Blinding, Base Stab - Trim
S98-T34-86-1010	Base Stab - Waterproofing	4	4	04-Mar-16	08-Mar-16	-665 Calendar Day		Base Stab - Waterproofing, Base Stab - Waterproof
S9B-T34-B7-1000	Base Slab - Trim Bored Pile & Blinding	7	7	13-Feb-16	20-Feb-16	-672 Calendar Day		Base Stab - Trim Bored Pile & Blinding, Base Stab - Trim Bored Pile & B
598-T34-87-1010	Base Slab - Waterproofing	4		20-Feb-16	24-Feb-16	-672 Calendar Day		Base Slab - Waterproofing, Base Slab - Waterproofing
S9B-T34-B7-1020	Base Slab - Rebar Fixing	7		03-Mar-16	09-Mar-16	-680 Calendar Day		Base Slab - Rebat Fixing, Base Slab - Rebat Fixing
ay B								
S98-T34-B8-1000	Base Slab - Trim Bored Pile & Blinding	7		19-Feb-16	26+Feb-16	-566. Calendar Day		Base Slatt - Trim Bored Pile & Birnding, Base Slatt - Trim Bored
S98-T34-B8-1010	Base Slab - Waterproofing	4	4	26-Feb-16	01-Mar-16	-565 Calendar Day		Base Slab - Waterproofing Base Stab - Waterproofing
S98-T34-B9-1000	Base Stab - Trim Bored Pile & Blinding	7	7	04-Mar-16	11-Ma/-16	-665 Calendar Day		Base Slab - Tem Bond Pile & Bleding, Base S
S98-T34-B9-1010	Base Slab - Waterproofing	4		11-Mar-16	15-Mar-16	-665 Calendar Day		Base Slab - Waterproofing, Base Slab - W
ay 10				-	-			
S98-T34-B10-1000	Base Stab - Trim Bored Pile & Blinding	1	7	15-Mar-16	22-Mar-16	-666 Galendar Day		Base Stab - Trim Bored Pile & Blir
S98-T34-B11-1000	Base Slab - Trim Bored Pile & Blinding	7	7	08-Mar-16	15-Mar-16	-666 Calendar Day		Base State - Trim Bornd Pile & Blinding, Ba
598-T34-B11-1010	Base Slab - Waterproofing	4	4	15-Mur-18	19-Mar-16	-664 Calendar Day		Base Stab - Waterproofing, Base Stat
lay 13			_	12 5 4 10	20 505 10	and Colored Day		Base Slab - Trim Bored Pile & Blinding, Base Slab - Trim Bored Pile & B
59B-T34-B13-1000	Base Slab - Trim Bored Pile & Blinding		. 4	13-Feb-16 20-Feb-16	20-Feb-16 24-Feb-16	-623 Calendar Day -623 Calendar Day		Base Slab - Waterproofing, Base Slab - Waterproofing
S98-T34-B13-1010	Base Slab - Waterproofing			24-Feb-16	02-Mar-16	The second secon		
S9B-T34-B13-1020	Base Slab - Rebar Fixing	1			AM - 1100 - 140	-823 Calendar Day		Base Slab - Rebar Fixing, Base Slab - Rebar Fixing
\$98-T34-B13-1030	Base Stab - Concrete	1		02-Mar-16 03-Mar-16	03-Mar-16 07-Mar-16	-623 Calendar Day -623 Calendar Day		Base Slab - Concrete Base Slab - Concrete Base Slab - Curing Base Slab - Curing
S98-T34-B13-1040	Base Siab - Curing	- 1	-	U3-Mar-16	Ur-Mar-16	-623 Calendar Day		Base Slab - Curing, Base Slab - Curing
S98-T34-814-0990	Base Stab - Trim Bored Pile & Blinding	7	7	20-Feb-16	27-Feb-16	-606. Calendar Day		Base Slab - Trim Bored Pile & Blinding, Base Slab - Trim Bored
S9B-T34-B14-1000	Base Stab - Waterproofing	4	- 4	29-Feb-16	04-Mar-18	-602 Calendar Day		Base Slab - Waterproofing, Base Slab - Waterproofing
S98-T34-B14-1010	Base Slab - Rebar Fixing	10	10	04-Mar-16	14-Mar-16	-594 Calendar Day		Base Slab - Rebar Fixing, Base Slab - Rebar
S9B-T34-B15-0990	Base Stab - Trim Bored Pile & Blinding	,	-	27-Feb-15	05-Mar-16	-606 Calendar Day		Base Slab - Trim Bored Pile & Blinding, Base Slab - Tr
598-T34-B15-1000	Base Slab - Waterproofing	4		05-Mar-16	09-Mar-16	-803 Calendar Day		Base Stab - Waterproofing, Base Stab - Waterpro
S9B-T34-B15-1010	Base Stati - Rebar Fixing	7		09-Mar-16	16-Mar-16	-598 Calendar Day		Base Slab - Rebay Fixing, Base Slab - Re
598-134-B15-1010	base stad - Repair Fixing		_	109-Mail+16	(0-Milit-10)	-596 Calendar Day		Data and - Legal Local Data and - u
S9B-T34-B16-0990	Base Slab - Trim Bored Pile & Blinding	7	7	05-Mar-16	12-Mar-16	+606 Calendar Day		Base Slab - Trim Bonid Pile & Blinding, Base
S9B-T34-B16-1000	Base Slab - Waterproofing	X.	4	12-Mar-16	16-Mar-16	-606 Calendar Day		Base Slab - Waterproofing, Base Slab -
S9B-T34-B16-1010	Base Slab - Regar Fixing	10	10	16-Mar-16	26-Mar+16	-606 Calendar Day		Base Slab - Rebar Fiving, B
Bay 17								And the second s
S98-T34-B17-0990	Base Slab - Trim Bored Pile & Blinding	1		20-Feb-16	27-Feb-16	-599 Calendar Day		Base Slab - Trim Bored Pile & Brinding Base Slab - Trim Borel
S98-T34-B17-1000	Base Slab - Waterproofing	4		27-Feb-16	02-Mar-16	-589 Calendar Day		Base Slab - Waterproofing, Base Slab - Waterproofing
S98-T34-817-1010	Base Slab - Reber Fixing	7		02-Mar-16	09-Mar-16	-589 Calendar Day		Base Slab - Rebar Fixing, Base Slab - Rebar Fix
S9B-T34-B17-1020	Base Stab - Concrete		- 1	09-Mar-16	10-Mar-16	-589 Calendar Day		Base Slab - Concrete
S9B-T34-B18-1000	Base Slap - Trim Bored Pile & Blinding	8	5	27-Feb-16	03-Mar-16	-599 Calendar Day		Base Slab - Tem Bored Pile & Blinding, Base Slab - Tem
	Base Slab - Waterproofing	3		03-Mar-16	06-Mar-16	ACCOUNT OF THE PARTY OF THE PAR		

Critical Milestones
 Current Works
 Critical Works

CHUN WO - CRGL JOINT VENTURE CEDD CONTRACT NO. HK/2009/02

WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Dec-15)

20-Dec-15		2000
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CEDD CONTRACT HK/2009/02

