CONTRACT NO: HK/2011/07

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

ENVIRONMENTAL PERMIT NO. EP-356/2009, FURTHER EVIRONMENTAL PERMIT NOS. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-05/356/2009, FEP-06/356/2009 AND FEP-07/356/2009

QUARTERLY ENVIRONMENTAL MONITORING AND AUDIT REPORT

- SEPTEMBER 2014 TO NOVEMBER 2014 -

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

CHECKED BY:

Raymond Dai
Environmental Team Leader

DATE:

19 December 2014

Ref.: AACWBIECEM00_0_6088L.14

22 December 2014

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

By Post and Fax (2691 2649)

Attention: Mr. Conrad NG

Dear Sir,

Re: Wan Chai Development Phase II and Central-Wan Chai Bypass
Quarterly Environmental Monitoring and Audit Report (Sept to Nov 2014)
for EP-356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009,
FEP-05/356/2009, FEP-06/356/2009 and FEP-07/356/2009

Reference is made to the Environmental Team's submission of the Quarterly Environmental Monitoring and Audit (EM&A) Report for September to November 2014 received by e-mail on 19 December 2014 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission and thereby write to verify the captioned submission.

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

Yours sincerely,

David Yeung
Independent Environmental Checker

c.c.	HyD	Mr. Eddy Wu	by fax: 2714 5289
	CEDD	Mr. Jason Cheung	by fax: 2577 5040
	AECOM	Mr. Stephen Lai	by fax: 2691 2649
	Lam	Mr. Raymond Dai	by fax: 2882 3331

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ENVIRON Hong Kong Limited 英環香港有限公司
Room 2403, 24/F., Jubilee Centre, 18 Fenwick Street, Wanchai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.environcorp.com

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

EXECUTIVE SUMMARY

i. This is the Quarterly Environmental Monitoring and Audit (EM&A) Report – September 2014 to November 2014 prepared 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-05/356/2009, FEP-06/356/2009 and FEP-07/356/2009. This report presents the environmental monitoring and audit findings and information during the period from September 2014 to November 2014. The cut-off date of reporting is at 27th of each reporting period.

Construction Activities for the Reported Period

ii. During this reporting period, the principal work activities for Contract no. HK/2009/01 are summarized as below:

Table I Principal Work Activities for Contract no. HK/2009/01

September 2014	October 2014	November 2014
• Rock trimming works	• Rock trimming works	• Rock trimming works

iii. During this reporting period, the principal work activities for Contract no. HK/2009/02 are summarized as below:

Table II Principal Work Activities for Contract no. HK/2009/02

September 2014	October 2014	November 2014
• Works of covered walkway • ABWF works at section VIIIA • HHR Flyover Diversion at Stage 2 • Demolition of Existing Wan Chai Ferry Pier	• Works of covered walkway • Drainage work • ABWF work • Demolition of HHR Flyover Approach Ramp • Demolition of Existing Wan Chai Ferry Pier • Dredging and Reclamation at WCR3	• Works of covered walkway • Drainage work • ABWF work • Demolition of Existing Wan Chai Ferry Pier • Dredging and Reclamation at WCR3

iv. Contract no. HY/2009/15 was commenced on 10 November 2010. During this reporting period, the principal work activities for Contract no. HY/2009/15 are summarized as below:

Table III Principal Work Activities for Contract no. HY/2009/15

September 2014	October 2014	November 2014
• Construction works of East Ventilation Shaft • Removal of temporary reclamation and seawall blocks at TPCWAE &	• Construction works of East Ventilation Shaft • Removal of temporary reclamation, D-Wall and seawall blocks at	• Removal of temporary reclamation, D-wall and seawall blocks at TPCWAE & TS4 • Temporary reclamation

September 2014	October 2014	November 2014
TS4 • Demolition of D-Wall at TS2, TPCWAE & TS4	TPCWAE & TS4 • Maintenance dredging	works and installation of seawall blocks at TPCWAW • Maintenance dredging

v. Contract no. HK/2010/06 was commenced on 22 March 2011. During this reporting period, the principal work activities for Contract no. HK/2010/06 are summarized as below:

Table IV Principal Work Activities for Contract no. HK/2010/06

September 2014	October 2014
• Nil	• Nil

vi. Contract no. HY/2009/19 was commenced on 24 March 2011. During this reporting period, the principal work activities for Contract no. HY/2009/19 are summarized as below:

Table V Principal Work Activities for Contract no. HY/2009/19

September 2014	October 2014	November 2014
• Construction of Dolphin Cap	• Construction of Dolphin Cap	• Construction of Dolphin Cap

vii. Contract no. HK/2012/08 was commenced on 5 March 2013. During this reporting period, the principal work activities for Contract no. HK/2012/08 are summarized as below:

Table VI Principal Work Activities for Contract no. HK/2012/08

September 2014	October 2014	November 2014
• ELS for box culvert La at Lung King Street • Installation of caisson seawall • Removal of rock armour • Filling • Sheet piling	• ELS for box culvert L at Lung King Street • Removal of rock armour • Placing of rockfill • Sheet piling • Excavation of Dry Dock and disposal of soil	• ELS for box culvert L at Lung King Street • Removal of rock armour • Dry dock construction • Installation of caisson seawall

viii. Contract no. HY/2010/08 was commenced on 21 March 2013. During this reporting period, the principal work activities for Contract no. HY/2010/08 are summarized as below:

Table VII Principal Work Activities for Contract no. HY/2010/08

September 2014	October 2014	November 2014
• Rock filling works • Dredging works • Seawall blocks installation • Sheet pilling works at outfall Q • Installation of water tank	• Rock filling works • Dredging works • Seawall blocks installation • Sheet piling works at Outfall Q • Seawater intake diversion works • Installation of water tank	• Rock filling works • Dredging works • Seawall blocks installation • Sheet piling works, welding & struts installation works at Outfall Q • Seawater intake diversion works

September 2014	October 2014	November 2014
		• Installation of water tank

Noise Monitoring

ix. Noise monitoring during day time and evening time were conducted at the M1a, M2b, M3a, M4b, M5b and M6 on a weekly basis in the reporting period. The Action and Limit level exceedances recorded in the reporting period are listed below. Investigation found that exceedances were not related to the Project. Investigation found that exceedances were not related to the Project.

x. No action and limit level exceedance was recorded in September, October and November 2014 reporting month.

Real-time Noise Monitoring

xi. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

xii. Real-time noise monitoring at FEHD Hong Kong Transport Section Whitefield Depot and Oil Street Community Centre have been commenced on 5 October 2010 for the filling works of Contract no. HY/2009/11.

xiii. Real-time noise monitoring at FEHD Hong Kong Transport Section Whitefield Depot commenced external wall renovation since 1 June 2012

xiv. Oil Street Community Liaison Centre was confirmed to be demolished in mid-October by CWB RSS. This presented a need for relocation of RTN2 – Oil Street Community Liaison Centre. After liaison with Hong Kong Electric, permission was granted on 21 Sep 2012 for real time noise monitoring set up at City Garden Electric Centre (RTN2a – Electric Centre), which is a representative of the noise sensitive receiver City Garden. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.

xv. No project related exceedance was recorded in September, October and November 2014 reporting months at RTN2a-Hong Kong Electric Centre during this reporting quarter.

Air Quality Monitoring

xvi. Due to electricity interruption, the following 24hr TSP monitoring events were rescheduled in this reporting quater,

24hr TSP monitoring at CMA5a was rescheduled from 24 September 2014 to 25 September 2014.

24hr TSP monitoring at CMA5a was rescheduled from 29 September 2014 to 30 September 2014.

24hr TSP monitoring at CMA3a, CMA4a and CMA5a were rescheduled from 20 November 2014 to 21 November 2014.

xvii. The location ID of air monitoring station CMA1b was updated as Oil Street Site Office in April 2013.

xviii. 1hr and 24hr TSP monitoring were conducted at CMA1b, CMA2a, CMA3a, CMA4a, CMA5a and CMA6a in the reporting period.

xix. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 2, 18 and 29 September 2014 at the concerned hours (afternoon for higher daily temperature). No Action and Limit Level was recorded during September reporting month.

Water Quality Monitoring

xx. With respect to the reported public safety concern and blockage of major traffic around Admiralty and Wanchai North, water quality monitoring scheduled on 29 September 2014 for both flood tide and ebb tide was cancelled.

xxi. Due to blockage of access to the Enhance DO Monitoring Stations Ex-PCWA, Enhance DO monitoring at Ex-PCWA SE and SW station were cancelled on 22 Oct 2014 during ebb tide.

xxii. Water quality monitoring was conducted at 8 monitoring stations namely WSD19, C1, C7, P1, P3, P4, P5 and RW21-P789 during the reporting period.

xxiii. There were 1 action level and 2 limit level exceedances of turbidity, and 1 action level and 2 limit level exceedances of SS recorded in September reporting month. Investigation found that exceedances are not related to the Project works.

xxiv. There were 12 action level and 12 limit level exceedances of turbidity, and no action level and 2 limit level exceedances of SS recorded in October reporting month. Investigation found that the exceedances were not related to Project works.

xxv. There were 3 action level and 3 limit level exceedances of turbidity recorded in the reporting month. Investigation found that the exceedances were not related to Project works.

xxvi. 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.

xxvii. There were 3 action level exceedances and 9 limit level exceedances of enhanced dissolved oxygen recorded in September reporting month. Investigation found that the exceedances are not related to the Project works.

xxviii. There were 8 action level exceedances and 16 limit level exceedances of enhanced dissolved oxygen recorded in October reporting month. Investigation found that the exceedances are not related to the Project works.

xxix. There were 1 action level exceedances and 7 limit level exceedances of enhanced dissolved oxygen recorded in November reporting month. Investigation found that the exceedances are not related to the Project works.

xxx. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.

xxxi. With respect to the commencement of marine dredging works at WCR3 under contract HK/2009/02. The respective water quality monitoring station C1 were associated with HK/2009/01 and HK/2009/02.

xxxii. As confirmed by CWB RSS, the operation of the pump station for Windsor House Cooling Water was suspended from 22 Oct 2014 for the Windsor House intake cooling intake scheme

and temporary supply of freshwater from WSD water mains was provided to cooling water intake The water quality monitoring for the respective cooling water intake at WQM station C7 was temporarily suspended from 22 Oct 2014. The water quality monitoring at monitoring station C7 for Windsor House Cooling water intake shall be resumed after the completion of the diversion scheme for the diverted intake subject to CWB RSS advice.

xxxiii. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.

xxxiv. As confirmed by WDII RSS and IEC, the cross harbor dredging works have completed since 16 March 2012 while the dredging works for submarine outfall pipeline has completed since 29 November 2011, considering current construction stage and dredging Scenario, the water quality monitoring at stations WSD9 and WSD17 was temporarily suspended since 8 September 2014 flood tide.

xxxv. Action and Limit level of water quality monitoring was transited from wet season to dry season from 1 October 2014.

xxxvi. As advised by WDII RSS, the water quality monitoring for WSD21 pump station with respect to HK/2009/02 was switched over to the relocated location since 12 March 2014. According to the EM&A Manual, the water quality monitoring station WSD21 was relocated to station RW21-P789 and the water quality monitoring at station WSD21 was temporarily suspended since 12 March 2014.

xxxvii. With respect to the switching over of cooling water intake location, the water quality monitoring at the relocated intake station RW21-P789 under HK/2009/02 was commenced since 29 July 2013 and monitoring station C5e and C5w were temporarily suspended and switched over to monitoring station RW21-P789 on 29 July 2013 due to suspension of pump house operation.

xxxviii. 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.

xxxix. With respect to the commencement of marine dredging works under contract HY/2010/08. The respective water quality monitoring station C7 were associated with HY/2009/15 and HY/2010/08.

xl. With respect to the commencement of marine dredging works under contract HK/2012/08/ The respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08 Since September 2013.

xli. WQM events on 22 April 2013 at monitoring stations C2, C3, C4e and C4w were temporarily suspended. Upon confirmation with WDII RSS and the IEC, water quality monitoring at relocated intakes monitoring location P1, P3, P4 and P5 were commenced since 24 April 2013.

xlii. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.

xliii. As confirmed by CWB RSS, the marine pilling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.

xliv. RSS confirmed that all Type III Dredging works under HK/2009/01 have been completed since Oct 2012.

xlv. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.

xlvi. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3 , 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.

xlvii. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.

xlviii. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others remain unchanged.

xlix. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration. Water quality monitoring at WSD10 and WSD15 was temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;

l. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and it was completed on 6 February 2012.

li. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Centre (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.

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

liii. 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.

Complaints, Notifications of Summons and Successful Prosecutions

liv. No environmental complaint received in September reporting month.

lv. One environmental complaint received in October reporting month.

lvi. 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.

lvii. 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.

lviii. 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.

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

lx. Three environmental complaints were received in November reporting month.

lxi. A public complaint regarding to malodour referred by EPD was received by ET on 10 November 2014 (EPD Ref.: H05/RS/00027815-14). 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 on 7 November 2014.

lxii. 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 opposite to Wan Chai 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 day time 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.

lxiii. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operation on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.

lxiv. A public complaint regarding to malodour and dark smoke referred by EPD was received by EP on 13 November 2014 (EPD Ref.: H05/RS/00028253-14). The complainant reported that malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affect the pedestrians on 12 November 2014.

lxv. 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.

lxvi. 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.

lxvii. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.

lxviii. A public complaint regarding to construction noise impact referred by EPD was received by ET via email on 21 November 2014 (EPD Ref: H08/RS/28263-14). Resident in Hing Fat Street complained about loud noise from dredging work in CBTS up to 10pm at night.

lxix. 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 endeavour to minimize the noise as so not to disturb the nearby residents.

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-05/356/2009, FEP-06/356/2009 and FEP-07/356/2009 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-014/2001).

1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.4 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 during the period from September 2014 to November 2014.

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 ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring locations, monitoring frequency, duration and action plan.

Section 4 ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.

Section 5 ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.

Section 6 ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution

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 ***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, the status of permits and/or licences under the individual contract(s) are presented as below:

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

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

Contract no. HY/2009/11 – Wan Chai Development Phase II – Central – Wan Chai Bypass - North Point Reclamation

2.3.1. The construction works were completed and the FEP-01/356/2009 was surrendered by the Contractor on 22 October 2012.

2.3.2. 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.

2.3.3. The details of individual contracts are summarized in ***Table2.2***.

Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong Kong Convention and Exhibition Centre	DP3, DP6	23 July 2010
		DP1, DP2	25 August 2011
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East	DP3, DP5	5 July 2010
		DP1	26 April 2011
HY/2009/11	Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation	DP3	17 March 2010 (Completed)
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP3	10 November 2010
		DP1	13 July 2011
HK/2010/06	Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011
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	10 March 2014
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	5 March 2013
HY/2011/08	Central-Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning	DP1	8 October 2014

2.4 Project Organization and Contact Personnel

2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in ***Figure 2.2***. Key personnel and contact particulars are summarized in ***Table 2.3***:

Table 2.3 Contact Details of Key Personnel

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

Party	Role	Post	Name	Contact No.	Contact Fax
		Senior Project Manager	Eddie Tang	35576452	
		Environmental Officer	Mr. Daniel Sin	3557 6347	
Gammon -Leader JV	Contractor under Contract no. HK/2010/06	Project Manager	Mr. Paul Lui	9095 7922	2529 2880
		Site Agent	Mr. Eric Yip	2529 2068	
		Environmental Officer	Clement Pang	9735 9200	
		Environmental Supervisor	Jacky Cheung	9779 2292	
Chun Wo - CRGL - MBEC_Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Mr. Rayland Lee	3758 8879	2570 8013
		Site Agent	Mr. Eric Yip	252902068	
		Environmental Engineer	Mr. Calvin Leung	9286 9208	
		Environmental Manager / Environmental Officer	Mr. M.H. Isa	9884 0810	
		Construction Manager (Marine)	William Luk	9610 1101	
		Construction Manager (Land)	Patrick Cheung	9643 3012	
		Construction Manager (Land)	Eric Fong	6191 9337	
		Operation Manager (Land)	Yung Kwok Wah	9834 1010	
China State-Leader JV	Contractor under Contract no. HK/2012/08	Project Director	Andrew Tse	9137 1811	2877 1522
		Project Manager	Victor Wu	9193 8871	
		Deputy Project Manager	George Cheung	9268 1918	
		Site Agent	Paul Lui	9095 7922	
		Environmental Officer	James Ma	9130 9549	
		Environmental Supervisor	Ching Man, Chan	6050 4919	
China State	Contractor under Contract no. HY/2010/08	Project Director	Cheung Kit Cheung	3557 6399	2566 8061
		Project Manager	Chan Ying Lun	3418 3001	
		Deputy Project Manager	Chris Leung	3467 4299	
		Site Agent	Dave Chan	3467 4277	

Party	Role	Post	Name	Contact No.	Contact Fax
		Environmental Officer	C.M. Wong	3557 6464	
		Environmental Supervisor	Desmond Ho Tsz Ho	3557 6466	
ENVIRON Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	34652888	34652899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.5 Principal Work and Activities

2.5.1. During this reporting period, the principal work activities for Contract no. HK/2009/01 are summarized in ***Table 2.4***.

Table 2.4 Principal Work Activities for Contract no. HK/2009/01

September 2014	October 2014	November 2014
• Rock trimming works	• Rock trimming works	• Rock trimming works

2.5.2. During this reporting period, the principal work activities for Contract no. HK/2009/02 are summarized in ***Table 2.5***.

Table 2.5 Principal Work Activities for Contract no. HK/2009/02

September 2014	October 2014	November 2014
• Works of covered walkway • ABWF works at section VIIIA • HHR Flyover Diversion at Stage 2 • Demolition of Existing Wan Chai Ferry Pier	• Works of covered walkway • Drainage work • ABWF work • Demolition of HHR Flyover Approach Ramp • Demolition of Existing Wan Chai Ferry Pier • Dredging and Reclamation at WCR3	• Works of covered walkway • Drainage work • ABWF work • Demolition of Existing Wan Chai Ferry Pier • Dredging and Reclamation at WCR3

2.5.3. Major construction activities for Contract no. HY/2009/15 was commenced on 10 November 2010. During this reporting period, the principal work activities for Contract no. HY/2009/15 are summarized as below:

Table 2.6 Principal Work Activities for Contract no. HY/2009/15

September 2014	October 2014	November 2014
• Construction works of East Ventilation Shaft • Removal of temporary reclamation and seawall blocks at TPCWAE & TS4 • Demolition of D-Wall at TS2, TPCWAE & TS4	• Construction works of East Ventilation Shaft • Removal of temporary reclamation, D-Wall and seawall blocks at TPCWAE & TS4 • Maintenance dredging	• Removal of temporary reclamation, D-wall and seawall blocks at TPCWAE & TS4 • Temporary reclamation works and installation of seawall blocks at TPCWAW • Maintenance dredging

2.5.4. Contract no. HK/2010/06 was commenced on 22 March 2011. During this reporting period, the principal work activities for Contract no. HK/2010/06 are summarized as below:

Table 2.7 Principal Work Activities for Contract no. HK/2010/06

September 2014	October 2014
• Nil	• Nil

2.5.5. Contract no. HY/2009/19 was commenced on 24 March 2011. During this reporting period, the principal work activities for Contract no. HY/2009/19 are summarized as below:

Table 2.8 Principal Work Activities for Contract no. HY/2009/19

September 2014	October 2014	November 2014
• Construction of Dolphin Cap	• Construction of Dolphin Cap	• Construction of Dolphin Cap

2.5.6. Contract no. HK/2012/08 was commenced on March 2013. During this reporting period, the principal work activities for Contract no. HK/2012/08 are summarized as below:

Table 2.9 Principal Work Activities for Contract no. HK/2012/08

September 2014	October 2014	November 2014
• ELS for box culvert La at Lung King Street • Installation of caisson seawall • Removal of rock armour • Filling • Sheet piling	• ELS for box culvert L at Lung King Street • Removal of rock armour • Placing of rockfill • Sheet piling • Excavation of Dry Dock and disposal of soil	• ELS for box culvert L at Lung King Street • Removal of rock armour • Dry dock construction • Installation of caisson seawall

2.5.7. Contract no. HY/2010/08 was commenced on 21 March 2013. During this reporting period, the principal work activities for Contract no. HY/2010/08 are summarized as below:

Table 2.10 Principal Work Activities for Contract no. HY/2010/08

September 2014	October 2014	November 2014
• Rock filling works • Dredging works • Seawall blocks installation • Sheet pilling works at outfall Q • Installation of water tank	• Rock filling works • Dredging works • Seawall blocks installation • Sheet piling works at Outfall Q • Seawater intake diversion works • Installation of water tank	• Rock filling works • Dredging works • Seawall blocks installation • Sheet piling works, welding & struts installation works at Outfall Q • Seawater intake diversion works • Installation of water tank

2.5.8. Implementation status of the recommended mitigation measures during this reporting period is presented in ***Appendix 2.1***.

3. MONITORING REQUIREMENTS

3.1. Noise Monitoring

NOISE MONITORING STATIONS

3.1.1. The noise monitoring stations for the Project are listed and shown in ***Table 3.1*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.1 Noise Monitoring Stations

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

REAL TIME NOISE MONITORING STATIONS

3.1.2. The real-noise monitoring stations for the Project are listed and shown in ***Table 3.2*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

3.1.3. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.

3.1.4. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

Table 3.2 Real Time Noise Monitoring Station

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

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

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

3.1.5. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq\ (30\ minutes)}$ shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, $L_{eq\ (5\ minutes)}$ shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L10 and L90 shall also be obtained for reference.

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

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

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

3.1.8. Real time noise shall be carried out at the designated monitoring stations. The following is an initial guide on the regular monitoring frequency for each station on a 24 hours daily basis when noise generating activities are underway:

- One set of measurements between 0700 and 1900 hours on normal weekdays.
- One set of measurements between 1900 and 2300 hours on normal weekdays and 0700 and 2300 hours on public holidays.
- One set of measurements between 2300 and 0700 hours on next day on everyday.

MONITORING EQUIPMENT

3.1.9. 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.

3.1.10. 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.

3.2. Air Monitoring

AIR QUALITY MONITORING STATIONS

3.2.1. The air monitoring stations for the Project are listed and shown in ***Table 3.3*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.3 Air Monitoring Stations

Station ID	Monitoring Location	Description
CMA1b	Oil Street Community Liaison Centre	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
CMA5a	Children Playgrounds opposite to Pedestrian Plaza	Wan Chai
CMA6a	WDII PRE Site Office *	Wan Chai

* Remarks: As per the ENPC meeting in January 2011, the monitoring stations CMA3a - Future CWB site office at Wanchai Waterfront Promenade and CMA6a - Future AECOM site office at Work Area were renamed as remark.

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

3.2.2. 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.

3.2.3. 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.

3.2.4. 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

3.2.5 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.

3.2.6 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

3.2.7 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.

3.2.8 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.

3.2.9 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.

3.2.10 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.

3.2.11 All the collected samples shall be kept in a good condition for 6 months before disposal.

IMPACT MONITORING FOR ODOUR PATROL

3.2.12 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

3.2.13 Odour patrol shall be conducted by independent trained personnel / competent persons patrolling and sniffing around the shore as shown in ***Figure 3.1*** to detect any odour at the concerned hours (afternoon is preferred for higher daily temperature).

3.2.14 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.

3.2.15 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.

3.2.16 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 3.1***.

3.3 Water Quality Monitoring

3.3.1. 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.

3.3.2. 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

3.3.3. It is proposed to monitor the water quality at 2 WSD salt water intakes and 8 cooling water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations of the Project are shown in ***Table 3.4*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.4 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
C7	Windsor House	837193.7	816150.0
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake	836268.0	816020.0

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

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

WATER QUALITY PARAMETERS AND FREQUENCY

3.3.4. 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.

3.3.5. 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.

3.3.6. 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 3.5*** shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.

Table 3.5 Marine Water Quality Monitoring Frequency and Parameters

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

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

DISSOLVED OXYGEN AND TEMPERATURE MEASURING EQUIPMENT

3.3.7. 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

3.3.8. 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).

3.3.9. 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

3.3.10 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

3.3.11 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

3.3.12 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

3.3.13 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

3.3.14 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

3.3.15 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

3.3.16 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.

3.3.17 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.

3.3.18 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.

LABORATORY MEASUREMENT / ANALYSIS

3.3.19 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

3.3.20 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.

3.3.21 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 3.6*** and ***Figure 3.1.***

Table 3.6 Marine Water Quality Stations for Enhanced Water Quality Monitoring

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

3.3.22 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 less than 3m, only the mid-depth will be monitored).

DAILY SS MONITORING AND 24 HOURS TURBIDITY MONITORING SYSTEM

3.3.23 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.

3.3.24 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 shall be downloaded daily and compared with the Action and Limit level determined during the baseline water qualtiy monitoring at the cooling water intake locations.

ADDITIONAL DISSOVLED OXYGEN MONITORING FOR CULVERT L WATER DISCHARGE FLOW

3.3.25 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.

3.3.26 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

3.3.27 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).

4. MONITORING RESULTS

4.0.1. The environmental monitoring will be implemented based on the division of works areas of each designed project managed under different contracts with separate FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in ***Figure 2.1*** and ***Figure 3.1***. The monitoring results are presented in according to the Individual Contract(s).

4.0.2 According to EP-364/2009/A Part B, "Scale and Scope of Designated Project", Remarks (c),"The permanent and temporary reclamation and associated dredging works related to the CWB construction are separately covered by environmental permit No. EP-356/2009 issued to Civil Engineering and Development Department", and marine piling works to be conducted by the Contractor of Contract no. HY/2009/19 from 28 January 2012 was considered to be governed under EP-356/2009. As the construction site area of Contract no. HY/2009/11 had already been handed over to Contract no. HY/2009/19, the designated noise, water and air quality monitoring stations for Contract no. HY/2009/11 would be shared with Contract no. HY/2009/19 from 28 January 2012.

4.1. Noise Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC and Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East and Contract no. HK/2010/06 Wan Chai Development Phase II – Central-Wan Chai Bypass over MTR Tsuen Wan Line

4.1.1. The proposed divisions of noise monitoring stations are summarized in ***Table 4.1*** below.

Table 4.1 Noise Monitoring Station for Contract nos. HK/2009/01 and HK/2009/02 and HK/2010/06

Station	Description
M1a	Harbour Road Sports Centre

4.1.2. No action or limit level exceedance was recorded in September, October and November reporting months.

Noise monitoring results measured in this reporting period are reviewed and summarized. Details of graphical presentation can be referred in ***Appendix 4.1***.

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

4.1.3. The noise monitoring for HY/2009/15 was commenced on 10 November 2010. The proposed division of noise monitoring stations are summarized in ***Table 4.2*** below.

Table 4.2 Noise Monitoring Station for Contract nos. HY/2009/15

Station	Description
M2b	Noon Gun Area

M3a	Tung Lo Wan Fire Station

4.1.4. No action or limit level exceedance was recorded in September, October and November reporting months.

Noise monitoring results measured in this reporting period are reviewed and summarized. Details of graphical presentation can be referred in ***Appendix 4.1***.

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

4.1.5. Noise quality monitoring at M4b and M5b have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 2012.

4.1.6. The proposed division of noise monitoring stations for Contract no. HY/2009/19 are summarized in ***Table 4.3*** below:

Table 4.3 Noise Monitoring Stations for Contract no. HY/2009/19

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

4.1.7. No action or limit level exceedance was recorded in September, October and November reporting months.

4.1.8. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of graphical presentation can be referred in ***Appendix 4.1***.

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

4.1.9. The proposed division of noise monitoring stations are summarized in **Table 4.4** below.

Table 4.4 Noise Monitoring Station for Contract no. HY/2010/08

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

4.1.10. No action or limit level exceedance was recorded in September, October and November reporting months.

4.1.11. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 4.1**.

4.2. Real Time Noise Monitoring Results

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

4.2.1 As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

4.2.2 The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.

4.2.3 The major work activities for Contract no. HY/2009/11 was confirmed substantial complete by RSS on 4 January 2012. The construction site was handed over to contractor HY/2009/19 on 31 December 2011 and the FEP-01/356/2009 was surrendered on 22 Oct 2012.

4.2.4 Real-time noise monitoring at FEHD Hong Kong Transport Section Whitfield Depot commenced external wall renovation since 1 June 2012

Table 4.5 Real Time Noise Monitoring Station for Contract no. HY/2009/19

District	Station	Description
North Point	RTN2a	Electric Centre

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

4.2.5 Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 28 August 2014 and 12 September 2014 in the reporting month. After checking with Contractor of HY/2009/19, bored piling and socket piling were conducted at the concerned location on 28 August 2014 and 12 September 2014 during the recorded period. Mitigation measures including the use of noise barrier and noise blanket were implemented by Contractor. In view of the exceedances are non-continuous, the exceedances are considered to be non-project related and contributed by nearby non CWB Project works and nearby IEC traffic.

4.2.6 Limit level exceedances were recorded at RTN2a-Electric Centre during restricted hours on 30 September 2014 and 22 October 2014 in the reporting month. After checking with Contractor of HY/2009/19, no construction works were conducted at the concerned location on 30 September 2014 and 22 October 2014 during the recorded period. In view of the

exceedances are non-continuous, the exceedances are considered to be non-project related and are contributed by nearby non CWB Project works and nearby IEC traffic.

4.2.7 Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 8, 19, 20, 21, 25 and 26 November 2014 in the reporting month. After checking with Contractor of HY/2009/19, on 8 November 2014, sheet piling and socket H-piling works were conducted at the concerned location during the recorded period and mitigation measures including erection of temporary noise blanket was implemented by Contractor. In view of the exceedances are non-continuous, the exceedances are considered to be non-project related and are contributed by nearby non CWB Project works and nearby IEC traffic.

4.2.8 On 19 November 2014, sheet piling, socket H-piling works and breaking of U-beam structure were conducted at the concerned location during the recorded period while on 20, 21, 25 and 26 November 2014, sheet piling and socket H-piling works were conducted at the concerned location during the recorded period. Mitigation measures including erection of temporary noise barrier were implemented by Contractor. In addition, chilling system pipe work installation works (hammering and wielding works) was observed conducting at the roof top of Hong Kong Electric Centre from 17 Nov 2014 to 28 Nov 2014 and the exceedances were considered to be non-Project related and contributed by maintenance work at Hong Kong Electric Centre.

4.3. Air Monitoring Results

4.3.1. 1hr and 24hr TSP monitoring were conducted at CMA1b, CMA2a, CMA3a, CMA4a, CMA5a and CMA6a in the reporting period.

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

4.3.2. 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 division of air monitoring stations are summarized in ***Table 4.6*** below.

Table 4.6 Air Monitoring Stations for Contract no. HK/2009/01

Station	Description
CMA5a	Children Playgrounds opposite to Pedestrian Plaza
CMA6a	WDII PRE Site Office *

4.3.3. No action or limit exceedance was recorded in September, October and November reporting months.

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

4.3.4. 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 is summarized in ***Table 4.7*** below.

Table 4.7 Air Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

4.3.5. No action or limit level exceedance was recorded in September, October and November reporting months.

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

4.3.6. 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 4.8*** below.

Table 4.8 Air Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

4.3.7. No action or limit exceedance was recorded in June, July and August reporting months.

4.3.8. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 2, 18 and 29 September 2014 at the concerned hours (afternoon for higher daily temperature). No Action and Limit Level was recorded during September reporting month.

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

4.3.9. Air monitoring at CMA1b and CMA2a have been implemented with respect to HY/2009/19 since the marine bore piling works started on 28 Jan 2012. No exceedance was recorded in the reporting period.

4.3.10. The proposed division of air monitoring stations is summarized in ***Table 4.9*** below.

Table 4.9 Air Monitoring Stations for Contract no. HY/2009/19

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

4.3.11. No exceedance was recorded in June, July and August reporting months.

4.4 Water Monitoring Results

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

4.4.1. Water quality monitoring for Contract no. HK/2009/01 was commenced on 23 July 2010. The proposed division of water monitoring stations is summarized in ***Table 4.10*** below.

4.4.2. Water quality monitoring station RW21-P789 has been implemented with respect to HK/2009/02 started on 29 July 2013.

Table 4.10 Water Monitoring Stations for Contract no. HK/2009/01

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

Remarks:

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

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

4.4.3. Water quality monitoring for Contract no. HK/2009/02 was commenced on 8 July 2010. The proposed division of water monitoring stations is summarized in ***Table 4.11*** below.

Table 4.11 Water Monitoring Stations for Contract no. HK/2009/02

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD9	Tai Wan	837921.0	818330.0
WSD17	Quarry Bay	839790.3	817032.2
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
Cooling Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/CWB	836268.0	816020.0

Remarks:

- The water monitoring stations for the dredging works under Contract No. HK/2009/01 should also include WSD9, WSD17, WSD 21 and C5 if water quality monitoring at these locations have not been carried out by others. Similarly, the water monitoring stations for the dredging works under Contract No. HK/2009/02 should also include WSD7, WSD9, WSD17, WSD 19, C1, C2, C3 and C4 if water quality monitoring at these locations has not been carried out by others.
- Water quality monitoring at WSD9 and WSD 17 was implemented with respect to HK/2009/02 from 8 Feb 2012.

- C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
- WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

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

4.4.4. Water monitoring for Contract no. HK/2012/08 was commenced on 5 March 2013. The proposed division of water monitoring stations are summarized in ***Table 4.12*** below.

Table 4.12 Water Monitoring Stations for Contract no. HK/2012/08

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Intake			
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2

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

4.4.5. As the removal of reclamation work of TS1 at CBTS has been completed, all procedures have been rectified and complied with the conditions set in EP-356/2009 and FEP-04/356/2009.

4.4.6. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.

4.4.7. Due to the commencement of the maintenance dredging on 10 November 2010, water quality monitoring for Contract no. HY/2009/15 was commenced on 9 November 2010. The proposed division of water monitoring stations is summarized in ***Table 4.13*** below.

Table 4.13 Water Monitoring Stations for Contract no. HY/2009/15

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

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

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

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

4.4.8. Due to the commencement of the marine bored piling on 28 Jan 2012, water quality monitoring for Contract no. HY/2009/19 was commenced on 28 Jan 2012.

4.4.9. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.

4.4.10. As confirmed by CWB RSS, the marine pilling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.

4.4.11. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and it was completed on 6 February 2012.

4.4.12. Water quality monitoring at WSD10 and WSD15 was temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;

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

4.4.14. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Center (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.

4.4.15. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3 , 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.

4.4.16. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.

4.4.17. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration.

4.4.18. As per the meeting with the representative of Excelsior Hotel and World Trade Centre on 17 May 2011, they confirmed that the seawater intake for The Excelsior was no longer in use and replaced by the connected permanent water supply from WSD pipelines since 11 January 2011. Thus, the impact water quality monitoring for the cooling intake - C6 was terminated effective from 26 May 2011.

4.4.19. 24 hours monitoring of turbidity at the cooling water intakes at C7 was conducted. With respect to the seawall collapsing at TS4 on 17 November 2011, the 24 hours turbidity monitoring and was kept in November 2011. Since the reinstating the seawall was completed on 13 January 2012 and no any water deterioration was performed, 24 hour turbidity monitoring was then suspended on 27 January 2012.

4.4.20. The enhanced water quality monitoring at C6, C7, Ex-WPCWA-SW and Ex-WPCWA-SE was commenced on 13 January 2011.

4.4.21. Water monitoring results measured in this reporting period are reviewed and summarized in ***Table 4.14***. Details of water quality monitoring results and graphical presentation can be referred in ***Appendix 4.3***.

Table 4.14 Summary of Water Quality Monitoring Exceedances in Reporting period

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	3	8	0	2	0	0	5	4	0	1
	P1	0	0	0	0	0	0	0	0	0	1	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	1	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 Monitoring started on 8 Feb 2012	WSD9	0	0	0	0	0	0	0	0	0	0	0	1
	WSD17	0	0	0	0	0	0	0	0	0	0	0	0
Monitoring started on 29 July 2013	RW21-P789	0	0	3	3	1	0	0	0	2	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	2	1	0	0	0	0	0	0	0	0

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
Total		0	0	9	12	1	2	0	0	7	5	0	2

Remarks:

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

4.4.22. There were 1 action level and 2 limit level exceedances of turbidity, and 1 action level and 2 limit level exceedances of SS recorded in September reporting month. Investigation found that exceedances are not related to the Project works.

4.4.23. There were 12 action level and 12 limit level exceedances of turbidity, and no action level and 2 limit level exceedances of SS recorded in October reporting month. Investigation found that the exceedances were not related to Project works.

4.4.24. There were 3 action level and 3 limit level exceedances of turbidity recorded in the reporting month. Investigation found that the exceedances were not related to Project works.

4.4.25. 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 4.15.***

Table 4.15 Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting period

Contract no.	Water Monitoring Station	Mid-flood		Mid-ebb	
		DO		DO	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	C7	2	0	1	0
	Ex-WPCWA SW	0	6	0	5
	Ex-WPCWA SE	5	10	4	11
Total		**7**	**16**	**5**	**16**

4.4.26. There were 3 action level exceedances and 9 limit level exceedances of enhanced dissolved oxygen recorded in September reporting month. Investigation found that the exceedances are not related to the Project works.

4.4.27. There were 8 action level exceedances and 16 limit level exceedances of enhanced dissolved oxygen recorded in October reporting month. Investigation found that the exceedances are not related to the Project works.

4.4.28. There were 1 action level exceedances and 7 limit level exceedances of enhanced dissolved oxygen recorded in November reporting month. Investigation found that the exceedances are not related to the Project works.

4.4.29. Investigation found that the exceedances are not related to the Project works. Details of graphical presentation can be referred in ***Appendix 4.3***.

4.4.30. 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.

4.4.31. 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

4.4.32. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.

4.5 Waste Monitoring Results

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

4.5.1. No Inert C&D waste and non-inert C&D waste was disposed of for the site works in this reporting period. Details of the waste flow table are summarized in ***Table 4.16.***

Table 4.16 Details of Waste Disposal for Contract no. HK/2009/01

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

4.5.2. There were no Marine Sediment (Type 1 – Open Sea Disposal) and no Marine Sediment (Type 1- Open Sea Disposal (Dedicate Sites) & Type 2- Confined Marine Disposal) disposed of in June, July and August reporting months.

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

4.5.3. Inert and non-inert C&D waste were disposed of for the site works in this reporting period. Details of the waste flow table are summarized in ***Table 4.17.***

Table 4.17 Details of Waste Disposal for Contract no. HK/2009/02

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	12370.65	276075.1	TKO137/ TM 38
Inert C&D materials recycled, m^3	NIL	18161	N/A
Non-inert C&D materials disposed, m^3	NIL	1515.103	SENT Landfill
Non-inert C&D materials recycled, m^3	N/A	N/A	N/A
Chemical waste disposed, kg	NIL	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m^3 *	30505*	216575* (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m^3	18914*	148234* (Bulk volume)	East of Sha Chau

* Remarks: The quantity and the cumulative quantity of marine sediment type 1 – open sea disposal and type 1 – open sea disposal (dedicate sites) & type 2 – confined marine disposal is updated in this quarterly reporting period.

4.5.4. There were Marine Sediment (Type 1 – Open Sea Disposal) and no Marine Sediment (Type 1- Open Sea Disposal (Dedicate Sites) & Type 2- Confined Marine Disposal) disposed of in this reporting quarter.

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

4.5.5. No inert and non-inert C&D waste were disposed of for the site works in this reporting period. Details of the waste flow table are summarized in ***Table 4.18.***

Table 4.18 Details of Waste Disposal for Contract no. HY/2009/15

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Inert C&D materials disposed, m^3	NIL	141579.2	Tuen Mun Area 38	NIL
	NIL	65216	TKO137 FB	NIL
Inert C&D materials recycled, m^3	NIL	304	Ex-PCWA	NIL
	NIL	111.9	TS4	NIL
Non-inert C&D materials	NIL	252.2	SENT Landfill	NIL

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
disposed, m^3				
Non-inert C&D materials recycled, kg	NIL	299361.5	N/A	NIL
Chemical waste disposed, kg	NIL	8,200	N/A	NIL
Marine Sediment (Type 1 – Open Sea Disposal) , m^3	NIL	103488 (Bulk Volume)	South of Cheung Chau	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	22020	273345 (Bulk Volume)	East of Sha Chau	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers)	NIL	12640 (Bulk Volume)	East of Sha Chau	Dredging from TCBR1W / Maintenance dredging
Marine Sediment (Type 2 – Confined Marine Disposal), m3	NIL (Bulk Volume)	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

4.5.6. There was Marine Sediment (Type 1 – Open Sea Disposal), Marine Sediment (Type 2 – Confined Marine Disposal) was disposed in this reporting quarter.

Contract no. HK/2010/06 - Wan Chai Development Phase II – Central –Wanchai Bypass over MTR Tsuen Wan Line

4.5.7. No non-inert C&D and no Inert C&D waste were disposed of for the site works in this reporting period. Details of the waste flow table are summarized in ***Table 4.19.***

Table 4.19 Details of Waste Disposal for Contract no. HK/2010/06

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	12567.88	TM38
Inert C&D materials recycled, m^3	NIL	267	HK/2009/01
Non-inert C&D materials disposed, m^3	NIL	369.48	SENT/TKO137SF
Non-inert C&D materials recycled, m^3	NIL	60.58	Recyclers
Chemical waste disposed, L	NIL	2600	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	NIL (Bulk Volume)	3,891 (Bulk Volume)	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	NIL (Bulk Volume)	12,586 (Bulk Volume)	East Sha Chau

4.5.8. There was no Marine Sediment (Type 1- Open Sea Disposal) and no Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) were disposed in this reporting quarter.

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

4.5.9. No Inert and non-inert C&D waste were disposed of in this reporting quarter

Table 4.20 Details of Waste Disposal for Contract no. HY/2009/19

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

4.5.10. There were no marine sediments Type1- Open Sea Disposal and there were no Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal in the reporting period.

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

4.5.11. Inert C&D waste were disposed of in this reporting quarter. Details of the waste flow table are summarized in Table 4.21.

Table 4.21 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	539	1786	TM38
Inert C&D materials recycled, m^3	NIL	NIL	N/A
Non-inert C&D materials disposed, m^3 *	NIL	315	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3 *	NIL (Bulk volume)	31759 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3 *	NIL (Bulk volume)	108485 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

4.5.12. No Marine Sediment (Type 1 – Open Sea Disposal) and marine sediment Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated disposed in this reporting period.

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

4.5.13. No Inert C&D waste and non-inert C&D waste were disposed in this reporting period. Details of the waste flow table are summarized in Table 4.22

Table 4.22 Details of Waste Disposal for Contract no. HY/2010/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	NIL	N/A
Inert C&D materials recycled, m^3	NIL	NIL	N/A
Non-inert C&D materials disposed, m^3	NIL	NIL	N/A
Non-inert C&D materials	NIL	NIL	N/A

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
recycled, kg			
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal)	24700	54580	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	530	24860	Brothers Island
Marine Sediment (Type 3 – Special Treatment)	NIL	NIL	Brothers Island

Remarks: Contractor clarified and have been updated the quantity of Type 1 Open Sea Disposal and Type 1- Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal for August reporting month as 13,750m^3 and 6,510m^3 respectively and the cumulative quantity of Type 1 Open Sea Disposal and Type 1- Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal for August reporting month as 29,880m^3 and 24,3300m^3 respectively.

4.5.14. There were Marine Sediment (Type 1 – Open Sea Disposal) and marine sediment Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated disposed in this reporting period.

5. COMPLIANCE AUDIT

5.0.1. The Event Action Plan for construction noise, air quality and water quality are presented in ***Appendix 5.1***.

5.1. Noise Monitoring

5.1.1 No action and limit level exceedance was recorded in September, October and November 2014 reporting period.

5.1.2 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of graphical presentation can be referred in ***Appendix 4.1.***

5.2. Real-time Noise Monitoring

5.2.1 No project related exceedances were recorded in September, October and November 2014 reporting month at RTN2a-Hong Kong Electric Centre during this reporting quarter.

5.2.2 Details of real time noise monitoring results and graphical presentation can be referred to ***Appendix 4.2***

5.3. Air Monitoring

5.3.1 No action or limit exceedance was recorded in 1-hr TSP and 24-hrs TSP monitoring in the September, October and November reporting period.

5.3.2 No Action and Limit Level was recorded for odour patrol during September reporting months.

5.4. Water Quality Monitoring

5.4.1. The summary of water quality exceedances recorded in reporting period is presented in the ***Table 5.1*** and ***Table 5.2***.

Table 5.1 Summary of Water Quality Monitoring Exceedances in Reporting period

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	3	8	0	2	0	0	5	4	0	1
	P1	0	0	0	0	0	0	0	0	0	1	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	1	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	0	0	0

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/02 Monitoring started on 8 Feb 2012	WSD9	0	0	0	0	0	0	0	0	0	0	0	1
	WSD17	0	0	0	0	0	0	0	0	0	0	0	0
Monitoring started on 29 July 2013	RW21-P789	0	0	3	3	1	0	0	0	2	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	2	1	0	0	0	0	0	0	0	0
Total		0	0	9	12	1	2	0	0	7	5	0	2

Remarks:

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

5.4.2. There were 1 action level and 2 limit level exceedances of turbidity, and 1 action level and 2 limit level exceedances of SS recorded in September reporting month. Investigation found that exceedances are not related to the Project works.

5.4.3. There were 12 action level and 12 limit level exceedances of turbidity, and no action level and 2 limit level exceedances of SS recorded in October reporting month. Investigation found that the exceedances were not related to Project works.

5.4.4. There were 3 action level and 3 limit level exceedances of turbidity recorded in the reporting month. Investigation found that the exceedances were not related to Project works.

Table 5.2 Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting period

Contract no.	Water Monitoring Station	Mid-flood		Mid-ebb	
		DO		DO	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	C7	2	0	1	0
	Ex-WPCWA SW	0	6	0	5
	Ex-WPCWA SE	5	10	4	11
Total		7	16	5	16

5.4.5. There were 3 action level exceedances and 9 limit level exceedances of enhanced dissolved oxygen recorded in September reporting month. Investigation found that the exceedances are not related to the Project works.

5.4.6. There were 8 action level exceedances and 16 limit level exceedances of enhanced dissolved oxygen recorded in October reporting month. Investigation found that the exceedances are not related to the Project works.

5.4.7. There were 1 action level exceedances and 7 limit level exceedances of enhanced dissolved oxygen recorded in November reporting month. Investigation found that the exceedances are not related to the Project works.

5.5. Site Audit

5.5.1. There was no non-compliance from the site audits in the reporting period. During environmental site inspections conducted during the reporting period, minor deficiencies were noted.

5.6. Review of the Reasons for and the Implications of Non-compliance

5.6.1 There was no non-compliance from the site audits in the reporting period.

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

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

6. COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

6.0.1. No environmental complaint received in September reporting month.

6.0.2. One environmental complaint received in October reporting month.

6.0.3. 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.

6.0.4. 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.

6.0.5. 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.

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

6.0.7. Three environmental complaints were received in November reporting month.

6.0.8. A public complaint regarding to malodour referred by EPD was received by ET on 10 November 2014 (EPD Ref.: H05/RS/00027815-14). 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 on 7 November 2014.

6.0.9. 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 opposite to Wan Chai 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 day time 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.

6.0.10. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operation on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified.

Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.

6.0.11. A public complaint regarding to malodour and dark smoke referred by EPD was received by EP on 13 November 2014 (EPD Ref.: H05/RS/00028253-14). The complainant reported that malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affect the pedestrians on 12 November 2014.

6.0.12. 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.

6.0.13. 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.

6.0.14. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.

6.0.15. A public complaint regarding to construction noise impact referred by EPD was received by ET via email on 21 November 2014 (EPD Ref: H08/RS/28263-14). Resident in Hing Fat Street complained about loud noise from dredging work in CBTS up to 10pm at night.

6.0.16. 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 endeavour to minimize the noise as so not to disturb the nearby residents.

6.0.17. The details of cumulative complaint log and summary of complaints are presented in ***Appendix 6.1***.

6.0.18. Cumulative statistic on complaints and successful prosecutions are summarized in ***Table 6.1*** and ***Table 6.2*** respectively.

Table 6.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
Commencement works (Mar 2010) to last reporting period	30
September 2014- November 2014	4
Project-to-Date	**34**

Table 6.2 Cumulative Statistics on Successful Prosecutions

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

7. CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS

7.0.1. According to Condition 3.4 of the EP-356/2009, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III, Central-Wanchai Bypass and Island Eastern Corridor Link projects.

7.0.2. According to the Final EM&A Report of Central Reclamation Phase III (CRIII) for Contract HK 12/02, the major construction activities were completed by end of January 2014 and no construction activities were undertaken thereafter and the water quality monitoring was completed in October 2011 and no Project-related exceedance was recorded for air and noise monitoring. It can be concluded that cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was insignificant.

7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area, Diaphragm wall construction and pipe pile wall construction were performed in August 2014 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 activity under Wan Chai Development Phase II were marine works at HKCEC areas, tunnel works at Wan Chai East and filling works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and tunnel works at Central Interchange, land base bored pilling works at Victoria Park Road and ELS, segment launching works and tunnel works at North Point area. The major environmental impact was water quality impact at Causeway Bay and Wan Chai. Marine-based construction activities were filling works at WanChai West and removal of temporary reclamation at TS4, TS2 and EX-PCWA at Wan Chai East in the reporting month.

7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, project related exceedances recorded during the air and noise environmental monitoring events in the reporting period were rectified. 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. CONCLUSION

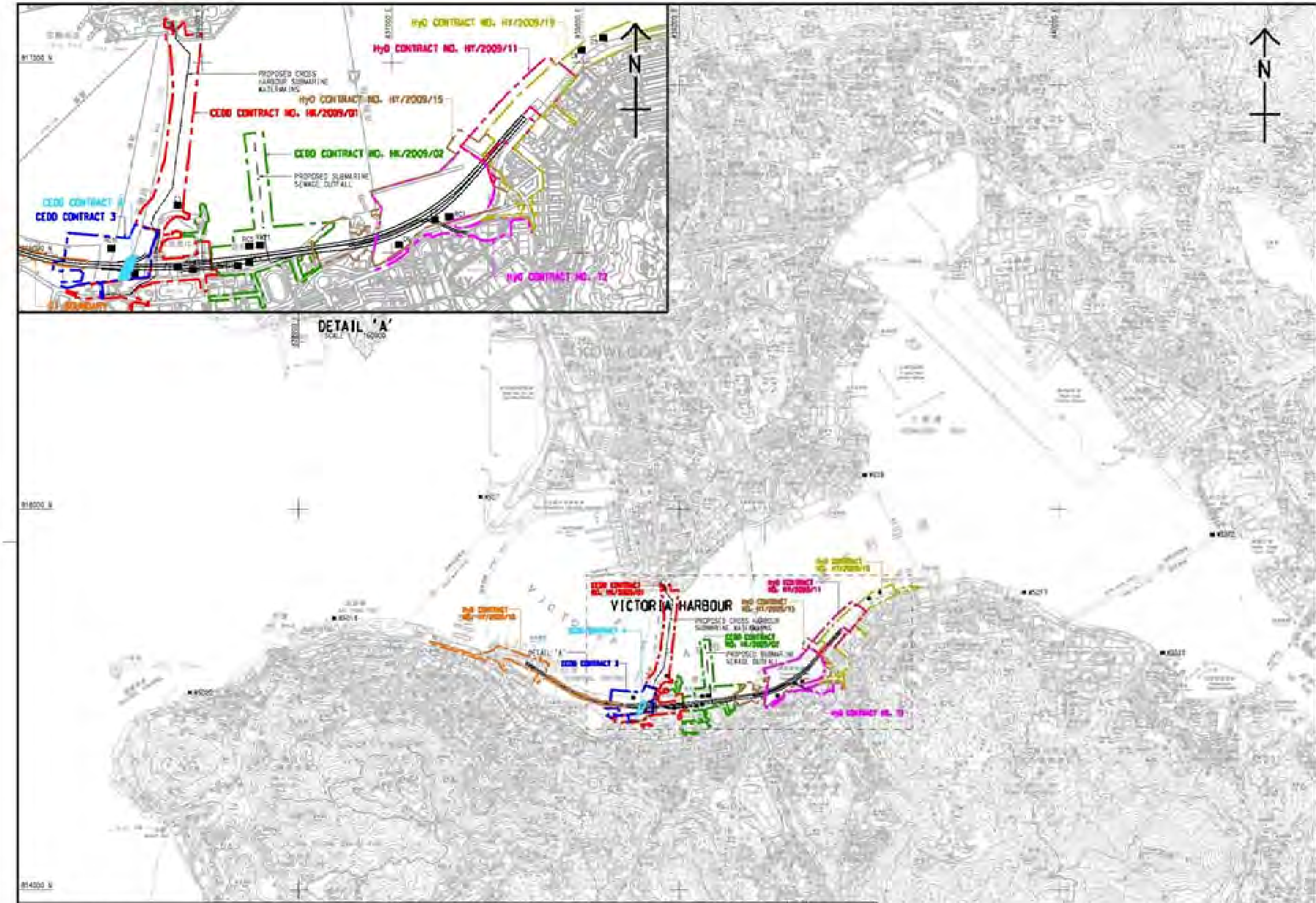
8.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

8.0.2. No non-compliance was noted and no prosecution was received during the reporting period.

8.0.3. The construction programmes of individual contracts are provided in ***Appendix 8.1***.

Figure 2.1

Project Layout



LEGEND:

■ WATER QUALITY MONITORING STATIONS

COOLING WATER INTAKES

- C1 HONG KONG CONVENTION AND EXHIBITION CENTRE EXTENSION
- C2 TELECOM HOUSE/HK ACADEMY FOR PERFORMING ARTS / SHUI ON CENTRE
- C3 HONG KONG CONVENTION AND EXHIBITION CENTRE PHASE I
- C4 WAN CHAI TOWER AND GREAT EAGLE CENTRE
- C5 SUN HUNG KAI CENTRE
- C6 PROPOSED EXHIBITION STATION / WORLD TRADE CENTRE
- C7 WINDSOR HOUSE
- C8 CITY GARDEN
- C9 PROVIDENT CENTRE
- RC1 PROPOSED HKAPA EXTENSION
- RC5 SUN HUNG KAI CENTRE (REPROVISION)
- RC7 WINDSOR HOUSE (TEMPORARY REPROVISION)

WSD SALT WATER INTAKE

- WSD21 WAN CHAI
- SWI WAN CHAI (REPROVISION)
- WSD7 KOWLOON SOUTH
- WSD9 TAI WAN
- WSD10 CHA KWO LING
- WSD15 SAI WAN HO
- WSD17 QUARRY BAY
- WSD19 SHEUNG WAN
- WSD20 KENNEDY TOWN

DESIGNATED PROJECTS (DP)

- DP1 — CENTRAL-WAN CHAI BYPASS (CWB) INCLUDING ITS ROAD TUNNEL AND SLIP ROADS
- DP2 — ROAD P2 AND OTHER ROADS (PRIMARY / DISTRICT DISTRIBUTOR ROADS)
- DP3 — PERMANENT AND TEMPORARY RECLAMATION WORKS INCLUDING ASSOCIATED DREDGING WORKS IN WAN CHAI DEVELOPMENT PHASE II (WDII) AREA
- ~~DP4 — TEMPORARY TYPHOON SHELTER~~ (DP4 NOT TO BE IMPLEMENTED)
- DP5 — WAN CHAI EAST SEWAGE OUTFALL
- DP6 — DREDGING FOR THE CROSS-HARBOUR WATER MAINS

DP1 IS COVERED BY EP - 356/2009

DP2 IS COVERED BY EP - 376/2009

DP3, DP5 AND DP6 ARE COVERED BY EP - 356/2009

WORKS CONTRACT	DESIGNATED PROJECT INVOLVED	CONSTRUCTION COMMENCEMENT
CEDD CONTRACT NO. HK/2009/01	DP1, DP3, DP6	APRIL 2010
CEDD CONTRACT NO. HK/2009/02	DP1, DP3, DP5	APRIL 2010
CEDD CONTRACT 3	DP1, DP3	END 2011
CEDD CONTRACT 4	DP1, DP3	END 2011
CEDD CONTRACT 5	DP2	2015
HyD CONTRACT NO. HY/2009/11	DP3	18 MARCH 2010
HyD CONTRACT NO. HY/2009/15	DP1, DP3	SEPTEMBER 2010
HyD CONTRACT NO. HY/2009/18	DP1	OCTOBER 2010
HyD CONTRACT NO. HY/2009/19	DP1	NOVEMBER 2010
HyD CONTRACT 12	DP1, DP3	MID 2013

土木工程拓展署 Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II AND CENTRAL - WAN CHAI BYPASS - SAMPLING, FIELD MEASUREMENT AND TESTING WORKS (STAGE 1)

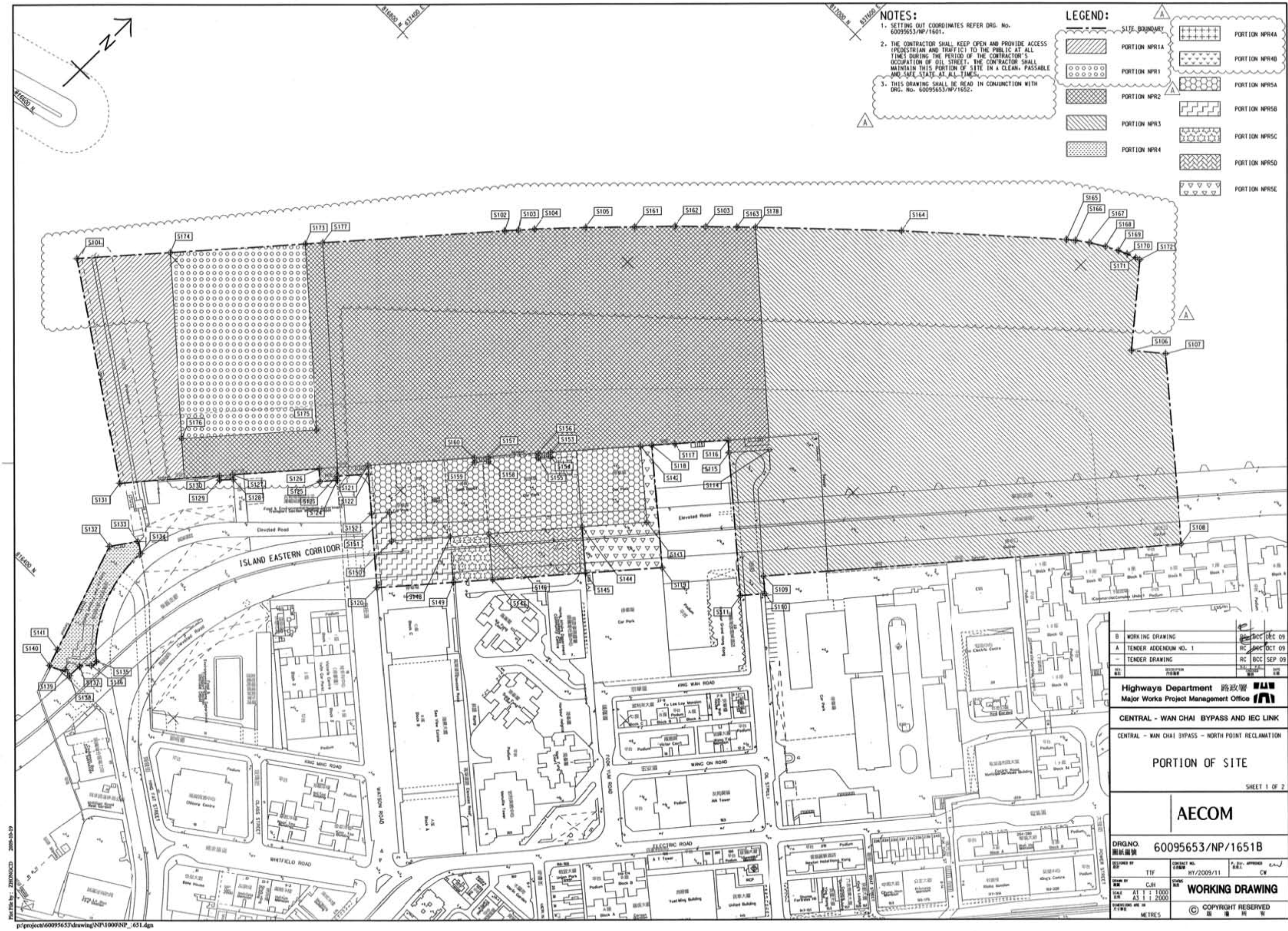
LOCATIONS OF WATER QUALITY MONITORING STATIONS

AECOM

DRAWING NO. 60041297/C5/SK001

SCALE A1 1:20000

DIMENSIONS IN METRES



NOTES:

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

LEGEND:

- SITE BOUNDARY
- PORTION NPR1A
- PORTION NPR1
- PORTION NPR2
- PORTION NPR3
- PORTION NPR4
- PORTION NPR4A
- PORTION NPR4B
- PORTION NPR5A
- PORTION NPR5B
- PORTION NPR5C
- PORTION NPR5D
- PORTION NPR5E

REV.	DESCRIPTION			DATE
B	WORKING DRAWING	RC	BCC	DEC 09
A	TENDER ADDENDUM NO. 1	RC	BCC	OCT 09
–	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

PORTION OF SITE

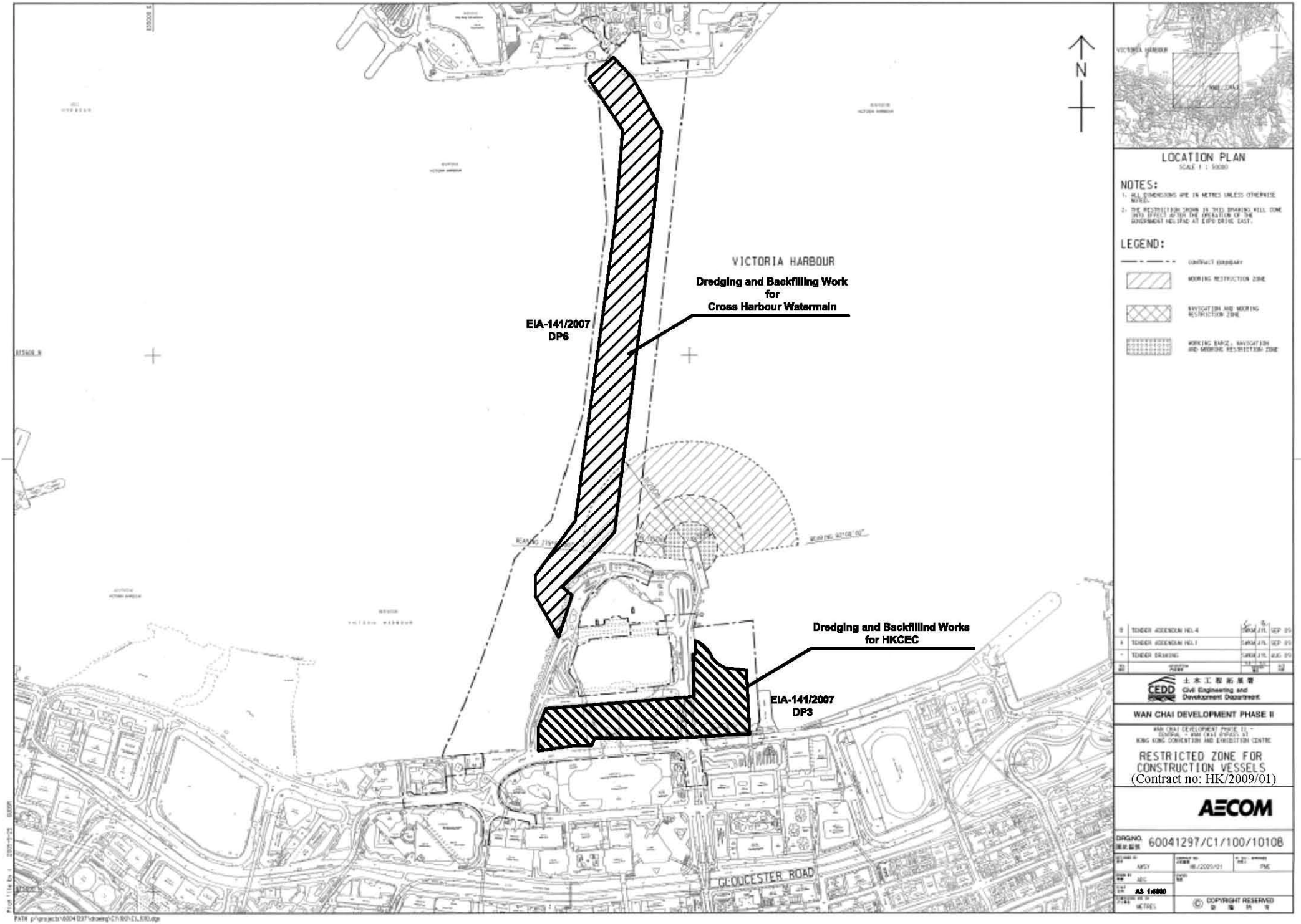
SHEET 1 OF 2

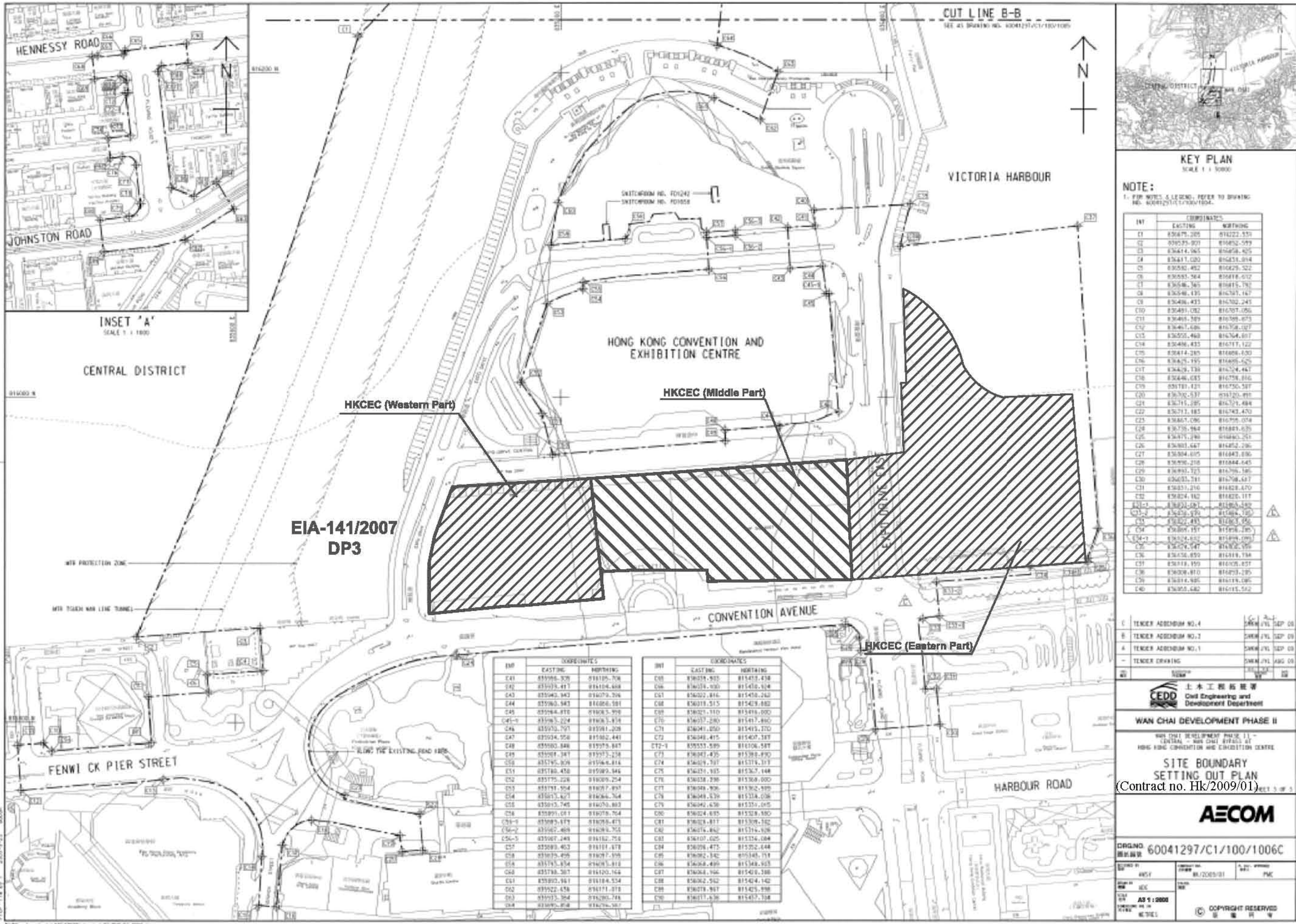
AECOM

DRG.NO. 60095653/NP/1651B

DESIGNED BY: TTF
CONTRACT NO.: HY/2009/11
APPROVED: CW
DRAWN BY: CJH
SCALE: A1 1 : 1000, A3 1 : 2000
STATUS: WORKING DRAWING
DIMENSIONS ARE IN METRES

p:\project\60095653\drawing\NP\1000\NP_1651.dgn


VICTORIA HARBOUR
Dredging and Backfilling Work
for
Cross Harbour Watermain
EIA-141/2007
DP6
Dredging and Backfillind Works
for HKCEC
EIA-141/2007
DP3
GLOUCESTER ROAD
N
LOCATION PLAN
SCALE 1 : 50000
NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
2. THE RESTRICTION SHOWN IN THIS DRAWING WILL COME INTO EFFECT AFTER THE OPERATION OF THE GOVERNMENT HELIPAD AT EXPO DRIVE EAST.
LEGEND:
CONTRACT BOUNDARY
MOORING RESTRICTION ZONE
NAVIGATION AND MOORING RESTRICTION ZONE
WORKING BARGE, NAVIGATION AND MOORING RESTRICTION ZONE
TENDER ADDENDUM NO.4
TENDER ADDENDUM NO.1
TENDER DRAWING
CEDD
土木工程拓展署
Civil Engineering and Development Department
WAN CHAI DEVELOPMENT PHASE II
WAN CHAI DEVELOPMENT PHASE II - EXTERNAL WORKS AT HONG KONG CONVENTION AND EXHIBITION CENTRE
RESTRICTED ZONE FOR CONSTRUCTION VESSELS
(Contract no: HK/2009/01)
AECOM
DRG.NO. 60041297/C1/100/10108
AS 1:6000
METRES
© COPYRIGHT RESERVED


CUT LINE B-B
HENNESSY ROAD
JOHNSTON ROAD
INSET 'A'
CENTRAL DISTRICT
VICTORIA HARBOUR
HONG KONG CONVENTION AND EXHIBITION CENTRE
HKCEC (Western Part)
HKCEC (Middle Part)
HKCEC (Eastern Part)
EIA-141/2007
DP3
CONVENTION AVENUE
FENWICK PIER STREET
HARBOUR ROAD
KEY PLAN
NOTE:
TENDER ADDENDUM NO.4
TENDER ADDENDUM NO.2
TENDER ADDENDUM NO.1
TENDER DRAWING
土木工程拓展署
CEDD Civil Engineering and Development Department
WAN CHAI DEVELOPMENT PHASE II
SITE BOUNDARY
SETTING OUT PLAN
(Contract no. Hk/2009/01)
AECOM
DRG.NO. 60041297/C1/100/1006C
A3 1:2000
COPYRIGHT RESERVED

OVERALL Working Schedule

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

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

Section of Works	A	Major Work at Area WCR1
XI	A1	Construct western and eastern temporary seawall
XI	A2	Dredging and construct new seawall
XI	A3	Reclamation to level +3.5mPD
IXB	A4	Construct diaphragm wall and barrette pile of tunnel "Portion 1"
IXB	A5	Construct tunnel "Portion 1" structures including excavation and backfilling with ELSW
IVA, IVB, IVC V, VI, VII	A6	Construct all drainage system, pipeworks of intakes and cooling system within Area WCR1

Section of Works	B	Major Work in Associated Area
IVA, IVB, IVC	B1	Construct P7, P8 and P9 new pumping stations
V	B2	Construct WSD's pumping station
VI	B3	Construct connection chamber in Wan Chai East Preliminary Treatment Plant
IVA, IVB, IVC V, VI, VII	B4	Construct all drainage system, pipeworks of intakes and cooling system on public road
VI	B5	Dredging and construct the submarine outfall pipes
VIIIA	B6	Construct new Wan Chai Ferry Pier
III	B7	Construct new permanent helipad at Expo Drive
III	B8	Construct new public toilet and passenger terminal building at Expo Drive

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

Section of Works	D	Other Temporary Works
XI	D1	Divert existing 1800 mm diameter drain pipe

N

N 816230

N 816030

N 815830

GOLDEN BAUHINIA SQUARE

VICTORIA HARBOUR

RECLAMATION WORKS BY OTHERS

TUNNEL WORKS BY OTHERS

35m CLEAR SPACE

P7 P8 P9

EXISTING WATER INTAKES

DIRECTION OF TUNNEL WORKS

DRAINAGE DIVERSION OF 1800 PIPE

EXISTING SUBMARINE OUTFALL (SEWAGE)

EXISTING DISCHARGE

B1 B2 B3 B4 B5 B6 B7 B8

A1 A2 A3 A4 A5 A6

C1 C2 C3 C4 C6 C7

D1

0 20 40 60m

1 : 2000 SCALE BAR

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

CLIENT

ENGINEER'S REPRESENTATIVE

CONTRACTOR

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

PROJECT

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

DRAWING TITLE

DETAILED WORKS SCHEDULE AND LOCATION PLAN - STAGE 1

	DESIGN	DRAWN	CHECKED
INITIAL	-	M.S. SIN	-
DATE	-	07/04/2010	-

DRAWING NO. CWCRJV/HK200902/SK0031 REV C

SCALE 1 : 2000 (A3)

P:\01_Construction Team\CAD (sketch working)\2010_05_19 SK0031C\CWCRJV-HK200902-SK0031C.dwg, 20/5/2010 9:34:20

LEGEND:

WORKS AREA

DREDGING AREA FOR
MITGATION OF ODOUR(DP3)

SITE BOUNDARY

TCBR1E

TCBR2
AND
TCBR3

TCBR4

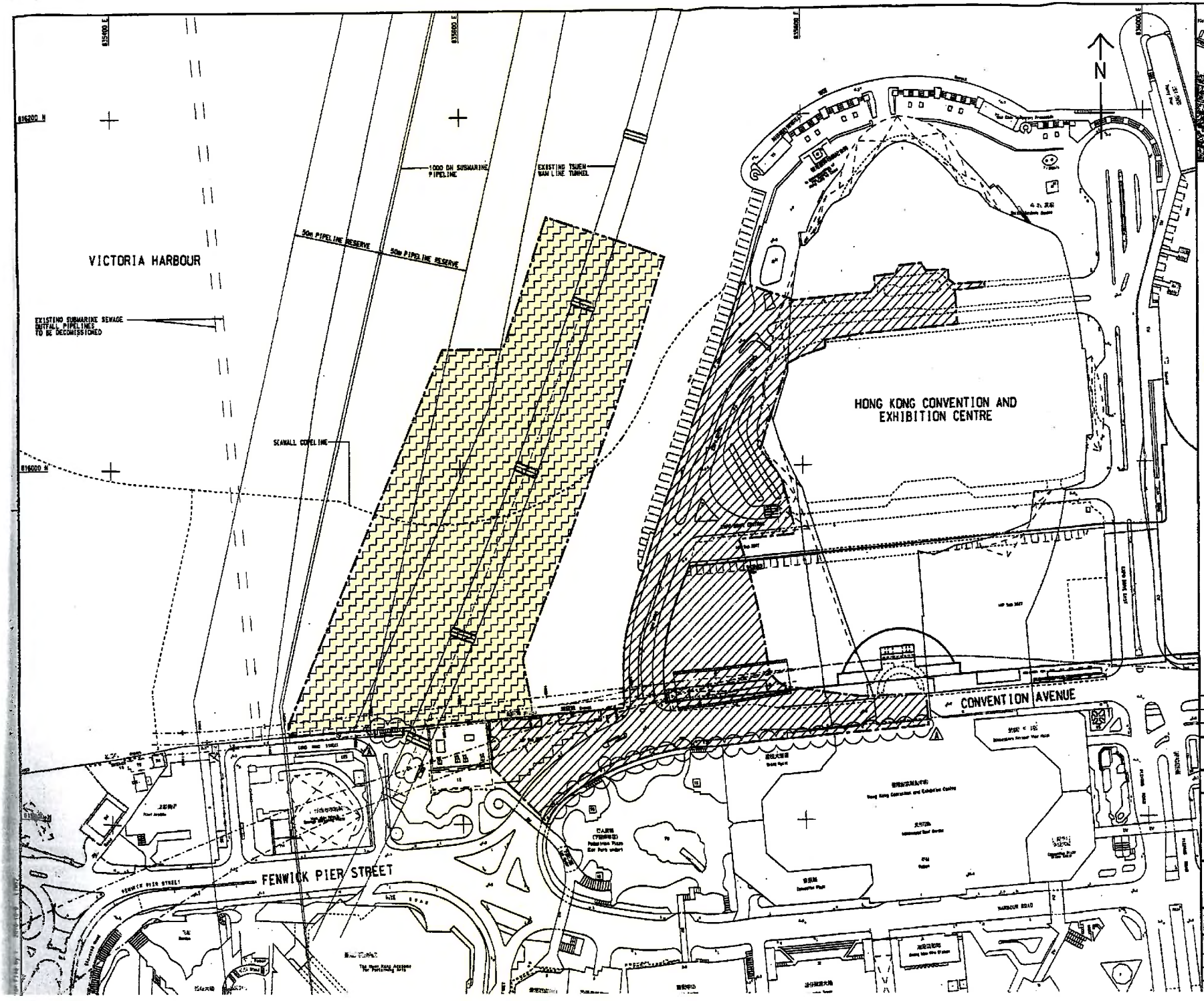
TCBR1W

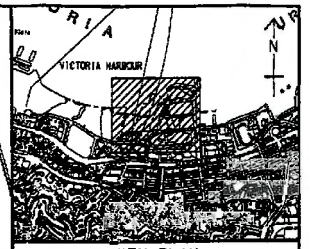
TPCWAE

TPCWAW

DP3

中國建築工程(香港)有限公司 CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.	
Highways Department CONTRACT NO. HY/2009/15 CENTRAL–WAN CHAI BYPASS –TUNNEL (CAUSEWAY BAY TYPHOON SHELTER SECTION)	
TITLE LOCATION PLAN OF WORKS AREA	
DRG. NO. CWBT/EPD/001B	
SCALE 1:1000 @ A0	STATUS
DIMENSIONS ARE IN MILLIMETERS	COPYRIGHT RESERVED





KEY PLAN
SCALE 1 : 20000

NOTES:

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

LEGEND:

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

REV	DESCRIPTION	BY	CHK	DATE
A	TENDER ADDENDUM NO.1	SWKM	JYL	OCT 10
-	TENDER DRAWING	SWKM	JYL	SEP 10

CEDD 土木工程拓展署 Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

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

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

AECOM

DRG.NO. 60041297/C4/100/1301A

DESIGNED BY SWKM	DRAWING NO. HK/2010/06	CHK'D BY TKH
DRAWN BY ADC	SCALE	
DATE	A1 1:1000	

Figure 2.2

Project Organization Chart

Project Organization Chart

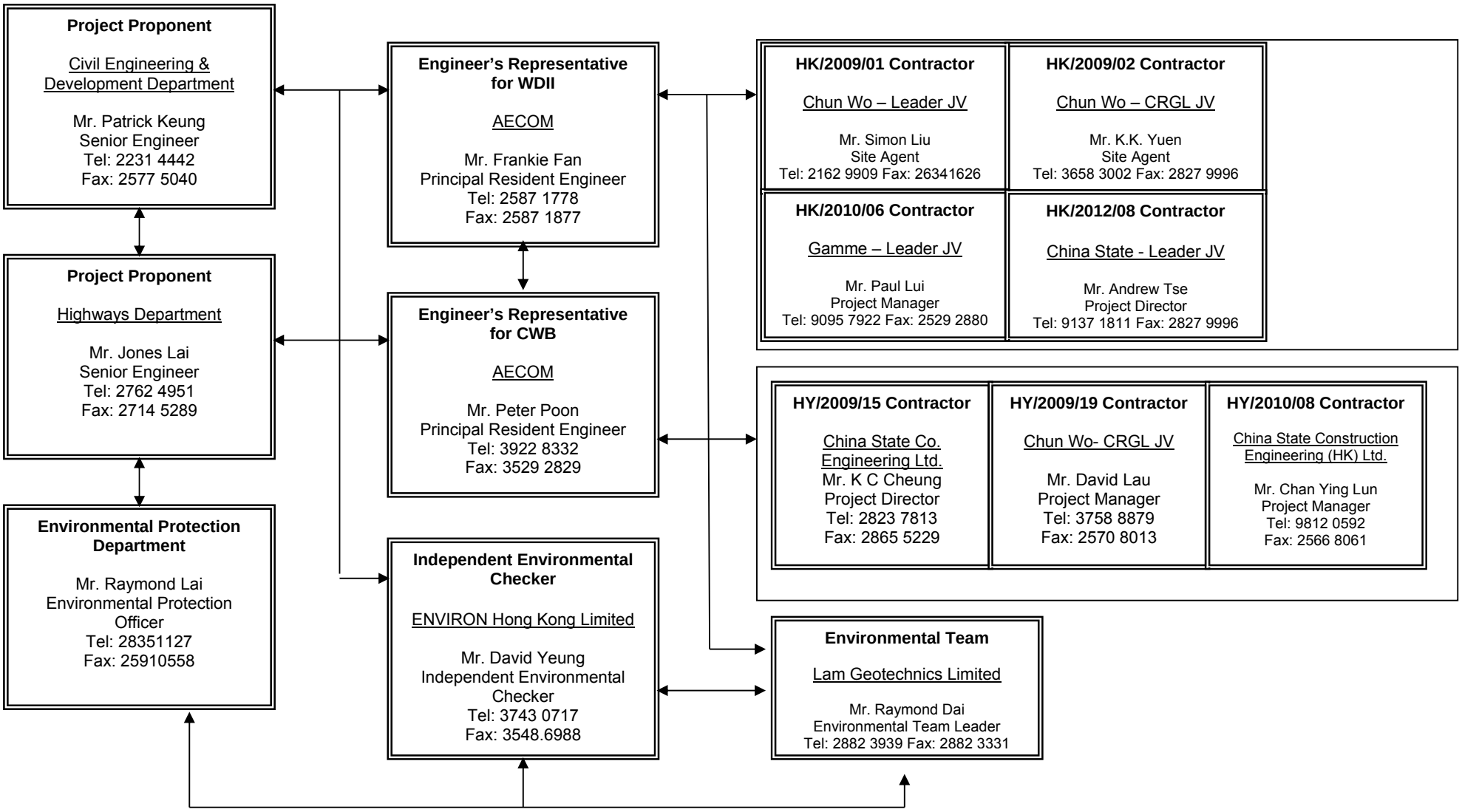
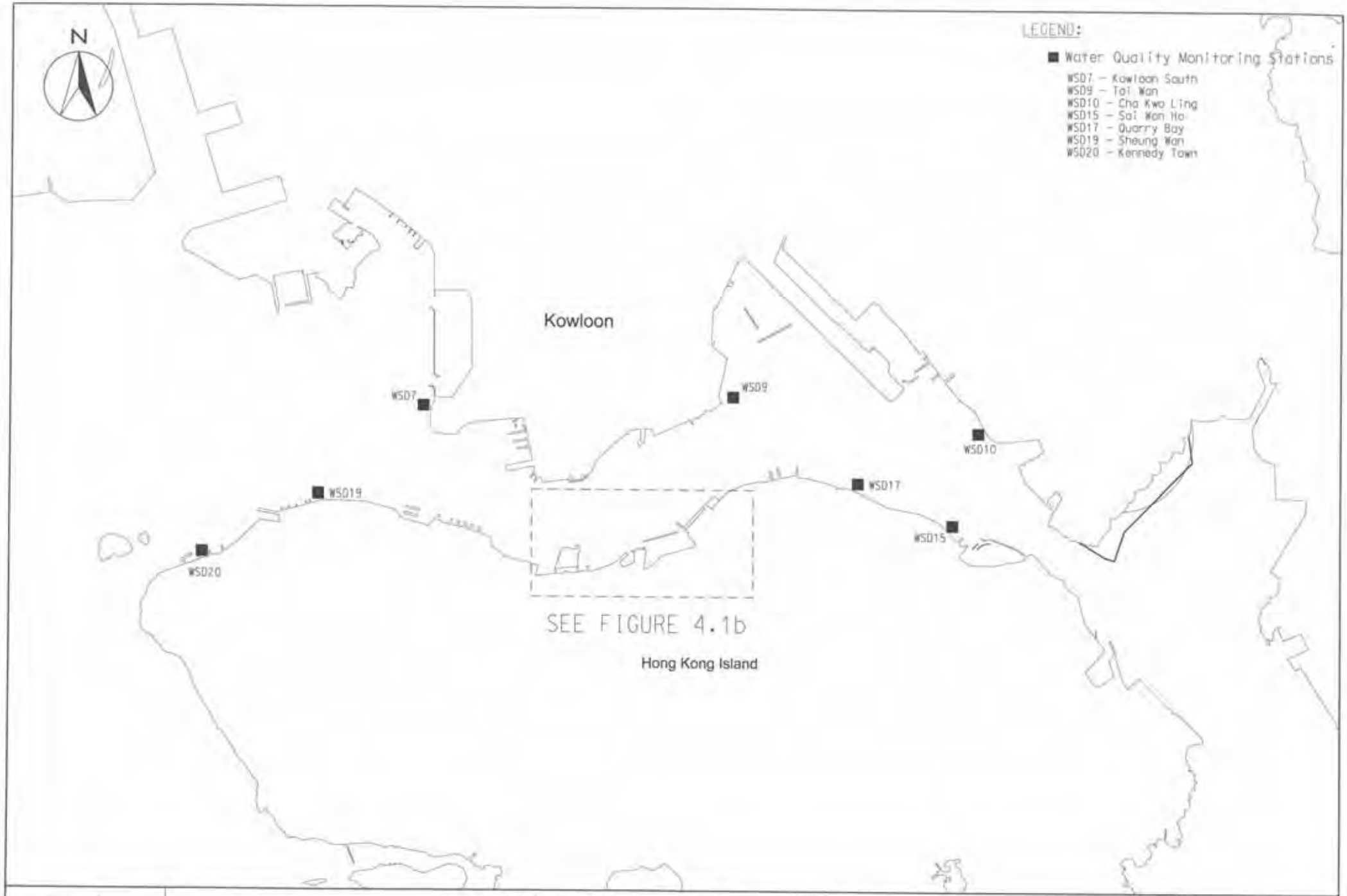


Figure 3.1

Locations of Monitoring Stations



MAUNSELL AECOM
Maunsell Consultants Asia Ltd

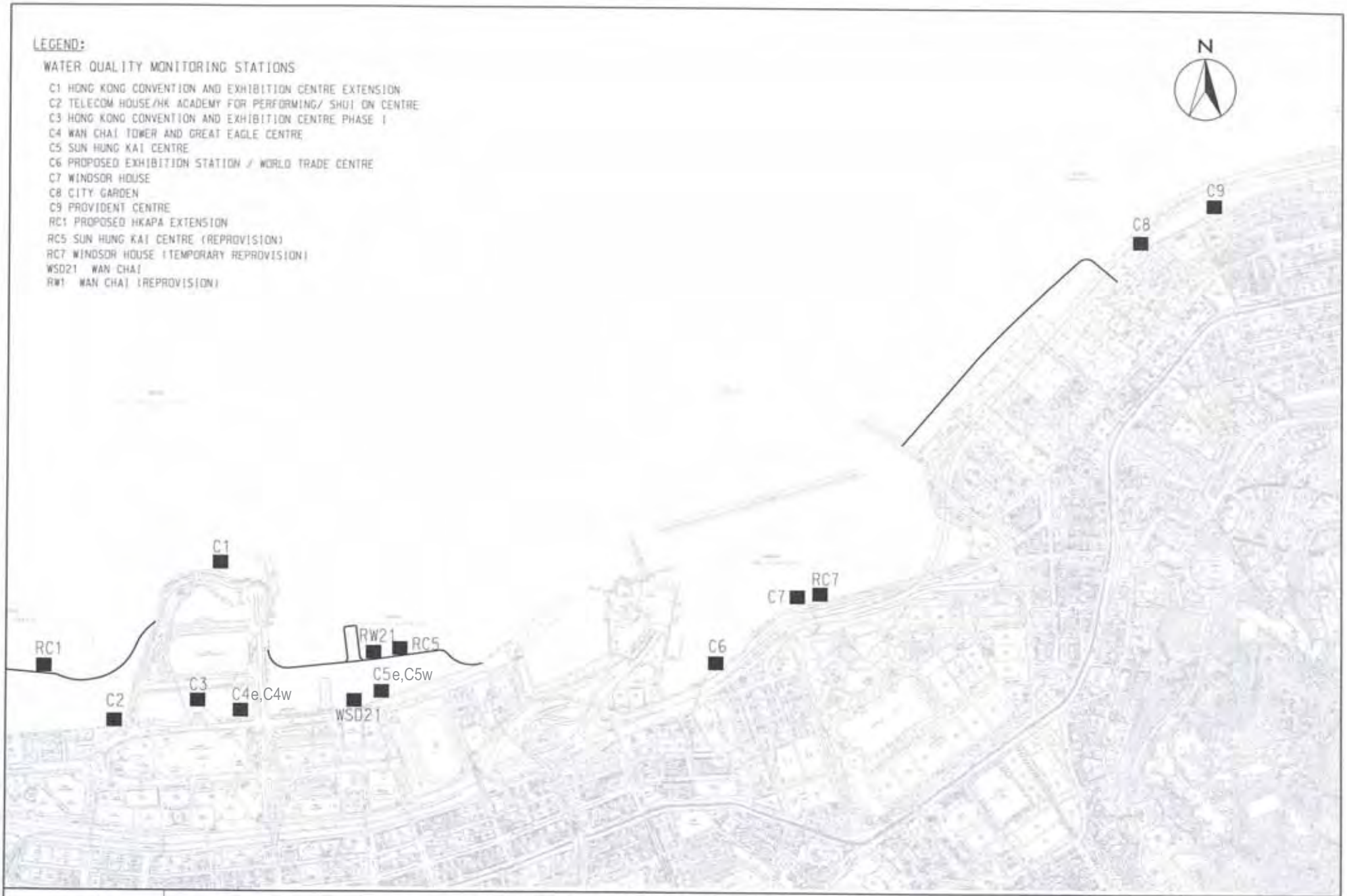
WAN CHAI DEVELOPMENT PHASE II - PLANNING AND ENGINEERING REVIEW

LOCATIONS OF WATER QUALITY MONITORING STATIONS

(SHEET 1 OF 2)

FIGURE 4.1a

P:/60017193/REPORT/DRAWINGS/EM&A-0708/WQ/4.1A.DGN SCALE: N.T.S. (A3)