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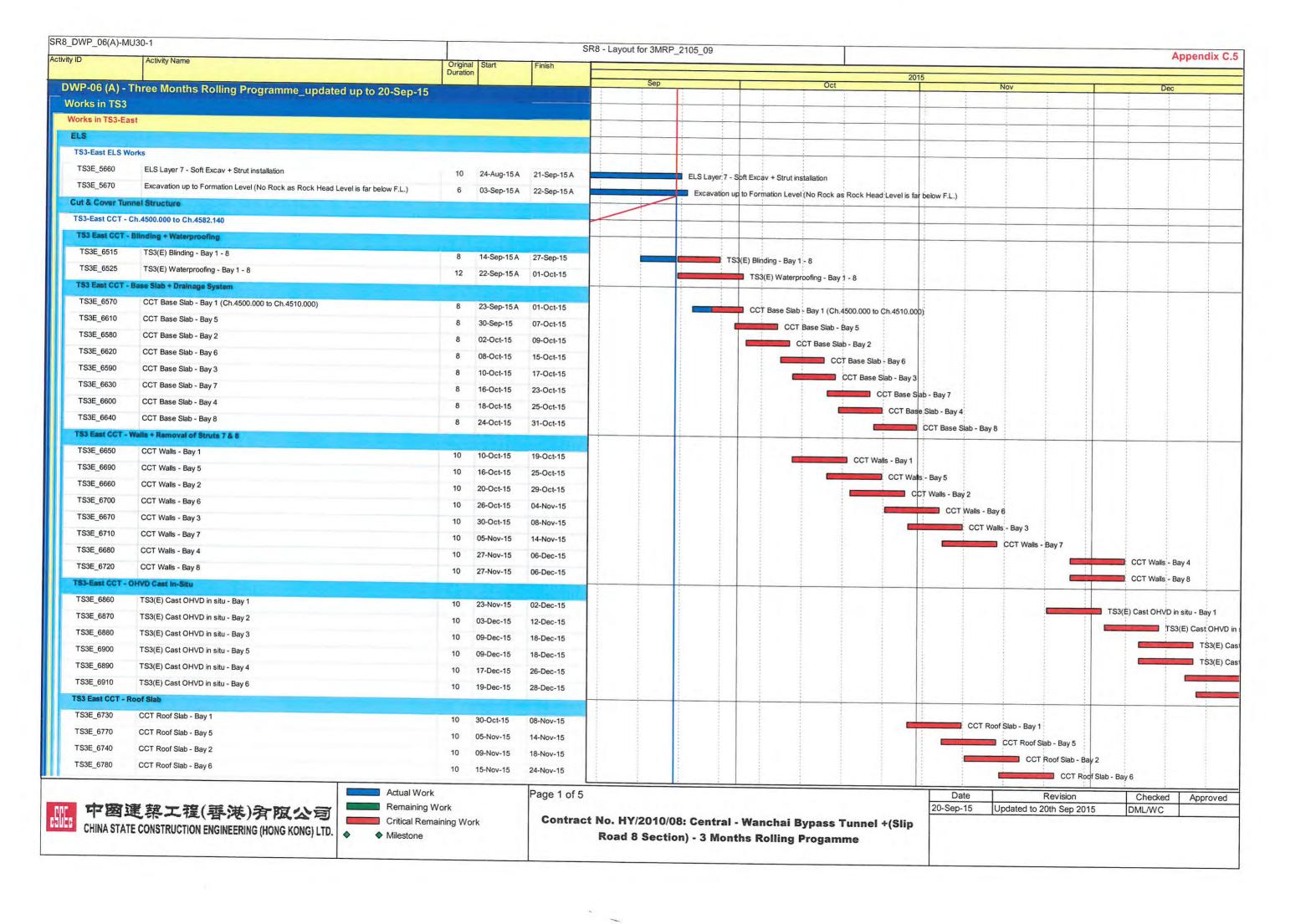
Ivity ID	Activity Name	On	Rem	Scheduled/ Actual Start	Scheduled/	Total Float Calendar	2015				
		Dur	Dur	Actus Start	Actual Finish		Dec	280	Feb	2016 Mar	Apr
S98-T34-B18-1020	Base Slab - Rebar Fixing	7	7	06-Mar-16	13-Mar-16	-599 Calendar Day	500	407	7.60	Base Slab - Rebu	Fixing, Base Slab - Reber Fi
Section 10 Works	- CWB Tunnel Structure (CH3246 - CH3400)										
Tunnel Portion 5 (C	H3276-GH3400)										
\$10-75-0900	Si for Bored Piling works	53	7	02-Nov-15 A	30-Dec-15	-537 HK Working Day		St for Bored Piling works	St for Bored Plang works		
S10-T5-1000	Plant Setup, Guidewall, Critical Pre-Drilling & Ground Treatment for D-Walt Construction f.	36	36	21-Dec-15	10-Feb-16	-804 HK Working Day			Plant Setup, Gu	idewall, Critical Pre-Drilling & Ground Trea	tment for D-Wall Construction
\$10-75-1005	Mobilisation for Bored Pilling	11	0	13-Nov-15 A	15-Dec-15 A	HK Working Day	Mo	Itsation for Bored Pilling		The second secon	
S10-T5-1010	Tunnel Portion 5 Stage 1 D-wall (29 nos. Panels; 7d/panel; 3G+1C)	58	58	27-Jan-18	07-Apr-16	-604 HK Working Day		- 74			Tunnel Partion 5
S10-T5-1030	Tunnel Portion & Stage 1 Bored Pile + 15nr. (3 sets @ 14d/pile)	58	26	17-Nov-15 A	29-Jan-16	-583 HK Working Day			Tunnel Portion 5 Stage 1 Bore	d Pile - 15nr. (3 sets @ 14d/pile). Tunnel P	odion 5 Stage 1 Bored Pile -
\$10-75-1050	Tunnel Portion 5 Stage Z Bored Pile - 14nr. (3 sets @ 14drpte)	58	58	30-Jan-16	11-Apr-16	-583 HK Working Day					Tunnel Port
Section 11 of the	Works - Remainder of Works										
Marine Works at WO	DR3										
S11-R3-1410	Demolition of Remaining Ferry Pier	1.7	0	04-Dec-15 A	08-Dec-15 A	Calendar Day	Demolition of	Remaining Ferry Pier			
S11-R3-1820	Type A Fill Stage 2 from (6.0mPD behind Caisson Seawats (2.000m3)	9	0	02-Nov-15 A	21-Nov-15 A	Calendar Day	ype A Fill Stage 2 from -6.0mPt	behind Calisson Seawal's (2,000m3)			
S11-R3-1840	Placing Geoteville and Filter Stage 2 from -6.0mPD (1,000m3)	9	0	05-Nov-15 A	25-Nov-15 A	Calendar Day	Placing Geotexile and Filter	Stage 2 from -6,0mPD (1,000m3)			
S11-R3-1900	2nd Stage Reclamation from -7.0mPD to +2.5mPD (75,000m3 @ 1000m3/a)	71	0	01-Nov-15 A	04-Dec-15 A	Calendar Day	2nd Stage Recia	nation from -7 0mPD to +2.5mPD (75,000m	n3 @ 1000m3/d)		
\$11-R3-2000	Remaining Reclamation to *4,0mPD (25000m3 @ 1000m3/d)	22	22	24-Nov-15 A	11-Jan-16	-754 Calendar Day		Remaining F	teclamation to +4,0mPD (25000m3 @ 10	000m3/d). Remaining Reclamation to +4.0s	nPD (25000m3 @ 1000m3/d)
Formation and Hare	Landscaping Works										1
S11+FM+2000A	Tuttnet Portion 2 Backfilling (35,000m3; 750m3/d)	77	22	25-Sep-15-A	19-Jan-16	-79 Calendar Day		Ti	onnel Ponton 2 Backfilling (35,000m3; 750	0m3/d), Tunnel Portion 2 Backfilling (35.00	0m3: 750m3/d)
S11-FM-2000B	Completion of Tunnel Porton 2 Backfilling	0	0		19-Jan-16	-56 Calendar Day		• 0	empletion of Tunnel Portion 2 Backfilling	Company of the Compan	C. Injustice of
Soft Landscaping	& Establishment Works							1			
Section 8D of the W	orks - Establishment Works in Area 8										
58D-0010	Carry out establishment work on new ferry pier	288	224	28-Aug-15 A	27-Aug-16	-2 7-Day Workweek					