MAUNSELL AECOM
Maunsell Consultants Asia Ltd

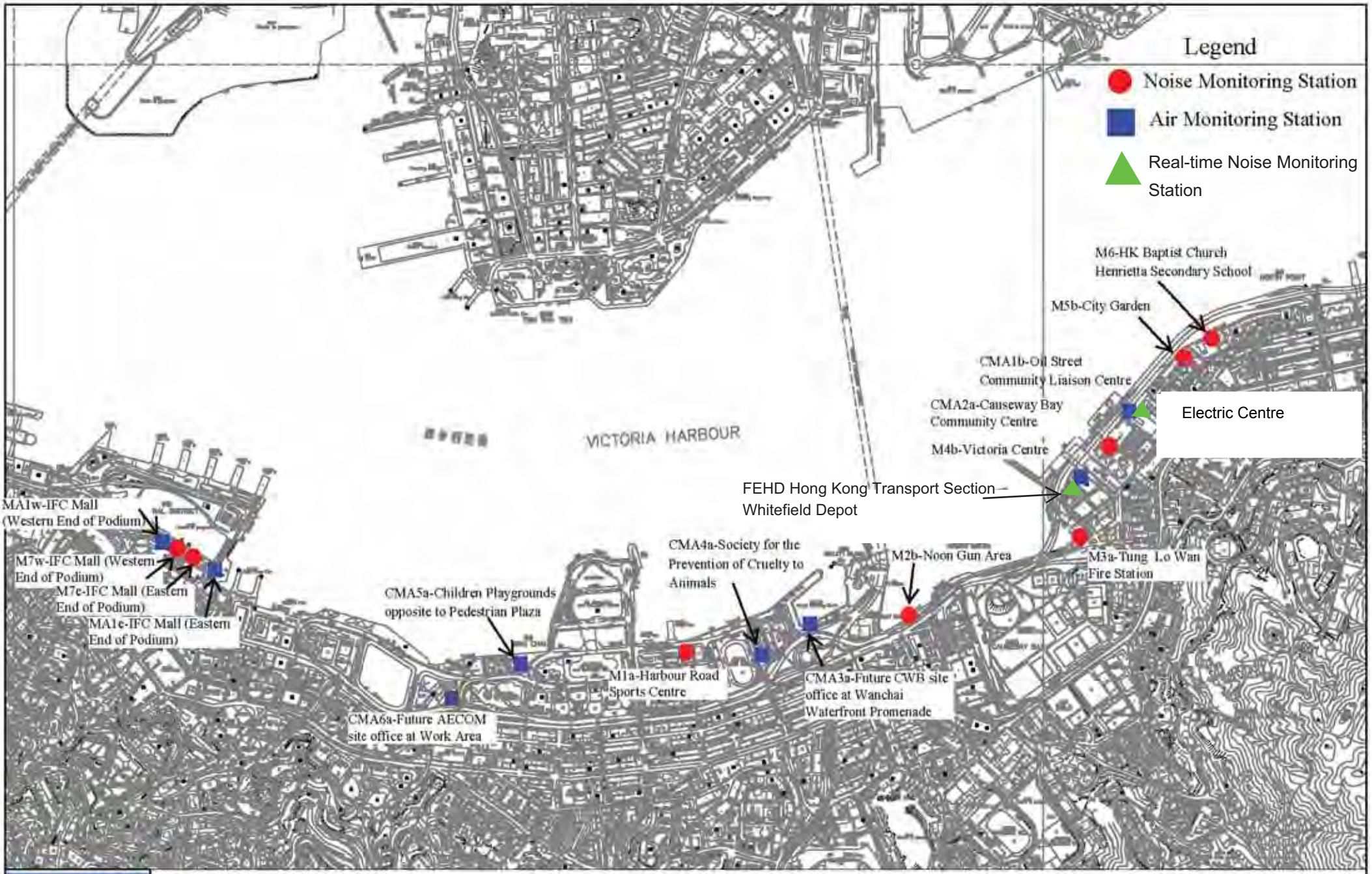
WAN CHAI DEVELOPMENT PHASE II - PLANNING AND ENGINEERING REVIEW

LOCATIONS OF WATER QUALITY MONITORING STATIONS

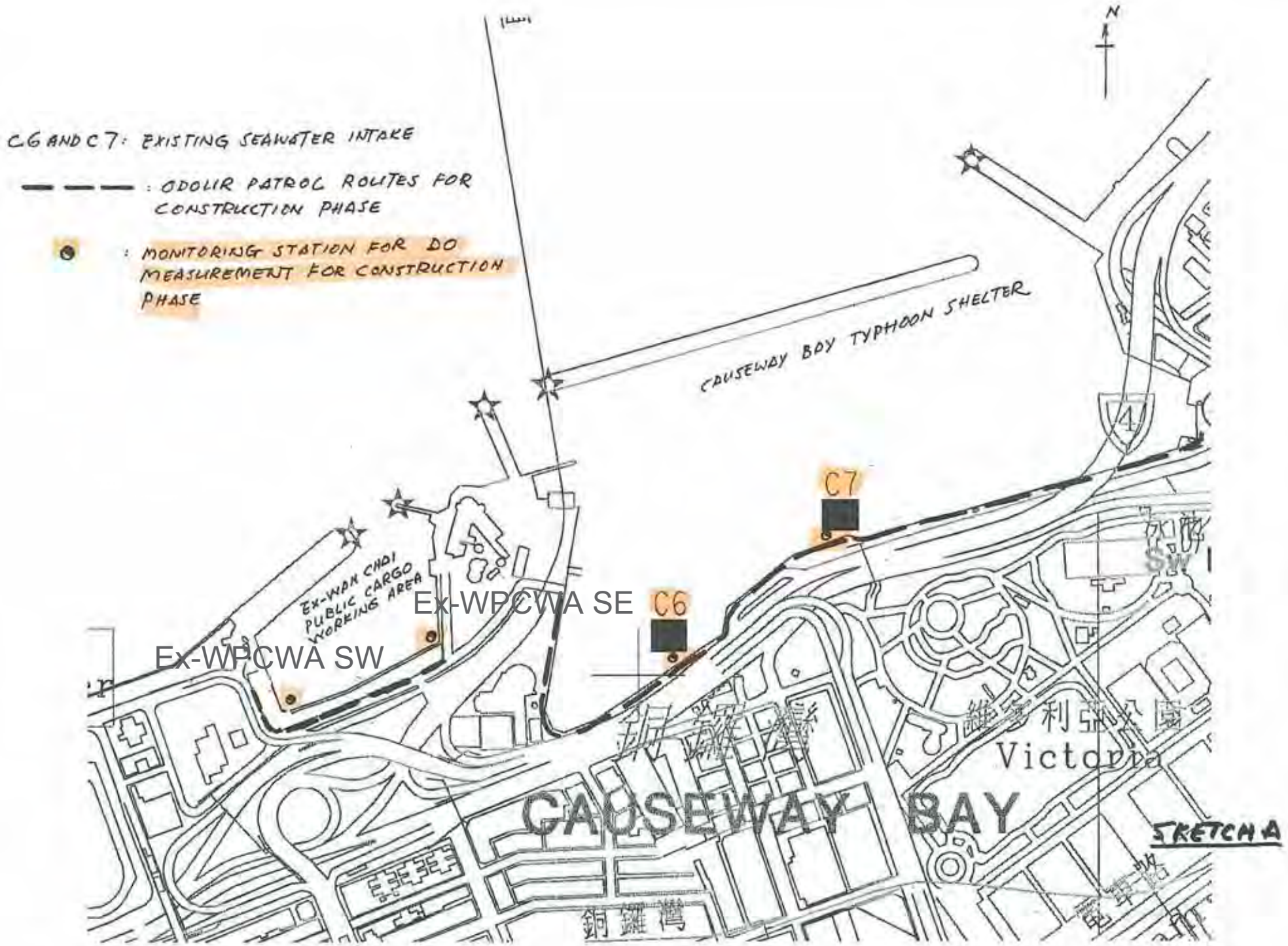
(SHEET 2 OF 2)

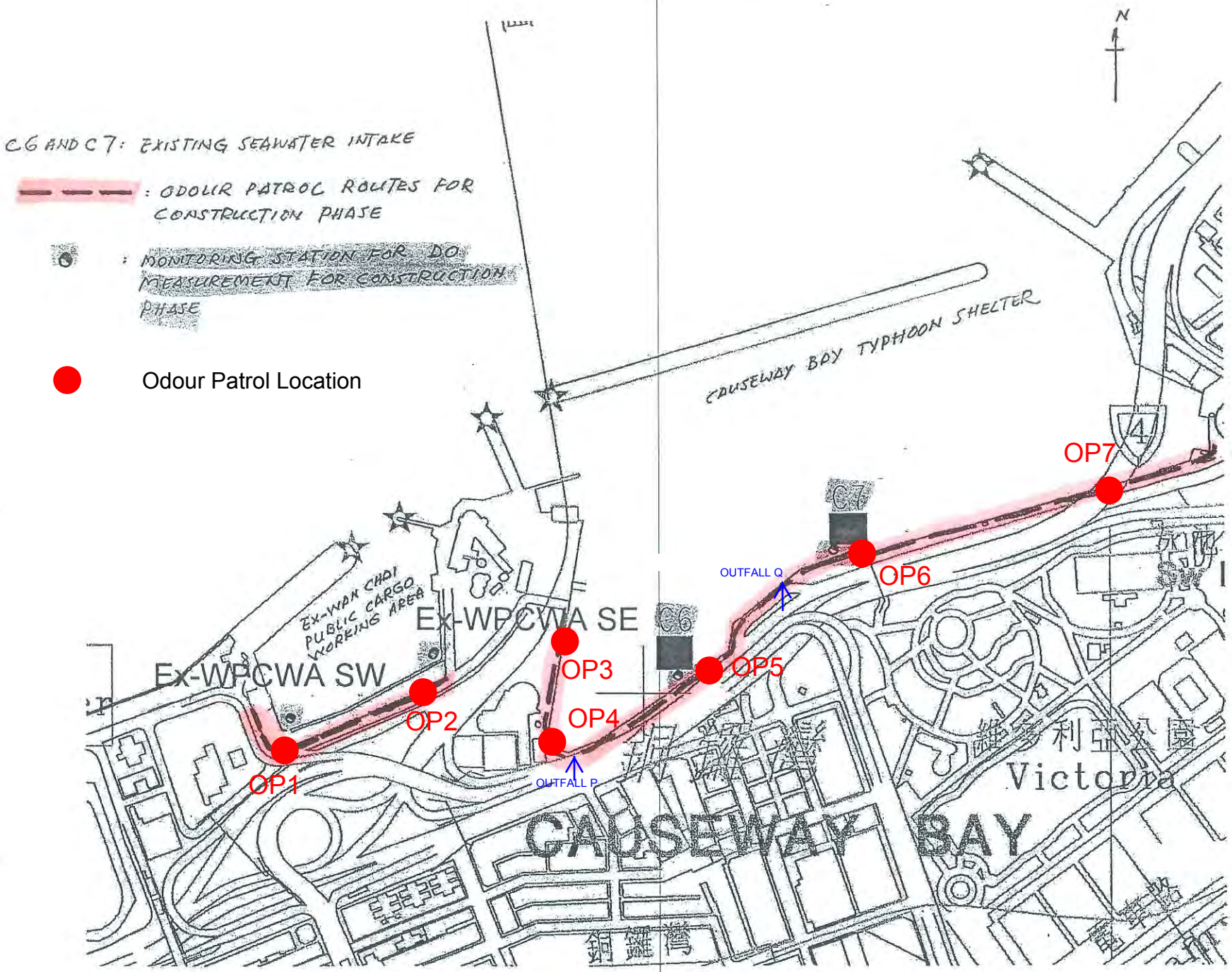
FIGURE 4.1b

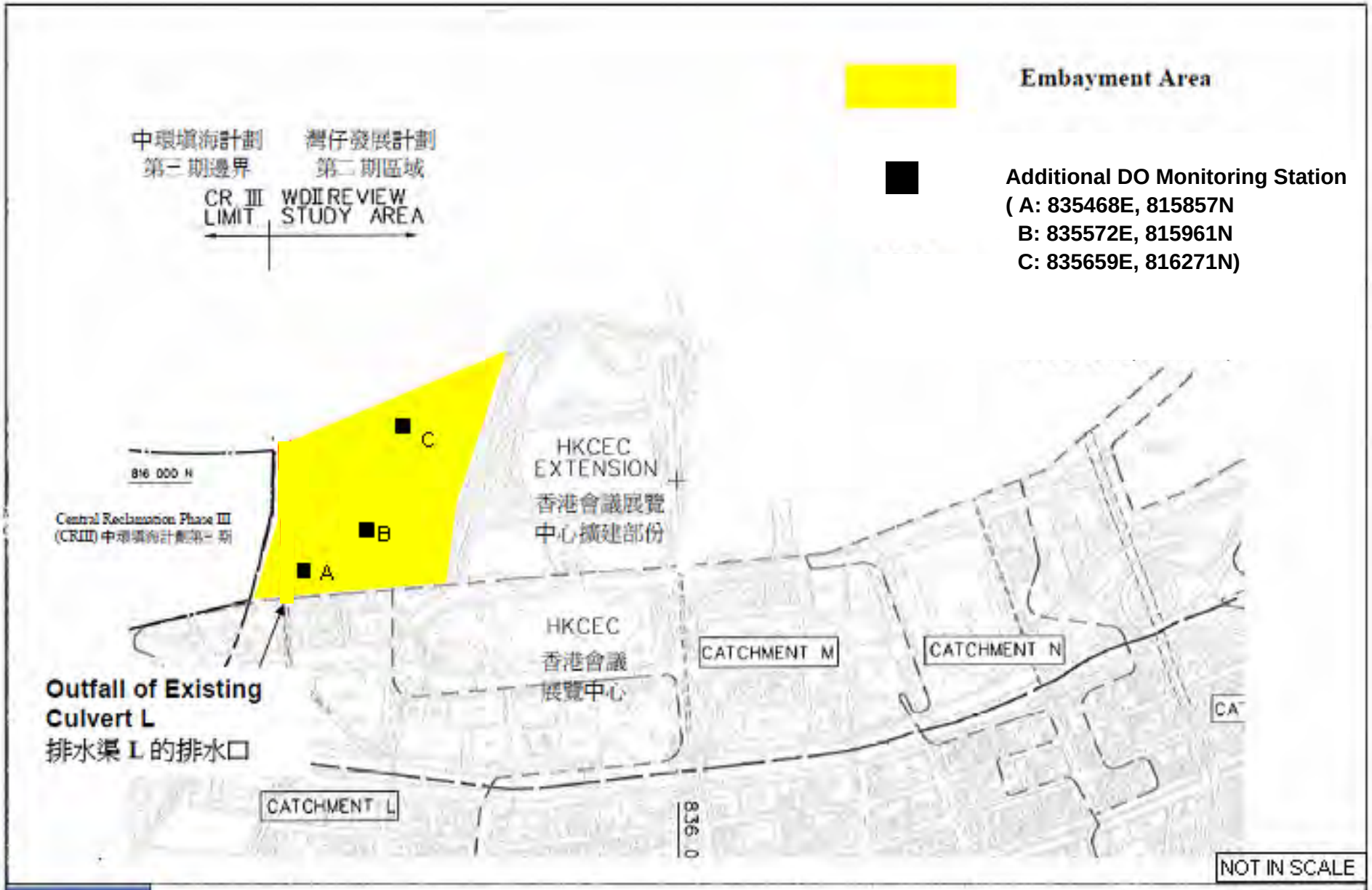
P:/6001719J/REPORT/DRAWINGS/EM&A-0708/WQ/4.1B.DGN SCALE 1:8000 (A3)



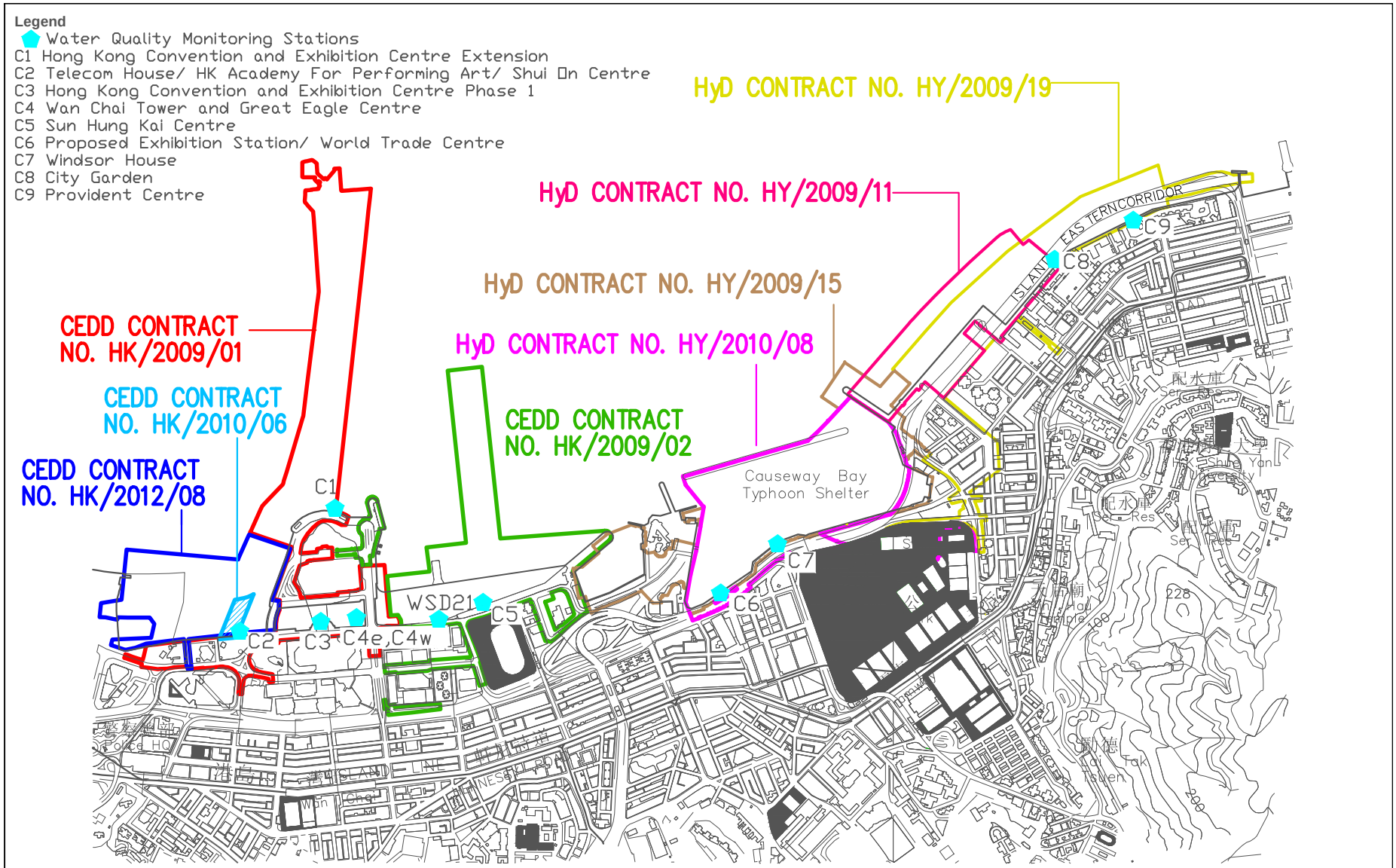
Location plan of Environmental Monitoring Stations


C6 AND C7: EXISTING SEAWATER INTAKE
: ODOUR PATROL ROUTES FOR CONSTRUCTION PHASE
: MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE
N
CAUSEWAY BAY TYPHOON SHELTER
C7
C6
EX-WAN CHAI PUBLIC CARGO WORKING AREA
Ex-WPCWA SE
Ex-WPCWA SW
CAUSEWAY BAY
銅鑼灣
Victoria
SKETCH A

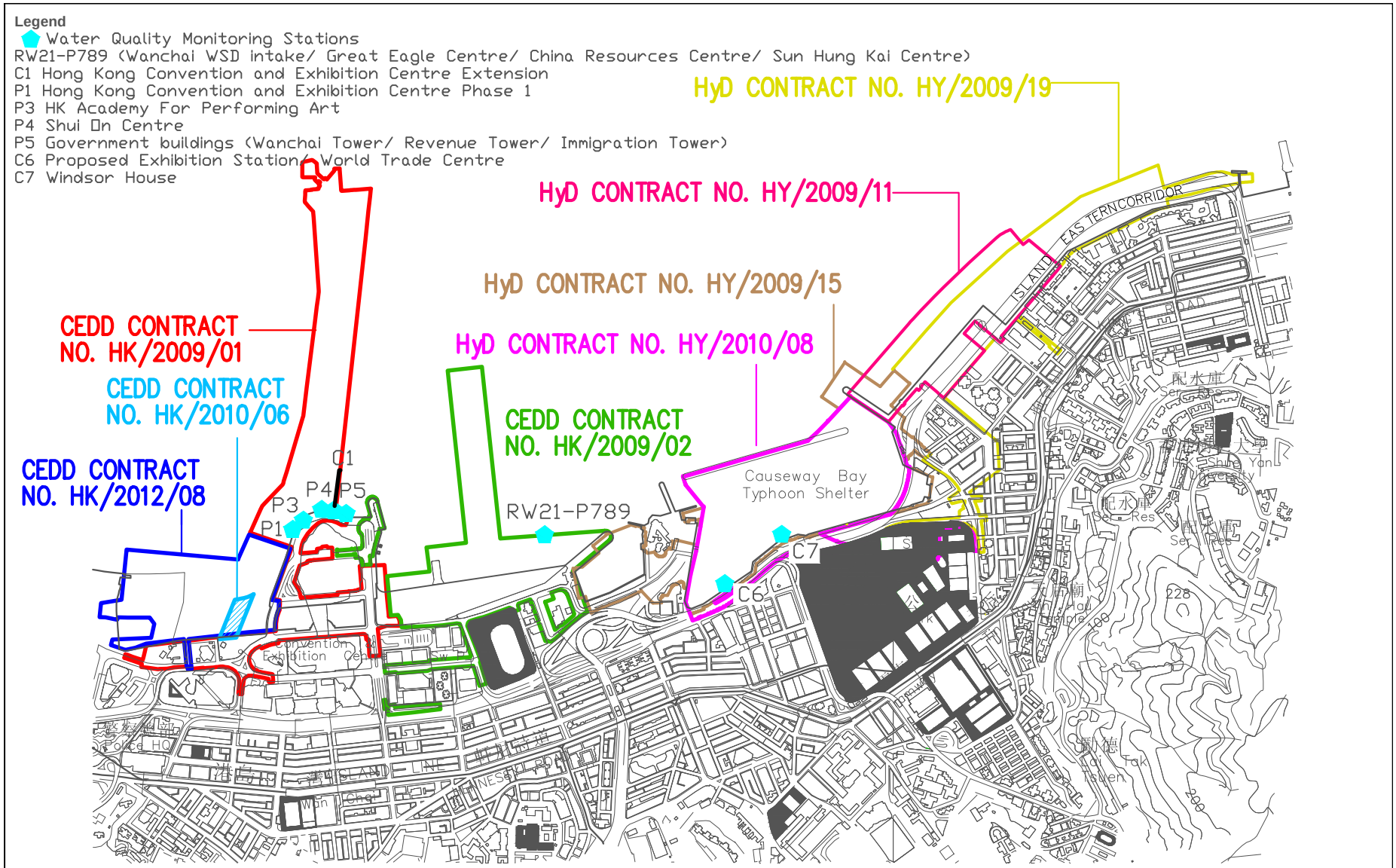

C6 AND C7: EXISTING SEAWATER INTAKE
: ODOUR PATROL ROUTES FOR CONSTRUCTION PHASE
: MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE
Odour Patrol Location
N
CAUSEWAY BAY TYPHOON SHELTER
EX-WAN CHAI PUBLIC CARGO WORKING AREA
Ex-WPCWA SE
Ex-WPCWA SW
OP1
OP2
OP3
OP4
OP5
OP6
OP7
OUTFALL P
OUTFALL Q
C6
C7
CAUSEWAY BAY
Victoria



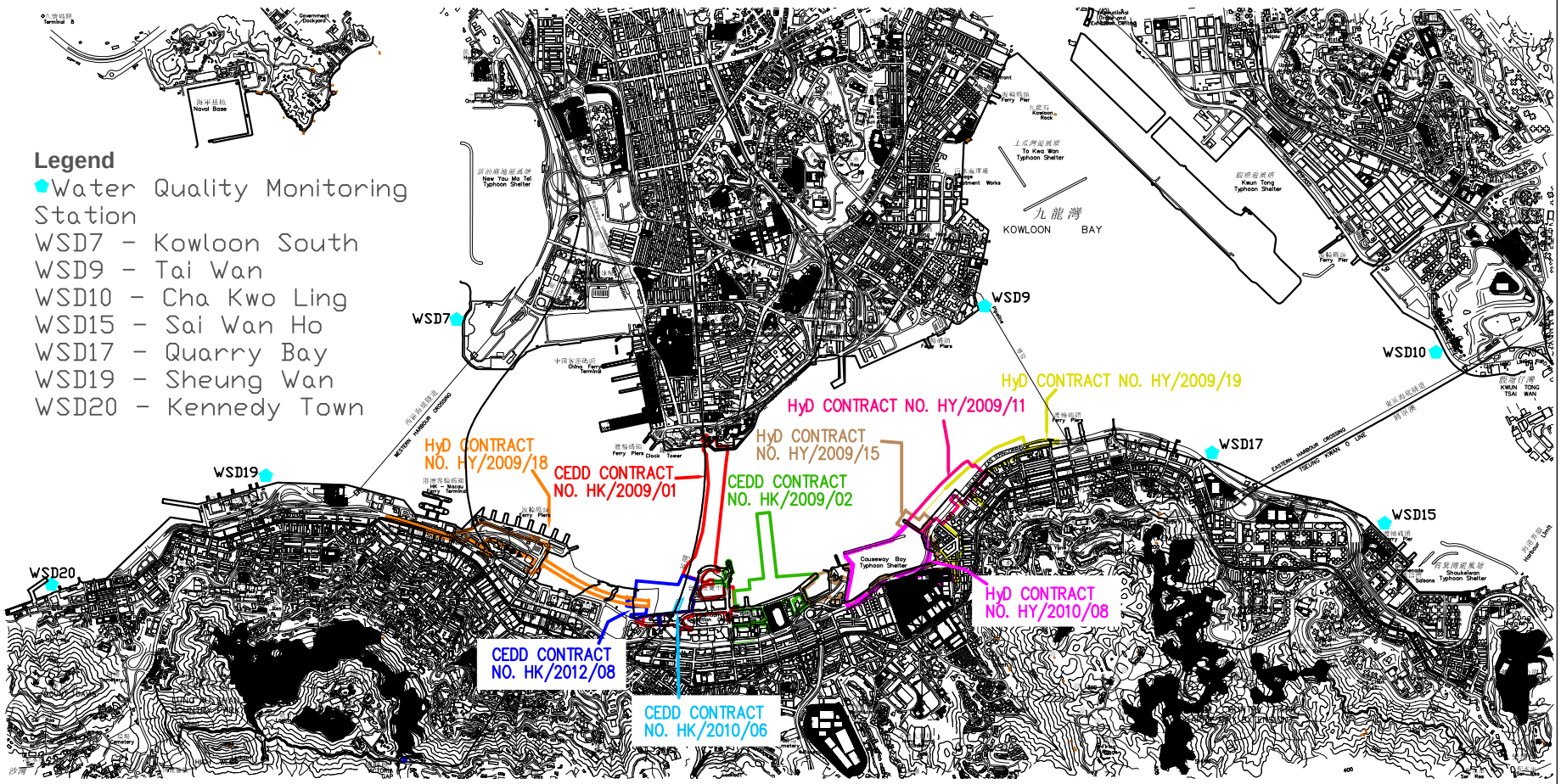
Location Plan of Additional Dissolved Oxygen Monitoring Stations for Culvert L Water Discharge Flow



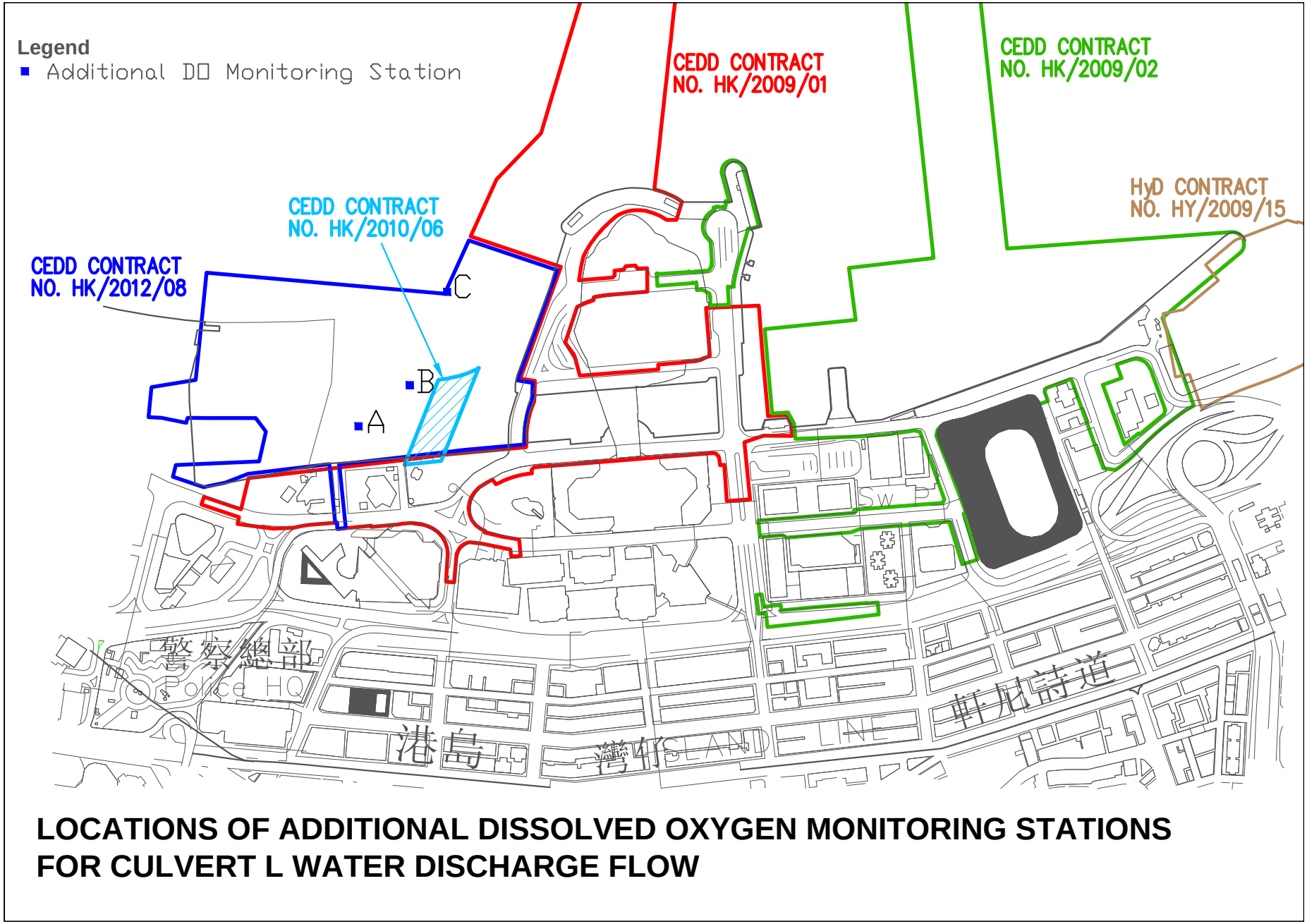
LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF WATER QUALITY MONITORING STATIONS



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

Appendix 2.1

Environmental Mitigation Implementation Schedule

Environmental Mitigation Implementation Schedule

Implementation Schedule for Air Quality Control

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

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

[1] CEDD will identify an implementation agent.

[2] CEDD will identify an implementation agent.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.10.2	Monthly (from July to September) monitoring of odour impacts, for a period of 5 years, is proposed during the operational phase of the Project to ascertain the effectiveness of the Enhancement Package over time, and to monitor any on-going odour impacts at the ASRs.	Planned ASRs (CBTS Breakwater)/First 5-year period of operation phase	CEDD[1]			√		EIAO-TM
For DP1 – CWB (Within the Project Boundary)								
S3.6.53 – S3.6.54	The design parameters of the East and Central Ventilation Buildings as set in Tables 3.10 and 3.11	East and Central Ventilation Buildings / During operation of the Trunk Road	HyD			√		
S3.10.2	Air quality monitoring for the operation performance of the East Ventilation Building and associated East Vent Shaft will be conducted.	East Vent Shaft / During operation of the East Ventilation Building and associated East Vent Shaft	HyD			√		EIAO-TM

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

Table A13.2 Implementation Schedule for Noise Control

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

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.9.4	Good Site Practice: • Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program. • Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program. • Mobile plant, if any, shall be sited as far away from NSRs as possible. • Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum. • Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP1 – CWB (Within the Project Boundary)								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.3 – S4.8.5	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 – 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		√			EIAO-TM, NCO

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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

Appendix 2.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.14 – S4.8.18	• 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	Near North Point / Before commencement of operation of road project	HyD	√	√	√		EIAO-TM
	For Future/Planned NSRs • about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC	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	√	√ #			

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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

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

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

Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For DP3 – Reclamation Works, DP5 (Wan Chai East Sewage Outfall), DP6 (Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui), DP1 – CWB (within the Project Boundary)								
S5.8	A phased reclamation approach is planned for the WDII. Containment of fill within each of the reclamation phases by seawalls is proposed, with the seawall constructed first (above high water mark) with filling carried out behind the completed seawalls. Any gaps that may need to be provided for marine access will be shielded by silt curtains to control sediment plume dispersion away from the site. Filling for seawall construction should be carried out behind the silt curtain	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	Dredging shall be carried out by closed grab dredger for the following works: • Seawall construction in all the reclamation areas; • Construction of the CWB Tunnel • Construction of the proposed WSD water mains; and • Construction of the proposed Wan Chai East sewage outfall pipelines.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Dredging for the Wan Chai East sewage outfall pipelines shall not be carried out concurrently with the following activities: • Dredging along the proposed cross-harbour water mains; • Dredging along the seawall in the Wan Chai Reclamation (WCR) zone (area between HKCEC Extension and PCWA).	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	The water body behind the temporary reclamations within the Causeway Bay typhoon shelter shall not be fully enclosed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between 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		√			EIAO-TM, WPCO
S5.8, Figure 5.3	The total dredging rates in each of the marine works zones shall not be more than the maximum production rates stated in the table below. These are the production rates without considering the effect of silt curtain.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Reclamation Area		Maximum Dredging Rate		Maximum Dredging Rate (m^3 per week)
		m^3 per day	m^3 per hour (for 16 hrs per day)	
Dredging along seawall or breakwater				
North Point Shoreline Zone (NPR)		6,000	375	42,000
Causeway Bay Shoreline Zone	TBW	1,500	94	10,500
	TCBR	6,000	375	42,000
PCWA Zone		5,000	313	35,000

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<table><tr><td colspan="2">Wan Chai Shoreline Zone (WCR)</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td rowspan="2">HKCEC Shoreline Zone (HKCEC)</td><td>HKCEC Stage 1 & 3</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td>HKCEC Stage 2</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td colspan="2">Cross Harbour Water Mains</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td colspan="2">Wan Chai East Submarine Sewage Pipeline</td><td>1,500</td><td>94</td><td>10,500</td></tr></table> Note: 1,500 m^3 per day shall be applied for construction of the western seawall of WCR1.							
S5.8, Figure 5.3	Dredging along the seawall at WCR1 shall be undertaken initially at 1,500m^3 per day for construction of the western seawall (which is in close proximity of the WSD intake), followed by partial seawall construction at the western seawall (above high water mark) to protect the adjacent intakes as much as possible from further dredging activities.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	For dredging within the Causeway Bay typhoon shelter, seawall shall be partially constructed to protect the nearby seawater intakes from further dredging activities. For example, at TCBR1W, the southern and eastern seawalls shall be constructed first (above high water mark) so that the seawater intakes at the inner water would be protected from the impacts from the remaining dredging activities along the northern boundary.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt curtains shall be deployed around the closed grab dredgers during seawall dredging and seawall trench filling in the areas of HKCEC, WCR, TCBR and NP.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt screens shall be applied to seawater intakes at interim construction stages as stated below: <table><tr><th>Interim Construction Stage</th><th>Location of Applications</th></tr><tr><td>**Scenario 2A** in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA, TBW, NP and Water Mains Zone</td><td>**WSD saltwater intakes** at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South **Cooling water intakes** for Hong Kong Convention and Exhibition Centre Extension, Hong Kong Convention and Exhibition Centre Phase I, Telecom House / HK Academy for Performing Arts / Shun On Centre, Wan Chai Tower / Revenue Tower / Immigration Tower and Sun Hung Kai Centre</td></tr><tr><td>**Scenario 2B** in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.</td><td>**WSD saltwater intakes** at Sheung Wan, Wan Chai **Cooling water intakes** for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.</td></tr><tr><td>**Scenario 2C** in 2011 with concurrent dredging activities at HKCEC and TCBR.</td><td>**WSD saltwater intakes** at Sheung Wan and Reprovisioned WSD Wan Chai saltwater intake. **Cooling water intakes** for MTR South, Excelsior Hotel & World Trade Centre and reprovisioned Windsor House.</td></tr></table>	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	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 turbidity is not generated by turbulence from vessel movement or propeller wash; • all hopper barges and dredgers shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • construction activities shall not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; • loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water. Barges or hoppers shall not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; and	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	• before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain.							
S5.8	Silt screens are recommended to be deployed at the seawater intakes during the reclamation works period. Installation of silt screens at the seawater intake points may cause a potential for accumulation and trapping of pollutants, floating debris and refuse behind the silt screens and may lead to potential water quality deterioration at the seawater intake points. Major sources of pollutants and floating refuse include the runoff and storm water discharges from the nearby coastal areas. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the impact monitoring results are representative, regular maintenance of the silt screens and refuse collection shall be performed at the monitoring stations at regular intervals on a daily basis. The Contractor shall be responsible for keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

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

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For the Whole Project								
S5.8	• Construction Runoff and Drainage • use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow; • Permanent drainage channels shall incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94; • a sediment tank constructed from pre-formed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal; • oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor shall have a bypass to prevent flushing during periods of heavy rain; • precautions and actions to be taken when a rainstorm is imminent or forecast, and during or after rainstorms. Particular attention shall be paid to the control of any silty surface runoff during storm events; • on-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be installed in order to minimise the sediment loading of the effluent prior to discharge; • All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge shall be adequately designed for the controlled release of storm flows. All sediment control measures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage shall be reinstated to its original condition when the construction work is finished or the temporary diversion is no longer	• Work site / During the constructi on period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

[3] CEDD will identify an implementation agent.

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	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		√			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		√			WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	*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	√	√			WPCO
Operation Phase								
DP1 – CWB (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. • Petrol interceptors shall be regularly cleaned and maintained in good working condition. • Oily contents of the petrol interceptors shall be properly handled and disposed of, in compliance with the requirements of the Waste Disposal Ordinance. • Sewage arising from ancillary facilities of CWB (for examples, car park,	CWB/During design and operational period	HyD/TD[3]	√		√		WPCO

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.5	It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, at least 3 months prior to the dredging contract being tendered							
S6.7.6	During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality: • 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.							

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.7	*Good Site Practices* 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		√			Waste Disposal Ordinance (Cap.354)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.8	*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	√	√			

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)

Quarterly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
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		√			Public Health and Municipal Services Ordinance (Cap. 132)
S6.7.11	*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		√			Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
S6.7.12	*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		√			ETWB TCW No. 33/2002, 31/2004, 19/2005

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.13	In order to monitor the disposal of public fill and C&D waste at public filling facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker		√			ETWB TCW No. 31/2004
S6.7.14	*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, storm drains or the receiving waters as set out in the Technical Memorandum of Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters. • If the used bentonite slurry is intended to be disposed to public fill reception facilities, it will be mixed with dry soil on site before disposal.	Work site / During the construction period	Contractor		√			ProPECC PN 1/94

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

Table A13.5 Implementation Schedule for Land Contamination

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole 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	√				"*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	√				Air Pollution Control Ordinance Noise Control Ordinance Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	maybe required. The storage site shall include protection facilities for leaching into the ground. eg. Liner maybe required.							
	• 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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

Table A13.6 Implementation Schedule for Marine Ecology

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

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.4	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							

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.6	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 effectively implemented.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.7	Seawalls shall be constructed in advance around the reclamation areas within the area of the CBTS to screen adjacent feeding ground from construction phase activities, reduce noise disturbance to the associated seabirds and also to restrict access to this habitat adjacent to works areas by ship traffic.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.8	Loss of artificial seawall habitats shall be reinstated by the construction of about 1 km vertical wave absorbing seawall along the coastlines of the new reclamation around the HKCEC and at North Point. The new seawalls are expected to provide large area of hard substrata for settlement and recruitment of intertidal fauna similar to those previously recorded from existing intertidal habitats.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

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

Table A13.7 Implementation Schedule for Landscape and Visual

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

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

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

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

[4] CEDD will identify an implementation agent

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

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

[5] CEDD will identify an implementation agent

Appendix 3.1

Action and Limit Level

Action and Limit Level

Action and Limit Level for Noise Monitoring

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

Note 1:

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

Action and Limit Level for Air Monitoring

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

Note 2:

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

Action and Limit Level for Water Monitoring

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

Remarks:

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

Action and Limit Levels for Odour Patrol

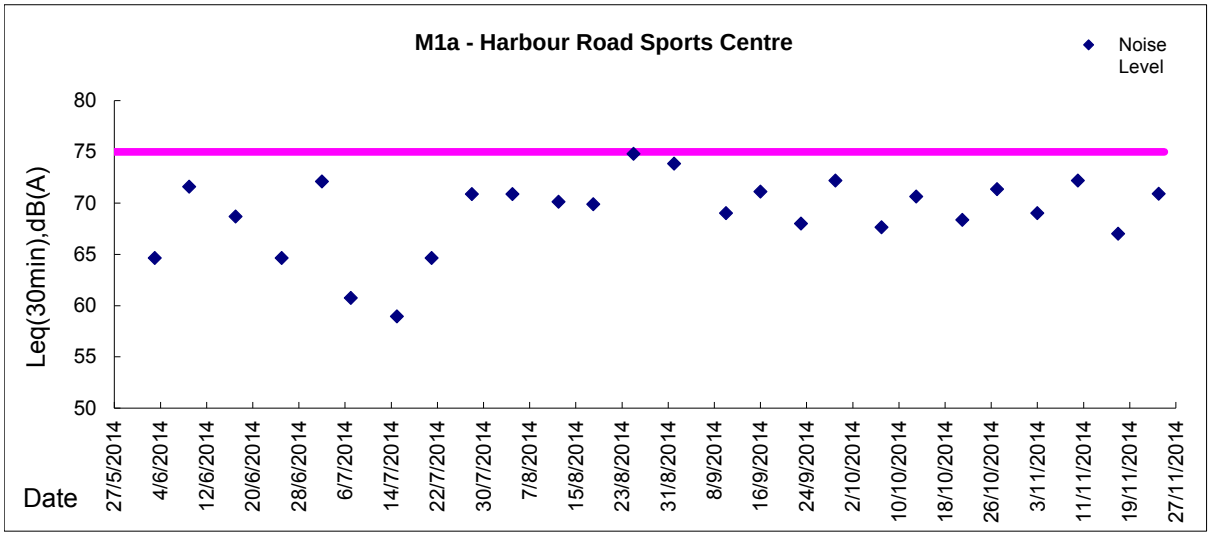
Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	• When two documented complaint are received; or • Odour Intensity of 2 is measured from odour intensity analysis.	• Five or more consecutive genuine documented complaints within a week; or • Odour Intensity of 3 or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

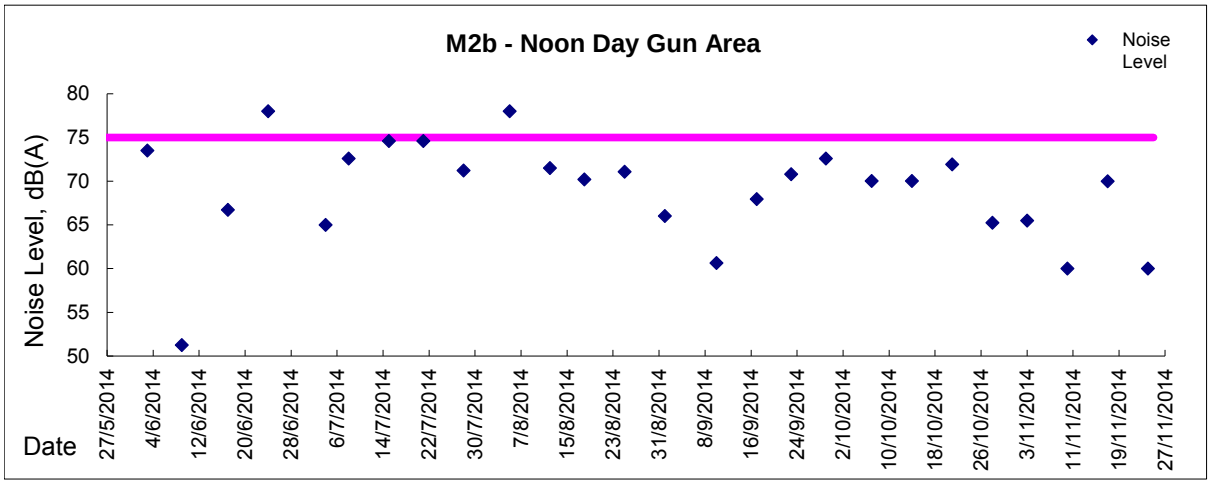
Appendix 4.1

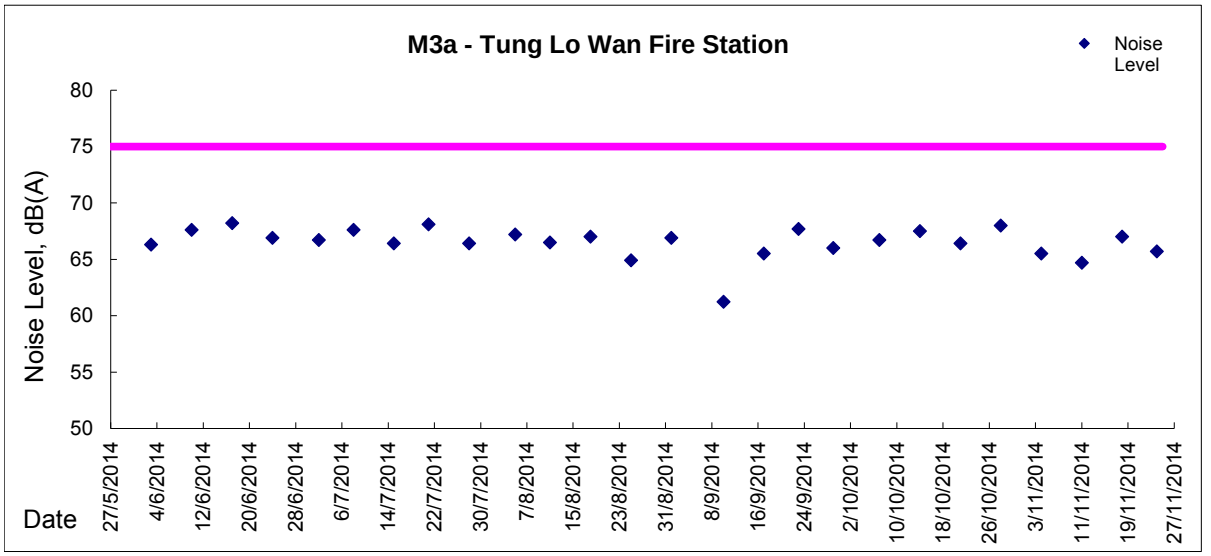
Noise Monitoring Graphical Presentations

Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

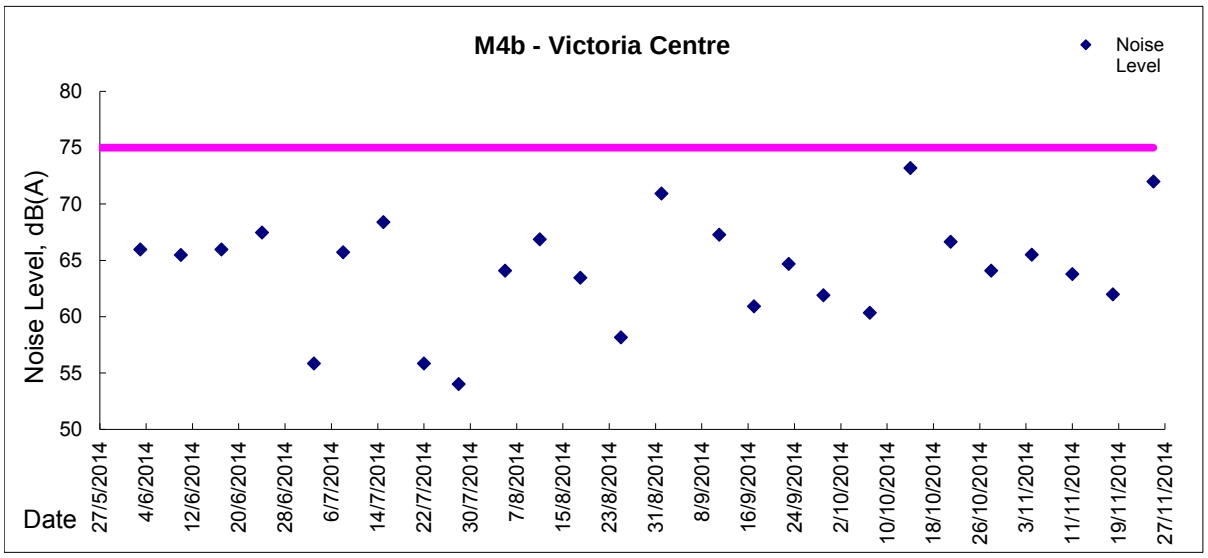


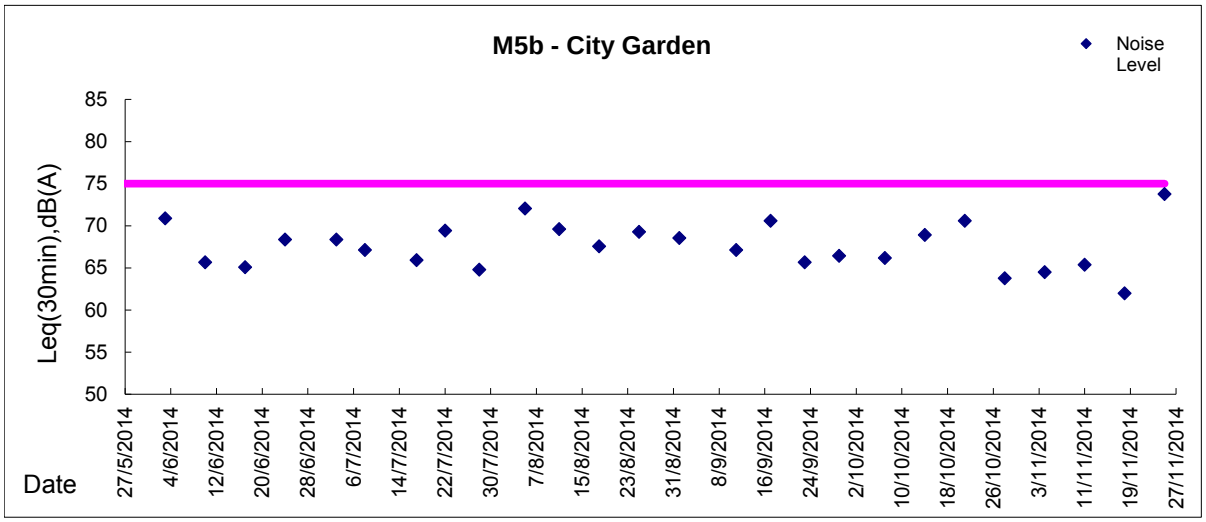


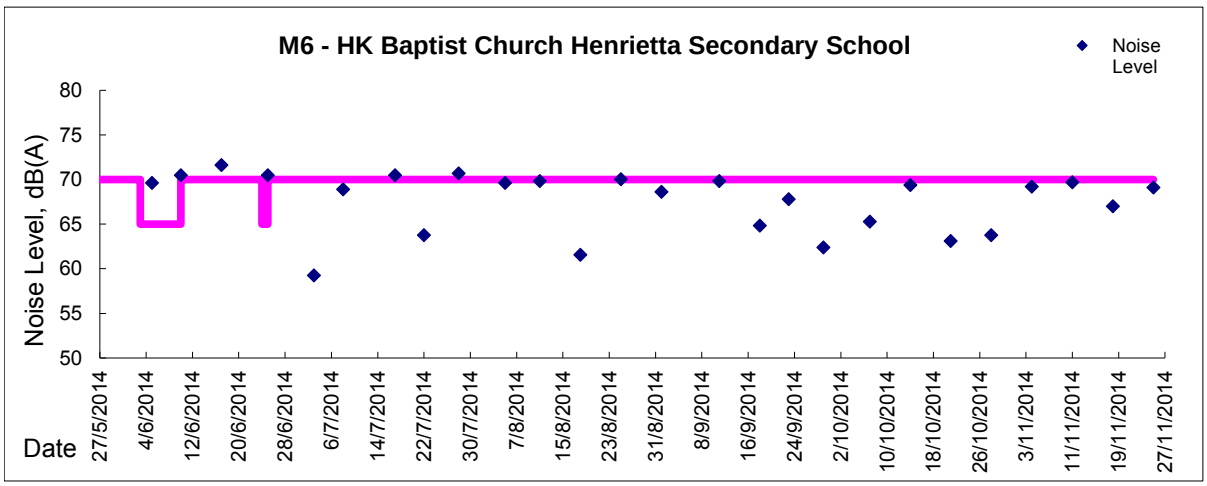


Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

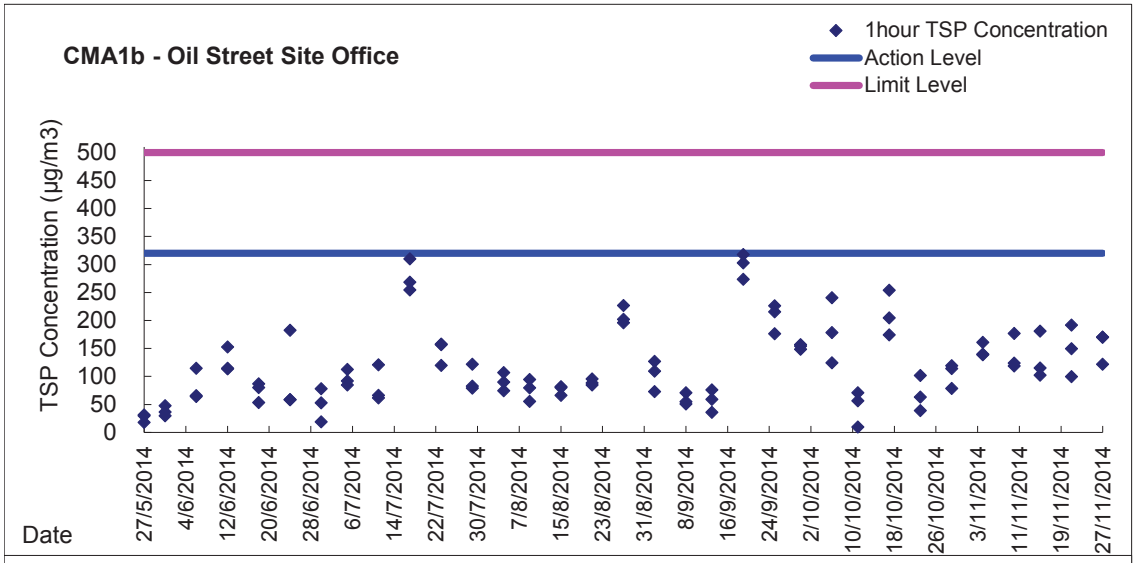


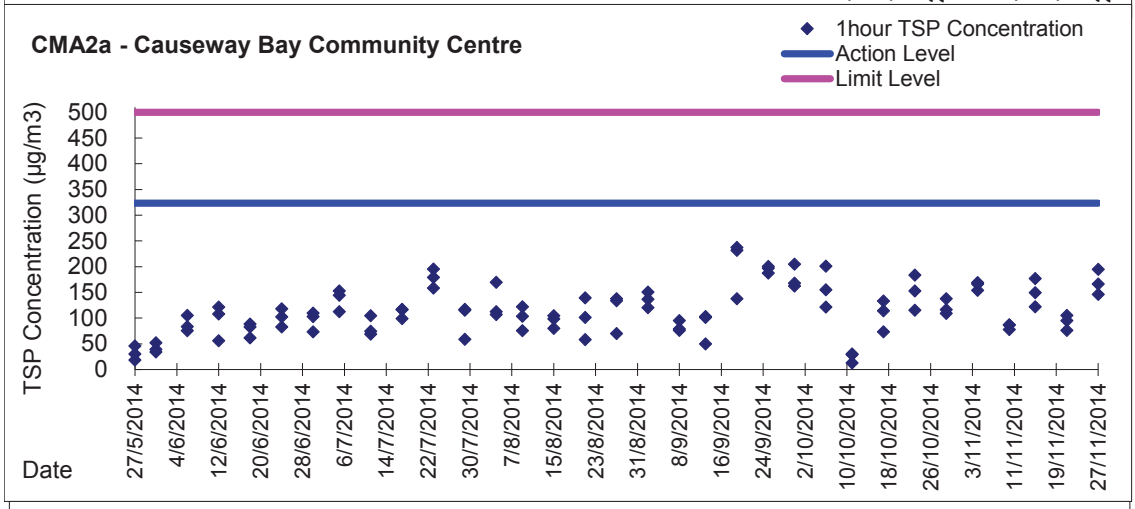


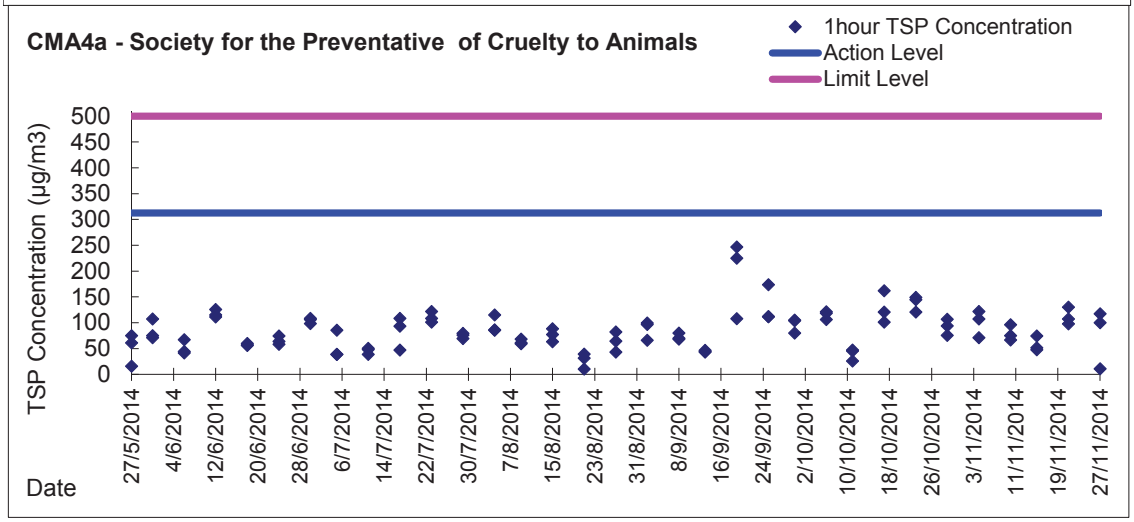


Appendix 4.2
Air Quality Monitoring Graphical Presentations

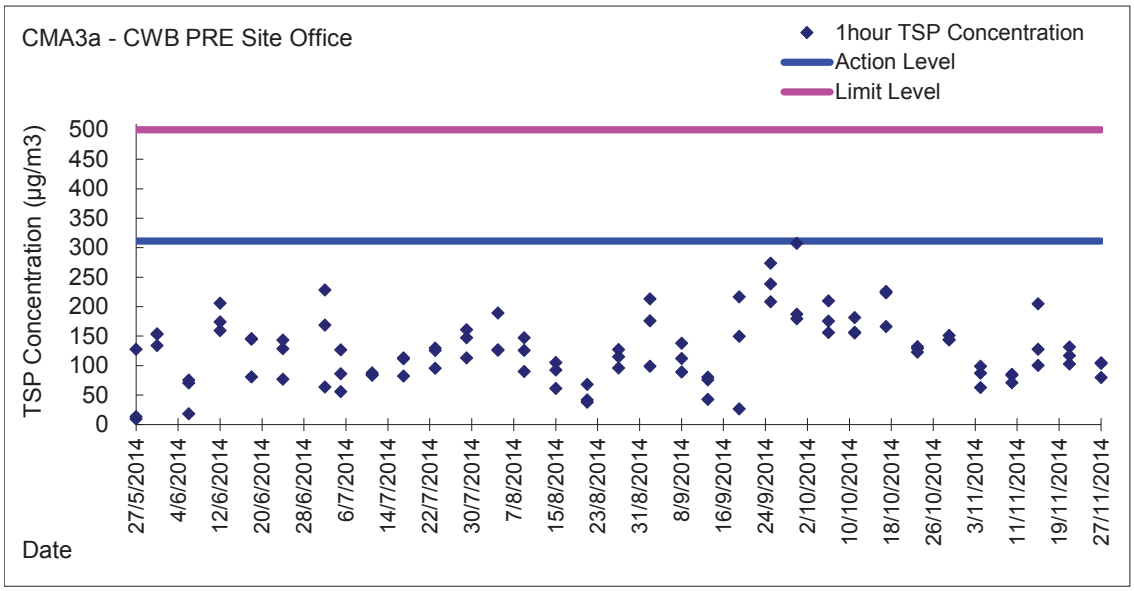
Graphic Presentation of 1 hour TSP Result

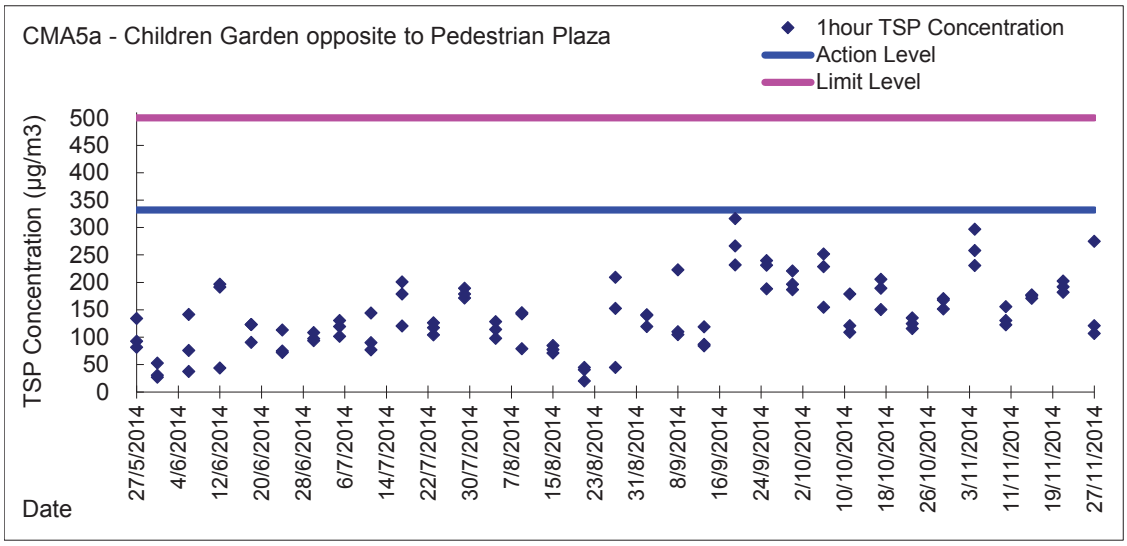


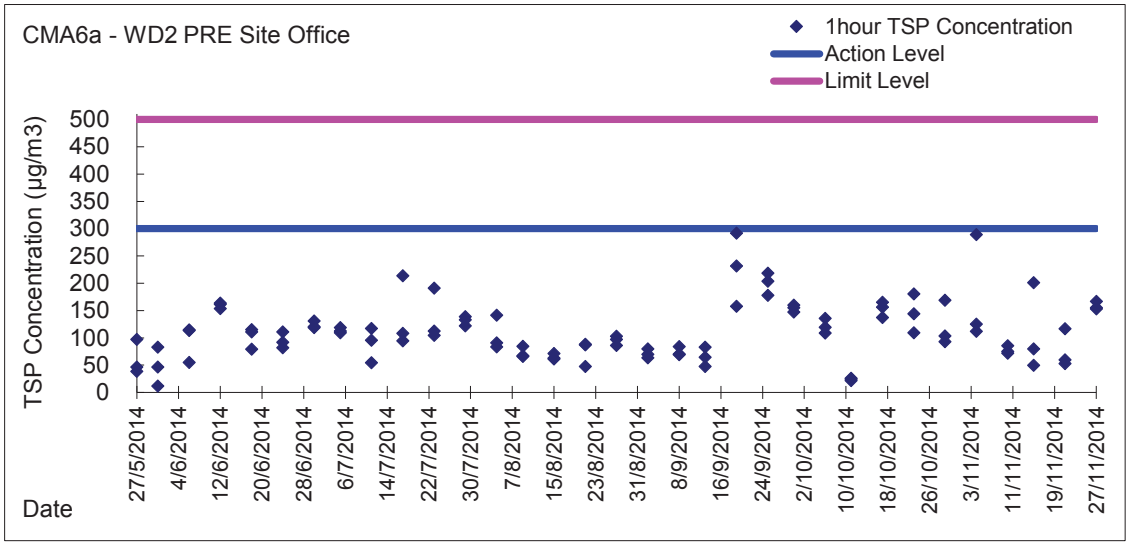




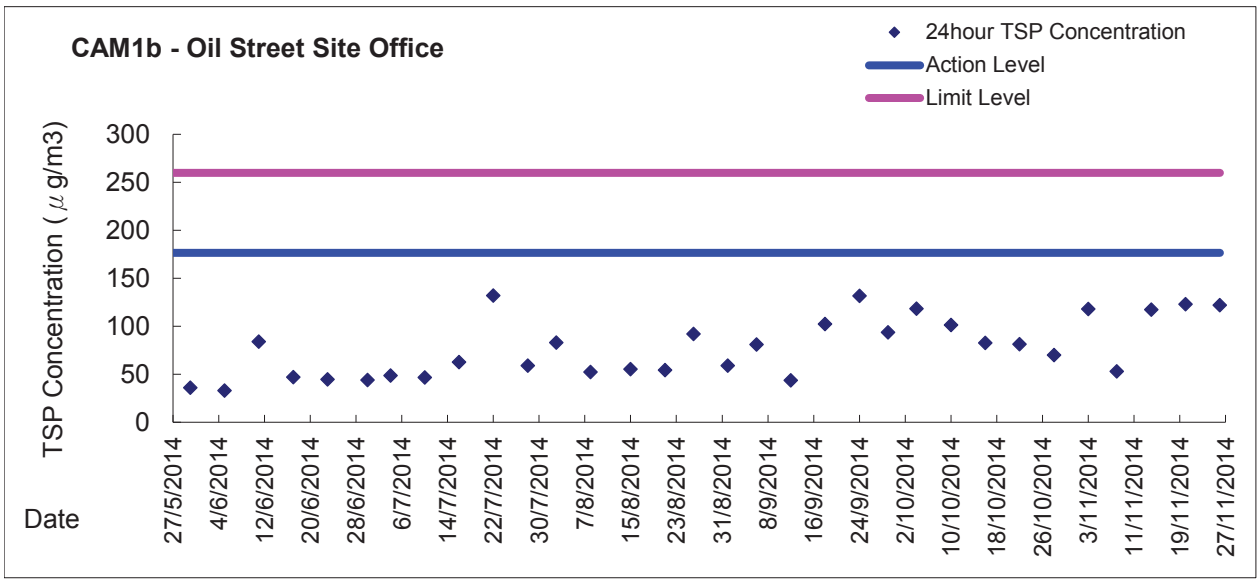
Graphic Presentation of 1 hour TSP Result

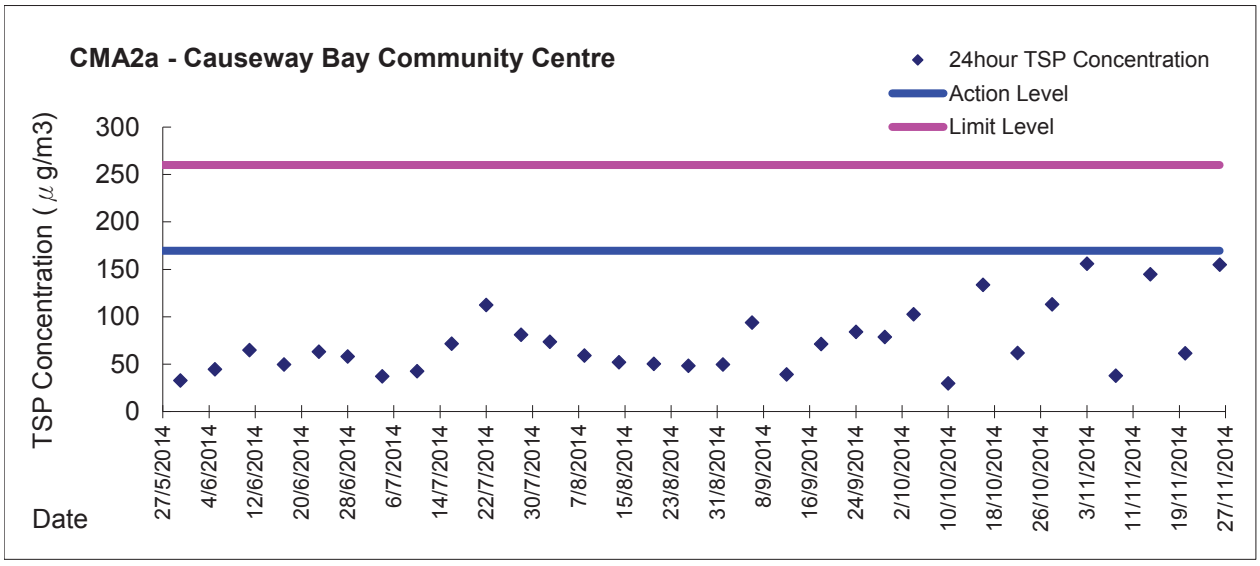


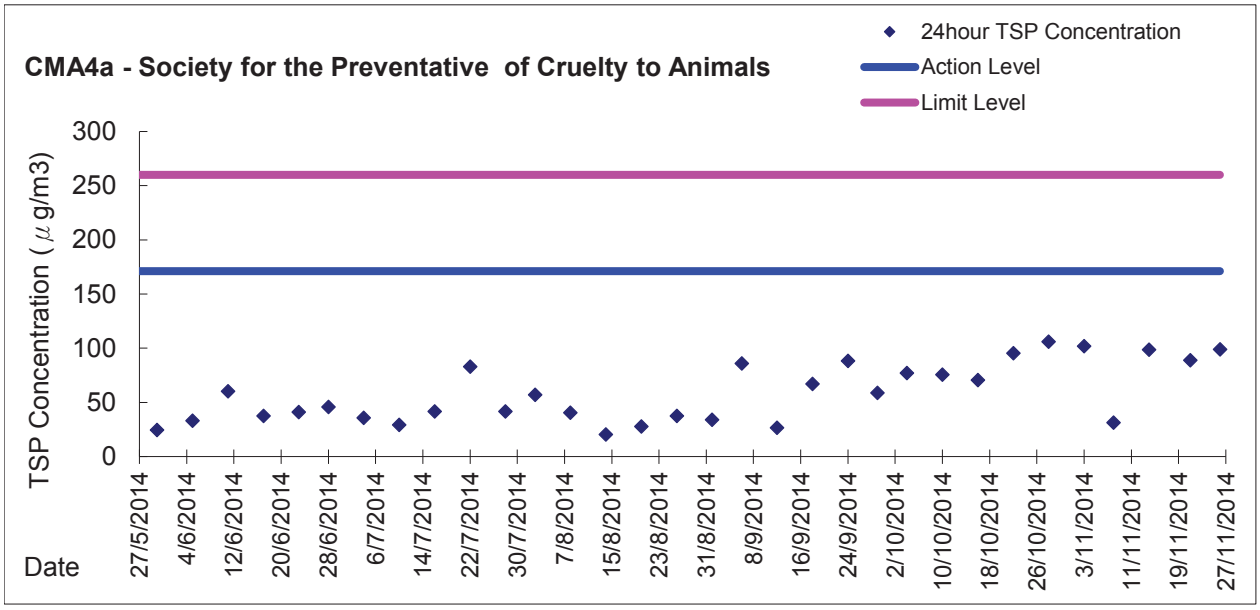




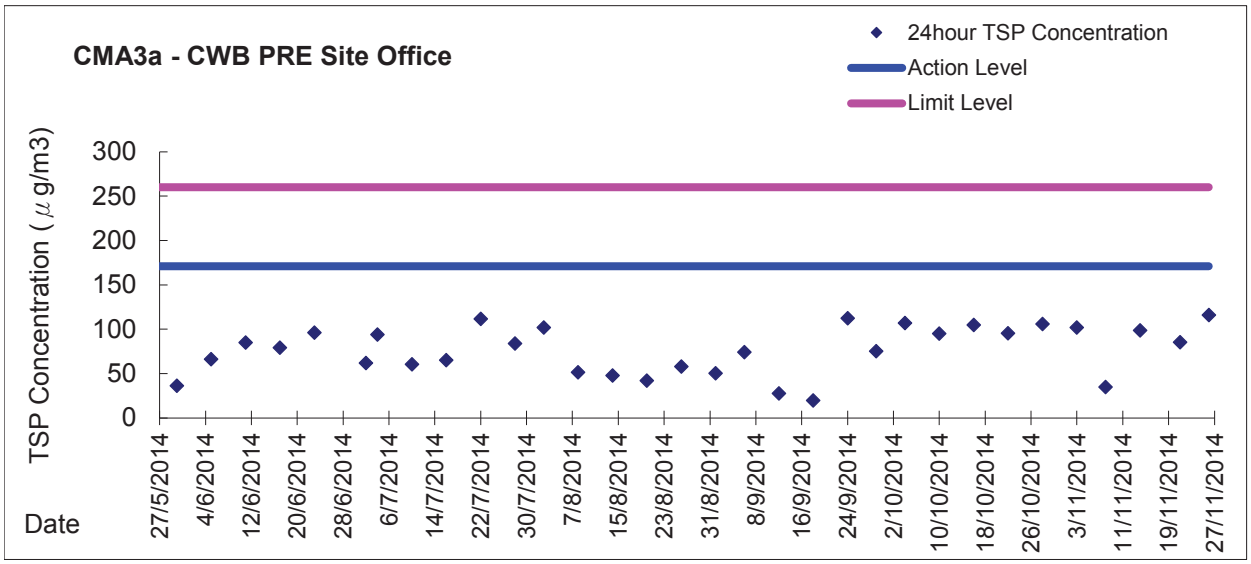
Graphic Presentation of 24 hour TSP Result

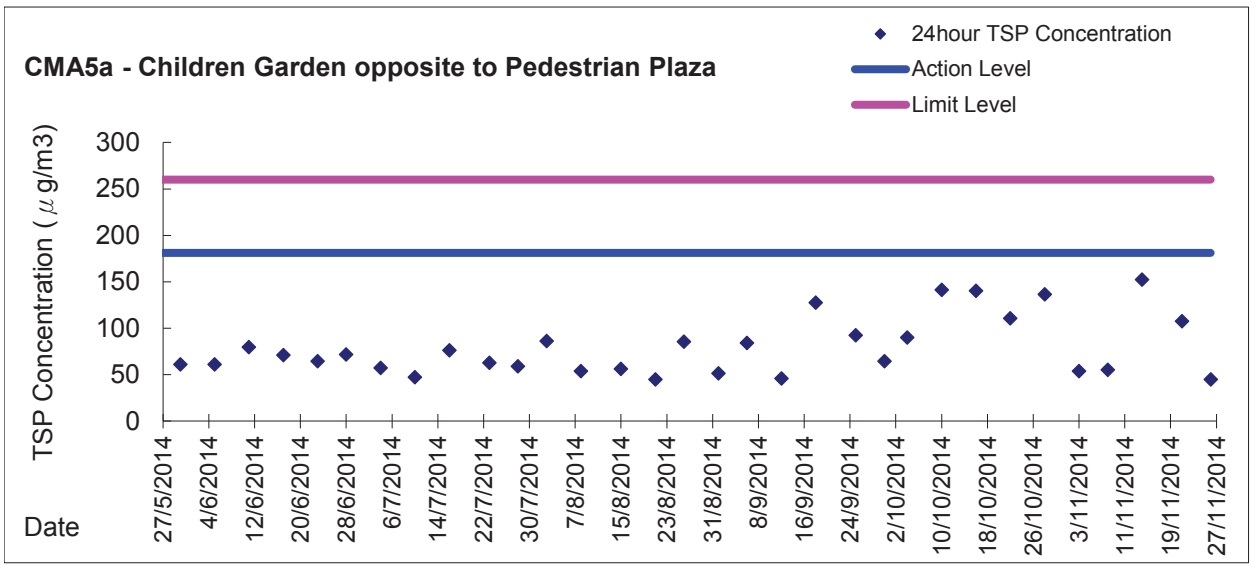


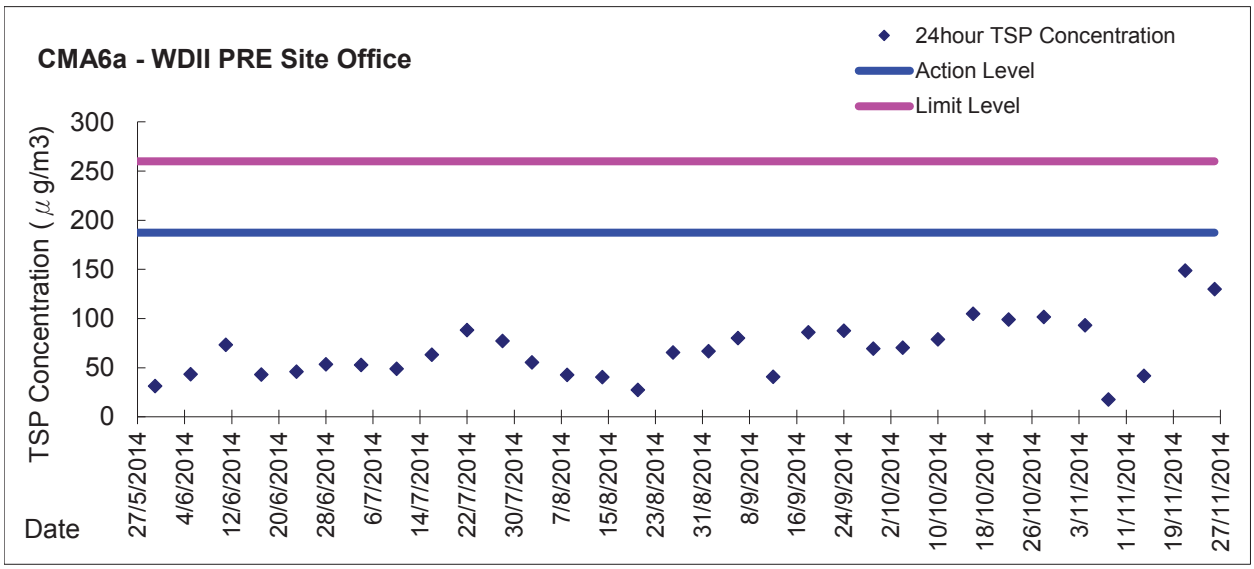




Graphic Presentation of 24 hour TSP Result







Field Data Record Sheet

Monitoring Date: 2 September 2014 **Weather Condition:** Fine **Tidal Condition:** Flood

Temperature: 31.6^{0}C – 34.9^{0}C **Relative Humidity:** 62.4% - 67.4%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	13:49	31.7	64.5	0	/	/	/	3.9	NNE	
OP6	14:00	32.5	66.0	0	/	/	/	1.5	NNW	
OP5	14:03	31.6	63.3	0	/	/	/	4.8	WNW	
OP4	14:07	34.9	62.4	0	/	/	/	4.5	NNW	
OP3	14:11	34.5	67.1	0	/	/	/	3.7	ENE	
OP2	14:15	33.0	66.8	0	/	/	/	1.7	NNE	
OP1	14:19	33.3	67.4	0	/	/	/	3.8	NNE	

Remarks for Odour Intensity: 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 characterised 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 level

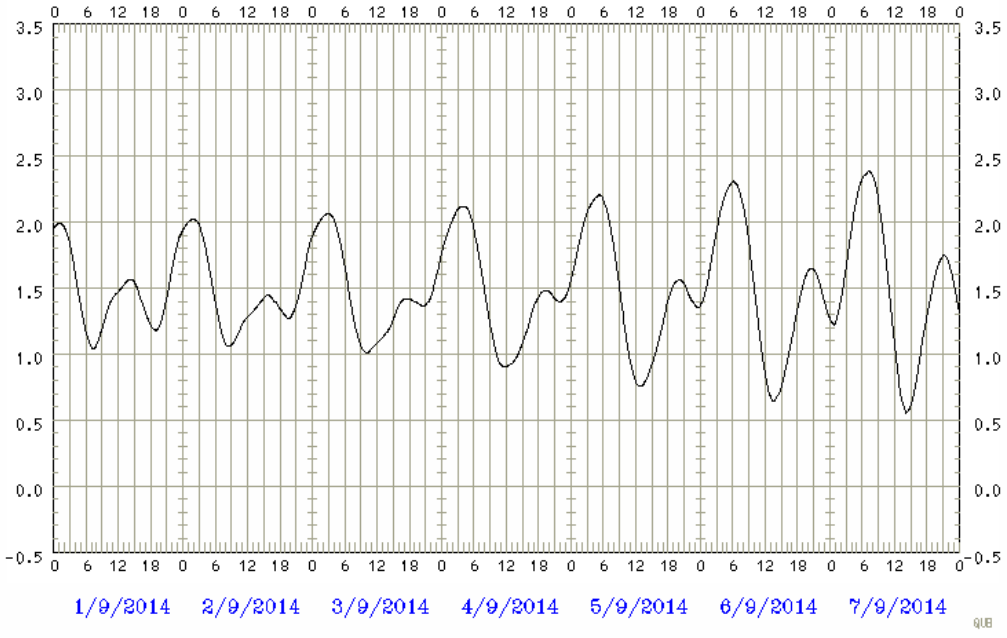
Meteorological Conditions on 2 September 2014

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **27.4-32.2** ℃ Relative humidity: **59-88%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **26.1-32.9** ℃

- **The tidal data at Quarry Bay Station**

Tide Time	Tide Height (m)
01:53	2.0
08:30	1.1
15:45	1.5
19:35	1.3



Field Data Record Sheet

Monitoring Date: 18 September 2014 **Weather Condition:** Overcast **Tidal Condition:** Flood

Temperature: 31.2^{0}C – 34.9^{0}C **Relative Humidity:** 58.8% - 68.5%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	13:00	31.2	68.5	0	/	/	/	0.6	NW	
OP6	13:05	32.9	67.9	0	/	/	/	1.1	NNW	
OP5	13:10	33.7	65.1	0	/	/	/	0.9	W	
OP4	13:16	31.7	65.8	0	/	/	/	1.2	NNW	
OP3	13:21	34.9	58.8	1	Plant Exhaust	Plant	Intermittent	0.8	ENE	
OP2	13:28	34.2	63.6	0	/	/	/	0.5	WNW	
OP1	13:32	32.5	64.9	1	Culvert Discharge	Culvert	Persistent	1.6	NNE	

Remarks for Odour Intensity: 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 characterised 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 level

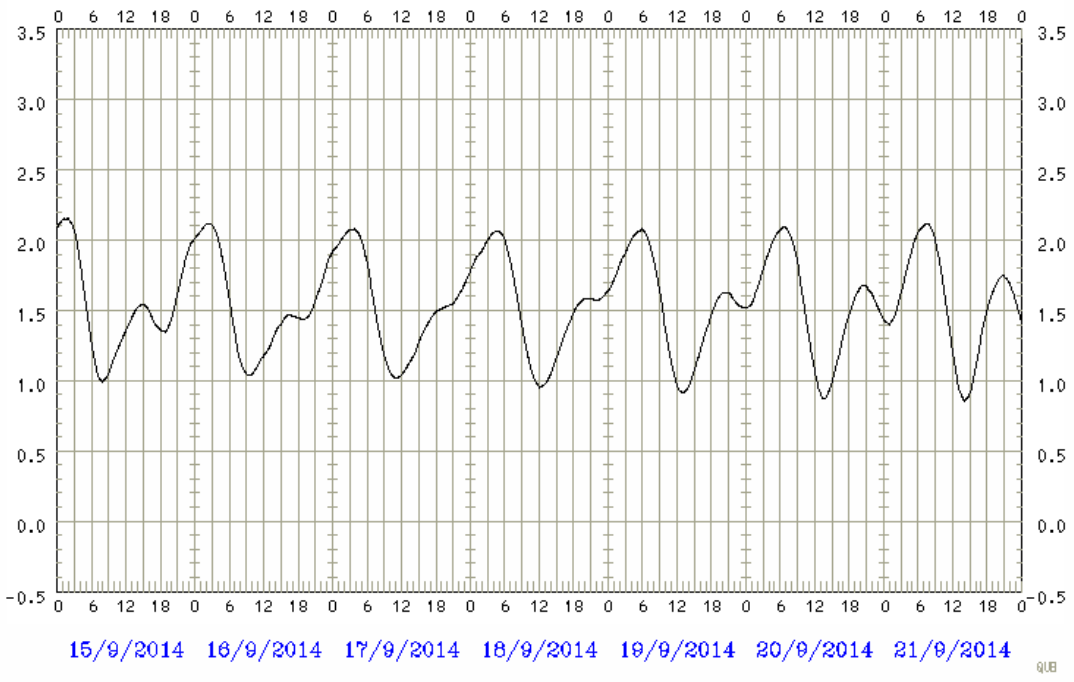
Meteorological Conditions on 18 September 2014

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **26.9-32.5** ℃ Relative humidity: **68-92%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **25.7-31.8** ℃

- **The tidal data at Quarry Bay Station**

Tide Time	Tide Height (m)
04:48	2.1
12:12	1.0



Field Data Record Sheet

Monitoring Date: 29 September 2014 **Weather Condition:** Fine **Tidal Condition:** Ebb

Temperature: 30.9°C – 34.4°C **Relative Humidity:** 61.7% - 68.6%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	13:54	33.3	63.3	0	/	/	/	0.4	NNW	
OP6	13:47	34.4	61.7	0	/	/	/	0.5	WNW	
OP5	13:42	31.9	67.4	0	/	/	/	2.0	W	
OP4	13:39	34.1	63.2	0	/	/	/	0.8	NE	
OP3	13:34	33.3	64.1	0	/	/	/	1.3	NE	
OP2	13:30	33.8	65.9	0	/	/	/	0.5	N	
OP1	13:27	30.9	68.6	0	/	/	/	1.6	NNW	

Remarks for Odour Intensity: 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 characterised 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 level

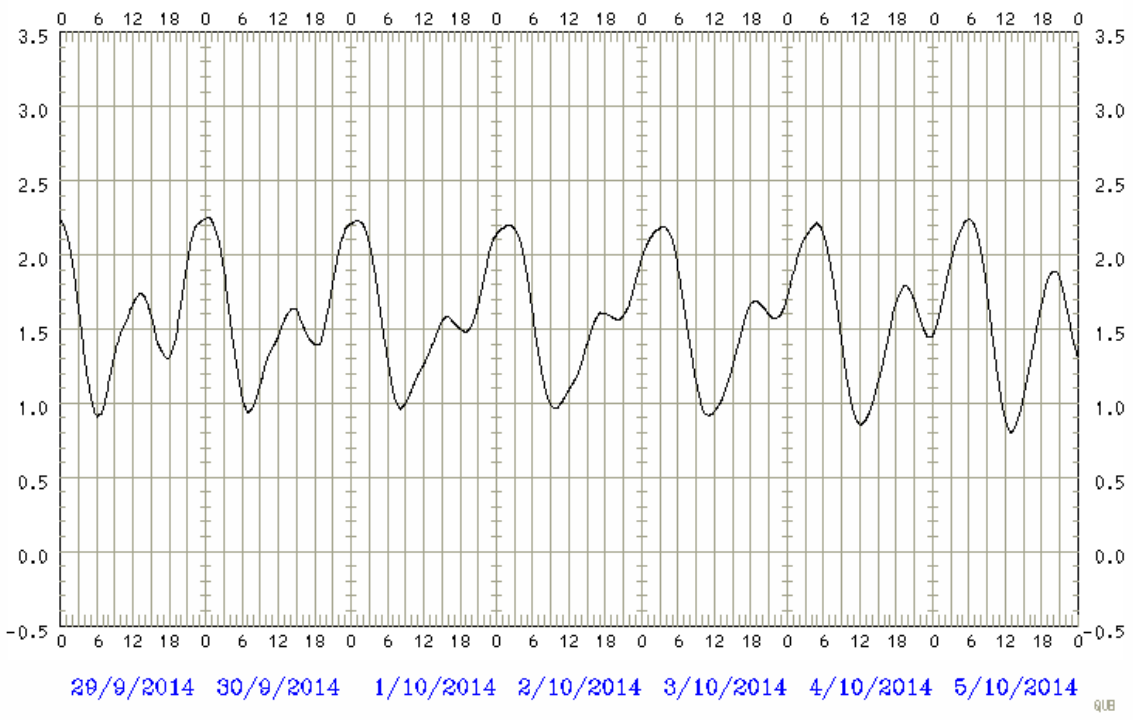
Meteorological Conditions on 29 September 2014

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **27.2-32.4** ℃ Relative humidity: **58-84%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **25.6-32.4** ℃

- **The tidal data at Quarry Bay Station**

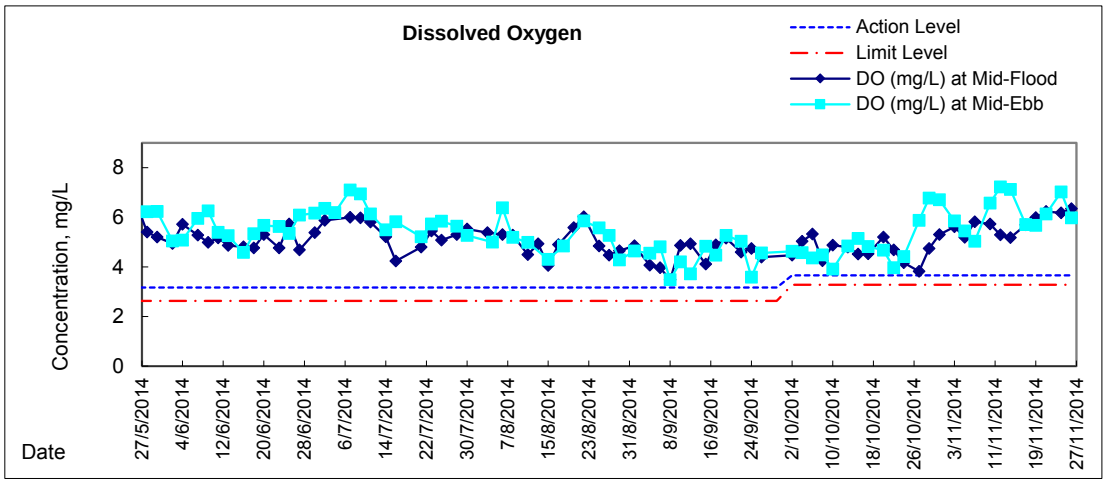
Tide Time	Tide Height (m)
06:13	0.9
13:11	1.7
17:45	1.3

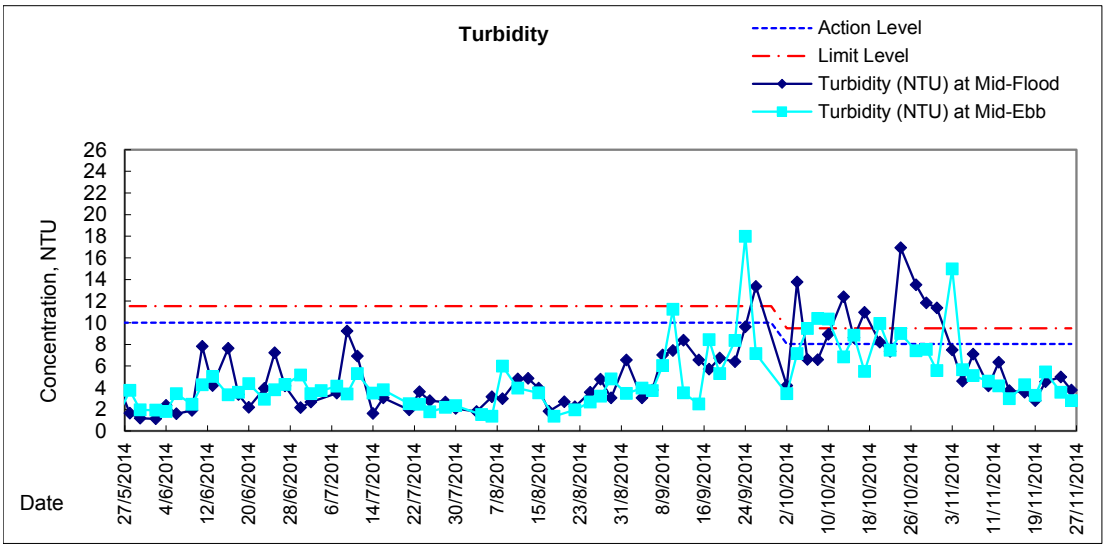


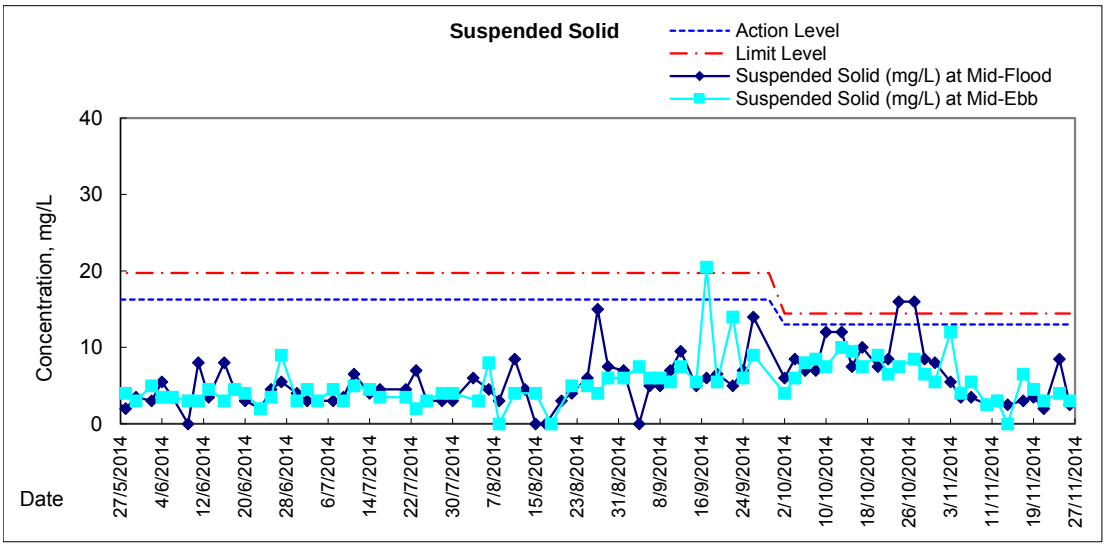
Appendix 4.3

Water Quality Monitoring Graphical Presentations

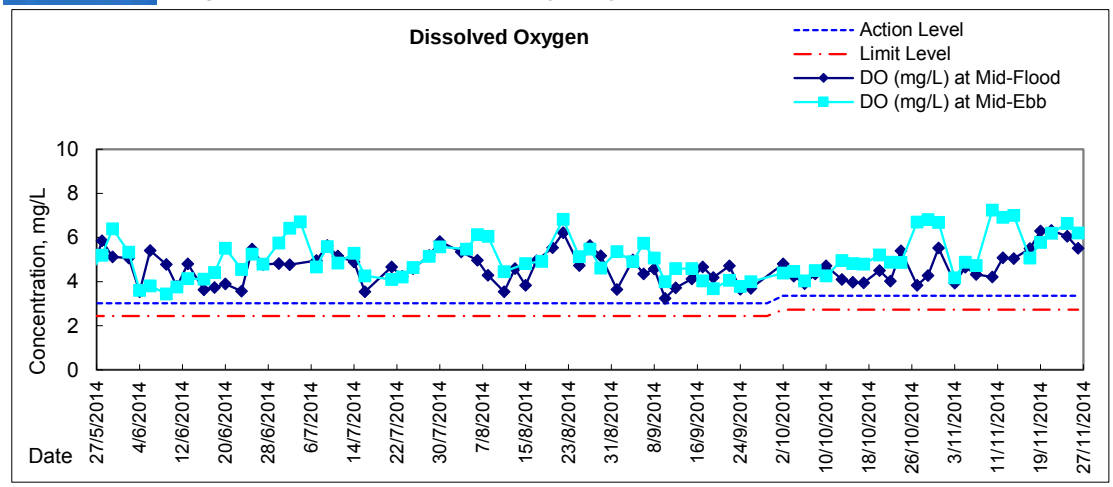
Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan