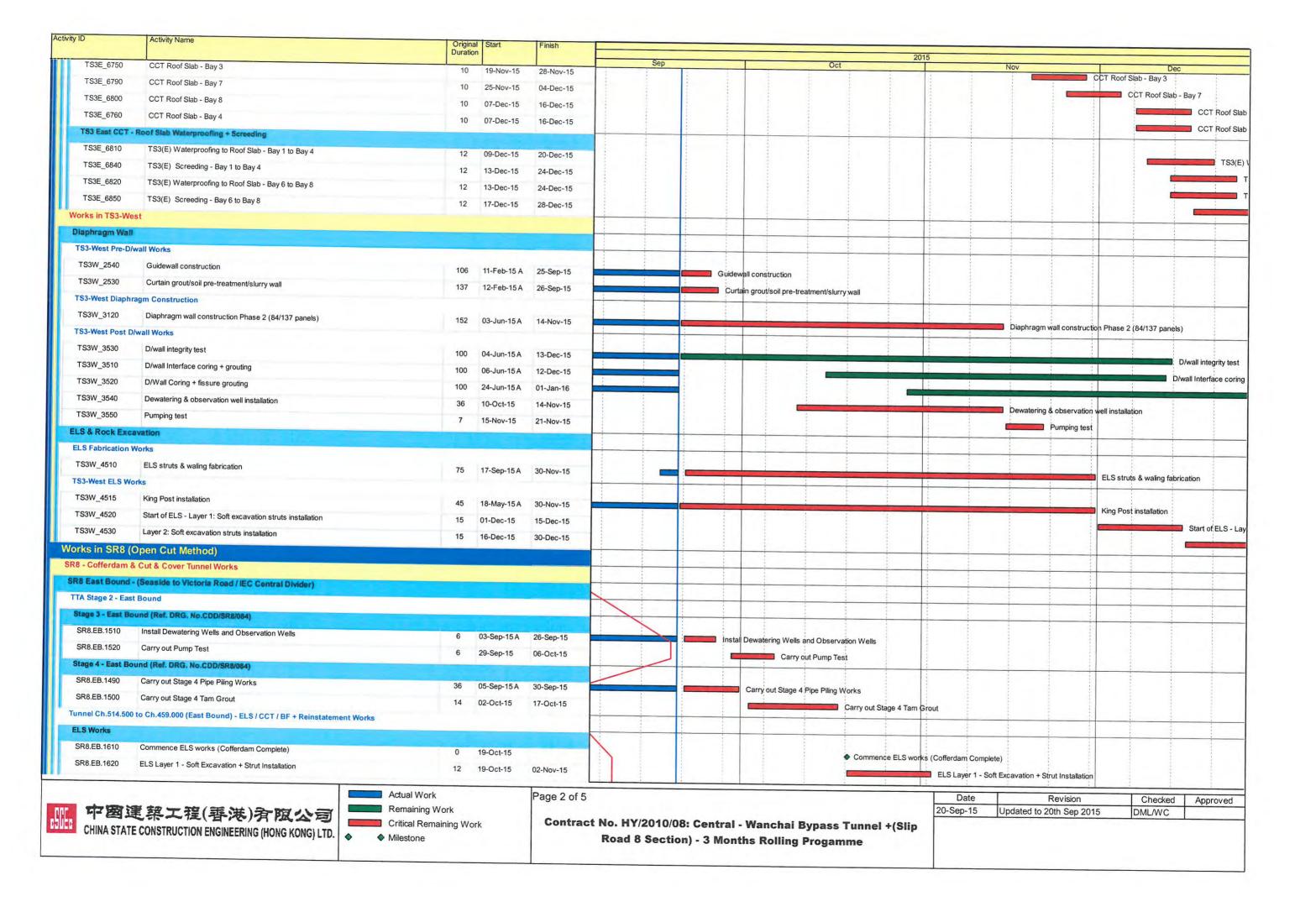
Milestone
 Critical Milestones
 Current Works
 Critical Works

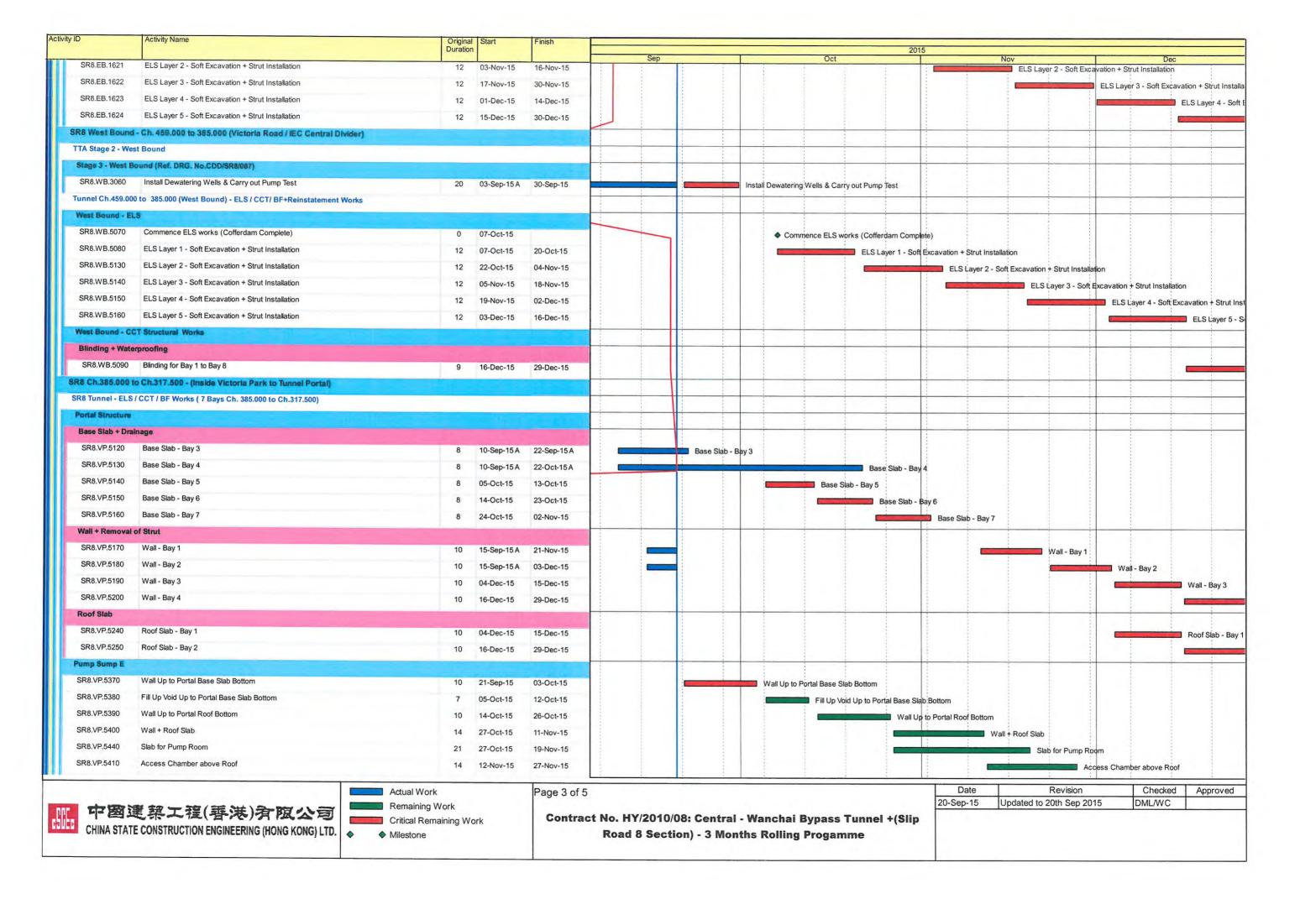
CHUN WO - CRGL JOINT VENTURE CEDD CONTRACT NO. HK/2009/02

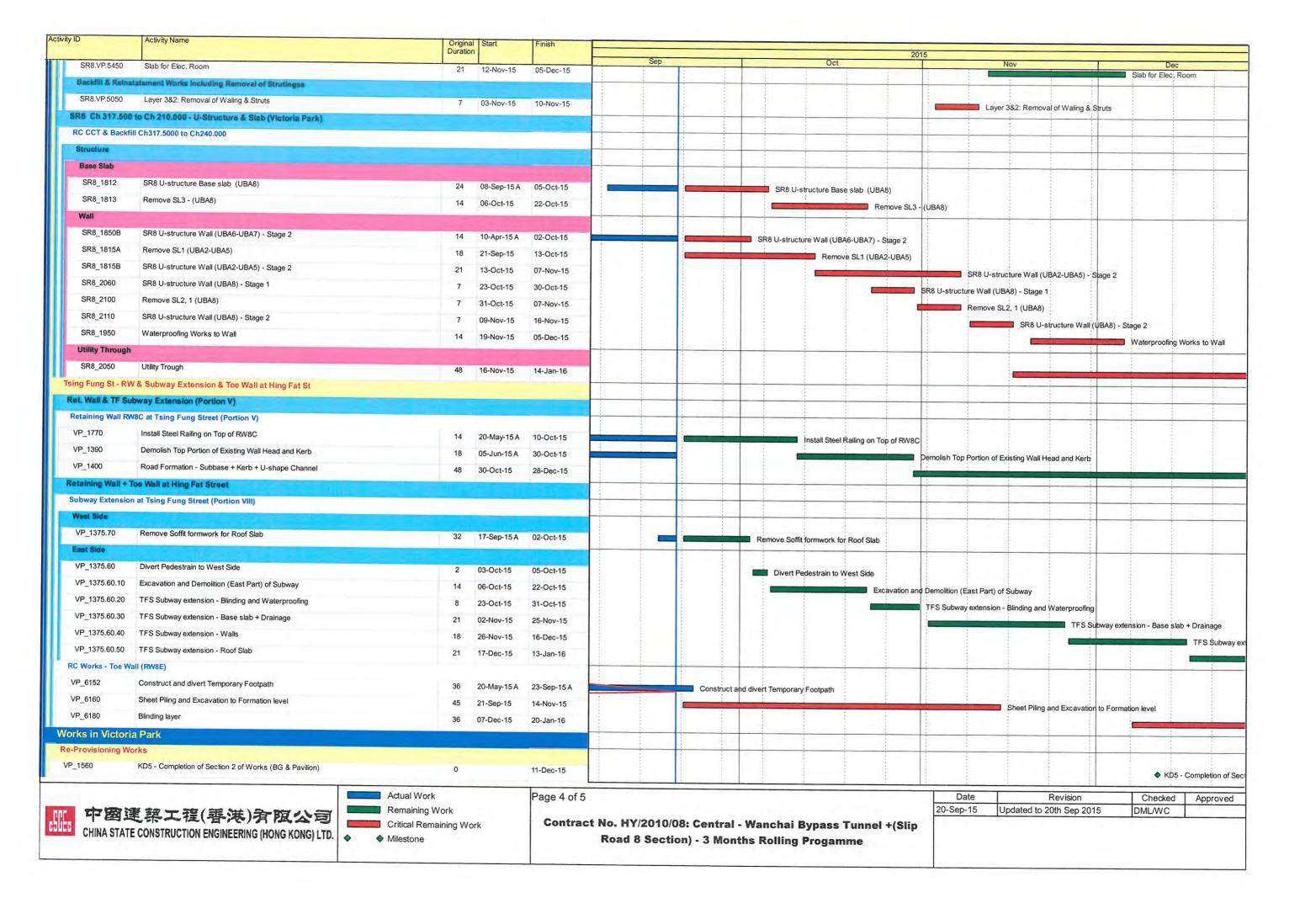
WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Dec-15)