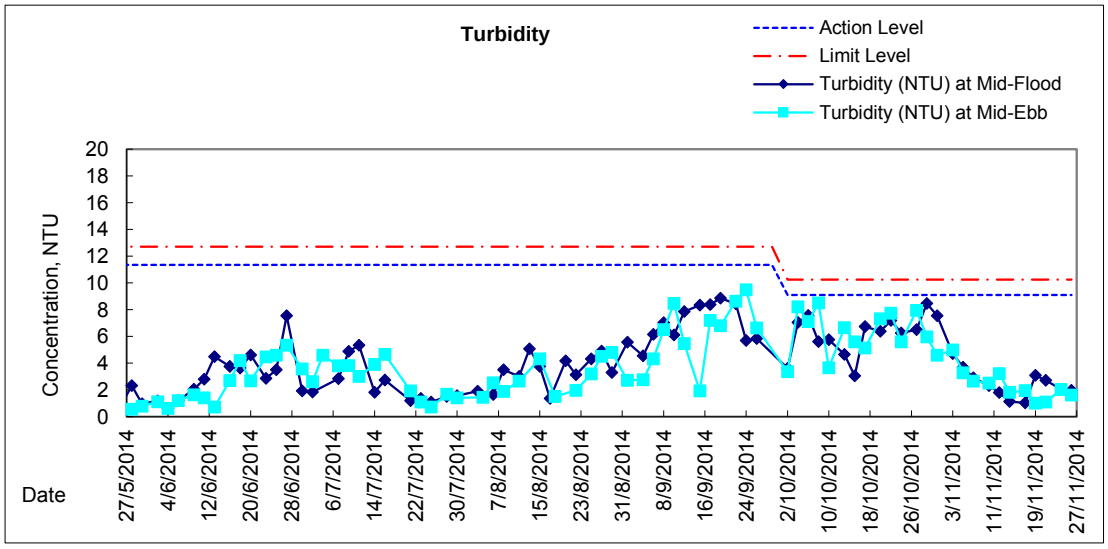


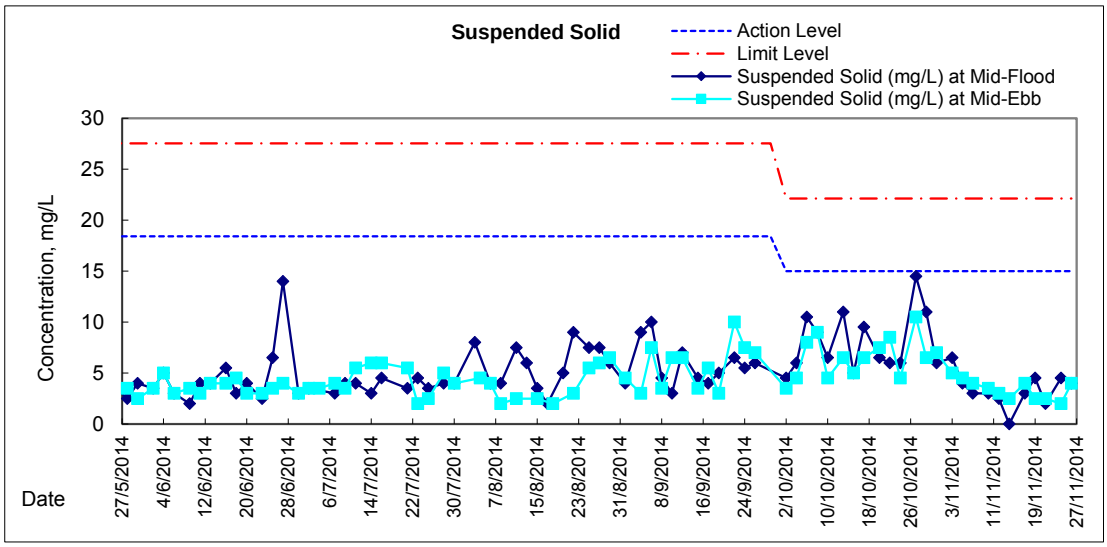




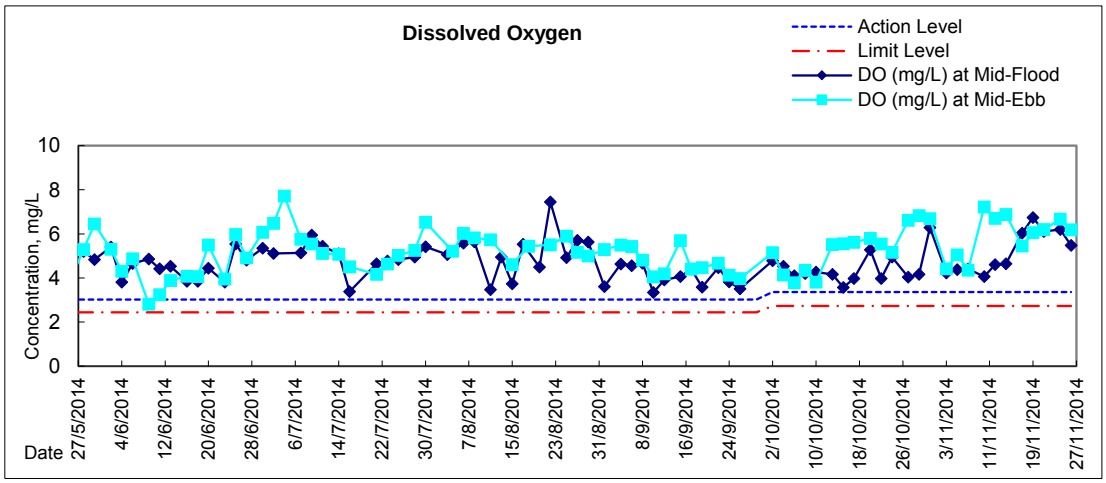
Graphic Presentation of Water Quality Result of C1 - HKCEC

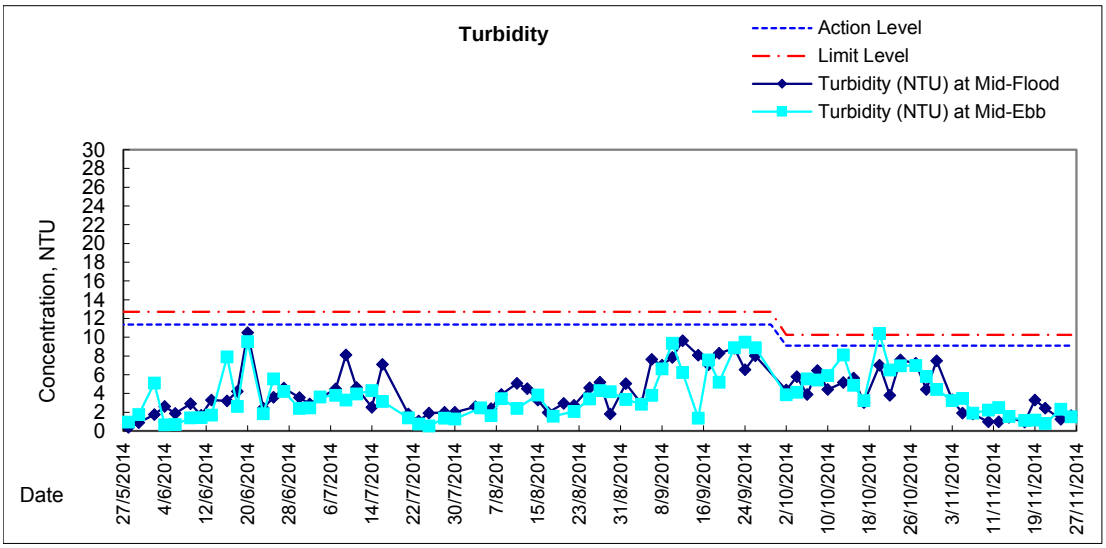


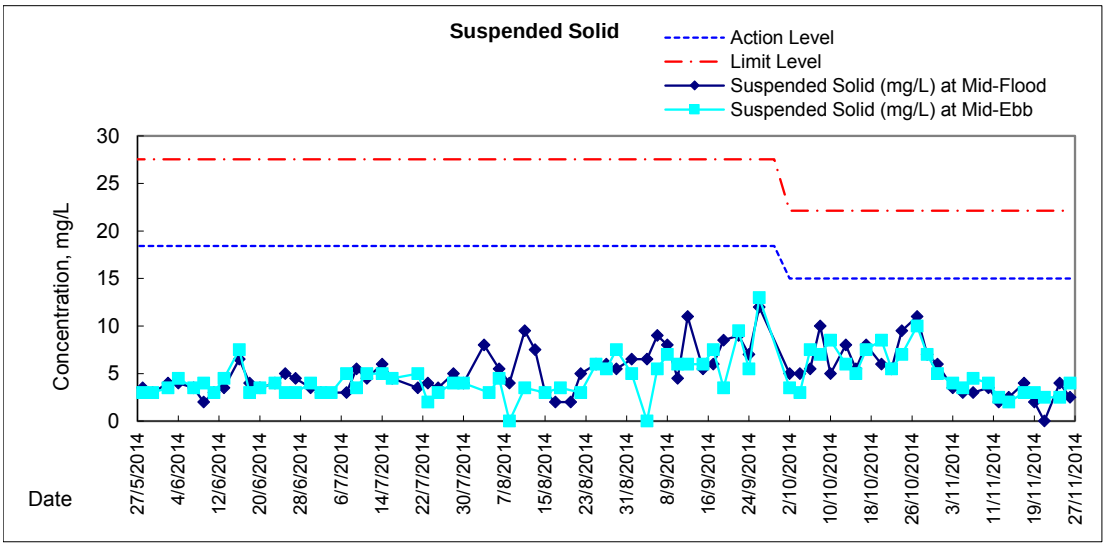




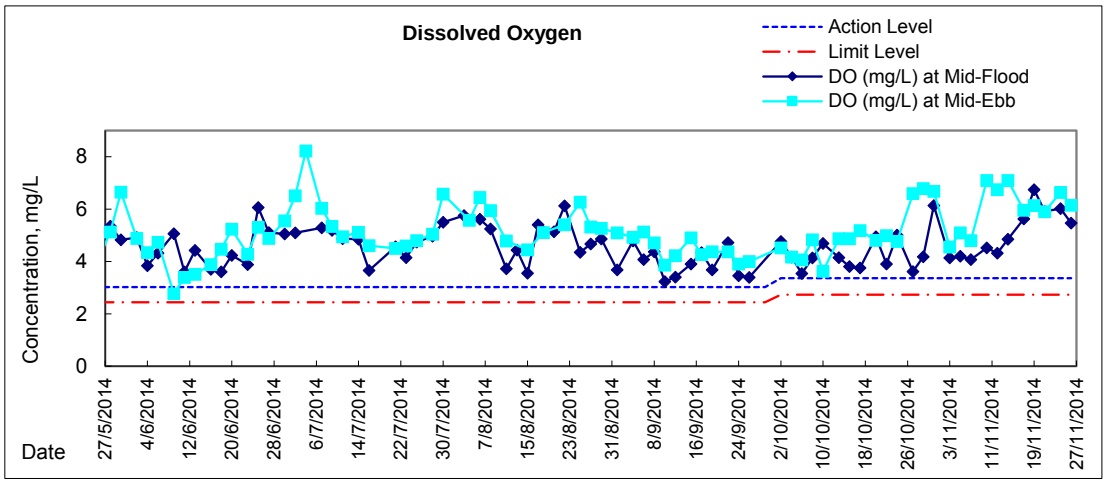
Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I

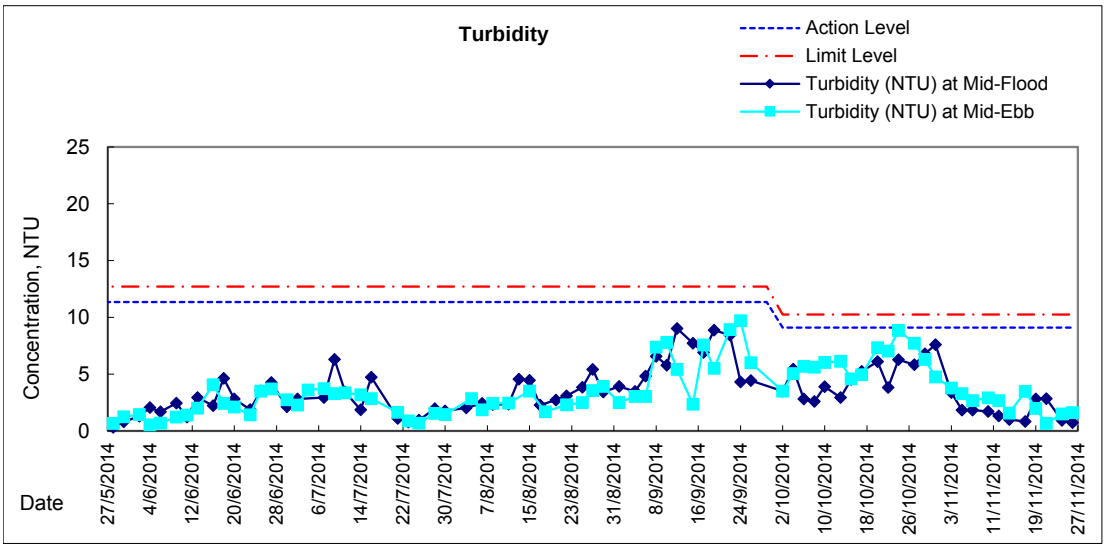


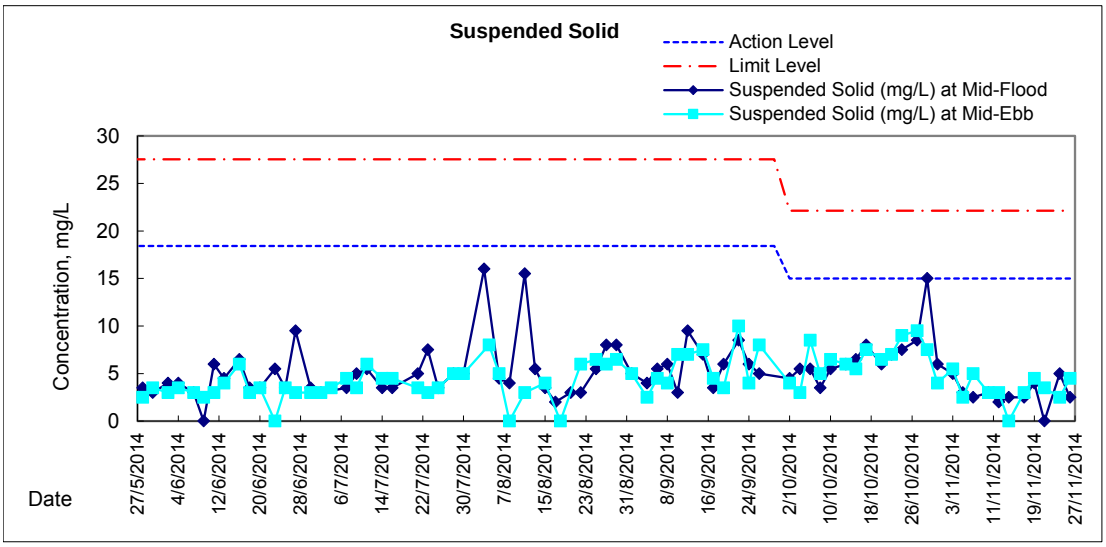




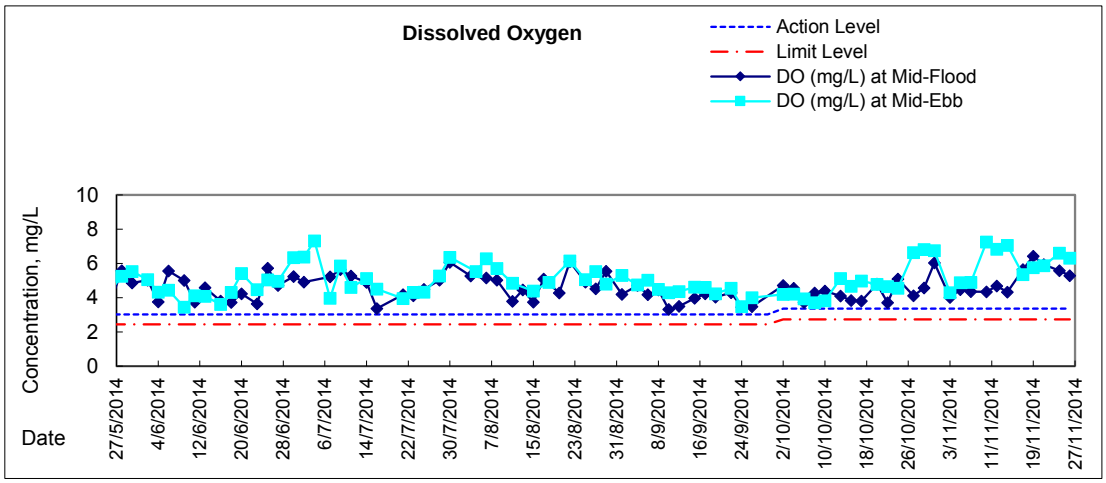
Graphic Presentation of Water Quality Result of P3 - APA

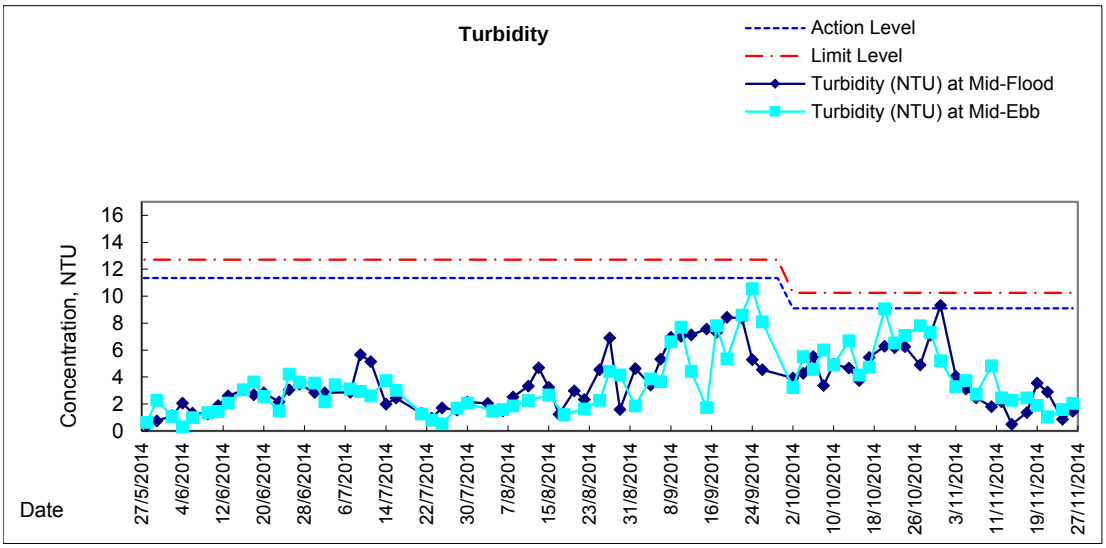


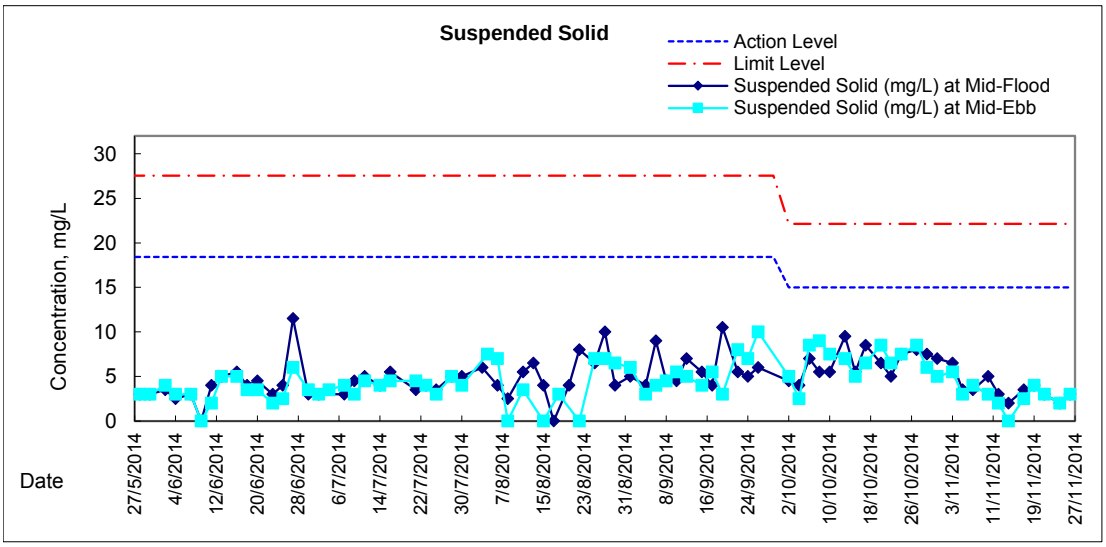




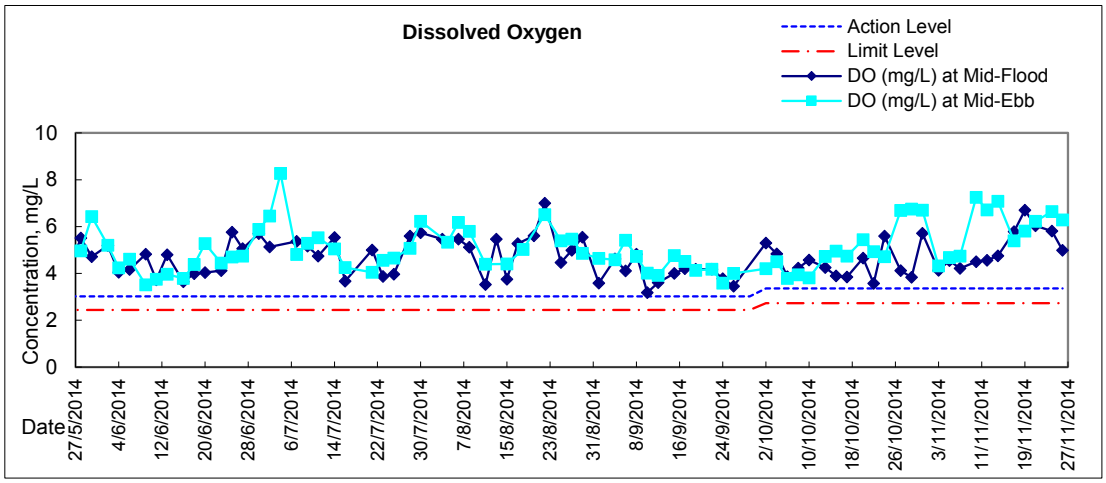
Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT

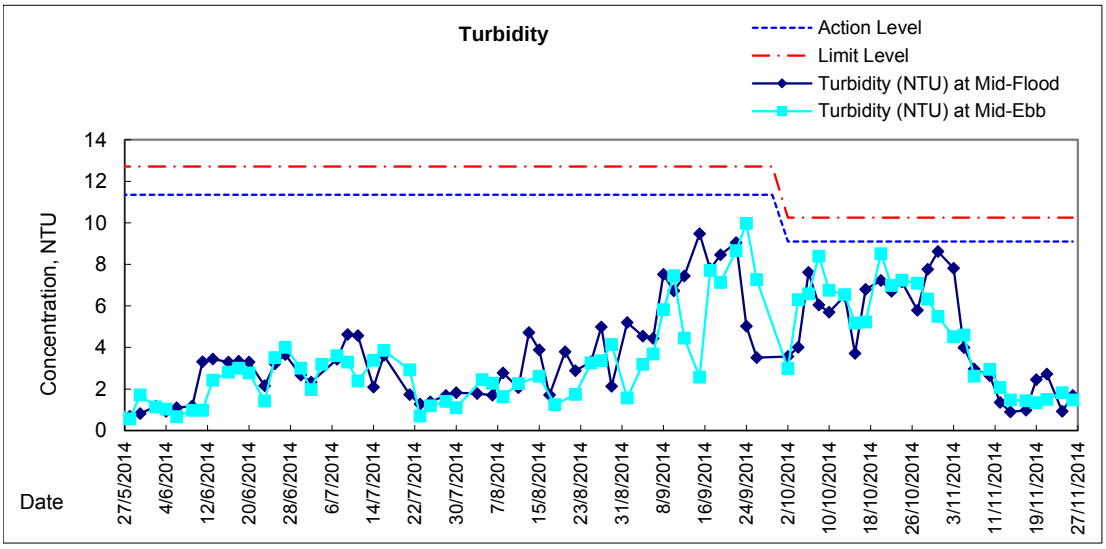


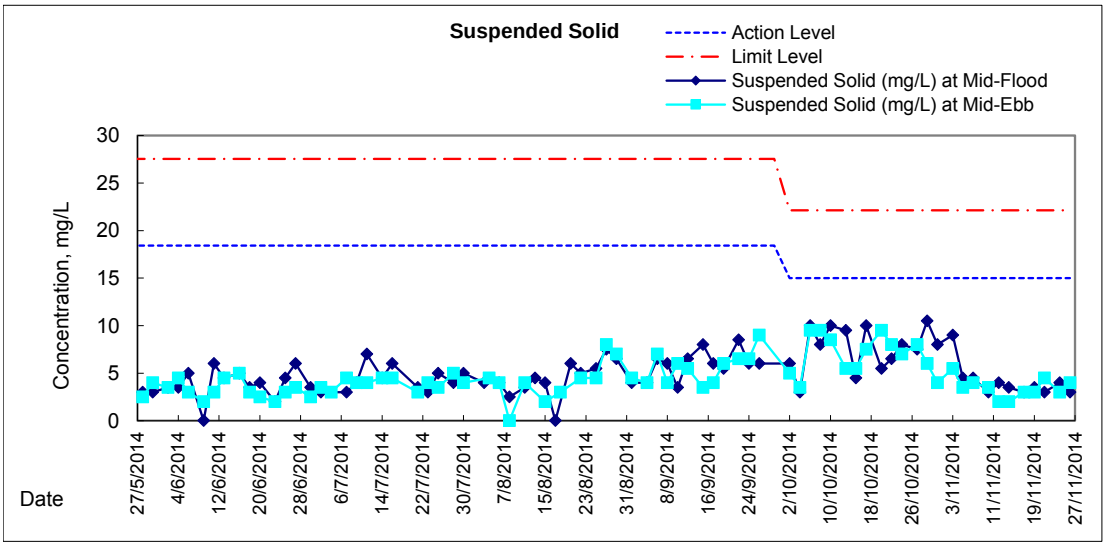




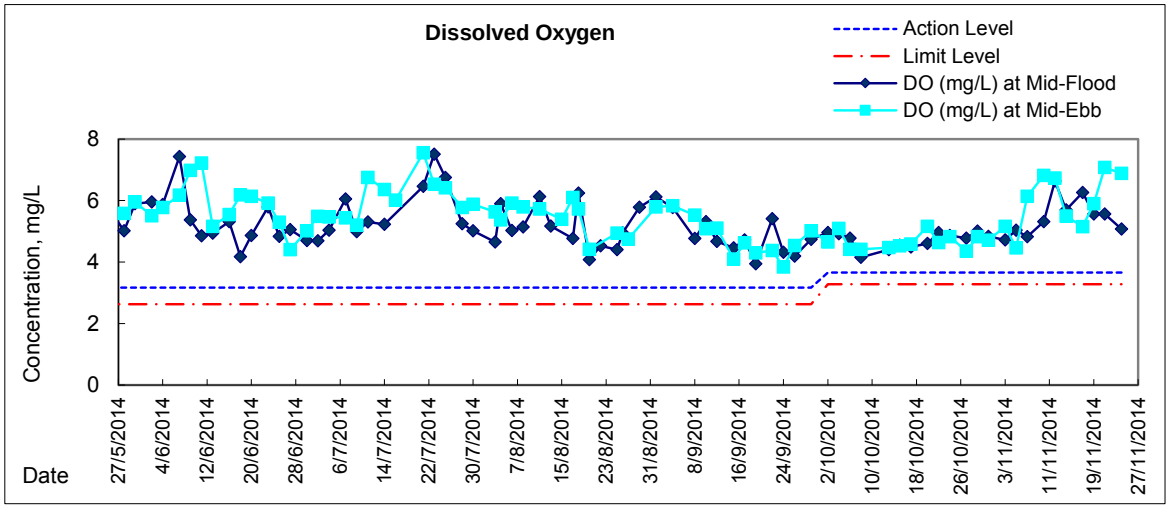
Graphic Presentation of Water Quality Result of P4 - SOC

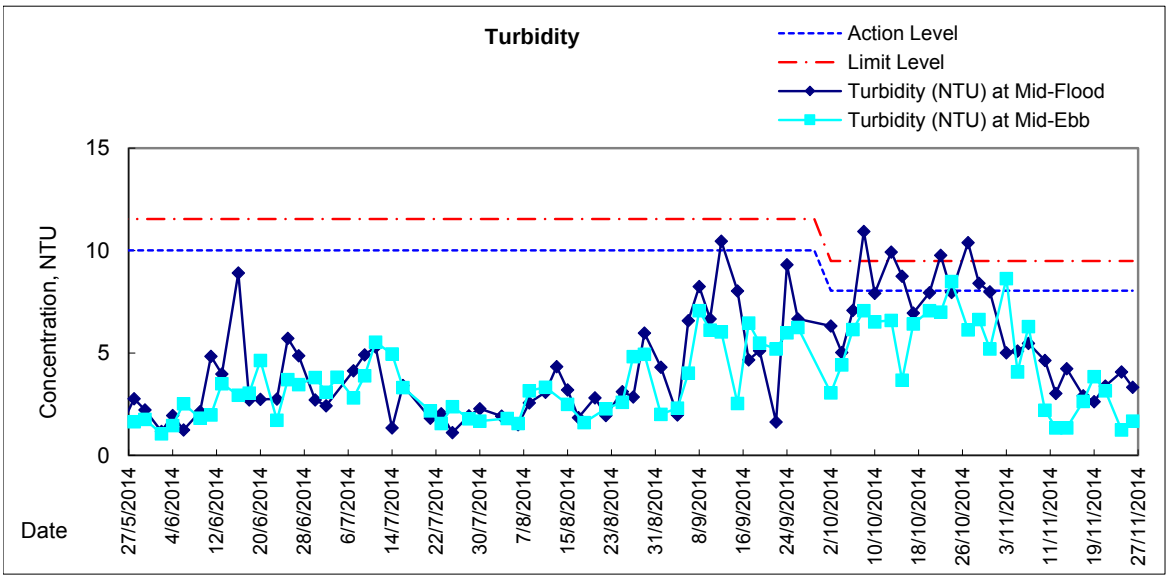


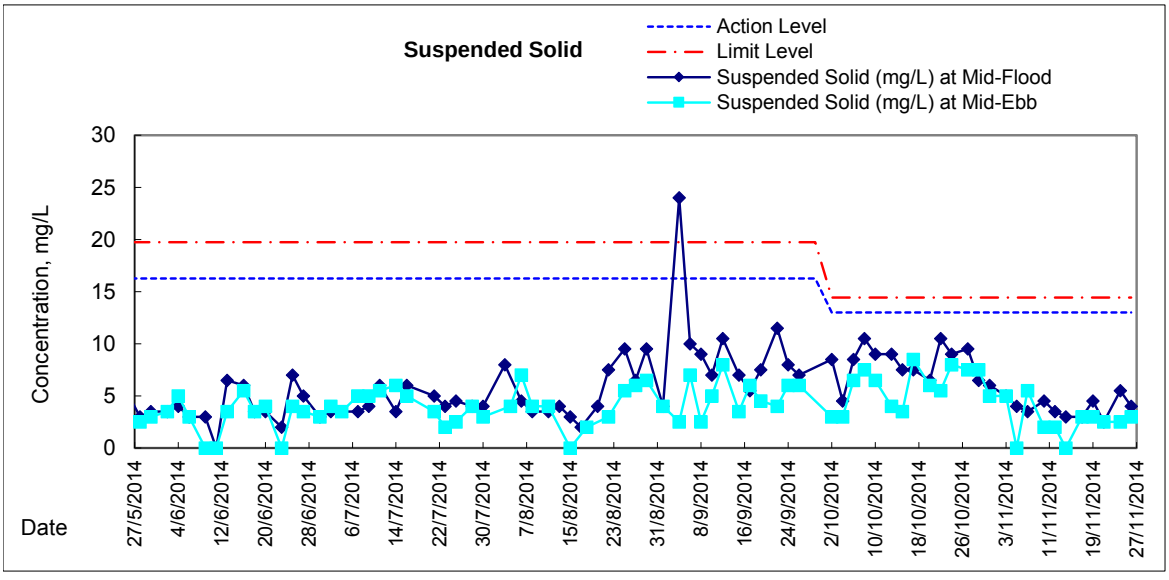




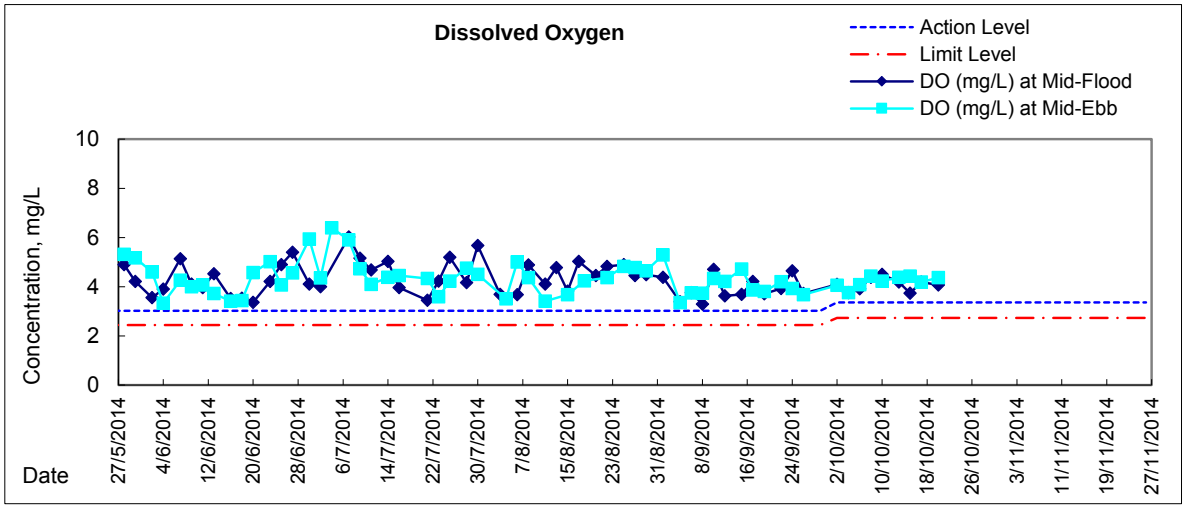
Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK

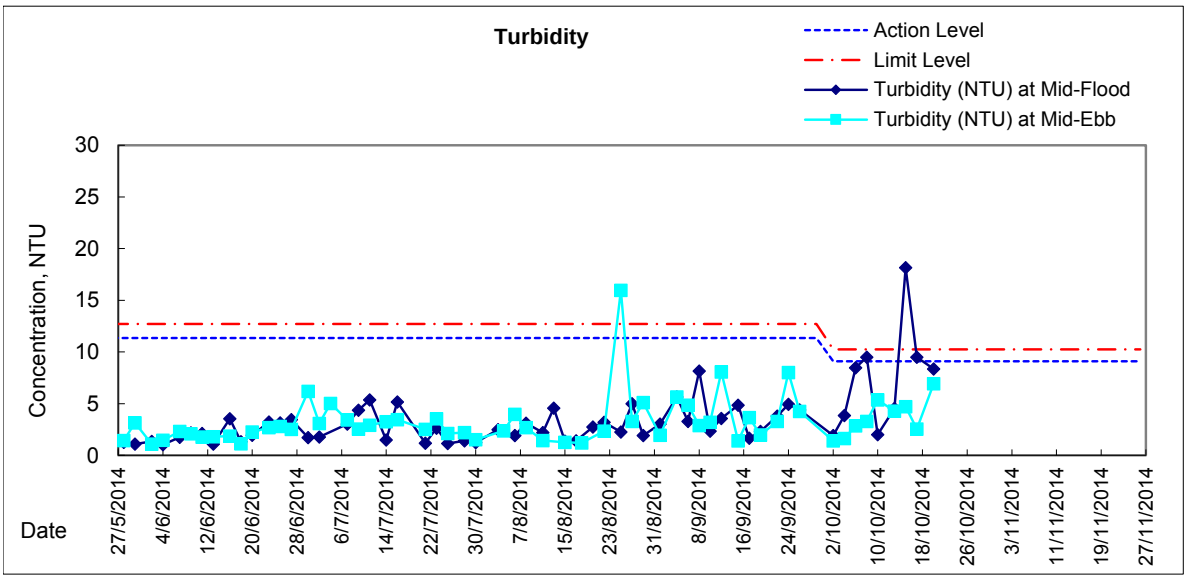


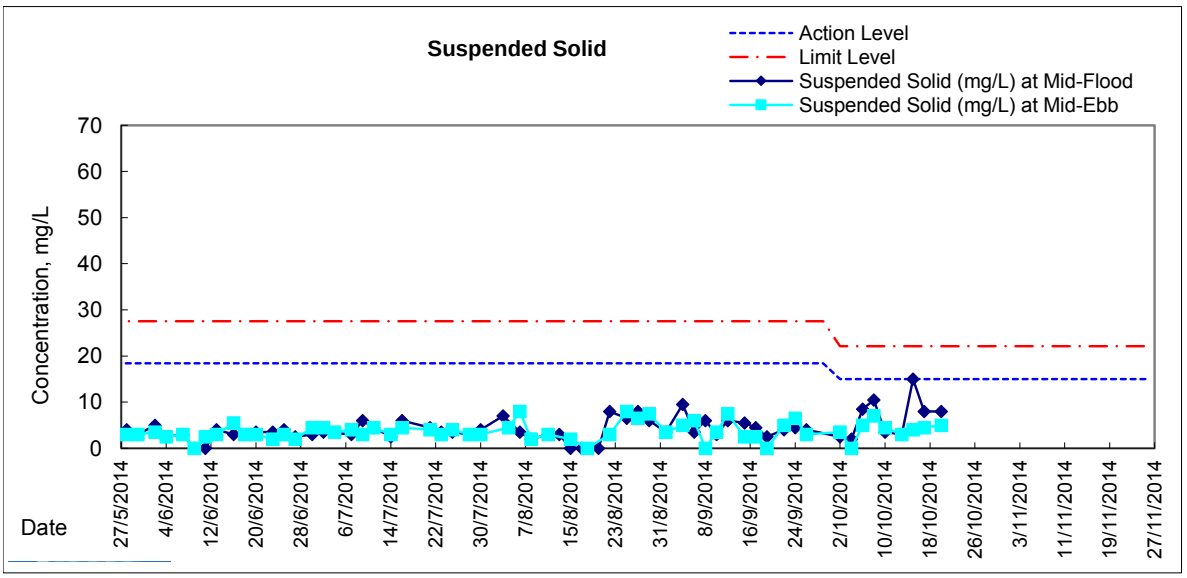




Graphic Presentation of Water Quality Result of C7 - Windsor House

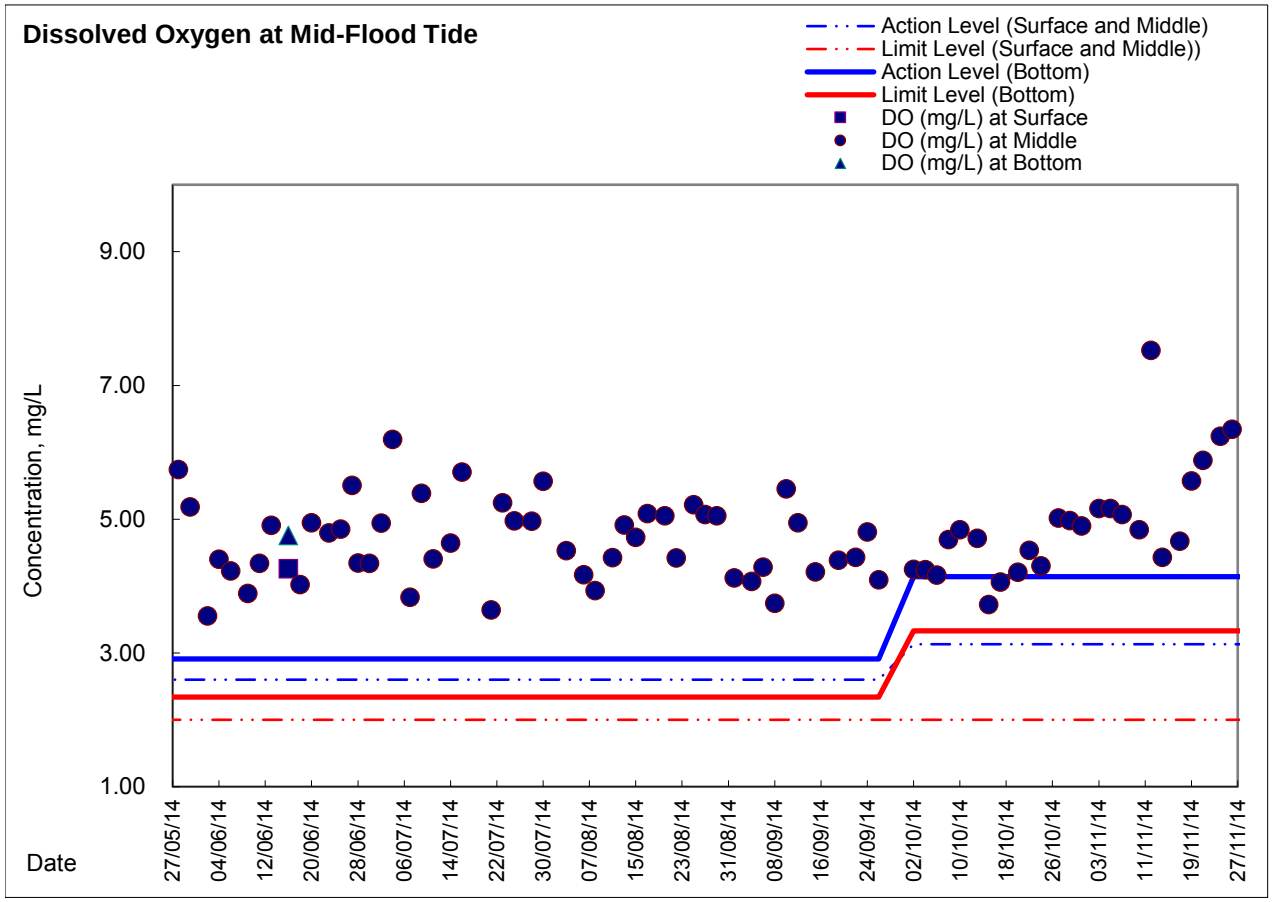


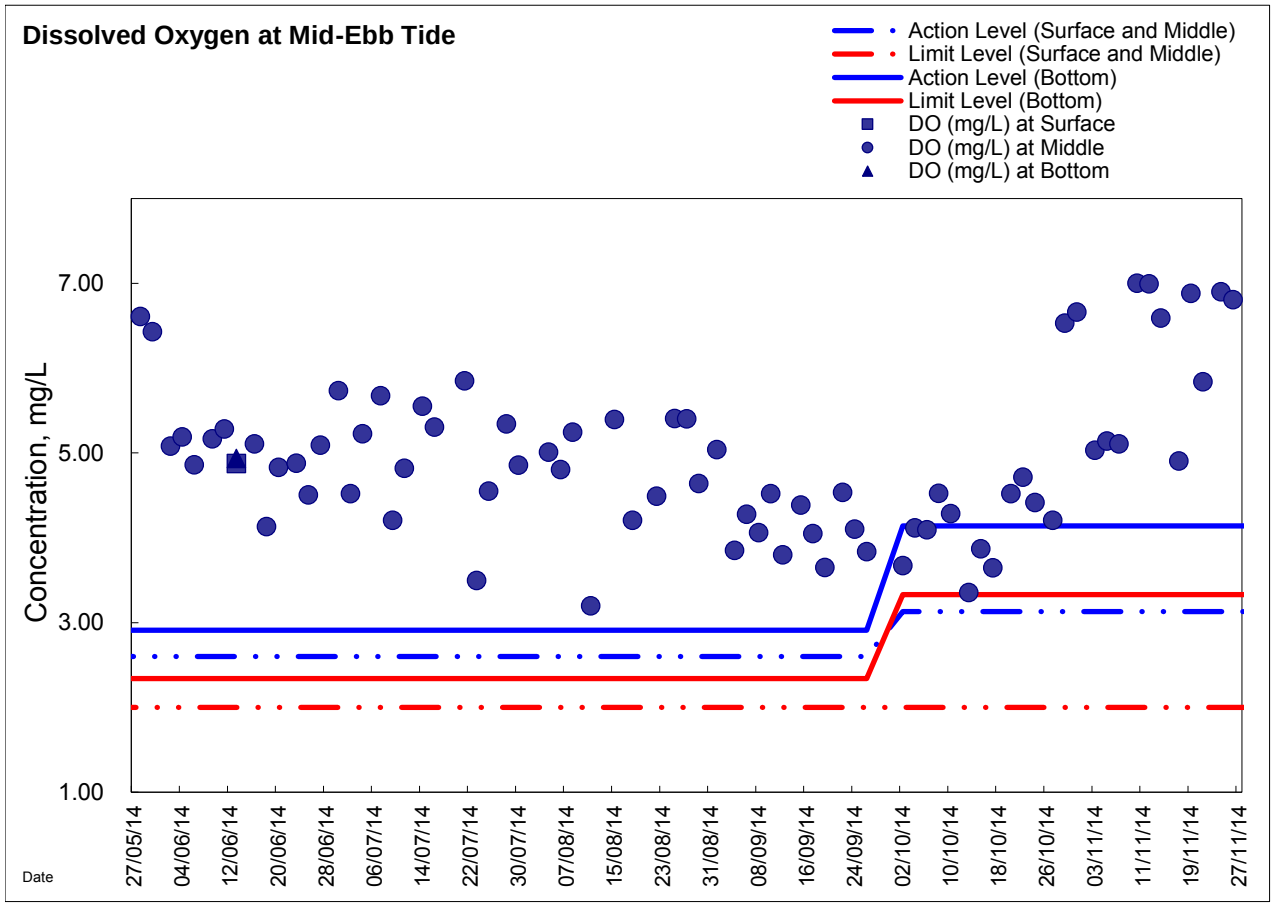




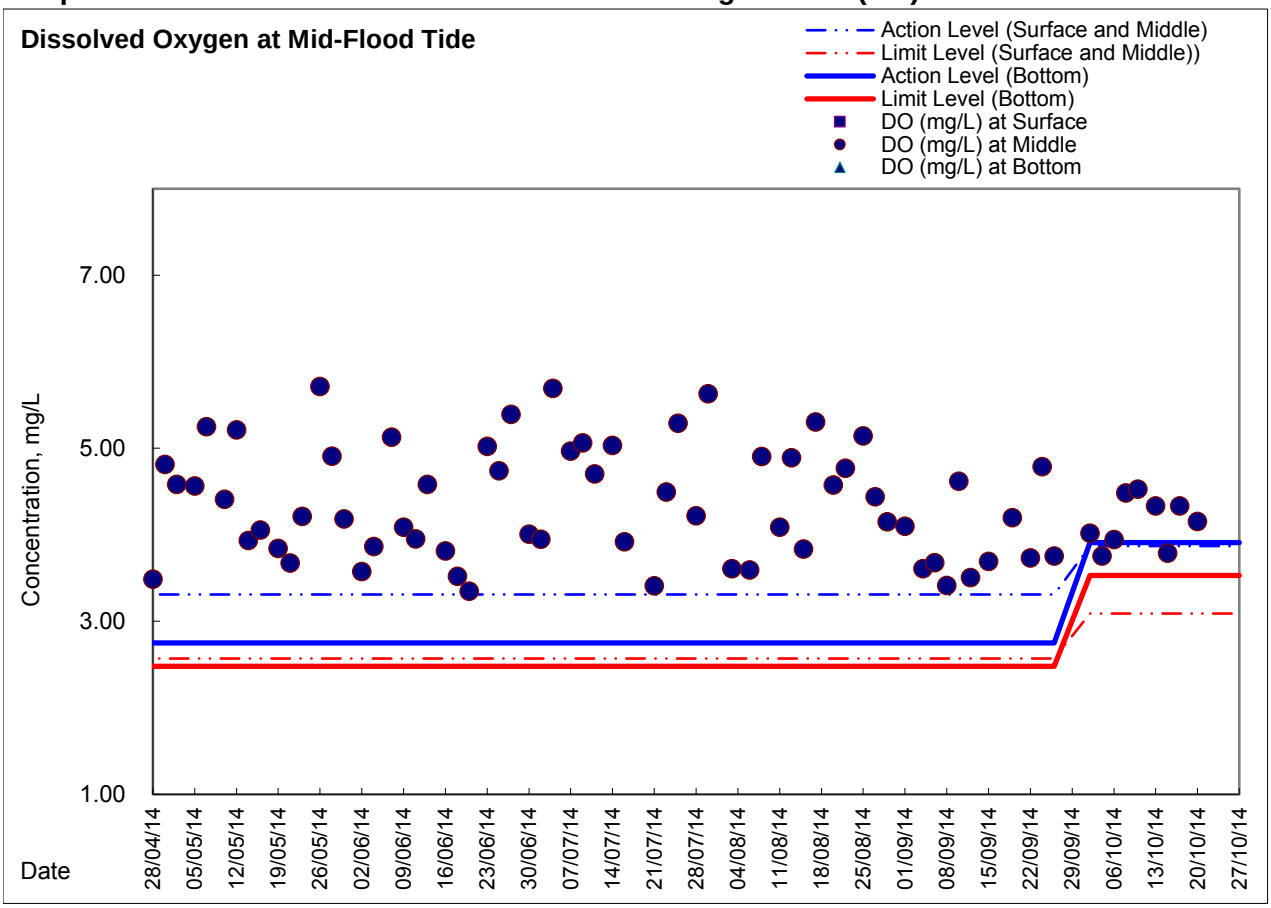
Remark: Due to the commencement of filling works at TS3 and temporary suspension of pump operation, the water quality monitoring was temporarily suspended starting form 22 October 2014 and would be resumed after the completion of the intake diversion.

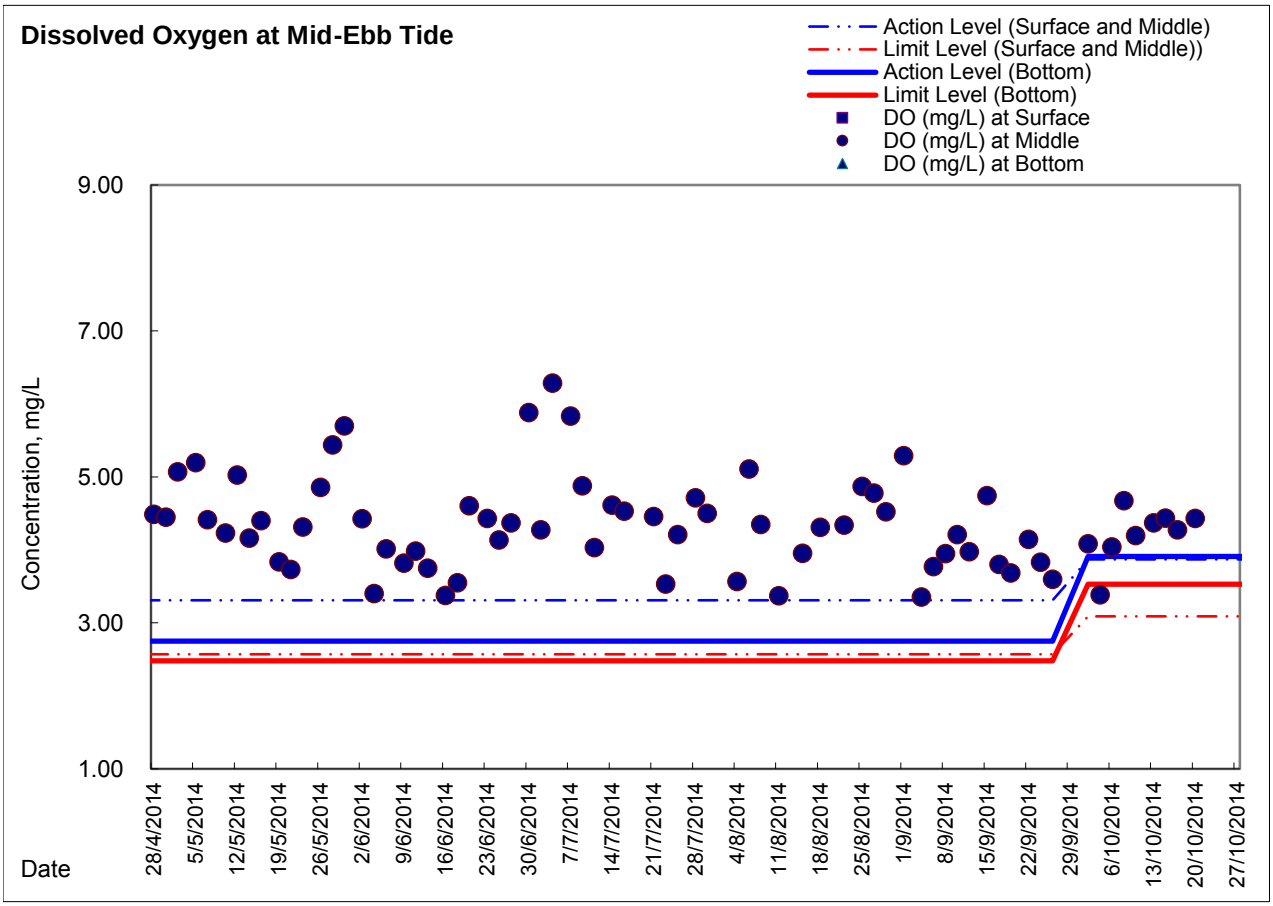
Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel



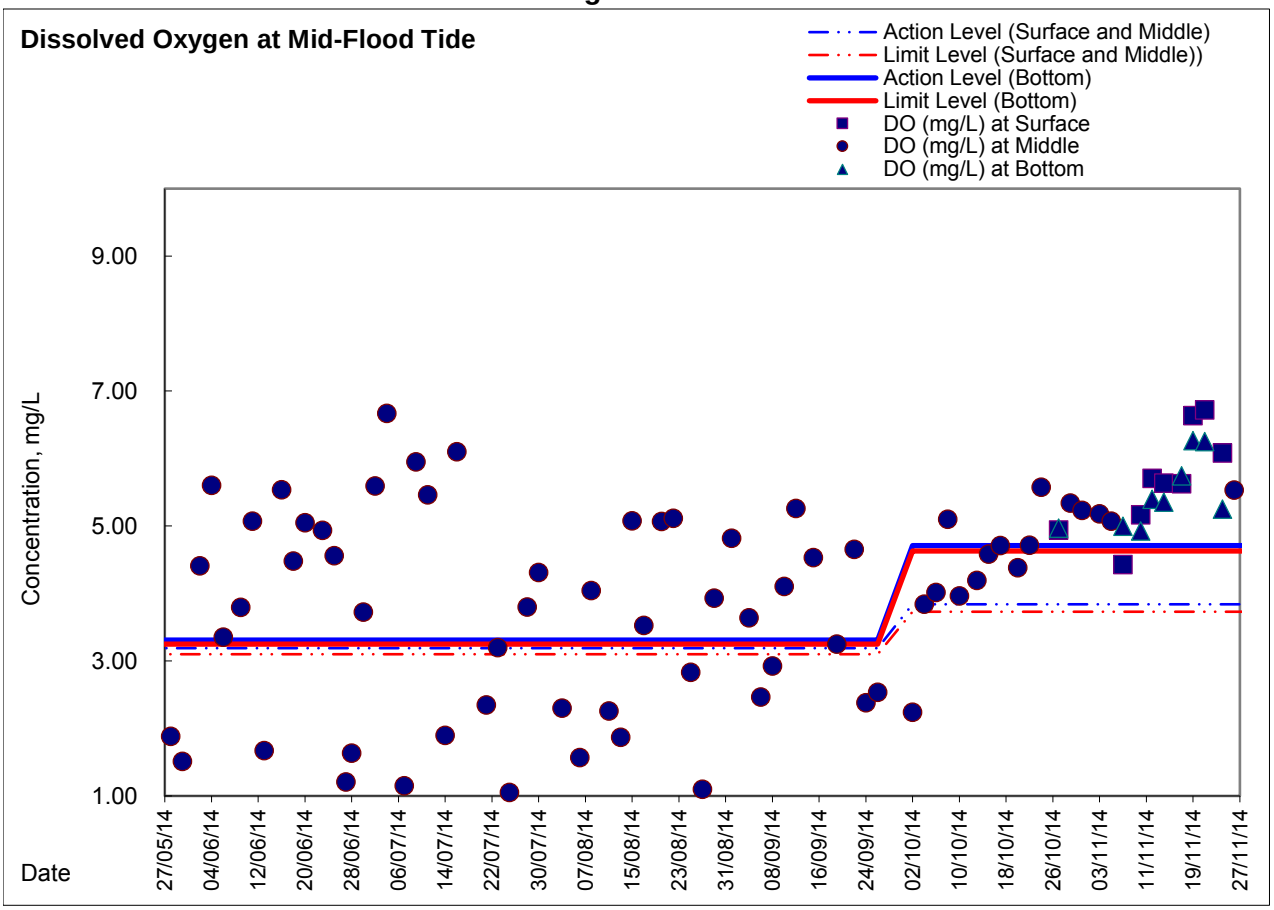


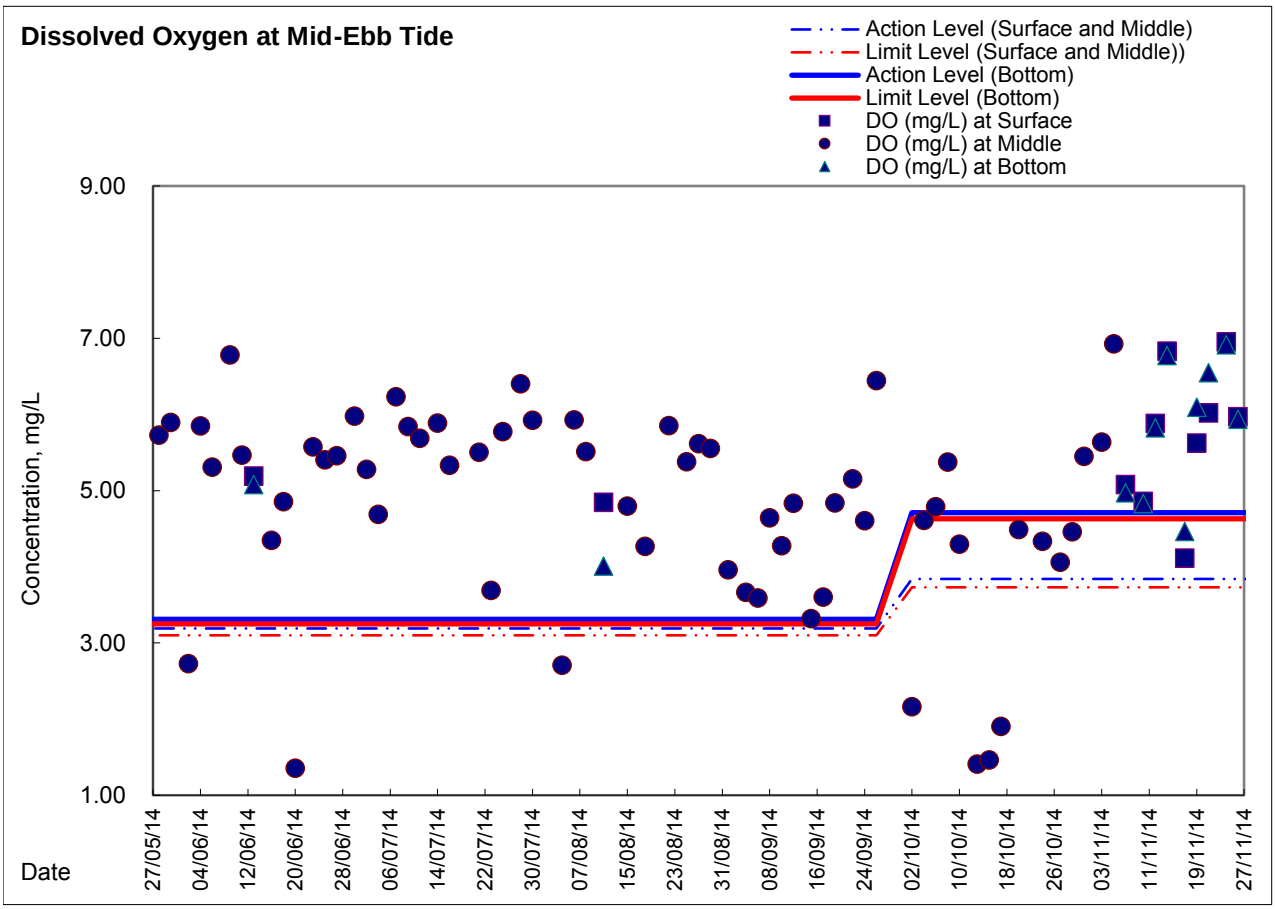
Graphic Presentation of Enhanced Water Monitoring Results (DO) at C7 - Windsor House



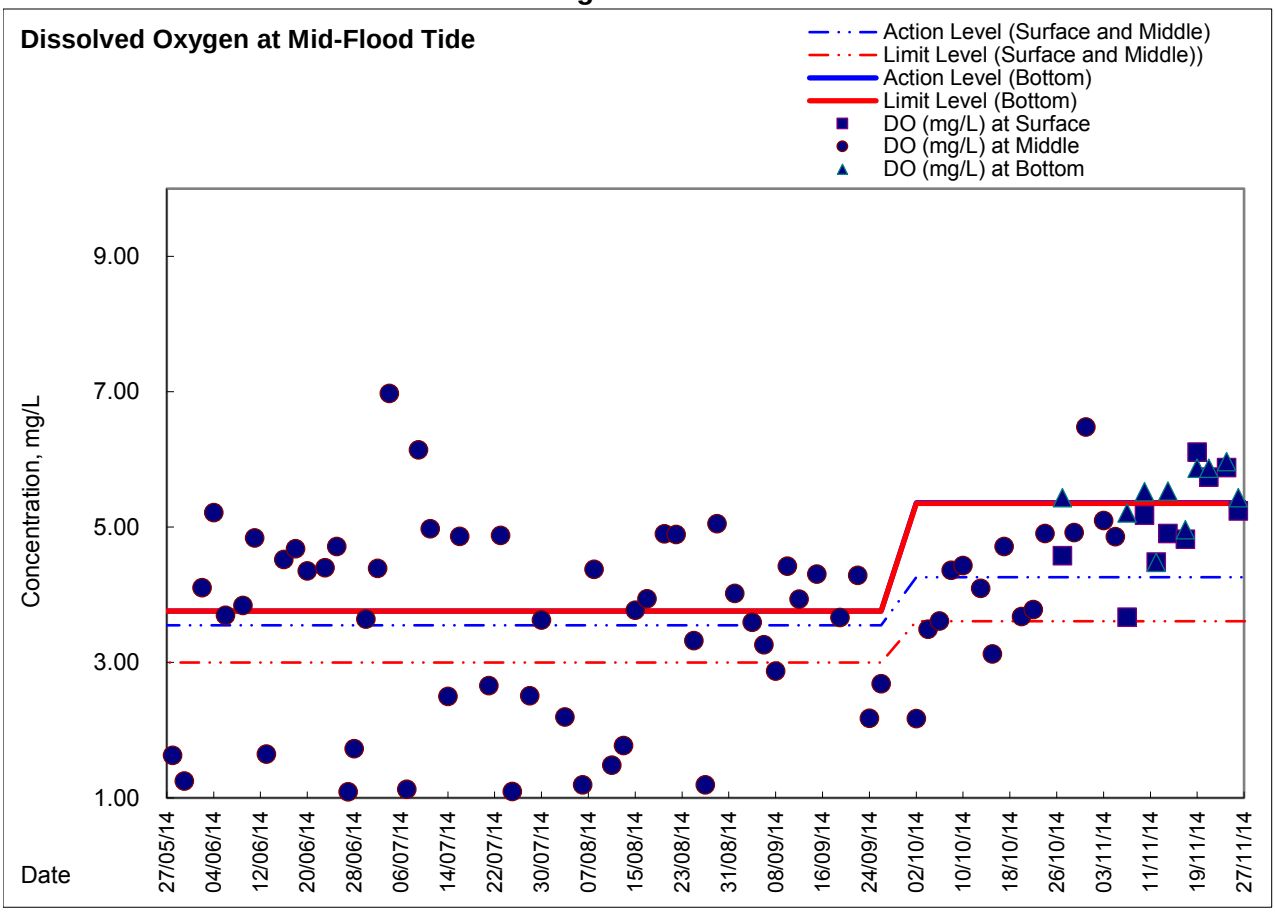


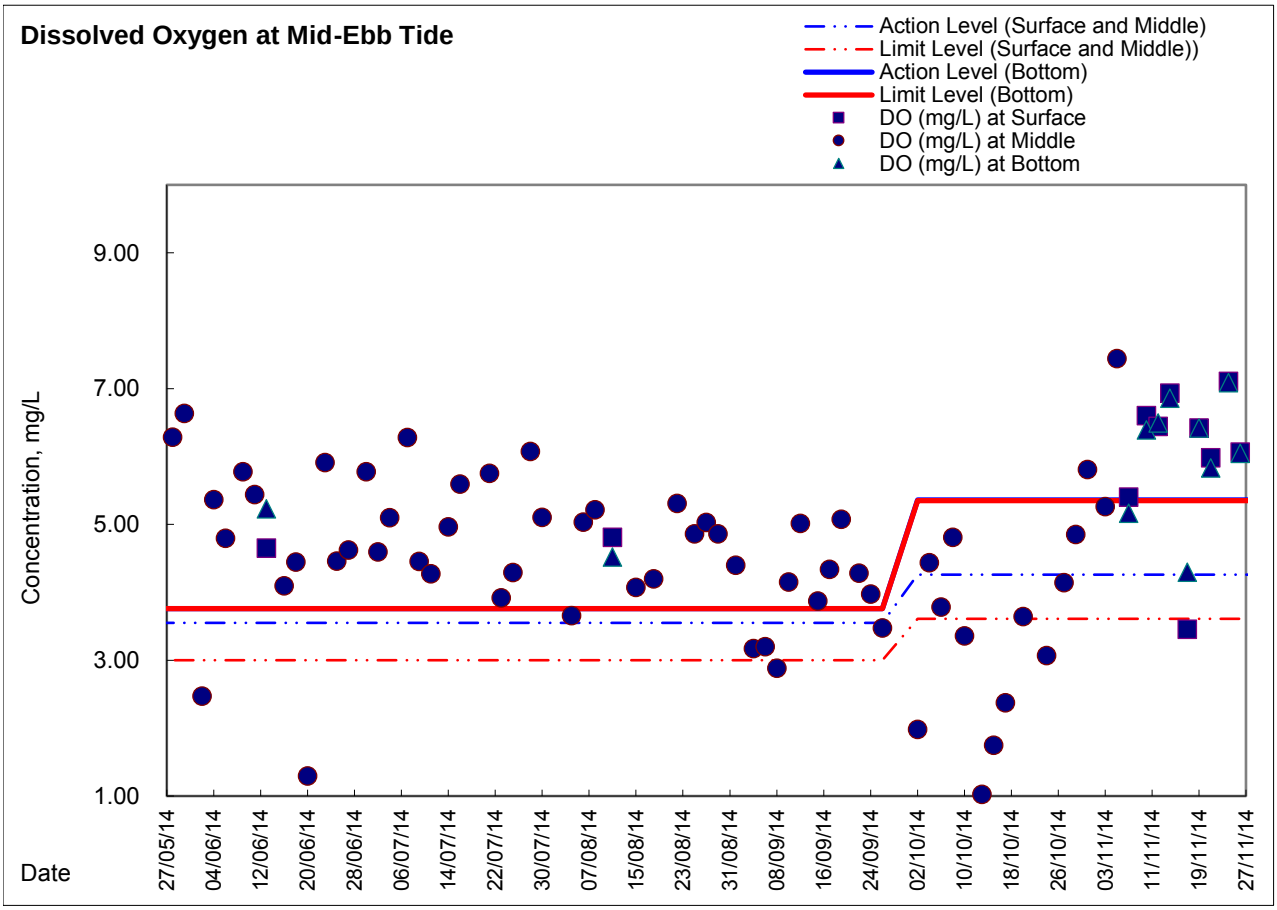
Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area





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

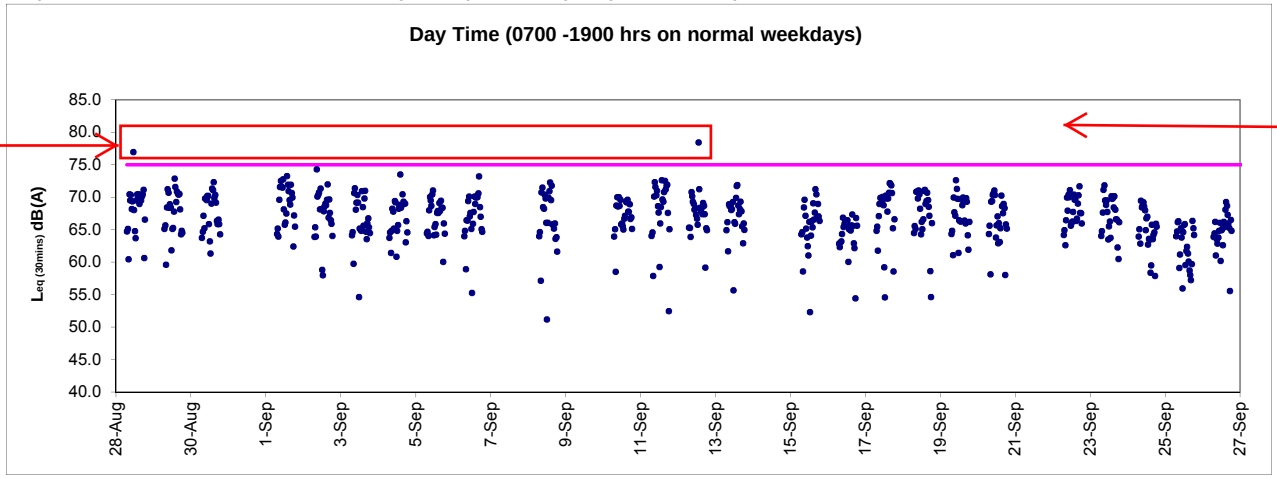


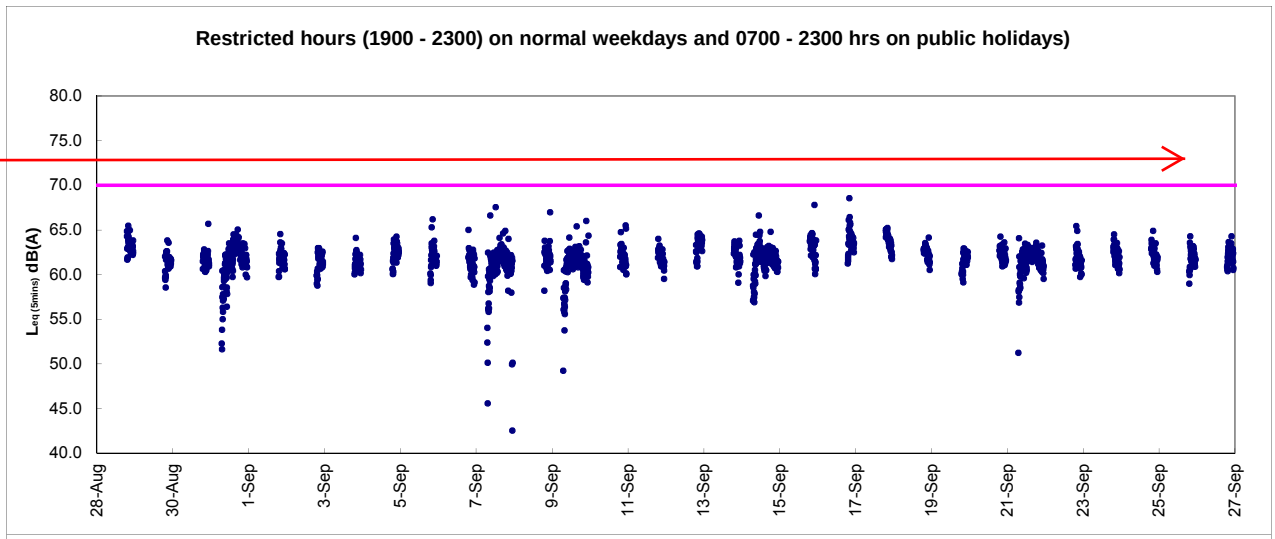


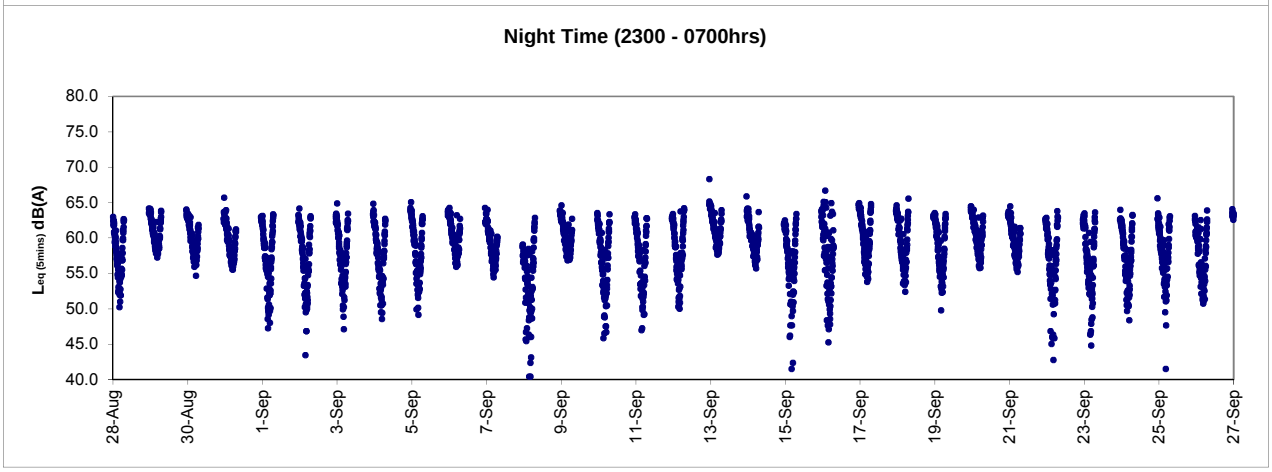
Appendix 4.4

Real-time Noise Monitoring Results and Graphical Presentations

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

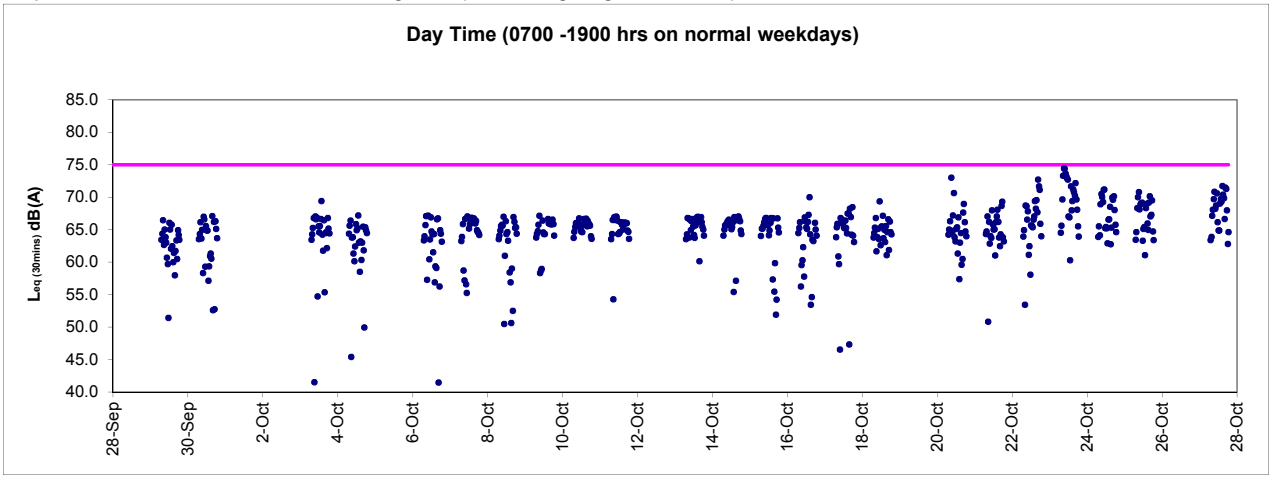


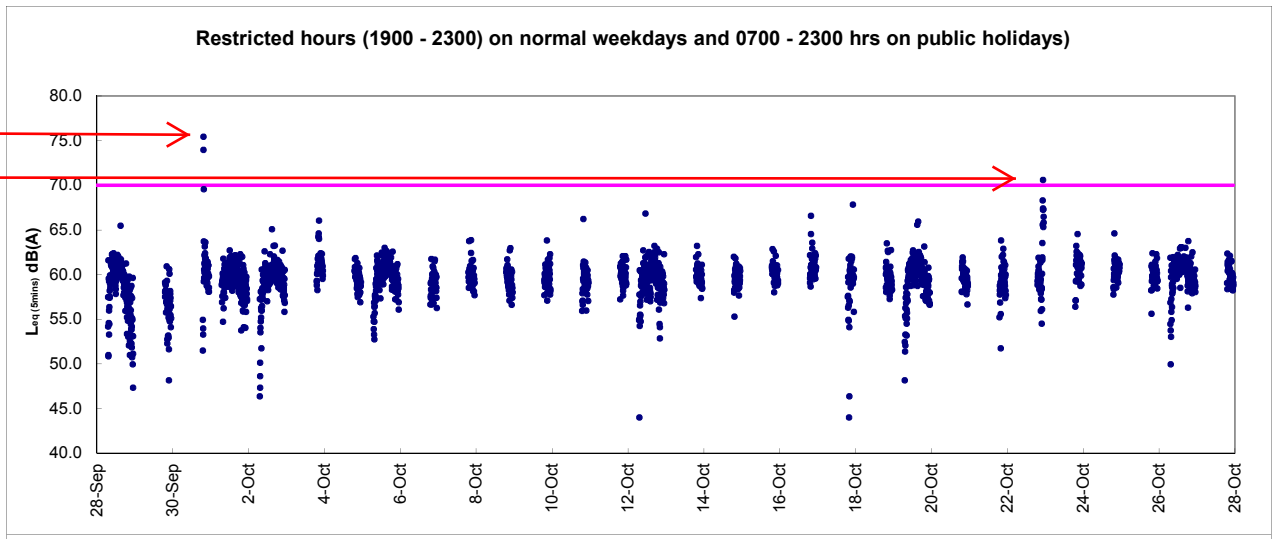


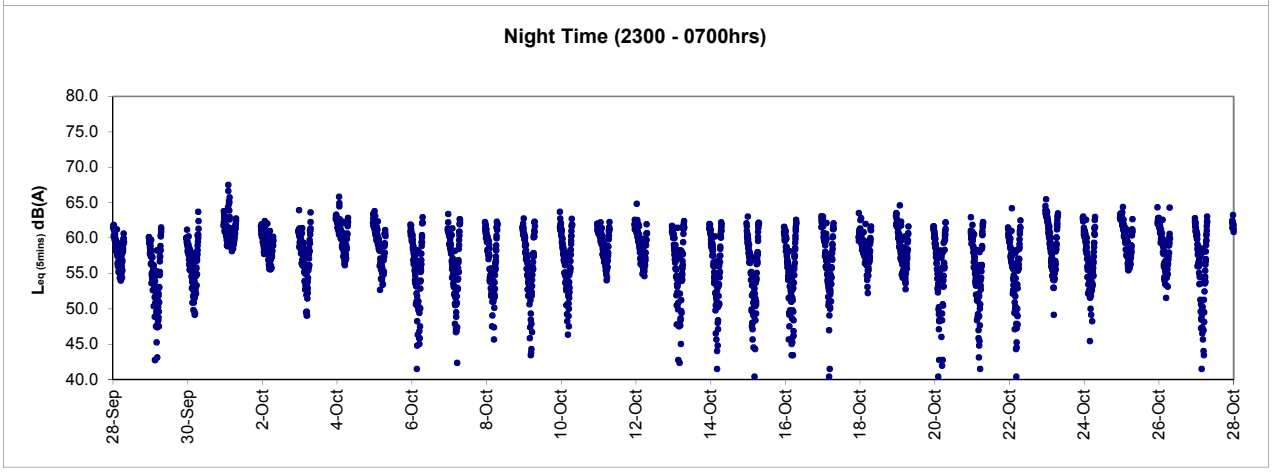


After checking with contractor HY/2009/19, despite bored piling works and socket piliing were conducted, contractor mitigation measures including erection of temporary noise barrier and noise blanket were in place .In view of the exceedances are non-continuous, the exceedances are considered to be non-Project related and contributed by the IEC traffic and adjacent non-CWB piling site.

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

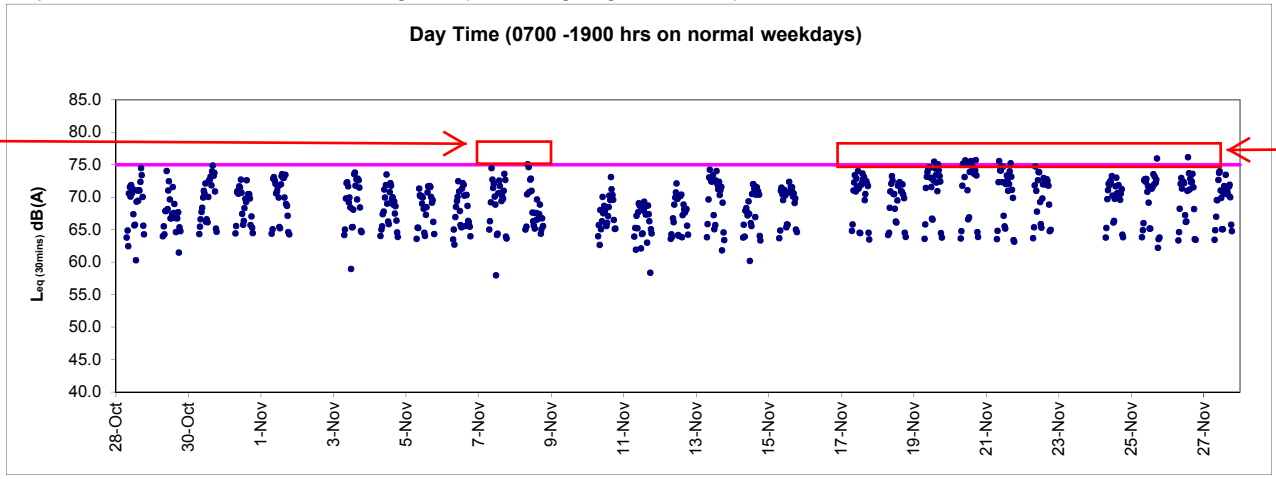


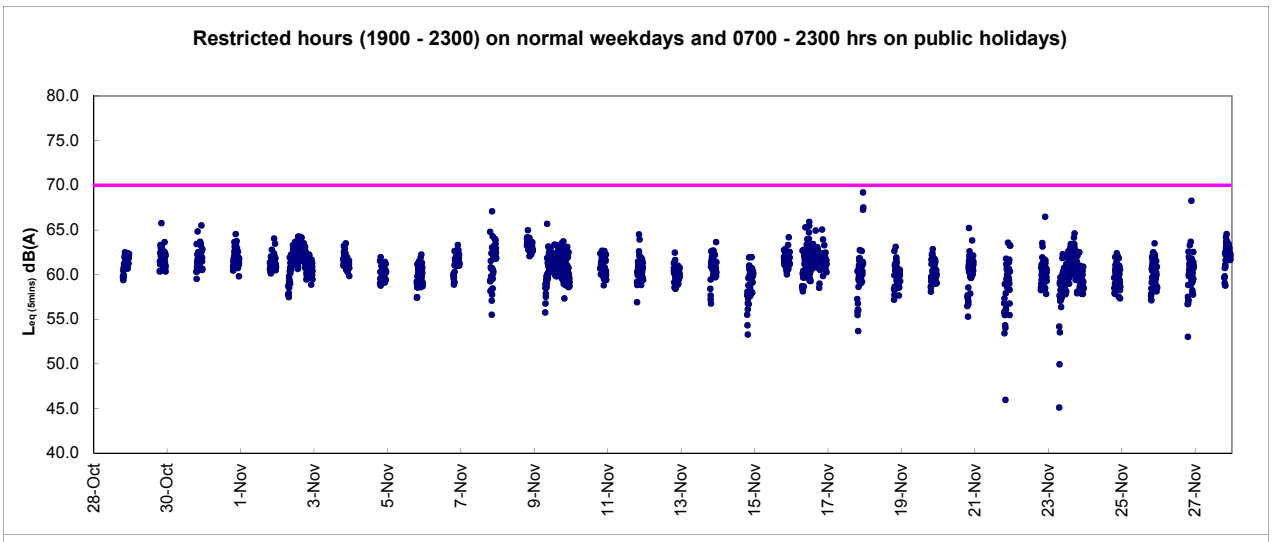


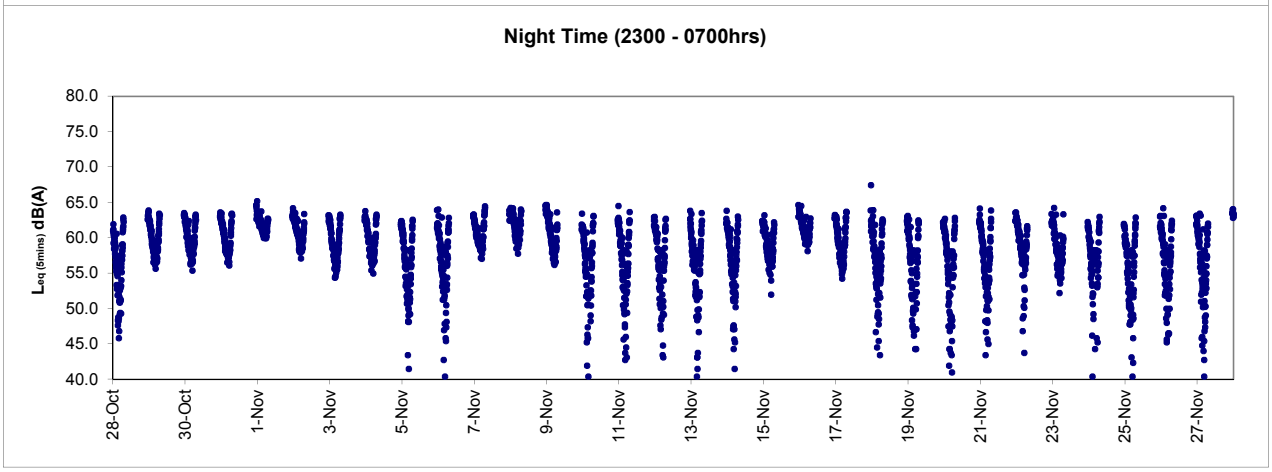


After checking with contractor HY/2009/19, no construction works was conducted during the recorded period. In view of the exceedance was non-continuous, the exceedance was considered to be non-Project related and contributed by the nearby IEC traffic

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







After checking with contractor HY/2009/19, sheet piling and socket H-piling were conducted during the recorded period, contractor mitigation measures including provision of temporary noise barrier was implemented.
In view of the exceedance was non-continuous, the exceedances are considered to be non-Project related and contributed by nearby the IEC

After checking with contractor HY/2009/19, sheet piling, socket H-piling and breaking of U-Beam were conducted during the recorded period, contractor mitigation measures including provision of temporary noise barrier were implemented while chilling system pipe work installation works (hammering and wielding works) was observed conducting at the roof top of Hong Kong Electric Centre from 17 Nov 2014 to 28 Nov 2014. As such, the exceedances were considered to be non-Project related and contributed by the pipe work installation works at Hong Kong Electric Centre.

Appendix 5.1

Event Action Plans

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Action Level being exceeded	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. (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)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals. (The above actions should be taken within 2 working days after the exceedance is identified)

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. 4. Identify source and investigate the cause of exceedance; 5. 5. Carry out analysis of Contractor's working procedures; 6. 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

Event / Action Plan for Construction Air Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Notify Contractor. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Rectify any unacceptable practice; 2. 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)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

Event and Action Plan for Marine Water Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next working day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Limit level being exceeded by one sampling day	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)

Appendix 6.1

Complaints Log

Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100321a	21/3/2010	ICC Case no. 1-224618029, Ms. Tsang	Location near Tin Hau	Complaint regarding the loud noise and dark smoke in the course of dredging works on 21 March 2010 (Sunday).	1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works which carry out at area for North Point Reclamation. 2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation. 3) The Contractor (CHEC-CRBC JV) strictly comply all the conditions in CNP and take all mitigation measures in order to minimize the potential impacts to surrounding sensitive receivers. A formal letter was issued out by CHEC-CRBC JV and to explain the status of the recent construction activities. 4) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring. 5) No further complaints were received from Mr. Tsang in the reporting month. The complaint is considered closed.	Closed
100321b	21/3/2010	Unknown	Near the eastern breakwater of the Causeway Bay Typhoon Shelter	A public complaint and enquiry regarding loud noises emanated from dredging activities on 21/3/2010 (Sunday) until 2220 hours and between 1920-1946 hours in the evening of 22 March 2010(Monday).	1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works at area for North Point Reclamation during general holidays including Sunday between 0700-2300 hours and any day not being a general holiday between 1900-2300hours. It is complied with the condition of CNP. 2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation. 3) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring. 4) No further complaints were received in the reporting month. The complaint is considered closed.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100504	4/5/2010	Public complainant received by ICC (ICC case: 1-233384048)	Watson Road	Complaint on the noise nuisance due to the large scale of dredging machine (face to Island East Corridor) in particular the hours 1900 to 0800 and request to reduce the noise level.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0119-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) According to RSS 's record, no more daytime and night time dredging since the departure of the split hopper barge from the workplace on 29 April 2010 at 1900 hrs to 5 May 2010. 3) No further complaints were received in the reporting month. The complaint is considered closed.	Closed
100731	31/7/2010	Mr. Lee received by ICC (CC Case: 1-250702681)	Oil Street to Watson Road	Complaint on the noise nuisance due to the dredging works. Three construction plants were operated concurrently.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. 2) There was only 1 grab dredger operated by Contractor within NPR project site area for dredging works. 3) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 27 July and 3 August 2010 during daytime and evening time period. 4) It is considered as invalid from the EP and CNP point of view.	Closed
100812	12/8/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the dredging works at the marine works area adjacent to the Harbour Height during the period from 0700 to 2200.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 10 and 17 August 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
101108	8/11/2010	Mr. Nip received by ICC (CC Case)	Sai Wan Ho	Visual concern around the seaside silt screen outside the WSD freshwater intake pump at Sai Wan Ho (Monitoring station ref no.. WSD15)	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. 2) Follow-up action had been immediately carried out to check and clear the floating refuse around the seaside silt screen after receipt of the complaint. 3) Removal of seaside silt screen outside the WSD freshwater intake (WSD15) by contractor HY/2009/11 was checked and confirmed dated 9 November 2010. Silt screen has been deployed into the existing steel frame at WSD15 for the protection of WSD salt water intake.	Closed
101110	10/11/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the power mechanical equipment during the 0700 to 2200hrs	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0870-10 for their dredging works during evening time. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 4 and 10 November 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed
101203	3/12/2010, 01:45a.m.	The resident of Block 11, City Garden by ICC referral from Marine Department	North Point	Bad odour was generated from the dredging plant off North Point	1) The first investigation was carried out by Marine Department patrol in the morning on 3 Dec 2010 at around 10:00 and revealed that a few working barges were anchoring in the vicinity without carrying out dredging work. 2) A further specific investigation inspection on contractor's backhoe barge in the vicinity of City Garden was jointly conducted with Engineer Representatives (AECOM/RSS), and ET on 8 Dec 2010 at 11:30. No bad odour was noted during the investigation. 3) Routine dredging operation of the backhoe barge was performed during the jointed investigation inspection and it was revealed that no bad odour was attributed by the dredged materials inspected.	Closed
101206	6/12/2010	Ms Lui, the resident of 27/F, Block 10, City	City Garden, North Point	Two barges were generating noise at 22:00 on 6 December 2010 in which the noise from	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 spot-light 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.	Reclamation of Central Wan Chai Bypass site area instead of part of Wanchai Development Phase II; • Two derrick barges were in operation at the time of complaint for placing 400 rockfill onto the excavation trench and for levelling the formation level to receive the pre-cast caisson seawall; • Flood light on the control mast of derrick barge have no lighting shields for the prevention of glare of flood lights; • No starting work on 7 Dec 2010 at 0630hours. 2) PME used in restricted hours were checked and confirmed compliant with valid CNP no. GW-RS0870-10. The noise level recorded on 6 Dec 2010 was complied with the noise criteria during restricted hour; 3) It was found that the occasional noise nuisance might be caused by the hitting or scratching onto the rock surface during loading down the grab onto the Grade 400 rockfill; 4) The absence of the lighting shields at flood light results in visual glare to the complainant at night-time. 5) Contractor was advised to minimize the finishing time of placing Grade 400 rockfill at 2100hrs and switch off all unnecessary flood lights apart from the light for the safety and security purpose; 6) No further complaint was received after implementation of proposed measures	
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.	1) The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work. 2) Water spraying on the haul road and potential dust generating material at least 4 times a day was conducted by contractor that complies with the requirement. 3) It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant. 4) It was recommended that increasing the frequency of water spraying shall be conducted to all potential dust generating materials and activities. Besides, Contractor should consider to cover the idle part of the stockpile 5) The concern of mosquitoes breeding is out the scope of EM&A, the follow-up action is not reported in this monthly EM&A report.	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.	1) According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period. 2) There was no abnormal real-time noise monitoring data recorded in RTN1 - FEHD Hong Kong Transport Section Whitefield Depot which is next to the Victoria Centre. 3) It is considered as invalid complaint under this Project.	Closed
110617	9/06/2011	Mr. Law from Victoria Centre Management Office	North Point	An odour nuisance suspected generating from the discharge point – Channel T at Watson Road in part of the site area was related to CWB under Contract no. HY/2009/11	1) The complaint was received by ET on 13 Jun 2011. During the weekly site inspection on 7 and 17 June 2011, there was no any odour impact detected in the site area. 2) According to the site record, there was muddy water discharged from the unknown source at upstream of Channel T during heavy rainstorm. No any site surface runoff to the Channel T and out of site boundary was observed in the inspection. 3) In order to prevent muddy water washing out to the water body under heavy rainstorm, a silt curtain was installed at the outfall of the channel by Contractor. ET confirmed with the Resident Site Staff that a silt curtain was installed at the outfall of the channel to prevent muddy water washing out to the water body under heavy rainstorm. Besides, regular cleaning of refuse in the channel has been conducted by Contractor. 4) A further site investigation on 28 June 2011 revealed that no odour nuisance was detected at the upstream of the Channel T and no source of odour nuisance was identified at site. As such, it was concluded that the source of odour nuisance was not related to the Project works. 5) Although no source of odour nuisance was identified at site, the muddy water and dirt from the unknown source at upstream of Channel T may cause a potential smell during low tide and low water flow. Contractor was reminded to remove the silt curtain at the channel on non-rainy day so as to avoid the accumulation of the sediment and dirt in the water channel.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	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, nylon-wire mesh was observed sucking from the seawater intake at the seawater front of Block 7 of City Garden affecting the operation of seawater pump plant.	1) Contractor conducted formation works for installation of caisson seawall at C27, C28, C29 and C30 on 4, 6, 7 and 8 July 2011 and no dredging work was conducted during this time period 2) Water mitigation measures of an 80m long silt curtain at the site boundary in front of City Garden Relocation of silt curtain and silt curtain at the outfall of the channel were provided and maintained to accommodate the site works. All vessels are equipped with rubbish collection facilities and disposed the rubbish regularly. Also, daily cleaning actions had been taken by contractor to minimize floating refuse within the site boundary. 3) Moreover, it has been reported several times that discharged from outfall pipeline outside the site boundary near the intake of the pump maybe considered as another source of rubbish generation. 4) Referring to the record provided by Cayley Property Management Limit, the trapped rubbish was unlikely generated from the construction works. It was considered that complaint is invalid and not related to project.	Closed
110710	09/07/2011	Complainant by ICC (ICC no. 1-301520309	North Point	It was received at 00:56 on 10 July 2011. There was complained a derrick barge unloading rockfill material off the shore facing the Harbour Grant HK Hotel causing noise nuisance.	1) ET confirmed with the Resident Site Staff that the complaint was referred to Contract HY/2009/15 for the loading and unloading of fill material at two barges operation in the sea at around 300m adjacent to Island Eastern Corridor (Oil Street Chainage) where is outside the Site of HY/2009/15 in the period of around 19:45 on 9 July to 1:00 on 10 July 2011. 2) The material loading and unloading operation processed in restricted hours was checked without a valid CNP. It was found that the operation was due to an unexpected water leakage of the hopper barge and considered an incident. 3) According to the incident report provided from RSS on 20 July 2011, around 7:30 pm the barge S22 was inclined slightly and slightly water leakage might occur. Due to marine safety concern, the hopper barge would open the hopper to release the contained materials in order to reduce the weight and stabilize the barge. In consider of slight water leakage, the operator decided to use the nearby Derrick Barge ST32 to help for unload the general fill materials first and the unloading operation was started at around 7:45pm, and end at around 1:00 am. Contractor was reminder to provide frequent check of vessel condition	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					so as to prevent recurrent by barge defect	
110723a	23/07/2011	Ms. Law at Victoria Centre by ICC no. 1-303887687	North Point	She concerned that Highways Department published a notice in their Management Office about construction works will be conducted from 0700 hours to 2300 hours during July to December 2011 including Saturday, Sunday and public holiday.	1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed that the notice was prepared by Victoria Centre's Management office to their resident and the advice was only given on the extension construction works (for Contract HY/2009/15) to 7am-9pm from Monday to Saturday except Public Holidays and Sundays. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) No noise exceedance was recorded at construction noise monitoring station at Victoria Centre on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring. 5) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	Closed
110723b	23/07/2011	Ms. Yau at Block 2, Victoria Centre by ICC no. 1-304013959	North Point	Reclamation work was conducted at Causeway Bay Typhoon Shelter at 7am on 23 July 2011. She complained that the works shall be started later to minimize the noise nuisance to the vicinity of the residents in early morning	1) It was referred by AECOM to ET on 8 August 2011 2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	Closed
110727a	27/07/2011	Mr. Law from Victoria Centre Management Office by ICC no. 1-304616162	North Point	It was complained by Mr. Law from Victoria Centre Management Office on 27 July 2011 regarding construction noise generated by the construction operations of	1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed to start the rock breaking activities for Contract HY/2009/15 at 8am as a mitigation measure to minimize the noise nuisance in the vicinity of the residents. 3) No noise exceedance was recorded at construction noise	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
				Central-Wanchai Bypass at noon rather than in morning at 7am.	monitoring station at Victoria Centre on 25 July and 4 August 2011 during daytime while breaking and excavation works were undertaken during monitoring. 4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. No further complaint from complainant was received after proposed the mitigation measure.	
110727b	27/07/2011	Ms. Chiu by ICC no.1-304615409	North Point	Noise nuisance from the excavation works for the Highways Department adjacent to the Victoria Centre was conducted from 7am	1) It was referred by AECOM to ET on 28 July 2011 2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 25 July and 4 and 10 August 2011 during daytime while breaking and excavation works were undertaken during monitoring. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am.	Closed
	08/08/2011				4) However, complainant did not satisfy with the response on the noise nuisance from the rock-breaking during morning in front of Victoria Centre and then further complaint via 1823 on 7 August 2011. 5) Highways contacted the complainant on 15 August 2011 that the noisy rock breaking operation had been completed. *Remarks: There will be counted as two complaints in this complaint log.*	
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.	1) It was referred by AECOM to ET on 17 August 2011. 2) Confirmed with RE, Muddy water was caused by a heap of earth being washed to the sea by heavy rain. The heap of earth was referred as a small stockpile placed close to the seafront in front of Oil Street within the site area under handover transition period from contract HY/2009/11 to contract HY/2009/19. The necessary mitigation measures to protect the small stockpile against rainfall were missing at the time of complaint. 3) Due to the missing of mitigation measures to protect the small stockpile during handover transition period, loose material was washed into the harbour when heavy rain came. Muddy water was formed and dispersed in the sea that caused the water quality and visual concern to the public. The complaint was considered as valid. 4) Contractors were advised to relocate the loose materials	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					away from the coastline as far as practicable. Any loose material placed which needed to be placed near the coastline shall be properly compacted or covered as appropriate. To avoid any further environmental deficiency, Contractors shall ensure all necessary environmental mitigation measures will not be missing during site area handover.	
110826	26/08/2011	Grand Hyatt and a complainant by ICC	Wan Chai	Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area.	1) Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01. 2) The Excavator mounted breaker at Convention Avenue and Drilling rig at HKCEC1 reclamation area were the dominant construction noise source during this period. 3) The drilling rig at HKCEC1 reclamation area and excavator mounted breaker at Convention Avenue were then temporary suspended after received the complaint. 4) Investigation revealed that the erected noise barrier (4m cantilevered movable noise barrier for the drilling rig and 1m movable noise barrier for the excavator mounted breaker) were not located close to the plants to provide adequate noise screening. 5) Contractor was advised to avoid concurrent operation of construction plants at site. Further enhancement of movable noise barriers at HKCEC1 and providing noise enclosure for the excavator mounted breaker at Convention Avenue are needed. 6) Further site investigation and checking on 31 August and 7 September 2011 revealed that the implemented noise mitigation measures were in proper and minimize the noise impact.	Closed
110826A	26/08/2011	A complaint letter from Mr. Au of Cayley Property of City Garden	North Point	Harbor front adjacent to their cooling water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25 August 2011.	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. • 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	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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 2) 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. 4) 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	
111014	14/10/2011	The complainant, Ms. Tam complained via hotline 1823	Wan Chai	The polluted fumes and exhaust from the excavation by sub-contractor of CEDD on pedestrian way outside no.25 Harbour Road (in front of the Harbour Centre)	1) RSS notified ET to carry out investigation on 17 October 2011. 2) ET confirmed with the Resident Site Staff that the location of the excavator was within site area of Contract no. HK/2009/02 undertaking the water cooling main reprovision works along the Harbour Road. The plants including the excavator have been checked before using	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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 by the Contractor.	
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.	1) ET confirmed with the Resident Site Staff that • A tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road is the Tree no. TA1122 under Contract no. HK/2009/02. Leaves of a branch of this tree were shrivelled. • Two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue are the tree nos. A160 and A161 under Contract no. HK/2009/01. Part of roof ball of these two trees was covered by the metal plate. 2) Independent Tree Specialists for these two inspected the trees. Contractor HK/2009/01 has taken the measure as recommend downgrading the soil level around the trunk base. Reinstating of the ground works will be conducted in mid-December 2011. For the tree no. TA1122 under Contract no. HK/2009/02, the brown leaves were removed and fenced the tree with orange net is provided to prevent damage of tree trunk by construction works. The distance between the tree and the edge of the trench is kept approximate 2m. Two Contractors were reminded to carry out regular watering to the trees within their site area.	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	1) According to the information reported by Contractor, one BC cutter and hoist were operated for Diaphragm Wall construction of Shatin-Central Link to inspect bentonite pipes and ensure no damages and all the joints are tightened in good position. Then, the subcontractor for Diaphragm wall, SAMBO Korean foreman stopped the engine of the BC cutter immediately. The police officer recorded the details and HKID number of the foreman and then left. Due to the different language communication between the police officer and the Korean foreman, no	Keep in view for three months from the date of complaint recevied

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					CNP was checked by the police officer. 2) ET confirmed with the Resident Site Staff that same issue was also raised out by RSS at about 7:00a.m on the same day. Besides, it was confirmed that there is no valid Construction Noise Permit for the conducted construction works in the period between 2300 and 0700. 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.	1) RSS notified ET on 5 April 2012. 2) ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period. 3) After reviewing the results of noise monitoring (M2b and M3a), no exceedance was recorded during daytime period and the noise level was below 75dB(A). Site inspection for HY/2009/15 was conducted on 10 April 2012. The condition of noise mitigation measures around CBTS was found satisfactory. RSS confirmed that no pilings were performed during the concerned period. The major works included drilling, diaphragm wall construction and excavations. 4) HyD made a reply to the complainant on 16 April 2012 via 1823. HyD replied that the current works at CBTS were drilling, diaphragm wall construction and deep excavations. In order to minimize the noise generated	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					from the above works, the Contractor had erected temporary noise barriers and provided noise blankets on plants. RSS would continue to work with the Contractor on the effectiveness of the environmental mitigation measures implemented on site. No further complaint was received after the response.	
130308	06/03/2013	ICC Case#1-407181502	Tin Hau	A complaint regarding the dropping of fine rock material into surrounding waterbody was observed during rock breaking operation with two excavators in active operation at the Eastern Breakwater of Causeway Bay Typhoon Shelter near the North Point lighthouse.	1) RSS notified ET on 8 March 2013 2) ET confirmed with RSS that excavation works, installation of buoy, flashing light and silt curtain and dredging works were undertaken at Eastern Breakwater during the concerned period on 6 March 2013. One backhoe equipped with breaker and one derrick barge were confirmed in operation while another backhoe was at idle during the concerned period on 6 March 2013. 3) Reviewing the photo record provided by RSS, the condition of the silt curtain deployed around the Eastern Breakwater on 6 March 2013 was found to be in good condition. It is considered that the silt curtain was properly in place during the concerned period and the concerned act of dropping of fine rock material was confined within the silt curtain boundary without adverse impact to the nearby water quality. 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.	1) WSII RSS team notified ET on 12 June 2014; Notification letter from EPD (ref: EP/860/F2/24 Annex IV) was received by ET on 13 June 2014. 2) ET confirmed with RSS that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. With respect to the complaint case, muddy dispersion was observed at HKCEC2W works area on 12 June 2014, and	Interim Report was submitted to EPD on 20 June 2014.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested. 3) It is considered that Contractor's mitigation measures would require further review on the effectiveness to avoid seepage of muddy dispersion such as regular diver inspection check and daily visual checking of silt curtains. 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.	1) Construction noise impact referred by RSS was received by ET on 25 July 2014 2) ET confirmed with RSS that horizontal cutting and removal of D-wall at Eastern, Southern and Northern side of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter before 23:00hrs on 20 July 2014 that total 3 numbers of derrick lighter and 3 numbers of saw cut machine were in operation, and removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter around 00:25hrs to 00:56hrs on 21 July 2014 that total 1 number of derrick lighter was in operation. 3) According to the relevant site records under Contract HY/2009/15, before 23:00hrs on 20 July 2014, horizontal cutting and removal of Diaphragm Wall at Eastern, Southern and Northern side of TS2 was conducted under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 3 nos. of derrick lighter and 3 nos. of saw cut machine were in operation at the above period. From around 00:25hrs to 00:56hrs on 21 July 2014, removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter. Total 1 no. of derrick lighter was found operating at the above period 4) It was considered the condition of CNP GW-RS0592-14 was not fulfilled by the Contractor of HY/2009/15. "From 00:25hrs to 00:57hrs on 21 July 2014, the PME(s) (1 no. of Derrick Lighter) on-site could not follow with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no. GW-RS0592-14."	Final report (Issue1) issued on 31 July 2014. Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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. 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.	Interim investigation report submitted to EPD on 23 October 2014. Updated interim investigation with supplementary information submitted to EPD on 17 November 2014

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

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141110	07/11/2014	EPD Ref.: H05/RS/00027815-14 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 on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	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.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Based on the relevant information provided by RSS, despite no information associated with the malodour concern was identified after investigation, the Contractor was reminded to conduct regular checking on the condition of PME used on site to ensure only well maintained PME are used on site The interim report would be submitted to EPD on 17 November 2014.	
141113	12/11/2014	EPD Ref.: H05/RS/00028253-14 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 on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	Interim investigation report submitted to EPD on 19 November 2014. EPD advised no comment on the interim report and case closed on 8 Dec 2014.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141121	Not Specified	EPD Ref: H08/RS/28263-14 EPD complaint information and findings was received by ET via email on 21 Nov 2014	Causeway Bay Typhoon Shelter	Resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.	EPD received a construction noise complaint from dredging works at Causeway Bay Typhoon Shelter and a resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavor to minimize the noise as so not to disturb the nearby residents.	Complaint case handled by EPD and relevant investigation findings was sent to ET on 21 November 2014

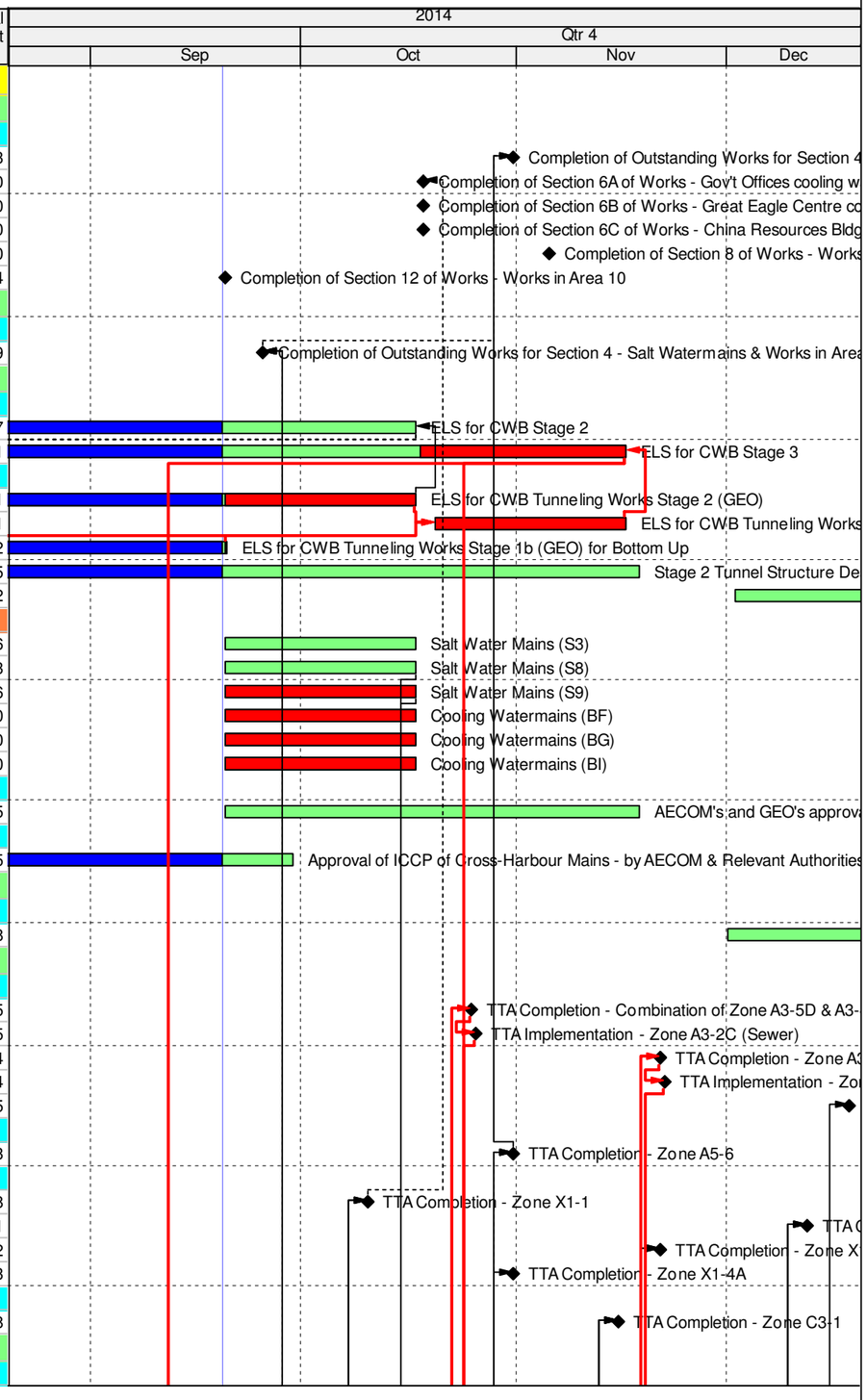
Appendix 7.1

Construction Programme of Individual Contracts

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float
HK/2009/01 - Works Programme Rev.6E Ver4 (Data Date: 20-Sep-14)							
Key Dates (Contractual)							
Major Works							
KD-0400B	Completion of Outstanding Works for Section 4 - Salt Watermains	0	0		31-Oct-14	0%	653
KD-0610	Completion of Section 6A of Works - Gov't Offices cooling water discharge	0	0		18-Oct-14*	0%	0
KD-0620	Completion of Section 6B of Works - Great Eagle Centre cooling water discharge	0	0		18-Oct-14*	0%	0
KD-0630	Completion of Section 6C of Works - China Resources Bldg cooling water discharge	0	0		18-Oct-14*	0%	0
KD-0800	Completion of Section 8 of Works - Works in Area 6	0	0		05-Nov-14*	0%	0
KD-1200	Completion of Section 12 of Works - Works in Area 10	0	0		20-Sep-14*	0%	-164
Key Dates (Forecast Completion)							
Major Works							
KD-0405B	Completion of Outstanding Works for Section 4 - Salt Watermains & Works in Area 3	0	0		25-Sep-14	0%	689
Preliminaries							
Method Statement & Design (Major) Approval by AECOM							
PRE-2030B	ELS for CWB Stage 2	30	1	20-Mar-14 A	17-Oct-14	0%	667
PRE-2030C	ELS for CWB Stage 3	30	30	19-Apr-14 A	16-Nov-14	0%	-191
Statutory / Authority Approval							
PRE-3050B	ELS for CWB Tunneling Works Stage 2 (GEO)	28	28	21-Jul-14 A	17-Oct-14	0%	-191
PRE-3050C	ELS for CWB Tunneling Works Stage 3 (GEO)	28	28	20-Oct-14	16-Nov-14	0%	-191
PRE-3050D	ELS for CWB Tunneling Works Stage 1b (GEO) for Bottom Up	28	1	20-Apr-11 A	20-Sep-14	0%	-162
PRE-3310	Stage 2 Tunnel Structure Design	60	60	20-Jul-14 A	18-Nov-14	0%	635
PRE-3320	Stage 3 Tunnel Structure Design	60	60	02-Dec-14	31-Jan-15	0%	562
Watermains Connection Submission Approval by WSD/Stakeholders							
PRE-3200C	Salt Water Mains (S3)	28	28	20-Sep-14*	17-Oct-14	0%	106
PRE-3200D	Salt Water Mains (S8)	28	28	20-Sep-14*	17-Oct-14	0%	653
PRE-3200E	Salt Water Mains (S9)	28	28	20-Sep-14*	17-Oct-14	0%	-476
PRE-3200O	Cooling Watermains (BF)	28	28	20-Sep-14*	17-Oct-14	0%	0
PRE-3200P	Cooling Watermains (BG)	28	28	20-Sep-14*	17-Oct-14	0%	0
PRE-3200Q	Cooling Watermains (BI)	28	28	20-Sep-14*	17-Oct-14	0%	0
Contractor's Design (CWB Diaphragm Wall)							
PRE-4030	AECOM's and GEO's approval on Detailed Design	60	60	20-Sep-14	18-Nov-14	0%	635
Contractor's Design (PS1.94)							
PRE-5100C	Approval of ICCP of Cross-Harbour Mains - by AECOM & Relevant Authorities	9	10	04-Mar-11 A	30-Sep-14	100%	685
Major Materials Manufacture & Site Delivery							
Section 3 - CWB Tunnel							
MM-3010	Construction of Jetty near Expo Drive East	35	35	01-Dec-14*	04-Jan-15	0%	588
TTA Implementation and Completion Summary Milestone							
Zone A3 (At Fenwick Pier Street)							
TTAM-A3-1030	TTA Completion - Combination of Zone A3-5D & A3-4D (Sewer)	0	0		25-Oct-14	0%	-55
TTAM-A3-1040	TTA Implementation - Zone A3-2C (Sewer)	0	0	26-Oct-14		0%	-55
TTAM-A3-1050	TTA Completion - Zone A3-2C (Sewer)	0	0		21-Nov-14	0%	-54
TTAM-A3-1060	TTA Implementation - Zone A3-2D (Sewer)	0	0	22-Nov-14		0%	-54
TTAM-A3-1070	TTA Completion - Zone A3-2D (Sewer)	0	0		18-Dec-14	0%	605
Zone A5 (At Harbour Road)							
TTAM-A5-1050B	TTA Completion - Zone A5-6	0	0		31-Oct-14	0%	653
Area X3 (Fleming Road b/w Harbour Road & Convention Avenue)							
TTAM-X3-1000B	TTA Completion - Zone X1-1	0	0		10-Oct-14	0%	8
TTAM-X3-1010B	TTA Completion - Zone X1-2	0	0		12-Dec-14	0%	611
TTAM-X3-1020B	TTA Completion - Zone X1-3	0	0		21-Nov-14	0%	632
TTAM-X3-1030B	TTA Completion - Zone X1-4A	0	0		31-Oct-14	0%	653
Zone C (Expo Drive East)							
TTAM-C3-1000B	TTA Completion - Zone C3-1	0	0		15-Nov-14	0%	638
Section 3 of the Works - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8							
CWB Tunnelling Works (Stage 1 : CH2947 - CH3045)							

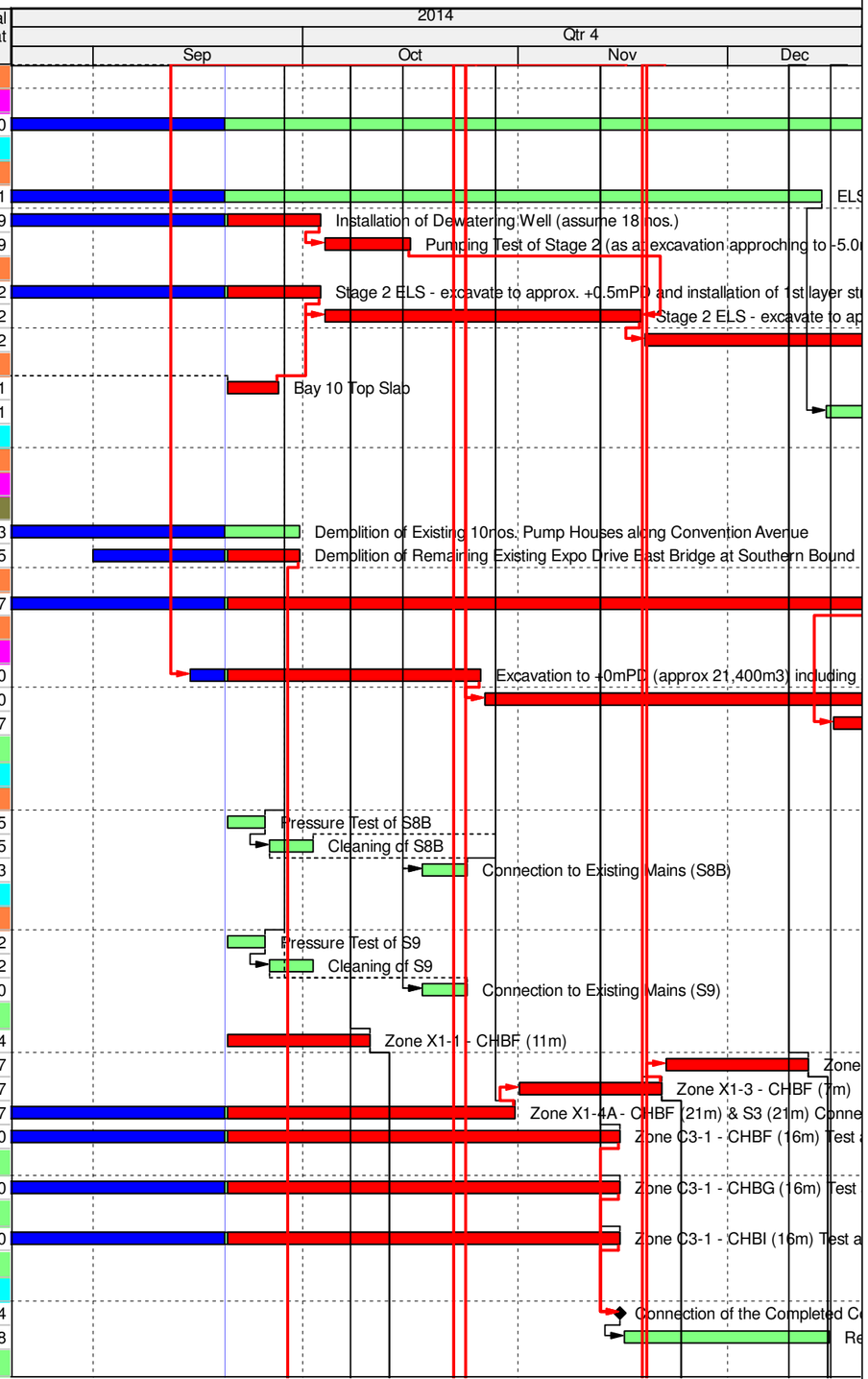


Remaining Work
Actual Work
Critical Remaining Work
Milestone
Summary Bar
Summary Bar

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float
Stage 1 - Tunnel Structure Works (Bay 1 to Bay 7 : Ch2947 - Ch 3045)							
Tunnel Structure at Stage 1A & 1B (CH2947 - CH3045)							
S3A-TS-2000	Tunnel Structures Works including Waterproofing and OHVD	300	99	28-Feb-14 A	27-Dec-14	0%	180
CWB Tunnelling Works (Stage 2 : Ch3045 - Ch3129)							
Stage 2 - Foundation Works (Bottom Up Method : CH3045 - CH3129 / CH120 - CH225)							
S3B-FW-1040C	ELS for Exhaust Duct (~-5.0mPD)	170	86	27-Jun-14 A	14-Dec-14	0%	531
S3B-FW-1090	Installation of Dewatering Well (assume 18 nos.)	60	14	30-Jun-14 A	03-Oct-14	76.67%	-129
S3B-FW-1095	Pumping Test of Stage 2 (as at excavation approching to -5.0mPD)	13	13	04-Oct-14	16-Oct-14	0%	-129
Stage 2 - Excavation Works (For Bottom Slab Construction : CH3045 - CH3129)							
S3B-EW-1000A	Stage 2 ELS - excavate to approx. +0.5mPD and installation of 1st layer strut/waling	84	14	19-May-14 A	03-Oct-14	0%	-162
S3B-EW-1000B	Stage 2 ELS - excavate to approx. -3.0mPD and installation of 2nd layer strut/waling (15,000	46	46	04-Oct-14	18-Nov-14	0%	-162
S3B-EW-1000C	Stage 2 ELS - excavate to approx. -6.4mPD and installation of 3rd layer strut/waling (16,500	70	70	19-Nov-14	27-Jan-15	0%	-162
Stage 2 - Tunnel Structure Works (Bay 8 to Bay 10 : CH3045 - CH3129)							
S3B-TS-1000	Bay 10 Top Slab	25	8	20-Sep-14	27-Sep-14	0%	-141
S3B-TS-2000A	Construction of Exhaust Duct (CH2988 - CH3045)	48	48	15-Dec-14	31-Jan-15	0%	531
CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245)							
Stage 3 - Reclamation Works							
Demolition Works							
Demolition Works - Stage 3							
DW3-1000	Demolition of Existing 10nos. Pump Houses along Convention Avenue	90	11	21-May-14 A	30-Sep-14	0%	343
DW3-1020	Demolition of Remaining Existing Expo Drive East Bridge at Southern Bound	24	11	01-Sep-14 A	30-Sep-14	0%	-235
Stage 3 - Foundation Works							
S3C-FW-1050C	Stage 3 Pre-bored H-pile (Phase 4 - 160 nos w/4~5 rigs)	128	124	21-Jul-14 A	21-Jan-15	0%	-267
Stage 3 - Excavation Works (Ch3129 - Ch3245)							
Excavation Works at Stage 3							
S3C-EW-1000	Excavation to +0mPD (approx 21,400m3) including strut/waling installation	40	37	15-Sep-14 A	26-Oct-14	0%	-270
S3C-EW-1010	Excavation to -4.0 mPD (approx 26,600m3) including strut/waling installation	96	96	27-Oct-14	30-Jan-15	0%	-270
S3C-EW-101(	Installation of Dewatering Well (24nos.) and Pumping Test	45	46	16-Dec-14	30-Jan-15	0%	-267
Section 4 of the Works - Salt Water Mains, Works in Area 3							
S8B (DN800) Salt Watermains							
Testing and Commissioning							
S4-1500	Pressure Test of S8B	6	6	20-Sep-14	25-Sep-14	0%	675
S4-1510	Cleaning of S8B	7	7	26-Sep-14	02-Oct-14	0%	675
S4-1520	Connection to Existing Mains (S8B)	7	7	18-Oct-14	24-Oct-14	0%	653
S9 (DN450) Salt Watermains & Sewer							
Testing and Commissioning							
S4-2500	Pressure Test of S9	6	6	20-Sep-14	25-Sep-14	0%	682
S4-2510	Cleaning of S9	7	7	26-Sep-14	02-Oct-14	0%	682
S4-2520	Connection to Existing Mains (S9)	7	7	18-Oct-14	24-Oct-14	0%	660
Section 6A of the Works - Cooling Water Discharge System (3 nos. Govt Towers)							
S6A-1200	Zone X1-1 - CHBF (11m)	21	21	20-Sep-14	10-Oct-14	0%	-14
S6A-1210	Zone X1-2 - CHBF (5m)	21	21	22-Nov-14	12-Dec-14	0%	-77
S6A-1220	Zone X1-3 - CHBF (7m)	21	21	01-Nov-14	21-Nov-14	0%	-77
S6A-1230	Zone X1-4A - CHBF (21m) & S3 (21m) Connection Point	24	42	20-Jan-14 A	31-Oct-14	100%	-77
S6A-1240	Zone C3-1 - CHBF (16m) Test and Connection Point	60	57	22-Jun-14 A	15-Nov-14	0%	-50
Section 6B of the Works - Cooling Water Intake & Discharge System (Great Eagle / Harbour Centre)							
S6B-1220	Zone C3-1 - CHBG (16m) Test and Connection Point	60	57	22-Jun-14 A	15-Nov-14	0%	-50
Section 6C of the Works - Cooling Water Discharge System (China Resources Building)							
S6C-1600	Zone C3-1 - CHBI (16m) Test and Connection Point	60	57	22-Jun-14 A	15-Nov-14	0%	-50
Common Works for Sections 6A, 6B & 6C							
Discharge Outfall Construction							
S6-1030	Connection of the Completed Cooling Mains to Precast Outfall Unit	0	0		15-Nov-14	0%	-24
S6-1040	Reinstatement of Existing Seawall after Connection	30	30	16-Nov-14	15-Dec-14	0%	608
Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street)							

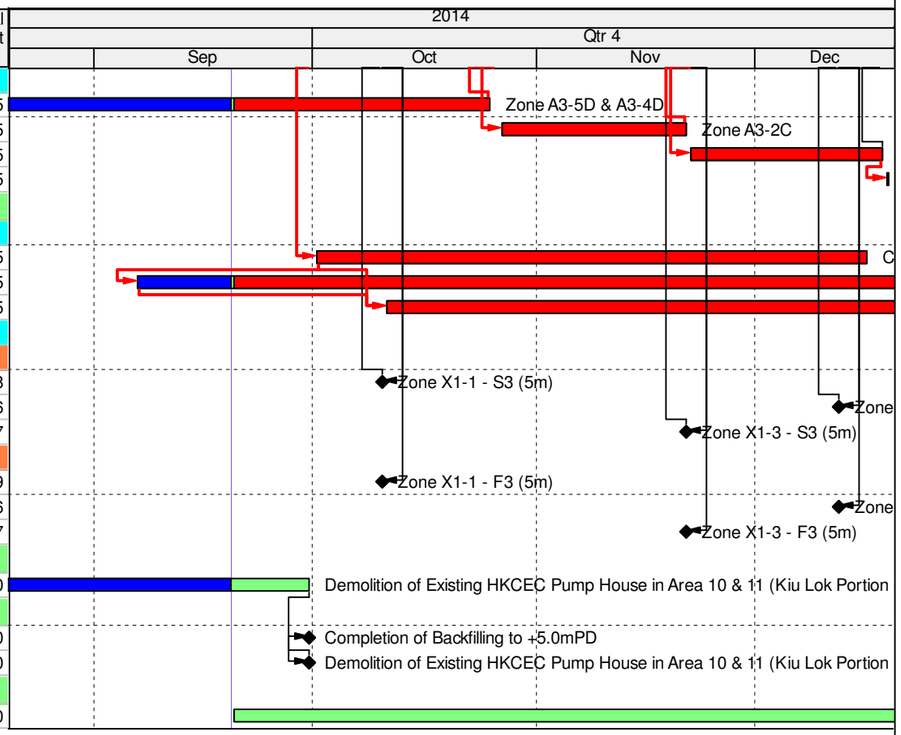


Remaining Work
Actual Work
Summary Bar
Critical Remaining Work
Milestone
Summary Bar

CEDD CONTRACT HK/2009/01

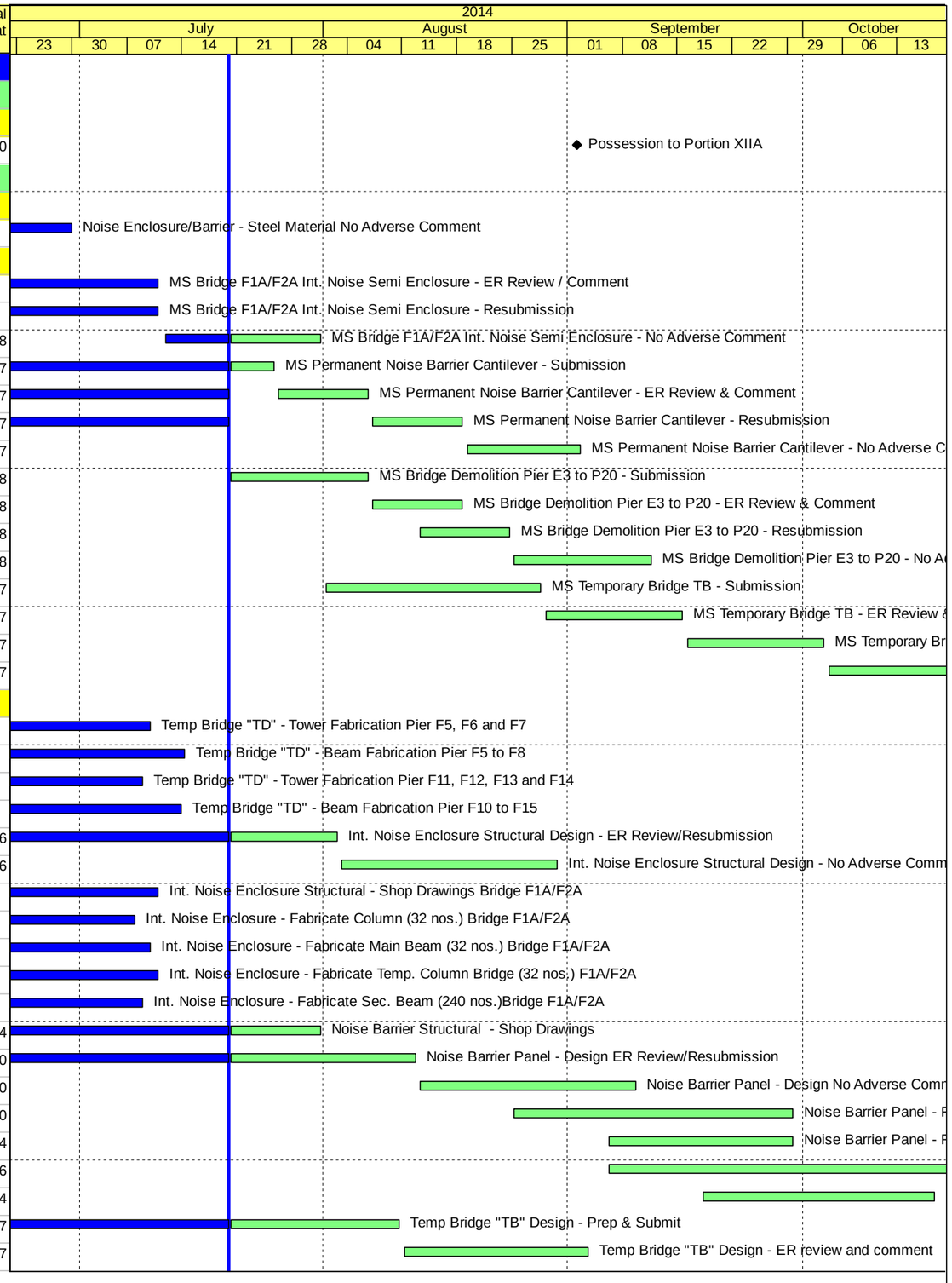
CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float
Sewerage Works							
S8-1030	Zone A3-5D & A3-4D	23	29	10-Jan-14 A	25-Oct-14	100%	-45
S8-1040	Zone A3-2C	23	23	27-Oct-14	21-Nov-14	0%	-45
S8-1050	Zone A3-2D	23	23	22-Nov-14	18-Dec-14	0%	-45
S8-2500	CCTV Survey	1	1	19-Dec-14	19-Dec-14	0%	-45
Section 9 of the Works - Remaindar of the Works							
Box Culvert Construction							
S9-1030	Construction of Precast Bay 1	76	76	01-Oct-14	16-Dec-14	0%	-235
S9-1040A	Installation of Sheet Pile / ELS and Construction for Bay 7	180	203	07-Sep-14 A	10-Apr-15	0%	-235
S9-1040B	Installation of Sheet Pile / ELS and Construction for Bay 2	180	182	11-Oct-14	10-Apr-15	0%	-235
Waterworks in Area 9							
Salt Water Mains (S3, S5A & S5B)							
S9-5500A	Zone X1-1 - S3 (5m)	0	0		10-Oct-14	0%	8
S9-5500B	Zone X1-2 - S3 (5m)	0	0		12-Dec-14	0%	36
S9-5500C	Zone X1-3 - S3 (5m)	0	0		21-Nov-14	0%	57
Fresh Water Mains (F3)							
S9-7040	Zone X1-1 - F3 (5m)	0	0		10-Oct-14	0%	99
S9-7050	Zone X1-2 - F3 (5m)	0	0		12-Dec-14	0%	36
S9-7060	Zone X1-3 - F3 (5m)	0	0		21-Nov-14	0%	57
Section 12 of the Works - Works in Area 10 (other than Section 4)							
VO106-1000	Demolition of Existing HKCEC Pump House in Area 10 & 11 (Kiu Lok Portion - Variation Orde	100	11	26-May-14 A	30-Sep-14	0%	150
Section 13 of the Works - Works in Area 11 (other than Section 11)							
S13-3000	Completion of Backfilling to +5.0mPD	0	0		30-Sep-14	0%	150
VO106-2000	Demolition of Existing HKCEC Pump House in Area 10 & 11 (Kiu Lok Portion - Variation Orde	0	0		30-Sep-14	0%	150
Section 9A of the Works - Landscape Softworks in Area 9							
S9A-1000	Transplanting at Expo Drive East and Convention Avenue Junction	180	180	20-Sep-14	18-Mar-15	0%	150



Remaining Work
Actual Work
Summary Bar
Critical Remaining Work
Milestone
Summary Bar

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
3MRP - Jul 2014 to Oct 2014							
01 - CONTRACT DATES							
01.2 - Possession of Site							
0120-3300	Possession to Portion XIIA	0	02-Sep-14*		02-Sep-14		0
02 - PRE-CONSTRUCTION WORKS							
02.2 - Contractor's Submission							
0220-1580	Noise Enclosure/Barrier - Steel Material No Adverse Comment	0	02-Jun-14 A	30-Jun-14 A	11-Aug-19	11-Aug-19	
02.3 - Method Statement / Shop Drawings							
0230-1590	MS Bridge F1A/F2A Int. Noise Semi Enclosure - ER Review / Comment	0	26-May-14 A	11-Jul-14 A	30-Nov-15	30-Nov-15	
0230-1600	MS Bridge F1A/F2A Int. Noise Semi Enclosure - Resubmission	0	01-Jun-14 A	11-Jul-14 A	30-Nov-15	30-Nov-15	
0230-1610	MS Bridge F1A/F2A Int. Noise Semi Enclosure - No Adverse Comment	12	12-Jul-14 A	31-Jul-14	30-Nov-15	11-Dec-15	498
0230-1420	MS Permanent Noise Barrier Cantilever - Submission	6	10-Feb-14 A	25-Jul-14	26-Aug-14	31-Aug-14	37
0230-1430	MS Permanent Noise Barrier Cantilever - ER Review & Comment	12	26-May-14 A	06-Aug-14	01-Sep-14	12-Sep-14	37
0230-1440	MS Permanent Noise Barrier Cantilever - Resubmission	12	10-Jun-14 A	18-Aug-14	13-Sep-14	24-Sep-14	37
0230-1450	MS Permanent Noise Barrier Cantilever - No Adverse Comment	15	19-Aug-14	02-Sep-14	25-Sep-14	09-Oct-14	37
0230-1820	MS Bridge Demolition Pier E3 to P20 - Submission	18	20-Jul-14 A	06-Aug-14	28-Jul-14	14-Aug-14	8
0230-1830	MS Bridge Demolition Pier E3 to P20 - ER Review & Comment	12	07-Aug-14	18-Aug-14	15-Aug-14	26-Aug-14	8
0230-1840	MS Bridge Demolition Pier E3 to P20 - Resubmission	12	13-Aug-14	24-Aug-14	21-Aug-14	01-Sep-14	8
0230-1850	MS Bridge Demolition Pier E3 to P20 - No Adverse Comment	18	25-Aug-14	11-Sep-14	02-Sep-14	19-Sep-14	8
0230-1740	MS Temporary Bridge TB - Submission	28	01-Aug-14*	28-Aug-14	28-Aug-14	24-Sep-14	27
0230-1750	MS Temporary Bridge TB - ER Review & Comment	18	29-Aug-14	15-Sep-14	25-Sep-14	12-Oct-14	27
0230-1760	MS Temporary Bridge TB - Resubmission	18	16-Sep-14	03-Oct-14	13-Oct-14	30-Oct-14	27
0230-1770	MS Temporary Bridge TB - ER Approval	28	04-Oct-14	31-Oct-14	31-Oct-14	27-Nov-14	27
02.4 - Contractor's Design and Build Items							
0240-1046	Temp Bridge "TD" - Tower Fabrication Pier F5, F6 and F7	0	01-Jun-14 A	10-Jul-14 A	28-Jul-14	28-Jul-14	
0240-1047	Temp Bridge "TD" - Beam Fabrication Pier F5 to F8	0	01-Jun-14 A	14-Jul-14 A	19-Jul-14	19-Jul-14	
0240-1048	Temp Bridge "TD" - Tower Fabrication Pier F11, F12, F13 and F14	0	27-May-14 A	09-Jul-14 A	31-Jul-14	31-Jul-14	
0240-1049	Temp Bridge "TD" - Beam Fabrication Pier F10 to F15	0	24-May-14 A	14-Jul-14 A	31-Jul-14	31-Jul-14	
0240-1110	Int. Noise Enclosure Structural Design - ER Review/Resubmission	14	17-Jan-14 A	02-Aug-14	28-Nov-15	11-Dec-15	496
0240-1111	Int. Noise Enclosure Structural Design - No Adverse Comment	28	03-Aug-14	30-Aug-14	12-Dec-15	08-Jan-16	496
0240-1113	Int. Noise Enclosure Structural - Shop Drawings Bridge F1A/F2A	0	02-Jan-14 A	11-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1115	Int. Noise Enclosure - Fabricate Column (32 nos.) Bridge F1A/F2A	0	14-Apr-14 A	08-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1116	Int. Noise Enclosure - Fabricate Main Beam (32 nos.) Bridge F1A/F2A	0	14-Apr-14 A	10-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1117	Int. Noise Enclosure - Fabricate Temp. Column Bridge (32 nos.) F1A/F2A	0	14-Apr-14 A	11-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1118	Int. Noise Enclosure - Fabricate Sec. Beam (240 nos.)Bridge F1A/F2A	0	14-Apr-14 A	09-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1132	Noise Barrier Structural - Shop Drawings	12	21-Mar-14 A	31-Jul-14	23-Aug-14	03-Sep-14	34
0240-1136	Noise Barrier Panel - Design ER Review/Resubmission	24	01-Mar-14 A	12-Aug-14	30-Jul-14	22-Aug-14	10
0240-1137	Noise Barrier Panel - Design No Adverse Comment	28	13-Aug-14	09-Sep-14	23-Aug-14	19-Sep-14	10
0240-1141	Noise Barrier Panel - Fabricate Type C Column (77 nos.)	36	25-Aug-14	29-Sep-14	04-Sep-14	09-Oct-14	10
0240-1142	Noise Barrier Panel - Fabricate Type B Column (25 nos.)	24	06-Sep-14	29-Sep-14	10-Oct-14	02-Nov-14	34
0240-1429	Noise Barrier Panel - Fabricate Beams (203 nos.)	48	06-Sep-14	23-Oct-14	22-Sep-14	08-Nov-14	16
0240-1143	Noise Barrier Panel - Fabricate Type A Column (38 nos.)	30	18-Sep-14	17-Oct-14	22-Oct-14	20-Nov-14	34
0240-1050	Temp Bridge "TB" Design - Prep & Submit	22	21-Feb-14 A	10-Aug-14	27-Jul-14	17-Aug-14	7
0240-1060	Temp Bridge "TB" Design - ER review and comment	24	13-Aug-14 A	03-Sep-14	18-Aug-14	10-Sep-14	7

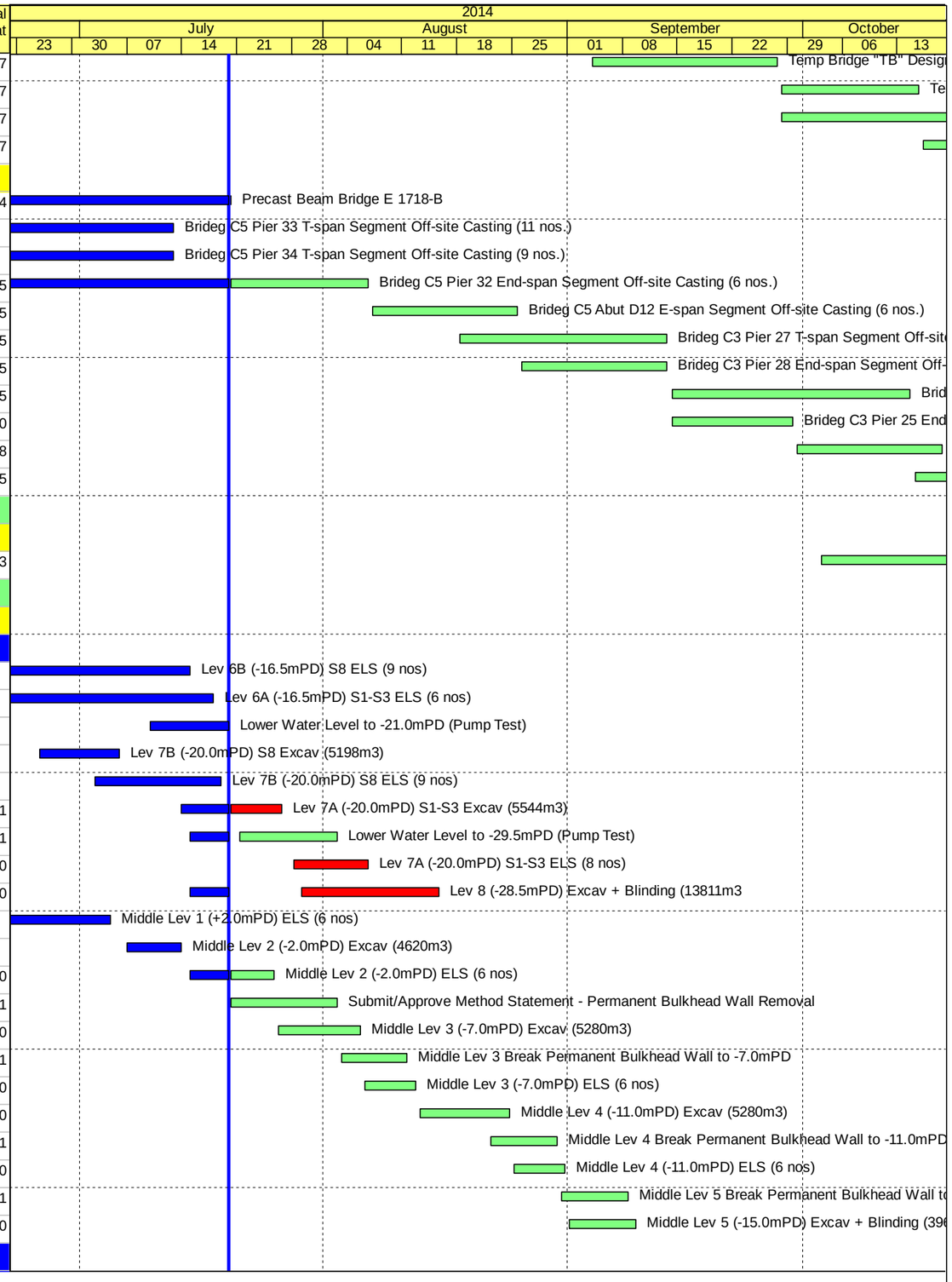


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
◆ Milestone

Contract HY/2009/19

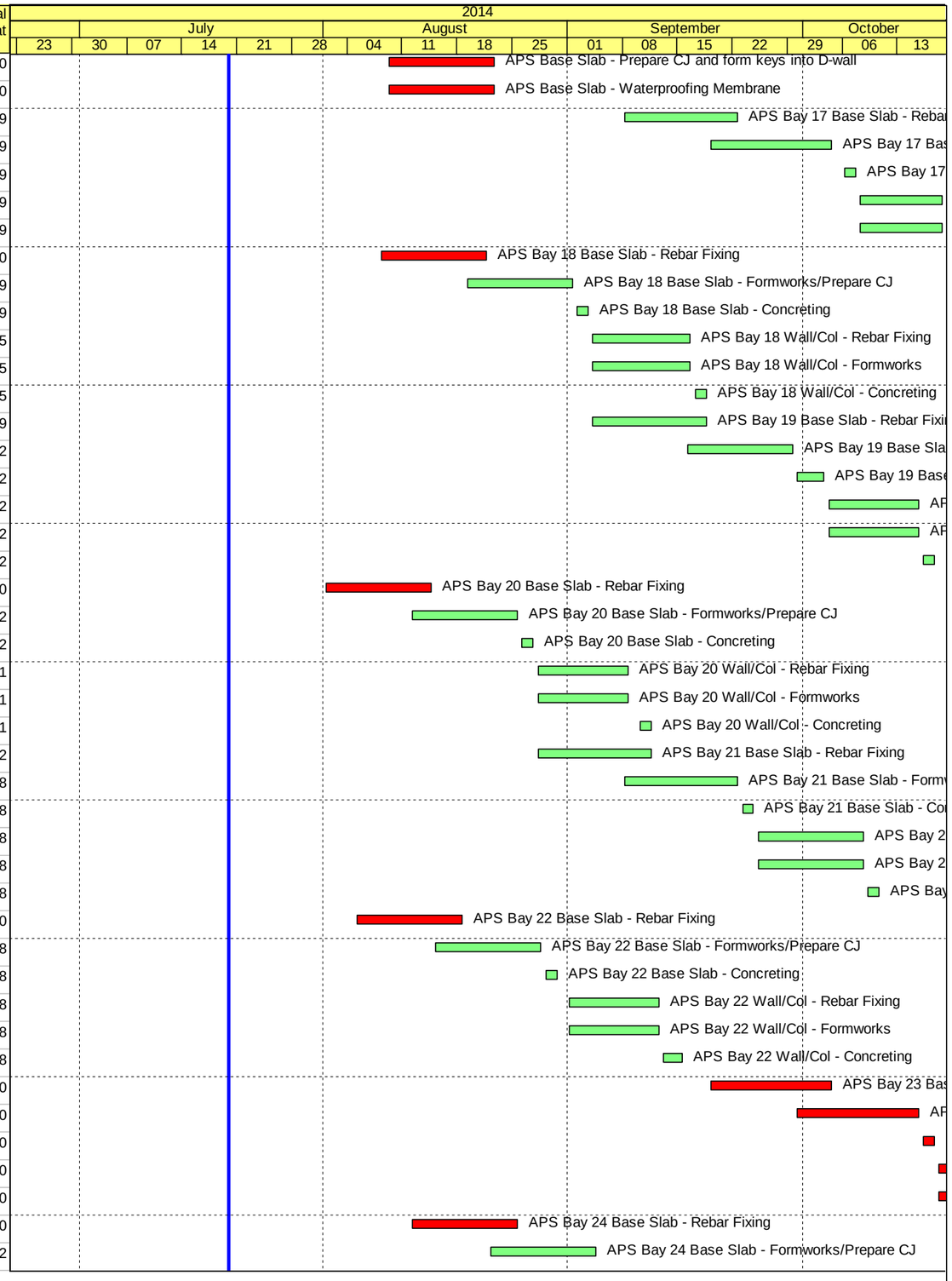
Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0240-1070	Temp Bridge "TB" Design - Resubmission	24	04-Sep-14	27-Sep-14	11-Sep-14	04-Oct-14	7
0240-1080	Temp Bridge "TB" Design - ER Approval	18	28-Sep-14	15-Oct-14	05-Oct-14	22-Oct-14	7
0240-1082	Temp Bridge "TB" Tower Fabrication Fabrication	24	28-Sep-14	21-Oct-14	05-Oct-14	28-Oct-14	7
0240-1085	Temp Bridge "TB" Tower Fabrication Fabrication	36	16-Oct-14	20-Nov-14	23-Oct-14	27-Nov-14	7
02.5 - Bridge Segment/Beam Off-site Precasting							
0250-1720.10	Precast Beam Bridge E 1718-B	0	21-Jun-14 A	20-Jul-14*	31-Oct-14	31-Oct-14	104
0250-1950	Brideg C5 Pier 33 T-span Segment Off-site Casting (11 nos.)	0	10-Jun-14 A	13-Jul-14 A	10-Jan-15	10-Jan-15	
0250-1960	Brideg C5 Pier 34 T-span Segment Off-site Casting (9 nos.)	0	22-Jun-14 A	13-Jul-14 A	10-Jan-15	10-Jan-15	
0250-1970	Brideg C5 Pier 32 End-span Segment Off-site Casting (6 nos.)	18	20-Jun-14 A	06-Aug-14	12-Dec-14	29-Dec-14	145
0250-1980	Brideg C5 Abut D12 E-span Segment Off-site Casting (6 nos.)	19	07-Aug-14	25-Aug-14	30-Dec-14	17-Jan-15	145
0250-1990	Brideg C3 Pier 27 T-span Segment Off-site Casting (11 nos.)	27	18-Aug-14	13-Sep-14	10-Jan-15	05-Feb-15	145
0250-2010	Brideg C3 Pier 28 End-span Segment Off-site Casting (6 nos.)	19	26-Aug-14	13-Sep-14	18-Jan-15	05-Feb-15	145
0250-2000	Brideg C3 Pier 26 T-span Segment Off-site Casting (13 nos.)	31	14-Sep-14	14-Oct-14	06-Feb-15	08-Mar-15	145
0250-2020	Brideg C3 Pier 25 End-span Segment Off-site Casting (5 nos.)	16	14-Sep-14	29-Sep-14	21-Feb-15	08-Mar-15	160
0250-2050	Brideg C2 Pier 25 End-span Segment Off-site Casting (6 nos.)	19	30-Sep-14	18-Oct-14	17-Mar-15	04-Apr-15	168
0250-2030	Brideg C2 Pier 24 T-span Segment Off-site Casting (11 nos.)	27	15-Oct-14	10-Nov-14	09-Mar-15	04-Apr-15	145
03 - PRELIMINARY WORKS							
03.3 - Interface Works							
0330-1350	Erect Special Hoarding at Portion IV and V	36	03-Oct-14*	13-Nov-14	15-Jul-15	25-Aug-15	233
05 - SECTION 2 & 2A OF THE WORKS							
05.1 - Cut & Cover Tunnel Ch 4855-4932 (APS Footprint)							
05.1.2 - ELS							
0512-1175	Lev 6B (-16.5mPD) S8 ELS (9 nos)	0	11-Jun-14 A	15-Jul-14 A	21-Jul-14	21-Jul-14	
0512-1178	Lev 6A (-16.5mPD) S1-S3 ELS (6 nos)	0	13-Jun-14 A	18-Jul-14 A	21-Jul-14	21-Jul-14	
0512-1179	Lower Water Level to -21.0mPD (Pump Test)	0	10-Jul-14 A	20-Jul-14 A	06-Aug-14	06-Aug-14	
0512-1180	Lev 7B (-20.0mPD) S8 Excav (5198m3)	0	26-Jun-14 A	06-Jul-14 A	11-Aug-19	11-Aug-19	
0512-1185	Lev 7B (-20.0mPD) S8 ELS (9 nos)	0	03-Jul-14 A	19-Jul-14 A	29-Jul-14	29-Jul-14	
0512-1182	Lev 7A (-20.0mPD) S1-S3 Excav (5544m3)	7	14-Jul-14 A	26-Jul-14	21-Jul-14	27-Jul-14	1
0512-1189.1	Lower Water Level to -29.5mPD (Pump Test)	12	15-Jul-14 A	02-Aug-14	02-Aug-14	15-Aug-14	11
0512-1187.1	Lev 7A (-20.0mPD) S1-S3 ELS (8 nos)	9	28-Jul-14	06-Aug-14	28-Jul-14	06-Aug-14	0
0512-1200.1	Lev 8 (-28.5mPD) Excav + Blinding (13811m3	16	15-Jul-14 A	15-Aug-14	29-Jul-14	15-Aug-14	0
0512-1215	Middle Lev 1 (+2.0mPD) ELS (6 nos)	0	19-Jun-14 A	05-Jul-14 A	08-Aug-14	08-Aug-14	
0512-1230	Middle Lev 2 (-2.0mPD) Excav (4620m3)	0	07-Jul-14 A	14-Jul-14 A	08-Aug-14	08-Aug-14	
0512-1235	Middle Lev 2 (-2.0mPD) ELS (6 nos)	6	15-Jul-14 A	25-Jul-14	08-Aug-14	14-Aug-14	20
0512-1238	Submit/Approve Method Statement - Permanent Bulkhead Wall Removal	14	20-Jul-14	02-Aug-14	09-Aug-14	23-Aug-14	21
0512-1240	Middle Lev 3 (-7.0mPD) Excav (5280m3)	11	26-Jul-14	05-Aug-14	14-Aug-14	25-Aug-14	20
0512-1255	Middle Lev 3 Break Permanent Bulkhead Wall to -7.0mPD	9	03-Aug-14	11-Aug-14	23-Aug-14	01-Sep-14	21
0512-1250	Middle Lev 3 (-7.0mPD) ELS (6 nos)	7	06-Aug-14	12-Aug-14	25-Aug-14	01-Sep-14	20
0512-1260	Middle Lev 4 (-11.0mPD) Excav (5280m3)	12	13-Aug-14	24-Aug-14*	01-Sep-14	13-Sep-14	20
0512-1275	Middle Lev 4 Break Permanent Bulkhead Wall to -11.0mPD	9	22-Aug-14	30-Aug-14	22-Sep-14	30-Sep-14	31
0512-1270	Middle Lev 4 (-11.0mPD) ELS (6 nos)	7	25-Aug-14	31-Aug-14	24-Sep-14	30-Sep-14	30
0512-1290	Middle Lev 5 Break Permanent Bulkhead Wall to -15.0mPD	9	31-Aug-14	08-Sep-14	01-Oct-14	09-Oct-14	31
0512-1280	Middle Lev 5 (-15.0mPD) Excav + Blinding (3960m3)	9	01-Sep-14	09-Sep-14	01-Oct-14	09-Oct-14	30
05.1.3 - APS Structure							



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0513-1310	APS Base Slab - Prepare CJ and form keys into D-wall	12	09-Aug-14	22-Aug-14	08-Aug-14	22-Aug-14	0
0513-1312	APS Base Slab - Waterproofing Membrane	12	09-Aug-14	22-Aug-14	08-Aug-14	22-Aug-14	0
0513-1314	APS Bay 17 Base Slab - Rebar Fixing	12	08-Sep-14	22-Sep-14	19-Sep-14	04-Oct-14	9
0513-1316	APS Bay 17 Base Slab - Formworks/Prepare CJ	12	19-Sep-14	04-Oct-14	30-Sep-14	15-Oct-14	9
0513-1318	APS Bay 17 Base Slab - Concreting	2	06-Oct-14	07-Oct-14	16-Oct-14	17-Oct-14	9
0513-1320	APS Bay 17 Wall/Col - Rebar Fixing	10	08-Oct-14	18-Oct-14	18-Oct-14	29-Oct-14	9
0513-1322	APS Bay 17 Wall/Col - Formworks	10	08-Oct-14	18-Oct-14	18-Oct-14	29-Oct-14	9
0513-1326	APS Bay 18 Base Slab - Rebar Fixing	12	08-Aug-14	21-Aug-14	08-Aug-14	21-Aug-14	0
0513-1328	APS Bay 18 Base Slab - Formworks/Prepare CJ	12	19-Aug-14	01-Sep-14	29-Aug-14	12-Sep-14	9
0513-1330	APS Bay 18 Base Slab - Concreting	2	02-Sep-14	03-Sep-14	13-Sep-14	15-Sep-14	9
0513-1332	APS Bay 18 Wall/Col - Rebar Fixing	10	04-Sep-14	16-Sep-14	18-Oct-14	29-Oct-14	35
0513-1334	APS Bay 18 Wall/Col - Formworks	10	04-Sep-14	16-Sep-14	18-Oct-14	29-Oct-14	35
0513-1336	APS Bay 18 Wall/Col - Concreting	2	17-Sep-14	18-Sep-14	30-Oct-14	31-Oct-14	35
0513-1338	APS Bay 19 Base Slab - Rebar Fixing	12	04-Sep-14	18-Sep-14	16-Sep-14	29-Sep-14	9
0513-1340	APS Bay 19 Base Slab - Formworks/Prepare CJ	12	16-Sep-14	29-Sep-14	30-Sep-14	15-Oct-14	12
0513-1342	APS Bay 19 Base Slab - Concreting	2	30-Sep-14	03-Oct-14	16-Oct-14	17-Oct-14	12
0513-1344	APS Bay 19 Wall/Col - Rebar Fixing	10	04-Oct-14	15-Oct-14	18-Oct-14	29-Oct-14	12
0513-1346	APS Bay 19 Wall/Col - Formworks	10	04-Oct-14	15-Oct-14	18-Oct-14	29-Oct-14	12
0513-1348	APS Bay 19 Wall/Col - Concreting	2	16-Oct-14	17-Oct-14	30-Oct-14	31-Oct-14	12
0513-1350	APS Bay 20 Base Slab - Rebar Fixing	12	01-Aug-14	14-Aug-14	01-Aug-14	14-Aug-14	0
0513-1352	APS Bay 20 Base Slab - Formworks/Prepare CJ	12	12-Aug-14	25-Aug-14	26-Aug-14	08-Sep-14	12
0513-1354	APS Bay 20 Base Slab - Concreting	2	26-Aug-14	27-Aug-14	10-Sep-14	11-Sep-14	12
0513-1356	APS Bay 20 Wall/Col - Rebar Fixing	10	28-Aug-14	08-Sep-14	18-Oct-14	29-Oct-14	41
0513-1358	APS Bay 20 Wall/Col - Formworks	10	28-Aug-14	08-Sep-14	18-Oct-14	29-Oct-14	41
0513-1360	APS Bay 20 Wall/Col - Concreting	2	10-Sep-14	11-Sep-14	30-Oct-14	31-Oct-14	41
0513-1362	APS Bay 21 Base Slab - Rebar Fixing	12	28-Aug-14	11-Sep-14	12-Sep-14	25-Sep-14	12
0513-1364	APS Bay 21 Base Slab - Formworks/Prepare CJ	12	08-Sep-14	22-Sep-14	30-Sep-14	15-Oct-14	18
0513-1366	APS Bay 21 Base Slab - Concreting	2	23-Sep-14	24-Sep-14	16-Oct-14	17-Oct-14	18
0513-1368	APS Bay 21 Wall/Col - Rebar Fixing	10	25-Sep-14	08-Oct-14	18-Oct-14	29-Oct-14	18
0513-1370	APS Bay 21 Wall/Col - Formworks	10	25-Sep-14	08-Oct-14	18-Oct-14	29-Oct-14	18
0513-1372	APS Bay 21 Wall/Col - Concreting	2	09-Oct-14	10-Oct-14	30-Oct-14	31-Oct-14	18
0513-1374	APS Bay 22 Base Slab - Rebar Fixing	12	05-Aug-14	18-Aug-14	05-Aug-14	18-Aug-14	0
0513-1376	APS Bay 22 Base Slab - Formworks/Prepare CJ	12	15-Aug-14	28-Aug-14	30-Sep-14	15-Oct-14	38
0513-1378	APS Bay 22 Base Slab - Concreting	2	29-Aug-14	30-Aug-14	16-Oct-14	17-Oct-14	38
0513-1380	APS Bay 22 Wall/Col - Rebar Fixing	10	01-Sep-14	12-Sep-14	18-Oct-14	29-Oct-14	38
0513-1382	APS Bay 22 Wall/Col - Formworks	10	01-Sep-14	12-Sep-14	18-Oct-14	29-Oct-14	38
0513-1384	APS Bay 22 Wall/Col - Concreting	2	13-Sep-14	15-Sep-14	30-Oct-14	31-Oct-14	38
0513-1386	APS Bay 23 Base Slab - Rebar Fixing	12	19-Sep-14	04-Oct-14	19-Sep-14	04-Oct-14	0
0513-1388	APS Bay 23 Base Slab - Formworks/Prepare CJ	12	30-Sep-14	15-Oct-14	30-Sep-14	15-Oct-14	0
0513-1390	APS Bay 23 Base Slab - Concreting	2	16-Oct-14	17-Oct-14	16-Oct-14	17-Oct-14	0
0513-1392	APS Bay 23 Wall/Col - Rebar Fixing	10	18-Oct-14	29-Oct-14	18-Oct-14	29-Oct-14	0
0513-1394	APS Bay 23 Wall/Col - Formworks	10	18-Oct-14	29-Oct-14	18-Oct-14	29-Oct-14	0
0513-1398	APS Bay 24 Base Slab - Rebar Fixing	12	12-Aug-14	25-Aug-14	12-Aug-14	25-Aug-14	0
0513-1400	APS Bay 24 Base Slab - Formworks/Prepare CJ	12	22-Aug-14	04-Sep-14	30-Sep-14	15-Oct-14	32



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

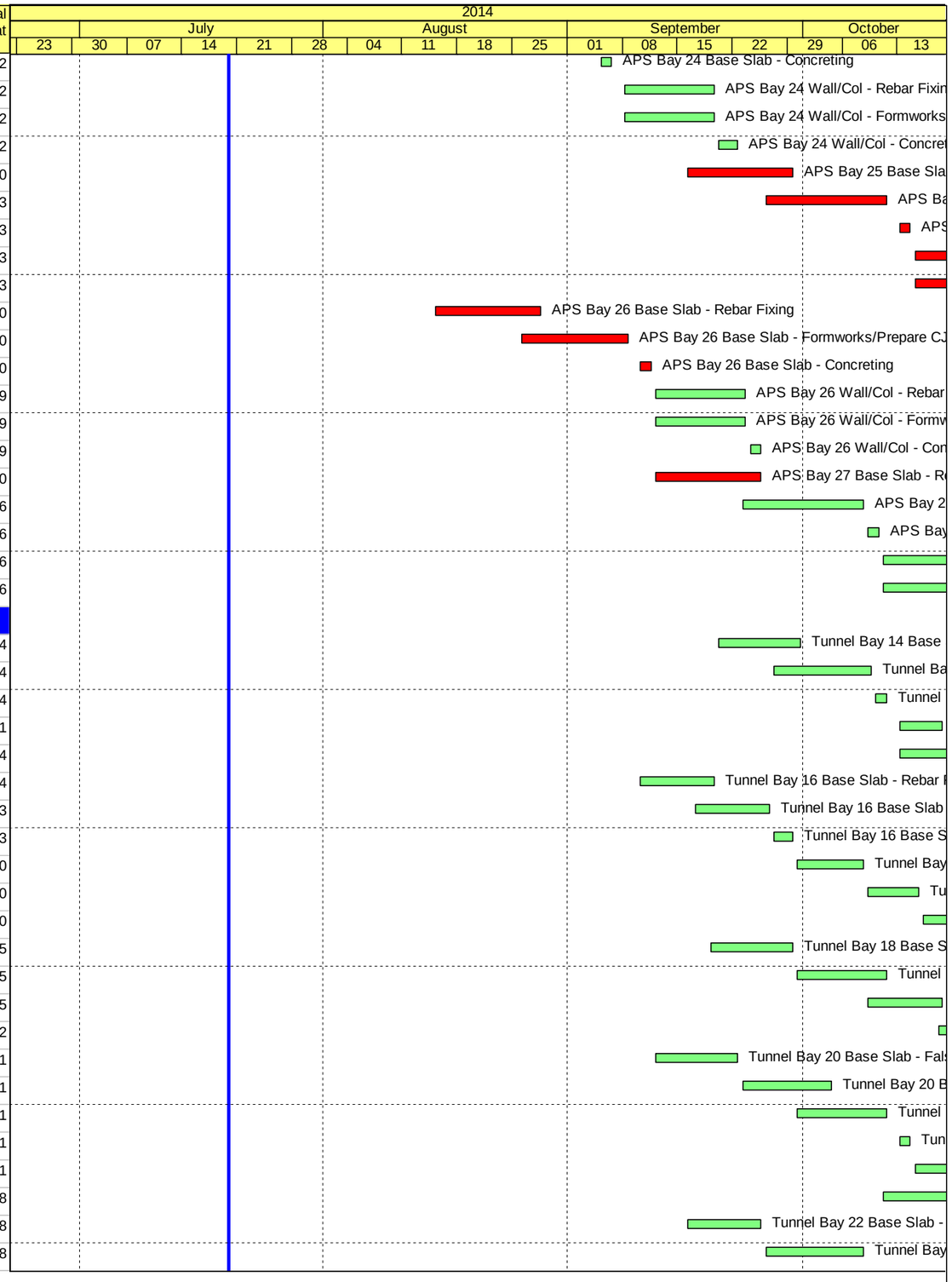
Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

3MRP

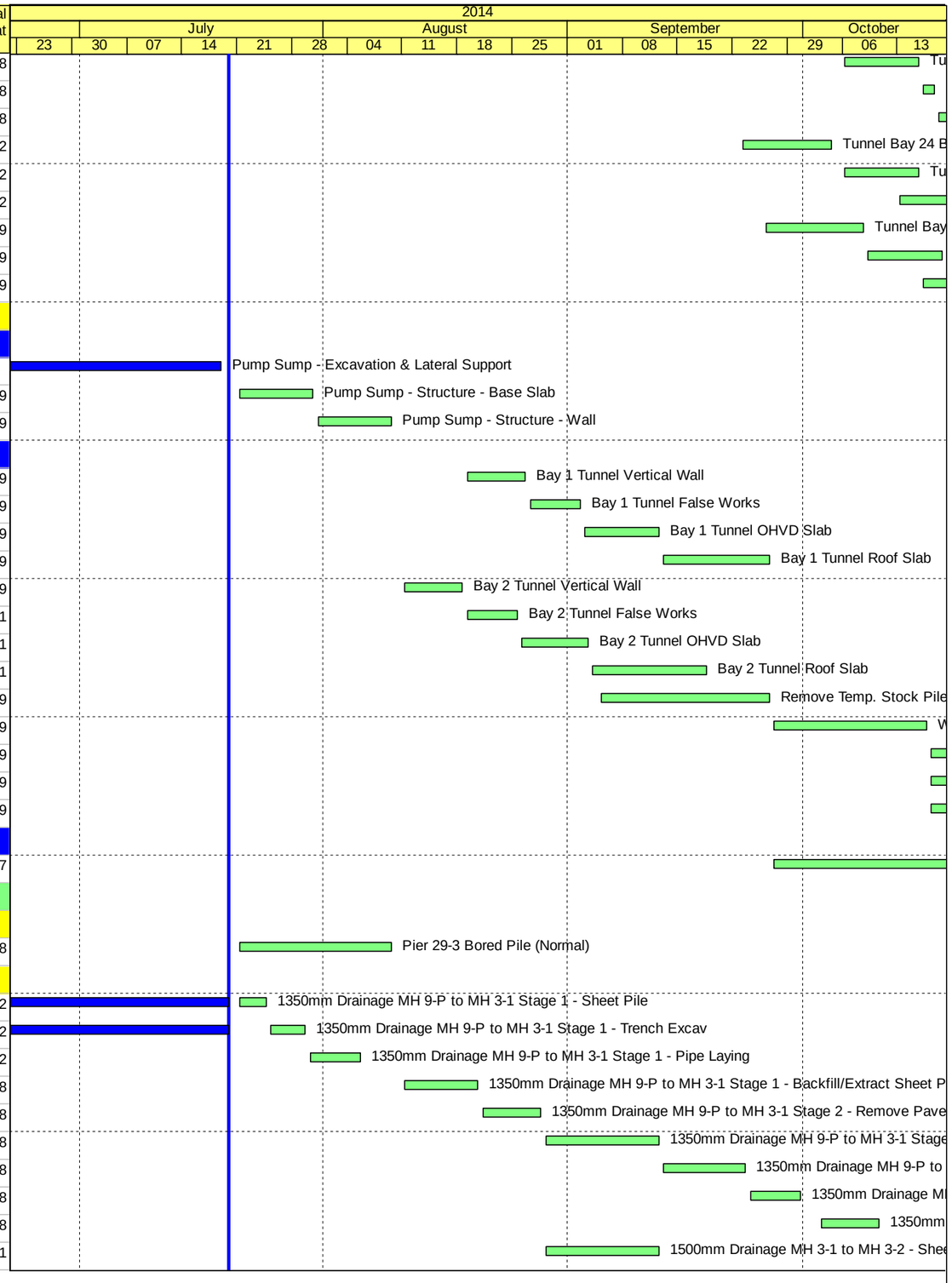
3MRP - Jul 2014 to Oct 2014

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0513-1402	APS Bay 24 Base Slab - Concreting	2	05-Sep-14	06-Sep-14	16-Oct-14	17-Oct-14	32
0513-1404	APS Bay 24 Wall/Col - Rebar Fixing	10	08-Sep-14	19-Sep-14	18-Oct-14	29-Oct-14	32
0513-1406	APS Bay 24 Wall/Col - Formworks	10	08-Sep-14	19-Sep-14	18-Oct-14	29-Oct-14	32
0513-1408	APS Bay 24 Wall/Col - Concreting	2	20-Sep-14	22-Sep-14	30-Oct-14	31-Oct-14	32
0513-1410	APS Bay 25 Base Slab - Rebar Fixing	12	16-Sep-14	29-Sep-14	16-Sep-14	29-Sep-14	0
0513-1412	APS Bay 25 Base Slab - Formworks/Prepare CJ	12	26-Sep-14	11-Oct-14	30-Sep-14	15-Oct-14	3
0513-1414	APS Bay 25 Base Slab - Concreting	2	13-Oct-14	14-Oct-14	16-Oct-14	17-Oct-14	3
0513-1416	APS Bay 25 Wall/Col - Rebar Fixing	10	15-Oct-14	25-Oct-14	18-Oct-14	29-Oct-14	3
0513-1418	APS Bay 25 Wall/Col - Formworks	10	15-Oct-14	25-Oct-14	18-Oct-14	29-Oct-14	3
0513-1422	APS Bay 26 Base Slab - Rebar Fixing	12	15-Aug-14	28-Aug-14	15-Aug-14	28-Aug-14	0
0513-1424	APS Bay 26 Base Slab - Formworks/Prepare CJ	12	26-Aug-14	08-Sep-14	26-Aug-14	08-Sep-14	0
0513-1426	APS Bay 26 Base Slab - Concreting	2	10-Sep-14	11-Sep-14	10-Sep-14	11-Sep-14	0
0513-1428	APS Bay 26 Wall/Col - Rebar Fixing	10	12-Sep-14	23-Sep-14	18-Oct-14	29-Oct-14	29
0513-1430	APS Bay 26 Wall/Col - Formworks	10	12-Sep-14	23-Sep-14	18-Oct-14	29-Oct-14	29
0513-1432	APS Bay 26 Wall/Col - Concreting	2	24-Sep-14	25-Sep-14	30-Oct-14	31-Oct-14	29
0513-1434	APS Bay 27 Base Slab - Rebar Fixing	12	12-Sep-14	25-Sep-14	12-Sep-14	25-Sep-14	0
0513-1436	APS Bay 27 Base Slab - Formworks/Prepare CJ	12	23-Sep-14	08-Oct-14	30-Sep-14	15-Oct-14	6
0513-1438	APS Bay 27 Base Slab - Concreting	2	09-Oct-14	10-Oct-14	16-Oct-14	17-Oct-14	6
0513-1440	APS Bay 27 Wall/Col - Rebar Fixing	10	11-Oct-14	22-Oct-14	18-Oct-14	29-Oct-14	6
0513-1442	APS Bay 27 Wall/Col - Formworks	10	11-Oct-14	22-Oct-14	18-Oct-14	29-Oct-14	6
05.1.4 - Tunnel Structure							
0514-1446	Tunnel Bay 14 Base Slab - Rebar Fixing	9	20-Sep-14	30-Sep-14	21-Oct-14	30-Oct-14	24
0514-1448	Tunnel Bay 14 Base Slab - Formwork/Prepare CJ	9	27-Sep-14	09-Oct-14	28-Oct-14	06-Nov-14	24
0514-1482	Tunnel Bay 14 Base Slab - Concreting	2	10-Oct-14	11-Oct-14	07-Nov-14	08-Nov-14	24
0514-1483	Tunnel Bay 14 Centre Wall - Remove Strut	6	13-Oct-14	18-Oct-14	29-Nov-14	05-Dec-14	41
0514-1502	Tunnel Bay 15 Base Slab - Rebar Fixing	9	13-Oct-14	22-Oct-14	10-Nov-14	19-Nov-14	24
0514-1526	Tunnel Bay 16 Base Slab - Rebar Fixing	9	10-Sep-14	19-Sep-14	10-Oct-14	20-Oct-14	24
0514-1528	Tunnel Bay 16 Base Slab - Formwork/Prepare CJ	9	17-Sep-14	26-Sep-14	28-Oct-14	06-Nov-14	33
0514-1530	Tunnel Bay 16 Base Slab - Concreting	2	27-Sep-14	29-Sep-14	07-Nov-14	08-Nov-14	33
0514-1531	Tunnel Bay 16 Centre Wall - Remove Strut	6	30-Sep-14	08-Oct-14	29-Nov-14	05-Dec-14	50
0514-1532	Tunnel Bay 16 Centre Wall - Rebar Fixing	6	09-Oct-14	15-Oct-14	06-Dec-14	12-Dec-14	50
0514-1534	Tunnel Bay 16 Centre Wall - Formwork	6	16-Oct-14	22-Oct-14	13-Dec-14	19-Dec-14	50
0514-1575	Tunnel Bay 18 Base Slab - Falsework/Formwork	9	19-Sep-14	29-Sep-14	01-Nov-14	11-Nov-14	35
0514-1576	Tunnel Bay 18 Base Slab - Rebar Fixing	9	30-Sep-14	11-Oct-14	12-Nov-14	21-Nov-14	35
0514-1577	Tunnel Bay 18 Base Slab - Formwork/Prepare CJ	9	09-Oct-14	18-Oct-14	19-Nov-14	28-Nov-14	35
0514-1589	Tunnel Bay 19 Base Slab - Falsework/Formwork	9	18-Oct-14	28-Oct-14	01-Nov-14	11-Nov-14	12
0514-1604	Tunnel Bay 20 Base Slab - Falsework/Formwork	9	12-Sep-14	22-Sep-14	01-Nov-14	11-Nov-14	41
0514-1606	Tunnel Bay 20 Base Slab - Rebar Fixing	9	23-Sep-14	04-Oct-14	12-Nov-14	21-Nov-14	41
0514-1608	Tunnel Bay 20 Base Slab - Formwork/Prepare CJ	9	30-Sep-14	11-Oct-14	19-Nov-14	28-Nov-14	41
0514-1610	Tunnel Bay 20 Base Slab - Concreting	2	13-Oct-14	14-Oct-14	29-Nov-14	01-Dec-14	41
0514-1612	Tunnel Bay 20 Centre Wall - Remove Strut	6	15-Oct-14	21-Oct-14	02-Dec-14	08-Dec-14	41
0514-1632	Tunnel Bay 21 Base Slab - Falsework/Formwork	9	11-Oct-14	21-Oct-14	01-Nov-14	11-Nov-14	18
0514-1660	Tunnel Bay 22 Base Slab - Falsework/Formwork	9	16-Sep-14	25-Sep-14	01-Nov-14	11-Nov-14	38
0514-1662	Tunnel Bay 22 Base Slab - Rebar Fixing	9	26-Sep-14	08-Oct-14	12-Nov-14	21-Nov-14	38



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0514-1664	Tunnel Bay 22 Base Slab - Formwork/Prepare CJ	9	06-Oct-14	15-Oct-14	19-Nov-14	28-Nov-14	38
0514-1666	Tunnel Bay 22 Base Slab - Concreting	2	16-Oct-14	17-Oct-14	29-Nov-14	01-Dec-14	38
0514-1668	Tunnel Bay 22 Centre Wall - Remove Strut	6	18-Oct-14	24-Oct-14	02-Dec-14	08-Dec-14	38
0514-1716	Tunnel Bay 24 Base Slab - Falsework/Formwork	9	23-Sep-14	04-Oct-14	01-Nov-14	11-Nov-14	32
0514-1718	Tunnel Bay 24 Base Slab - Rebar Fixing	9	06-Oct-14	15-Oct-14	12-Nov-14	21-Nov-14	32
0514-1720	Tunnel Bay 24 Base Slab - Formwork/Prepare CJ	9	13-Oct-14	22-Oct-14	19-Nov-14	28-Nov-14	32
0514-1772	Tunnel Bay 26 Base Slab - Falsework/Formwork	9	26-Sep-14	08-Oct-14	01-Nov-14	11-Nov-14	29
0514-1774	Tunnel Bay 26 Base Slab - Rebar Fixing	9	09-Oct-14	18-Oct-14	12-Nov-14	21-Nov-14	29
0514-1776	Tunnel Bay 26 Base Slab - Formwork/Prepare CJ	9	16-Oct-14	25-Oct-14	19-Nov-14	28-Nov-14	29
05.2 - Cut & Cover Tunnel Ch 4932-5149							
05.2.3 - ELS							
0524-2889	Pump Sump - Excavation & Lateral Support	0	22-Apr-14 A	19-Jul-14 A	04-Sep-14	04-Sep-14	
0524-2885	Pump Sump - Structure - Base Slab	9	21-Jul-14	30-Jul-14	04-Sep-14	15-Sep-14	39
0524-2890	Pump Sump - Structure - Wall	9	31-Jul-14	09-Aug-14	16-Sep-14	25-Sep-14	39
05.2.4 - Tunnel Structure							
0524-3015	Bay 1 Tunnel Vertical Wall	7	25-Aug-14 A	26-Aug-14	07-Oct-14	14-Oct-14	39
0524-3025	Bay 1 Tunnel False Works	6	27-Aug-14	02-Sep-14	15-Oct-14	21-Oct-14	39
0524-3035	Bay 1 Tunnel OHVD Slab	8	03-Sep-14	12-Sep-14	22-Oct-14	30-Oct-14	39
0524-3045	Bay 1 Tunnel Roof Slab	12	13-Sep-14	26-Sep-14	31-Oct-14	13-Nov-14	39
0524-3115	Bay 2 Tunnel Vertical Wall	7	11-Aug-14	18-Aug-14	26-Sep-14	06-Oct-14	39
0524-3125	Bay 2 Tunnel False Works	6	19-Aug-14	25-Aug-14	01-Nov-14	07-Nov-14	61
0524-3135	Bay 2 Tunnel OHVD Slab	8	26-Aug-14	03-Sep-14	08-Nov-14	17-Nov-14	61
0524-3145	Bay 2 Tunnel Roof Slab	12	04-Sep-14	18-Sep-14	18-Nov-14	01-Dec-14	61
0524-3472	Remove Temp. Stock Pile on top of Tunnel	18	05-Sep-14	26-Sep-14	24-Oct-14	13-Nov-14	39
0524-3474	Waterproofing Preparation + Tunnel Roof Remedial Works	15	27-Sep-14	16-Oct-14	14-Nov-14	01-Dec-14	39
0524-3365	Waterproof Top Slab Bay 1 to Bay 4	12	17-Oct-14	30-Oct-14	02-Dec-14	15-Dec-14	39
0524-3475	Waterproof Top Slab Bay 5 to Bay 9	12	17-Oct-14	30-Oct-14	02-Dec-14	15-Dec-14	39
0524-3685	Waterproof Top Slab Bays 12 and 13	12	17-Oct-14	30-Oct-14	02-Dec-14	15-Dec-14	39
05.2.5 - Road & Miscellaneous Works							
0525-2890	Tunnel Road Drainage (excl vent bldg)	45	27-Sep-14	20-Nov-14	05-Dec-14	28-Jan-15	57
06 - SECTION 3 OF THE WORKS							
06.1 - Westbound - Pier 29-34							
0610-2126	Pier 29-3 Bored Pile (Normal)	18	21-Jul-14	09-Aug-14	23-Oct-14	12-Nov-14	78
06.2 - Box Culvert U1							
0620-2632	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Sheet Pile	4	20-Mar-14 A	24-Jul-14	28-Oct-14	31-Oct-14	82
0620-2633	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Trench Excav	4	02-Apr-14 A	29-Jul-14	01-Nov-14	05-Nov-14	82
0620-2634	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Pipe Laying	6	30-Jul-14	05-Aug-14	06-Nov-14	12-Nov-14	82
0620-2635	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Backfill/Extract Sheet Pile	9	11-Aug-14	20-Aug-14	13-Nov-14	22-Nov-14	78
0620-2636	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Remove Pavement	7	21-Aug-14	28-Aug-14	24-Nov-14	01-Dec-14	78
0620-2637	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Sheet Pile	12	29-Aug-14	12-Sep-14	02-Dec-14	15-Dec-14	78
0620-2638	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Trench Excav	9	13-Sep-14	23-Sep-14	16-Dec-14	26-Dec-14	78
0620-2639	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Pipe Laying	6	24-Sep-14	30-Sep-14	27-Dec-14	03-Jan-15	78
0620-2641	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Backfill/Extract Sheet Pile	7	03-Oct-14	10-Oct-14	05-Jan-15	12-Jan-15	78
0620-2642	1500mm Drainage MH 3-1 to MH 3-2 - Sheet Pile	12	29-Aug-14	12-Sep-14	17-Dec-14	31-Dec-14	91



Remaining Level of Effort
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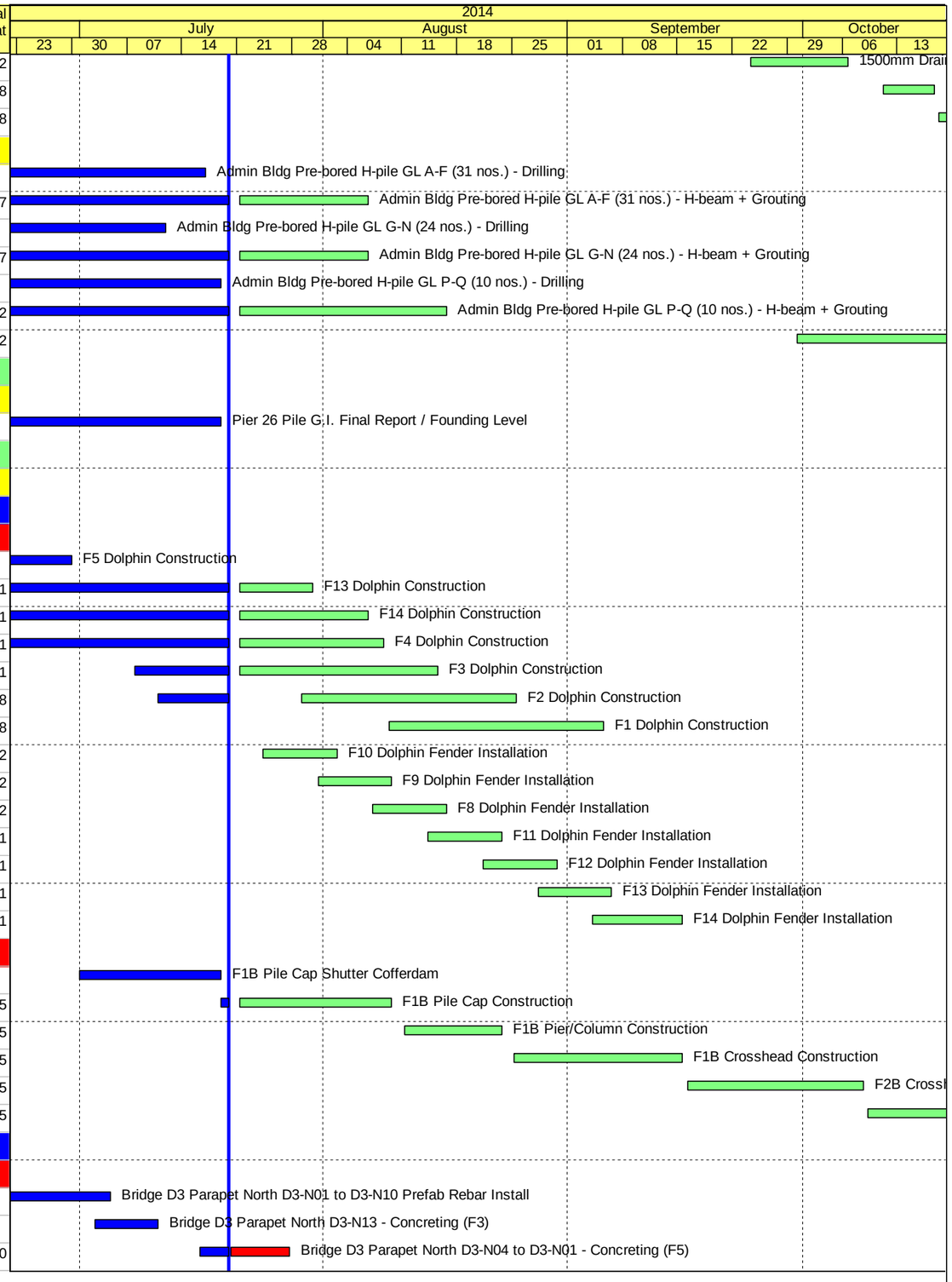
Milestone