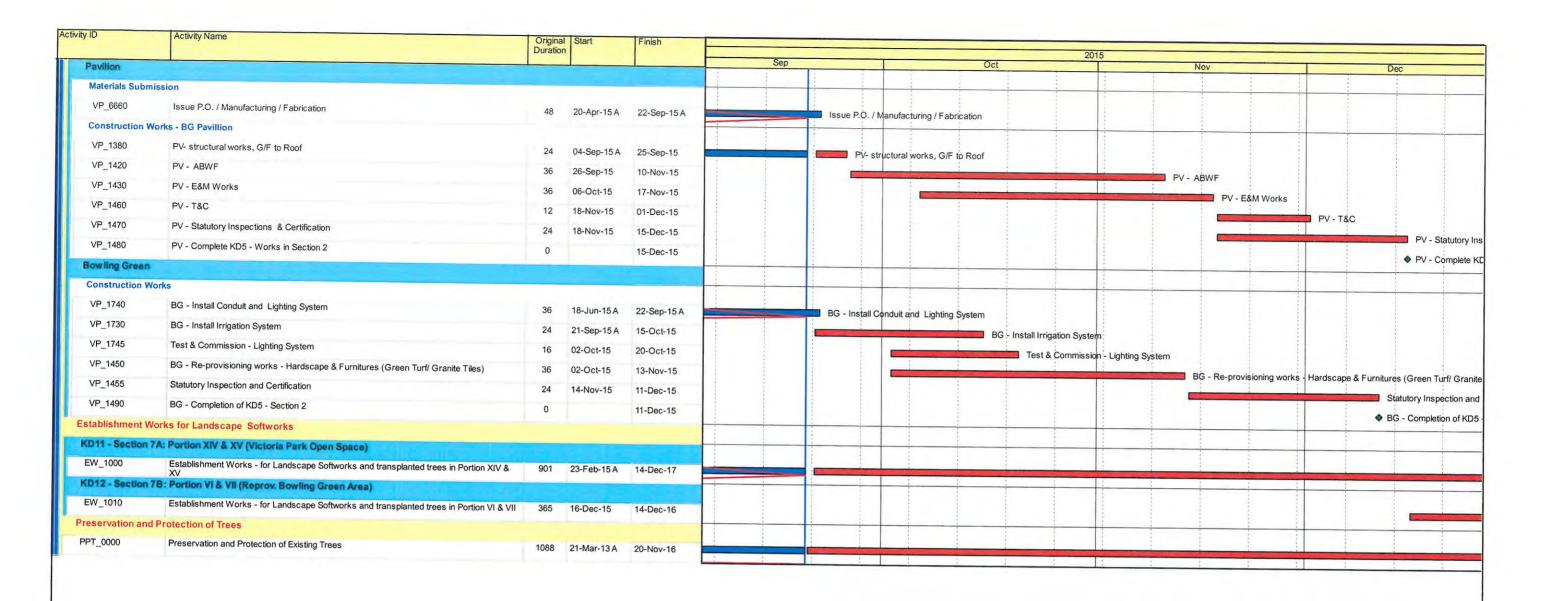
Date	Revision	Checked	Approved
0-Dec-15			



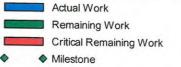












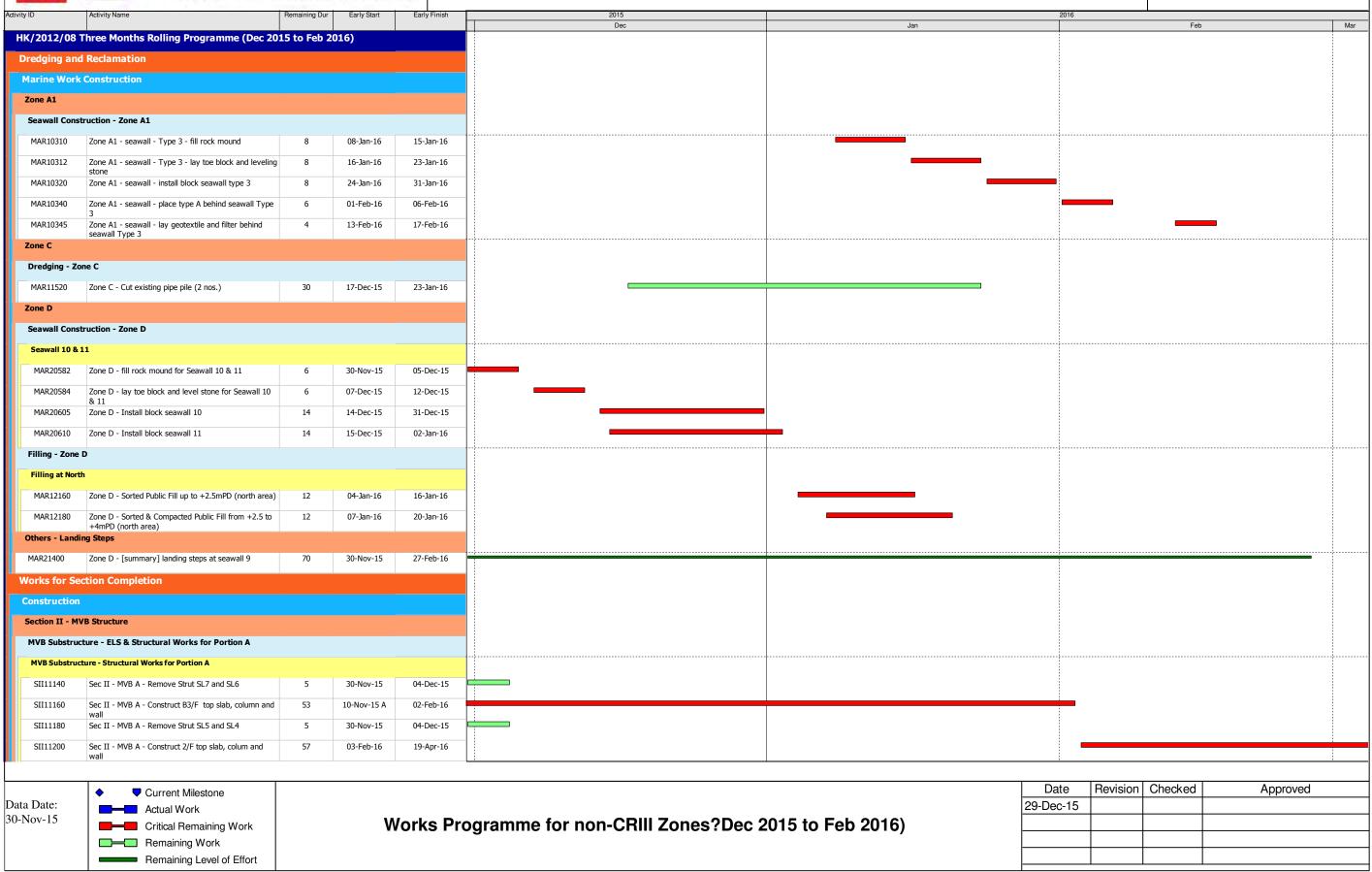
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Contract No. HY/2010/08: Central - Wanchai Bypass Tunnel +(Slip Road 8 Section) - 3 Months Rolling Progamme

Date	Revision	Checked	Approved
20-Sep-15	Updated to 20th Sep 2015	DML/WC	



CEDD Contract No. HK/2012/08 **Wan Chai Development Phase II** Central - Wan Chai Bypass at Wan Chai West Page: 1 / 7





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

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	SIMASIAIL I						iai bypass at waii oii				
Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish		2015 Dec		Jan	2016	Feb	Mar
SII11220	Sec II - MVB A - Remove Strut SL3 and SL2	5	30-Nov-15	04-Dec-15							
SII11280	Sec II - MVB A: Remove Strut SL1	5	30-Nov-15	04-Dec-15							
MVB Substi	ructure - ELS & Structural Works for Portion B										
MVB Substi	ucture - Structural Works for Portion B										
SII11780	Sec II - MVB B: Construct B3/F base slab	6	29-Sep-15 A	05-Dec-15							
SII11800	Sec II - MVB B: Construct B3/F wall, colum & base	64	07-Dec-15	27-Feb-16	1						_
SII11820	slab Sec II - MVB B: remove strut SL8, SL7	5	30-Nov-15	04-Dec-15							
SII11860	Sec II - MVB B: Remove Strut SL6 & SL5	5	30-Nov-15	04-Dec-15							
SII11900	Sec II - MVB B: Remove Strut SL4 & SL3	5	30-Nov-15	04-Dec-15							
SII11940	Sec II - MVB B: Remove Strut SL2	4	30-Nov-15	03-Dec-15							
MVB Substi	ructure - Piling Works										
	bored H Piles										
SII10400	Sec II - MVB C - construct prebored H-piles	37	20-Nov-15 A	14-Jan-16							
	ructure - Diaphragm Wall for Portion C										
	nping Test Preparation/ Pumping Test										
SII10660	Sec II - MVB C - sheetpile wall installation	30	15-Jan-16	24-Feb-16	<u> </u>						
SII10680	Sec II - MVB C - Precaution grout / fissure grout	35	17-Feb-16	28-Mar-16	-						
	- CWB Tunnel & Slip Road Structures and Facilities		1, 100 10	20 1 101 20							
CWB A2(2)											
	- Dwall & Piling										
		22	06 Oct 15 A	24 Dec 15							
SIIA15320			06-Oct-15 A	24-Dec-15							
SIIA15360		57	16-Nov-15 A	06-Feb-16							
SIIA15400		40	03-Dec-15	21-Jan-16							
SIIA15420		15	30-Nov-15	16-Dec-15							
	- Pumping Test Preparation/ Pumping Test										
CWB A2 - F	umping Test Preparation										
	Sec II A - CWB A2 : Install dewatering/ recharging/ observation well	30	17-Dec-15	23-Jan-16							
CWB A2 &											
	Sec II A - CWB A2 : Pumping Test	10	13-Feb-16	24-Feb-16							
CWB A2 (2)	- ELS & Tunnel Structure										
CWB A2 - E	LS										
SIIA12440	Sec II A - CWB A2 : shoring & excavation	31	13-Feb-16	19-Mar-16							
SIIA12445	Sec II A - CWB A2 : demolition of temp bulk head wall at west end	30	15-Feb-16	19-Mar-16							
SIIA12448	Sec IIA - CWB A2 : demolition of temp bulk head wall at East end	30	15-Feb-16	19-Mar-16							
CWB B (& A											
CWB B - Dw	all & Piling										
SIIA11560	Sec II A - CWB B: Concrete Plug (MTR TWL)	15	15-Jun-15 A	16-Dec-15	-						
CWB B - ELS	& Tunnel Structure										
CWB B - EL	s										
SIIA13520	Sec II A - CWB B: Shoring & Excavation	26	22-Oct-15 A	31-Dec-15							