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0620-2643	1500mm Drainage MH 3-1 to MH 3-2 - Trench Excav	9	24-Sep-14	06-Oct-14	02-Jan-15	12-Jan-15	82
0620-2644	1500mm Drainage MH 3-1 to MH 3-2 - Pipe Laying	6	11-Oct-14	17-Oct-14	13-Jan-15	19-Jan-15	78
0620-2645	1500mm Drainage MH 3-1 to MH 3-2 - Construct MH 3-1	12	18-Oct-14	31-Oct-14	20-Jan-15	02-Feb-15	78
06.3 - Admin Building							
0630-3111	Admin Bldg Pre-bored H-pile GL A-F (31 nos.) - Drilling	0	24-Feb-14 A	17-Jul-14 A	11-Aug-19	11-Aug-19	
0630-3112	Admin Bldg Pre-bored H-pile GL A-F (31 nos.) - H-beam + Grouting	15	27-Mar-14 A	06-Aug-14	26-Nov-14	12-Dec-14	107
0630-3121	Admin Bldg Pre-bored H-pile GL G-N (24 nos.) - Drilling	0	24-Feb-14 A	12-Jul-14 A	11-Aug-19	11-Aug-19	
0630-3122	Admin Bldg Pre-bored H-pile GL G-N (24 nos.) - H-beam + Grouting	15	27-Mar-14 A	06-Aug-14	26-Nov-14	12-Dec-14	107
0630-3131	Admin Bldg Pre-bored H-pile GL P-Q (10 nos.) - Drilling	0	07-Jun-14 A	19-Jul-14 A	11-Aug-19	11-Aug-19	
0630-3132	Admin Bldg Pre-bored H-pile GL P-Q (10 nos.) - H-beam + Grouting	24	21-Jun-14 A	16-Aug-14	04-Oct-14	31-Oct-14	62
0630-3119	Admin Bldg Ground Beam	48	30-Sep-14	26-Nov-14	13-Dec-14	09-Feb-15	62
09 - SECTION 6 OF THE WORKS							
09.2 - Westbound - Pier 26-27							
0920-2105	Pier 26 Pile G.I. Final Report / Founding Level	0	17-Jun-14 A	19-Jul-14 A	25-Sep-15	25-Sep-15	
10 - SECTION X OF THE WORKS							
10.1 - E/B Bridges (Bridge D, E and F)							
10.1.1 - Marine Pier Construction							
Pier F03 to F15							
1011-3255	F5 Dolphin Construction	0	06-May-14 A	30-Jun-14 A	09-Aug-14	09-Aug-14	
1011-3245	F13 Dolphin Construction	9	28-May-14 A	30-Jul-14	26-Aug-14	04-Sep-14	31
1011-3265	F14 Dolphin Construction	15	03-Jun-14 A	06-Aug-14	26-Aug-14	12-Sep-14	31
1011-3271	F4 Dolphin Construction	17	19-Jun-14 A	08-Aug-14	02-Aug-14	21-Aug-14	11
1011-3272	F3 Dolphin Construction	23	08-Jul-14 A	15-Aug-14	02-Aug-14	28-Aug-14	11
1011-3273	F2 Dolphin Construction	24	11-Jul-14 A	25-Aug-14	30-Dec-14	27-Jan-15	128
1011-3274	F1 Dolphin Construction	24	09-Aug-14	05-Sep-14	12-Jan-15	07-Feb-15	128
1011-3296	F10 Dolphin Fender Installation	9	24-Jul-14*	02-Aug-14	19-Aug-14	28-Aug-14	22
1011-3297	F9 Dolphin Fender Installation	9	31-Jul-14	09-Aug-14	26-Aug-14	04-Sep-14	22
1011-3298	F8 Dolphin Fender Installation	9	07-Aug-14	16-Aug-14	02-Sep-14	12-Sep-14	22
1011-3306	F11 Dolphin Fender Installation	9	14-Aug-14	23-Aug-14	08-Jan-15	17-Jan-15	121
1011-3307	F12 Dolphin Fender Installation	9	21-Aug-14	30-Aug-14	15-Jan-15	24-Jan-15	121
1011-3308	F13 Dolphin Fender Installation	9	28-Aug-14	06-Sep-14	22-Jan-15	31-Jan-15	121
1011-3309	F14 Dolphin Fender Installation	9	04-Sep-14	15-Sep-14	29-Jan-15	07-Feb-15	121
Pier F01 to F02							
1011-2890	F1B Pile Cap Shutter Cofferdam	0	01-Jul-14 A	19-Jul-14 A	11-Mar-17	11-Mar-17	
1011-2895	F1B Pile Cap Construction	18	19-Jul-14 A	09-Aug-14	11-Mar-17	31-Mar-17	795
1011-2900	F1B Pier/Column Construction	12	11-Aug-14	23-Aug-14	01-Apr-17	18-Apr-17	795
1011-2910	F1B Crosshead Construction	18	25-Aug-14	15-Sep-14	19-Apr-17	10-May-17	795
1011-2850	F2B Crosshead Construction	18	16-Sep-14	08-Oct-14	11-May-17	01-Jun-17	795
1011-2930	Bearing installation pier F1B/F2B	12	09-Oct-14	22-Oct-14	02-Jun-17	15-Jun-17	795
10.1.3 - E/B Bridge Construction							
Bridge D3							
1013-1921	Bridge D3 Parapet North D3-N01 to D3-N10 Prefab Rebar Install	0	16-Jun-14 A	05-Jul-14 A	20-Jul-14	20-Jul-14	
1013-1923	Bridge D3 Parapet North D3-N13 - Concreting (F3)	0	03-Jul-14 A	11-Jul-14 A	27-Jul-14	27-Jul-14	
1013-1133.1	Bridge D3 Parapet North D3-N04 to D3-N01 - Concreting (F5)	8	16-Jul-14 A	27-Jul-14	20-Jul-14	27-Jul-14	0



Remaining Level of Effort
Actual Level of Effort
Actual Work
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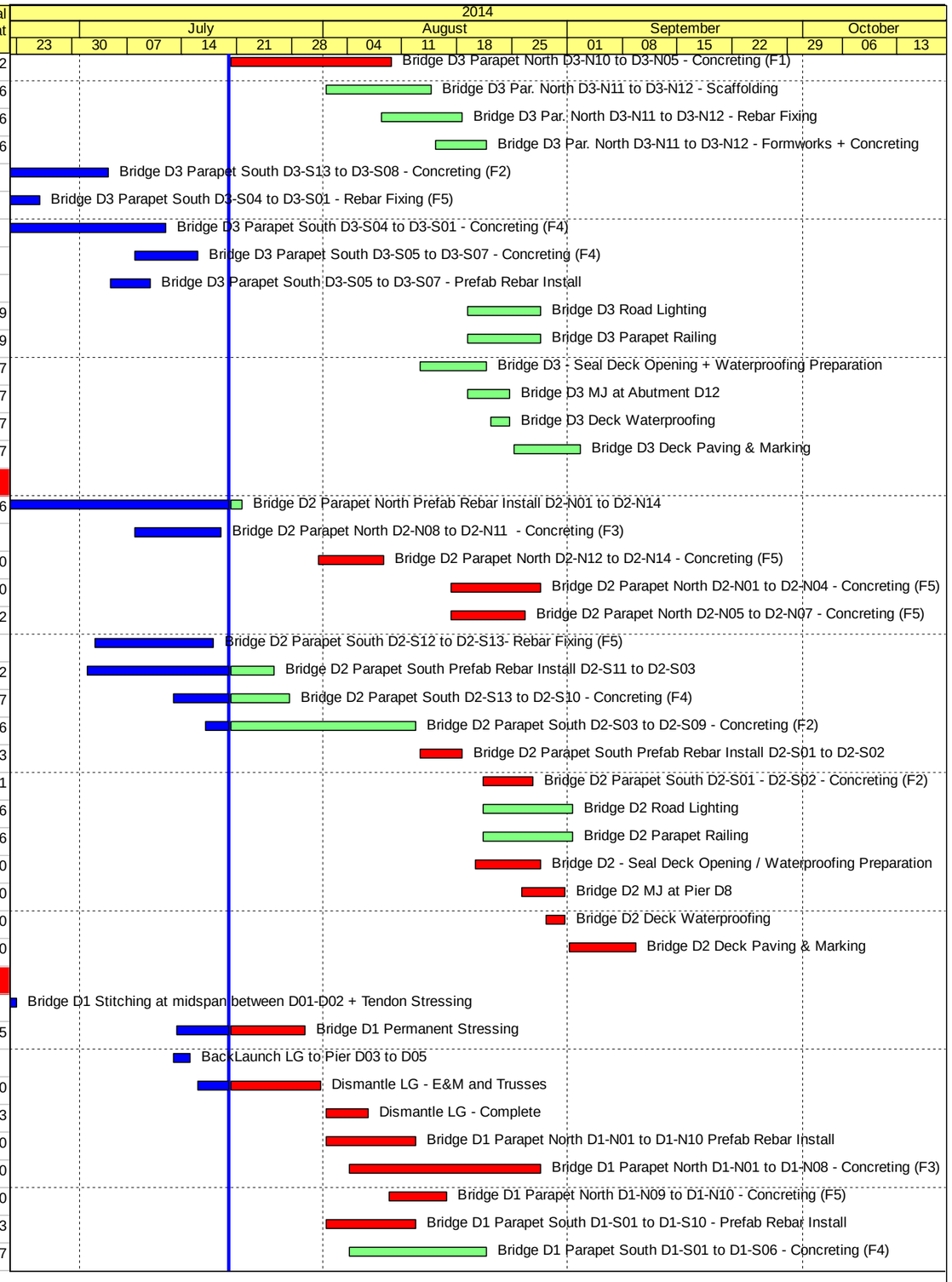
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1013-1865	Bridge D3 Parapet North D3-N10 to D3-N05 - Concreting (F1)	21	20-Jul-14	09-Aug-14	22-Jul-14	11-Aug-14	2
1013-1138.1	Bridge D3 Par. North D3-N11 to D3-N12 - Scaffolding	12	01-Aug-14	14-Aug-14	08-Aug-14	21-Aug-14	6
1013-1138.2	Bridge D3 Par. North D3-N11 to D3-N12 - Rebar Fixing	9	08-Aug-14	18-Aug-14	15-Aug-14	25-Aug-14	6
1013-1138.3	Bridge D3 Par. North D3-N11 to D3-N12 - Formworks + Concreting	6	15-Aug-14	21-Aug-14	22-Aug-14	28-Aug-14	6
1013-1132	Bridge D3 Parapet South D3-S13 to D3-S08 - Concreting (F2)	0	08-Jun-14 A	04-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1993	Bridge D3 Parapet South D3-S04 to D3-S01 - Rebar Fixing (F5)	0	13-Jun-14 A	26-Jun-14 A	11-Aug-19	11-Aug-19	
1013-1963	Bridge D3 Parapet South D3-S04 to D3-S01 - Concreting (F4)	0	19-Jun-14 A	12-Jul-14 A	27-Jul-14	27-Jul-14	
1013-1973	Bridge D3 Parapet South D3-S05 to D3-S07 - Concreting (F4)	0	08-Jul-14 A	16-Jul-14 A	11-Aug-19	11-Aug-19	
1013-2153	Bridge D3 Parapet South D3-S05 to D3-S07 - Prefab Rebar Install	0	05-Jul-14 A	10-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1869	Bridge D3 Road Lighting	9	19-Aug-14	28-Aug-14	29-Aug-14	08-Sep-14	9
1013-1870	Bridge D3 Parapet Railing	9	19-Aug-14	28-Aug-14	29-Aug-14	08-Sep-14	9
1013-1144.1	Bridge D3 - Seal Deck Opening + Waterproofing Preparation	9	13-Aug-14	21-Aug-14	20-Aug-14	28-Aug-14	7
1013-1886	Bridge D3 MJ at Abutment D12	6	19-Aug-14	24-Aug-14	26-Aug-14	31-Aug-14	7
1013-1144	Bridge D3 Deck Waterproofing	3	22-Aug-14	24-Aug-14	29-Aug-14	31-Aug-14	7
1013-1145	Bridge D3 Deck Paving & Marking	9	25-Aug-14	02-Sep-14	01-Sep-14	09-Sep-14	7
Bridge D2							
1013-1565	Bridge D2 Parapet North Prefab Rebar Install D2-N01 to D2-N14	2	19-Jun-14 A	21-Jul-14	15-Aug-14	16-Aug-14	26
1013-1913	Bridge D2 Parapet North D2-N08 to D2-N11 - Concreting (F3)	0	08-Jul-14 A	19-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1706	Bridge D2 Parapet North D2-N12 to D2-N14 - Concreting (F5)	9	31-Jul-14	08-Aug-14	31-Jul-14	08-Aug-14	0
1013-1566	Bridge D2 Parapet North D2-N01 to D2-N04 - Concreting (F5)	12	17-Aug-14	28-Aug-14	17-Aug-14	28-Aug-14	0
1013-1705	Bridge D2 Parapet North D2-N05 to D2-N07 - Concreting (F5)	10	17-Aug-14	26-Aug-14	19-Aug-14	28-Aug-14	2
1013-1133	Bridge D2 Parapet South D2-S12 to D2-S13- Rebar Fixing (F5)	0	03-Jul-14 A	18-Jul-14 A	03-Aug-14	03-Aug-14	
1013-1134	Bridge D2 Parapet South Prefab Rebar Install D2-S11 to D2-S03	6	02-Jul-14 A	25-Jul-14	11-Aug-14	16-Aug-14	22
1013-1863	Bridge D2 Parapet South D2-S13 to D2-S10 - Concreting (F4)	8	13-Jul-14 A	27-Jul-14	27-Jul-14	03-Aug-14	7
1013-1943	Bridge D2 Parapet South D2-S03 to D2-S09 - Concreting (F2)	24	17-Jul-14 A	12-Aug-14	05-Aug-14	28-Aug-14	16
1013-2143	Bridge D2 Parapet South Prefab Rebar Install D2-S01 to D2-S02	6	13-Aug-14	18-Aug-14	16-Aug-14	21-Aug-14	3
1013-1953	Bridge D2 Parapet South D2-S01 - D2-S02 - Concreting (F2)	7	21-Aug-14	27-Aug-14	22-Aug-14	28-Aug-14	1
1013-1880	Bridge D2 Road Lighting	10	21-Aug-14	01-Sep-14	28-Aug-14	08-Sep-14	6
1013-1881	Bridge D2 Parapet Railing	10	21-Aug-14	01-Sep-14	28-Aug-14	08-Sep-14	6
1013-1860.1	Bridge D2 - Seal Deck Opening / Waterproofing Preparation	9	20-Aug-14	28-Aug-14	20-Aug-14	28-Aug-14	0
1013-1891	Bridge D2 MJ at Pier D8	6	26-Aug-14	31-Aug-14	26-Aug-14	31-Aug-14	0
1013-1860	Bridge D2 Deck Waterproofing	3	29-Aug-14	31-Aug-14	29-Aug-14	31-Aug-14	0
1013-1561	Bridge D2 Deck Paving & Marking	9	01-Sep-14	09-Sep-14	01-Sep-14	09-Sep-14	0
Bridge D1							
1013-1650	Bridge D1 Stitching at midspan between D01-D02 + Tendon Stressing	0	16-Jun-14 A	23-Jun-14 A	25-Jul-14	25-Jul-14	
1013-1660	Bridge D1 Permanent Stressing	10	13-Jul-14 A	29-Jul-14	25-Jul-14	03-Aug-14	5
1013-1651	BackLaunch LG to Pier D03 to D05	0	13-Jul-14 A	15-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1652	Dismantle LG - E&M and Trusses	12	16-Jul-14 A	31-Jul-14	20-Jul-14	31-Jul-14	0
1013-1653	Dismantle LG - Complete	6	01-Aug-14	06-Aug-14	04-Aug-14	09-Aug-14	3
1013-1704	Bridge D1 Parapet North D1-N01 to D1-N10 Prefab Rebar Install	12	01-Aug-14	12-Aug-14	01-Aug-14	12-Aug-14	0
1013-1933	Bridge D1 Parapet North D1-N01 to D1-N08 - Concreting (F3)	25	04-Aug-14	28-Aug-14	04-Aug-14	28-Aug-14	0
1013-1708	Bridge D1 Parapet North D1-N09 to D1-N10 - Concreting (F5)	8	09-Aug-14	16-Aug-14	09-Aug-14	16-Aug-14	0
1013-1701	Bridge D1 Parapet South D1-S01 to D1-S10 - Prefab Rebar Install	12	01-Aug-14	12-Aug-14	04-Aug-14	15-Aug-14	3
1013-1983	Bridge D1 Parapet South D1-S01 to D1-S06 - Concreting (F4)	18	04-Aug-14	21-Aug-14	11-Aug-14	28-Aug-14	7



Remaining Level of Effort
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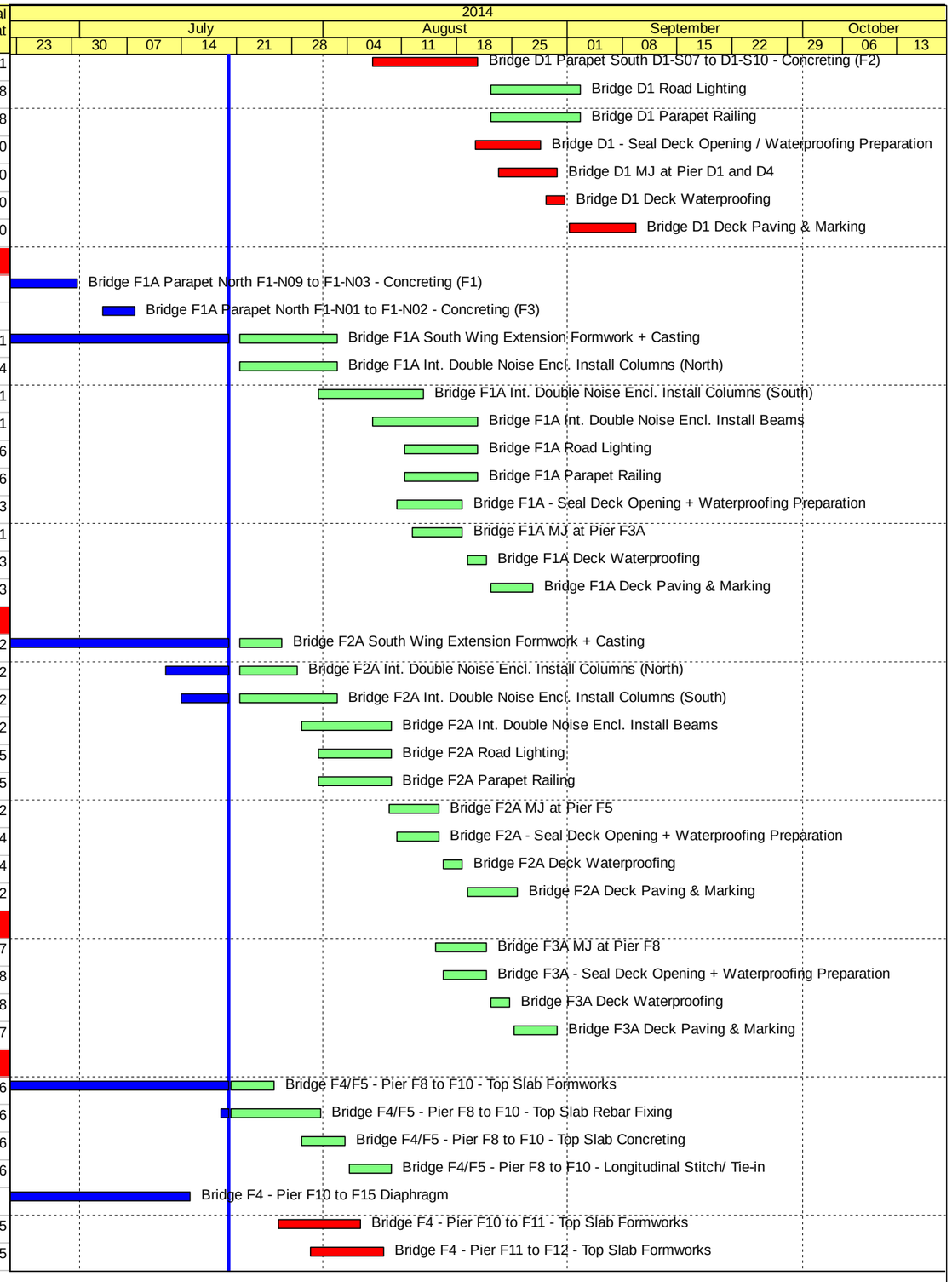
Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1013-1703	Bridge D1 Parapet South D1-S07 to D1-S10 - Concreting (F2)	14	07-Aug-14	20-Aug-14	08-Aug-14	21-Aug-14	1
1013-1882	Bridge D1 Road Lighting	10	22-Aug-14	02-Sep-14	01-Sep-14	12-Sep-14	8
1013-1883	Bridge D1 Parapet Railing	10	22-Aug-14	02-Sep-14	01-Sep-14	12-Sep-14	8
1013-1715.1	Bridge D1 - Seal Deck Opening / Waterproofing Preparation	9	20-Aug-14	28-Aug-14	20-Aug-14	28-Aug-14	0
1013-1892	Bridge D1 MJ at Pier D1 and D4	7	23-Aug-14	30-Aug-14	23-Aug-14	30-Aug-14	0
1013-1715	Bridge D1 Deck Waterproofing	3	29-Aug-14	31-Aug-14	29-Aug-14	31-Aug-14	0
1013-1716	Bridge D1 Deck Paving & Marking	9	01-Sep-14	09-Sep-14	01-Sep-14	09-Sep-14	0
Bridge F1A							
1013-1256	Bridge F1A Parapet North F1-N09 to F1-N03 - Concreting (F1)	0	11-Jun-14 A	30-Jun-14 A	22-Jul-14	22-Jul-14	
1013-1903	Bridge F1A Parapet North F1-N01 to F1-N02 - Concreting (F3)	0	04-Jul-14 A	08-Jul-14 A	27-Jul-14	27-Jul-14	
1013-1258	Bridge F1A South Wing Extension Formwork + Casting	12	15-May-14 A	02-Aug-14	02-Aug-14	15-Aug-14	11
1013-1866	Bridge F1A Int. Double Noise Encl. Install Columns (North)	12	21-Jul-14	02-Aug-14	06-Aug-14	19-Aug-14	14
1013-1867	Bridge F1A Int. Double Noise Encl. Install Columns (South)	12	31-Jul-14	13-Aug-14	13-Aug-14	26-Aug-14	11
1013-1868	Bridge F1A Int. Double Noise Encl. Install Beams	12	07-Aug-14	20-Aug-14	20-Aug-14	02-Sep-14	11
1013-1872	Bridge F1A Road Lighting	9	11-Aug-14	20-Aug-14	29-Aug-14	08-Sep-14	16
1013-1873	Bridge F1A Parapet Railing	9	11-Aug-14	20-Aug-14	29-Aug-14	08-Sep-14	16
1013-1265.1	Bridge F1A - Seal Deck Opening + Waterproofing Preparation	9	10-Aug-14	18-Aug-14	23-Aug-14	31-Aug-14	13
1013-1887	Bridge F1A MJ at Pier F3A	6	12-Aug-14	18-Aug-14	25-Aug-14	30-Aug-14	11
1013-1265	Bridge F1A Deck Waterproofing	3	19-Aug-14	21-Aug-14	01-Sep-14	03-Sep-14	13
1013-1266	Bridge F1A Deck Paving & Marking	6	22-Aug-14	27-Aug-14	04-Sep-14	09-Sep-14	13
Bridge F2A							
1013-1367	Bridge F2A South Wing Extension Formwork + Casting	6	20-May-14 A	26-Jul-14	04-Aug-14	09-Aug-14	12
1013-1376	Bridge F2A Int. Double Noise Encl. Install Columns (North)	7	12-Jul-14 A	28-Jul-14	04-Aug-14	11-Aug-14	12
1013-1377	Bridge F2A Int. Double Noise Encl. Install Columns (South)	12	14-Jul-14 A	02-Aug-14	04-Aug-14	16-Aug-14	12
1013-1378	Bridge F2A Int. Double Noise Encl. Install Beams	11	29-Jul-14	09-Aug-14	12-Aug-14	23-Aug-14	12
1013-1874	Bridge F2A Road Lighting	9	31-Jul-14	09-Aug-14	29-Aug-14	08-Sep-14	25
1013-1875	Bridge F2A Parapet Railing	9	31-Jul-14	09-Aug-14	29-Aug-14	08-Sep-14	25
1013-1888	Bridge F2A MJ at Pier F5	6	09-Aug-14	15-Aug-14	23-Aug-14	29-Aug-14	12
1013-1374.1	Bridge F2A - Seal Deck Opening + Waterproofing Preparation	6	10-Aug-14	15-Aug-14	24-Aug-14	29-Aug-14	14
1013-1374	Bridge F2A Deck Waterproofing	3	16-Aug-14	18-Aug-14	30-Aug-14	01-Sep-14	14
1013-1375	Bridge F2A Deck Paving & Marking	6	19-Aug-14	25-Aug-14	02-Sep-14	08-Sep-14	12
Bridge F3A							
1013-1889	Bridge F3A MJ at Pier F8	6	15-Aug-14	21-Aug-14	23-Aug-14	29-Aug-14	7
1013-1428.1	Bridge F3A - Seal Deck Opening + Waterproofing Preparation	6	16-Aug-14	21-Aug-14	24-Aug-14	29-Aug-14	8
1013-1428	Bridge F3A Deck Waterproofing	3	22-Aug-14	24-Aug-14	30-Aug-14	01-Sep-14	8
1013-1430	Bridge F3A Deck Paving & Marking	6	25-Aug-14	30-Aug-14	02-Sep-14	08-Sep-14	7
Bridge F5/F4							
1013-1436	Bridge F4/F5 - Pier F8 to F10 - Top Slab Formworks	6	11-Jun-14 A	25-Jul-14	26-Jul-14	31-Jul-14	6
1013-1439	Bridge F4/F5 - Pier F8 to F10 - Top Slab Rebar Fixing	12	19-Jul-14 A	31-Jul-14	15-Aug-14	26-Aug-14	26
1013-1441	Bridge F4/F5 - Pier F8 to F10 - Top Slab Concreting	6	29-Jul-14	03-Aug-14	24-Aug-14	29-Aug-14	26
1013-2103	Bridge F4/F5 - Pier F8 to F10 - Longitudinal Stitch/ Tie-in	6	04-Aug-14	09-Aug-14	30-Aug-14	04-Sep-14	26
1013-1446	Bridge F4 - Pier F10 to F15 Diaphragm	0	20-Jun-14 A	15-Jul-14 A	15-Aug-14	15-Aug-14	
1013-2160	Bridge F4 - Pier F10 to F11 - Top Slab Formworks	9	26-Jul-14	05-Aug-14	01-Aug-14	11-Aug-14	5
1013-2162	Bridge F4 - Pier F11 to F12 - Top Slab Formworks	9	30-Jul-14	08-Aug-14	05-Aug-14	14-Aug-14	5



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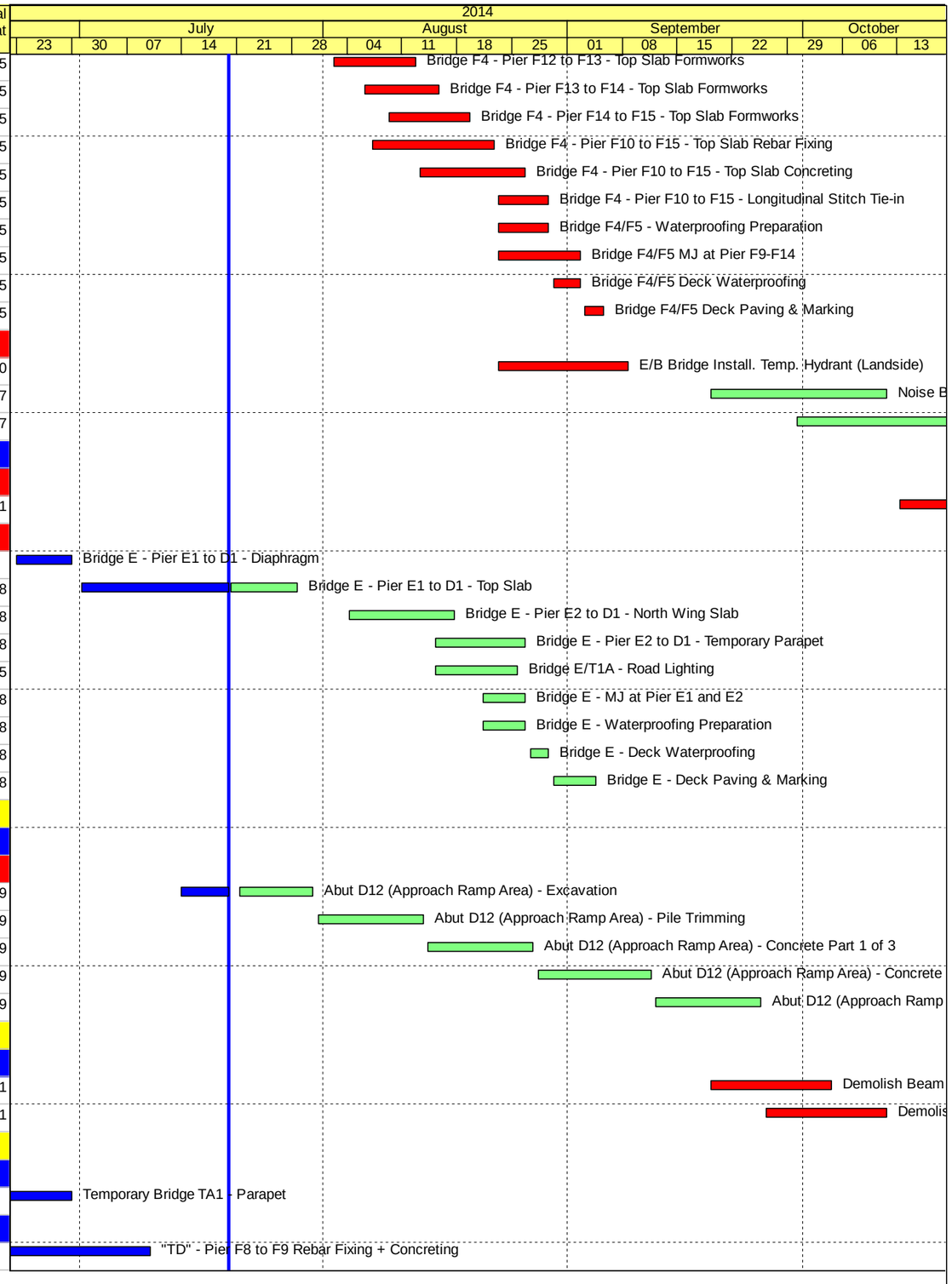
Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1013-2164	Bridge F4 - Pier F12 to F13 - Top Slab Formworks	9	02-Aug-14	12-Aug-14	08-Aug-14	18-Aug-14	5
1013-2166	Bridge F4 - Pier F13 to F14 - Top Slab Formworks	9	06-Aug-14	15-Aug-14	12-Aug-14	21-Aug-14	5
1013-2168	Bridge F4 - Pier F14 to F15 - Top Slab Formworks	9	09-Aug-14	19-Aug-14	15-Aug-14	25-Aug-14	5
1013-2170	Bridge F4 - Pier F10 to F15 - Top Slab Rebar Fixing	14	07-Aug-14	22-Aug-14	13-Aug-14	28-Aug-14	5
1013-2172	Bridge F4 - Pier F10 to F15 - Top Slab Concreting	12	13-Aug-14	26-Aug-14	19-Aug-14	01-Sep-14	5
1013-2174	Bridge F4 - Pier F10 to F15 - Longitudinal Stitch Tie-in	6	23-Aug-14	29-Aug-14	29-Aug-14	04-Sep-14	5
1013-1454.1	Bridge F4/F5 - Waterproofing Preparation	6	23-Aug-14	29-Aug-14	29-Aug-14	04-Sep-14	5
1013-1890	Bridge F4/F5 MJ at Pier F9-F14	9	23-Aug-14	02-Sep-14	29-Aug-14	08-Sep-14	5
1013-1454	Bridge F4/F5 Deck Waterproofing	3	30-Aug-14	02-Sep-14	05-Sep-14	08-Sep-14	5
1013-1455	Bridge F4/F5 Deck Paving & Marking	3	03-Sep-14	05-Sep-14	10-Sep-14	12-Sep-14	5
All E/B Bridges (Common)							
1013-1826	E/B Bridge Install. Temp. Hydrant (Landside)	14	23-Aug-14	08-Sep-14	23-Aug-14	08-Sep-14	0
1013-1735	Noise Barrier Mock-up	18	19-Sep-14	11-Oct-14	27-Sep-14	20-Oct-14	7
1013-1710	Permanent Noise Barrier Type C1 E/B Bridge Ch 1059-1362 (304m)	36	30-Sep-14	12-Nov-14	10-Oct-14	20-Nov-14	7
10.1.4 - Bridge E / Hing Fat Slip Road							
Pier Construction							
1014-1170	Modify Slip Road E/B Cap, Pier and Crosshead (E1 & E2)	42	13-Oct-14	29-Nov-14	14-Oct-14	01-Dec-14	1
Bridge Construction							
1014-1176	Bridge E - Pier E1 to D1 - Diaphragm	0	23-Jun-14 A	30-Jun-14 A	28-Jul-14	28-Jul-14	
1014-1177	Bridge E - Pier E1 to D1 - Top Slab	9	01-Jul-14 A	28-Jul-14	28-Jul-14	05-Aug-14	8
1014-1178	Bridge E - Pier E2 to D1 - North Wing Slab	14	04-Aug-14	17-Aug-14	12-Aug-14	25-Aug-14	8
1014-1242	Bridge E - Pier E2 to D1 - Temporary Parapet	12	15-Aug-14	26-Aug-14	23-Aug-14	03-Sep-14	8
1013-1885	Bridge E/T1A - Road Lighting	9	15-Aug-14	25-Aug-14	02-Sep-14	12-Sep-14	15
1013-1893	Bridge E - MJ at Pier E1 and E2	6	21-Aug-14	26-Aug-14	29-Aug-14	03-Sep-14	8
1013-1895	Bridge E - Waterproofing Preparation	6	21-Aug-14	26-Aug-14	29-Aug-14	03-Sep-14	8
1013-1894	Bridge E - Deck Waterproofing	3	27-Aug-14	29-Aug-14	04-Sep-14	06-Sep-14	8
1013-2133	Bridge E - Deck Paving & Marking	6	30-Aug-14	04-Sep-14	07-Sep-14	12-Sep-14	8
10.3 - Middle Bridge (Bridge F)							
10.3.1 - Pier Construction							
Abutment D12							
1031-1052	Abut D12 (Approach Ramp Area) - Excavation	9	14-Jul-14 A	30-Jul-14	05-Jan-15	14-Jan-15	139
1031-1054	Abut D12 (Approach Ramp Area) - Pile Trimming	12	31-Jul-14	13-Aug-14	15-Jan-15	28-Jan-15	139
1031-1056	Abut D12 (Approach Ramp Area) - Concrete Part 1 of 3	12	14-Aug-14	27-Aug-14	29-Jan-15	11-Feb-15	139
1031-1057	Abut D12 (Approach Ramp Area) - Concrete Part 2 of 3	12	28-Aug-14	11-Sep-14	12-Feb-15	28-Feb-15	139
1031-1058	Abut D12 (Approach Ramp Area) - Concrete Part 3 of 3	12	12-Sep-14	25-Sep-14*	02-Mar-15	14-Mar-15	139
10.4 - Bridge Deck Demolition							
10.4.2 - Existing E/B Bridge							
1042-1010	Demolish Beam - Existing Hing Fat St Slip Rd Pier E3 to Pier 20 (9 beam)	12	19-Sep-14	04-Oct-14	20-Sep-14	06-Oct-14	1
1042-1011	Demolish Pier - Existing Hing Fat St Slip Rd Pier 19 an 20	12	26-Sep-14	11-Oct-14	27-Sep-14	13-Oct-14	1
10.5 - Temporary Bridge							
10.5.1 - Temporary Bridge 'TA'							
1051-1018	Temporary Bridge TA1 - Parapet	0	13-Jan-14 A	30-Jun-14 A	11-Aug-19	11-Aug-19	
10.5.3 - Temporary Bridge 'TD'							
1053-1013.1	"TD" - Pier F8 to F9 Rebar Fixing + Concreting	0	16-Jun-14 A	10-Jul-14 A	15-Aug-14	15-Aug-14	



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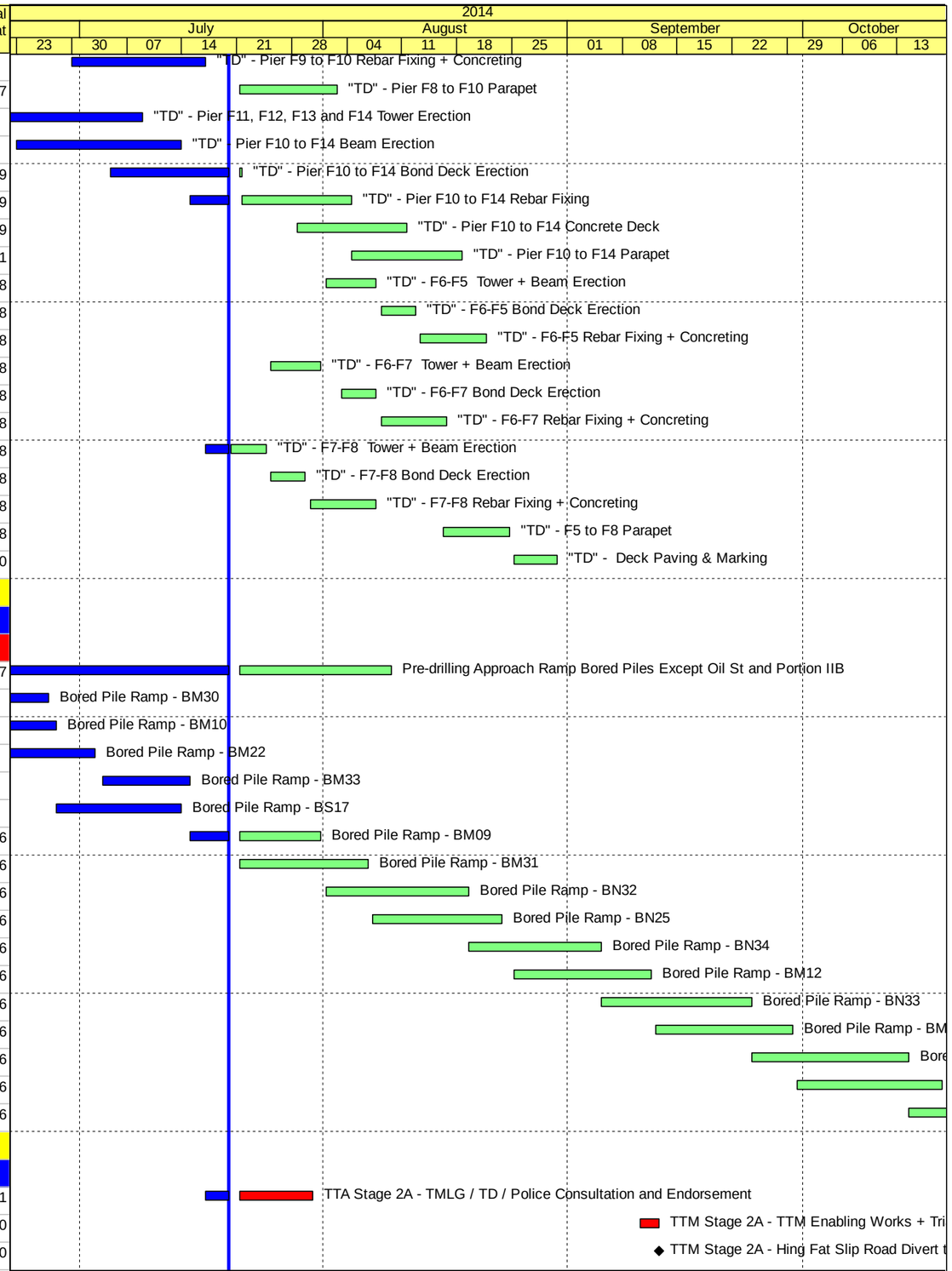
Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1053-1013.2	"TD" - Pier F9 to F10 Rebar Fixing + Concreting	0	30-Jun-14 A	17-Jul-14 A	11-Aug-19	11-Aug-19	
1053-1014	"TD" - Pier F8 to F10 Parapet	12	21-Jul-14	02-Aug-14	21-Aug-14	03-Sep-14	27
1053-1021	"TD" - Pier F11, F12, F13 and F14 Tower Erection	0	27-May-14 A	09-Jul-14 A	31-Jul-14	31-Jul-14	
1053-1061	"TD" - Pier F10 to F14 Beam Erection	0	23-Jun-14 A	14-Jul-14 A	31-Jul-14	31-Jul-14	
1053-1062	"TD" - Pier F10 to F14 Bond Deck Erection	1	05-Jul-14 A	21-Jul-14	31-Jul-14	31-Jul-14	9
1053-1063	"TD" - Pier F10 to F14 Rebar Fixing	12	15-Jul-14 A	04-Aug-14	01-Aug-14	14-Aug-14	9
1053-1064	"TD" - Pier F10 to F14 Concrete Deck	12	28-Jul-14	11-Aug-14	08-Aug-14	21-Aug-14	9
1053-1065	"TD" - Pier F10 to F14 Parapet	12	04-Aug-14	18-Aug-14	29-Aug-14	12-Sep-14	21
1053-1150	"TD" - F6-F5 Tower + Beam Erection	7	01-Aug-14	07-Aug-14	09-Aug-14	15-Aug-14	8
1053-1152	"TD" - F6-F5 Bond Deck Erection	5	08-Aug-14	12-Aug-14	16-Aug-14	20-Aug-14	8
1053-1154	"TD" - F6-F5 Rebar Fixing + Concreting	9	13-Aug-14	21-Aug-14	21-Aug-14	29-Aug-14	8
1053-1140	"TD" - F6-F7 Tower + Beam Erection	7	25-Jul-14	31-Jul-14	02-Aug-14	08-Aug-14	8
1053-1142	"TD" - F6-F7 Bond Deck Erection	5	03-Aug-14	07-Aug-14	11-Aug-14	15-Aug-14	8
1053-1144	"TD" - F6-F7 Rebar Fixing + Concreting	9	08-Aug-14	16-Aug-14	16-Aug-14	24-Aug-14	8
1053-1130	"TD" - F7-F8 Tower + Beam Erection	5	17-Jul-14 A	24-Jul-14	28-Jul-14	01-Aug-14	8
1053-1132	"TD" - F7-F8 Bond Deck Erection	5	25-Jul-14	29-Jul-14	02-Aug-14	06-Aug-14	8
1053-1134	"TD" - F7-F8 Rebar Fixing + Concreting	9	30-Jul-14	07-Aug-14	07-Aug-14	15-Aug-14	8
1053-1160	"TD" - F5 to F8 Parapet	9	16-Aug-14	24-Aug-14	24-Aug-14	01-Sep-14	8
1053-1010.93	"TD" - Deck Paving & Marking	6	25-Aug-14	30-Aug-14	04-Sep-14	09-Sep-14	10
10.6 - Tunnel Approach Ramp							
10.6.1 - Approach Ramp (Excluding Portion IIB)							
Bored Piles							
1061-1670	Pre-drilling Approach Ramp Bored Piles Except Oil St and Portion IIB	18	19-Jul-13 A	09-Aug-14*	10-Oct-14	30-Oct-14	67
1061-1920	Bored Pile Ramp - BM30	0	10-Jun-14 A	27-Jun-14 A	19-Aug-14	19-Aug-14	
1061-1930	Bored Pile Ramp - BM10	0	16-Jun-14 A	28-Jun-14 A	11-Aug-19	11-Aug-19	
1061-1950	Bored Pile Ramp - BM22	0	20-Jun-14 A	03-Jul-14 A	11-Aug-19	11-Aug-19	
1061-1960	Bored Pile Ramp - BM33	0	04-Jul-14 A	15-Jul-14 A	11-Aug-19	11-Aug-19	
1061-1990	Bored Pile Ramp - BS17	0	28-Jun-14 A	14-Jul-14 A	11-Aug-19	11-Aug-19	
1061-2050	Bored Pile Ramp - BM09	10	15-Jul-14 A	31-Jul-14	19-Aug-14	30-Aug-14	26
1061-1970	Bored Pile Ramp - BM31	15	21-Jul-14	06-Aug-14	01-Sep-14	18-Sep-14	36
1061-2060	Bored Pile Ramp - BN32	15	01-Aug-14	19-Aug-14	30-Aug-14	18-Sep-14	26
1061-1980	Bored Pile Ramp - BN25	15	07-Aug-14	23-Aug-14	19-Sep-14	08-Oct-14	36
1061-2070	Bored Pile Ramp - BN34	15	19-Aug-14	05-Sep-14	19-Sep-14	08-Oct-14	26
1061-2000	Bored Pile Ramp - BM12	15	25-Aug-14	11-Sep-14	09-Oct-14	25-Oct-14	36
1061-2080	Bored Pile Ramp - BN33	15	05-Sep-14	24-Sep-14	09-Oct-14	25-Oct-14	26
1061-2010	Bored Pile Ramp - BM11	15	12-Sep-14	29-Sep-14	27-Oct-14	12-Nov-14	36
1061-2090	Bored Pile Ramp - BN35	15	24-Sep-14	14-Oct-14	27-Oct-14	12-Nov-14	26
1061-2020	Bored Pile Ramp - BM16	15	30-Sep-14	18-Oct-14	13-Nov-14	29-Nov-14	36
1061-2100	Bored Pile Ramp - BM08	15	14-Oct-14	31-Oct-14*	13-Nov-14	29-Nov-14	26
10.7 - Section X - Miscellaneous Works							
10.7.1 - TTM Stages							
1071-1005	TTA Stage 2A - TMLG / TD / Police Consultation and Endorsement	9	17-Jul-14 A	30-Jul-14	22-Jul-14	31-Jul-14	1
1071-1010	TTM Stage 2A - TTM Enabling Works + Trial Run	3	10-Sep-14	12-Sep-14	10-Sep-14	12-Sep-14	0
1071-1020	TTM Stage 2A - Hing Fat Slip Road Divert to New E/B Bridge through 'TA'	0		12-Sep-14*		12-Sep-14	0



Remaining Level of Effort
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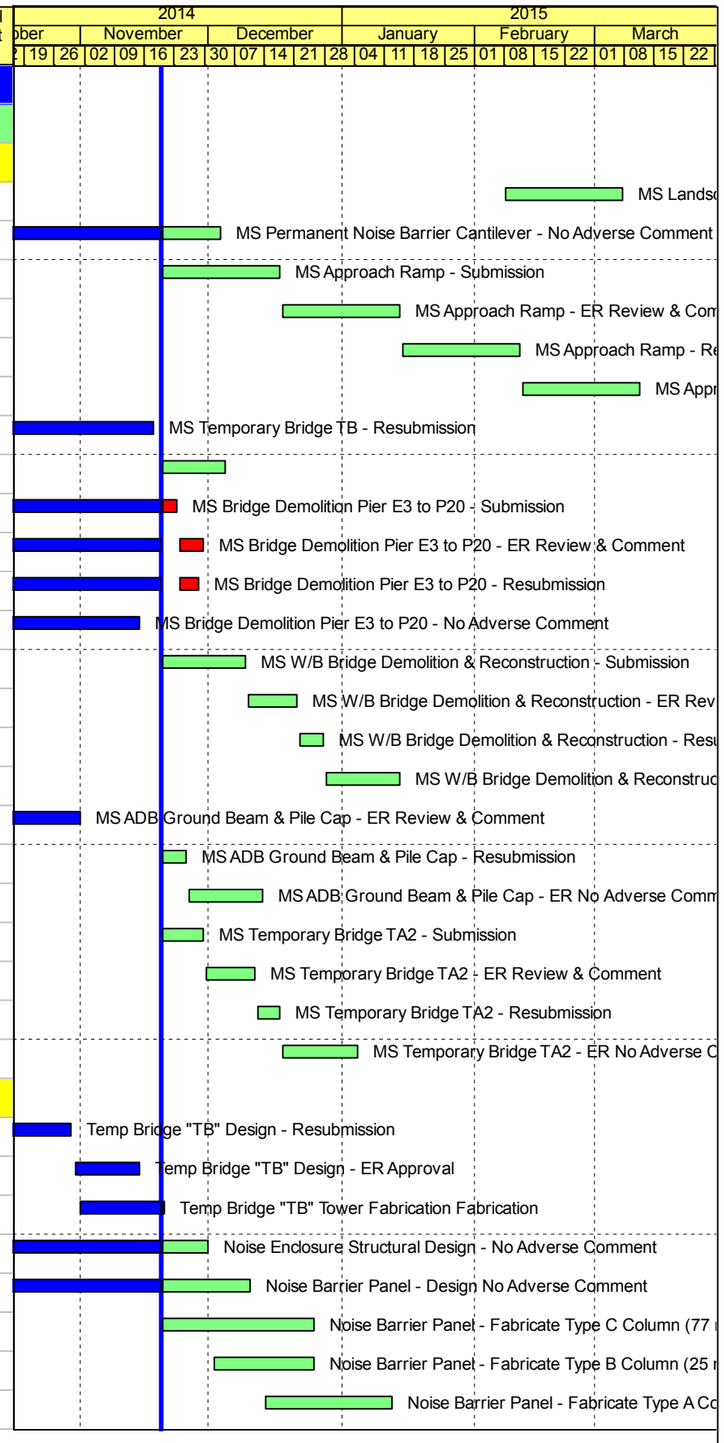
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
3MRP - Nov 2014 to Feb 2015							
02 - PRE-CONSTRUCTION WORKS							
02.3 - Method Statement / Shop Drawings							
0230-1380	MS Landscape Deck Structure - Submission	28	08-Feb-15	07-Mar-15	28-Mar-17	25-Apr-17	780
0230-1450	MS Permanent Noise Barrier Cantilever - No Adverse Comment	14	19-Aug-14 A	03-Dec-14	03-Jan-15	17-Jan-15	45
0230-1660	MS Approach Ramp - Submission	28	20-Nov-14	17-Dec-14	24-Aug-16	21-Sep-16	644
0230-1670	MS Approach Ramp - ER Review & Comment	28	18-Dec-14	14-Jan-15	21-Sep-16	19-Oct-16	644
0230-1680	MS Approach Ramp - Resubmission	28	15-Jan-15	11-Feb-15	19-Oct-16	16-Nov-16	644
0230-1690	MS Approach Ramp - ER Approval	28	12-Feb-15	11-Mar-15	16-Nov-16	14-Dec-16	644
0230-1760	MS Temporary Bridge TB - Resubmission	0	16-Oct-14 A	18-Nov-14 A	12-Dec-14	12-Dec-14	
0230-1770	MS Temporary Bridge TB - ER Approval	15	19-Dec-14 A	04-Dec-14	12-Dec-14	27-Dec-14	23
0230-1820	MS Bridge Demolition Pier E3 to P20 - Submission	4	20-Jul-14 A	23-Nov-14	19-Nov-14	23-Nov-14	0
0230-1830	MS Bridge Demolition Pier E3 to P20 - ER Review & Comment	6	07-Aug-14 A	29-Nov-14	23-Nov-14	29-Nov-14	0
0230-1840	MS Bridge Demolition Pier E3 to P20 - Resubmission	5	13-Aug-14 A	28-Nov-14	23-Nov-14	28-Nov-14	0
0230-1850	MS Bridge Demolition Pier E3 to P20 - No Adverse Comment	0	14-Sep-14 A	15-Nov-14 A	28-Nov-14	28-Nov-14	
A5910	MS W/B Bridge Demolition & Reconstruction - Submission	20	20-Nov-14	09-Dec-14	04-Feb-15	23-Feb-15	76
A5920	MS W/B Bridge Demolition & Reconstruction - ER Review & Comment	12	10-Dec-14	21-Dec-14	24-Feb-15	07-Mar-15	76
A5930	MS W/B Bridge Demolition & Reconstruction - Resubmission	6	22-Dec-14	27-Dec-14	08-Mar-15	13-Mar-15	76
A5940	MS W/B Bridge Demolition & Reconstruction - ER No Adverse Comment	18	28-Dec-14	14-Jan-15	14-Mar-15	31-Mar-15	76
A5960	MS ADB Ground Beam & Pile Cap - ER Review & Comment	0	14-Oct-14 A	01-Nov-14 A	23-Dec-14	23-Dec-14	
A5970	MS ADB Ground Beam & Pile Cap - Resubmission	6	20-Nov-14	25-Nov-14	28-Feb-15	06-Mar-15	101
A5980	MS ADB Ground Beam & Pile Cap - ER No Adverse Comment	18	26-Nov-14	13-Dec-14	06-Mar-15	24-Mar-15	101
A7560	MS Temporary Bridge TA2 - Submission	10	20-Nov-14	29-Nov-14	01-Dec-14	11-Dec-14	12
A7570	MS Temporary Bridge TA2 - ER Review & Comment	12	30-Nov-14	11-Dec-14	11-Dec-14	23-Dec-14	12
A7580	MS Temporary Bridge TA2 - Resubmission	6	12-Dec-14	17-Dec-14	23-Dec-14	29-Dec-14	12
A7590	MS Temporary Bridge TA2 - ER No Adverse Comment	18	18-Dec-14	04-Jan-15	29-Dec-14	16-Jan-15	12
02.4 - Contractor's Design and Build Items							
0240-1070	Temp Bridge "TB" Design - Resubmission	0	16-Oct-14 A	30-Oct-14 A	26-Dec-14	26-Dec-14	
0240-1080	Temp Bridge "TB" Design - ER Approval	0	31-Oct-14 A	15-Nov-14 A	26-Dec-14	26-Dec-14	
0240-1085	Temp Bridge "TB" Tower Fabrication Fabrication	1	01-Nov-14 A	20-Nov-14	26-Dec-14	27-Dec-14	37
0240-1111	Noise Enclosure Structural Design - No Adverse Comment	11	03-Aug-14 A	30-Nov-14	04-Jun-16	15-Jun-16	563
0240-1137	Noise Barrier Panel - Design No Adverse Comment	21	13-Aug-14 A	10-Dec-14	18-Dec-14	08-Jan-15	29
0240-1141	Noise Barrier Panel - Fabricate Type C Column (77 nos.)	36	20-Nov-14	25-Dec-14	18-Dec-14	23-Jan-15	29
0240-1142	Noise Barrier Panel - Fabricate Type B Column (25 nos.)	24	02-Dec-14	25-Dec-14	13-Jan-15	06-Feb-15	43
0240-1143	Noise Barrier Panel - Fabricate Type A Column (38 nos.)	30	14-Dec-14	12-Jan-15	25-Jan-15	24-Feb-15	43



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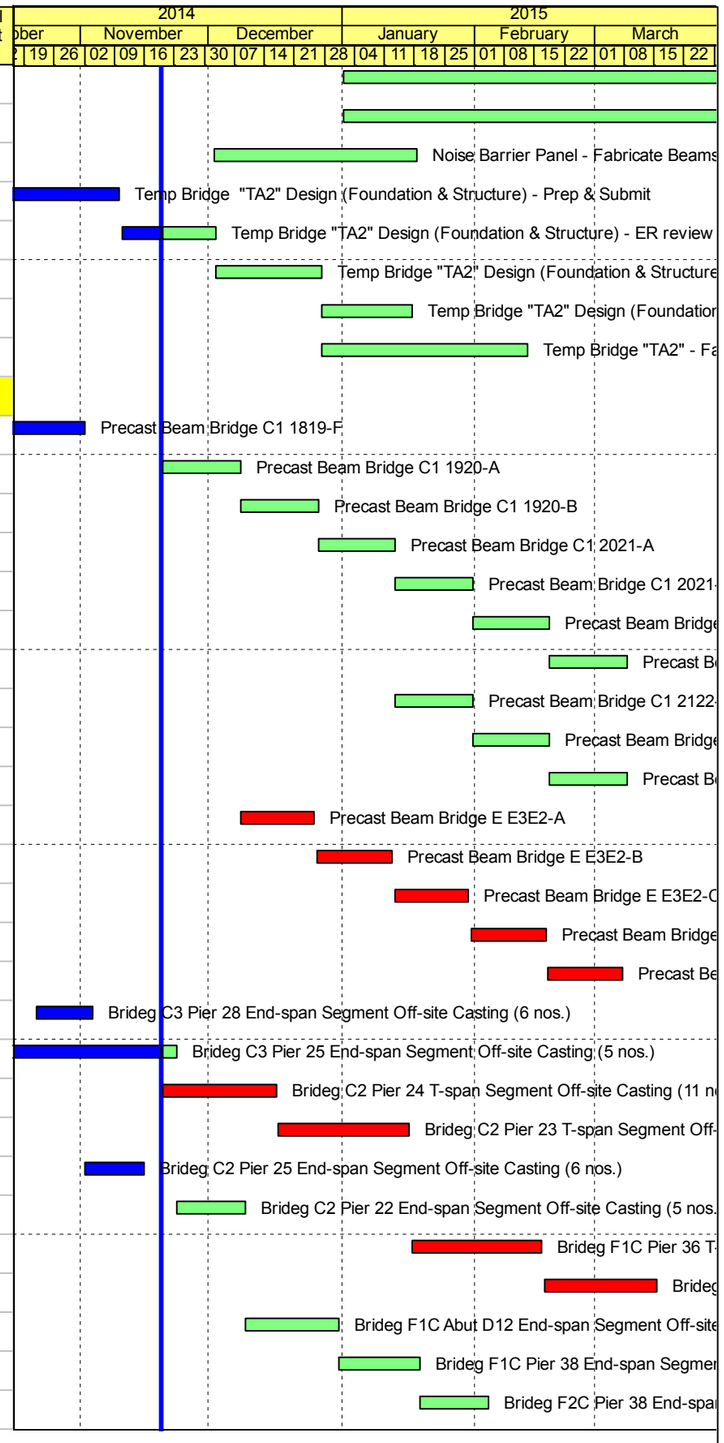
Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0240-1170	HGHK Permanent Carpark Design - Prep & Submit	90	01-Jan-15*	31-Mar-15	20-Dec-15	19-Mar-16	354
0240-1270	Landscaping Design - Submission	90	01-Jan-15*	31-Mar-15	04-May-17	01-Aug-17	854
0240-1429	Noise Barrier Panel - Fabricate Beams (203 nos.)	48	02-Dec-14	18-Jan-15	30-Dec-14	16-Feb-15	29
A5860	Temp Bridge "TA2" Design (Foundation & Structure) - Prep & Submit	0	15-Jan-14 A	10-Nov-14 A	18-Jan-15	18-Jan-15	
A5870	Temp Bridge "TA2" Design (Foundation & Structure) - ER review and comment	13	11-Nov-14 A	02-Dec-14	18-Jan-15	30-Jan-15	59
A5880	Temp Bridge "TA2" Design (Foundation & Structure) - Resubmission	25	02-Dec-14	27-Dec-14	30-Jan-15	24-Feb-15	59
A5890	Temp Bridge "TA2" Design (Foundation & Structure) - ER No Adverse Comment	21	27-Dec-14	17-Jan-15	24-Feb-15	17-Mar-15	59
A5900	Temp Bridge "TA2" - Fabrication	48	27-Dec-14	13-Feb-15	24-Feb-15	13-Apr-15	59
02.5 - Bridge Segment/Beam Off-site Precasting							
0250-1720.14	Precast Beam Bridge C1 1819-F	0	05-Oct-14 A	02-Nov-14 A	06-Feb-15	06-Feb-15	
0250-1720.15	Precast Beam Bridge C1 1920-A	19	20-Nov-14	08-Dec-14	06-Feb-15	24-Feb-15	78
0250-1720.16	Precast Beam Bridge C1 1920-B	18	08-Dec-14	26-Dec-14	24-Feb-15	14-Mar-15	78
0250-1720.17	Precast Beam Bridge C1 2021-A	18	26-Dec-14	13-Jan-15	14-Mar-15	01-Apr-15	78
0250-1720.18	Precast Beam Bridge C1 2021-B	18	13-Jan-15	31-Jan-15	01-Apr-15	19-Apr-15	78
0250-1720.19	Precast Beam Bridge C1 2021-C	18	31-Jan-15	18-Feb-15	19-Apr-15	07-May-15	78
0250-1720.20	Precast Beam Bridge C1 2122-A	18	18-Feb-15	08-Mar-15	07-May-15	25-May-15	78
0250-1720.22	Precast Beam Bridge C1 2122-C	18	13-Jan-15	31-Jan-15	01-Apr-15	19-Apr-15	78
0250-1720.23	Precast Beam Bridge C1 2122-D	18	31-Jan-15	18-Feb-15	19-Apr-15	07-May-15	78
0250-1720.25	Precast Beam Bridge C1 2122-E	18	18-Feb-15	08-Mar-15	07-May-15	25-May-15	78
0250-1720.27	Precast Beam Bridge E E3E2-A	18	08-Dec-14*	25-Dec-14	08-Dec-14	25-Dec-14	0
0250-1720.28	Precast Beam Bridge E E3E2-B	18	26-Dec-14	12-Jan-15	29-Dec-14	15-Jan-15	3
0250-1720.29	Precast Beam Bridge E E3E2-C	18	13-Jan-15	30-Jan-15	16-Jan-15	02-Feb-15	3
0250-1720.30	Precast Beam Bridge E E4E3-A	18	31-Jan-15	17-Feb-15	03-Feb-15	20-Feb-15	3
0250-1720.31	Precast Beam Bridge E E4E3-B	18	18-Feb-15	07-Mar-15	21-Feb-15	10-Mar-15	3
0250-2010	Brideg C3 Pier 28 End-span Segment Off-site Casting (6 nos.)	0	22-Oct-14 A	04-Nov-14 A	13-Dec-14	13-Dec-14	
0250-2020	Brideg C3 Pier 25 End-span Segment Off-site Casting (5 nos.)	3	12-Oct-14 A	23-Nov-14	13-Dec-14	16-Dec-14	24
0250-2030	Brideg C2 Pier 24 T-span Segment Off-site Casting (11 nos.)	27	20-Nov-14	16-Dec-14	19-Nov-14	16-Dec-14	0
0250-2040	Brideg C2 Pier 23 T-span Segment Off-site Casting (13 nos.)	31	17-Dec-14	16-Jan-15	16-Dec-14	16-Jan-15	0
0250-2050	Brideg C2 Pier 25 End-span Segment Off-site Casting (6 nos.)	0	02-Nov-14 A	16-Nov-14 A	16-Dec-14	16-Dec-14	
0250-2060	Brideg C2 Pier 22 End-span Segment Off-site Casting (5 nos.)	16	23-Nov-14	09-Dec-14	31-Dec-14	16-Jan-15	39
0250-2070	Brideg F1C Pier 36 T-span Segment Off-site Casting (13 nos.)	31	17-Jan-15	16-Feb-15	16-Jan-15	16-Feb-15	0
0250-2080	Brideg F1C Pier 37 T-span Segment Off-site Casting (11 nos.)	27	17-Feb-15	15-Mar-15	16-Feb-15	15-Mar-15	0
0250-2090	Brideg F1C Abut D12 End-span Segment Off-site Casting (7 nos.)	22	09-Dec-14	31-Dec-14	25-Jan-15	16-Feb-15	48
0250-2100	Brideg F1C Pier 38 End-span Segment Off-site Casting (6 nos.)	19	31-Dec-14	19-Jan-15	19-Feb-15	10-Mar-15	51
0250-2120	Brideg F2C Pier 38 End-span Segment Off-site Casting (5 nos.)	16	19-Jan-15	04-Feb-15	10-Mar-15	26-Mar-15	51



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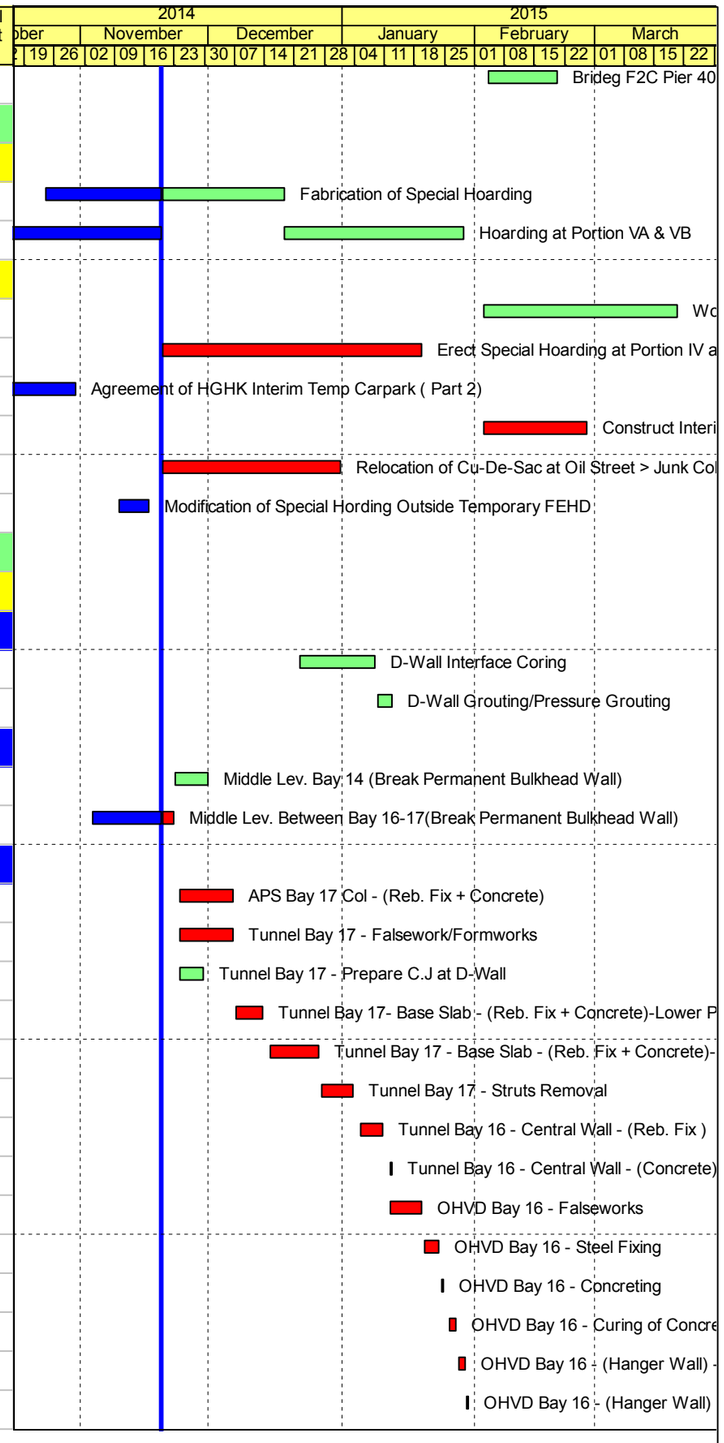
Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0250-2130	Brideg F2C Pier 40 End-span Segment Off-site Casting (5 nos.)	16	04-Feb-15	20-Feb-15	26-Mar-15	11-Apr-15	51
03 - PRELIMINARY WORKS							
03.1 - Site Establishment							
0310-1700	Fabrication of Special Hoarding	25	24-Oct-14 A	18-Dec-14	07-Jan-15	05-Feb-15	40
A6410	Hoarding at Portion VA & VB	34	02-Jul-12 A	29-Jan-15	14-Mar-15	25-Apr-15	68
03.3 - Interface Works							
0330-1100	Works at FEHD Permanent Depot (Stage 1)	36	03-Feb-15	20-Mar-15	06-Mar-15	20-Apr-15	24
0330-1350	Erect Special Hoarding at Portion IV and V	50	20-Nov-14*	19-Jan-15	20-Nov-14	19-Jan-15	0
A7600	Agreement of HGHK Interim Temp Carpark (Part 2)	0	13-Mar-14 A	31-Oct-14 A	03-Feb-15	03-Feb-15	
A7610	Construct Interim Temp Carpark for HGHK (Part 2)	18	03-Feb-15	27-Feb-15*	03-Feb-15	26-Feb-15	0
A7630	Relocation of Cu-De-Sac at Oil Street > Junk Collector	35	20-Nov-14*	31-Dec-14	20-Nov-14	31-Dec-14	0
A7640	Modification of Special Hording Outside Temporary FEHD	0	10-Nov-14 A	17-Nov-14 A	16-Jul-20	16-Jul-20	
05 - SECTION 2 & 2A OF THE WORKS							
05.1 - Cut & Cover Tunnel Ch 4855-4932 (APS Footprint)							
05.1.1 - D-Wall Construction							
A5990	D-Wall Interface Coring	14	22-Dec-14*	08-Jan-15	04-Feb-15	23-Feb-15	36
A6000	D-Wall Grouting/Pressure Grouting	3	09-Jan-15	12-Jan-15	24-Feb-15	26-Feb-15	36
05.1.2 - ELS							
0512-1275	Middle Lev. Bay 14 (Break Permanent Bulkhead Wall)	8	23-Nov-14	30-Nov-14	01-Dec-14	08-Dec-14	8
0512-1290	Middle Lev. Between Bay 16-17(Break Permanent Bulkhead Wall)	3	03-Nov-14 A	22-Nov-14	22-Nov-14	24-Nov-14	2
05.1.3 - APS & Tunnel Structure							
0513-1316	APS Bay 17 Col - (Reb. Fix + Concrete)	12	24-Nov-14	06-Dec-14	25-Nov-14	08-Dec-14	1
0513-1318	Tunnel Bay 17 - Falsework/Formworks	12	24-Nov-14	06-Dec-14	25-Nov-14	08-Dec-14	1
0513-1319	Tunnel Bay 17 - Prepare C.J at D-Wall	6	24-Nov-14	29-Nov-14	02-Dec-14	08-Dec-14	7
0513-1400	Tunnel Bay 17- Base Slab - (Reb. Fix + Concrete)-Lower Portion	7	07-Dec-14	13-Dec-14	09-Dec-14	15-Dec-14	2
0513-1410	Tunnel Bay 17 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	10	15-Dec-14	26-Dec-14	16-Dec-14	27-Dec-14	1
0513-1420	Tunnel Bay 17 - Struts Removal	6	27-Dec-14	03-Jan-15	29-Dec-14	05-Jan-15	1
0513-1430	Tunnel Bay 16 - Central Wall - (Reb. Fix)	6	05-Jan-15	10-Jan-15	06-Jan-15	12-Jan-15	1
0513-1440	Tunnel Bay 16 - Central Wall - (Concrete)	1	12-Jan-15	12-Jan-15	13-Jan-15	13-Jan-15	1
0513-1450	OHVD Bay 16 - Falseworks	7	12-Jan-15	19-Jan-15	13-Jan-15	20-Jan-15	1
0513-1460	OHVD Bay 16 - Steel Fixing	4	20-Jan-15	23-Jan-15	21-Jan-15	24-Jan-15	1
0513-1470	OHVD Bay 16 - Concreting	1	24-Jan-15	24-Jan-15	25-Jan-15	25-Jan-15	1
0513-1480	OHVD Bay 16 - Curing of Concrete + Prepare CJ	2	26-Jan-15	27-Jan-15	26-Jan-15	27-Jan-15	0
0513-1490	OHVD Bay 16 - (Hanger Wall) - Reb. Fix. + Formworks	2	28-Jan-15	29-Jan-15	28-Jan-15	29-Jan-15	0
0513-1500	OHVD Bay 16 - (Hanger Wall) - Concrete	1	30-Jan-15	30-Jan-15	30-Jan-15	30-Jan-15	0



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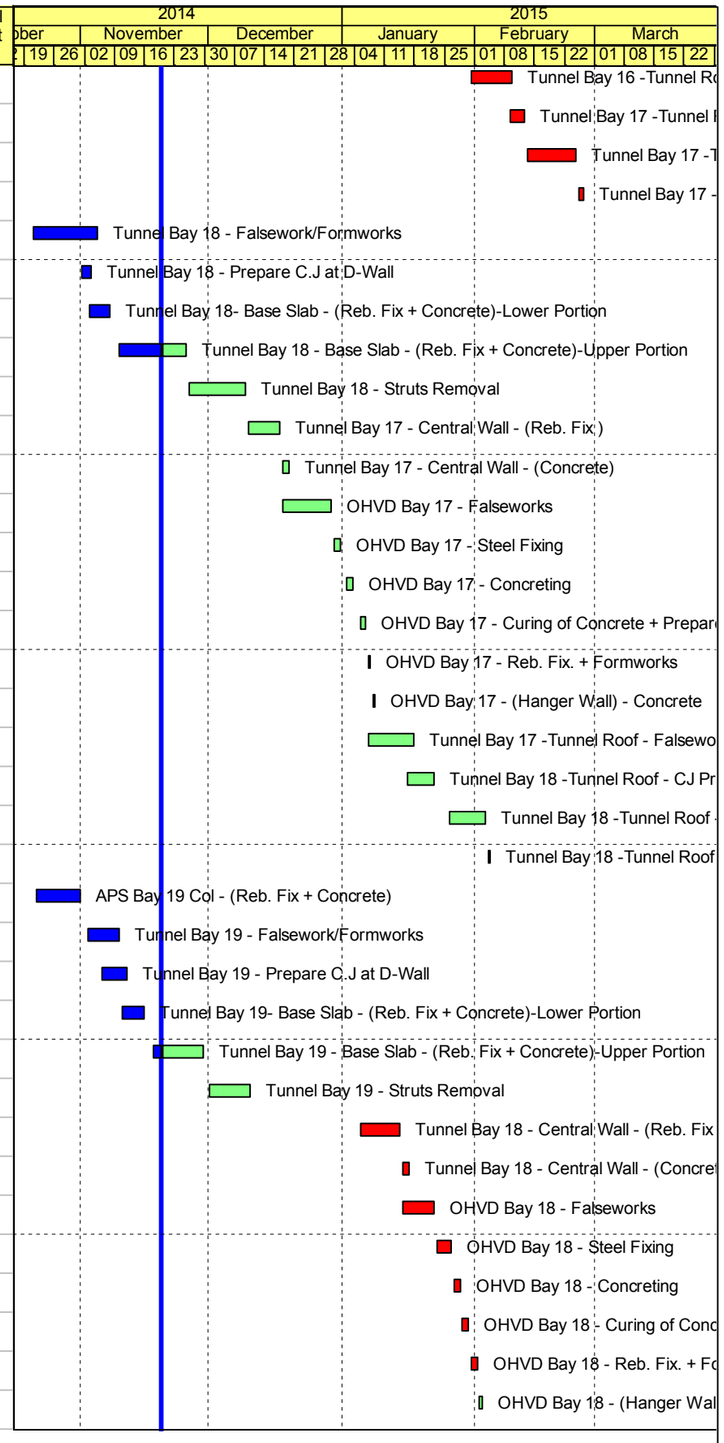
Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0513-1510	Tunnel Bay 16 -Tunnel Roof - Falseworks	10	31-Jan-15	09-Feb-15	31-Jan-15	09-Feb-15	0
0513-1520	Tunnel Bay 17 -Tunnel Roof - CJ Preparation	4	09-Feb-15	12-Feb-15	09-Feb-15	12-Feb-15	0
0513-1530	Tunnel Bay 17 -Tunnel Roof - Steel Fixing	7	13-Feb-15	24-Feb-15	13-Feb-15	24-Feb-15	0
0513-1540	Tunnel Bay 17 -Tunnel Roof - (Concrete)	2	25-Feb-15	26-Feb-15	25-Feb-15	26-Feb-15	0
0513-1590	Tunnel Bay 18 - Falsework/Formworks	0	21-Oct-14 A	05-Nov-14 A	09-Dec-14	09-Dec-14	
0513-1600	Tunnel Bay 18 - Prepare C.J at D-Wall	0	01-Nov-14 A	03-Nov-14 A	09-Dec-14	09-Dec-14	
0513-1610	Tunnel Bay 18- Base Slab - (Reb. Fix + Concrete)-Lower Portion	0	03-Nov-14 A	08-Nov-14 A	09-Dec-14	09-Dec-14	
0513-1620	Tunnel Bay 18 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	5	10-Nov-14 A	25-Nov-14	09-Dec-14	13-Dec-14	16
0513-1630	Tunnel Bay 18 - Struts Removal	12	26-Nov-14	09-Dec-14	15-Dec-14	29-Dec-14	16
0513-1640	Tunnel Bay 17 - Central Wall - (Reb. Fix)	7	10-Dec-14	17-Dec-14	30-Dec-14	07-Jan-15	16
0513-1650	Tunnel Bay 17 - Central Wall - (Concrete)	2	18-Dec-14	19-Dec-14	08-Jan-15	09-Jan-15	16
0513-1660	OHVD Bay 17 - Falseworks	9	18-Dec-14	29-Dec-14	08-Jan-15	17-Jan-15	16
0513-1670	OHVD Bay 17 - Steel Fixing	2	30-Dec-14	31-Dec-14	19-Jan-15	20-Jan-15	20
0513-1680	OHVD Bay 17 - Concreting	2	02-Jan-15	03-Jan-15	21-Jan-15	22-Jan-15	16
A3370	OHVD Bay 17 - Curing of Concrete + Prepare CJ	2	05-Jan-15	06-Jan-15	23-Jan-15	24-Jan-15	16
A3380	OHVD Bay 17 - Reb. Fix. + Formworks	1	07-Jan-15	07-Jan-15	26-Jan-15	26-Jan-15	16
A3390	OHVD Bay 17 - (Hanger Wall) - Concrete	1	08-Jan-15	08-Jan-15	05-Feb-15	05-Feb-15	24
A3400	Tunnel Bay 17 -Tunnel Roof - Falseworks	10	07-Jan-15	17-Jan-15	26-Jan-15	05-Feb-15	16
A3410	Tunnel Bay 18 -Tunnel Roof - CJ Preparation	6	16-Jan-15	22-Jan-15	04-Feb-15	10-Feb-15	16
A3420	Tunnel Bay 18 -Tunnel Roof - Steel Fixing	8	26-Jan-15	03-Feb-15	13-Feb-15	25-Feb-15	16
A3430	Tunnel Bay 18 -Tunnel Roof - (Concrete)	1	04-Feb-15	04-Feb-15	26-Feb-15	26-Feb-15	16
A3440	APS Bay 19 Col - (Reb. Fix + Concrete)	0	22-Oct-14 A	01-Nov-14 A	21-Nov-14	21-Nov-14	
A3460	Tunnel Bay 19 - Falsework/Formworks	0	03-Nov-14 A	10-Nov-14 A	08-Dec-14	08-Dec-14	
A3470	Tunnel Bay 19 - Prepare C.J at D-Wall	0	06-Nov-14 A	12-Nov-14 A	08-Dec-14	08-Dec-14	
A3480	Tunnel Bay 19- Base Slab - (Reb. Fix + Concrete)-Lower Portion	0	11-Nov-14 A	16-Nov-14 A	08-Dec-14	08-Dec-14	
A3490	Tunnel Bay 19 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	10	18-Nov-14 A	29-Nov-14	08-Dec-14	17-Dec-14	18
A3500	Tunnel Bay 19 - Struts Removal	9	01-Dec-14	10-Dec-14	18-Dec-14	29-Dec-14	15
A3510	Tunnel Bay 18 - Central Wall - (Reb. Fix)	10	05-Jan-15	14-Jan-15	10-Jan-15	19-Jan-15	5
A3520	Tunnel Bay 18 - Central Wall - (Concrete)	2	15-Jan-15	16-Jan-15	20-Jan-15	21-Jan-15	4
A3530	OHVD Bay 18 - Falseworks	8	15-Jan-15	22-Jan-15	20-Jan-15	27-Jan-15	5
A3540	OHVD Bay 18 - Steel Fixing	4	23-Jan-15	26-Jan-15	28-Jan-15	31-Jan-15	5
A3550	OHVD Bay 18 - Concreting	2	27-Jan-15	28-Jan-15	01-Feb-15	02-Feb-15	5
A3560	OHVD Bay 18 - Curing of Concrete + Prepare CJ	2	29-Jan-15	30-Jan-15	03-Feb-15	04-Feb-15	5
A3570	OHVD Bay 18 - Reb. Fix. + Formworks	2	31-Jan-15	01-Feb-15	05-Feb-15	06-Feb-15	5
A3580	OHVD Bay 18 - (Hanger Wall) - Concrete	1	02-Feb-15	02-Feb-15	14-Feb-15	14-Feb-15	11



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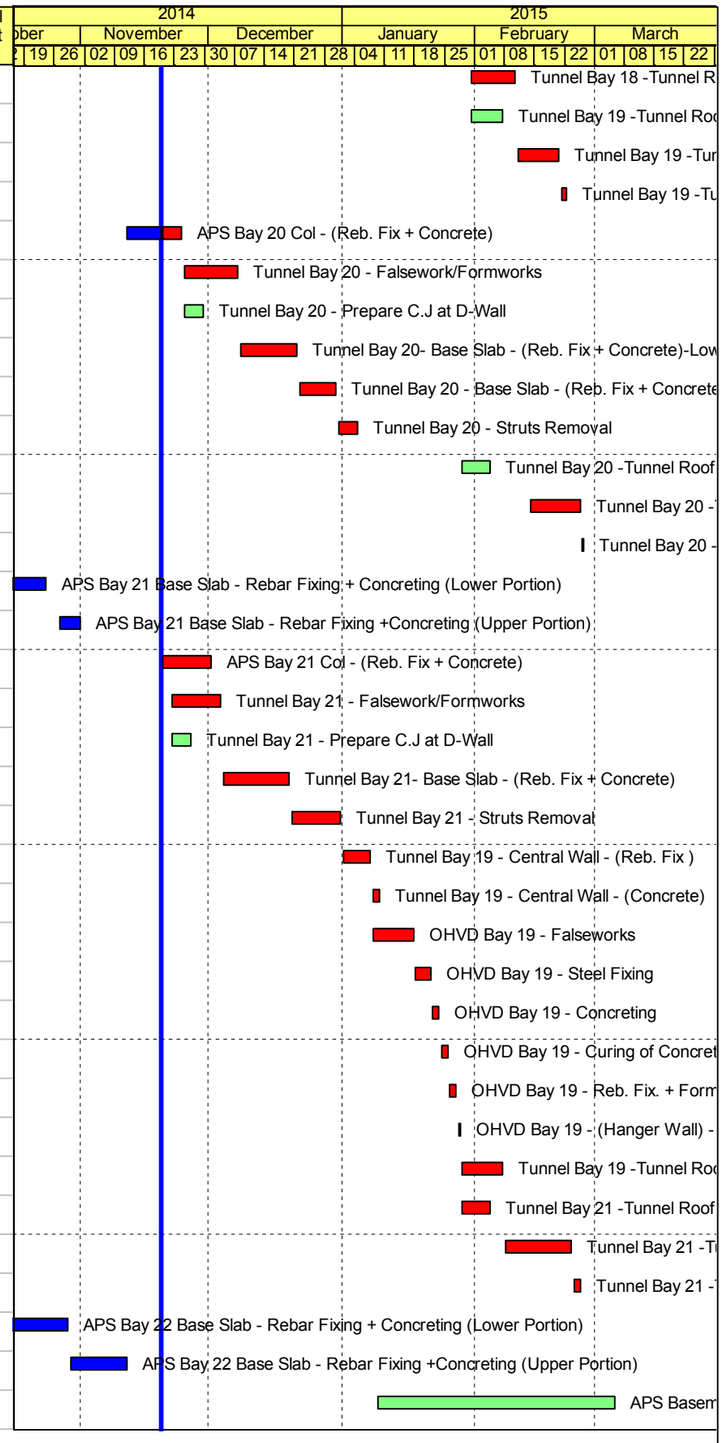
Remaining Work
Critical Remaining Work

Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
A3590	Tunnel Bay 18 -Tunnel Roof - Falseworks	9	31-Jan-15	10-Feb-15	05-Feb-15	14-Feb-15	4
A3600	Tunnel Bay 19 -Tunnel Roof - CJ Preparation	7	31-Jan-15	07-Feb-15	09-Feb-15	16-Feb-15	7
A3610	Tunnel Bay 19 -Tunnel Roof - Steel Fixing	10	11-Feb-15	20-Feb-15	15-Feb-15	24-Feb-15	4
A3620	Tunnel Bay 19 -Tunnel Roof - (Concrete)	2	21-Feb-15	22-Feb-15	25-Feb-15	26-Feb-15	4
A3630	APS Bay 20 Col - (Reb. Fix + Concrete)	5	12-Nov-14 A	24-Nov-14	21-Nov-14	25-Nov-14	1
A3650	Tunnel Bay 20 - Falsework/Formworks	13	25-Nov-14	07-Dec-14	26-Nov-14	08-Dec-14	1
A3660	Tunnel Bay 20 - Prepare C.J at D-Wall	5	25-Nov-14	29-Nov-14	03-Dec-14	08-Dec-14	7
A3670	Tunnel Bay 20- Base Slab - (Reb. Fix + Concrete)-Lower Portion	14	08-Dec-14	21-Dec-14	09-Dec-14	22-Dec-14	1
A3680	Tunnel Bay 20 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	7	22-Dec-14	30-Dec-14	23-Dec-14	31-Dec-14	1
A3690	Tunnel Bay 20 - Struts Removal	5	31-Dec-14	04-Jan-15	01-Jan-15	05-Jan-15	1
A3790	Tunnel Bay 20 -Tunnel Roof - CJ Preparation	7	29-Jan-15	04-Feb-15	08-Feb-15	14-Feb-15	10
A3800	Tunnel Bay 20 -Tunnel Roof - Steel Fixing	7	14-Feb-15	25-Feb-15	14-Feb-15	25-Feb-15	0
A3810	Tunnel Bay 20 -Tunnel Roof - (Concrete)	1	26-Feb-15	26-Feb-15	26-Feb-15	26-Feb-15	0
A3811	APS Bay 21 Base Slab - Rebar Fixing + Concreting (Lower Portion)	0	16-Oct-14 A	24-Oct-14 A	16-Jul-20	16-Jul-20	
A3812	APS Bay 21 Base Slab - Rebar Fixing +Concreting (Upper Portion)	0	27-Oct-14 A	01-Nov-14 A	16-Jul-20	16-Jul-20	
A3813	APS Bay 21 Col - (Reb. Fix + Concrete)	12	20-Nov-14	01-Dec-14	19-Nov-14	01-Dec-14	0
A3840	Tunnel Bay 21 - Falsework/Formworks	10	22-Nov-14	03-Dec-14	21-Nov-14	03-Dec-14	0
A3850	Tunnel Bay 21 - Prepare C.J at D-Wall	4	22-Nov-14	26-Nov-14	28-Nov-14	03-Dec-14	6
A3860	Tunnel Bay 21- Base Slab - (Reb. Fix + Concrete)	14	04-Dec-14	19-Dec-14	03-Dec-14	19-Dec-14	0
A3880	Tunnel Bay 21 - Struts Removal	12	20-Dec-14	31-Dec-14	20-Dec-14	31-Dec-14	0
A3890	Tunnel Bay 19 - Central Wall - (Reb. Fix)	7	01-Jan-15	07-Jan-15	01-Jan-15	07-Jan-15	0
A3900	Tunnel Bay 19 - Central Wall - (Concrete)	2	08-Jan-15	09-Jan-15	08-Jan-15	09-Jan-15	0
A3910	OHVD Bay 19 - Falseworks	10	08-Jan-15	17-Jan-15	08-Jan-15	17-Jan-15	0
A3920	OHVD Bay 19 - Steel Fixing	4	18-Jan-15	21-Jan-15	18-Jan-15	21-Jan-15	0
A3930	OHVD Bay 19 - Concreting	2	22-Jan-15	23-Jan-15	22-Jan-15	23-Jan-15	0
A3940	OHVD Bay 19 - Curing of Concrete + Prepare CJ	2	24-Jan-15	25-Jan-15	24-Jan-15	25-Jan-15	0
A3950	OHVD Bay 19 - Reb. Fix. + Formworks	2	26-Jan-15	27-Jan-15	26-Jan-15	27-Jan-15	0
A3960	OHVD Bay 19 - (Hanger Wall) - Concrete	1	28-Jan-15	28-Jan-15	28-Jan-15	28-Jan-15	0
A3970	Tunnel Bay 19 -Tunnel Roof - Falseworks	10	29-Jan-15	07-Feb-15	29-Jan-15	07-Feb-15	0
A3980	Tunnel Bay 21 -Tunnel Roof - CJ Preparation	7	29-Jan-15	04-Feb-15	02-Feb-15	08-Feb-15	4
A3990	Tunnel Bay 21 -Tunnel Roof - Steel Fixing	16	08-Feb-15	23-Feb-15	09-Feb-15	24-Feb-15	1
A4000	Tunnel Bay 21 -Tunnel Roof - (Concrete)	2	24-Feb-15	25-Feb-15	25-Feb-15	26-Feb-15	1
A4001	APS Bay 22 Base Slab - Rebar Fixing + Concreting (Lower Portion)	0	16-Oct-14 A	29-Oct-14 A	05-Feb-15	05-Feb-15	
A4002	APS Bay 22 Base Slab - Rebar Fixing +Concreting (Upper Portion)	0	30-Oct-14 A	12-Nov-14 A	05-Feb-15	05-Feb-15	
A5414	APS Basement (Zone A) - Partition Wall (Reb. Fix + Concreting)	45	09-Jan-15	05-Mar-15	05-Feb-15	02-Apr-15	24