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

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	OIMAOIAIL L					Bypass at Wall Ollai West			
Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2015 Dec	Jan	2016	Feb	Mar
SIIA13540	Sec II A - CWB B: Demolish Sheetpile Bulkhead wall at Concrete Plug	35	30-Nov-15	12-Jan-16					
CWB B - Tur	inel Structure								
SIIA13560	Sec II A - CWB B: base, wall, OHVD & roof (bay 1)	45	02-Jan-16	29-Feb-16					_
SIIA13600	Sec II A - CWB B: base, wall, OHVD & roof (bay 2)	45	20-Jan-16	17-Mar-16					
SIIA13660		45	20-Jan-16	17-Mar-16					
CWB C (W)	, . , . , . , . , . , . , . , . ,								
_	Owall Construction								
		14	16 him 15 A	15 D 15					
SIIA11960		14	16-Jun-15 A	15-Dec-15					
SIIA11980	Sec II A - CWB CW: D-wall contact grout / fissure grout	21	21-Aug-15 A	23-Dec-15					
SIIA12000	Sec II A - CWB CW: Dwall sonic test / interface core	19	17-Aug-15 A	21-Dec-15					
CWB C(W) - I	Pumping Test Preparation/ Pumping Test								
SIIA12020	Sec II A - CWB CW: Install dewatering/ recharging/ observation wells	40	30-Nov-15	18-Jan-16					
SIIA12040	Sec II A - CWB CW: Pumping Test	8	19-Jan-16	26-Jan-16					
CWB C(W) - I	ELS & Tunnel Structure								
CWB C(W) -	ELS								
SIIA12080	Sec II A - CWB CW: Shoring & Excavation	26	30-Nov-15	31-Dec-15					
SIIA12120	Sec II A - CWB CW: Demolish Sheetpile Bulkhead at	26	30-Nov-15	31-Dec-15					
CWB C(W) -	Concrete Plug Tunnel Structure								
	Sec II A - CWB CW: base, wall, OHVD & roof (bay 1)	45	02-Jan-16	29-Feb-16					
	Sec II A - CWB CW: base, wall, OHVD & roof (bay 2)	45	14-Jan-16	11-Mar-16					
CWB C (E)	See IT West ett. Base, Wall, STVD & Tool (Say 2)	15	11 5411 10	11 1101 10					
	Tablica Wade Double Construction								
	nabling Work - Dwall Construction								
	g Work - Dwall Construction								
SIIA13085	Sec II A - CWB CE: Cut existing pipe piles (2 nos.)	30	30-Nov-15	06-Jan-16					
SIIA15520	Sec II - SCL Enabling Works - construct Dwall - Remaining [7 panels]	76	18-Feb-15 A	05-Mar-16					
CWB C(E) - P	umping Test Preparation/ Pumping Test								
SIIA13060	Sec II A - CWB CE: Grout curtain for Dwall	45	25-Jan-16	22-Mar-16					
SIIA13080	Sec II A - CWB CE: Dwall sonic test / interface core	45	25-Jan-16	22-Mar-16					
CWB C(E) - E	LS & Tunnel Structure								
CWB C(E) - I	ils								
SIIA13160	Sec II A - CWB CE: Shoring & Excavation(Uppn	45	30-Nov-15	23-Jan-16					
SIIA13170	Completion of MVB Structure - B2 Slab) Sec II A - CWB CE: Demolish Bulkhead at East End	26	22-Dec-15	23-Jan-16					
SIIA13180	(adj. to bay 1) Sec II A - CWB CE: Demolish Bulkhead at MVB (adj. to	30	17-Dec-15	23-Jan-16					
	bay 3) Funnel Structure								
SIIA13220	Sec II A - CWB CE: base, wall, OHVD & roof (bay 1)	45	25-Jan-16	22-Mar-16					
	Sec II A - CWB CE: base, wall, OHVD & roof (bay 2)	45	17-Feb-16	13-Apr-16					
	Sec II A - CWB CE: base, wall, OHVD & roof (bay 3)	45	17-Feb-16	13-Apr-16					
CWB C - Exh	aust Duct								
CWB C - Exha	aust Duct Piling								
SIIA12840	Sec II A - Exhaust Duct at Slip Rd3: Prebored H-pile	32	30-Nov-15	08-Jan-16					
					L -	<u> </u>	; 		



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	OI MA OIAIL				Ochtrar - Wan Onar Dypass at Wan Onar West	
Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2015 2016 Dec Jan	Feb Mar
SIIA12860	Sec II A - Exhaust Duct at Slip Rd3: Loading Test	21	09-Jan-16	02-Feb-16		
CWB C - Exh	aust Duct Temp Work & ELS					
SIIA12880	Sec II A - Exhaust Duct at Slip Rd3: Temp. Sheetpiling	30	09-Jan-16	18-Feb-16		
SIIA12900	Sec II A - Exhaust Duct at Slip Rd3: Excavation &	35	19-Feb-16	30-Mar-16		
CWB D - Sli	Shoring p Road 1					
CWB D - Slip	Road 1 - Dwall Construction & Piling					
SIIA12340	Sec II A - CWB SR1: Concrete Plug (MTR TWL)	32	12-Aug-15 A	08-Jan-16		
	Road 1 - Pumping Test Preparation/ Pumping Test		.5 .			
SIIA12360		60	30-Nov-15	16-Feb-16		
SIIA12380	Dwall		30-Nov-15	16-Feb-16		
	Sec II A - CWB SR1: Dwall sonic test / interface core					
SIIA12400	Sec II A - CWB SR1: Install dewatering/ recharging/ observation wells	45	31-Dec-15	27-Feb-16		
	Road 1 - ELS & Tunnel Structure					
	p Road 1 - ELS					
SIIA12460	Sec II A - CWB SR1: Shoring & Excavation	37	30-Nov-15	14-Jan-16		
CWB D - Sli	p Road 1 - Tunnel Structure					
SIIA12480	Sec II A - CWB SR1: Demolish Sheetpile Bulkhead at Concrete Plug	45	30-Nov-15	23-Jan-16		
SIIA12500	Sec II A - CWB SR1: base, wall & roof (bay 1)	40	15-Jan-16	07-Mar-16		
SIIA12520	Sec II A - CWB SR1: base, wall & roof (bay 2)	40	27-Jan-16	18-Mar-16		
SIIA12540	Sec II A - CWB SR1: base, wall & roof (bay 3)	40	13-Feb-16	30-Mar-16		
SIIA12560	Sec II A - CWB SR1: base, wall & roof (bay 4)	40	25-Feb-16	15-Apr-16		
CWB D - Sli	p Road 1 - Trough / Retaining Wall					
CWB D - Slip	Road 1 - Trough/Retaining Wall Temp Work & ELS					
SIIA12740	Sec II A - CWB SR1 Trough & RW: Preboring for	14	29-Jan-16	19-Feb-16		
SIIA12760	installing Sheetpile Sec II A - CWB SR1 Trough & RW: install sheetpile	21	20-Feb-16	15-Mar-16		
	Road D11 & Part of Road P2, Area 4, Implement 1s	t Stage ITA				
Roadwork 8		5				
General						
SIII10485	Sec III - 1st Stage of Interim Traffic Arrangement -	16	19-Jan-16	05-Feb-16		
	miscellaneous works		15-Jan-10	05-160-10		
	- Road A2, A4, A5, Area 11; Implement 2nd Stage I	LIA				
	Utilities at A1					
SIIIA10260	to pavement founding level	70	18-Feb-16	16-May-16		
Section VI A	- Box Culvert La, L1 & FRP-L Construction					
Sec VI C - B	ox Culvert La bay 4 (North)					
CUL11660	Sec VI C - Culvert L - bay 4 - backfill	30	30-Nov-15	06-Jan-16		
Box Culvert	L1 & FRP-L Construction (Bay 5 - Bay 7)					
Box Culvert	L1 & FRP-L - Bay 5 to 7 Structure					
Box Culvert	L1 & FRP-L - Precast Unit Fabrication (Box Structure)					
CUL10872		11	29-Jun-15 A	11-Dec-15		
CUL10873		12	12-Dec-15	28-Dec-15		
Box Culvert	formwork and curing for precast culvert units L1 & FRP-L - Bay 5 & 6 Backfill & Others					
	-					<u> </u>