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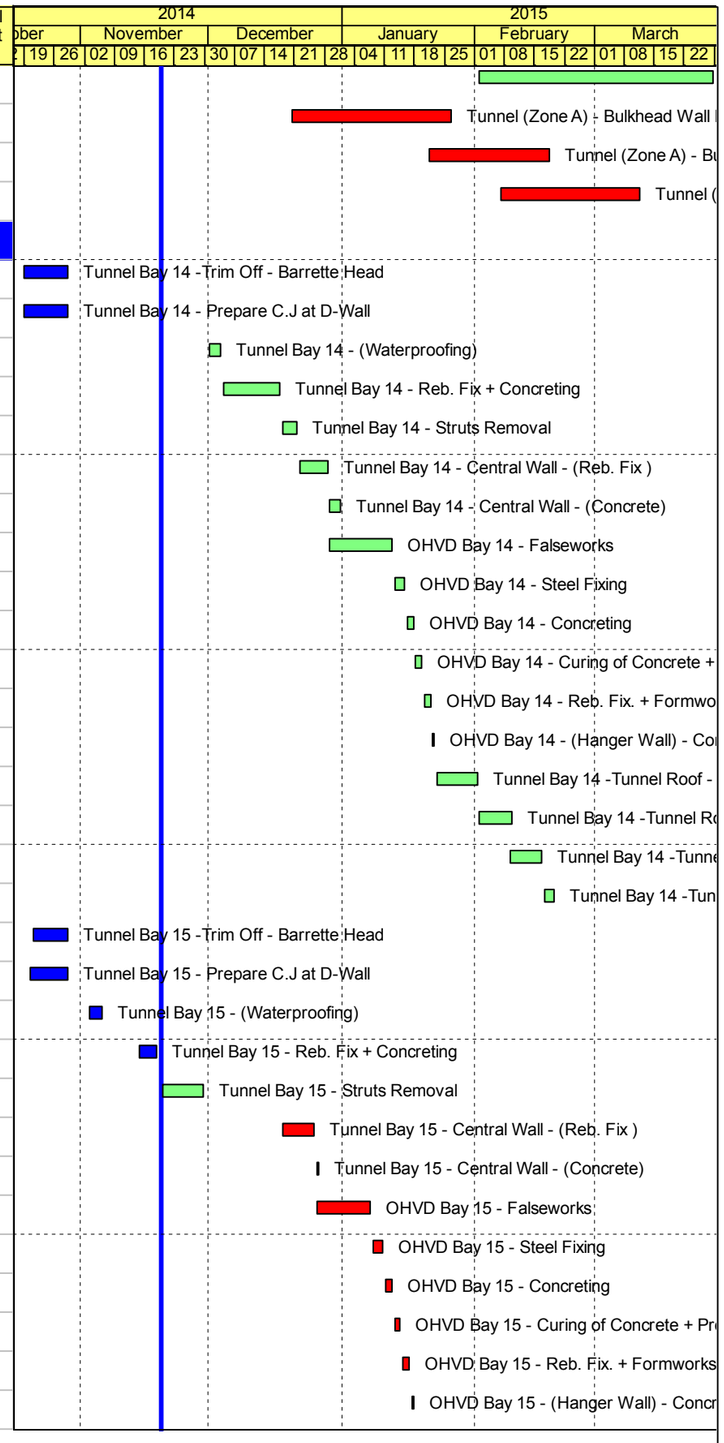
Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
A5424	APS Basement (Zone B) - Partition Wall (Reb. Fix + Concreting)	45	02-Feb-15	28-Mar-15	04-Mar-15	29-Apr-15	24
A5454	Tunnel (Zone A) - Bulkhead Wall Removal (Hole Drilling into Bulkhead Wall)	30	20-Dec-14	26-Jan-15	19-Dec-14	26-Jan-15	0
A5464	Tunnel (Zone A) - Bulkhead Wall Removal (Saw Cutting)-Eastbound	25	21-Jan-15	18-Feb-15	20-Jan-15	18-Feb-15	0
A5465	Tunnel (Zone A) - Bulkhead Wall Removal (Saw Cutting)-westbound	25	07-Feb-15	11-Mar-15	06-Feb-15	11-Mar-15	0
05.1.4 - Tunnel Structure							
A4432	Tunnel Bay 14 -Trim Off - Barrette Head	0	19-Oct-14 A	29-Oct-14 A	16-Jul-20	16-Jul-20	
A4442	Tunnel Bay 14 - Prepare C.J at D-Wall	0	19-Oct-14 A	29-Oct-14 A	16-Jul-20	16-Jul-20	
A4452	Tunnel Bay 14 - (Waterproofing)	3	01-Dec-14	03-Dec-14	09-Dec-14	11-Dec-14	8
A4462	Tunnel Bay 14 - Reb. Fix + Concreting	14	04-Dec-14	17-Dec-14	12-Dec-14	25-Dec-14	8
A4952	Tunnel Bay 14 - Struts Removal	4	18-Dec-14	21-Dec-14	26-Dec-14	29-Dec-14	8
A4962	Tunnel Bay 14 - Central Wall - (Reb. Fix)	7	22-Dec-14	28-Dec-14	30-Dec-14	05-Jan-15	8
A4972	Tunnel Bay 14 - Central Wall - (Concrete)	3	29-Dec-14	31-Dec-14	06-Jan-15	08-Jan-15	8
A4982	OHVD Bay 14 - Falseworks	12	29-Dec-14	12-Jan-15	06-Jan-15	19-Jan-15	6
A4992	OHVD Bay 14 - Steel Fixing	3	13-Jan-15	15-Jan-15	20-Jan-15	22-Jan-15	7
A5002	OHVD Bay 14 - Concreting	2	16-Jan-15	17-Jan-15	23-Jan-15	24-Jan-15	7
A5012	OHVD Bay 14 - Curing of Concrete + Prepare CJ	2	18-Jan-15	19-Jan-15	25-Jan-15	26-Jan-15	7
A5022	OHVD Bay 14 - Reb. Fix. + Formworks	2	20-Jan-15	21-Jan-15	27-Jan-15	28-Jan-15	6
A5032	OHVD Bay 14 - (Hanger Wall) - Concrete	1	22-Jan-15	22-Jan-15	30-Jan-15	30-Jan-15	8
A5042	Tunnel Bay 14 -Tunnel Roof - Falseworks	10	23-Jan-15	01-Feb-15	30-Jan-15	08-Feb-15	7
A5052	Tunnel Bay 14 -Tunnel Roof - CJ Preparation	8	02-Feb-15	09-Feb-15	09-Feb-15	16-Feb-15	7
A5062	Tunnel Bay 14 -Tunnel Roof - Steel Fixing	8	09-Feb-15	16-Feb-15	16-Feb-15	23-Feb-15	7
A5072	Tunnel Bay 14 -Tunnel Roof - (Concrete)	3	17-Feb-15	19-Feb-15	24-Feb-15	26-Feb-15	7
A5083	Tunnel Bay 15 -Trim Off - Barrette Head	0	21-Oct-14 A	29-Oct-14 A	28-Nov-14	28-Nov-14	
A5093	Tunnel Bay 15 - Prepare C.J at D-Wall	0	20-Oct-14 A	29-Oct-14 A	28-Nov-14	28-Nov-14	
A5103	Tunnel Bay 15 - (Waterproofing)	0	03-Nov-14 A	06-Nov-14 A	28-Nov-14	28-Nov-14	
A5113	Tunnel Bay 15 - Reb. Fix + Concreting	0	15-Nov-14 A	19-Nov-14 A	28-Nov-14	28-Nov-14	
A5123	Tunnel Bay 15 - Struts Removal	10	20-Nov-14	29-Nov-14	28-Nov-14	08-Dec-14	9
A5133	Tunnel Bay 15 - Central Wall - (Reb. Fix)	8	18-Dec-14	25-Dec-14	20-Dec-14	28-Dec-14	3
A5143	Tunnel Bay 15 - Central Wall - (Concrete)	1	26-Dec-14	26-Dec-14	28-Dec-14	29-Dec-14	3
A5153	OHVD Bay 15 - Falseworks	13	26-Dec-14	07-Jan-15	28-Dec-14	10-Jan-15	3
A5163	OHVD Bay 15 - Steel Fixing	3	08-Jan-15	10-Jan-15	10-Jan-15	13-Jan-15	3
A5173	OHVD Bay 15 - Concreting	2	11-Jan-15	12-Jan-15	13-Jan-15	15-Jan-15	3
A5183	OHVD Bay 15 - Curing of Concrete + Prepare CJ	2	13-Jan-15	14-Jan-15	15-Jan-15	17-Jan-15	3
A5193	OHVD Bay 15 - Reb. Fix. + Formworks	2	15-Jan-15	16-Jan-15	17-Jan-15	19-Jan-15	3
A5203	OHVD Bay 15 - (Hanger Wall) - Concrete	1	17-Jan-15	17-Jan-15	20-Jan-15	21-Jan-15	4



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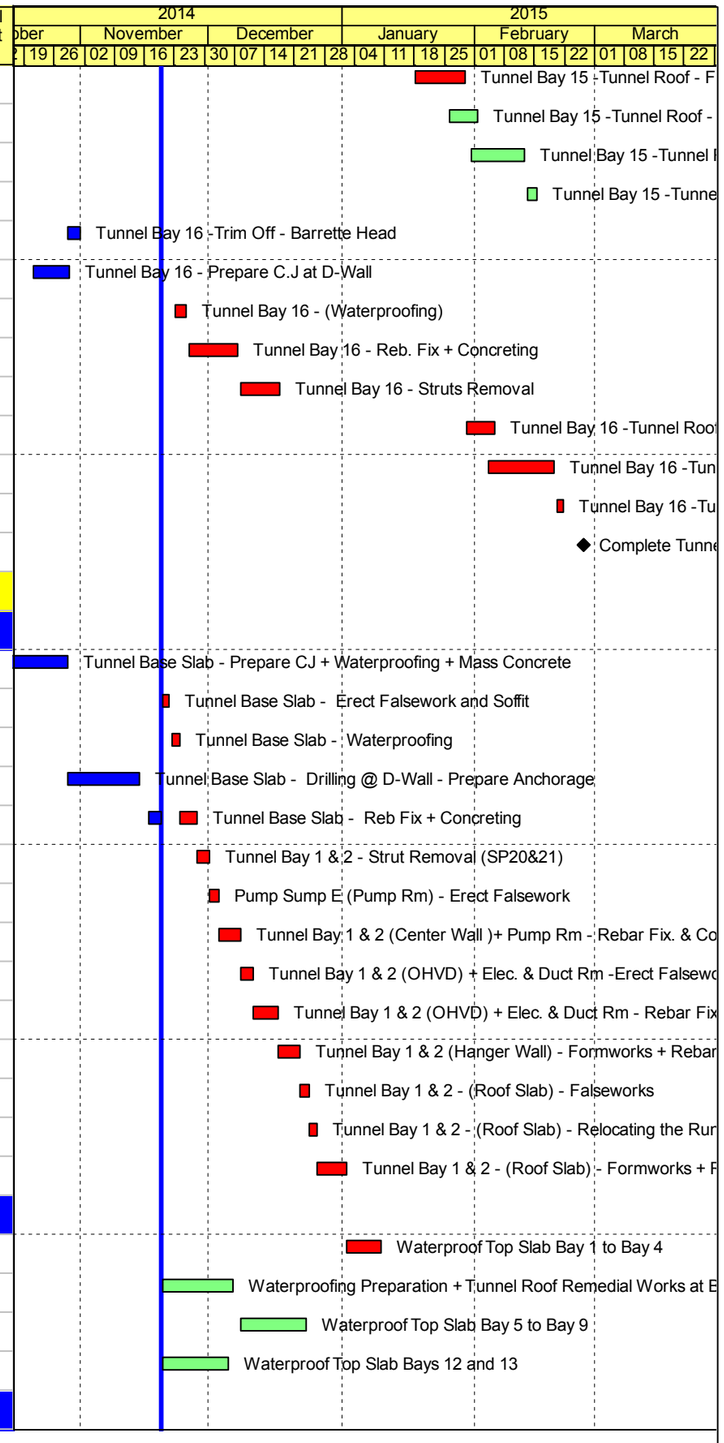
Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
A5213	Tunnel Bay 15 -Tunnel Roof - Falseworks	12	18-Jan-15	29-Jan-15	20-Jan-15	01-Feb-15	3
A5223	Tunnel Bay 15 -Tunnel Roof - CJ Preparation	7	26-Jan-15	01-Feb-15	06-Feb-15	12-Feb-15	11
A5233	Tunnel Bay 15 -Tunnel Roof - Steel Fixing	13	31-Jan-15	12-Feb-15	11-Feb-15	23-Feb-15	11
A5234	Tunnel Bay 15 -Tunnel Roof - (Concrete)	3	13-Feb-15	15-Feb-15	24-Feb-15	26-Feb-15	11
A5243	Tunnel Bay 16 -Trim Off - Barrette Head	0	29-Oct-14 A	01-Nov-14 A	16-Jul-20	16-Jul-20	
A5253	Tunnel Bay 16 - Prepare C.J at D-Wall	0	21-Oct-14 A	29-Oct-14 A	16-Jul-20	16-Jul-20	
A5263	Tunnel Bay 16 - (Waterproofing)	3	23-Nov-14	25-Nov-14	25-Nov-14	28-Nov-14	3
A5273	Tunnel Bay 16 - Reb. Fix + Concreting	12	26-Nov-14	07-Dec-14	28-Nov-14	10-Dec-14	3
A5283	Tunnel Bay 16 - Struts Removal	10	08-Dec-14	17-Dec-14	10-Dec-14	20-Dec-14	3
A5383	Tunnel Bay 16 -Tunnel Roof - CJ Preparation	7	30-Jan-15	05-Feb-15	01-Feb-15	08-Feb-15	3
A5393	Tunnel Bay 16 -Tunnel Roof - Steel Fixing + Concreting	16	04-Feb-15	19-Feb-15	06-Feb-15	22-Feb-15	3
A5394	Tunnel Bay 16 -Tunnel Roof - (Concrete)	2	20-Feb-15	21-Feb-15	22-Feb-15	24-Feb-15	3
A5395	Complete Tunnel Roof	0		26-Feb-15*		26-Feb-15	0
05.2 - Cut & Cover Tunnel Ch 4932-5149							
05.2.3 - ELS							
A4186	Tunnel Base Slab - Prepare CJ + Waterproofing + Mass Concrete	0	07-Oct-14 A	29-Oct-14 A	19-Nov-14	19-Nov-14	
A4192	Tunnel Base Slab - Erect Falsework and Soffit	2	20-Nov-14	21-Nov-14	19-Nov-14	21-Nov-14	0
A4202	Tunnel Base Slab - Waterproofing	1	22-Nov-14	24-Nov-14	21-Nov-14	22-Nov-14	0
A4212	Tunnel Base Slab - Drilling @ D-Wall - Prepare Anchorage	0	29-Oct-14 A	15-Nov-14 A	24-Nov-14	24-Nov-14	
A4222	Tunnel Base Slab - Reb Fix + Concreting	4	17-Nov-14 A	28-Nov-14	24-Nov-14	27-Nov-14	0
A4232	Tunnel Bay 1 & 2 - Strut Removal (SP20&21)	2	28-Nov-14	01-Dec-14	28-Nov-14	29-Nov-14	0
A4242	Pump Sump E (Pump Rm) - Erect Falsework	2	01-Dec-14	03-Dec-14	01-Dec-14	02-Dec-14	0
A4252	Tunnel Bay 1 & 2 (Center Wall)+ Pump Rm - Rebar Fix. & Conc.	5	03-Dec-14	08-Dec-14	03-Dec-14	07-Dec-14	0
A4272	Tunnel Bay 1 & 2 (OHVD) + Elec. & Duct Rm -Erect Falseworks	3	08-Dec-14	11-Dec-14	08-Dec-14	10-Dec-14	0
A4282	Tunnel Bay 1 & 2 (OHVD) + Elec. & Duct Rm - Rebar Fix. & Conc.	6	11-Dec-14	17-Dec-14	11-Dec-14	16-Dec-14	0
A4292	Tunnel Bay 1 & 2 (Hanger Wall) - Formworks + Rebar Fix & Conc.	5	17-Dec-14	22-Dec-14	17-Dec-14	21-Dec-14	0
A4302	Tunnel Bay 1 & 2 - (Roof Slab) - Falseworks	2	22-Dec-14	24-Dec-14	22-Dec-14	23-Dec-14	0
A4312	Tunnel Bay 1 & 2 - (Roof Slab) - Relocating the Runner Beam	2	24-Dec-14	26-Dec-14	24-Dec-14	25-Dec-14	0
A4322	Tunnel Bay 1 & 2 - (Roof Slab) - Formworks + Rebar Fix. & Conc.	7	26-Dec-14	02-Jan-15	26-Dec-14	01-Jan-15	0
05.2.4 - Tunnel Structure							
0524-2535	Waterproof Top Slab Bay 1 to Bay 4	7	02-Jan-15	10-Jan-15	02-Jan-15	09-Jan-15	0
0524-2535.1	Waterproofing Preparation + Tunnel Roof Remedial Works at Bay 9	15	20-Nov-14	06-Dec-14	05-Dec-14	22-Dec-14	13
0524-2535.2	Waterproof Top Slab Bay 5 to Bay 9	14	08-Dec-14	23-Dec-14	23-Dec-14	09-Jan-15	13
0524-2535.3	Waterproof Top Slab Bays 12 and 13	14	20-Nov-14	05-Dec-14	06-Dec-14	22-Dec-14	14
05.2.5 - Road & Miscellaneous Works							



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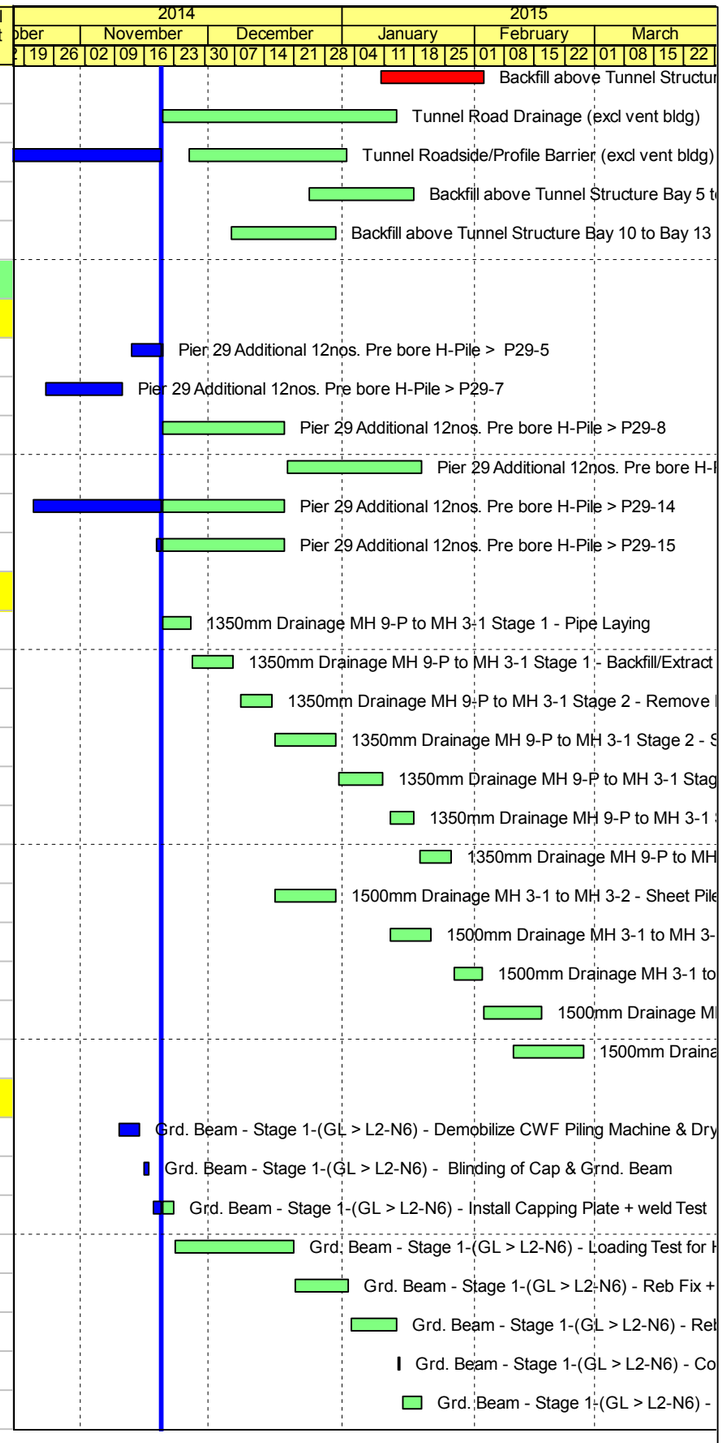
Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0525-2882	Backfill above Tunnel Structure Bay 1 to Bay 4	20	10-Jan-15	03-Feb-15	10-Jan-15	02-Feb-15	0
0525-2890	Tunnel Road Drainage (excl vent bldg)	45	20-Nov-14	13-Jan-15	02-Jan-15	26-Feb-15	35
0525-2900	Tunnel Roadside/Profile Barrier (excl vent bldg)	30	05-Aug-14 A	02-Jan-15	04-Dec-14	09-Jan-15	7
0525-2940	Backfill above Tunnel Structure Bay 5 to Bay 9	20	24-Dec-14	17-Jan-15	10-Jan-15	02-Feb-15	13
0525-2950	Backfill above Tunnel Structure Bay 10 to Bay 13	20	06-Dec-14	30-Dec-14	10-Jan-15	02-Feb-15	28
06 - SECTION 3 OF THE WORKS							
06.1 - Westbound - Pier 29-34							
A6020	Pier 29 Additional 12nos. Pre bore H-Pile > P29-5	0	13-Nov-14 A	20-Nov-14	07-Feb-15	07-Feb-15	67
A6040	Pier 29 Additional 12nos. Pre bore H-Pile > P29-7	0	24-Oct-14 A	11-Nov-14 A	07-Feb-15	07-Feb-15	
A6050	Pier 29 Additional 12nos. Pre bore H-Pile > P29-8	25	20-Nov-14	18-Dec-14	07-Feb-15	12-Mar-15	67
A6090	Pier 29 Additional 12nos. Pre bore H-Pile > P29-12	25	19-Dec-14	19-Jan-15	12-Mar-15	14-Apr-15	67
A6110	Pier 29 Additional 12nos. Pre bore H-Pile > P29-14	25	21-Oct-14 A	18-Dec-14	13-Mar-15	15-Apr-15	93
A6120	Pier 29 Additional 12nos. Pre bore H-Pile > P29-15	25	19-Nov-14 A	18-Dec-14	13-Mar-15	15-Apr-15	93
06.2 - Box Culvert U1							
0620-2634	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Pipe Laying	6	20-Nov-14	26-Nov-14	15-Dec-14	22-Dec-14	22
0620-2635	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Backfill/Extract Sheet Pile	9	27-Nov-14	06-Dec-14	22-Dec-14	03-Jan-15	22
0620-2636	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Remove Pavement	7	08-Dec-14	15-Dec-14	03-Jan-15	12-Jan-15	22
0620-2637	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Sheet Pile	12	16-Dec-14	30-Dec-14	12-Jan-15	26-Jan-15	22
0620-2638	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Trench Excav	9	31-Dec-14	10-Jan-15	26-Jan-15	05-Feb-15	22
0620-2639	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Pipe Laying	6	12-Jan-15	17-Jan-15	05-Feb-15	12-Feb-15	22
0620-2641	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Backfill/Extract Sheet Pile	7	19-Jan-15	26-Jan-15	12-Feb-15	24-Feb-15	22
0620-2642	1500mm Drainage MH 3-1 to MH 3-2 - Sheet Pile	12	16-Dec-14	30-Dec-14	27-Jan-15	10-Feb-15	35
0620-2643	1500mm Drainage MH 3-1 to MH 3-2 - Trench Excav	9	12-Jan-15	21-Jan-15	10-Feb-15	24-Feb-15	26
0620-2644	1500mm Drainage MH 3-1 to MH 3-2 - Pipe Laying	6	27-Jan-15	02-Feb-15	24-Feb-15	03-Mar-15	22
0620-2645	1500mm Drainage MH 3-1 to MH 3-2 - Construct MH 3-1	12	03-Feb-15	16-Feb-15	03-Mar-15	17-Mar-15	22
0620-2646	1500mm Drainage MH 3-1 to MH 3-2 - Backfill/Extract Sheet Pile	12	10-Feb-15	26-Feb-15	10-Mar-15	24-Mar-15	22
06.3 - Admin Building							
0630-3119	Grd. Beam - Stage 1-(GL > L2-N6) - Demobilize CWF Piling Machine & Dry Formation	0	10-Nov-14 A	15-Nov-14 A	23-Dec-14	23-Dec-14	
0630-3119.1	Grd. Beam - Stage 1-(GL > L2-N6) - Blinding of Cap & Grnd. Beam	0	16-Nov-14 A	17-Nov-14 A	22-Jan-15	22-Jan-15	
0630-3119.12	Grd. Beam - Stage 1-(GL > L2-N6) - Install Capping Plate + weld Test	3	18-Nov-14 A	22-Nov-14	22-Jan-15	24-Jan-15	52
0630-3119.13	Grd. Beam - Stage 1-(GL > L2-N6) - Loading Test for HP13c	28	23-Nov-14	20-Dec-14	25-Jan-15	22-Feb-15	64
0630-3119.14	Grd. Beam - Stage 1-(GL > L2-N6) - Reb Fix + Forworks (Grd. Beam & Pile Cap) > Part1	13	21-Dec-14	02-Jan-15	22-Feb-15	07-Mar-15	64
0630-3119.15	Grd. Beam - Stage 1-(GL > L2-N6) - Reb Fix + Forworks (Grd. Beam & Pile Cap) > Part2	9	03-Jan-15	13-Jan-15	07-Mar-15	18-Mar-15	52
0630-3119.16	Grd. Beam - Stage 1-(GL > L2-N6) - Concreting (Grd. Beam & Pile Cap)	1	14-Jan-15	14-Jan-15	18-Mar-15	19-Mar-15	52
0630-3119.18	Grd. Beam - Stage 1-(GL > L2-N6) - Formworks Removal and Backfill	4	15-Jan-15	19-Jan-15	19-Mar-15	24-Mar-15	52



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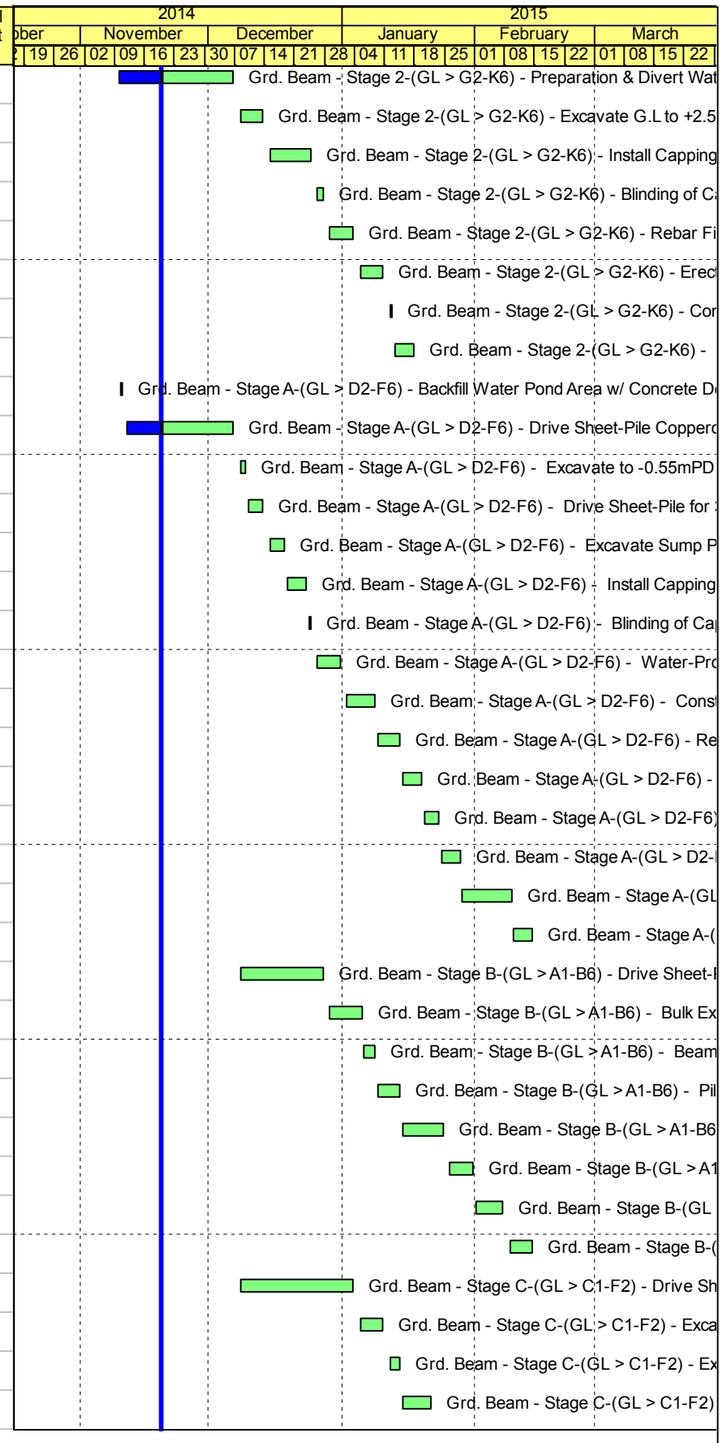
0630-3119.2	Grd. Beam - Stage 2-(GL > G2-K6) - Preparation & Divert Waterflow	17	10-Nov-14 A	06-Dec-14	23-Dec-14	09-Jan-15	34
0630-3119.21	Grd. Beam - Stage 2-(GL > G2-K6) - Excavate G.L to +2.5mPD and Pile Cap B.L to +1.65mPD	6	08-Dec-14	13-Dec-14	09-Feb-15	16-Feb-15	53
0630-3119.22	Grd. Beam - Stage 2-(GL > G2-K6) - Install Capping Plate	9	15-Dec-14	24-Dec-14	16-Feb-15	02-Mar-15	53
0630-3119.23	Grd. Beam - Stage 2-(GL > G2-K6) - Blinding of Cap & Grnd. Beam	2	26-Dec-14	27-Dec-14	02-Mar-15	04-Mar-15	53
0630-3119.24	Grd. Beam - Stage 2-(GL > G2-K6) - Rebar Fixing (Grd. Beam & Pile Cap)	5	29-Dec-14	03-Jan-15	04-Mar-15	10-Mar-15	53
0630-3119.25	Grd. Beam - Stage 2-(GL > G2-K6) - Erect Formworks (Grd. Beam & Pile Cap)	6	05-Jan-15	10-Jan-15	10-Mar-15	17-Mar-15	53
0630-3119.26	Grd. Beam - Stage 2-(GL > G2-K6) - Concreting (Grd. Beam & Pile Cap)	1	12-Jan-15	12-Jan-15	17-Mar-15	18-Mar-15	53
0630-3119.27	Grd. Beam - Stage 2-(GL > G2-K6) - Formworks Removal and Backfill	5	13-Jan-15	17-Jan-15	18-Mar-15	24-Mar-15	53
0630-3119.6	Grd. Beam - Stage A-(GL > D2-F6) - Backfill Water Pond Area w/ Concrete Debris	0	10-Nov-14 A	11-Nov-14 A	23-Dec-14	23-Dec-14	
0630-3119.61	Grd. Beam - Stage A-(GL > D2-F6) - Drive Sheet-Pile Copperdam	15	12-Nov-14 A	06-Dec-14	23-Dec-14	12-Jan-15	29
0630-3119.62	Grd. Beam - Stage A-(GL > D2-F6) - Excavate to -0.55mPD	2	08-Dec-14	09-Dec-14	12-Jan-15	14-Jan-15	29
0630-3119.63	Grd. Beam - Stage A-(GL > D2-F6) - Drive Sheet-Pile for 3nos. Sump Pits	4	10-Dec-14	13-Dec-14	14-Jan-15	19-Jan-15	29
0630-3119.64	Grd. Beam - Stage A-(GL > D2-F6) - Excavate Sump Pits (B.L -1.35,-2.6 & -3.3mPD) + install waling	4	15-Dec-14	18-Dec-14	19-Jan-15	23-Jan-15	29
0630-3119.65	Grd. Beam - Stage A-(GL > D2-F6) - Install Capping Plate	4	19-Dec-14	23-Dec-14	23-Jan-15	28-Jan-15	29
0630-3119.66	Grd. Beam - Stage A-(GL > D2-F6) - Blinding of Cap,Grnd. Beam + 3nos.Sump Pits	1	24-Dec-14	24-Dec-14	28-Jan-15	29-Jan-15	29
0630-3119.67	Grd. Beam - Stage A-(GL > D2-F6) - Water-Proofing	5	26-Dec-14	31-Dec-14	29-Jan-15	04-Feb-15	29
0630-3119.68	Grd. Beam - Stage A-(GL > D2-F6) - Construct Lower Portion 3nos. Sump-Pit	6	02-Jan-15	08-Jan-15	04-Feb-15	11-Feb-15	29
0630-3119.69	Grd. Beam - Stage A-(GL > D2-F6) - Remove Waling and Construct upper Portion of Sump Pit	5	09-Jan-15	14-Jan-15	11-Feb-15	17-Feb-15	29
0630-3119.7	Grd. Beam - Stage A-(GL > D2-F6) - Water-Proofing at Basement	4	15-Jan-15	19-Jan-15	17-Feb-15	25-Feb-15	29
0630-3119.71	Grd. Beam - Stage A-(GL > D2-F6) - Construct Base-Slab w/ Kicker	4	20-Jan-15	23-Jan-15	25-Feb-15	02-Mar-15	29
0630-3119.72	Grd. Beam - Stage A-(GL > D2-F6) - Remove Strut	4	24-Jan-15	28-Jan-15	02-Mar-15	06-Mar-15	29
0630-3119.73	Grd. Beam - Stage A-(GL > D2-F6) - Construct Basement Wall/PC/GB/Column	10	29-Jan-15	09-Feb-15	06-Mar-15	18-Mar-15	29
0630-3119.74	Grd. Beam - Stage A-(GL > D2-F6) - Formworks, Sheet-Pile Removal and Backfill	5	10-Feb-15	14-Feb-15	18-Mar-15	24-Mar-15	29
0630-3119.8	Grd. Beam - Stage B-(GL > A1-B6) - Drive Sheet-Pile Copperdam	17	08-Dec-14	27-Dec-14	12-Jan-15	31-Jan-15	29
0630-3119.81	Grd. Beam - Stage B-(GL > A1-B6) - Bulk Excavate G.L to +0.7mPD and install Waling/Strut	6	29-Dec-14	05-Jan-15	31-Jan-15	07-Feb-15	29
0630-3119.82	Grd. Beam - Stage B-(GL > A1-B6) - Beam Excavation up to +0.2mPD	3	06-Jan-15	08-Jan-15	07-Feb-15	11-Feb-15	29
0630-3119.83	Grd. Beam - Stage B-(GL > A1-B6) - Pile Cap Excavation up to +0.0mPD and -0.3mPD + Vert/Hor. Blinding	5	09-Jan-15	14-Jan-15	11-Feb-15	17-Feb-15	29
0630-3119.84	Grd. Beam - Stage B-(GL > A1-B6) - Install Capping Plate	9	15-Jan-15	24-Jan-15	17-Feb-15	03-Mar-15	29
0630-3119.85	Grd. Beam - Stage B-(GL > A1-B6) - Rebar Fixing (Grd. Beam & Pile Cap) + Formworks	6	26-Jan-15	31-Jan-15	03-Mar-15	10-Mar-15	29
0630-3119.86	Grd. Beam - Stage B-(GL > A1-B6) - Concreting (Grd. Beam & Pile Cap)	7	01-Feb-15	07-Feb-15	10-Mar-15	17-Mar-15	38
0630-3119.87	Grd. Beam - Stage B-(GL > A1-B6) - Formworks, Sheet-Pile Removal and Backfill	6	09-Feb-15	14-Feb-15	17-Mar-15	24-Mar-15	29
0630-3119.91	Grd. Beam - Stage C-(GL > C1-F2) - Drive Sheet-Pile Copperdam	22	08-Dec-14	03-Jan-15	12-Jan-15	06-Feb-15	29
0630-3119.92	Grd. Beam - Stage C-(GL > C1-F2) - Excavate G.L to +1.0mPD and install Waling/Strut	6	05-Jan-15	10-Jan-15	06-Feb-15	13-Feb-15	29
0630-3119.93	Grd. Beam - Stage C-(GL > C1-F2) - Excavate Pile-Cap B.L to -0.7mPD and Cast Vert/Hor Blinding	3	12-Jan-15	14-Jan-15	13-Feb-15	17-Feb-15	29
0630-3119.94	Grd. Beam - Stage C-(GL > C1-F2) - Install Capping Plate	6	15-Jan-15	21-Jan-15	17-Feb-15	27-Feb-15	29



Remaining Level of Effort ◆ ◆ Milestone
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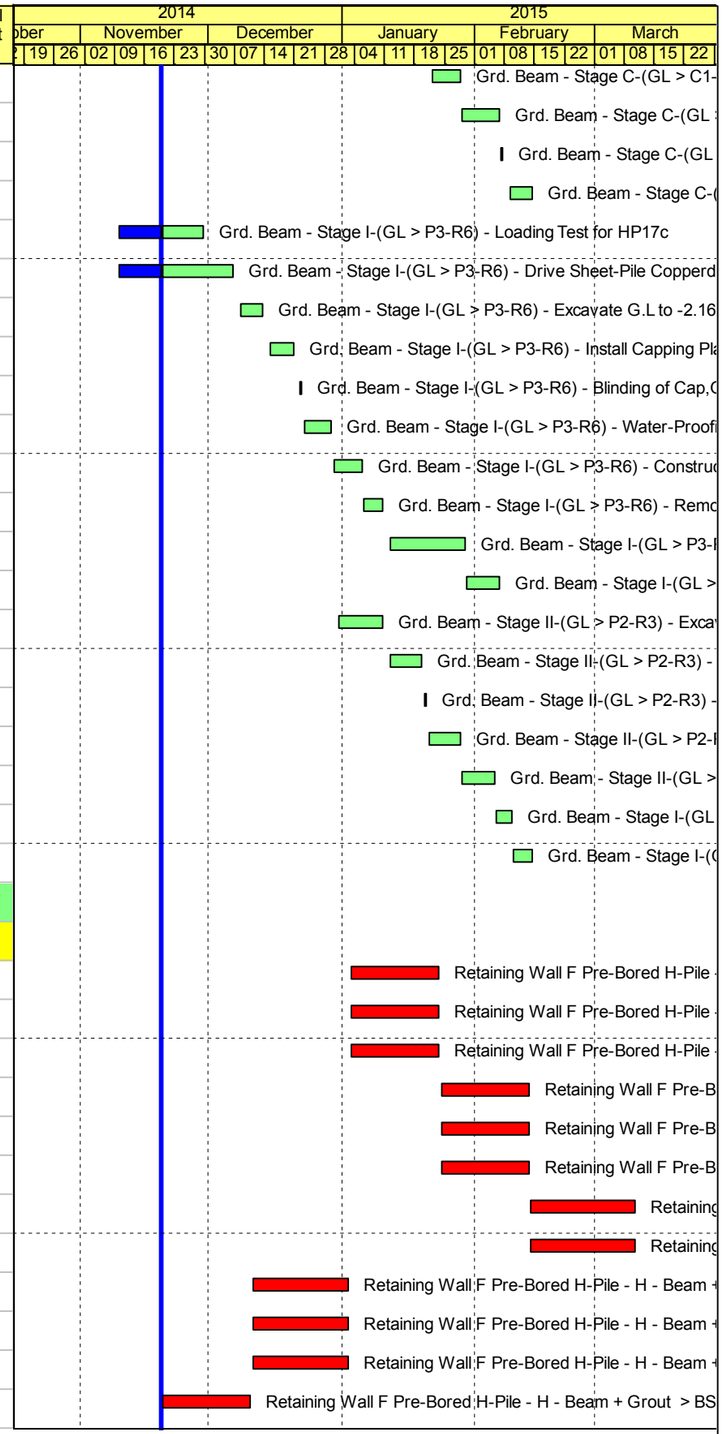
Critical Remaining Work

Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0630-3119.95	Grd. Beam - Stage C-(GL > C1-F2) - Cast Vertical and Beam Blinding Layer	6	22-Jan-15	28-Jan-15	27-Feb-15	06-Mar-15	29
0630-3119.96	Grd. Beam - Stage C-(GL > C1-F2) - Rebar Fixing (Grd. Beam & Pile Cap) + Formworks	8	29-Jan-15	06-Feb-15	06-Mar-15	16-Mar-15	29
0630-3119.97	Grd. Beam - Stage C-(GL > C1-F2) - Concreting (Grd. Beam & Pile Cap)	1	07-Feb-15	07-Feb-15	16-Mar-15	17-Mar-15	29
0630-3119.98	Grd. Beam - Stage C-(GL > C1-F2) - Formworks, Sheet-Pile Removal and Backfill	6	09-Feb-15	14-Feb-15	17-Mar-15	24-Mar-15	29
0630-3121.4	Grd. Beam - Stage I-(GL > P3-R6) - Loading Test for HP17c	9	10-Nov-14 A	29-Nov-14	02-Jan-15	13-Jan-15	36
0630-3121.41	Grd. Beam - Stage I-(GL > P3-R6) - Drive Sheet-Pile Copperdam	15	10-Nov-14 A	06-Dec-14	02-Jan-15	20-Jan-15	36
0630-3121.42	Grd. Beam - Stage I-(GL > P3-R6) - Excavate G.L to -2.16mPD and install Waling/Struts	6	08-Dec-14	13-Dec-14	20-Jan-15	27-Jan-15	36
0630-3121.43	Grd. Beam - Stage I-(GL > P3-R6) - Install Capping Plate	6	15-Dec-14	20-Dec-14	27-Jan-15	03-Feb-15	36
0630-3121.44	Grd. Beam - Stage I-(GL > P3-R6) - Blinding of Cap,Grnd. Beam	1	22-Dec-14	22-Dec-14	03-Feb-15	04-Feb-15	36
0630-3121.45	Grd. Beam - Stage I-(GL > P3-R6) - Water-Proofing	5	23-Dec-14	29-Dec-14	04-Feb-15	10-Feb-15	36
0630-3121.46	Grd. Beam - Stage I-(GL > P3-R6) - Construct Base Slab w/ Kicker	5	30-Dec-14	05-Jan-15	10-Feb-15	16-Feb-15	36
0630-3121.47	Grd. Beam - Stage I-(GL > P3-R6) - Remove waling and strut	5	06-Jan-15	10-Jan-15	16-Feb-15	25-Feb-15	36
0630-3121.48	Grd. Beam - Stage I-(GL > P3-R6) - Construct Walls, Columns & Remaining Beams	16	12-Jan-15	29-Jan-15	25-Feb-15	16-Mar-15	36
0630-3121.49	Grd. Beam - Stage I-(GL > P3-R6) - Formworks, Sheet-Pile Removal and Backfill	7	30-Jan-15	06-Feb-15	16-Mar-15	24-Mar-15	36
0630-3121.5	Grd. Beam - Stage II-(GL > P2-R3) - Excavate G.L to +2.5mPD beam formation to +1.8mPD	9	31-Dec-14	10-Jan-15	03-Feb-15	13-Feb-15	29
0630-3121.51	Grd. Beam - Stage II-(GL > P2-R3) - Install Capping Plate	7	12-Jan-15	19-Jan-15	13-Feb-15	25-Feb-15	29
0630-3121.52	Grd. Beam - Stage II-(GL > P2-R3) - Cast Beam Blinding Layer	1	20-Jan-15	20-Jan-15	25-Feb-15	26-Feb-15	29
0630-3121.53	Grd. Beam - Stage II-(GL > P2-R3) - Rebar Fixing for Beam	7	21-Jan-15	28-Jan-15	26-Feb-15	06-Mar-15	29
0630-3121.54	Grd. Beam - Stage II-(GL > P2-R3) - Erect Formworks for Beam	7	29-Jan-15	05-Feb-15	06-Mar-15	14-Mar-15	29
0630-3121.55	Grd. Beam - Stage I-(GL > P2-R3) - Cast Concrete for Beam	3	06-Feb-15	09-Feb-15	14-Mar-15	18-Mar-15	29
0630-3121.57	Grd. Beam - Stage I-(GL > P2-R3) - Formworks Removal and Backfill	5	10-Feb-15	14-Feb-15	18-Mar-15	24-Mar-15	29
08 - SECTION 5 WORK							
08.1 - Retaining Wall 'F' Substructure							
A7653	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS36a	18	03-Jan-15	23-Jan-15	09-Jan-15	29-Jan-15	5
A7654	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS36b	18	03-Jan-15	23-Jan-15	09-Jan-15	29-Jan-15	5
A7655	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS37a	18	03-Jan-15	23-Jan-15	09-Jan-15	29-Jan-15	5
A7656	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS37b	18	24-Jan-15	13-Feb-15	30-Jan-15	23-Feb-15	5
A7657	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS38a	18	24-Jan-15	13-Feb-15	30-Jan-15	23-Feb-15	5
A7658	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS38b	18	24-Jan-15	13-Feb-15	30-Jan-15	23-Feb-15	5
A7660	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39a	18	14-Feb-15	10-Mar-15	24-Feb-15	16-Mar-15	5
A7670	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39b	18	14-Feb-15	10-Mar-15	24-Feb-15	16-Mar-15	5
A7671	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40a	18	11-Dec-14	02-Jan-15	17-Dec-14	08-Jan-15	5
A7672	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40b	18	11-Dec-14	02-Jan-15	17-Dec-14	08-Jan-15	5
A7673	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS41a	18	11-Dec-14	02-Jan-15	17-Dec-14	08-Jan-15	5
A7680	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42a	18	20-Nov-14	10-Dec-14	26-Nov-14	16-Dec-14	5



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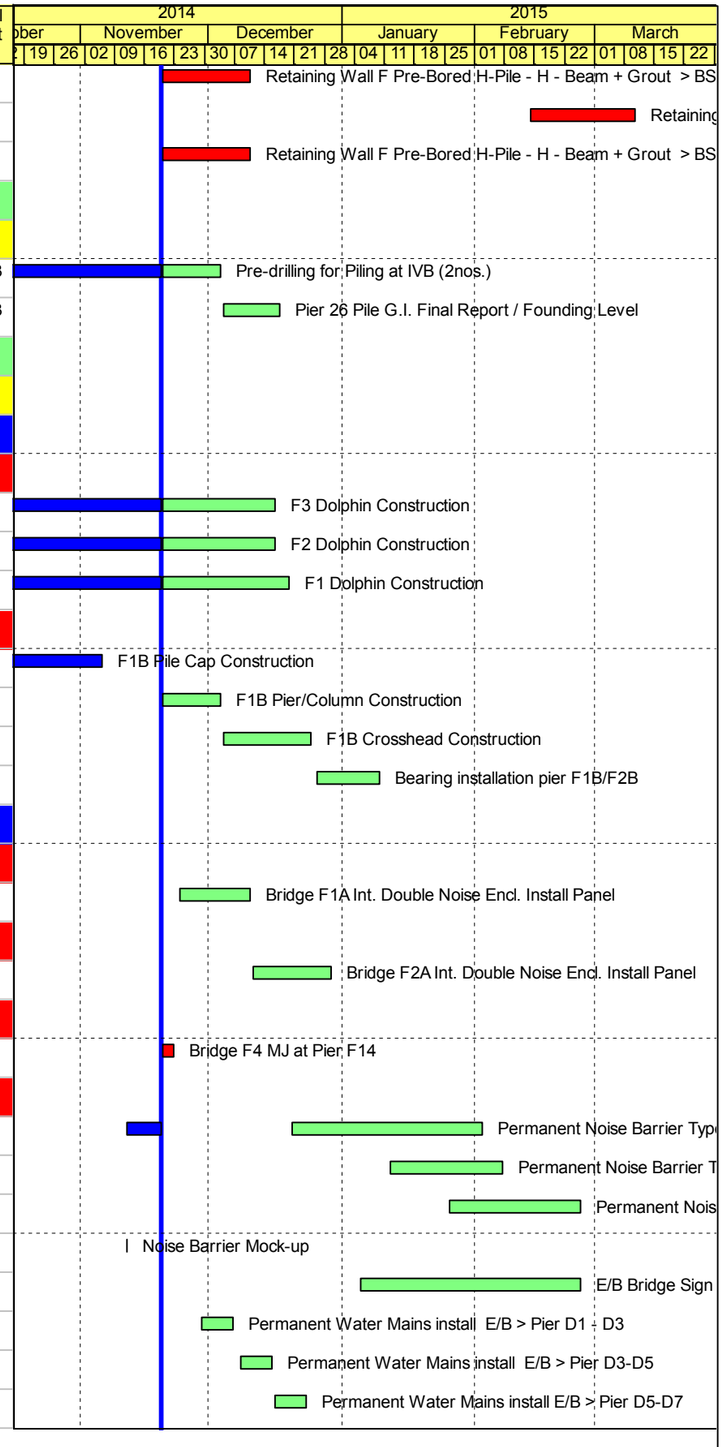
Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
A7690	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42b	18	20-Nov-14	10-Dec-14	26-Nov-14	16-Dec-14	5
A7720	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44a	18	14-Feb-15	10-Mar-15	24-Feb-15	16-Mar-15	5
A7790	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS47b	18	20-Nov-14	10-Dec-14	26-Nov-14	16-Dec-14	5
09 - SECTION 6 OF THE WORKS							
09.2 - Westbound - Pier 26-27							
0920-2100	Pre-drilling for Piling at IVB (2nos.)	12	13-Oct-14 A	03-Dec-14	07-Feb-20	20-Feb-20	1563
0920-2105	Pier 26 Pile G.I. Final Report / Founding Level	12	04-Dec-14	17-Dec-14	21-Feb-20	05-Mar-20	1563
10 - SECTION X OF THE WORKS							
10.1 - E/B Bridges (Bridge D, E and F)							
10.1.1 - Marine Pier Construction							
Pier F03 to F15							
1011-3272	F3 Dolphin Construction	23	08-Jul-14 A	16-Dec-14	01-Dec-14	29-Dec-14	10
1011-3273	F2 Dolphin Construction	23	11-Jul-14 A	16-Dec-14	01-Dec-14	29-Dec-14	10
1011-3274	F1 Dolphin Construction	26	23-Jul-14 A	19-Dec-14	27-Nov-14	29-Dec-14	7
Pier F01 to F02							
1011-2895	F1B Pile Cap Construction	0	15-Jul-14 A	06-Nov-14 A	18-Aug-17	18-Aug-17	
1011-2900	F1B Pier/Column Construction	12	20-Nov-14	03-Dec-14	18-Aug-17	01-Sep-17	825
1011-2910	F1B Crosshead Construction	18	04-Dec-14	24-Dec-14	01-Sep-17	22-Sep-17	825
1011-2930	Bearing installation pier F1B/F2B	12	26-Dec-14	09-Jan-15	22-Sep-17	09-Oct-17	825
10.1.3 - E/B Bridge Construction							
Bridge F1A							
1013-1868.1	Bridge F1A Int. Double Noise Encl. Install Panel	15	24-Nov-14	10-Dec-14	13-Feb-15	06-Mar-15	69
Bridge F2A							
1013-1378.1	Bridge F2A Int. Double Noise Encl. Install Panel	15	11-Dec-14	29-Dec-14	06-Mar-15	24-Mar-15	69
Bridge F5/F4							
1013-2172.25	Bridge F4 MJ at Pier F14	3	20-Nov-14	22-Nov-14	24-Nov-14	27-Nov-14	4
All E/B Bridges (Common)							
1013-1710	Permanent Noise Barrier Type C1 E/B Bridge Ch 1059-1362 (304m)	36	12-Nov-14 A	02-Feb-15	17-Jan-15	04-Mar-15	23
1013-1720	Permanent Noise Barrier Type B1 E/B Bridge Ch 962-1059 (132m)	24	12-Jan-15	07-Feb-15	06-Feb-15	10-Mar-15	23
1013-1730	Permanent Noise Barrier Type A1 E/B Bridge Ch 826-962 (136m)	24	26-Jan-15	25-Feb-15	24-Feb-15	24-Mar-15	23
1013-1735	Noise Barrier Mock-up	0	12-Nov-14 A	12-Nov-14 A	17-Jan-15	17-Jan-15	
1013-1750	E/B Bridge Sign Gantries and Misc. Mounting Structure/Support	42	05-Jan-15	25-Feb-15	30-Jan-15	24-Mar-15	23
A6150	Permanent Water Mains install E/B > Pier D1 - D3	7	29-Nov-14	06-Dec-14	07-Feb-15	16-Feb-15	59
A6160	Permanent Water Mains install E/B > Pier D3-D5	7	08-Dec-14	15-Dec-14	16-Feb-15	27-Feb-15	59
A6170	Permanent Water Mains install E/B > Pier D5-D7	7	16-Dec-14	23-Dec-14	27-Feb-15	07-Mar-15	59



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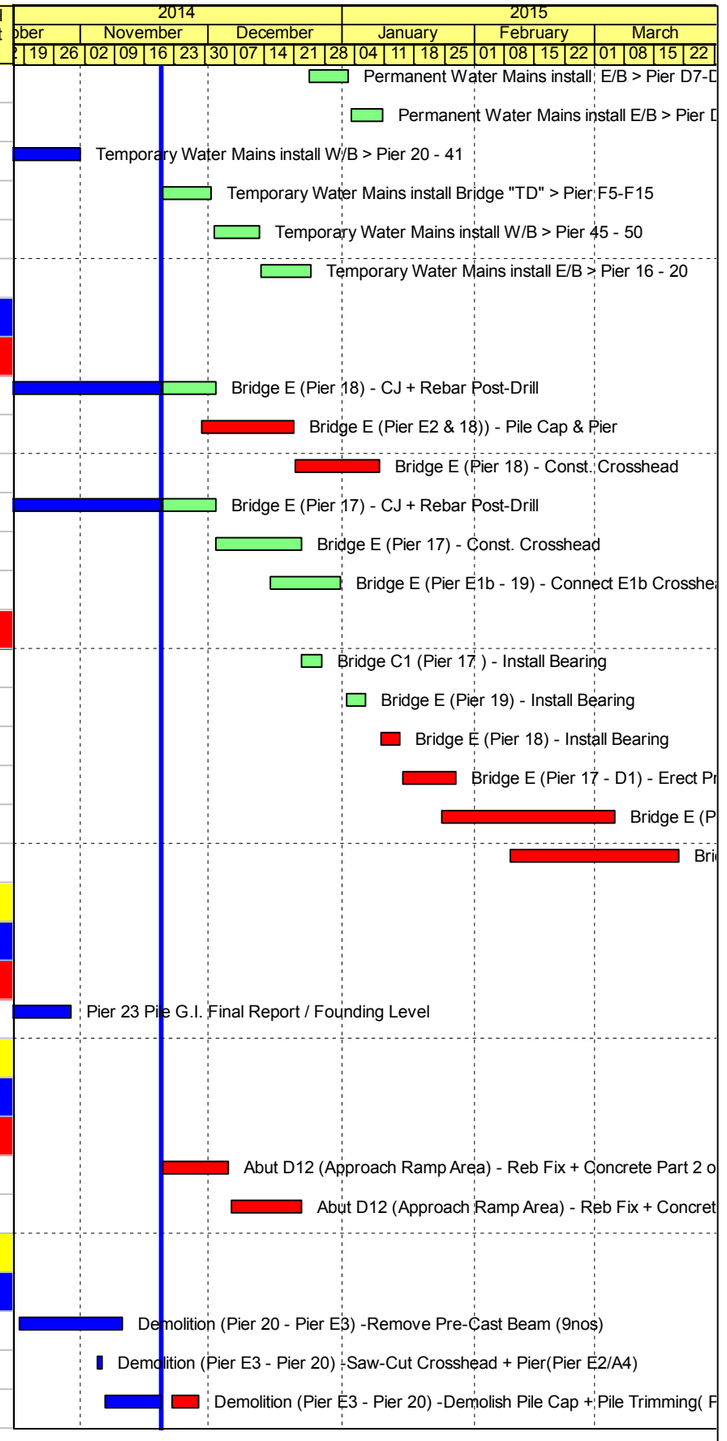
Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
A6180	Permanent Water Mains install E/B > Pier D7-D9	7	24-Dec-14	02-Jan-15	07-Mar-15	16-Mar-15	59
A6190	Permanent Water Mains install E/B > Pier D9-D12	7	03-Jan-15	10-Jan-15	16-Mar-15	24-Mar-15	59
A6200	Temporary Water Mains install W/B > Pier 20 - 41	0	01-Oct-14 A	01-Nov-14 A	13-Feb-15	13-Feb-15	
A6300	Temporary Water Mains install Bridge "TD" > Pier F5-F15	10	20-Nov-14	01-Dec-14	13-Feb-15	28-Feb-15	72
A6310	Temporary Water Mains install W/B > Pier 45 - 50	10	02-Dec-14	12-Dec-14	28-Feb-15	12-Mar-15	72
A6320	Temporary Water Mains install E/B > Pier 16 - 20	10	13-Dec-14	24-Dec-14	12-Mar-15	24-Mar-15	72
10.1.4 - Bridge E / Hing Fat Slip Road							
Pier Construction							
1014-1240.11	Bridge E (Pier 18) - CJ + Rebar Post-Drill	11	03-Sep-14 A	02-Dec-14	09-Dec-14	20-Dec-14	16
1014-1240.12	Bridge E (Pier E2 & 18)) - Pile Cap & Pier	19	29-Nov-14	20-Dec-14	28-Nov-14	20-Dec-14	0
1014-1240.20	Bridge E (Pier 18) - Const. Crosshead	20	21-Dec-14	09-Jan-15	20-Dec-14	09-Jan-15	0
1014-1246	Bridge E (Pier 17) - CJ + Rebar Post-Drill	11	03-Sep-14 A	02-Dec-14	06-Dec-14	18-Dec-14	14
1014-1249	Bridge E (Pier 17) - Const. Crosshead	17	02-Dec-14	22-Dec-14	18-Dec-14	09-Jan-15	14
1014-1249.1	Bridge E (Pier E1b - 19) - Connect E1b Crosshead to Pier 19	14	15-Dec-14	31-Dec-14	22-Dec-14	09-Jan-15	7
Bridge Construction							
1014-1210.1	Bridge C1 (Pier 17) - Install Bearing	4	22-Dec-14	27-Dec-14	09-Jan-15	14-Jan-15	14
1014-1240.2	Bridge E (Pier 19) - Install Bearing	4	02-Jan-15	06-Jan-15	09-Jan-15	14-Jan-15	7
1014-1240.3	Bridge E (Pier 18) - Install Bearing	4	10-Jan-15	14-Jan-15	09-Jan-15	14-Jan-15	0
1014-1240.4	Bridge E (Pier 17 - D1) - Erect Pre-Cast Beam (10nos)	11	15-Jan-15	27-Jan-15	14-Jan-15	27-Jan-15	0
1014-1240.5	Bridge E (Pier 17 - D1) - Bridge Deck + Longitudinal Stitch/ Tie-in	32	24-Jan-15	05-Mar-15	23-Jan-15	05-Mar-15	0
1014-1240.6	Bridge E (Pier E2 - E1)- Parapet + Paving & Marking	32	09-Feb-15	20-Mar-15	07-Feb-15	20-Mar-15	0
10.2 - W/B Bridges (Bridge C and F)							
10.2.1 - Pier Construction							
Pier 20 to 25							
1021-1015	Pier 23 Pile G.I. Final Report / Founding Level	0	07-Oct-14 A	30-Oct-14 A	07-Jan-16	07-Jan-16	
10.3 - Middle Bridge (Bridge F)							
10.3.1 - Pier Construction							
Abutment D12							
1031-1057	Abut D12 (Approach Ramp Area) - Reb Fix + Concrete Part 2 of 3	14	20-Nov-14	05-Dec-14	20-Nov-14	05-Dec-14	0
1031-1058	Abut D12 (Approach Ramp Area) - Reb Fix + Concrete Part 3 of 3	14	06-Dec-14	22-Dec-14*	06-Dec-14	22-Dec-14	0
10.4 - Bridge Deck Demolition							
10.4.2 - Existing E/B Bridge							
1042-1010.4	Demolition (Pier 20 - Pier E3) -Remove Pre-Cast Beam (9nos)	0	18-Oct-14 A	11-Nov-14 A	28-Nov-14	28-Nov-14	
1042-1010.8	Demolition (Pier E3 - Pier 20) -Saw-Cut Crosshead + Pier(Pier E2/A4)	0	05-Nov-14 A	06-Nov-14 A	28-Nov-14	28-Nov-14	
1042-1010.93	Demolition (Pier E3 - Pier 20) -Demolish Pile Cap + Pile Trimming(Pier E2/A4)	6	07-Nov-14 A	28-Nov-14	22-Nov-14	28-Nov-14	0



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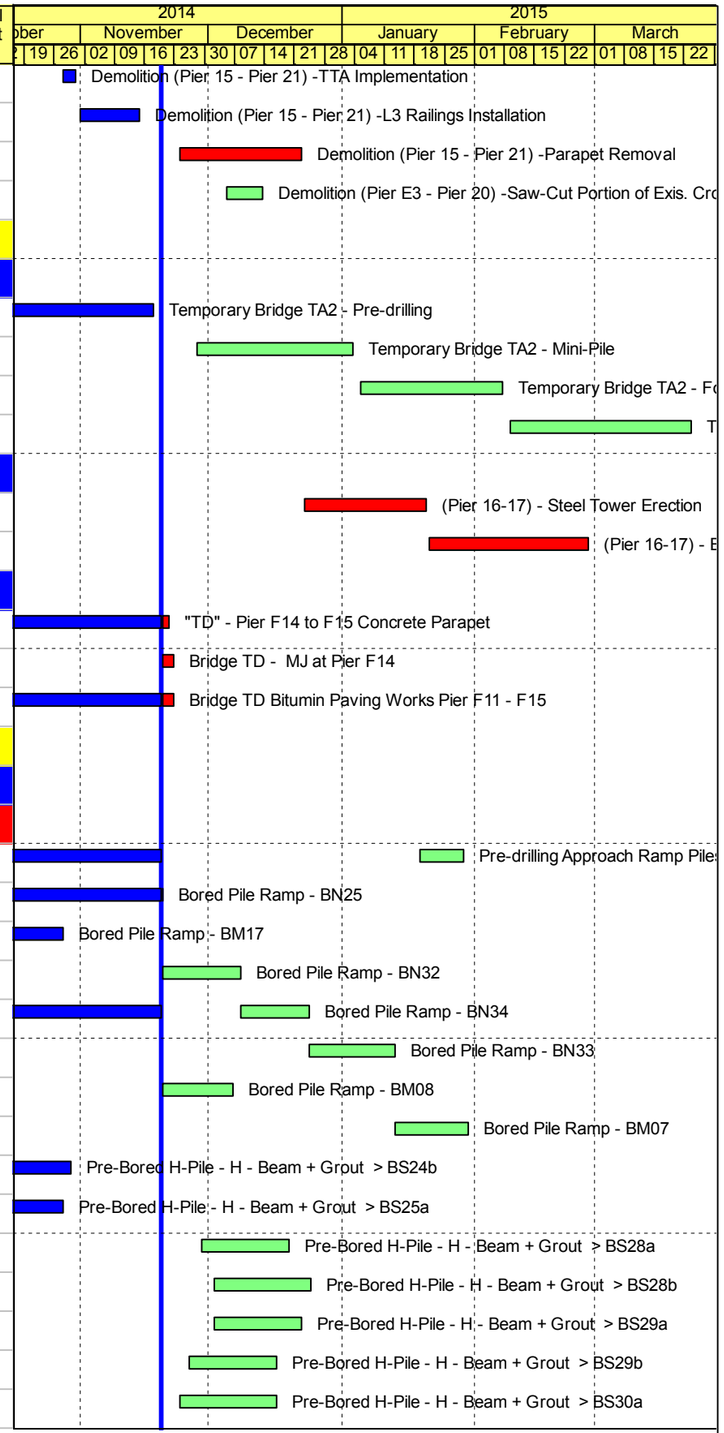
Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1042-1010.94	Demolition (Pier 15 - Pier 21) -TTA Implementation	0	28-Oct-14 A	31-Oct-14 A	27-Nov-14	27-Nov-14	
1042-1010.95	Demolition (Pier 15 - Pier 21) -L3 Railings Installation	0	01-Nov-14 A	15-Nov-14 A	27-Nov-14	27-Nov-14	
1042-1010.96	Demolition (Pier 15 - Pier 21) -Parapet Removal	25	24-Nov-14	22-Dec-14	27-Nov-14	27-Dec-14	4
1042-1010.97	Demolition (Pier E3 - Pier 20) -Saw-Cut Portion of Exis. Crosshead (Pier 19)	8	05-Dec-14	13-Dec-14	12-Dec-14	22-Dec-14	7
10.5 - Temporary Bridge							
10.5.1 - Temporary Bridge 'TA'							
1051-1018.1	Temporary Bridge TA2 - Pre-drilling	0	08-Oct-14 A	18-Nov-14 A	10-Dec-14	10-Dec-14	
1051-1019	Temporary Bridge TA2 - Mini-Pile	30	28-Nov-14	03-Jan-15	10-Dec-14	16-Jan-15	11
1051-1019.1	Temporary Bridge TA2 - Footing	30	05-Jan-15	07-Feb-15	16-Jan-15	24-Feb-15	11
1051-1019.2	Temporary Bridge TA2 - Pier & Beam Along C15	34	09-Feb-15	23-Mar-15	24-Feb-15	08-Apr-15	11
10.5.2 - Temporary Bridge 'TB' & 'TC'							
A2460	(Pier 16-17) - Steel Tower Erection	23	23-Dec-14	20-Jan-15	27-Dec-14	24-Jan-15	4
A2470	(Pier 16-17) - Beam + Deck Erection	30	21-Jan-15	27-Feb-15	24-Jan-15	04-Mar-15	4
10.5.3 - Temporary Bridge 'TD'							
1053-1065.1	"TD" - Pier F14 to F15 Concrete Parapet	2	11-Sep-14 A	21-Nov-14	25-Nov-14	27-Nov-14	5
1053-1166	Bridge TD - MJ at Pier F14	3	20-Nov-14	22-Nov-14	24-Nov-14	27-Nov-14	4
1053-1167	Bridge TD Bitumin Paving Works Pier F11 - F15	3	15-Sep-14 A	22-Nov-14	24-Nov-14	27-Nov-14	4
10.6 - Tunnel Approach Ramp							
10.6.1 - Approach Ramp (Excluding Portion IIB)							
Bored Piles							
1061-1010	Pre-drilling Approach Ramp Piles Remaining (70 nos) (excl IIB & VD)	10	18-Oct-13 A	29-Jan-15	25-Apr-15	07-May-15	77
1061-1980	Bored Pile Ramp - BN25	0	07-Aug-14 A	20-Nov-14	26-Nov-16	26-Nov-16	606
1061-2030	Bored Pile Ramp - BM17	0	14-Oct-14 A	28-Oct-14 A	09-Nov-16	09-Nov-16	
1061-2060	Bored Pile Ramp - BN32	15	20-Nov-14	08-Dec-14	05-Oct-16	24-Oct-16	561
1061-2070	Bored Pile Ramp - BN34	14	19-Aug-14 A	24-Dec-14	24-Oct-16	09-Nov-16	561
1061-2080	Bored Pile Ramp - BN33	15	24-Dec-14	13-Jan-15	09-Nov-16	26-Nov-16	561
1061-2100	Bored Pile Ramp - BM08	15	20-Nov-14	06-Dec-14	09-Nov-16	26-Nov-16	591
1061-2110	Bored Pile Ramp - BM07	15	13-Jan-15	30-Jan-15	26-Nov-16	14-Dec-16	561
A7840	Pre-Bored H-Pile - H - Beam + Grout > BS24b	0	30-Sep-14 A	30-Oct-14 A	30-Apr-15	30-Apr-15	
A7850	Pre-Bored H-Pile - H - Beam + Grout > BS25a	0	16-Oct-14 A	28-Oct-14 A	16-Jul-20	16-Jul-20	
A7910	Pre-Bored H-Pile - H - Beam + Grout > BS28a	18	29-Nov-14	19-Dec-14	08-Apr-15	28-Apr-15	103
A7920	Pre-Bored H-Pile - H - Beam + Grout > BS28b	20	02-Dec-14	24-Dec-14	08-Apr-15	30-Apr-15	101
A7930	Pre-Bored H-Pile - H - Beam + Grout > BS29a	18	02-Dec-14	22-Dec-14	08-Apr-15	28-Apr-15	101
A7940	Pre-Bored H-Pile - H - Beam + Grout > BS29b	18	26-Nov-14	16-Dec-14	08-Apr-15	28-Apr-15	106
A7950	Pre-Bored H-Pile - H - Beam + Grout > BS30a	20	24-Nov-14	16-Dec-14	08-Apr-15	30-Apr-15	108

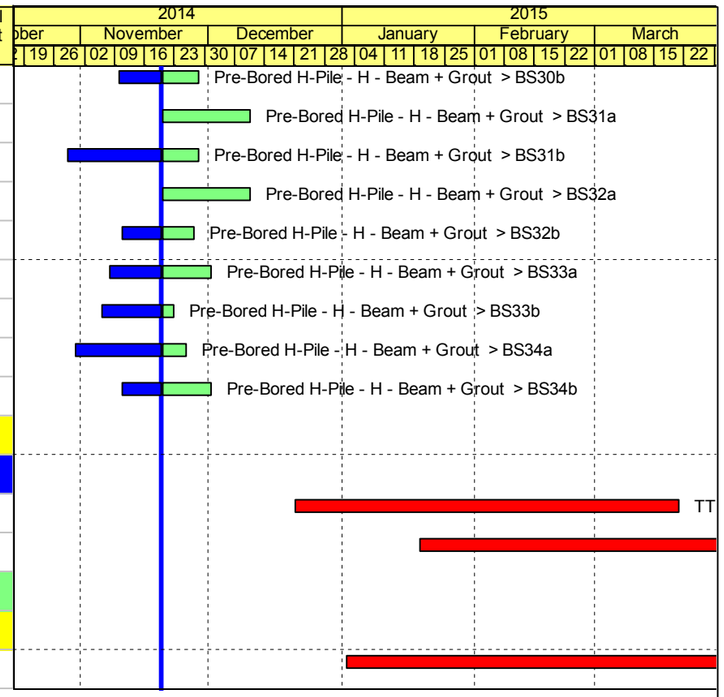


Remaining Level of Effort ◆ Milestone
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
A7960	Pre-Bored H-Pile - H - Beam + Grout > BS30b	8	10-Nov-14 A	28-Nov-14	26-Mar-15	07-Apr-15	103
A7970	Pre-Bored H-Pile - H - Beam + Grout > BS31a	18	20-Nov-14	10-Dec-14	10-Apr-15	30-Apr-15	113
A7980	Pre-Bored H-Pile - H - Beam + Grout > BS31b	8	29-Oct-14 A	28-Nov-14	22-Apr-15	30-Apr-15	123
A7990	Pre-Bored H-Pile - H - Beam + Grout > BS32a	18	20-Nov-14	10-Dec-14	10-Apr-15	30-Apr-15	113
A8000	Pre-Bored H-Pile - H - Beam + Grout > BS32b	7	11-Nov-14 A	27-Nov-14	10-Apr-15	17-Apr-15	113
A8010	Pre-Bored H-Pile - H - Beam + Grout > BS33a	10	08-Nov-14 A	01-Dec-14	24-Mar-15	07-Apr-15	101
A8020	Pre-Bored H-Pile - H - Beam + Grout > BS33b	3	06-Nov-14 A	22-Nov-14	24-Mar-15	26-Mar-15	101
A8041	Pre-Bored H-Pile - H - Beam + Grout > BS34a	5	31-Oct-14 A	25-Nov-14	24-Mar-15	28-Mar-15	101
A8042	Pre-Bored H-Pile - H - Beam + Grout > BS34b	10	11-Nov-14 A	01-Dec-14	24-Mar-15	07-Apr-15	101
10.7 - Section X - Miscellaneous Works							
10.7.1 - TTM Stages							
1071-1025	TTM Stage 2B - TMLG / TD / Police Consultation and Endorsement	90	21-Dec-14	20-Mar-15	20-Dec-14	20-Mar-15	0
1071-1045	TTM Stage 2C - TMLG / TD / Police Consultation and Endorsement	126	19-Jan-15	24-May-15	20-Jan-15	26-May-15	2
11 - SECTION 11 OF THE WORKS							
11.2 - Roadworks							
1110-2200	Junction Improvement Work at Portion XIIA (possession 02Sep14)	320	02-Jan-15*	26-Jan-16	31-Dec-14	26-Jan-16	0



Remaining Level of Effort
Actual Level of Effort
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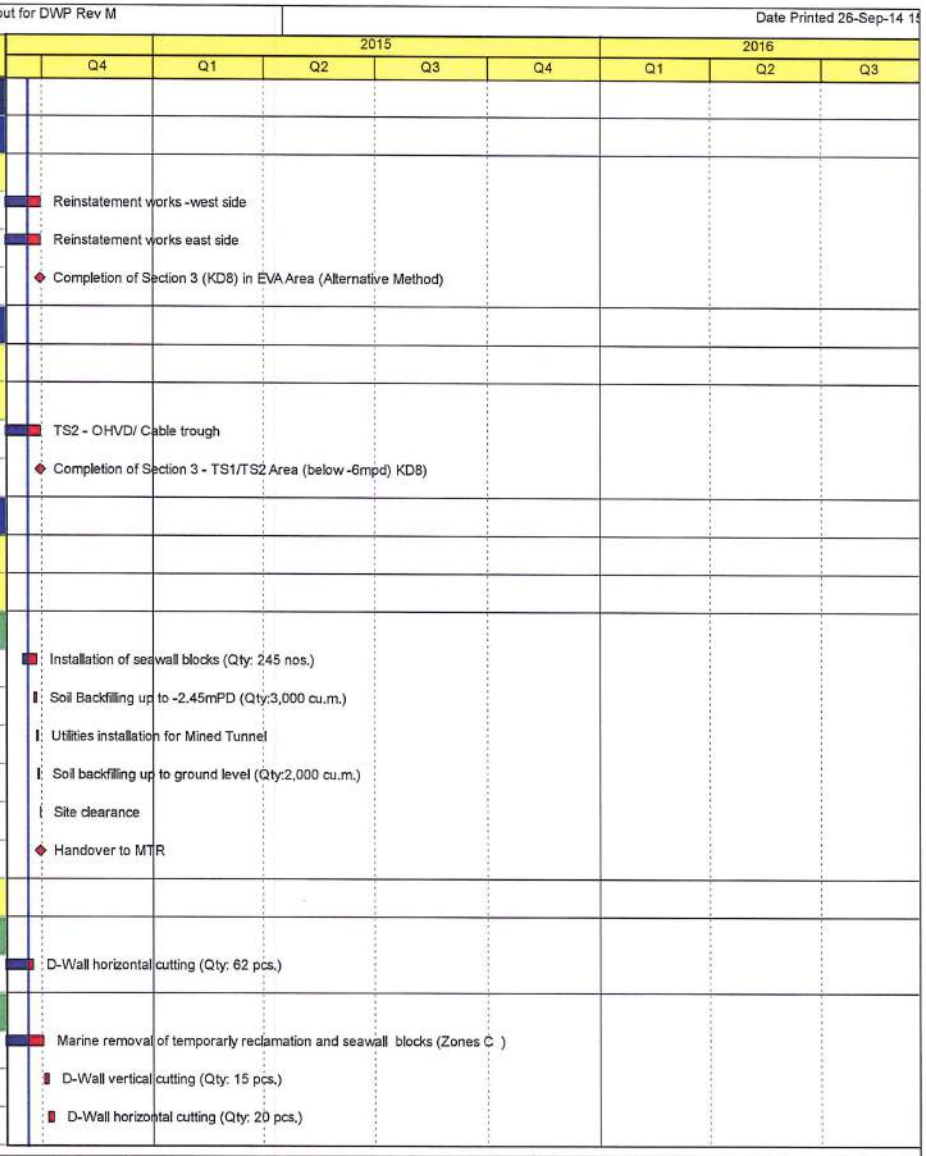
Milestone

Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

WP13-0 | Layout: CWB - Working Layout for DWP Rev M | Date Printed 26-Sep-14 15

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
HY/2009/15 - Works Programme Rev. M (DD:20-Sep-12)						
Works in East Ventilation Adit - Based on Alternative Method						
Reinstatement of Breakwater						
S3_54840	Reinstatement works -west side	7d/wk-1	60d	21-Feb-14 08 A	30-Sep-14 18	-85d
S3_60085	Reinstatement works east side	7d/wk-1	60d	31-May-14 08 A	30-Sep-14 18	-85d
S3_54845	Completion of Section 3 (KD8) in EVA Area (Alternative Method)	7d/wk-2	0d		30-Sep-14 18	-86d
Works in TS1/TS2 - OHVD and Cable Trough/Maintenance Walkway						
TS2 - OHVD and Cable Trough/Maintenance Walkway						
OHVD Slab and Cable Trough Construction						
S3_6210	TS2 - OHVD/ Cable trough	7d/wk-1	40d	20-May-14 08 A	30-Sep-14 18	-85d
S3_6212	Completion of Section 3 - TS1/TS2 Area (below -6mpd) KD8)	7d/wk-2	0d		30-Sep-14 18	-86d
Works in TS4/ME4 Area (Portion 14A, 14B, 15, 23)						
TS4/ME4 - Removal of Temporary Reclamation						
Remaining Works at TZ6						
Stage 4 - Seawall and Reclamation at TZ6						
A-2010	Installation of seawall blocks (Qty: 245 nos.)	7d/wk-2	6d	15-Sep-14 08 A	26-Sep-14 18	-332d
A-2020	Soil Backfilling up to -2.45mPD (Qty:3,000 cu.m.)	7d/wk-2	2d	25-Sep-14 08	26-Sep-14 18	-332d
A-2030	Utilities installation for Mined Tunnel	7d/wk-2	1d	27-Sep-14 08	27-Sep-14 18	-332d
A-2040	Soil backfilling up to ground level (Qty:2,000 cu.m.)	7d/wk-2	2d	28-Sep-14 08	29-Sep-14 18	-332d
A-2050	Site clearance	7d/wk-2	1d	30-Sep-14 08	30-Sep-14 18	-305d
A-2060	Handover to MTR	7d/wk-2	0d		30-Sep-14 18	-305d
Removal of Temporary Reclamation at TS4/ME4						
Stage 5 (Zones A, D & F - TS4-D33 to D-26, SCL2 & ME4-D19 to D13)						
A-3000	D-Wall horizontal cutting (Qty: 62 pcs.)	7d/wk-2	21d	29-Aug-14 08 A	23-Sep-14 18	-340d
Stage 6 (Zone C - P4, ME4-D12 to ME4-D10 & P3)						
A-3011	Marine removal of temporarily reclamation and seawall blocks (Zones C)	7d/wk-2	21d	31-Aug-14 08 A	02-Oct-14 18	-353d
A-3030	D-Wall vertical cutting (Qty: 15 pcs.)	7d/wk-2	4d	03-Oct-14 08	06-Oct-14 18	-353d
A-3040	D-Wall horizontal cutting (Qty: 20 pcs.)	7d/wk-2	5d	06-Oct-14 08	10-Oct-14 18	-352d



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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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Stage 7 (Zones C & E - ME4-D06 to D01, SCL1 & TS4-D25)						
A-4000	Marine removal of temporarly reclamation and seawall blocks (Zones C & E)	7d/wk-2	18d	06-Sep-14 08 A	06-Oct-14 18	-353d
A-3090	Hole coring (Qty: 44 nos)	7d/wk-2	9d	20-Sep-14 08*	28-Sep-14 18	-346d
A-4010	D-Wall vertical cutting (Qty: 27pcs.)	7d/wk-2	7d	07-Oct-14 08	13-Oct-14 18	-353d
A-4020	D-Wall horizontal cutting (Qty: 37 pcs.)	7d/wk-2	10d	11-Oct-14 08	20-Oct-14 18	-353d
Stage 9 (Zone I - TS4-D01 to TS4-D08)						
A-3050	Remaining removal of temporary reclamation (Zone I)	7d/wk-2	28d	29-Aug-14 08 A	01-Oct-14 18	-342d
A-3060	Hole coring (Qty: 25 nos)	7d/wk-2	5d	02-Oct-14 08	06-Oct-14 18	-342d
A-3070	D-Wall vertical cutting (Qty: 14 pcs.)	7d/wk-2	3d	07-Oct-14 08	09-Oct-14 18	-342d
A-3080	D-Wall horizontal cutting (Qty: 24 pcs.)	7d/wk-2	5d	21-Oct-14 08	25-Oct-14 18	-353d
Stage 8 (Zones G & K - TS4-D24 to TS4-D15)						
A-4040	Relocation of RHKYC floating pontoon	7d/wk-2	5d	22-Sep-14 08*	26-Sep-14 18	-338d
A-4050	Hole coring (Qty: 27 nos)	7d/wk-2	6d	29-Sep-14 08	04-Oct-14 18	-346d
A-4060	Marine removal of temporary reclamation and seawall blocks (Zone G & K)	7d/wk-2	14d	11-Oct-14 08	24-Oct-14 18	-352d
A-4070	D-Wall vertical cutting (Qty: 18pcs.)	7d/wk-2	4d	25-Oct-14 08	28-Oct-14 18	-352d
A-4080	D-Wall horizontal cutting (Qty: 25 pcs.)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-352d
Stage 10 (Zone J - TS4-D09 to TS4-D14)						
A-4090	Land removal of temporary reclamation (Zone J)	7d/wk-2	10d	07-Oct-14 08	16-Oct-14 18	-344d
A-5000	Hole coring (Qty: 32 nos)	7d/wk-2	7d	17-Oct-14 08	23-Oct-14 18	-340d
A-5010	Marine removal of temporary reclamation (Zone J)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-353d
A-5020	D-Wall vertical cutting (Qty: 20 pcs.)	7d/wk-2	5d	02-Nov-14 08	06-Nov-14 18	-353d
A-5030	D-Wall horizontal cutting (Qty: 26 pcs.)	7d/wk-2	7d	04-Nov-14 08	10-Nov-14 18*	-353d
Stage 13 - Phase 3 Mooring						
A-5050	Final trimming of sea bed level	7d/wk-2	4d	02-Nov-14 08	05-Nov-14 18	-347d
A-5060	Phase 3 Mooring	7d/wk-2	6d	06-Nov-14 08	11-Nov-14 18	-347d
A-5040	Reinstatement of exisiting seawall (Zones I & J)	7d/wk-2	7d	11-Nov-14 08	17-Nov-14 18	-353d
Stage 12 - Re-provisioning of Jetty						
S6_5258	Provision of Mobile Crane (until permanent re-provision of Jetty is completed)	7d/wk-1	160d	20-Feb-14 08 A	30-Dec-14 18	-335d
A-6010	BA8 submission and consent for commencement of superstructure	7d/wk-2	28d	20-Sep-14 08 A	16-Oct-14 18	-336d

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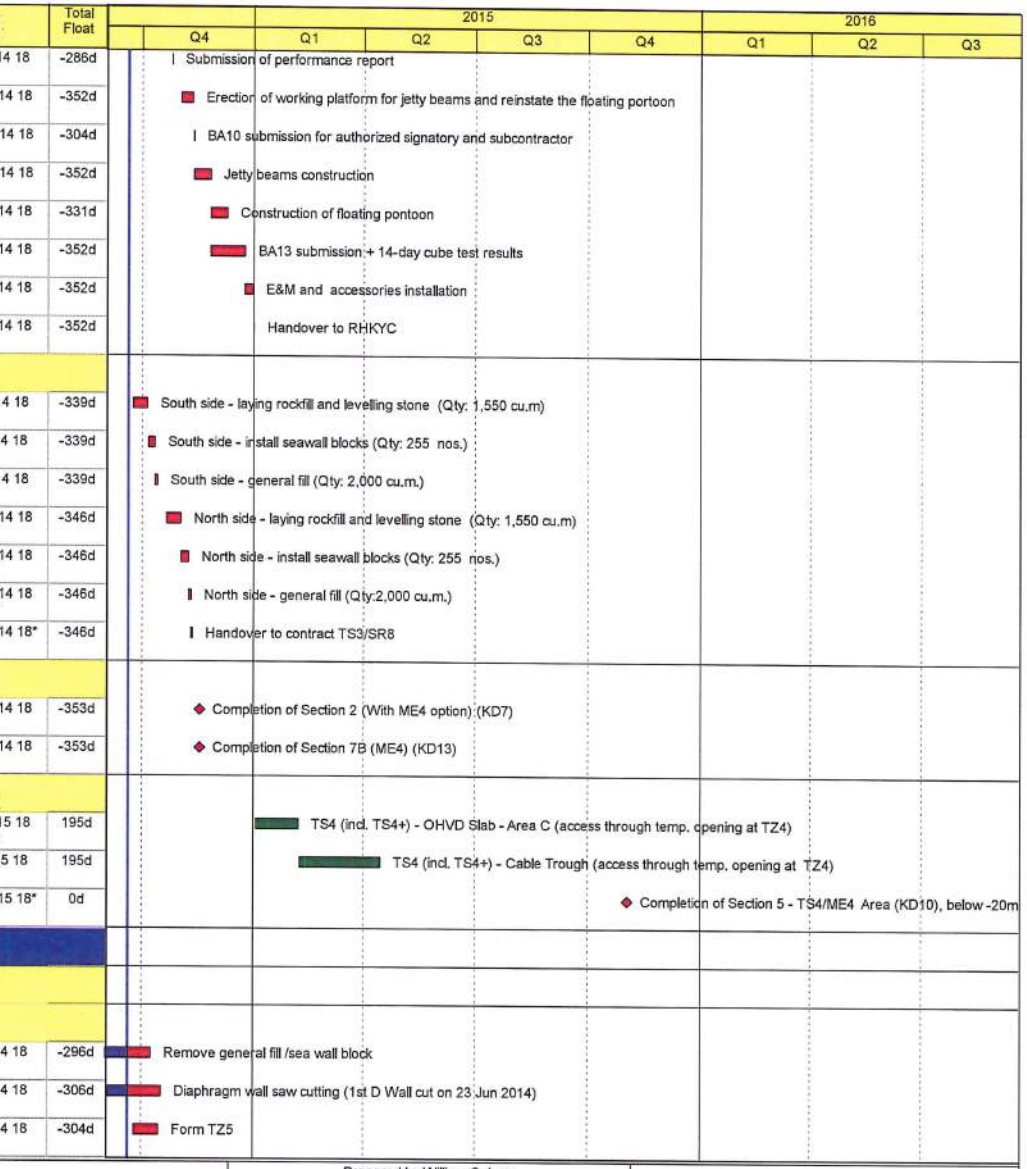
Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
A-6012	Submission of performance report	7d/wk-2	1d	25-Oct-14 08*	25-Oct-14 18	-286d
A-6020	Erection of working platform for jetty beams and reinstate the floating portoon	7d/wk-2	10d	02-Nov-14 08	11-Nov-14 18	-352d
A-6040	BA10 submission for authorized signatory and subcontractor	7d/wk-2	1d	12-Nov-14 08	12-Nov-14 18	-304d
A-6030	Jetty beams construction	7d/wk-2	14d	12-Nov-14 08	25-Nov-14 18	-352d
A-6052	Construction of floating pontoon	7d/wk-2	14d	26-Nov-14 08	09-Dec-14 18	-331d
A-6050	BA13 submission + 14-day cube test results	7d/wk-2	28d	26-Nov-14 08	23-Dec-14 18	-352d
A-6060	E&M and accessories installation	7d/wk-2	7d	24-Dec-14 08	30-Dec-14 18	-352d
A-6070	Handover to RHKYC	7d/wk-2	1d	31-Dec-14 08	31-Dec-14 18	-352d
Stage 11 - Construction of TZ4						
A-6080	South side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	24-Sep-14 08	05-Oct-14 18	-339d
A-6090	South side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	06-Oct-14 08	11-Oct-14 18	-339d
A-7000	South side - general fill (Qty: 2,000 cu.m.)	7d/wk-2	2d	12-Oct-14 08	13-Oct-14 18	-339d
A-7010	North side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	21-Oct-14 08	01-Nov-14 18	-346d
A-7020	North side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	02-Nov-14 08	07-Nov-14 18	-346d
A-7030	North side - general fill (Qty:2,000 cu.m.)	7d/wk-2	2d	08-Nov-14 08	09-Nov-14 18	-346d
A-7040	Handover to contract TS3/SR8	7d/wk-2	1d	10-Nov-14 08	10-Nov-14 18*	-346d
TS4/ME4, Removal of Temporary Reclamation						
S26875	Completion of Section 2 (With ME4 option) (KD7)	7d/wk-2	0d		17-Nov-14 18	-353d
S26890	Completion of Section 7B (ME4) (KD13)	7d/wk-2	0d		17-Nov-14 18	-353d
TS4 - OHVD / Cable Trough						
S5_6185	TS4 (incl. TS4+) - OHVD Slab - Area C (access through temp. opening at TZ4)	7d/wk-1	36d	02-Jan-15 08*	06-Feb-15 18	195d
S5_6190	TS4 (incl. TS4+) - Cable Trough (access through temp. opening at TZ4)	7d/wk-1	60d	07-Feb-15 08*	14-Apr-15 18	195d
S5_59850	Completion of Section 5 - TS4/ME4 Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d
Works in TPCWAE Area (Portion 20A, 20B)						
Removal of Temporary Reclamation						
Removal of Temporary Reclamation & Form TZ5						
S67670	Remove general fill /sea wall block	7d/wk-1	24d	20-May-14 08 A	08-Oct-14 18	-296d
S67675	Diaphragm wall saw cutting (1st D Wall cut on 23 Jun 2014)	7d/wk-1	31d	03-Sep-14 08 A	16-Oct-14 18	-306d
S67755	Form TZ5	7d/wk-1	18d	25-Sep-14 08	14-Oct-14 18	-304d



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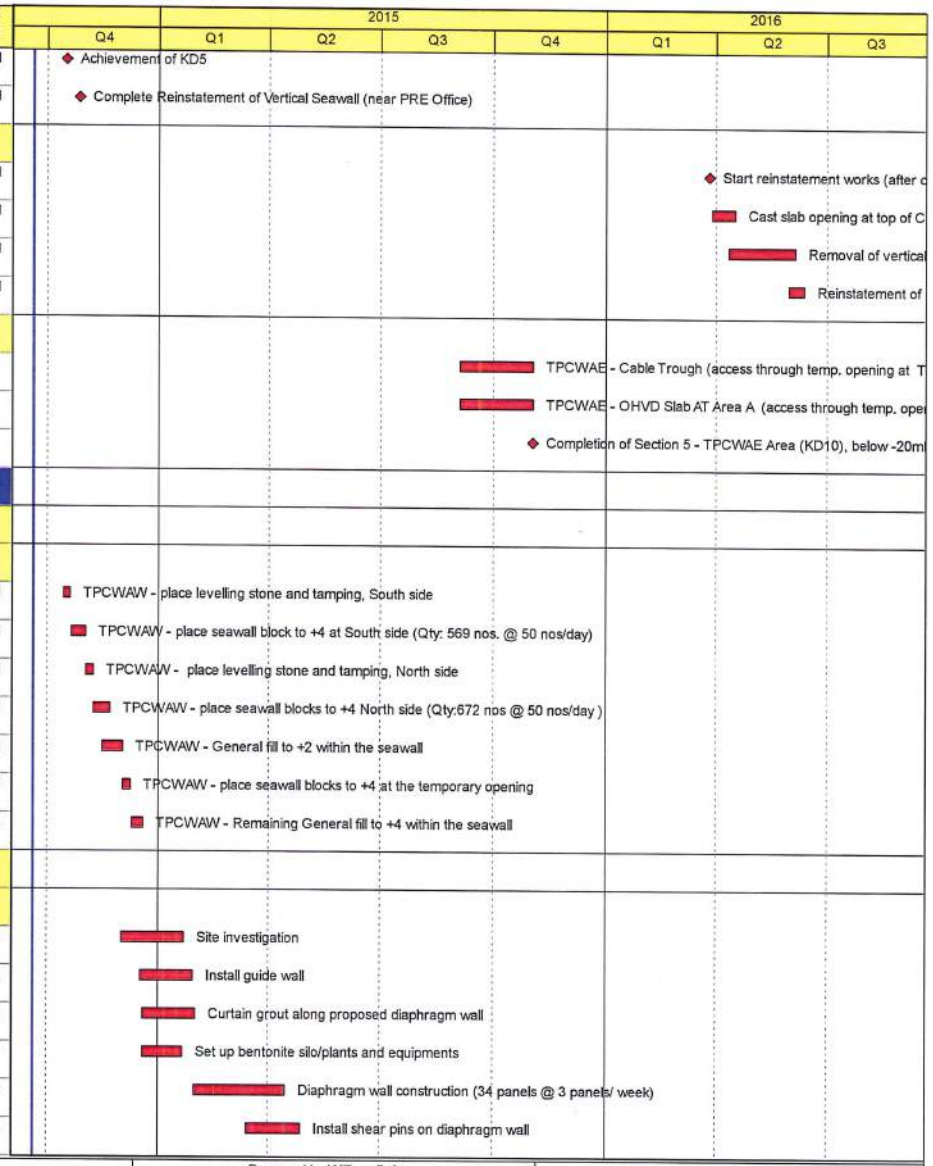
Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
S67685	Achievement of KD5	7d/wk-2	0d		16-Oct-14 18	-323d
S67687	Complete Reinstatement of Vertical Seawall (near PRE Office)	7d/wk-2	0d		27-Oct-14 18	-322d
Reinstate Mucking Out Access Shaft "C"						
S67240	Start reinstatement works (after completion of TPCWAW OHVD works)	6d/wk	0d	26-Mar-16 08		-102d
S67225	Cast slab opening at top of CCT West bound (access shaft)	6d/wk	18d	28-Mar-16 08	16-Apr-16 18	-102d
S67230	Removal of vertical shaft and backfilling	6d/wk	48d	11-Apr-16 08	04-Jun-16 18	-102d
S67235	Reinstatement of pavement	6d/wk	12d	30-May-16 08	11-Jun-16 18	-102d
TPCWAE - OHVD / Cable Trough						
S5_7405	TPCWAE - Cable Trough (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d
S5_7400	TPCWAE - OHVD Slab AT Area A (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d
S5_59840	Completion of Section 5 - TPCWAE Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d
Works in TPCWAW Area						
TPCWAW - Temporary Reclamation						
Temporary Reclamation -						
S6_9440	TPCWAW - place levelling stone and tamping, South side	7d/wk-1	6d	15-Oct-14 08	20-Oct-14 18	-122d
S6_9450	TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-122d
S6_9465	TPCWAW - place levelling stone and tamping, North side	7d/wk-1	6d	02-Nov-14 08	07-Nov-14 18	-122d
S6_9470	TPCWAW - place seawall blocks to +4 North side (Qty:672 nos @ 50 nos/day)	7d/wk-1	14d	08-Nov-14 08	21-Nov-14 18	-122d
S6_9495	TPCWAW - General fill to +2 within the seawall	7d/wk-1	17d	15-Nov-14 08	01-Dec-14 18	-122d
S6_9490	TPCWAW - place seawall blocks to +4 at the temporary opening	7d/wk-1	7d	02-Dec-14 08	08-Dec-14 18	-122d
S6_9475	TPCWAW - Remaining General fill to +4 within the seawall	7d/wk-1	10d	09-Dec-14 08	18-Dec-14 18	-122d
TPCWAW - Diaphragm Wall						
Diaphragm Wall						
S6_9385	Site investigation	7d/wk-1	49d	01-Dec-14 08	21-Jan-15 18	-113d
S6_8960	Install guide wall	7d/wk-1	40d	17-Dec-14 08	28-Jan-15 18	-120d
S6_8955	Curtain grout along proposed diaphragm wall	7d/wk-1	40d	19-Dec-14 08	30-Jan-15 18	-122d
S6_9382	Set up bentonite silo/plants and equipments	7d/wk-1	30d	19-Dec-14 08	20-Jan-15 18	-112d
S6_9345	Diaphragm wall construction (34 panels @ 3 panels/ week)	7d/wk-1	68d	30-Jan-15 08	14-Apr-15 18	-141d
S6_9350	Install shear pins on diaphragm wall	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d



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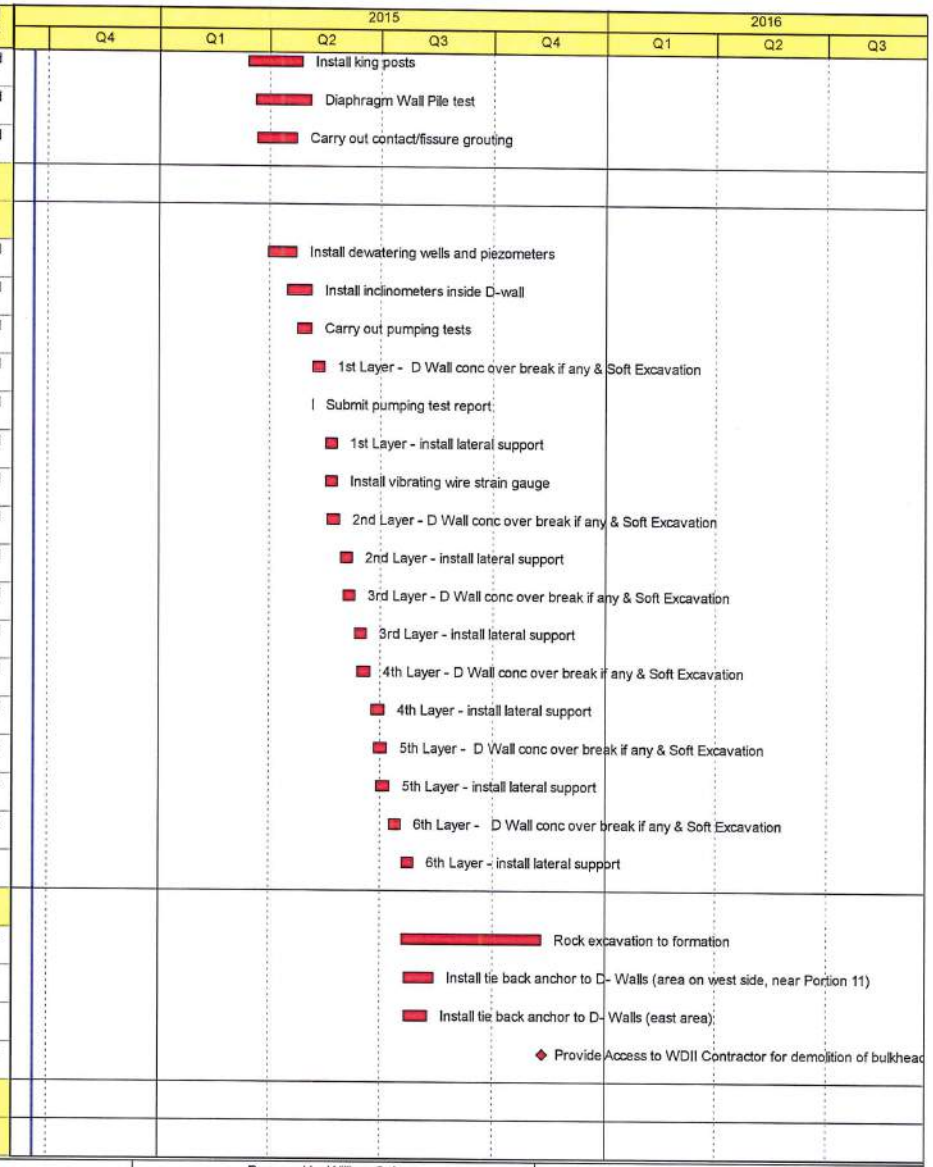
S6_9355	Install king posts	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d
S6_8970	Diaphragm Wall Pile test	7d/wk-1	40d	20-Mar-15 08	03-May-15 18	-129d
S6_9375	Carry out contact/fissure grouting	7d/wk-1	29d	21-Mar-15 08	22-Apr-15 18	-141d
TPCWAW- ELS Works						
ELS Works						
S6_9360	Install dewatering wells and piezometers	7d/wk-1	20d	30-Mar-15 08	22-Apr-15 18	-141d
S6_9365	Install inclinometers inside D-wall	7d/wk-1	20d	15-Apr-15 08	05-May-15 18	-141d
S6_8975	Carry out pumping tests	7d/wk-1	12d	23-Apr-15 08	05-May-15 18	-141d
S6_8980	1st Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	06-May-15 08	15-May-15 18	-141d
S6_9260	Submit pumping test report	7d/wk-1	1d	06-May-15 08	06-May-15 18	-137d
S6_8985	1st Layer - install lateral support	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d
S6_8990	Install vibrating wire strain gauge	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d
S6_8995	2nd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	18-May-15 08	28-May-15 18	-141d
S6_9000	2nd Layer - install lateral support	7d/wk-1	10d	29-May-15 08	07-Jun-15 18	-141d
S6_9005	3rd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	31-May-15 08	09-Jun-15 18	-141d
S6_9010	3rd Layer - install lateral support	7d/wk-1	10d	10-Jun-15 08	19-Jun-15 18	-141d
S6_9015	4th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	12-Jun-15 08	22-Jun-15 18	-141d
S6_9020	4th Layer - install lateral support	7d/wk-1	10d	23-Jun-15 08	03-Jul-15 18	-141d
S6_9025	5th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	25-Jun-15 08	05-Jul-15 18	-141d
S6_9030	5th Layer - install lateral support	7d/wk-1	10d	27-Jun-15 08	07-Jul-15 18	-141d
S6_9035	6th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	08-Jul-15 08	17-Jul-15 18	-141d
S6_9040	6th Layer - install lateral support	7d/wk-1	10d	18-Jul-15 08	27-Jul-15 18	-69d
TPCWAW - ROCK EXCAVATION						
S6_6180	Rock excavation to formation	7d/wk-1	112d	18-Jul-15 08	09-Nov-15 18	-141d
S6_9370	Install tie back anchor to D- Walls (area on west side, near Portion 11)	7d/wk-1	25d	20-Jul-15 08	13-Aug-15 18	-69d
S6_9415	Install tie back anchor to D- Walls (east area)	7d/wk-1	20d	20-Jul-15 08	08-Aug-15 18	-69d
S6_9055	Provide Access to WDII Contractor for demolition of bulkhead at Portion 11	7d/wk-2	0d		10-Nov-15 18	-133d
TPCWAW- CCT RC Structure						
TPCWAW - CCT / OHVD						



Summary Bar
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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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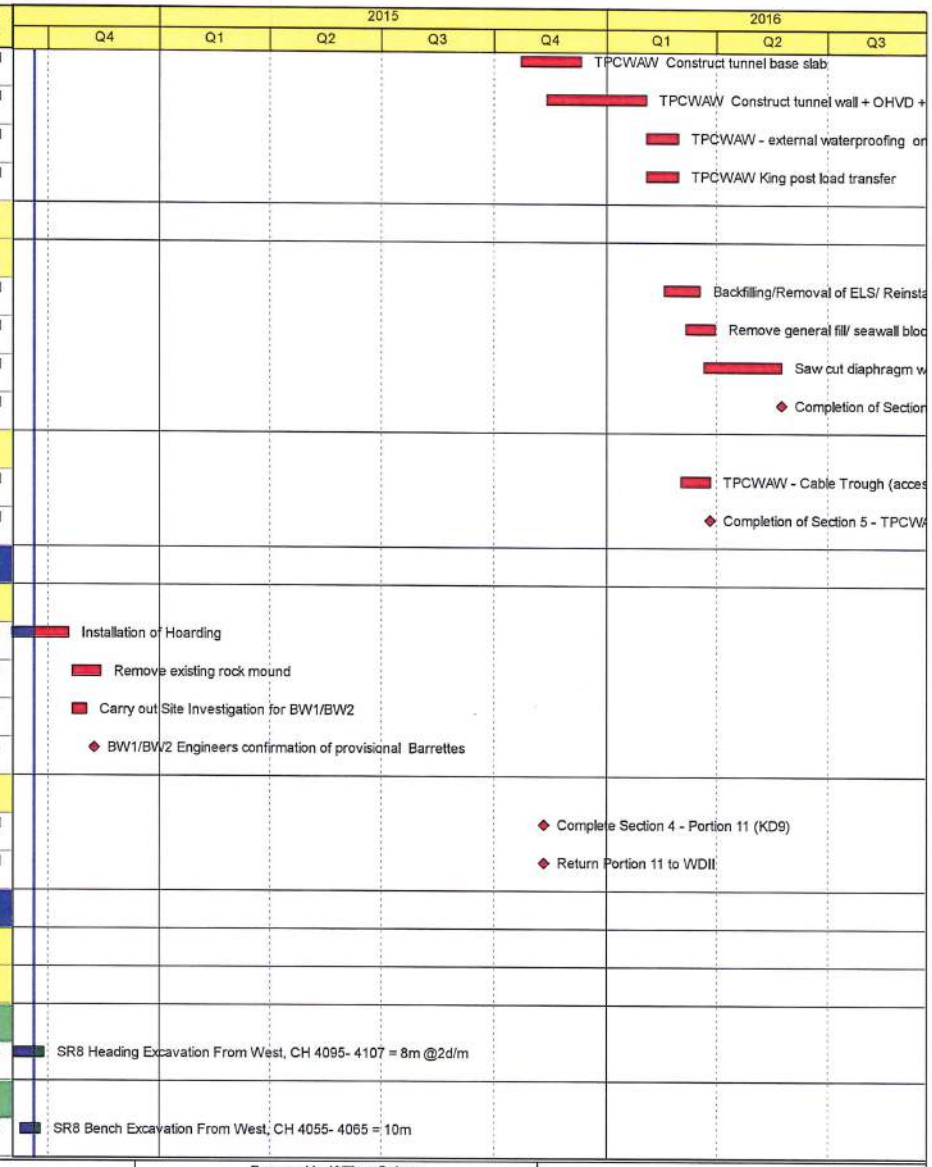
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
S6_9070	TPCWAW Construct tunnel base slab	7d/wk-1	50d	23-Oct-15 08	11-Dec-15 18	-141d
S6_9075	TPCWAW Construct tunnel wall + OHVD + roof slab	7d/wk-1	80d	13-Nov-15 08	02-Feb-16 18	-141d
S6_9077	TPCWAW - external waterproofing on top of completed CCT box (incl. screeding)	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d
S6_9076	TPCWAW King post load transfer	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d
	TPCWAW - Removal of Temporary Reclamation					
	Removal of Temporary Reclamation					
S6_9140	Backfilling/Removal of ELS/ Reinstatement of sea wall at Portion 11 (concurrent activities)	7d/wk-1	30d	17-Feb-16 08	17-Mar-16 18	-120d
S6_9105	Remove general fill/ seawall block (concurrent activities)	7d/wk-1	25d	06-Mar-16 08	30-Mar-16 18	-120d
S6_9120	Saw cut diaphragm wall	7d/wk-1	63d	21-Mar-16 08	23-May-16 18	-120d
S6_7550	Completion of Section 6- (KD11), above - 20mPD	7d/wk-2	0d		23-May-16 18	-121d
	TPCWAW -Cable Trough/ Maintenance Walkway					
S6_9085	TPCWAW - Cable Trough (access through temp. opening at Portion 19)	7d/wk-2	24d	02-Mar-16 08	25-Mar-16 18	-144d
S6_9135	Completion of Section 5 - TPCWAW Area (KD10), below -20mPD	7d/wk-2	0d		25-Mar-16 18	-144d
	Works in Wan Chai PCWA (Portion 11)					
	Initial Works & Utilities Works					
S4_2810	Installation of Hoarding	7d/wk-1	24d	05-May-14 08 A	17-Oct-14 18	-58d
S4_2720	Remove existing rock mound	7d/wk-1	24d	21-Oct-14 08	13-Nov-14 18	-61d
S4_2750	Carry out Site Investigation for BW1/BW2	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-61d
S4_2755	BW1/BW2 Engineers confirmation of provisional Barrettes	7d/wk-1	0d		07-Nov-14 18	-61d
	Allow Access to WDII					
S4_2785	Complete Section 4 - Portion 11 (KD9)	7d/wk-2	0d		10-Nov-15 18	-132d
S4_2775	Return Portion 11 to WDII	7d/wk-1	0d		10-Nov-15 18	-129d
	Works for Mined Tunnel (Portion 16, 17, 18)					
	SR8 (Tunnel Excavation + Lining)					
	From West (TPCWAE)					
	Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)					
A8676	SR8 Heading Excavation From West, CH 4095- 4107 = 8m @2d/m	7d/wk-1a	16d	03-Sep-14 08 A	28-Sep-14 18	164d
	Bench Excavation (1.5d-2d/m, 20m separation with heading)					
A8700	SR8 Bench Excavation From West, CH 4055- 4065 = 10m	7d/wk-1a	20d	08-Sep-14 08 A	24-Sep-14 18	148d



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China State Construction Engineering (Hong Kong) Ltd

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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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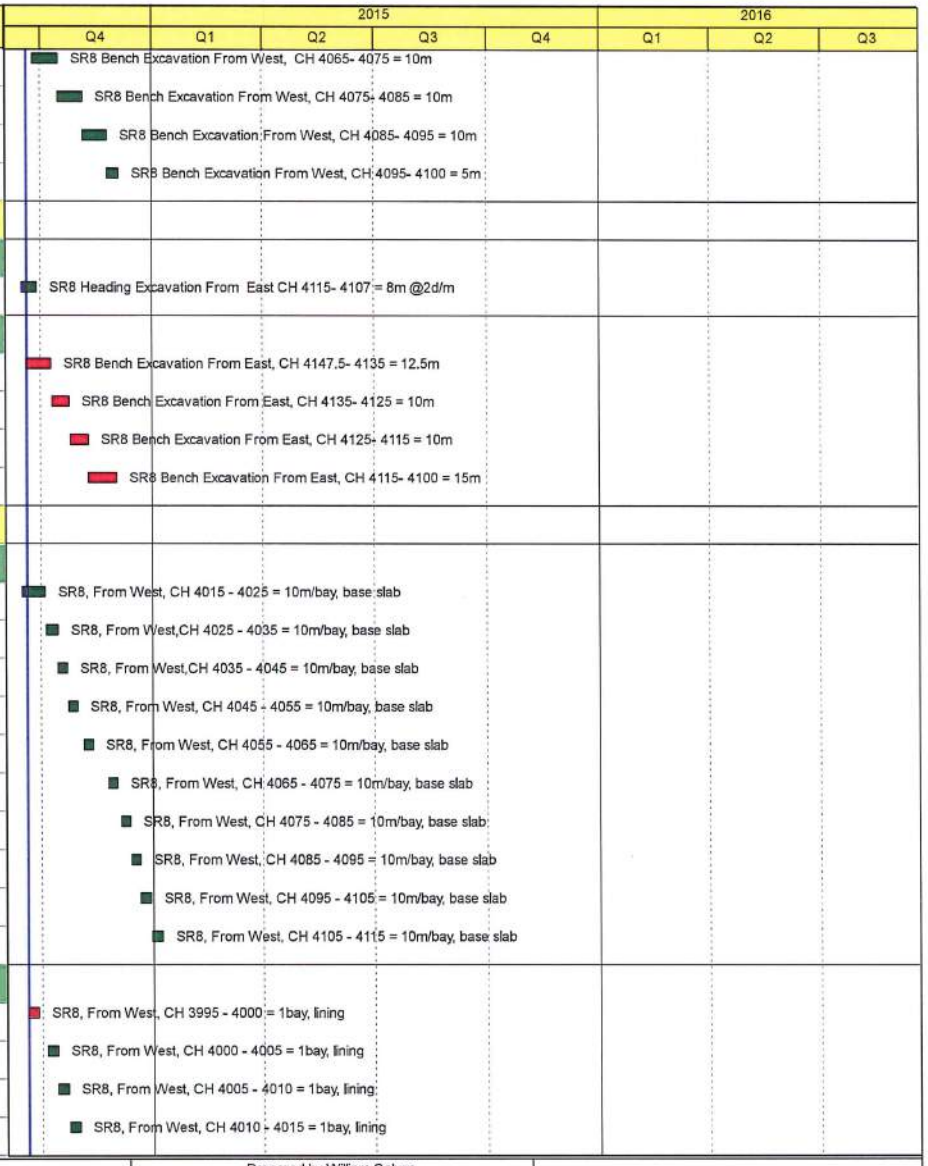
A8705	SR8 Bench Excavation From West, CH 4065- 4075 = 10m	7d/wk-1a	20d	25-Sep-14 08	15-Oct-14 18	148d
A8685	SR8 Bench Excavation From West, CH 4075- 4085 = 10m	7d/wk-1a	20d	16-Oct-14 08	04-Nov-14 18	148d
A8680	SR8 Bench Excavation From West, CH 4085- 4095 = 10m	7d/wk-1a	20d	05-Nov-14 08	24-Nov-14 18	148d
A8725	SR8 Bench Excavation From West, CH 4095- 4100 = 5m	7d/wk-1a	10d	25-Nov-14 08	04-Dec-14 18	148d
From East (TS4)						
Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)						
A8495	SR8 Heading Excavation From East CH 4115- 4107 = 8m @2d/m	7d/wk-1a	16d	15-Sep-14 08 A	28-Sep-14 18	10d
Bench Excavation (1.5d/m, 20m separation with heading)						
A8455	SR8 Bench Excavation From East, CH 4147.5- 4135 = 12.5m	7d/wk-1a	19d	20-Sep-14 08	09-Oct-14 18	0d
A8470	SR8 Bench Excavation From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	10-Oct-14 08	24-Oct-14 18	0d
A8460	SR8 Bench Excavation From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	25-Oct-14 08	08-Nov-14 18	0d
A8465	SR8 Bench Excavation From East, CH 4115- 4100 = 15m	7d/wk-1a	23d	09-Nov-14 08	01-Dec-14 18	0d
Tunnel Lining Works						
From West - Base Slab (10m/bay, 10m separation with benching excavation)						
A8525	SR8, From West, CH 4015 - 4025 = 10m/bay, base slab	7d/wk-1a	10d	15-Sep-14 08 A	04-Oct-14 18	137d
A8530	SR8, From West,CH 4025 - 4035 = 10m/bay, base slab	7d/wk-1a	10d	05-Oct-14 08	14-Oct-14 18	163d
A8535	SR8, From West,CH 4035 - 4045 = 10m/bay, base slab	7d/wk-1a	8d	15-Oct-14 08	22-Oct-14 18	165d
A8540	SR8, From West, CH 4045 - 4055 = 10m/bay, base slab	7d/wk-1a	8d	23-Oct-14 08	30-Oct-14 18	165d
A8545	SR8, From West, CH 4055 - 4065 = 10m/bay, base slab	7d/wk-1a	8d	05-Nov-14 08	12-Nov-14 18	160d
A8550	SR8, From West, CH 4065 - 4075 = 10m/bay, base slab	7d/wk-1a	8d	25-Nov-14 08	02-Dec-14 18	148d
A8555	SR8, From West, CH 4075 - 4085 = 10m/bay, base slab	7d/wk-1a	8d	05-Dec-14 08	12-Dec-14 18	148d
A8560	SR8, From West, CH 4085 - 4095 = 10m/bay, base slab	7d/wk-1a	8d	13-Dec-14 08	20-Dec-14 18	150d
A8561	SR8, From West, CH 4095 - 4105 = 10m/bay, base slab	7d/wk-1a	8d	21-Dec-14 08	29-Dec-14 18	152d
A8562	SR8, From West, CH 4105 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	30-Dec-14 08	07-Jan-15 18	154d
From West - Lining (5m/bay, 10m separation with base slab)						
A8575	SR8, From West, CH 3995 - 4000 = 1bay, lining	7d/wk-1a	9d	20-Sep-14 08	28-Sep-14 18	0d
A8580	SR8, From West, CH 4000 - 4005 = 1bay, lining	7d/wk-1a	9d	05-Oct-14 08	13-Oct-14 18	137d
A8585	SR8, From West, CH 4005 - 4010 = 1bay, lining	7d/wk-1a	9d	14-Oct-14 08	22-Oct-14 18	137d
A8590	SR8, From West, CH 4010 - 4015 = 1bay, lining	7d/wk-1a	9d	23-Oct-14 08	31-Oct-14 18	137d



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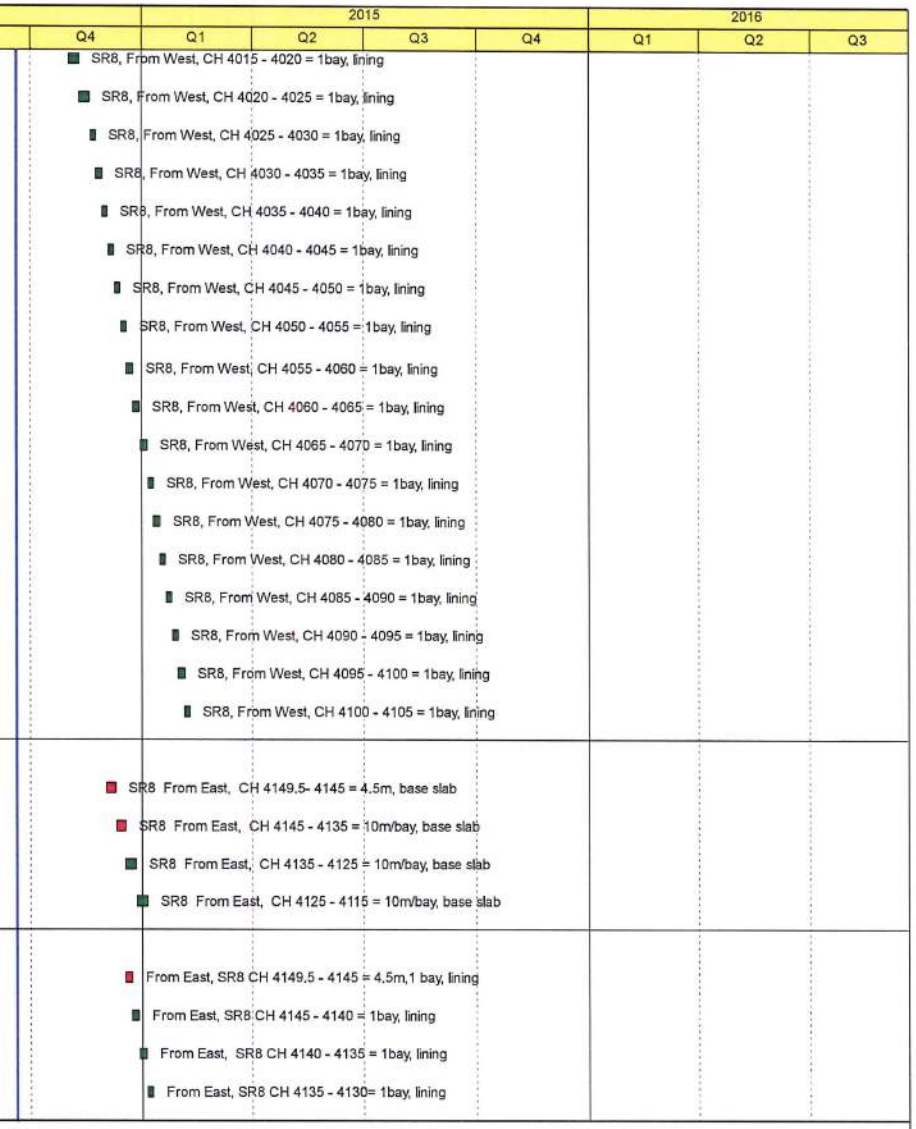
A8595	SR8, From West, CH 4015 - 4020 = 1bay, lining	7d/wk-1a	9d	01-Nov-14 08	09-Nov-14 18	137d
A8600	SR8, From West, CH 4020 - 4025 = 1bay, lining	7d/wk-1a	9d	10-Nov-14 08	18-Nov-14 18	137d
A8605	SR8, From West, CH 4025 - 4030 = 1bay, lining	7d/wk-1a	5d	19-Nov-14 08	23-Nov-14 18	137d
A8610	SR8, From West, CH 4030 - 4035 = 1bay, lining	7d/wk-1a	5d	24-Nov-14 08	28-Nov-14 18	137d
A8615	SR8, From West, CH 4035 - 4040 = 1bay, lining	7d/wk-1a	5d	29-Nov-14 08	03-Dec-14 18	137d
A8620	SR8, From West, CH 4040 - 4045 = 1bay, lining	7d/wk-1a	5d	04-Dec-14 08	08-Dec-14 18	137d
A8625	SR8, From West, CH 4045 - 4050 = 1bay, lining	7d/wk-1a	5d	09-Dec-14 08	13-Dec-14 18	137d
A8630	SR8, From West, CH 4050 - 4055 = 1bay, lining	7d/wk-1a	5d	14-Dec-14 08	18-Dec-14 18	137d
A8635	SR8, From West, CH 4055 - 4060 = 1bay, lining	7d/wk-1a	5d	19-Dec-14 08	23-Dec-14 18	137d
A8640	SR8, From West, CH 4060 - 4065 = 1bay, lining	7d/wk-1a	5d	24-Dec-14 08	29-Dec-14 18	137d
A8645	SR8, From West, CH 4065 - 4070 = 1bay, lining	7d/wk-1a	5d	30-Dec-14 08	04-Jan-15 18	137d
A8647	SR8, From West, CH 4070 - 4075 = 1bay, lining	7d/wk-1a	5d	05-Jan-15 08	09-Jan-15 18	137d
A8648	SR8, From West, CH 4075 - 4080 = 1bay, lining	7d/wk-1a	5d	10-Jan-15 08	14-Jan-15 18	137d
A8649	SR8, From West, CH 4080 - 4085 = 1bay, lining	7d/wk-1a	5d	15-Jan-15 08	19-Jan-15 18	137d
A8651	SR8, From West, CH 4085 - 4090 = 1bay, lining	7d/wk-1a	5d	20-Jan-15 08	24-Jan-15 18	137d
A8652	SR8, From West, CH 4090 - 4095 = 1bay, lining	7d/wk-1a	5d	25-Jan-15 08	29-Jan-15 18	137d
A8653	SR8, From West, CH 4095 - 4100 = 1bay, lining	7d/wk-1a	5d	30-Jan-15 08	03-Feb-15 18	137d
A8654	SR8, From West, CH 4100 - 4105 = 1bay, lining	7d/wk-1a	5d	04-Feb-15 08	08-Feb-15 18	137d
From East - Base Slab (10m/bay, 10m separation with benching excavation)						
A9775	SR8 From East, CH 4149.5- 4145 = 4.5m, base slab	7d/wk-1a	8d	02-Dec-14 08	09-Dec-14 18	0d
A9780	SR8 From East, CH 4145 - 4135 = 10m/bay, base slab	7d/wk-1a	8d	10-Dec-14 08	17-Dec-14 18	0d
A9785	SR8 From East, CH 4135 - 4125 = 10m/bay, base slab	7d/wk-1a	8d	18-Dec-14 08	26-Dec-14 18	8d
A9786	SR8 From East, CH 4125 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	27-Dec-14 08	04-Jan-15 18	10d
From East - Lining (5m/bay, 10m separation with base slab)						
A9820	From East, SR8 CH 4149.5 - 4145 = 4.5m,1 bay, lining	7d/wk-1a	5d	18-Dec-14 08	22-Dec-14 18	0d
A9815	From East, SR8 CH 4145 - 4140 = 1bay, lining	7d/wk-1a	5d	23-Dec-14 08	28-Dec-14 18	6d
A9810	From East, SR8 CH 4140 - 4135 = 1bay, lining	7d/wk-1a	5d	29-Dec-14 08	03-Jan-15 18	6d
A9805	From East, SR8 CH 4135 - 4130= 1bay, lining	7d/wk-1a	5d	04-Jan-15 08	08-Jan-15 18	6d



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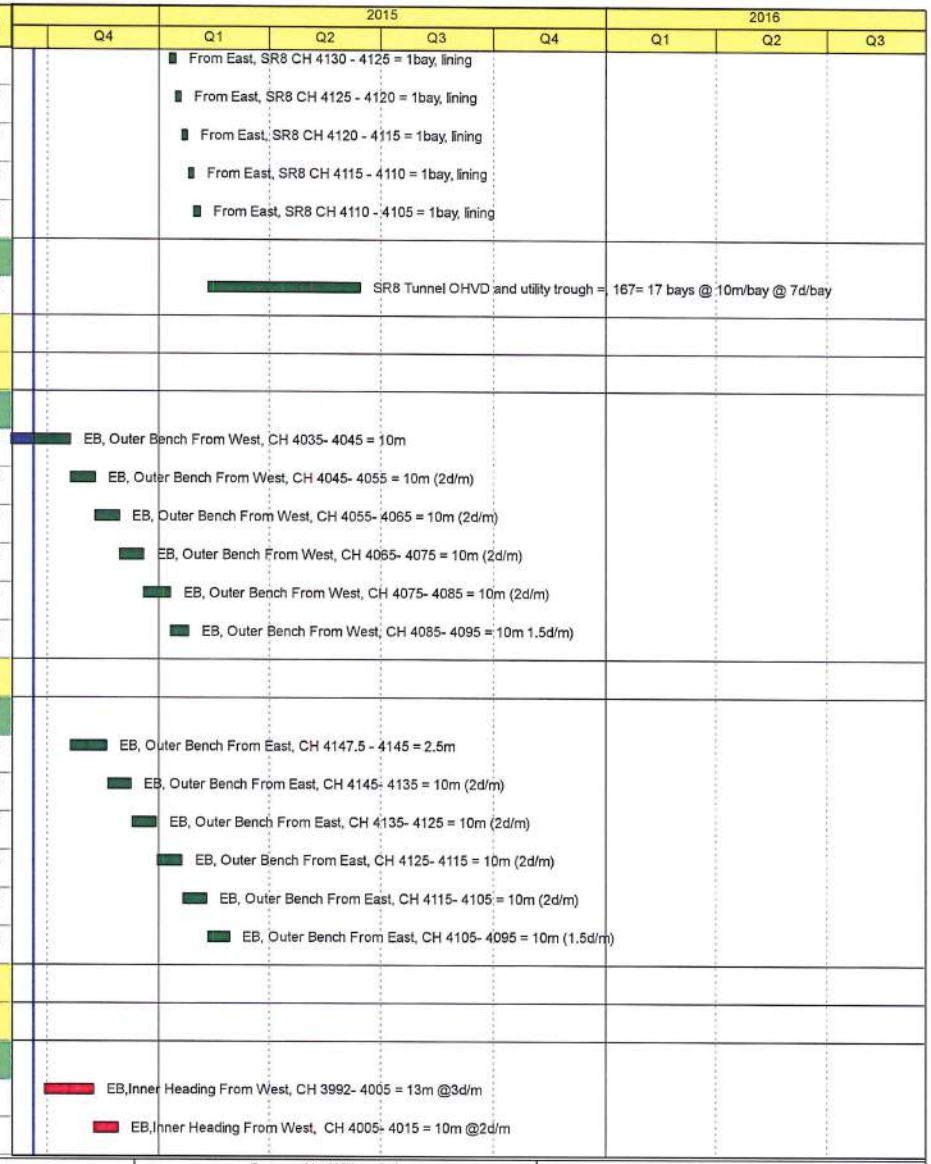
A9870	From East, SR8 CH 4130 - 4125 = 1bay, lining	7d/wk-1a	5d	09-Jan-15 08	13-Jan-15 18	6d
A9800	From East, SR8 CH 4125 - 4120 = 1bay, lining	7d/wk-1a	5d	14-Jan-15 08	18-Jan-15 18	143d
A9860	From East, SR8 CH 4120 - 4115 = 1bay, lining	7d/wk-1a	5d	19-Jan-15 08	23-Jan-15 18	143d
A9855	From East, SR8 CH 4115 - 4110 = 1bay, lining	7d/wk-1a	5d	24-Jan-15 08	28-Jan-15 18	143d
A9850	From East, SR8 CH 4110 - 4105 = 1bay, lining	7d/wk-1a	5d	29-Jan-15 08	02-Feb-15 18	143d
OHVD(10m/bay) / Utility Trough						
A8570	SR8 Tunnel OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	09-Feb-15 08	13-Jun-15 18	137d
EB Outer Tunnel Excavation						
From West (TPCWAE)						
Outer Bench Excavation (1.5d - 2d/m, 20m separation with heading)						
A9550	EB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	30d	07-Aug-14 08 A	20-Oct-14 18	135d
A9555	EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)	7d/wk-1a	20d	20-Oct-14 08	08-Nov-14 18	135d
A9560	EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)	7d/wk-1a	20d	09-Nov-14 08	28-Nov-14 18	135d
A9565	EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)	7d/wk-1a	20d	29-Nov-14 08	18-Dec-14 18	135d
A9520	EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)	7d/wk-1a	20d	19-Dec-14 08	09-Jan-15 18	135d
A9545	EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)	7d/wk-1a	15d	10-Jan-15 08	24-Jan-15 18	135d
From East (TS4)						
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)						
A9605	EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	30d	20-Oct-14 08*	18-Nov-14 18	120d
A9610	EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	120d
A9615	EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	120d
A9620	EB, Outer Bench From East, CH 4125- 4115 = 10m (2d/m)	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	120d
A9625	EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	120d
A9630	EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	120d
EB (Inner Tunnel Excavation + Lining)						
From West (TPCWAE)						
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)						
A8805	EB,Inner Heading From West, CH 3992- 4005 = 13m @3d/m	7d/wk-1a	39d	29-Sep-14 08	07-Nov-14 18	0d
A8815	EB,Inner Heading From West, CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	08-Nov-14 08	27-Nov-14 18	0d



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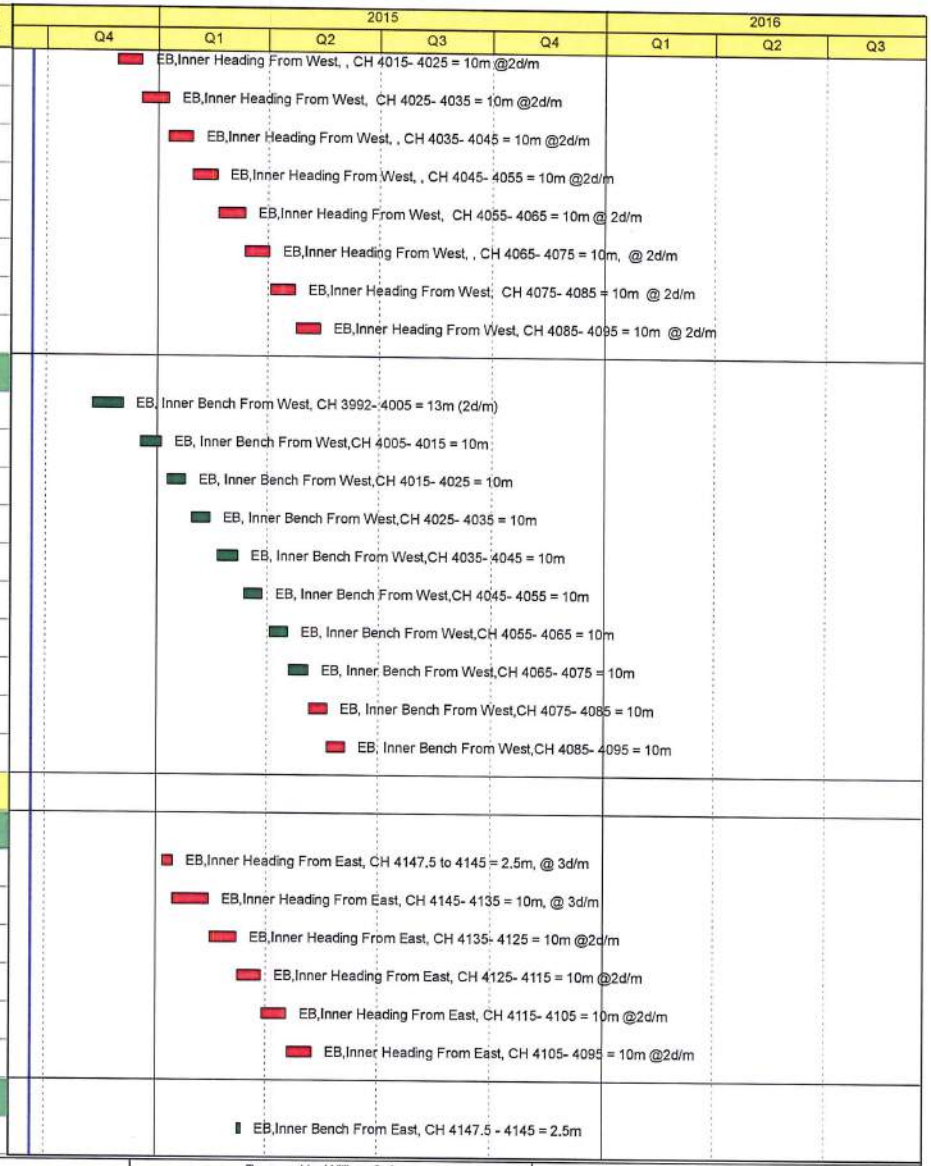
A8820	EB,Inner Heading From West, , CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	28-Nov-14 08	17-Dec-14 18	0d
A8780	EB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	18-Dec-14 08	08-Jan-15 18	0d
A8810	EB,Inner Heading From West, , CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	09-Jan-15 08	28-Jan-15 18	0d
A8785	EB,Inner Heading From West, , CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	29-Jan-15 08	17-Feb-15 18	0d
A8790	EB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	18-Feb-15 08	12-Mar-15 18	0d
A8795	EB,Inner Heading From West, , CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	13-Mar-15 08	01-Apr-15 18	0d
A8800	EB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	02-Apr-15 08	22-Apr-15 18	0d
A8825	EB,Inner Heading From West, CH 4085- 4095 = 10m @ 2d/m	7d/wk-1a	20d	23-Apr-15 08	13-May-15 18	0d
	Inner Bench Excavation (1.5-2d/m, 20m separation with heading)					
A8765	EB, Inner Bench From West, CH 3992- 4005 = 13m (2d/m)	7d/wk-1a	26d	08-Nov-14 08	03-Dec-14 18	23d
A8770	EB, Inner Bench From West,CH 4005- 4015 = 10m	7d/wk-1a	15d	18-Dec-14 08	03-Jan-15 18	9d
A8775	EB, Inner Bench From West,CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Jan-15 08	23-Jan-15 18	4d
A8735	EB, Inner Bench From West,CH 4025- 4035 = 10m	7d/wk-1a	15d	29-Jan-15 08	12-Feb-15 18	14d
A8740	EB, Inner Bench From West,CH 4035- 4045 = 10m	7d/wk-1a	15d	18-Feb-15 08	07-Mar-15 18	11d
A8745	EB, Inner Bench From West,CH 4045- 4055 = 10m	7d/wk-1a	15d	13-Mar-15 08	27-Mar-15 18	6d
A8750	EB, Inner Bench From West,CH 4055- 4065 = 10m	7d/wk-1a	15d	02-Apr-15 08	17-Apr-15 18	1d
A8755	EB, Inner Bench From West,CH 4065- 4075 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	1d
A8760	EB, Inner Bench From West,CH 4075- 4085 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d
A8761	EB, Inner Bench From West,CH 4085- 4095 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d
	From East (TS4)					
	Inner Heading Excavation (3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)					
A8835	EB,Inner Heading From East, CH 4147.5 to 4145 = 2.5m, @ 3d/m	7d/wk-1a	8d	06-Jan-15 08	13-Jan-15 18	0d
A8850	EB,Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m	7d/wk-1a	30d	14-Jan-15 08	12-Feb-15 18	0d
A8830	EB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	13-Feb-15 08	07-Mar-15 18	0d
A8840	EB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	08-Mar-15 08	27-Mar-15 18	0d
A9910	EB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	28-Mar-15 08	17-Apr-15 18	0d
A8845	EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Apr-15 08	08-May-15 18	0d
	Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)					
A8860	EB,Inner Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	4d	08-Mar-15 08	11-Mar-15 18	11d



Summary Bar
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
◆ Milestone

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

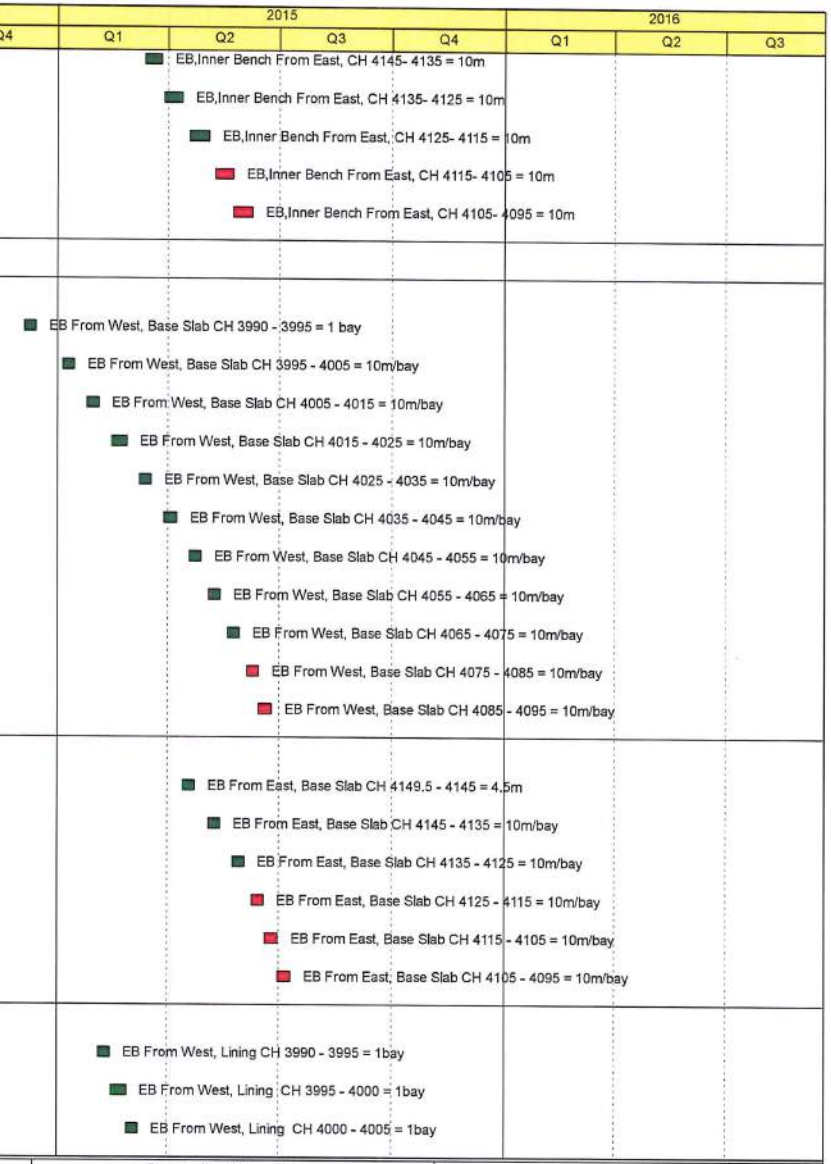
WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

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

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
A8865	EB,Inner Bench From East, CH 4145- 4135 = 10m	7d/wk-1a	15d	12-Mar-15 08	26-Mar-15 18	11d
A8870	EB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	28-Mar-15 08	12-Apr-15 18	10d
A8855	EB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	5d
A8875	EB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	09-May-15 08	23-May-15 18	0d
A9915	EB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	16d	24-May-15 08	08-Jun-15 18	0d
Tunnel Lining Works						
From West Base Slab (10m/bay, 10m separation with benching excavation)						
A8900	EB From West, Base Slab CH 3990 - 3995 = 1 bay	7d/wk-1a	10d	04-Dec-14 08	13-Dec-14 18	33d
A8890	EB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Jan-15 08	13-Jan-15 18	14d
A8905	EB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	24-Jan-15 08	02-Feb-15 18	4d
A8910	EB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	14d
A8915	EB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	12d
A8920	EB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	28-Mar-15 08	07-Apr-15 18	8d
A8925	EB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	18-Apr-15 08	27-Apr-15 18	4d
A8930	EB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	5d
A8880	EB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	5d
A8885	EB From West, Base Slab CH 4075 - 4085 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	0d
A8895	EB From West, Base Slab CH 4085 - 4095 = 10m/bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	0d
From East Base Slab (10m/bay, 10m separation with benching excavation)						
A9905	EB From East, Base Slab CH 4149.5 - 4145 = 4.5m	7d/wk-1a	10d	13-Apr-15 08	22-Apr-15 18	26d
A9900	EB From East, Base Slab CH 4145 - 4135 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	16d
A9895	EB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	24-May-15 08	02-Jun-15 18	6d
A9890	EB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	09-Jun-15 08	18-Jun-15 18	0d
A9885	EB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d
A9880	EB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d
Lining (5m/bay, 15m separation with base slab)						
A9065	EB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	10d	03-Feb-15 08	12-Feb-15 18	4d
A9005	EB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	4d
A9090	EB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	10d	26-Feb-15 08	07-Mar-15 18	4d



Summary Bar
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

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

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
A9050	EB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	4d
A9055	EB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	10d	18-Mar-15 08	27-Mar-15 18	4d
A9060	EB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	10d	26-Mar-15 08	05-Apr-15 18	4d
A9070	EB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	10d	03-Apr-15 08	13-Apr-15 18	4d
A9075	EB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	10d	12-Apr-15 08	21-Apr-15 18	4d
A9080	EB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	10d	20-Apr-15 08	29-Apr-15 18	4d
A9085	EB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	10d	28-Apr-15 08	08-May-15 18	4d
A9015	EB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	10d	07-May-15 08	16-May-15 18	4d
A9020	EB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	10d	15-May-15 08	24-May-15 18	4d
A9025	EB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	10d	23-May-15 08	01-Jun-15 18	4d
A9030	EB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	10d	31-May-15 08	09-Jun-15 18	4d
A9035	EB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	10d	07-Jun-15 08	16-Jun-15 18	4d
A9040	EB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	4d
A9045	EB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	10d	25-Jun-15 08	05-Jul-15 18	0d
A8955	EB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d
A8960	EB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d
A8970	EB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d
A8975	EB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d
A8980	EB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d
A8985	EB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d
A8990	EB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d
A8995	EB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d
A9000	EB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d
A9010	EB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d
A8965	EB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d
A8935	EB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d
A8940	EB From West, Lining CH 4135 - 4140 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d
A8945	EB From West, Lining CH 4140 - 4145 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d
A8950	EB From West, Lining CH 4145 - 4149.5 = 4.5m	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d

Summary Bar
Actual Level of Effort
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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

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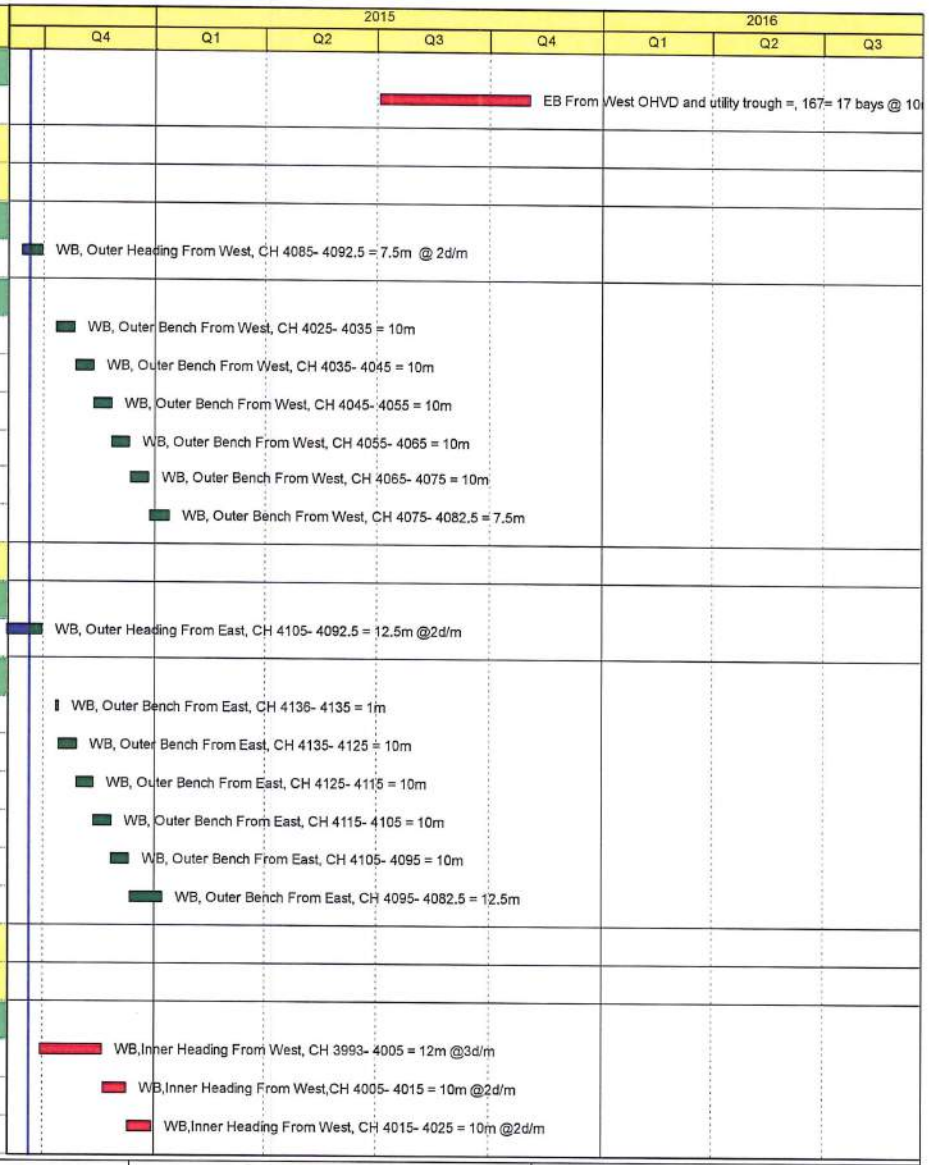
中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
OHVD(10m/bay) / Utility Trough						
A9095	EB From West OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	03-Jul-15 08	02-Nov-15 18	0d
WB Outer Tunnel Excavation						
From West (TPCWAE)						
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)						
A9651	WB, Outer Heading From West, CH 4085- 4092.5 = 7.5m @ 2d/m	7d/wk-1a	15d	13-Sep-14 08 A	30-Sep-14 18	163d
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)						
A9680	WB, Outer Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	12-Oct-14 08	26-Oct-14 18	163d
A9665	WB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	27-Oct-14 08	10-Nov-14 18	163d
A9670	WB, Outer Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	163d
A9675	WB, Outer Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	163d
A9700	WB, Outer Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	11-Dec-14 08	26-Dec-14 18	163d
A9701	WB, Outer Bench From West, CH 4075- 4082.5 = 7.5m	7d/wk-1a	15d	27-Dec-14 08	11-Jan-15 18	163d
From East (TS4)						
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)						
A9730	WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m @2d/m	7d/wk-1a	25d	30-Aug-14 08 A	30-Sep-14 18	168d
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)						
A9740	WB, Outer Bench From East, CH 4136- 4135 = 1m	7d/wk-1a	2d	12-Oct-14 08	13-Oct-14 18	168d
A9770	WB, Outer Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	14-Oct-14 08	28-Oct-14 18	168d
A9745	WB, Outer Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	28-Oct-14 08	11-Nov-14 18	168d
A9750	WB, Outer Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	168d
A9755	WB, Outer Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	168d
A9760	WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m	7d/wk-1a	25d	11-Dec-14 08	06-Jan-15 18	168d
WB (Inner Tunnel Excavation + Lining)						
From West (TPCWAE)						
Inner Heading Excavation (2-3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)						
A9130	WB,Inner Heading From West, CH 3993- 4005 = 12m @3d/m	7d/wk-1a	50d	29-Sep-14 08	18-Nov-14 18	0d
A9135	WB,Inner Heading From West,CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	0d
A9140	WB,Inner Heading From West, CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	0d



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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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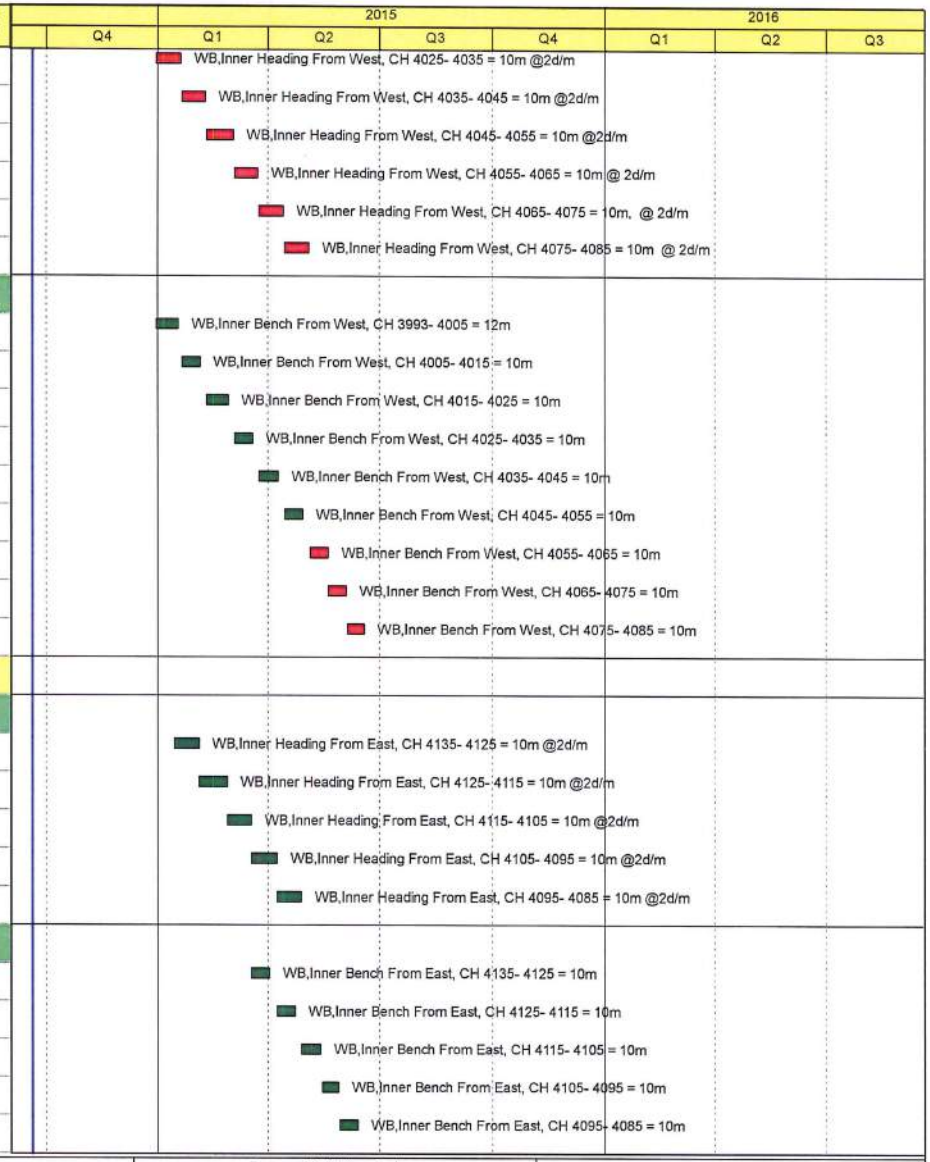
A9100	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	0d
A9105	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	0d
A9110	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	09-Feb-15 08	03-Mar-15 18	0d
A9115	WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	04-Mar-15 08	23-Mar-15 18	0d
A9120	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	24-Mar-15 08	13-Apr-15 18	0d
A9125	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	14-Apr-15 08	04-May-15 18	0d
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)						
A9180	WB,Inner Bench From West, CH 3993- 4005 = 12m	7d/wk-1a	18d	30-Dec-14 08	17-Jan-15 18	27d
A9205	WB,Inner Bench From West, CH 4005- 4015 = 10m	7d/wk-1a	15d	20-Jan-15 08	03-Feb-15 18	25d
A9190	WB,Inner Bench From West, CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	20d
A9185	WB,Inner Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	04-Mar-15 08	18-Mar-15 18	15d
A9155	WB,Inner Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	24-Mar-15 08	08-Apr-15 18	10d
A9160	WB,Inner Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	14-Apr-15 08	28-Apr-15 18	5d
A9165	WB,Inner Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d
A9170	WB,Inner Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d
A9175	WB,Inner Bench From West, CH 4075- 4085 = 10m	7d/wk-1a	15d	04-Jun-15 08	18-Jun-15 18	0d
From East (TS4)						
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)						
A9210	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	14-Jan-15 08	02-Feb-15 18	6d
A9215	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	03-Feb-15 08	25-Feb-15 18	6d
A9230	WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	26-Feb-15 08	17-Mar-15 18	6d
A9232	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Mar-15 08	07-Apr-15 18	6d
A9225	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m	7d/wk-1a	20d	08-Apr-15 08	27-Apr-15 18	6d
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)						
A9235	WB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	18-Mar-15 08	01-Apr-15 18	16d
A9240	WB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	08-Apr-15 08	22-Apr-15 18	11d
A9245	WB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	28-Apr-15 08	13-May-15 18	6d
A9247	WB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	14-May-15 08	28-May-15 18	6d
A9250	WB,Inner Bench From East, CH 4095- 4085 = 10m	7d/wk-1a	15d	29-May-15 08	12-Jun-15 18	6d



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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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Tunnel Lining Works						
From West Base Slab (10m/bay, 10m separation with benching excavation)						
A9295	WB From West, Base Slab CH 3990 - 3995 = 5m bay	7d/wk-1a	10d	18-Jan-15 08	27-Jan-15 18	37d
A9320	WB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Feb-15 08	13-Feb-15 18	30d
A9255	WB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	27-Feb-15 08	08-Mar-15 18	50d
A9260	WB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	19-Mar-15 08	28-Mar-15 18	40d
A9265	WB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	09-Apr-15 08	18-Apr-15 18	30d
A9300	WB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	29-Apr-15 08	09-May-15 18	20d
A9325	WB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	10d
A9305	WB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	5d
A9310	WB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d
A9315	WB From West, Base Slab CH 4075 - 4080 = 5m	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d
From East Base Slab (10m/bay, 10m separation with benching excavation)						
A9960	WB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	23-Apr-15 08	03-May-15 18	26d
A9955	WB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	14-May-15 08	23-May-15 18	16d
A9950	WB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	29-May-15 08	07-Jun-15 18	11d
A9945	WB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	13-Jun-15 08	23-Jun-15 18	6d
A9940	WB From East, Base Slab CH 4095 - 4085 = 10m/bay	7d/wk-1a	10d	24-Jun-15 08	04-Jul-15 18	6d
A9941	WB From East, Base Slab CH 4085 - 4080 = 5m	7d/wk-1a	10d	05-Jul-15 08	14-Jul-15 18	6d
Lining (5m/bay, 10m separation with base slab)						
A9430	WB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	7d	14-Feb-15 08	23-Feb-15 18	30d
A9470	WB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	7d	24-Feb-15 08	02-Mar-15 18	30d
A9435	WB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	7d	03-Mar-15 08	09-Mar-15 18	30d
A9360	WB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	7d	10-Mar-15 08	16-Mar-15 18	30d
A9365	WB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	7d	17-Mar-15 08	23-Mar-15 18	30d
A9370	WB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	7d	24-Mar-15 08	30-Mar-15 18	30d
A9375	WB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	7d	31-Mar-15 08	07-Apr-15 18	30d
A9380	WB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	7d	08-Apr-15 08	14-Apr-15 18	30d
A9385	WB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	7d	15-Apr-15 08	21-Apr-15 18	30d

Summary Bar
Actual Level of Effort
Actual Work
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Critical Remaining Work
◆ Milestone

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

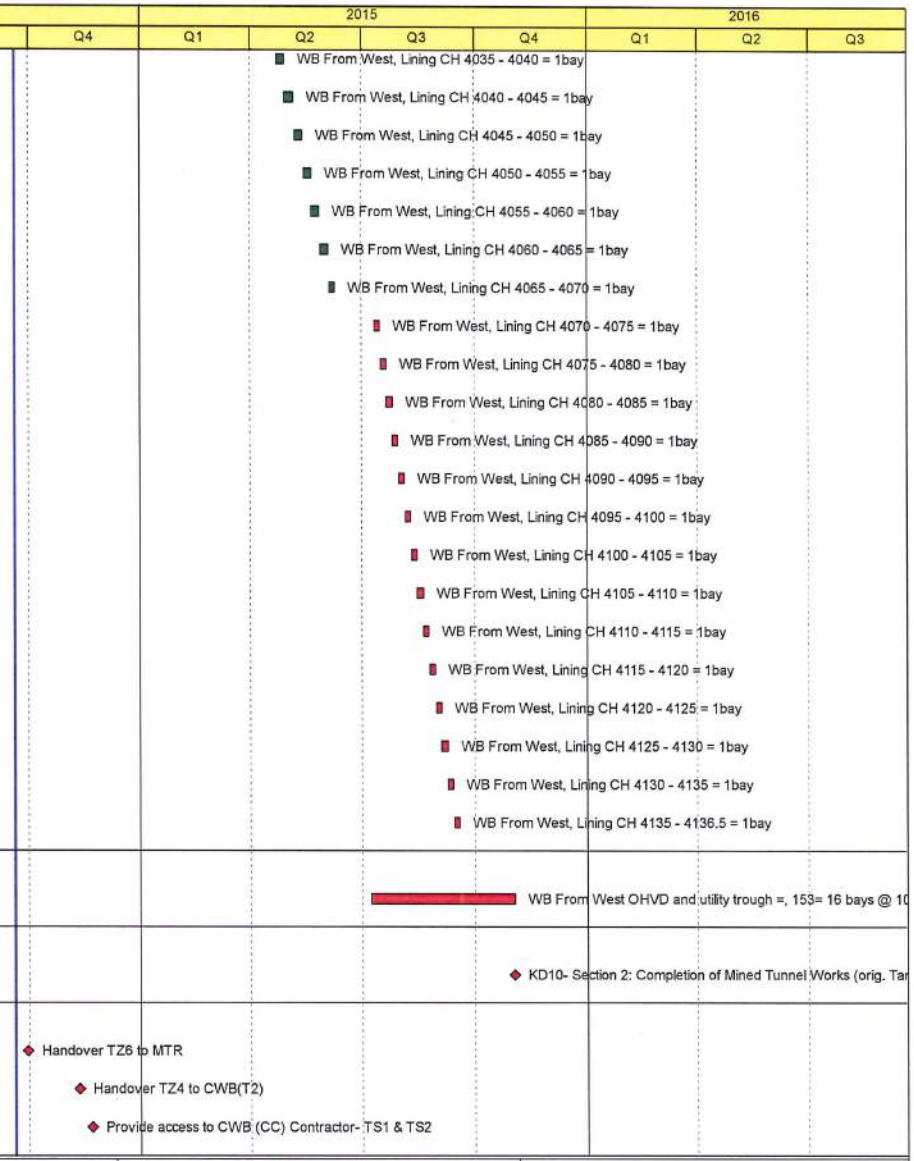
WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

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

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
A9390	WB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	7d	22-Apr-15 08	28-Apr-15 18	30d
A9330	WB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	7d	29-Apr-15 08	06-May-15 18	30d
A9335	WB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	7d	07-May-15 08	13-May-15 18	30d
A9340	WB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	7d	14-May-15 08	20-May-15 18	30d
A9345	WB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	7d	21-May-15 08	27-May-15 18	30d
A9350	WB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	7d	28-May-15 08	03-Jun-15 18	30d
A9355	WB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	5d	04-Jun-15 08	08-Jun-15 18	30d
A9415	WB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d
A9475	WB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d
A9440	WB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d
A9445	WB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d
A9450	WB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d
A9455	WB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d
A9420	WB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d
A9425	WB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d
A9460	WB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d
A9465	WB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d
A9395	WB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d
A9400	WB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d
A9405	WB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d
A9410	WB From West, Lining CH 4135 - 4136.5 = 1bay	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d
OHVD(10m/bay) / Utility Trough						
A9480	WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay	7d/wk-1a	115d	08-Jul-15 08	02-Nov-15 18	0d
Completion of KD10- Section 5						
A8445	KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)	7d/wk-2	0d		02-Nov-15 18*	0d
Interface works with other Contracts						
S5_60115	Handover TZ6 to MTR	7d/wk-2	0d		30-Sep-14 18	-249d
S6_5283	Handover TZ4 to CWB(T2)	7d/wk-2	0d		10-Nov-14 18	-290d
S6_5275	Provide access to CWB (CC) Contractor- TS1 & TS2	7d/wk-2	0d		21-Nov-14 18*	-85d



Summary Bar
Actual Level of Effort
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Milestone

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

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Date	Revision	Checked	Approved
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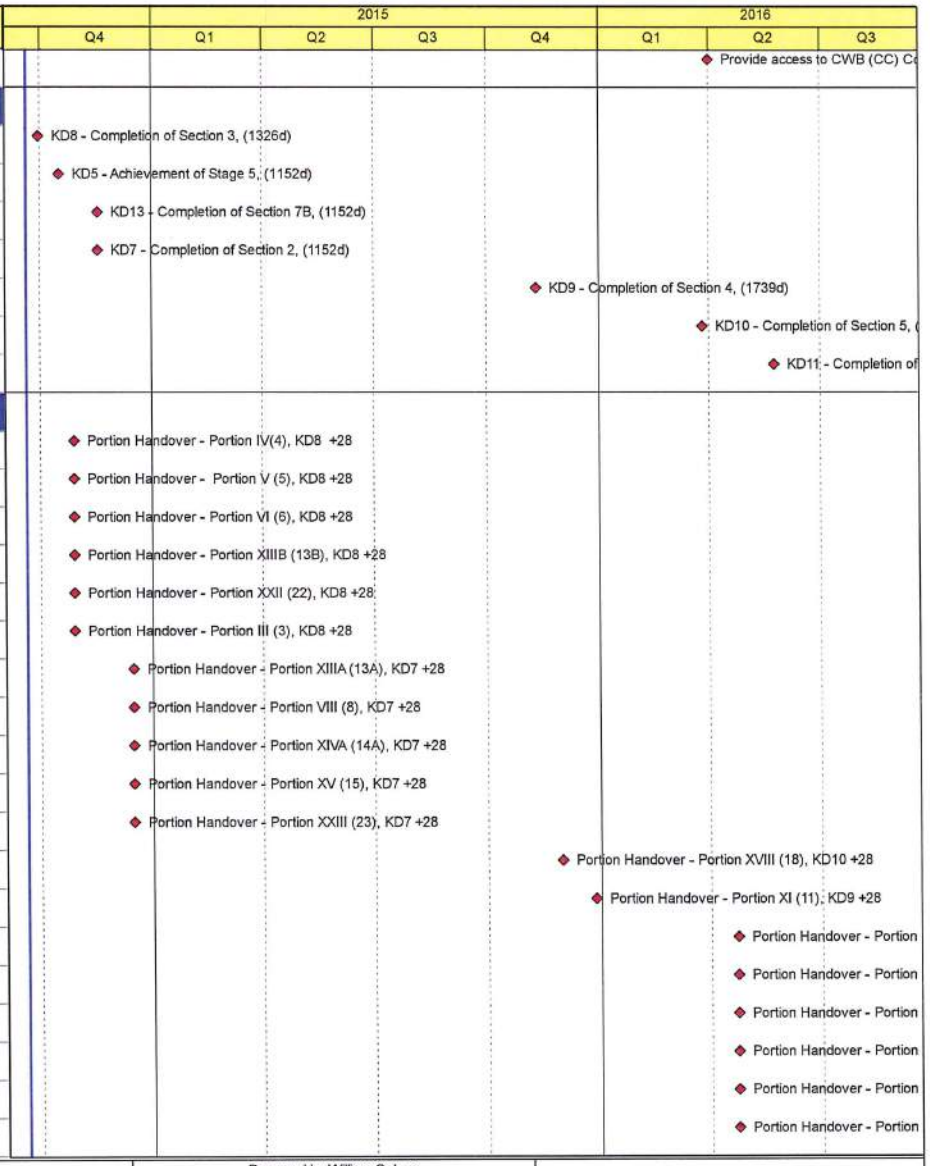
中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
S6_5280	Provide access to CWB (CC) Contractor- TS4, TPCWA, Mined Tunnel	7d/wk-2	0d		31-Mar-16 18*	-124d
Stage and Section Completion						
KD_5735	KD8 - Completion of Section 3, (1326d)	7d/wk-2	0d		30-Sep-14 18*	-86d
KD_5720	KD5 - Achievement of Stage 5, (1152d)	7d/wk-2	0d		16-Oct-14 18*	-323d
KD_5760	KD13 - Completion of Section 7B, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-353d
KD_5730	KD7 - Completion of Section 2, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-297d
KD_5740	KD9 - Completion of Section 4, (1739d)	7d/wk-2	0d		10-Nov-15 18*	-132d
KD_5745	KD10 - Completion of Section 5, (1863d)	7d/wk-2	0d		25-Mar-16 18	-144d
KD_5750	KD11 - Completion of Section 6, (1949d)	7d/wk-2	0d		23-May-16 18*	-121d
Portion Handover Date						
CD_5685	Portion Handover - Portion IV(4), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d
CD_5680	Portion Handover - Portion V (5), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d
CD_5695	Portion Handover - Portion VI (6), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d
CD_5735	Portion Handover - Portion XIIIB (13B), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d
CD_5790	Portion Handover - Portion XXII (22), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d
CD_5670	Portion Handover - Portion III (3), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d
CD_5720	Portion Handover - Portion XIIIA (13A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d
CD_5705	Portion Handover - Portion VIII (8), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d
CD_5730	Portion Handover - Portion XIVA (14A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d
CD_5740	Portion Handover - Portion XV (15), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d
CD_5805	Portion Handover - Portion XXIII (23), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d
CD_5775	Portion Handover - Portion XVIII (18), KD10 +28	7d/wk-2	0d		30-Nov-15 18*	0d
CD_5710	Portion Handover - Portion XI (11), KD9 +28	7d/wk-2	0d		27-Dec-15 18*	0d
CD_5700	Portion Handover - Portion IX (9), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d
CD_5745	Portion Handover - Portion XIVB (14B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d
CD_5755	Portion Handover - Portion XVI (16), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d
CD_5750	Portion Handover - Portion XVII (17), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d
CD_5760	Portion Handover - Portion XIX (19), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d
CD_5780	Portion Handover - Portion XXB (20B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d



Summary Bar
Actual Level of Effort
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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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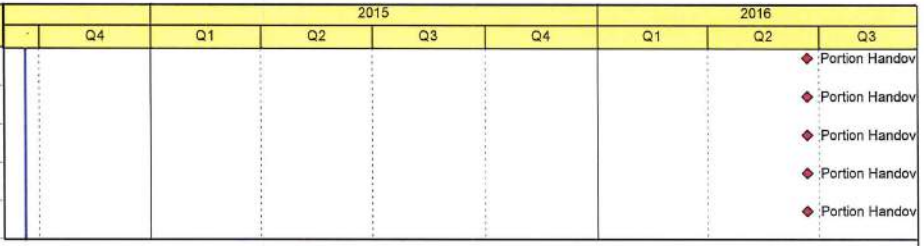
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float
CD_5690	Portion Handover - Portion VII (7), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d
CD_5725	Portion Handover - Portion XII (12), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d
CD_5715	Portion Handover - Portion X (10), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d
CD_5785	Portion Handover - Portion XXA (20A), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d
CD_5795	Portion Handover - Portion XXI (21), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d



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Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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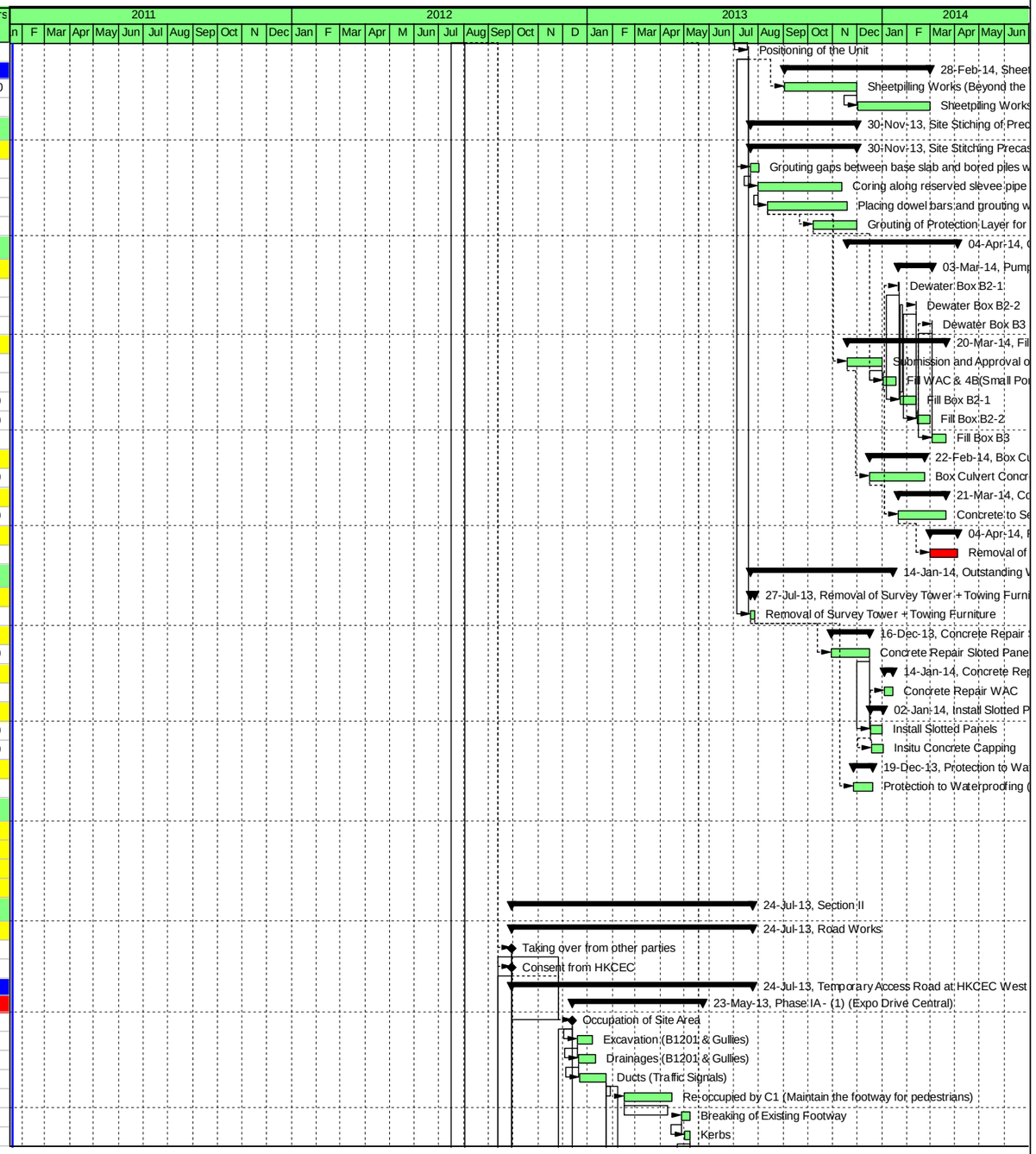
中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Predecessors	Successors
PPU8050	Positioning of the Unit	1	19-Jul-13	19-Jul-13	49	PPU8040	SSU9010
Sheetpilling (Beyond the Precast Box Unit) - II		180	02-Sep-13	28-Feb-14	35		
PCW1830	Sheetpilling Works (Beyond the Precast Box Unit - (Western) - (W329-W411)	75	02-Sep-13*	30-Nov-13	30	PPU8050	PCW1840
PCW1840	Sheetpiling Works (Beyond the Precast Box Unit) - (Eastern) - (E464-E637)	71	02-Dec-13	28-Feb-14	30	PCW1830	
Site Stiching of Precast Box Unit		132	22-Jul-13	30-Nov-13	107		
Site Stitching Precast Combined Unit		132	22-Jul-13	30-Nov-13	107		
SSU9010	Grouting gaps between base slab and bored piles within the gasket (51nos.)	10	22-Jul-13	01-Aug-13	78	PPU8050	SSU9020
SSU9020	Coring along reserved slevee pipe to bored piles (816nos.)	86	31-Jul-13	11-Nov-13	78	SSU9010	SSU9030
SSU9030	Placing dowel bars and grouting works (816nos.)	82	12-Aug-13	18-Nov-13	78	SSU9020	SSU9040
SSU9040	Grouting of Protection Layer for Exposed Dowel Bar (51nos.)	47	07-Oct-13*	30-Nov-13	85	SSU9030	MPU1110
Outstanding Works inside Precast Box Unit after Stitching		138	18-Nov-13	04-Apr-14	0		
Pump out Water from Pre-cast Box Unit		43	20-Jan-14	03-Mar-14	15		
MPU1000	Dewater Box B2-1	2	20-Jan-14*	21-Jan-14	14	MPU1110	MPU1120
MPU1010	Dewater Box B2-2	1	12-Feb-14*	12-Feb-14	14	MPU1120	MPU1130
MPU1020	Dewater Box B3	1	03-Mar-14*	03-Mar-14	13	MPU1130	MPU1140
Filling of Box Culvert		123	18-Nov-13	20-Mar-14	15		
MPU1100	Submission and Approval of Infill Proposal	36	18-Nov-13*	31-Dec-13	15	SSU9030	MPU1110
MPU1110	Fill WAC & 4B(Small Portion)	15	02-Jan-14*	18-Jan-14	15	MPU1100	MPU1000
MPU1120	Fill Box B2-1	15	23-Jan-14*	12-Feb-14	14	MPU1000	MPU1010
MPU1130	Fill Box B2-2	15	13-Feb-14*	01-Mar-14	14	MPU1010	MPU1020
MPU1140	Fill Box B3	15	04-Mar-14*	20-Mar-14	13	MPU1020	
Box Culvert Concreting to seal wall access opening		69	16-Dec-13	22-Feb-14	18		
MPU1200	Box Culvert Concreting to seal Wall Access opening	54	16-Dec-13*	22-Feb-14	15	MPU1100	MPU1300
Concrete to Seal Access Opening on Top Slab		61	20-Jan-14	21-Mar-14	14		
MPU1300	Concrete to Seal Access Opening on Top Slab	50	20-Jan-14*	21-Mar-14	12	MPU1110	MPU1400
Removal of Turrents		35	01-Mar-14	04-Apr-14	0		
MPU1400	Removal of Turrets	30	01-Mar-14*	04-Apr-14	0	MPU1300	
Outstanding Works outside Precast Unit after Stitching		177	22-Jul-13	14-Jan-14	80		
Removal of Survey Tower + Towing Furniture		6	22-Jul-13	27-Jul-13	156		
MPU2000	Removal of Survey Tower + Towing Furniture	6	22-Jul-13	27-Jul-13	128	PPU8050	MPU2100
Concrete Repair Sloted Panels		48	30-Oct-13	16-Dec-13	94		
MPU2100	Concrete Repair Sloted Panels	41	30-Oct-13*	16-Dec-13	75	MPU2000	MPU2300
Concrete Repair WAC		12	03-Jan-14	14-Jan-14	80		
MPU2200	Concrete Repair WAC	10	03-Jan-14*	14-Jan-14	66	MPU2310	
Install Slotted Panels		17	17-Dec-13	02-Jan-14	92		
MPU2300	Install Slotted Panels	11	17-Dec-13*	31-Dec-13	75	MPU2100	MPU2310
MPU2310	Insitu Concrete Capping	15	19-Dec-13*	02-Jan-14	92	MPU2300	MPU2200
Protection to Waterproofing		24	26-Nov-13	19-Dec-13	106		
MPU2500	Protection to Waterproofing (Box 4A & 4B)	21	26-Nov-13*	19-Dec-13	85	MPU2000	
Works To be Done After Tunnel Connection		0			0		
Dewater Box B4A-2 & Box 4B(B4B-1~B4B-3)		0			0		
Construction of Drain Pipes, Profile Barriers and Infill Concrete, etc.		0			0		
Intermediate Slab		0			0		
Removal of Bulkheads		0			0		
Section II		299	29-Sep-12	24-Jul-13	254		
Road Works		299	29-Sep-12	24-Jul-13	254		
TAR8000	Taking over from other parties	0	29-Sep-12*		254	CNO1010	P1A1000
TAR8010	Consent from HKCEC	0	29-Sep-12*		258	CNO1010	P1A1000
Temporary Access Road at HKCEC West Bridge		299	29-Sep-12	24-Jul-13	254		
Phase IA - (1) (Expo Drive Central)		162	13-Dec-12	23-May-13	266		
P1A1000	Occupation of Site Area	0	13-Dec-12		254	TAR8000	P1A1010
P1A1010	Excavation (B1201 & Gullies)	18	20-Dec-12	06-Jan-13	266	P1A1000	P1A1020
P1A1020	Drainages (B1201 & Gullies)	22	21-Dec-12	11-Jan-13	266	P1A1010	P1A1030
P1A1030	Ducts (Traffic Signals)	34	22-Dec-12	24-Jan-13	266	P1A1020	P1A1040
P1A1040	Re-occupied by C1 (Maintain the footway for pedestrians)	60	15-Feb-13	15-Apr-13	266	P1A1030	P1A1060
P1A1060	Breaking of Existing Footway	11	28-Apr-13	08-May-13	266	P1A1040	P1A1070
P1A1070	Kerbs	6	02-May-13	07-May-13	266	P1A1060	P1A1080



Actual Work
Remaining Work
Critical Remaining ...
Milestone
Summary

Date	Revision	Ch...	Approved
14-Aug-12	Rev. H	MF	KT
19-Sep-12	Rev. I	MF	KT
21-Nov-12	Rev. J	MF	KT
19-Feb-13	Rev. K	MF	KT
05-Mar-13	Rev. L	MF	KT
21-May-13	Rev. M	MF	KT
20-Aug-13	Rev. N	MF	EY
15-Nov-13	Rev. O	WC	EY

Contract No.: HK/2010/06

Wan Chai Development Phase II-

Central-Wan Chai Bypass over MTR Tuen Wan Line

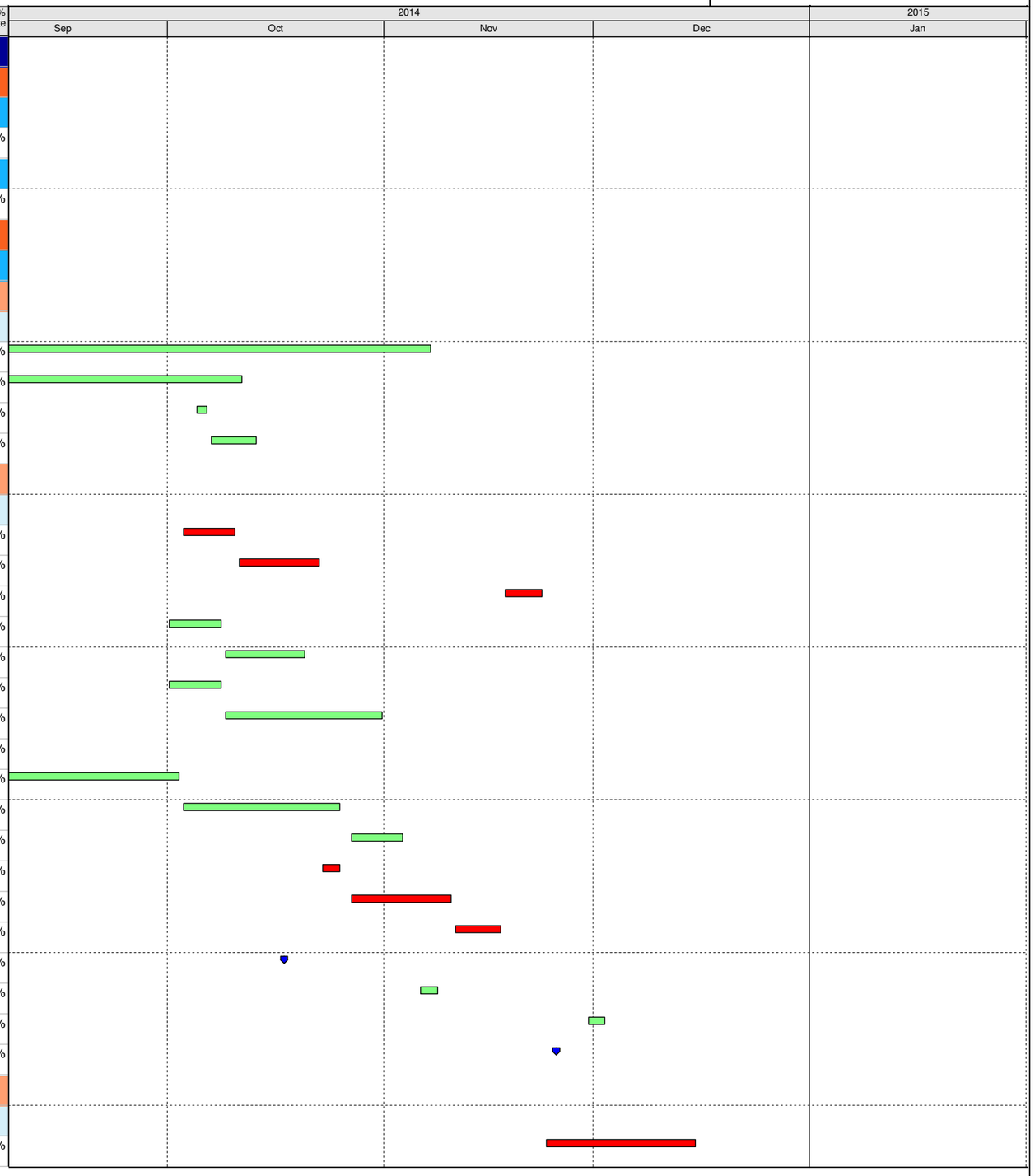
(Works Programme - Rev. O)

金門 - 利達聯營
Gammon – Leader Joint Venture

中國建築-利達聯營
CHINA STATE - LEADER JOINT VENTURE

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

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete
HK/2012/08 3M Rolling Programme [Sep 2014 to Nov 2014] based on Rev.3/1 (DD 01Sep14)							
Key Dates and Milestone Dates							
Sections of Works Completion (Updated to EOT Order No.3)							
KD10920	Completion of Section VIB	0		04-Sep-14*	0	C3 - 7D w/o holiday	0%
Planned Sections of Works Completion							
KD10180	Planned Section VIB Completion - Demolish Pump House	0		04-Sep-14	0	C3 - 7D w/o holiday	0%
Dredging and Reclamation							
Marine Work Construction							
Dredging							
Dredging - Zone D							
MAR11880	Zone D - Remove existing rock armour [S8-S11]	65	16-Apr-14 A	07-Nov-14	28	C3 - 7D w/o holiday	0%
MAR11900	Zone D - dredging [R8-R10] for caisson 2F, 1C and 1A	22	02-Dec-13 A	11-Oct-14	192	C3 - 7D w/o holiday	0%
MAR11910	Zone D - dredging [R11-R12] for caisson 2 and 1A-L	2	05-Oct-14	06-Oct-14	28	C3 - 7D w/o holiday	0%
MAR12685	Zone D - Final Hydrographic Survey [R11-R12]	6	07-Oct-14	13-Oct-14	24	C3 - 6D w/ holiday	0%
Seawall Construction							
Seawall Construction - Zone D							
MAR11835	Zone D - fill rock mound for Seawall 1C	8	03-Oct-14	10-Oct-14	0	C3 - 7D w/o holiday	0%
MAR11837	Zone D - lay toe block and level stone for Seawall 1C	12	11-Oct-14	22-Oct-14	0	C3 - 7D w/o holiday	0%
MAR11839	Zone D - fill temp. rock bund at Seawall 1C - fill rock to +4.0mPD	6	18-Nov-14	23-Nov-14	0	C3 - 7D w/o holiday	0%
MAR11841	Zone D - fill rock mound for Seawall 1A	8	01-Oct-14	08-Oct-14	45	C3 - 7D w/o holiday	0%
MAR11842	Zone D - lay toe block and level stone for Seawall 1A	12	09-Oct-14	20-Oct-14	45	C3 - 7D w/o holiday	0%
MAR11843	Zone D - fill rock mound for Seawall 2	8	01-Oct-14	08-Oct-14	84	C3 - 7D w/o holiday	0%
MAR11844	Zone D - lay toe block and level stone for Seawall 2	20	09-Oct-14	31-Oct-14	74	C3 - 6D w/ holiday	0%
MAR11885	Zone D - deliver and Install Caisson Seawall 2F	5	30-Aug-14 A	04-Sep-14	0	C3 - 7D w/o holiday	20%
MAR11886	Zone D - Caisson Seawall 2F - grouting to recess between piles & base slab and remove buoyancy tanks	28	05-Sep-14	02-Oct-14	20	C3 - 7D w/o holiday	0%
MAR11888	Zone D - Caisson Seawall 2F - fill type A rockfill (-10mPD to +1.3mPD)	20	03-Oct-14	25-Oct-14	17	C3 - 6D w/ holiday	0%
MAR11890	Zone D - Caisson Seawall 2F - lay geotextile and filter (-10mPD to +1.3mPD)	7	27-Oct-14	03-Nov-14	17	C3 - 6D w/ holiday	0%
MAR11940	Zone D - deliver and Install Caisson Seawall 1C	3	23-Oct-14	25-Oct-14	0	C3 - 6D w/ holiday	0%
MAR11945	Zone D - Caisson Seawall 1C - fill type A rockfill (-10mPD to +1.3mPD)	13	27-Oct-14	10-Nov-14	0	C3 - 6D w/ holiday	0%
MAR11947	Zone D - Caisson Seawall 1C - lay geotextile and filter (-10mPD to +1.3mPD)	6	11-Nov-14	17-Nov-14	0	C3 - 6D w/ holiday	0%
MAR11950	Zone D - complete fabrication of Caisson Seawall 1A and ready for delivery	0		17-Oct-14*	0	C3 - 6D w/ holiday	0%
MAR11960	Zone D - deliver and Install Caisson Seawall 1A	3	06-Nov-14	08-Nov-14	25	C3 - 6D w/ holiday	0%
MAR11980	Zone D - deliver and Install Caisson Seawall 2	3	30-Nov-14	02-Dec-14	61	C3 - 7D w/o holiday	0%
MAR12020	Zone D - complete fabrication of Caisson Seawall 1A-L and ready for delivery	0		25-Nov-14*	0	C3 - 6D w/ holiday	0%
Filling							
Filling - Zone D							
MAR12040	Zone D - Sorted Public Fill up to +2.5mPD (south area behind caisson 2F and 1C)	19	24-Nov-14	15-Dec-14	0	C3 - 6D w/ holiday	0%



Data Date:
01-Sep-14

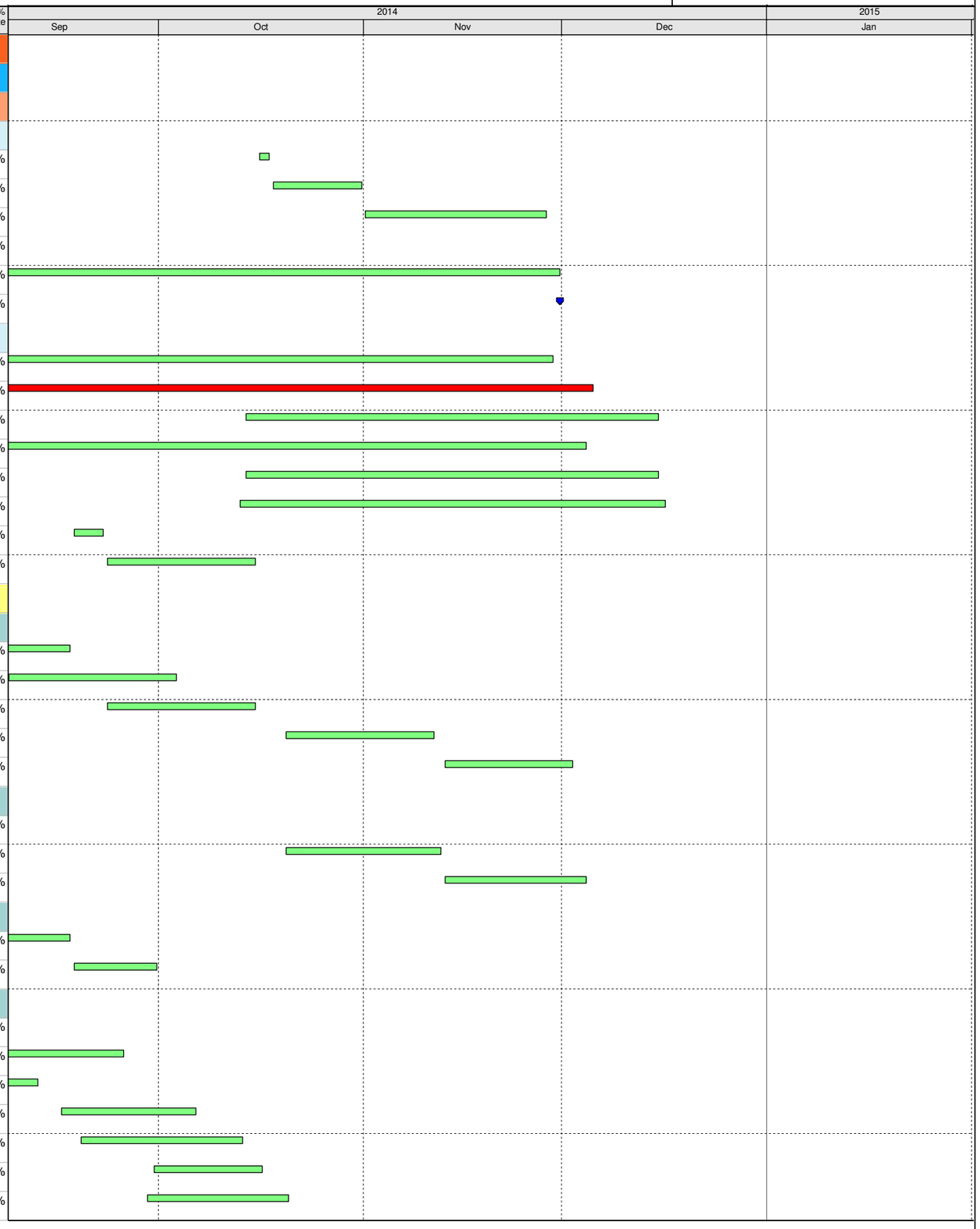
Current Milestone
Actual Work
Critical Remaining Work
Remaining Work
Remaining Level of Effort

3-Month Rolling Programme (Sep 2014 to Nov 2014)