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Section Sect		CHINASTATE - L	LADEN JC	DINT VENTOR		Central - Wan Chai bypass at Wan Chai West		
Column C	ivity ID	Activity Name	Remaining Dur	Early Start	Early Finish		2016	Feb N
Control Cont	CUL10878	Sec VI C - Culvert L - bay 5, 6 - backfill to +4.0mPD	30	22-Oct-15 A	06-Jan-16	Det Jan		reu
March Marc	CUL10879		10	07-Jan-16	18-Jan-16			
Company Comp	Box Culvert I							
Content Cont	CUL11785	Sec VI C - Culvert L - bay 7 - Diversion of flow from	5	15-Feb-16*	19-Feb-16			
Control 1	CUL11800		35	20-Feb-16	31-Mar-16			
Proceedings		·						
Control 1								
Act			20	01 Dec 15*	07 lon 16			
Control		& PC11)	30	01-Dec-15**	07-JdII-10			
Control of Second Control of								
CLUSING Court toy D & 31 Cours and Protect tok p Clus		construct pile cap PC9, PC10 & PC11	30	08-Jan-16	17-Feb-16			
Section VC - Avex 3, EA & EA & EA Section VC - Avex 3, EA & EA & EA & EA Section VC - Avex 3, EA & EA & EA & EA Section VC - Avex 3, EA & EA & EA & EA & EA & EA Section VC - Avex 3, EA & EA								
March Marc	CUL12545		45	08-Dec-15*	01-Feb-16			
Area Sa. & Co Season Modification Facilitation of Season St. Season Modification Facilitation of Season St. Season S	CUL12548		7	18-Feb-16	25-Feb-16			
Post Control of Security 2 control 2	Section VI C -	Area 3, 6, 8A & 8C						
Ministration of Security 2 and 5 2 a	Area 8A & 80	- Seawall Modification						
PRICE See VC. Washing Factors & Price Pr	Modification	of Seawall						
F186/72(73) Pt 2 F18 F126/F126 (110) 3 3 3 1.0 to 15 6 Ro 16 1 F26/0005 Set VC - Cutter Grad (1711) 49 1.1 0 to 15 1.5 feb 16 F26/0005 Set VC - Cutter Grad (1711) 49 1.1 0 to 15 1.5 feb 16 F26/0005 Set VC - Cutter Grad (1711) 49 1.0 to 15 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is P69 is F694 (20ne 4) 10 0.6 feb 15 1.5 feb 15 F26/0005 Set VC - Fige Pla F0 is P69 is F694 (20ne 4) 10 0.6 feb 15 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is P69 is F694 (20ne 4) 10 0.6 feb 15 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is P69 is F694 (20ne 4) 10 0.6 feb 15 1.5 feb 16 F26/0005 Set VC - Cutter and of surphrose for Fordure 5 0.6 feb 15 F26/0005 Set VC - Cutter and of surphrose for Fordure 5 0.6 feb 15 F26/0005 Set VC - Fige Pla F0 is P69 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F0 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC - Fige Pla F10 is F694 (20ne 4) 1.5 feb 16 F26/0005 Set VC	Modification	of Seawall - Zone 1 & 2						
PRISTING Set VC - Venture pristore A PRIS (PRIS) A PRIS (PRIS) 29 21 Cec. 15 Cef-te-16	PRS10060		10	30-Nov-15	10-Dec-15			
PR-51319 Sec VIC - Various graterons (Zene 4) 38 35-10x-15 06-Dec 15 PR-51319 Sec VIC - Various graterons (Zene 4) 38 35-10x-15 06-Dec 15 PR-51319 Sec VIC - Prop Rie Ris 5 - Risk a (Zene 4) 30 09-Dec 15 19-Dec 15 PR-51319 Sec VIC - Prop Rie Ris 5 - Risk a (Zene 4) 30 09-Dec 15 19-Dec 15 PR-51319 Sec VIC - Prop Rie Risk 5 - Risk a (Zene 4) 30 09-Dec 15 19-Dec 15 PR-51319 Sec VIC - Prop Rie Risk 5 - Risk a (Zene 4) 30 09-Dec 15 19-Dec 15 PR-51309 Sec VIC - Centrate of grang loads for Indicators with the Computer of Grang In	PRS10080	Sec VIC - Working Platform & P59, P59A, P60, P60A,	39	21-Dec-15	06-Feb-16			
PRS-10160 Sec VIC - Vibrating Pietform (Zene 4) 8 30-Nativ-15 06-Dec-15	PRS10085		49	11-Dec-15	15-Feb-16			
PRS10180 Sex VIC - Pipe Riv Right to MR & RASA (Zone 4) 10 09-Dec-15 19-Dec-15 19-Dec-	Modification	of Seawall - Zone 4						
Area 8.4 - 118 Pump Room Clearance & Handover PRS-1009 Sec VI C - Clearance of pump house for Handover S 0 04-Feb-16 15-Feb-16 Area 6- Box Culvert bay 5-6 SVIC.10040 Sec VI C - Loadrill to formation level at Area 6 30 0 30-Nov-15 09-Nov-16 09-	PRS10160	Sec VIC - Working Platform (Zone 4)	8	30-Nov-15	08-Dec-15			
PRS-1060 Sec VI C - Clearance of pump house for Handover 5 04-Feb 16 15-Feb 16 Area 6 - Box Culver bay 5 - 6 SVIC10020 Sec VI C - U-Charmel and ug utilities at Area 6 18 07-Am-16 27-Jan-16 SVIC101040 Sec VI C - U-Charmel and ug utilities at Area 6 18 07-Am-16 27-Jan-16 SVIC10240 Sec VI C - Institute and compact sub-base above 7 7 07-Jan-16 14-Jan-16 SVIC10280 Sec VI C - reinstate footile parament in Area 3 6 07-Jan-16 13-Jan-16 SVIC10280 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 SVIC10280 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 SVIC10380 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 SVIC10380 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 SVIC10380 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 SVIC10380 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 SVIC10380 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 SVIC10380 Sec VI C - reinstate footile parament in Area 3 5 02-Jan-16 12-Jan-16 1	PRS10180	Sec VIC - Pipe Pile P63 to P68 & P64A (Zone 4)	10	09-Dec-15	19-Dec-15			
Area 6 - Box Culvert bay 5-6 SVICIO200 Sec VL C - backfill to furnation level at Area 6 30 30-Nov-15 06-Jan-16 SVICIO200 Sec VL C - Un-Charmel and up utilities at Area 6 18 07-Jan-16 27-Jan-16 SVICIO200 Sec VL C - reinstate and compact sub-base above Culvert bay 4 and Roadwork SVICIO200 Sec VL C - reinstate and compact sub-base above 7 07-Jan-16 13-Jan-16 13-J	Area 8A - MT	R Pump Room Clearance & Handover						
SVICLI0020 Sec VI C - tackfill to formation level at Area 6 30 30-Nov-15 06-Jan-16 SVICLI0040 Sec VI C - Uchannel and ug utilities at Area 6 18 07-Jan-16 27-Jan-16 Area 3 - Box Culvert bay 4 and Roadwork	PRS-1060	Sec VI C - Clearance of pump house for Handover	5	04-Feb-16	15-Feb-16			
SVICLIDAD Sec VI C - U-Channel and ug utilities at Area 6 18 07-Jan-16 27-Jan-16	Area 6 - Box	Culvert bay 5-6						
Section VID - Area 88 & 10 Sect VI C - reinstate read compact sub-base above 7 07-3an-16 14-3an-16 Culvent L Bay 4 in Area 3 6 07-3an-16 13-3an-16 Section VID - Form day dock / waterproofing for Box 1 26-3an-16 26-3an-16 Section VID - Area 88 & 10 Section VID - Area 88 & 10 Section VID - Form day dock / waterproofing for Box 1 26 15-0ct-15 A 31-bcc-15	SVIC10020	Sec VI C - backfill to formation level at Area 6	30	30-Nov-15	06-Jan-16			
SVIC10240 Sec VI C - reinstate and compact sub-base above 7 07-Jan-16 14-Jan-16	SVIC10040	Sec VI C - U-Channel and ug utilities at Area 6	18	07-Jan-16	27-Jan-16			
Culvert L Bay 4 in Area 3	Area 3 - Box	Culvert bay 4 and Roadwork						
Culvert L Bay 4 in Area 3	SVIC10240		7	07-Jan-16	14-Jan-16			
SVIC10280 Sec VI C - reinstate flexible pavement in Area 3 6 14-Jan-16 20-Jan-16 SVIC10300 Sec VI C - reinstate traffic sign and road marking in 1 26-Jan-16 SVIC10320 Sec VI C - reinstate traffic sign and road marking in 1 26-Jan-16 WDIT Box 1 Construction WDIT Box 1 Submission and Approval / Material Procurement PCU60410 Sec VI D - WD II Box 1 - Prepare Subcontract for Box 29 02-Jan-16 04-Feb-16 SVIC10300 Sec VI D - Form dry dock / waterproofing for Box 1 26 15-Oct-15 A 31-Dec-15	SVIC10260		6	07-Jan-16	13-Jan-16			
SVIC10300 Sec VI C - reinstate frotpath in Area 3 5 21-Jan-16 26-Jan-16 SVIC10320 Sec VI C - reinstate traffic sign and road marking in Area 3 26-Jan-16 26-Jan-16 SVIC10320 Sec VI C - reinstate traffic sign and road marking in Area 3 26-Jan-16 26-Jan-16 WDII Box 1 Construction WDII Box 1 Submission and Approval / Material Procurement PCU60410 Sec VI D - WDI II Box 1 - Prepare Subcontract for Box 2 9 02-Jan-16* 04-Feb-16 I SUDI Box 1 Existing Pile Head and Dry Dock WDI-C3030 Sec VI D - form dry dock / waterproofing for Box 1 26 15-Oct-15 A 31-Dec-15		Sec VI C - reinstate flexible pavement in Area 3	6					
SVIC10320 Sec VI C - reinstate traffic sign and road marking in Area 3 Section VI D - Area 8B & 10 WDII Box 1 Construction WDII Box 1 Submission and Approval / Material Procurement PCU60410 Sec VI D - WD II Box 1 - Prepare Subcontract for Box 29 02-Jan-16* 04-Feb-16 1 structure WDII Box 1 Existing Pile Head and Dry Dock WD-C3030 Sec VI D - form dry dock / waterproofing for Box 1 26 15-Oct-15 A 31-Dec-15		·	5					
Area 3		· ·						
## WDII Box 1 Construction WDII Box 1 Submission and Approval / Material Procurement		Area 3	-					
WDII Box 1 Submission and Approval / Material Procurement PCU60410 Sec VI D - WD II Box 1 - Prepare Subcontract for Box 29 02-Jan-16* 04-Feb-16 1 structure WDII Box 1 Existing Pile Head and Dry Dock WD-C3030 Sec VI D - form dry dock / waterproofing for Box 1 26 15-Oct-15 A 31-Dec-15								
PCU60410 Sec VI D - WD II Box 1 - Prepare Subcontract for Box 29 02-Jan-16* 04-Feb-16 1 structure WDII Box 1 Existing Pile Head and Dry Dock WD-C3030 Sec VI D - form dry dock / waterproofing for Box 1 26 15-Oct-15 A 31-Dec-15								
1 structure WDII Box 1 Existing Pile Head and Dry Dock WD-C3030 Sec VI D - form dry dock / waterproofing for Box 1 26 15-Oct-15 A 31-Dec-15			20	02 lan 16*	04 Ech 16			
WD-C3030 Sec VI D - form dry dock / waterproofing for Box 1 26 15-Oct-15 A 31-Dec-15		1 structure	29	υ∠-JgU-10*	U 1 -гер-16		_	
			25	45.0.4.5.	24.5. 17			
	WD-C3030		26	15-Oct-15 A	31-Dec-15			



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Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2015 Dec Jan	2016	Feb	Mar
WD-C303	head wall)	54	06-Feb-16	19-Apr-16				
WDII Box	I Existing Pile Head Treatment							
PRS1026	Sec VIC - Pile Head at Pile A3	12	30-Nov-15	12-Dec-15				
PRS1028	Sec VIC - Pile Head at Pile A4	13	14-Dec-15	30-Dec-15				
PRS1030	Sec VIC - Pile Head at Pile B3	13	31-Dec-15	15-Jan-16				
PRS1032	Sec VIC - Pile Head at Pile B4	12	16-Jan-16	29-Jan-16				
WDII Box	1 ELS							
WD-C399	5 Sec VIC - Removal of Platform of Bored Pile	2	13-Feb-16	15-Feb-16			_	
WD-C399	Sec VIC - Install Column, C1, Struct S1 & RS1	11	16-Feb-16	27-Feb-16				
Section VII	- Remainder Works							
Landing S	eps Construction							
II _	teps BSW9							
SVII11100		24	30-Nov-15	29-Dec-15				
	concrete coping			15-Jan-16				
SVII11120	formwork		30-Dec-15					
SVII11140	/ step fender		16-Jan-16	26-Jan-16				
SVII11160	tactile / sign board / bollard		27-Jan-16	27-Feb-16				
Demolition	n of Interim Landing Steps and Construct Permanent S	eawall at CRII						
SVII10220	Sec VII - remove interim landing steps - protect open cut slope	2	30-Nov-15	01-Dec-15				
SVII10240	Sec VII - remove interim landing steps - remove old seawall wall blocks	6	02-Dec-15	08-Dec-15				
SVII10260	Sec VII - seawall - remove old rubble mound and dredging	6	09-Dec-15	15-Dec-15				
SVII10280	Sec VII - seawall - final hydrographic survey	7	16-Dec-15	23-Dec-15				
SVII10300	Sec VII - seawall - [summary] fill rubble mound	13	02-Oct-15 A	14-Dec-15				
SVII10320	Sec VII - seawall - [summary] place caisson seawall type 1B(4), 2D and 1	27	02-Nov-15 A	02-Jan-16				
SVII10380		26	04-Jan-16	02-Feb-16				
Promenad	e Seawall Parapet Construction							
SVII10400		120	30-Nov-15*	30-Apr-16				
Section VII	& backfill to pavement formation I - Landscape Softworks							
Soft Lands	caping Works							
SVIII1004	Sec VIII - Trees Planting	180	18-Dec-15	02-Aug-16				
Section X -	Protection & Preservation of Trees							
Soft Lands	caping Works							
SX10020	Sec X - Protection & Preservation of Trees	600	31-Jan-13 A	21-Jul-17				
VO : Const	ruction of Box 4A & 4B							
1005	Summary of Variation Order: Box 4A & 4B	130	15-Jan-16	23-May-16				
Box 4A								
A1010	Summary of concrete fill with 300 dia. carrier drain, 5	15	15-Jan-16	01-Feb-16				
A1011	bays (ave. t = 1.875m x approx. 50m) Concrete fill with 300 dia. carrier drain: bay 1	3	15-Jan-16	18-Jan-16				
A1012	Concrete fill with 300 dia. carrier drain: bay 2	3	19-Jan-16	21-Jan-16				
A1013	Concrete fill with 300 dia. carrier drain: bay 3	3	22-Jan-16	25-Jan-16				
A1013	Concrete fill with 300 dia. carrier drain: bay 4	3	26-Jan-16	28-Jan-16				
A1014	Considere iii wiri 500 dia. Carrei diaiii. Day 4	3	ZU-Jai1*10	20-Jan-10				



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Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2016		
					Dec	Jan	Feb Mar
A1015	Concrete fill with 300 dia. carrier drain: bay 5	3	29-Jan-16	01-Feb-16			
A1020	Summary of falseworks & fomworks for internal suspended slab	46	19-Jan-16	04-Mar-16			
A1021	Falseworks & formworks for internal suspended slab: bay 1	7	19-Jan-16	26-Jan-16			
A1022	Falseworks & formworks for internal suspended slab: bay 2	7	27-Jan-16	03-Feb-16			
A1023	Falseworks & formworks for internal suspended slab: bay 3	7	04-Feb-16	17-Feb-16			
A1024	Falseworks & formworks for internal suspended slab: bay 4	7	18-Feb-16	25-Feb-16			
A1025	Falseworks & formworks for internal suspended slab: bay 5	7	26-Feb-16	04-Mar-16			
A1030	Summary of internal suspended slab, 5 bays (t = 200mm x approx. 50m)	45	27-Jan-16	11-Mar-16			
A1031	Internal suspended slab - bay 1: rebars & casting	6	27-Jan-16	02-Feb-16			
A1032	Internal suspended slab - bay 2: rebars & casting	6	04-Feb-16	16-Feb-16			
A1033	Internal suspended slab - bay 3: rebars & casting	6	18-Feb-16	24-Feb-16			
A1034	Internal suspended slab - bay 4: rebars & casting	6	26-Feb-16	03-Mar-16			
A1040	Summary of internal wall, 5 bays (t = 200mm x approx. 50m)	45	03-Feb-16	18-Mar-16			
A1041	Internal wall - bay 1: rebars, formworks & casting	6	03-Feb-16	15-Feb-16			
A1042	Internal wall - bay 2: rebars, formworks & casting	6	17-Feb-16	23-Feb-16			
A1043	Internal wall - bay 3: rebars, formworks & casting	6	25-Feb-16	02-Mar-16			