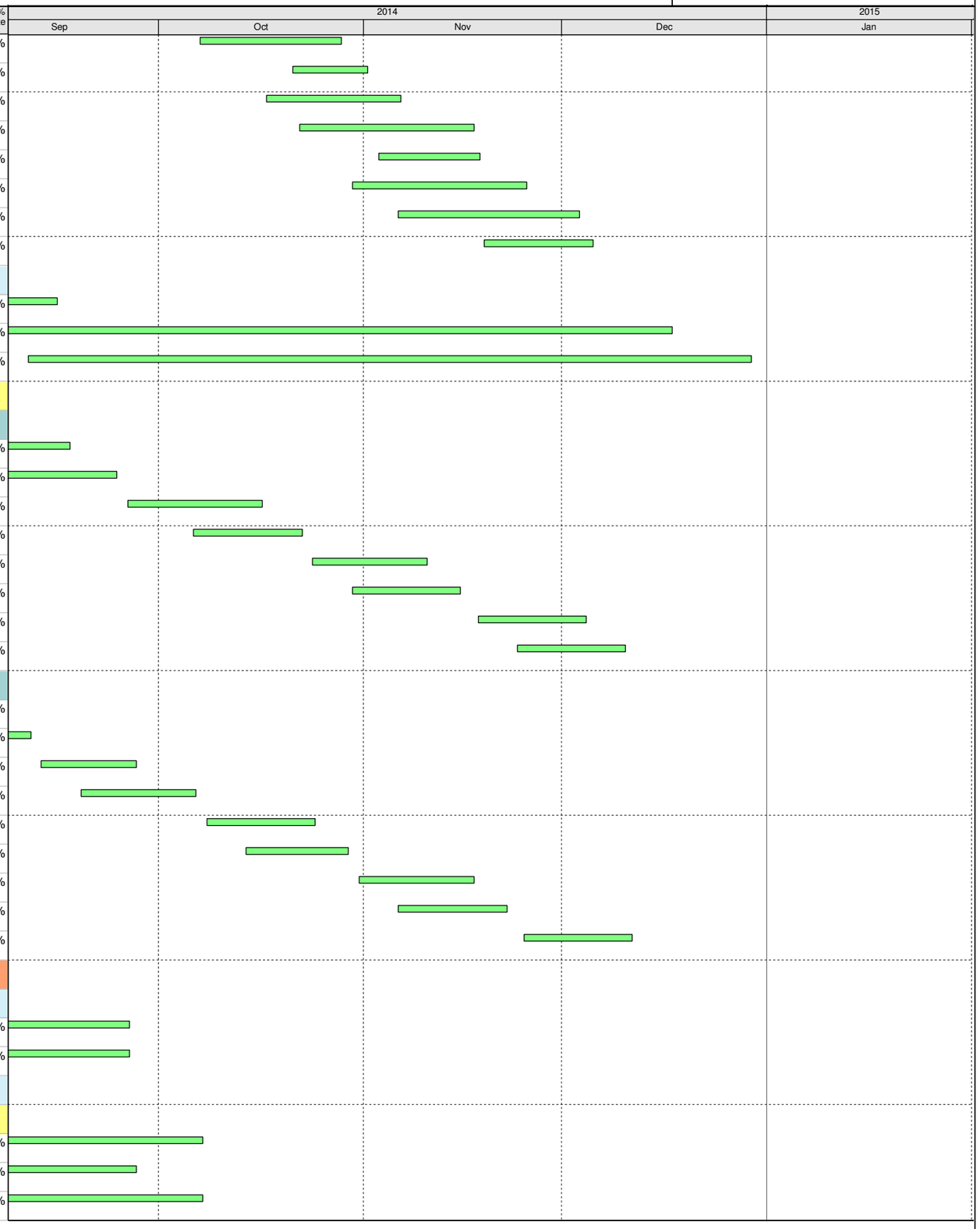
(For Non-CRIII Area)

Date	Revision	Checked	Approved
01-Sep-14	Rev. 3/1		

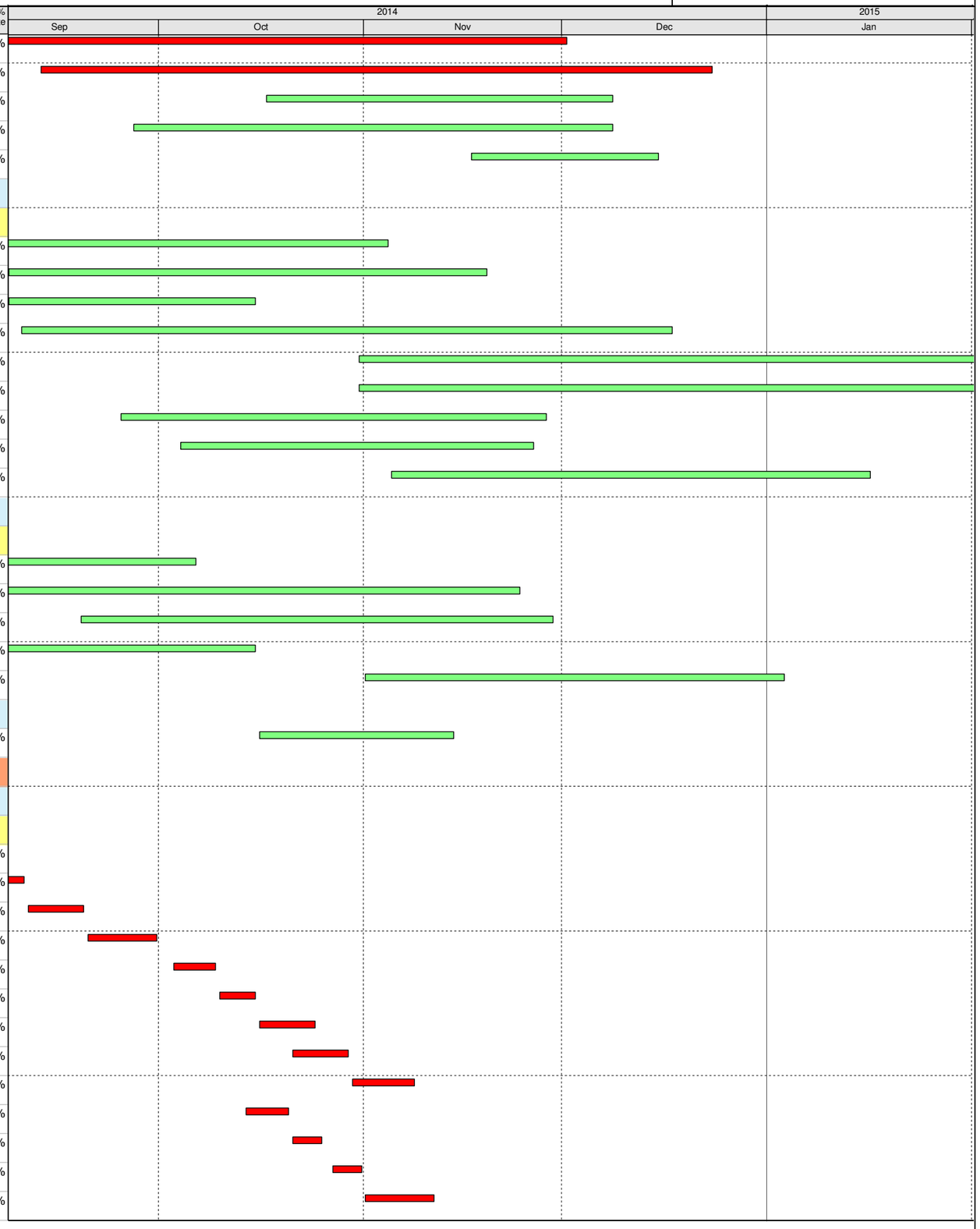
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete
Works for Section Completion							
Construction							
Section II - MVB Structure							
Section II - MVB Substructure - Design, Submission and Approval							
SII10180	Sec II - MVB - MS for pumping test - prepare and submit to ICE	2	16-Oct-14	17-Oct-14	24	C3 - 7D w/o holiday	0%
SII10200	Sec II - MVB - MS for pumping test - ICE check & issue cert	14	18-Oct-14	31-Oct-14	24	C3 - 7D w/o holiday	0%
SII10220	Sec II - MVB - MS for pumping test - Eng comment and approve	28	01-Nov-14	28-Nov-14	24	C3 - 7D w/o holiday	0%
SII10280	Sec II - MVB - Temp work design for bulk exc & ELS - Eng comment and approve	28	07-Jul-14 A	06-Sep-14	134	C3 - 7D w/o holiday	78.57%
SII12321	Sec II - MVB - Temp works for ELS & bulk exc - Prepare tender and sub-contract	120	23-Jun-14 A	30-Nov-14	49	C3 - 7D w/o holiday	24.17%
SII12322	Sec II - MVB - Temp works for ELS & bulk exc - Award of sub-contract	0		30-Nov-14	49	C3 - 7D w/o holiday	0%
MVB Substructure - Diaphragm Wall and Sheetpile Wall							
SII10440	Sec II - MVB - predrilling and ground pretreatment for Dwall	158	17-Mar-14 A	29-Nov-14	1227	C3 - 6D w/ holiday	52.53%
SII10480	Sec II - MVB A - construct Dwall [P1-P12, P34-P40] (1.5m thk on rock)	177	28-May-14 A	05-Dec-14	0	C3 - 6D w/ holiday	54.8%
SII10500	Sec II - MVB A - contact grout / fissure grout / install pumping well	54	14-Oct-14	15-Dec-14	6	C3 - 6D w/ holiday	0%
SII10540	Sec II - MVB B - construct Dwall [P13-P33] (1.5m thk on rock)	187	16-Apr-14 A	04-Dec-14	10	C3 - 6D w/ holiday	57.75%
SII10560	Sec II - MVB B - contact grout / fissure grout / install pumping well	54	14-Oct-14	15-Dec-14	6	C3 - 6D w/ holiday	0%
SII10590	Sec II - MVB A&B - grout curtain and fissure grout	56	13-Oct-14	16-Dec-14	7	C3 - 6D w/ holiday	0%
SII10624	Sec II - SCL Enabling Works - Construct Guide Wall - CW2	4	18-Sep-14	22-Sep-14	6	C3 - 6D w/ holiday	0%
SII10638	Sec II - SCL Enabling Works - construct Dwall - CW2 [1 panel] (1.5m thk)	18	23-Sep-14	15-Oct-14	6	C3 - 6D w/ holiday	0%
MVB Substructure - Diaphragm Wall - Construction Sequences							
Group 1							
SII-10150	Sec II - MVB - Dwall P31	21	25-Aug-14 A	17-Sep-14	17	C3 - 6D w/ holiday	33.33%
SII-10160	Sec II - MVB - Dwall P18	20	08-Sep-14	03-Oct-14	17	C3 - 6D w/ holiday	0%
SII-10170	Sec II - MVB - Dwall P24	18	23-Sep-14	15-Oct-14	17	C3 - 6D w/ holiday	0%
SII-10180	Sec II - MVB - Dwall P25	20	20-Oct-14	11-Nov-14	17	C3 - 6D w/ holiday	0%
SII-10190	Sec II - MVB - Dwall P26	17	13-Nov-14	02-Dec-14	17	C3 - 6D w/ holiday	0%
Group 2							
SII-10290	Sec II - MVB - Dwall P27	23	11-Aug-14 A	05-Sep-14	15	C3 - 6D w/ holiday	78.26%
SII-10300	Sec II - MVB - Dwall P22	21	20-Oct-14	12-Nov-14	15	C3 - 6D w/ holiday	0%
SII-10310	Sec II - MVB - Dwall P23	19	13-Nov-14	04-Dec-14	15	C3 - 6D w/ holiday	0%
Group 3							
SII-11380	Sec II - MVB - Dwall P31	23	22-Aug-14 A	17-Sep-14	69	C3 - 6D w/ holiday	39.13%
SII-11400	Sec II - MVB - Dwall P32	11	18-Sep-14	30-Sep-14	69	C3 - 6D w/ holiday	0%
Group 4							
SII-10390	Sec II - MVB - Dwall P2	21	11-Aug-14 A	05-Sep-14	14	C3 - 6D w/ holiday	76.19%
SII-10400	Sec II - MVB - Dwall P35	20	29-Aug-14 A	25-Sep-14	14	C3 - 6D w/ holiday	0%
SII-10410	Sec II - MVB - Dwall P06 (seawall)	20	04-Aug-14 A	12-Sep-14	14	C3 - 6D w/ holiday	50%
SII-10420	Sec II - MVB - Dwall P41	16	16-Sep-14	06-Oct-14	14	C3 - 6D w/ holiday	0%
SII-10430	Sec II - MVB - Dwall P3	19	19-Sep-14	13-Oct-14	14	C3 - 6D w/ holiday	0%
SII-10440	Sec II - MVB - Dwall P12	13	30-Sep-14	16-Oct-14	14	C3 - 6D w/ holiday	0%
SII-10450	Sec II - MVB - Dwall P09	17	29-Sep-14	20-Oct-14	14	C3 - 6D w/ holiday	0%



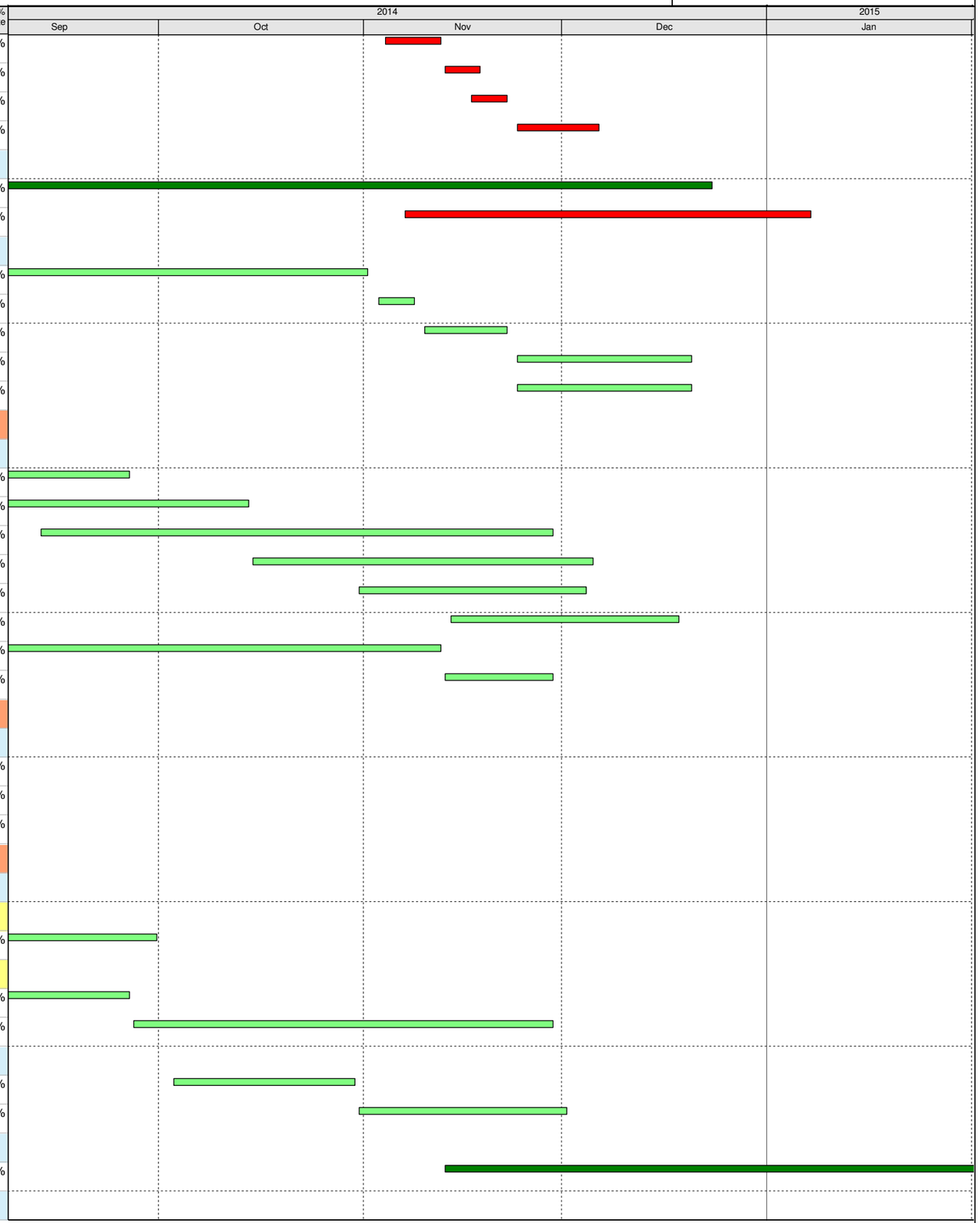
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete
SII-10460	Sec II - MVB - Dwall P40	19	07-Oct-14	28-Oct-14	14	C3 - 6D w/ holiday	0%
SII-10470	Sec II - MVB - Dwall P05 (seawall)	11	21-Oct-14	01-Nov-14	14	C3 - 6D w/ holiday	0%
SII-10480	Sec II - MVB - Dwall P34	18	17-Oct-14	06-Nov-14	14	C3 - 6D w/ holiday	0%
SII-10490	Sec II - MVB - Dwall P12A	23	22-Oct-14	17-Nov-14	14	C3 - 6D w/ holiday	0%
SII-10492	Sec II - MVB - Dwall P7	14	03-Nov-14	18-Nov-14	14	C3 - 6D w/ holiday	0%
SII-10494	Sec II - MVB - Dwall P39	23	30-Oct-14	25-Nov-14	14	C3 - 6D w/ holiday	0%
SII-10496	Sec II - MVB - Dwall P33	24	06-Nov-14	03-Dec-14	14	C3 - 6D w/ holiday	0%
SII-10500	Sec II - MVB - Dwall P4	15	19-Nov-14	05-Dec-14	14	C3 - 6D w/ holiday	0%
MVB Substructure - Bored Pile and Prebored H-Pile							
SII10320	Sec II - MVB A&B - Predrilling for bored pile	90	10-May-14 A	15-Sep-14	52	C3 - 6D w/ holiday	86.67%
SII10340	Sec II - MVB A&B - Construct bored piles	146	26-Jun-14 A	17-Dec-14	4	C3 - 6D w/ holiday	38.36%
SII10360	Sec II - MVB A&B - bored pile sonic test, interface core & full core	90	11-Sep-14	29-Dec-14	16	C3 - 6D w/ holiday	0%
MVB Substructure - Bored Pile - Construction Sequences							
Group 1							
SII-11040	Ssec II - MVB - Bored Pile BC2-B	14	01-Sep-14	17-Sep-14	10	C3 - 6D w/ holiday	0%
SII-11050	Ssec II - MVB - Bored Pile BC4-B	15	06-Sep-14	24-Sep-14	10	C3 - 6D w/ holiday	0%
SII-11060	Ssec II - MVB - Bored Pile BC1-A	16	26-Sep-14	16-Oct-14	10	C3 - 6D w/ holiday	0%
SII-11070	Ssec II - MVB - Bored Pile BC5	15	06-Oct-14	22-Oct-14	10	C3 - 6D w/ holiday	0%
SII-11080	Ssec II - MVB - Bored Pile BC3-B	15	24-Oct-14	10-Nov-14	10	C3 - 6D w/ holiday	0%
SII-11200	Ssec II - MVB - Bored Pile BC7	15	30-Oct-14	15-Nov-14	10	C3 - 6D w/ holiday	0%
SII-11210	Ssec II - MVB - Bored Pile BC9	15	18-Nov-14	04-Dec-14	10	C3 - 6D w/ holiday	0%
SII-11240	Ssec II - MVB - Bored Pile BC18	15	24-Nov-14	10-Dec-14	10	C3 - 6D w/ holiday	0%
Group 2							
SII-11100	Ssec II - MVB - Bored Pile BC10	15	20-Aug-14 A	06-Sep-14	4	C3 - 6D w/ holiday	60%
SII-11110	Ssec II - MVB - Bored Pile BC6	15	29-Aug-14 A	11-Sep-14	4	C3 - 6D w/ holiday	40%
SII-11120	Ssec II - MVB - Bored Pile BC14	13	13-Sep-14	27-Sep-14	4	C3 - 6D w/ holiday	0%
SII-11130	Ssec II - MVB - Bored Pile BC3-A	13	19-Sep-14	06-Oct-14	4	C3 - 6D w/ holiday	0%
SII-11140	Ssec II - MVB - Bored Pile BC16	15	08-Oct-14	24-Oct-14	4	C3 - 6D w/ holiday	0%
SII-11150	Ssec II - MVB - Bored Pile BC8	14	14-Oct-14	29-Oct-14	4	C3 - 6D w/ holiday	0%
SII-11160	Ssec II - MVB - Bored Pile BC17	15	31-Oct-14	17-Nov-14	4	C3 - 6D w/ holiday	0%
SII-11170	Ssec II - MVB - Bored Pile BC11	15	06-Nov-14	22-Nov-14	4	C3 - 6D w/ holiday	0%
SII-11180	Ssec II - MVB - Bored Pile BC15	15	25-Nov-14	11-Dec-14	4	C3 - 6D w/ holiday	0%
Section II A - CWB Tunnel & Slip Road Structures and Facilities							
Section II A - CWB Tunnel - Design, Submission and Approval							
SIIA10500	CWB Tunnel - Temp work design for bulk exc & ELS - ICE check & issue check cert	26	17-Apr-14 A	26-Sep-14	149	C3 - 7D w/o holiday	0%
SIIA10520	CWB Tunnel - Temp work design for bulk exc & ELS - Eng comment & approve	26	24-Apr-14 A	26-Sep-14	149	C3 - 7D w/o holiday	10%
CWB CRIII & A1							
CWB CRIII & A1 - Dwall and Pile Construction							
SIIA11060	Sec II A - CWB A1 - predrilling for Dwall and piles	55	23-Jun-14 A	07-Oct-14	23	C3 - 6D w/ holiday	47.27%
SIIA11080	Sec II A - CWB A1 - carry out ground pretreatment for Dwall	60	19-Jul-14 A	27-Sep-14	23	C3 - 6D w/ holiday	61.67%
SIIA11100	Sec II A - CWB A1 - construct Guide Wall	48	09-Aug-14 A	07-Oct-14	23	C3 - 6D w/ holiday	39.58%



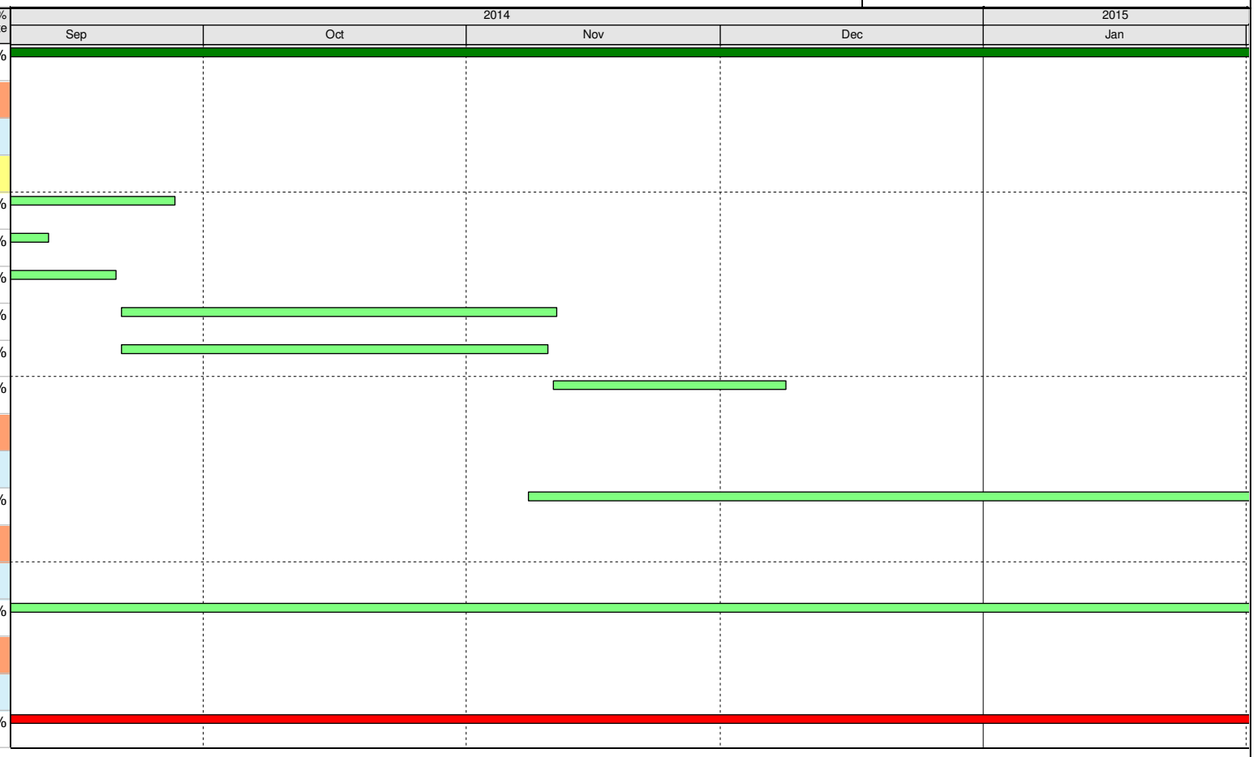
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete
SIIA11120	Sec II A - CWB A1 - construct temporary DWall and temp bulk head wall	76	30-Aug-14 A	01-Dec-14	0	C3 - 6D w/ holiday	0%
SIIA11140	Sec II A - CWB A1 - Construct pre-bored H-pile	85	13-Sep-14	23-Dec-14	0	C3 - 6D w/ holiday	0%
SIIA11180	Sec II A - CWB A1 - D-wall grout curtain / contact grout	45	17-Oct-14	08-Dec-14	13	C3 - 6D w/ holiday	0%
SIIA11220	Sec II A - CWB A1 - D-wall Sonic test	60	27-Sep-14	08-Dec-14	13	C3 - 6D w/ holiday	0%
SIIA11240	Sec II A - CWB A1 - install dewater/ recharge / observation well	25	17-Nov-14	15-Dec-14	7	C3 - 6D w/ holiday	0%
CWB A2 & B							
CWB A2 & B - Dwall Construction							
SIIA11460	Sec II A - CWB B: Predrilling for Dwall & piles	75	06-Aug-14 A	04-Nov-14	5	C3 - 6D w/ holiday	29.33%
SIIA11480	Sec II A - CWB B: ground treatment	60	08-Sep-14	19-Nov-14	5	C3 - 6D w/ holiday	0%
SIIA11500	Sec II A - CWB B: construct Guide Wall	30	08-Sep-14	15-Oct-14	5	C3 - 6D w/ holiday	0%
SIIA11520	Sec II A - CWB B: Construct DWall and barrette (1.2m thk on rock) in Relieve Measure Area	83	10-Sep-14	17-Dec-14	5	C3 - 6D w/ holiday	0%
SIIA11580	Sec II A - CWB B: Dwall sonic test / interface core	120	31-Oct-14	28-Mar-15	62	C3 - 6D w/ holiday	0%
SIIA11600	Sec II A - CWB B: Dwall grout curtain / contact grout	120	31-Oct-14	28-Mar-15	62	C3 - 6D w/ holiday	0%
SIIA13340	Sec II A - CWB A2(1): Predrilling for Dwall & piles	54	25-Sep-14	28-Nov-14	36	C3 - 6D w/ holiday	0%
SIIA13360	Sec II A - CWB A2(1): ground pretreatment	46	04-Oct-14	26-Nov-14	36	C3 - 6D w/ holiday	0%
SIIA13380	Sec II A - CWB A2(1): Guide Wall	60	05-Nov-14	16-Jan-15	36	C3 - 6D w/ holiday	0%
CWB C							
CWB C - Dwall Construction							
SIIA11880	Sec II A - CWB CW: Predrilling for Dwall & piles	70	04-Aug-14 A	06-Oct-14	35	C3 - 6D w/ holiday	60%
SIIA11900	Sec II A - CWB CW: ground Pre-treatment	70	01-Sep-14	24-Nov-14	35	C3 - 6D w/ holiday	0%
SIIA11920	Sec II A - CWB CW: Guide Wall	60	19-Sep-14	29-Nov-14	35	C3 - 6D w/ holiday	0%
SIIA12960	Sec II A - CWB CE: Predrilling for Dwall	90	28-Jul-14 A	15-Oct-14	102	C3 - 6D w/ holiday	60%
SIIA15000	Sec II A - CWB CE: extract existing pipe pile	52	01-Nov-14	03-Jan-15	136	C3 - 6D w/ holiday	0%
CWB C - Exhaust Duct							
SIIA12820	Sec II A - Exhaust Duct at Slip Rd3: Predrilling for Piles	26	16-Oct-14	14-Nov-14	260	C3 - 6D w/ holiday	0%
Section VI A - Box Culvert La, L1 & FRP-L Construction							
Sec VI A - Box Culvert La bay 1-3 and Roadwork							
Box Culvert La Bay 1-3							
CUL10480	Sec VI A - Area 1 - Culvert L bay 1-3 - excavation and ELS installation	90	14-Mar-14 A	06-Sep-14	-27	C3 - 6D w/ holiday	93.33%
CUL10540	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 3 - wall	9	25-Aug-14 A	10-Sep-14	-61	C3 - 6D w/ holiday	11.11%
CUL10560	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 3 - top slab	8	11-Sep-14	19-Sep-14	-55	C3 - 6D w/ holiday	0%
CUL10570	Sec VI A - Area 1 - Culvert L bay 3 wall and roof slab - curing, backfill and remove upper layer of strut	9	20-Sep-14	30-Sep-14	-55	C3 - 6D w/ holiday	0%
CUL10600	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - base slab	6	03-Oct-14	09-Oct-14	-55	C3 - 6D w/ holiday	0%
CUL10610	Sec VI A - Area 1 - Culvert L bay 2 base slab - curing, backfill and remove upper layer of strut	5	10-Oct-14	15-Oct-14	-55	C3 - 6D w/ holiday	0%
CUL10620	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - wall	8	16-Oct-14	24-Oct-14	-53	C3 - 6D w/ holiday	0%
CUL10640	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - top slab	8	21-Oct-14	29-Oct-14	-53	C3 - 6D w/ holiday	0%
CUL10650	Sec VI A - Area 1 - Culvert L bay 2 wall and top slab - curing, backfill and remove upper layer of strut	9	30-Oct-14	08-Nov-14	-52	C3 - 6D w/ holiday	0%
CUL10660	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - base slab	6	14-Oct-14	20-Oct-14	-55	C3 - 6D w/ holiday	0%
CUL10670	Sec VI A - Area 1 - Culvert L bay 1 base slab - curing, backfill and remove upper layer of strut	5	21-Oct-14	25-Oct-14	-55	C3 - 6D w/ holiday	0%
CUL10675	Sec VI A - Area 1 - Culvert L bay 1 invert slab connected to existing culvert	5	27-Oct-14	31-Oct-14	-55	C3 - 6D w/ holiday	0%
CUL10680	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - wall	9	01-Nov-14	11-Nov-14	-55	C3 - 6D w/ holiday	0%



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete
CUL10700	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - top slab	8	04-Nov-14	12-Nov-14	-55	C3 - 6D w/ holiday	0%
CUL10703	Sec VI A - Area 1 - Culvert L bay 2 wall and roof slab - curing, backfill and remove upper layer of strut	5	13-Nov-14	18-Nov-14	-55	C3 - 6D w/ holiday	0%
CUL10705	Sec VI A - Area 1 - Culvert L bay 1-3 - construct manhole DO-01; IM-01	6	17-Nov-14	22-Nov-14	-55	C3 - 6D w/ holiday	0%
CUL10720	Sec VI A - Area 1 - Culvert L bay 1-3 - backfill to pavement formation	12	24-Nov-14	06-Dec-14	-55	C3 - 6D w/ holiday	0%
Section VI A - Area 2 - Lung King Street Roadwork & Utilities							
SVIA10040	Sec VI A - Area 1 - Summary of Box Culvert La Construction	136	11-Nov-13 A	23-Dec-14	-55	C3 - 6D w/ holiday	30.15%
SVIA10080	Sec VI A - Area 2 - Reinstate the area	50	07-Nov-14	07-Jan-15	-61	C3 - 6D w/ holiday	0%
Sec VI C - Box Culvert La bay 4 and Roadwork							
CUL11570	Sec VI C - Culvert L - bay 4 - sheetpile, ELS & Excavation	45	06-Jan-14 A	01-Nov-14	23	C3 - 6D w/ holiday	0%
CUL11580	Sec VI C - Culvert L - bay 4 (south half) - construct base slab	6	03-Nov-14	08-Nov-14	23	C3 - 6D w/ holiday	0%
CUL11600	Sec VI C - Culvert L - bay 4 (south half) - construct wall and roof	12	10-Nov-14	22-Nov-14	23	C3 - 6D w/ holiday	0%
CUL11605	Sec VI C - Culvert L - bay 4 (south half) - curing and remove internal formwork	24	24-Nov-14	20-Dec-14	23	C3 - 6D w/ holiday	0%
CUL11645	Sec VI C - Culvert L - bay 4 (north half) - drive pipe pile	24	24-Nov-14	20-Dec-14	35	C3 - 6D w/ holiday	0%
Box Culvert L1 & FRP-L Construction (Bay 5 - Bay 13)							
Box Culvert L1 & FRP-L - Bay 5 to 7							
CUL10010	Drainage Impact Assessment for ex. box culvert L diversion - Eng, DSD comment and approve	60	22-Jul-13 A	26-Sep-14	103	C3 - 7D w/o holiday	56.67%
CUL10015	Culvert L - form temp opening at existing box culvert Bay 4 for temp flow diversion	35	01-Sep-14	14-Oct-14	1267	C3 - 6D w/ holiday	0%
CUL10275	Sec VI C - Culvert L - bay 5,6,7 - erect temp platform for predrilling	65	13-Sep-14	29-Nov-14	30	C3 - 6D w/ holiday	0%
CUL10280	Sec VI C - Culvert L - bay 5,6,7 - predrilling	45	15-Oct-14	05-Dec-14	30	C3 - 6D w/ holiday	0%
CUL10800	Sec VI C - Culvert L - bay 7 - construct pre-bored H-pile	30	31-Oct-14	04-Dec-14	30	C3 - 6D w/ holiday	0%
CUL10820	Sec VI C - Culvert L - bay 6 - construct pre-bored H-pile	30	14-Nov-14	18-Dec-14	30	C3 - 6D w/ holiday	0%
CUL10868	Sec VI C - Culvert L - bay 5-7 - Form Dry Dock for precast culvert units	75	14-Aug-14 A	12-Nov-14	48	C3 - 6D w/ holiday	20%
CUL10870	Sec VI C - Culvert L - bay 5-7 - Construct bottom slabs for precast culvert units	15	13-Nov-14	29-Nov-14	48	C3 - 6D w/ holiday	0%
Section VI B - Area 8							
Area 8 - Demolish Ex. Cooling Water Pumping Station							
SVIB10580	Sec VI B - trim down existing seawall	25	02-Aug-14 A	01-Sep-14	0	C3 - 6D w/ holiday	96%
SVIB10600	Sec VI B - backfill and compaction to formation level	14	20-Aug-14 A	04-Sep-14	0	C3 - 6D w/ holiday	87.14%
SVIB10620	Achievement of Section VIB of the Works	0		04-Sep-14	0	C3 - 7D w/o holiday	0%
Section VI C - Area 3, 6, 8A & 8C							
Area 8A & 8C - Seawall Modification (Reviewed)							
Design Submission & Approval							
PRS-1004	Sec VI C - Temp Work Design for Seawall Modification & MTR Pump Room Stabilization - Engineer / MTR comment and approve	28	02-Apr-14 A	30-Sep-14	35	C3 - 6D w/ holiday	10.71%
Tenders for Sub-contractor and Procurement							
PCU60310	Sec VI C - Prepare Sub-contract for Seawall Modification and Procurement of Materials	90	14-Nov-13 A	26-Sep-14	4	C3 - 6D w/ holiday	75.56%
PCU60320	Sec VI C - Assessement and Award of Sub-contract for Seawall Modification	53	27-Sep-14	29-Nov-14	4	C3 - 6D w/ holiday	0%
MTR Pump Room Stabilization (Reviewed)							
PRS-1020	Sec VI C - Place counter weight on top of MTR pump house	24	03-Oct-14	30-Oct-14	35	C3 - 6D w/ holiday	0%
PRS-1030	Sec VI C - Trim existing rubble mound	27	31-Oct-14	01-Dec-14	35	C3 - 6D w/ holiday	0%
Area 6 - Box Culvert bay 5-6							
SVIC10000	Sec VI C - [Summary] Construct Box Culvert Bay 5-6	109	13-Nov-14	28-Mar-15	30	C3 - 6D w/ holiday	0%
Area 3 - Box Culvert bay 4 and Roadwork							



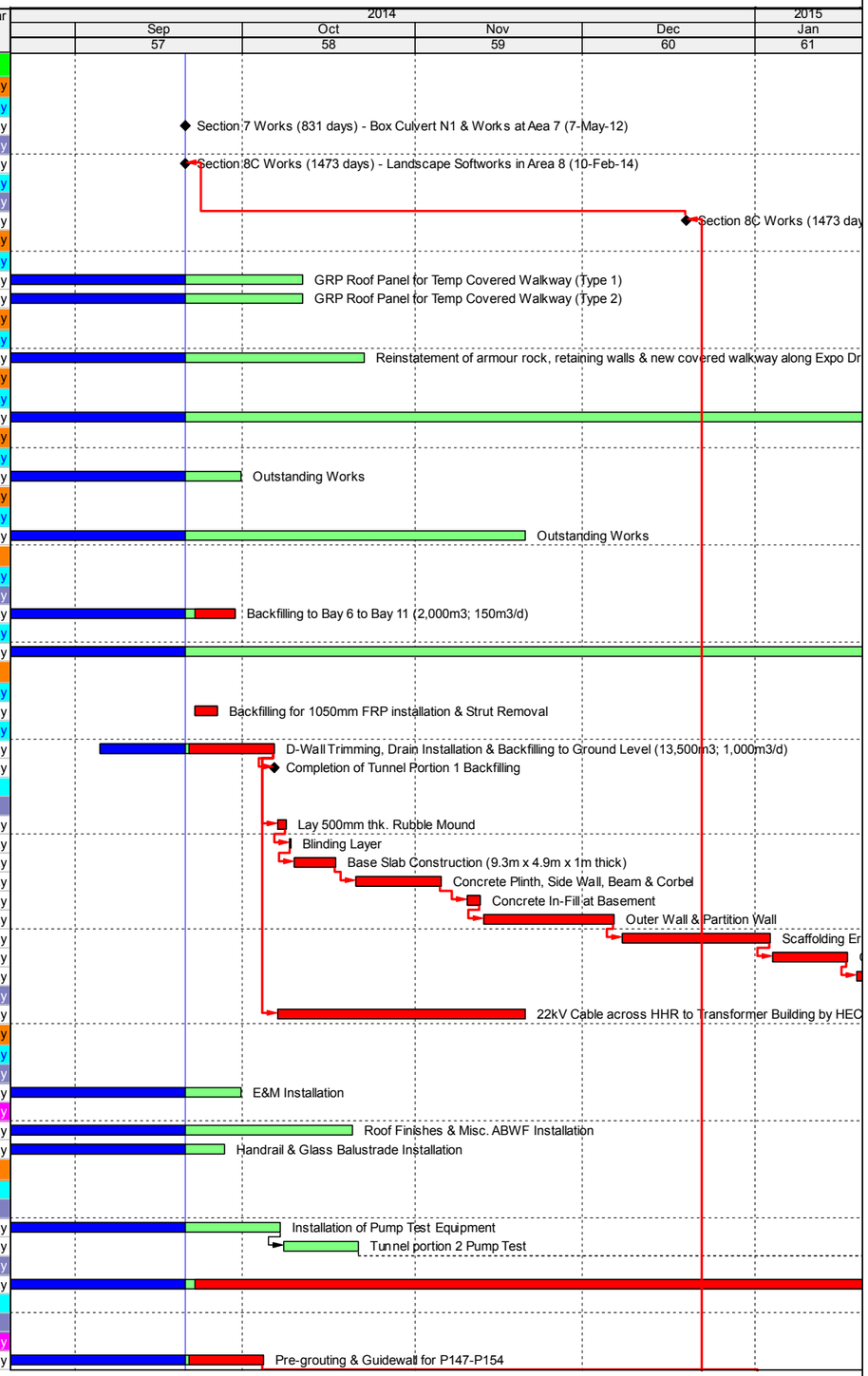
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete
SVIC10220	Sec VI C - [Summary] Construct Box Culvert Bay 4 in Area 3	116	06-Jan-14 A	24-Mar-15	23	C3 - 6D w/ holiday	0%
Section VI D - Area 8B & 10							
WDII Box 1 Construction (Reviewed)							
WDII Box 1 Submission and Approval / Material Procurement							
PCU60410	Sec VI D - WD II Box 1 - Prepare Subcontract for Box 1 structure	27	01-Sep-14	27-Sep-14	241	C3 - 7D w/o holiday	0%
S0721040	Sec VI D - WD II Box 1 - temp work design - ICE check and issue check cert	28	06-Aug-14 A	12-Sep-14	256	C3 - 7D w/o holiday	57.14%
S0721060	Sec VI D - WD II Box 1 - temp work design - Engineer comment and approve	28	06-Aug-14 A	20-Sep-14	248	C3 - 7D w/o holiday	28.57%
S0721070	Sec VI D - WD II Box 1 - method statement and temp work design - MTR comment and approve	52	21-Sep-14	11-Nov-14	1541	C3 - 7D w/o holiday	0%
S0721080	Sec VI D - WD II Box 1 - Prepare and submit method statement	51	21-Sep-14	10-Nov-14	253	C3 - 7D w/o holiday	0%
S0721090	Sec VI D - WD II Box 1 - method statement - Engineer comment and approve	28	11-Nov-14	08-Dec-14	253	C3 - 7D w/o holiday	0%
Section VII - Remainder Works							
Tenders for Sub-contract and Material Procurement							
PCU70010	Sec VII - Prepare Sub-contract for removing interim landing steps	90	08-Nov-14	05-Feb-15	35	C3 - 7D w/o holiday	0%
Section VIII - Landscape Softworks							
Soft Landscaping Works							
SVIII10020	Sec VIII - Tree Felling/Transplanting at Portion 2 & 2A	90	20-Nov-13 A	11-Mar-15	114	C3 - 6D w/ holiday	0%
Section X - Protection & Preservation of Trees							
Soft Landscaping Works							
SX10020	Sec X - Protection & Preservation of Trees	1632	31-Jan-13 A	20-Jul-17	0	C3 - 7D w/o holiday	35.42%



CEDD CONTRACT HK/2009/02

CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (dd 20-Sep-14)		1909	567	24-Feb-10 A	27-Aug-16	631	
Programme Milestones (Revised up to EOTO No.10 Issued on 29-Nov-13)		90	90	20-Sep-14	19-Dec-14	-312	Calendar Day
Contractual Completion Dates		0	0	20-Sep-14	20-Sep-14	-222	Calendar Day
KDC0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Aea 7 (7-May-12)	0	0		20-Sep-14*	-866	Calendar Day
Soft Landscaping & Establishment Key Dates		0	0	20-Sep-14	20-Sep-14	-222	Calendar Day
KDC0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8 (10-Feb-14)	0	0		20-Sep-14*	-222	Calendar Day
Forecast Completion Dates		0	0	19-Dec-14	19-Dec-14	-312	Calendar Day
Soft Landscaping & Establishment Key Dates		0	0	19-Dec-14	19-Dec-14	-312	Calendar Day
KDF0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8	0	0		19-Dec-14	-312	Calendar Day
Preliminaries		60	21	15-Jun-14 A	11-Oct-14	1473	Calendar Day
Critical Procurement & Site Delivery		60	21	15-Jun-14 A	11-Oct-14	1473	Calendar Day
PRE-PRO-1100A	GRP Roof Panel for Temp Covered Walkway (Type 1)	60	21	15-Jun-14 A	11-Oct-14	1473	Calendar Day
PRE-PRO-1100B	GRP Roof Panel for Temp Covered Walkway (Type 2)	60	21	15-Jun-14 A	11-Oct-14	1473	Calendar Day
Section 3 of the Works - Reprovisioning of Government Helipad and Public Toilet		254	25	11-Aug-12 A	22-Oct-14	1173	HK Working Day
Outstanding Works		254	25	11-Aug-12 A	22-Oct-14	1173	HK Working Day
S3-0070-1499	Reinstatement of armour rock, retaining walls & new covered walkway along Expo Drive East	254	25	11-Aug-12 A	22-Oct-14	1173	HK Working Day
Section 4A of the Works - Cooling Water Pumping System for Sun Hung Kai Centre (P8)		365	148	16-Feb-14 A	15-Feb-15	1346	Calendar Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	148	16-Feb-14 A	15-Feb-15	1346	Calendar Day
S4A-0900	Outstanding Works	365	148	16-Feb-14 A	15-Feb-15	1346	Calendar Day
Section 4B of the Works - Cooling Water Pumping System for China Resources Building (P9)		365	10	01-Oct-13 A	30-Sep-14	1484	Calendar Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	10	01-Oct-13 A	30-Sep-14	1484	Calendar Day
S4B-0900	Outstanding Works	365	10	01-Oct-13 A	30-Sep-14	1484	Calendar Day
Section 4C of the Works - Cooling Water Pumping System for Great Eagle Centre / Harbour Centre (P7)		365	61	21-Nov-13 A	20-Nov-14	1433	Calendar Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	61	21-Nov-13 A	20-Nov-14	1433	Calendar Day
S4C-0900	Outstanding Works	365	61	21-Nov-13 A	20-Nov-14	1433	Calendar Day
Section 5 of the Works - WSD Salt Water Pumping System		549	131	20-Apr-13 A	05-Mar-15	1067	
Salt Water Intake Culvert Construction		23	7	20-Apr-13 A	29-Sep-14	-707	HK Working Day
Bay 6 - Bay 18: Ex-Pet Garden & Hung Hing Road		23	7	20-Apr-13 A	29-Sep-14	-707	HK Working Day
S5-100-3333	Backfilling to Bay 6 to Bay 11 (2,000m3; 150m3/d)	23	7	20-Apr-13 A	29-Sep-14	-707	HK Working Day
Overall Testing & Commissioning of Reprovisioned Salt Water Intake System		365	166	06-Mar-14 A	05-Mar-15	1328	Calendar Day
S5-0900	Outstanding Works	365	166	06-Mar-14 A	05-Mar-15	1328	Calendar Day
Section 7 of the Works - Box Culvert N1 & Flood Relief System		111	101	05-Sep-14 A	22-Jan-15	-436	
Box Culvert and Flood Relief System Construction		4	4	22-Sep-14	26-Sep-14	-339	HK Working Day
S7-191212-260	Backfilling for 1050mm FRP installation & Strut Removal	4	4	22-Sep-14	26-Sep-14	-339	HK Working Day
Works in Area 7		27	16	05-Sep-14 A	06-Oct-14	-882	Calendar Day
S7-1700	D-Wall Trimming, Drain Installation & Backfilling to Ground Level (13,500m3; 1,000m3/d)	21	16	05-Sep-14 A	06-Oct-14	-1132	Calendar Day
S7-1800	Completion of Tunnel Portion 1 Backfilling	0	0		06-Oct-14	-882	Calendar Day
Transformer Building for Dining Services at Ferry Pier (VO116)		90	90	07-Oct-14	22-Jan-15	-871	
Civil Works		90	90	07-Oct-14	22-Jan-15	-907	
S7-TB-2000	Lay 500mm thk. Rubble Mound	2	2	07-Oct-14	08-Oct-14	-907	HK Working Day
S7-TB-2010	Blinding Layer	1	1	09-Oct-14	09-Oct-14	-907	HK Working Day
S7-TB-2020	Base Slab Construction (9.3m x 4.9m x 1m thick)	7	7	10-Oct-14	17-Oct-14	-907	HK Working Day
S7-TB-2030	Concrete Plinth, Side Wall, Beam & Corbel	14	14	21-Oct-14	05-Nov-14	-907	HK Working Day
S7-TB-2040	Concrete In-Fill at Basement	3	3	10-Nov-14	12-Nov-14	-907	HK Working Day
S7-TB-2050	Outer Wall & Partition Wall	21	21	13-Nov-14	06-Dec-14	-907	HK Working Day
S7-TB-2060	Scaffolding Erection & Roof Construction	21	21	08-Dec-14	03-Jan-15	-907	HK Working Day
S7-TB-2070	Curing	14	14	04-Jan-15	17-Jan-15	-1131	Calendar Day
S7-TB-2080	Formwork Removal & Scaffolding Dismantling	4	4	19-Jan-15	22-Jan-15	-907	HK Working Day
E&M Works		45	45	07-Oct-14	20-Nov-14	-1016	Calendar Day
S7-TB-4100	22kV Cable across HHR to Transformer Building by HEC	45	45	07-Oct-14	20-Nov-14	-1016	Calendar Day
Section 8A of the Works - Reprovisioning of Wan Chai Ferry Pier in Area 8		212	30	10-Sep-13 A	20-Oct-14	1464	Calendar Day
ABWF & E&M Installation		212	30	10-Sep-13 A	20-Oct-14	1464	Calendar Day
Roof		212	30	10-Sep-13 A	20-Oct-14	1464	Calendar Day
S8A-BS-4010	E&M Installation	28	10	10-Sep-13 A	30-Sep-14	1484	Calendar Day
Works in Area 8 - ABWF Works at Observation Deck of Ferry Pier		120	30	28-Oct-13 A	20-Oct-14	1464	Calendar Day
S8B-FP-01100	Roof Finishes & Misc. ABWF Installation	120	30	28-Oct-13 A	20-Oct-14	1464	Calendar Day
S8B-FP-01300	Handrail & Glass Balustrade Installation	45	7	21-Dec-13 A	27-Sep-14	1487	Calendar Day
Section 9B of the Works - CWB Tunnel Structure (CH3400 - CH3796)		295	121	11-Feb-14 A	14-Feb-15	20	
Tunnel Portion 2 (CH3425-CH3500)		151	105	11-Jun-14 A	27-Jan-15	36	
Foundation		77	24	11-Jun-14 A	21-Oct-14	117	
S9B-T2-1125	Installation of Pump Test Equipment	35	12	11-Jun-14 A	07-Oct-14	117	HK Working Day
S9B-T2-1130	Tunnel portion 2 Pump Test	14	14	08-Oct-14	21-Oct-14	147	Calendar Day
CWB Structural Works		125	105	06-Aug-14 A	27-Jan-15	-9	HK Working Day
S9B-T2-2000	Tunnel portion 2 ELSW excavation (62,500m3; 500m3/d)	125	105	06-Aug-14 A	27-Jan-15	-9	HK Working Day
Tunnel Portion 3 & Tunnel Portion 4 (CH3630-CH3790)		295	121	11-Feb-14 A	14-Feb-15	-297	
Foundation		295	121	11-Feb-14 A	14-Feb-15	-297	
Stage 2 - Southern Wall after HHR Flyover Diversion (Stage 1) (C130A-P131; P144-C154)		360	147	11-Feb-14 A	14-Feb-15	-362	Calendar Day
S9B-T34-1230C	Pre-grouting & Guidewall for P147-P154	28	14	11-Feb-14 A	04-Oct-14	-271	Calendar Day



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

Remaining Work
Actual Work
Summary Bar
Critical Remaining Work
Milestone

CEDD CONTRACT NO. HK/2009/02
Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Sep-14)

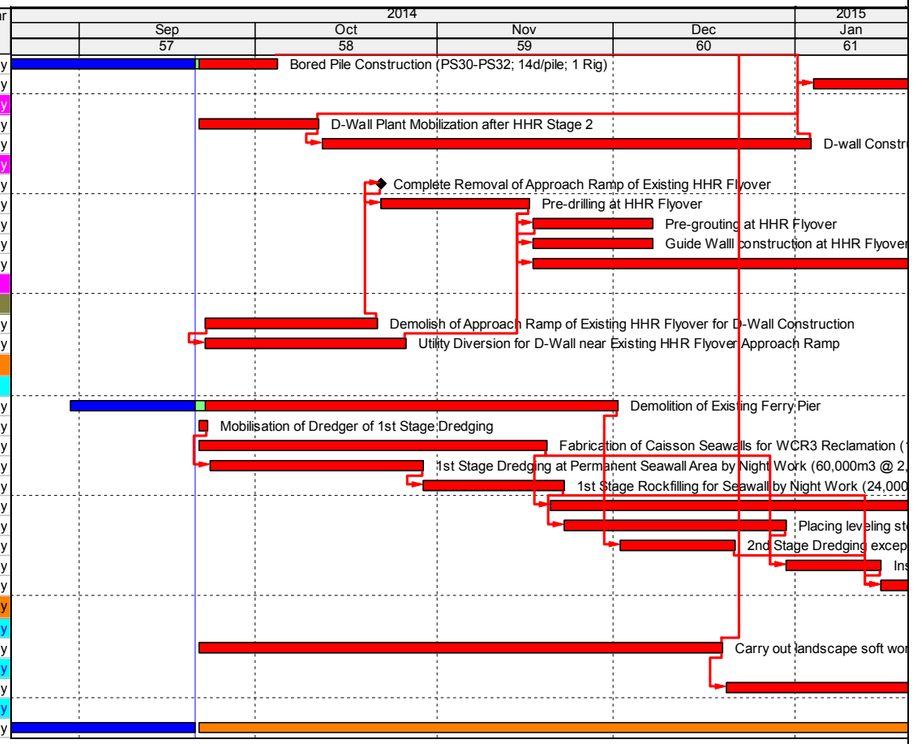
Date	Revision	Checked	Approved
20-Sep-14	3MRP		
20-Feb-14	Baseline Prog		

TASK filters: 3-Month Rolling, Temp 2_3.
Print on: 24-Sep-14 10:22

CEDD CONTRACT HK/2009/02

CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
S9B-T34-1260B	Bored Pile Construction (PS30-PS32; 14d/pile; 1 Rig)	42	14	07-Aug-14 A	04-Oct-14	-229	Calendar Day
S9B-T34-1250C	D-wall Construction along HHR slow lane (P147-C152, C154; 6d/Panel)	42	42	04-Jan-15	14-Feb-15	-362	Calendar Day
Stage 3 - Northern Wall after TWCR4 Reclamation (C88-C105)		105	105	21-Sep-14	03-Jan-15	-362	Calendar Day
S9B-T34-1435C	D-Wall Plant Mobilization after HHR Stage 2	21	21	21-Sep-14	11-Oct-14	-362	Calendar Day
S9B-T34-1430C	D-wall Construction at TWCR4 (C88-P94; P101-C105; 6d/Panel)	84	84	12-Oct-14	03-Jan-15	-362	Calendar Day
Stage 4 - Southern Wall after HHR Flyover Diversion (Stage 2) (P132-P143)		96	96	22-Oct-14	25-Jan-15	-438	Calendar Day
S9B-T34-1600	Complete Removal of Approach Ramp of Existing HHR Flyover	0	0	22-Oct-14		-438	Calendar Day
S9B-T34-1610	Pre-drilling at HHR Flyover	26	26	22-Oct-14	16-Nov-14	-438	Calendar Day
S9B-T34-1620	Pre-grouting at HHR Flyover	21	21	17-Nov-14	07-Dec-14	-389	Calendar Day
S9B-T34-1630	Guide Walll construction at HHR Flyover	21	21	17-Nov-14	07-Dec-14	-389	Calendar Day
S9B-T34-1650	Bored Pile Construction (PS34-PS38; 14d/pile; 1 Rig)	70	70	17-Nov-14	25-Jan-15	-438	Calendar Day
Temp Works for HHR Flyover Diversion (Stage 2)		28	28	22-Sep-14	26-Oct-14	-295	
At-Grade Roadworks		28	28	22-Sep-14	26-Oct-14	-295	
S9B-TTA-4500	Demolish of Approach Ramp of Existing HHR Flyover for D-Wall Construction	24	24	22-Sep-14	21-Oct-14	-352	HK Working Day
S9B-TTA-4600	Utility Diversion for D-Wall near Existing HHR Flyover Approach Ramp	35	35	22-Sep-14	26-Oct-14	-368	Calendar Day
Section 11 of the Works - Remainder of Works		135	124	30-Aug-14 A	25-Feb-15	-330	
Marine Works at WCR3		135	124	30-Aug-14 A	25-Feb-15	-330	
S11-R3-1000	Demolition of Existing Ferry Pier	60	59	30-Aug-14 A	01-Dec-14	-314	HK Working Day
S11-R3-1100	Mobilisation of Dredger of 1st Stage Dredging	2	2	21-Sep-14	22-Sep-14	-413	Calendar Day
S11-R3-0500A	Fabrication of Caisson Seawalls for WCR3 Reclamation (1st Stage - 2 Nos.)	60	60	21-Sep-14	19-Nov-14	-407	Calendar Day
S11-R3-1200	1st Stage Dredging at Permanent Seawall Area by Night Work (60,000m3 @ 2,000m3/d)	30	30	23-Sep-14	29-Oct-14	-333	Working Day
S11-R3-1300	1st Stage Rockfilling for Seawall by Night Work (24,000m3 @ 1000m3/d)	24	24	29-Oct-14	22-Nov-14	-415	Calendar Day
S11-R3-0500B	Fabrication of Caisson Seawalls for WCR3 Reclamation (2nd Stage - 3 Nos.)	90	90	20-Nov-14	17-Feb-15	-407	Calendar Day
S11-R3-1400	Placing leveling stones to -6.0mPD (1500m2 @ 40m2/d)	38	38	22-Nov-14	30-Dec-14	-415	Calendar Day
S11-R3-1600	2nd Stage Dredging except the Existing Wan Chai Ferry Pier (20,000m3 @ 1,000m3/d)	20	20	02-Dec-14	21-Dec-14	-390	Calendar Day
S11-R3-1500	Installation of Permanent Seawall (3 nos.) & Rockfilling behind seawall	16	16	30-Dec-14	15-Jan-15	-415	Calendar Day
S11-R3-1700	Reclamation from -14 mPD to -2.0mPD by Hopper (121,000m3 @ 3,000m3/d)	41	41	15-Jan-15	25-Feb-15	-415	Calendar Day
Soft Landscaping & Establishment Works		2375	707	24-Feb-10 A	27-Aug-16	0	Calendar Day
Section 8C of the Works - Landscape Softworks in Area 8		90	90	21-Sep-14	19-Dec-14	-312	Calendar Day
S8C-0010	Carry out landscape soft work on new ferry pier	90	90	21-Sep-14	19-Dec-14	-312	Calendar Day
Section 8D of the Works - Establishment Works in Area 8		365	365	20-Dec-14	19-Dec-15	-312	Calendar Day
S8D-0010	Carry out establishment work on new ferry pier	365	365	20-Dec-14	19-Dec-15	-312	Calendar Day
Section 12 of the Works - Protection and Preservation of Existing Trees		2375	707	24-Feb-10 A	27-Aug-16	0	Calendar Day
S12-0010	Protection and preservation of existing trees	2375	707	24-Feb-10 A	27-Aug-16	0	Calendar Day



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

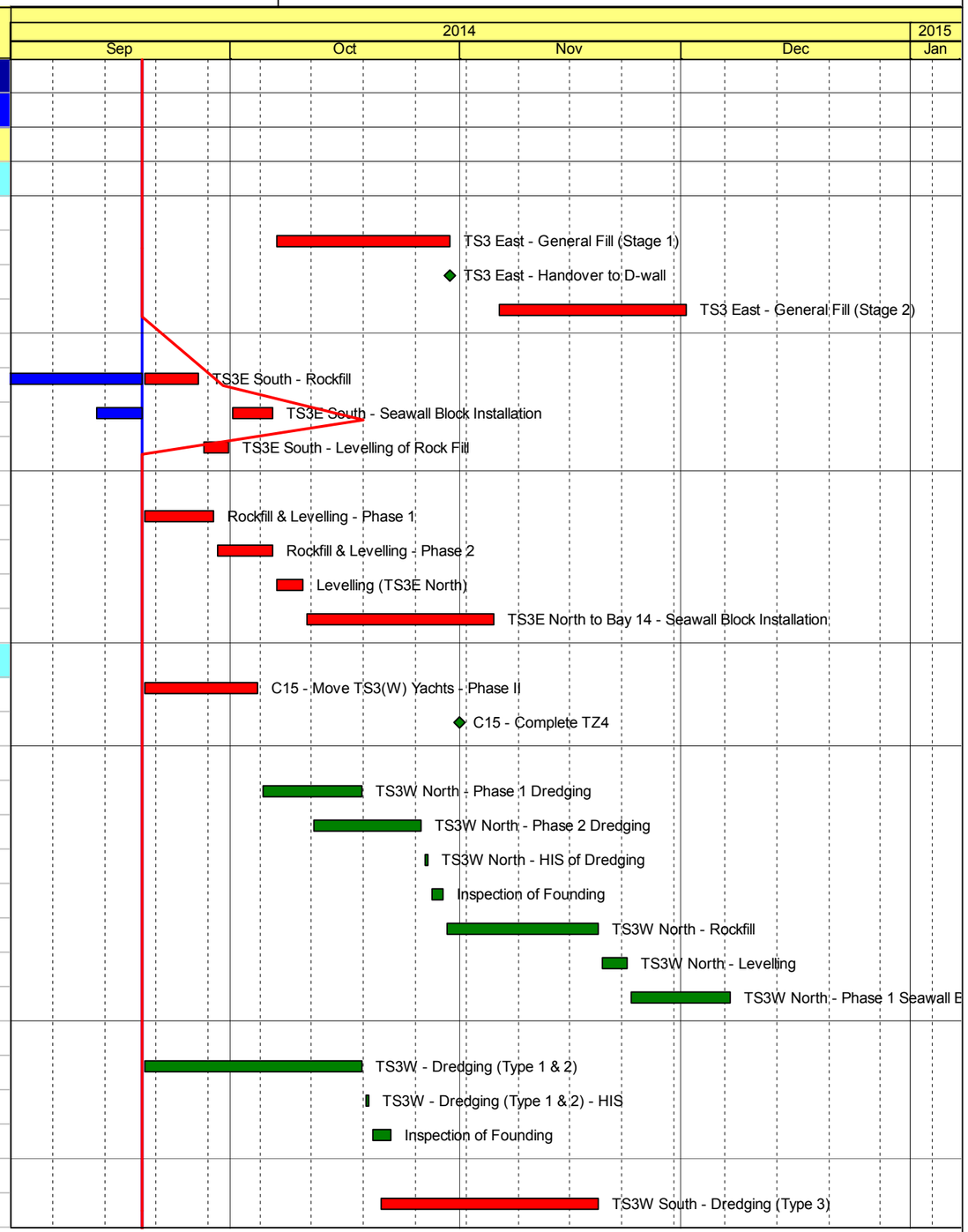
Remaining Work
Actual Work
Summary Bar
Critical Remaining Work
Milestone

CEDD CONTRACT NO. HK/2009/02
Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Sep-14)

Date	Revision	Checked	Approved
20-Sep-14	3MRP		
20-Feb-14	Baseline Prog		

TASK filters: 3-Month Rolling, Temp 2_3.
Print on: 24-Sep-14 10:22

Activity ID	Activity Name	Original Duration	Start	Finish
HY/2010/08: CWB-SR8 Three Months Rolling Programme_updated up to 20140920				
Works in TS3				
TS3 East & West Reclamation Works				
TS3E - Reclamation (Advance Works)				
TS3E - General				
TS3E.MW.1160	TS3 East - General Fill (Stage 1)	24	07-Oct-14	30-Oct-14
TS3E.MW.1180	TS3 East - Handover to D-wall	0		30-Oct-14
TS3E.MW.1170	TS3 East - General Fill (Stage 2)	26	06-Nov-14	01-Dec-14
TS3E - South				
TS3E.MW.1090	TS3E South - Rockfill	19	10-Aug-14 A	26-Sep-14
TS3E.MW.1100	TS3E South - Seawall Block Installation	25	13-Sep-14 A	06-Oct-14
TS3E.MW.1090A	TS3E South - Levelling of Rock Fill	4	27-Sep-14	30-Sep-14
TS3E - North (Remaining)				
TS3E.MW.N.100	Rockfill & Levelling - Phase 1	10	19-Sep-14*	28-Sep-14
TS3E.MW.N.101	Rockfill & Levelling - Phase 2	8	29-Sep-14	06-Oct-14
TS3E.MW.N.102	Levelling (TS3E North)	4	07-Oct-14	10-Oct-14
TS3E.MW.N.104	TS3E North to Bay 14 - Seawall Block Installation	26	11-Oct-14	05-Nov-14
TS3W - Reclamation Works (new scheme)				
TS3W.MW.1170	C15 - Move TS3(W) Yachts - Phase II	12	19-Sep-14	04-Oct-14
TS3W.MW.1160	C15 - Complete TZ4	0		01-Nov-14 A
TS3W - North				
TS3W.MW.2010	TS3W North - Phase 1 Dredging	14	05-Oct-14	18-Oct-14
TS3W.MW.2010	TS3W North - Phase 2 Dredging	15	12-Oct-14	26-Oct-14
TS3W.MW.2010	TS3W North - HIS of Dredging	1	27-Oct-14	27-Oct-14
TS3W.MW.2010	Inspection of Founding	2	28-Oct-14	29-Oct-14
TS3W.MW.2040	TS3W North - Rockfill	21	30-Oct-14	19-Nov-14
TS3W.MW.2040	TS3W North - Levelling	4	20-Nov-14	23-Nov-14
TS3W.MW.2050	TS3W North - Phase 1 Seawall Block Installation	14	24-Nov-14	07-Dec-14
TS3W - (Mid-Point)				
TS3W.MW.2160	TS3W - Dredging (Type 1 & 2)	30	19-Sep-14	18-Oct-14
TS3W.MW.2170	TS3W - Dredging (Type 1 & 2) - HIS	1	19-Oct-14	19-Oct-14
TS3W.MW.2180	Inspection of Founding	3	20-Oct-14	22-Oct-14
TS3W - South				
TS3W.MW.2070	TS3W South - Dredging (Type 3)	30	21-Oct-14	19-Nov-14



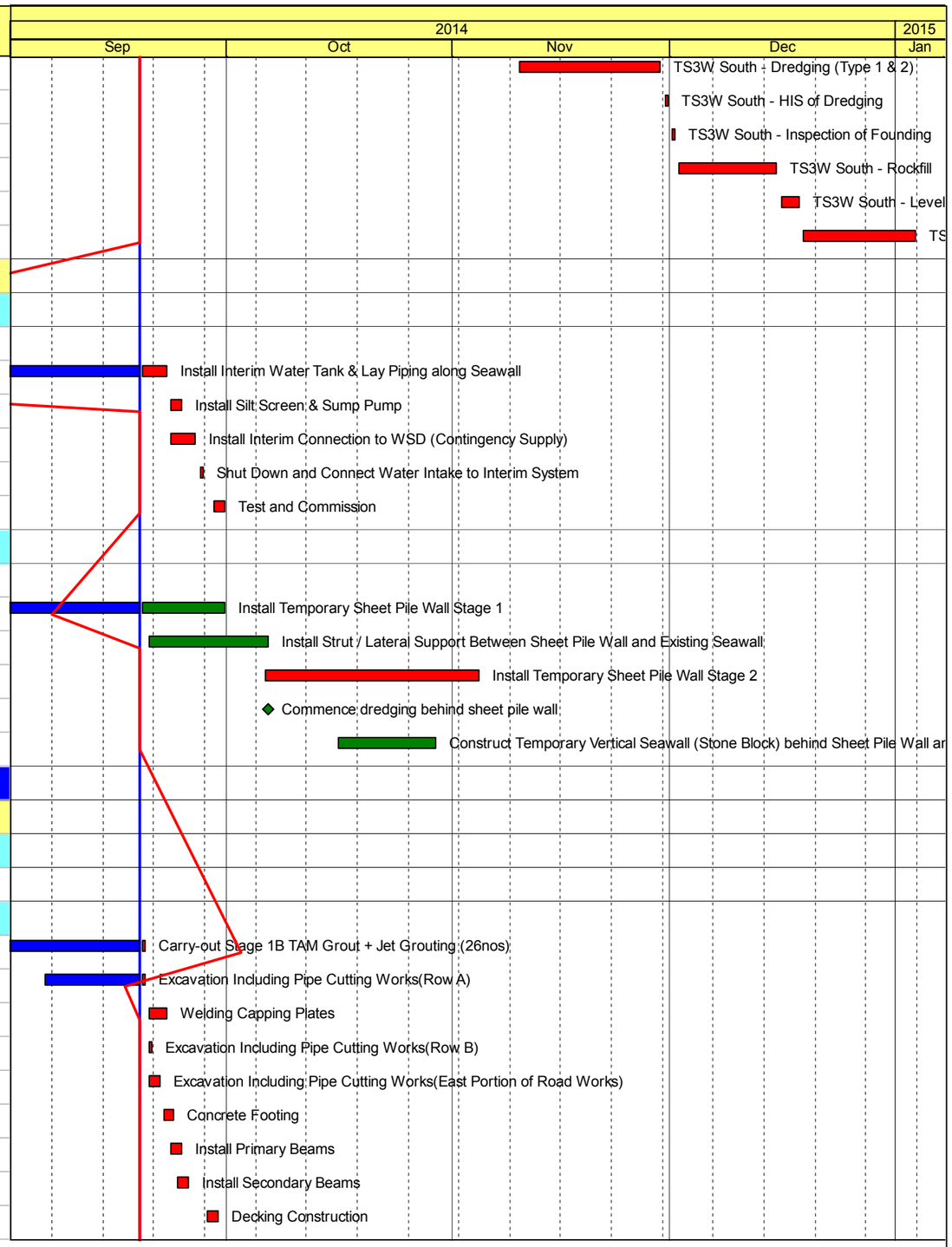
中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.

Actual Work
Remaining Work
Critical Remaining Work
Milestone

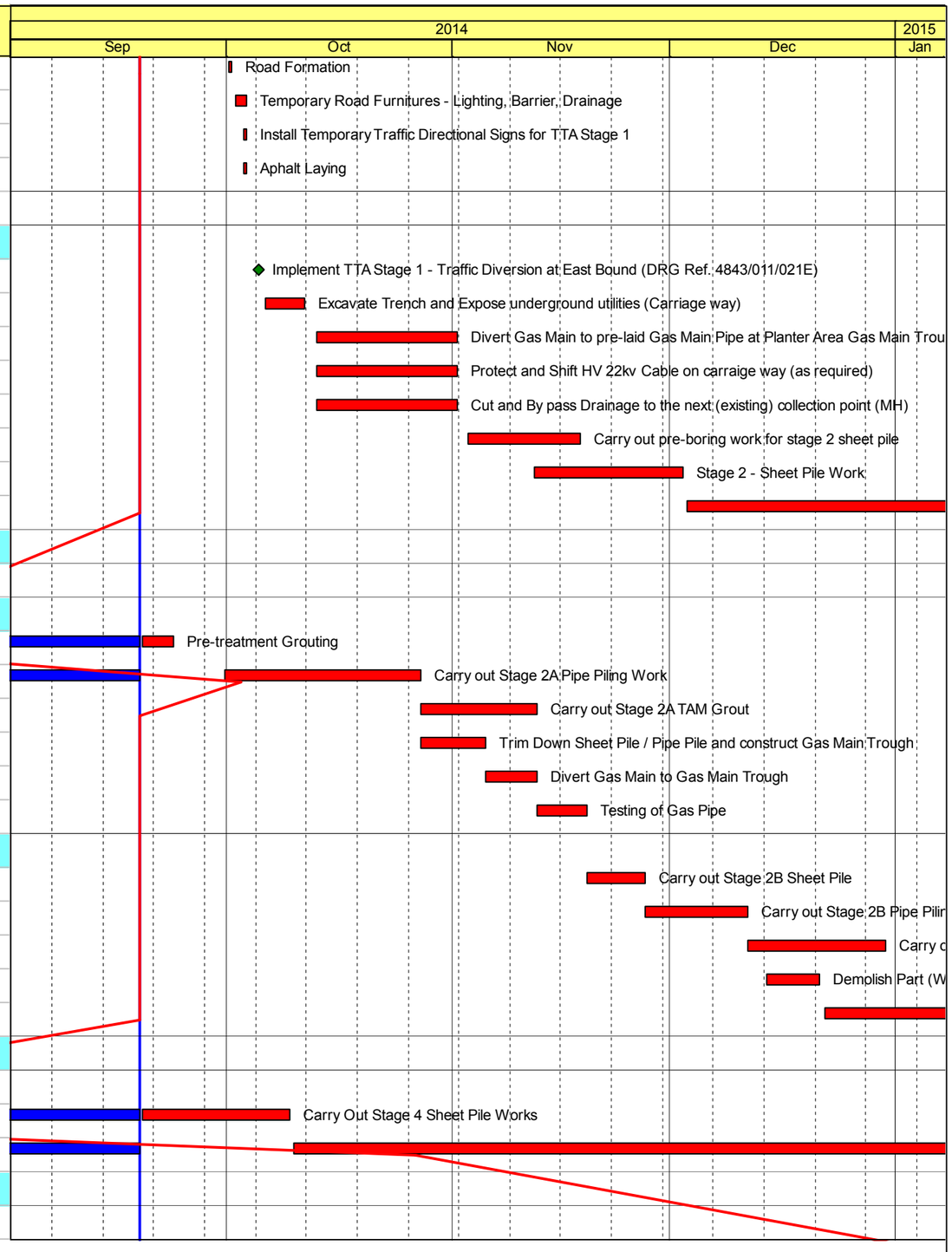
Contract No. HY/2010/08: Central - Wanchai Bypass Tunnel +(Slip Road 8 Section) - 3 Months Rolling Progamme

Date	Revision	Checked	Approved
20-Sep-14	Updated to 20th September 2014	DML/WC	

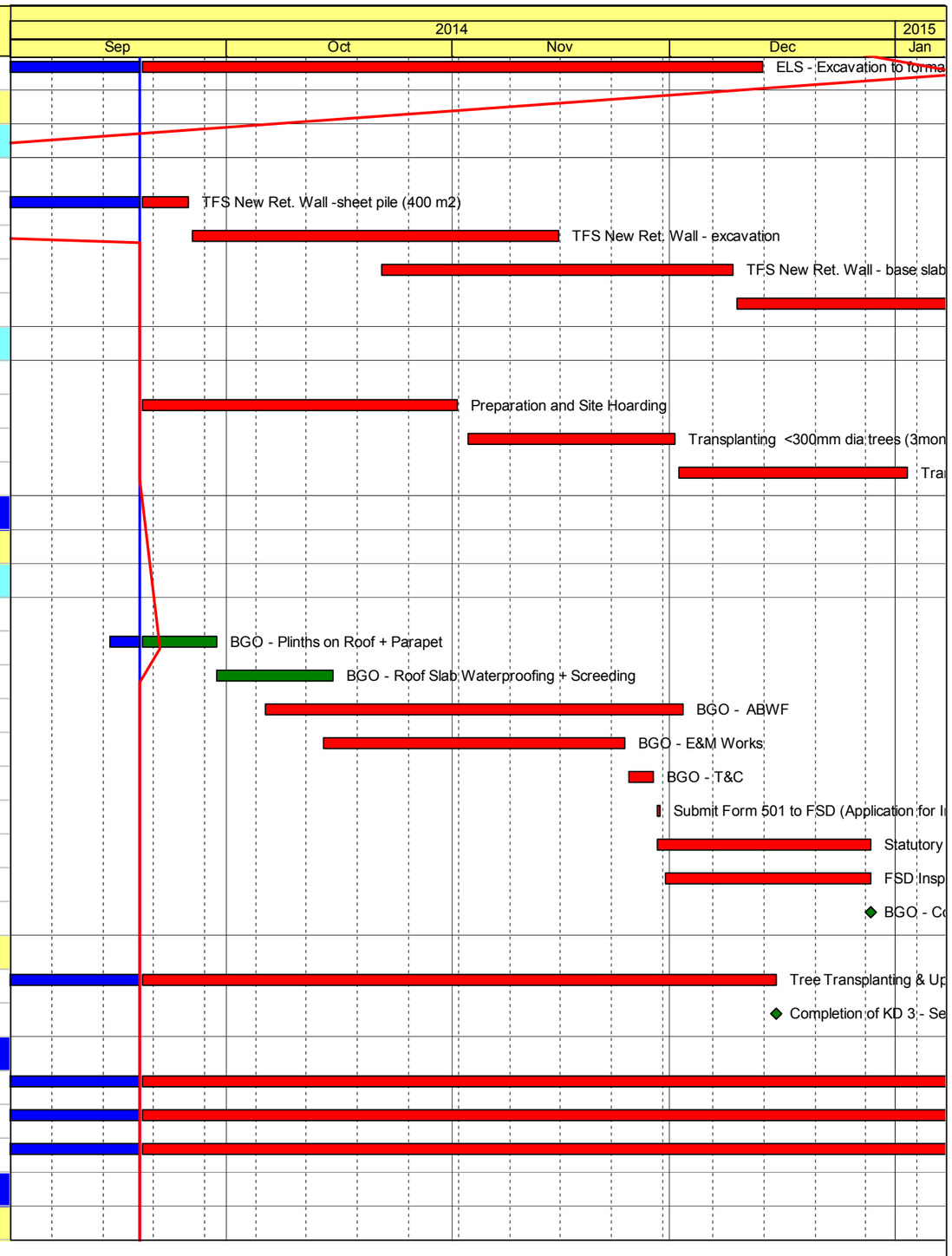
Activity ID	Activity Name	Original Duration	Start	Finish
TS3W.MW.2070	TS3W South - Dredging (Type 1 & 2)	20	10-Nov-14	29-Nov-14
TS3W.MW.2070	TS3W South - HIS of Dredging	1	30-Nov-14	30-Nov-14
TS3W.MW.2070	TS3W South - Inspection of Founding	1	01-Dec-14	01-Dec-14
TS3W.MW.2080	TS3W South - Rockfill	14	02-Dec-14	15-Dec-14
TS3W.MW.2080	TS3W South - Levelling	3	16-Dec-14	18-Dec-14
TS3W.MW.2090	TS3W South - Seawall Block Installation	16	19-Dec-14	03-Jan-15
Works for Box Culvert Q & Water Intake				
Water Intake				
Stage 1 - Water Intake Works				
TS3_1170.10	Install Interim Water Tank & Lay Piping along Seawall	18	07-Aug-14 A	22-Sep-14
TS3_1170.20	Install Silt Screen & Sump Pump	2	23-Sep-14	24-Sep-14
TS3_1170.30	Install Interim Connection to WSD (Contingency Supply)	4	23-Sep-14	26-Sep-14
TS3_1180.10	Shut Down and Connect Water Intake to Interim System	1	27-Sep-14	27-Sep-14
TS3_1180.20	Test and Commission	2	29-Sep-14	30-Sep-14
Box Culvert Q				
Box Culvert Q Outfall Diversion				
TS3_1145.20	Install Temporary Sheet Pile Wall Stage 1	30	13-Aug-14 A	30-Sep-14
TS3_1145.40	Install Strut / Lateral Support Between Sheet Pile Wall and Existing Seawall	12	20-Sep-14	06-Oct-14
TS3_1145.20A	Install Temporary Sheet Pile Wall Stage 2	26	06-Oct-14	04-Nov-14
TS3_1145.30	Commence dredging behind sheet pile wall	0		06-Oct-14
TS3_1145.50	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works	12	16-Oct-14	29-Oct-14
Works in SR8 (Open Cut Method)				
SR8 - Cofferdam & Cut & Cover Tunnel Works				
SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)				
TTA Stage 0 - East Bound				
Stage 1B - East Bound (Seaside) (Ref. DRG. No.CDD/SR8/082)				
SR8.EB.1251	Carry-out Stage 1B TAM Grout + Jet Grouting (26nos)	22	08-Aug-14 A	19-Sep-14
SR8.EB.1252	Excavation Including Pipe Cutting Works(Row A)	6	06-Sep-14 A	19-Sep-14
SR8.EB.1256	Welding Capping Plates	3	20-Sep-14	22-Sep-14
SR8.EB.1253	Excavation Including Pipe Cutting Works(Row B)	1	20-Sep-14	20-Sep-14
SR8.EB.1254	Excavation Including Pipe Cutting Works(East Portion of Road Works)	2	20-Sep-14	21-Sep-14
SR8.EB.1255	Concrete Footing	2	22-Sep-14	23-Sep-14
SR8.EB.1257	Install Primary Beams	2	23-Sep-14	24-Sep-14
SR8.EB.1258	Install Secondary Beams	2	24-Sep-14	25-Sep-14
SR8.EB.1259	Decking Construction	2	28-Sep-14	29-Sep-14



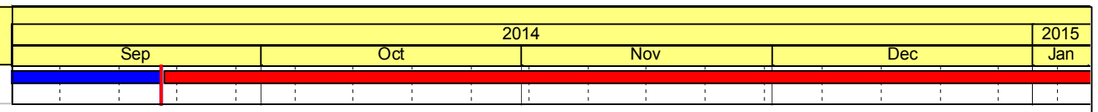
Activity ID	Activity Name	Original Duration	Start	Finish
SR8.EB.1260	Road Formation	1	01-Oct-14	01-Oct-14
SR8.EB.1261	Temporary Road Furnitures - Lighting, Barrier, Drainage	2	02-Oct-14	03-Oct-14
SR8.EB.1270	Install Temporary Traffic Directional Signs for TTA Stage 1	1	03-Oct-14	03-Oct-14
SR8.EB.1262	Aphalt Laying	1	03-Oct-14	03-Oct-14
TTA Stage 1 - East Bound				
Stage 2 - East Bound (Ref. DRG. No.CDD/SR8/083)				
SR8.EB.1310	Implement TTA Stage 1 - Traffic Diversion at East Bound (DRG Ref. 4843/011/021E)	0	05-Oct-14	
SR8.EB.1315	Excavate Trench and Expose underground utilities (Carriage way)	6	06-Oct-14	11-Oct-14
SR8.EB.1320	Divert Gas Main to pre-laid Gas Main Pipe at Planter Area Gas Main Trough	18	13-Oct-14	01-Nov-14
SR8.EB.1325	Protect and Shift HV 22kv Cable on carraige way (as required)	18	13-Oct-14	01-Nov-14
SR8.EB.1327	Cut and By pass Drainage to the next (existing) collection point (MH)	18	13-Oct-14	01-Nov-14
SR8.EB.1330	Carry out pre-boring work for stage 2 sheet pile	14	03-Nov-14	18-Nov-14
SR8.EB.1340	Stage 2 - Sheet Pile Work	18	12-Nov-14	02-Dec-14
SR8.EB.1350	Stage 2 - Pipe Piling Work	52	03-Dec-14	04-Feb-15
SR8 West Bound - Ch. 459.000 to 385.000 (Victoria Road / IEC Central Divider)				
TTA Stage 1 - West Bound				
Stage 2A - West Bound (Ref. DRG. No.CDD/SR8/086)				
SR8.WB.2130	Pre-treatment Grouting	10	10-Jul-14 A	23-Sep-14
SR8.WB.2030	Carry out Stage 2A Pipe Piling Work	42	21-Aug-14 A	27-Oct-14
SR8.WB.2040	Carry out Stage 2A TAM Grout	14	27-Oct-14	12-Nov-14
SR8.WB.2050	Trim Down Sheet Pile / Pipe Pile and construct Gas Main Trough	8	27-Oct-14	05-Nov-14
SR8.WB.2060	Divert Gas Main to Gas Main Trough	6	05-Nov-14	12-Nov-14
SR8.WB.2140	Testing of Gas Pipe	6	12-Nov-14	19-Nov-14
Stage 2B - West Bound (Ref. DRG. No.CDD/SR8/086)				
SR8.WB.2070	Carry out Stage 2B Sheet Pile	7	19-Nov-14	27-Nov-14
SR8.WB.2080	Carry out Stage 2B Pipe Piling	12	27-Nov-14	11-Dec-14
SR8.WB.2090	Carry out Stage 2B TAM Grout	14	11-Dec-14	30-Dec-14
SR8.WB.2100	Demolish Part (WB) Wing Wall of Abutment M	2	14-Dec-14	21-Dec-14
SR8.WB.2120	Construct Temporary IEC West Bound Down Ramp	57	22-Dec-14	04-Mar-15
SR8 Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)				
Stage 4 - SR8 Ch.385.000 to Ch317.500 (Tunnel Portal) (Ref. DRG. No.CDD/SR8/087)				
SR8.VP.4010	Carry Out Stage 4 Sheet Pile Works	90	13-Mar-14 A	09-Oct-14
SR8.VP.4020	Carry Out Stage 4 Pipe Piling Works	145	24-Jul-14 A	06-Feb-15
SR8 Ch 317.500 to Ch 210.000 - U-Structure & Slab (Victoria Park)				
Excavation and Lateral Support				



Activity ID	Activity Name	Original Duration	Start	Finish
SR8_2230	ELS - Excavation to formation level + Lateral Support	96	13-Jun-14 A	13-Dec-14
Tsing Fung St - RW & Subway Extension & Toe Wall at Hing Fat St				
Ret. Wall & TF Subway Extension (Portion V)				
Retaining Wall RW8C at Tsing Fung Street (Portion V)				
VP_1235	TFS New Ret. Wall -sheet pile (400 m2)	12	21-Jun-14 A	25-Sep-14
VP_1240	TFS New Ret. Wall - excavation	42	26-Sep-14	15-Nov-14
VP_1260	TFS New Ret. Wall - base slab	42	22-Oct-14	09-Dec-14
VP_1290	TFS New Ret. Wall - wall stem + Railing	60	10-Dec-14	24-Feb-15
Retaining Wall + Toe Wall at Hing Fat Street				
Tree Transplanting at Portion VIII (Tree Zone 20) (6 trees)				
VP_1700	Preparation and Site Hoarding	36	19-Sep-14	01-Nov-14
VP_1140.01	Transplanting <300mm dia trees (3months, 4nos) - Stage 1 root pruning	25	03-Nov-14	01-Dec-14
VP_1140.02	Transplanting <300mm dia trees (3months, 4nos) - Stage 2 root pruning	25	02-Dec-14	02-Jan-15
Works in Victoria Park				
Re-Provisioning Works				
Bowling Green Office				
BGO - Construction Works				
VP_1180.14	BGO - Plinths on Roof + Parapet	12	15-Sep-14 A	29-Sep-14
VP_1180.04	BGO - Roof Slab Waterproofing + Screeding	12	29-Sep-14	15-Oct-14
VP_1190	BGO - ABWF	50	06-Oct-14	02-Dec-14
VP_1220	BGO - E&M Works	36	14-Oct-14	24-Nov-14
VP_1250	BGO - T&C	4	25-Nov-14	28-Nov-14
VP_1260.10	Submit Form 501 to FSD (Application for Inspection)	1	29-Nov-14	29-Nov-14
VP_1250.40	Statutory Inspections by Other Authorities (EMSD, WSD, ASD)	30	29-Nov-14	28-Dec-14
VP_1260.20	FSD Inspection & Certification	29	30-Nov-14	28-Dec-14
VP_1270	BGO - Completion of KD4 - Works in Section1B	0		28-Dec-14
Tree Transplanting at Portion XIV (Victoria Park Open Space)				
VP_1040	Tree Transplanting & Upkeep at Portion XIV	348	16-Oct-13 A	15-Dec-14
VP_1280	Completion of KD 3 - Section 1A, Works in Portion XIV & XV	0		15-Dec-14
Mooring Components Upkeep (CBTS and ATS)				
MAR_2000	Mooring Upkeep at Portion XIX(19) & XX(20) - ATS (if instructed by Engineer)	1399	21-Mar-13 A	17-Jan-17
MAR_1000	Mooring Upkeep at Portion III (3) - CBTS	574	15-May-14 A	09-Dec-15
MAR_3020	Mooring Upkeep at Portion X(10) & XVI(16) - CBTS	979	15-May-14 A	17-Jan-17
Works for Public Works Regional Laboratory (North Lantau)				
Maintenance and Upkeep of New PWRL (Portion XVII)				



Activity ID	Activity Name	Original Duration	Start	Finish
PWRL_1050	Maintenance/ Upkeep of New PWRL	1301	19-Jul-13 A	20-Nov-17



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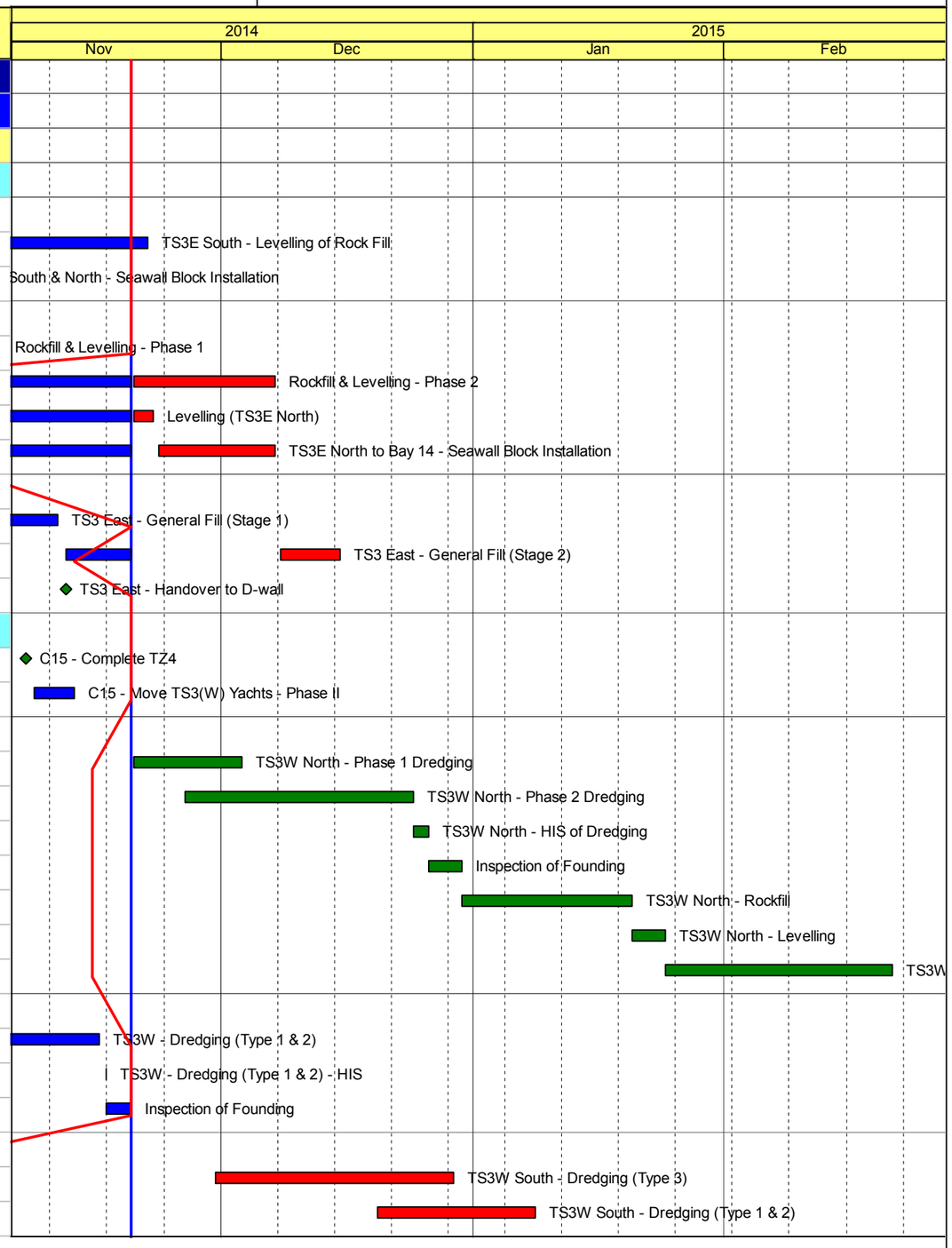
Date	Revision	Checked	Approved
20-Sep-14	Updated to 20th September 2014	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish
DWP-06 - Update Progress As of 20 Nov 14				
Works in TS3				
TS3 East & West Reclamation Works				
TS3E - Reclamation (Advance Works)				
TS3E - East				
TS3E.MW.1090A	TS3E South - Levelling of Rock Fill	2	21-Sep-14 A	22-Nov-14 A
TS3E.MW.1100	TS3E South & North - Seawall Block Installation	25	22-Sep-14 A	29-Oct-14 A
TS3E - West (Remaining)				
TS3E.MW.N.1000	Rockfill & Levelling - Phase 1	10	13-Oct-14 A	04-Nov-14 A
TS3E.MW.N.1010	Rockfill & Levelling - Phase 2	8	27-Oct-14 A	07-Dec-14
TS3E.MW.N.1020	Levelling (TS3E North)	4	03-Nov-14 A	22-Nov-14
TS3E.MW.N.1040	TS3E North to Bay 14 - Seawall Block Installation	18	05-Nov-14 A	07-Dec-14
TS3E - General				
TS3E.MW.1160	TS3 East - General Fill (Stage 1)	25	15-Oct-14 A	11-Nov-14 A
TS3E.MW.1170	TS3 East - General Fill (Stage 2)	26	12-Nov-14 A	15-Dec-14
TS3E.MW.1180	TS3 East - Handover to D-wall	0		12-Nov-14 A
TS3W - Reclamation Works (new scheme)				
TS3W.MW.1160	C15 - Complete TZ4	0		07-Nov-14 A
TS3W.MW.1170	C15 - Move TS3(W) Yachts - Phase II	12	08-Nov-14 A	13-Nov-14 A
TS3W - North				
TS3W.MW.2010	TS3W North - Phase 1 Dredging	14	20-Nov-14 A	03-Dec-14
TS3W.MW.2010A	TS3W North - Phase 2 Dredging	28	26-Nov-14	24-Dec-14
TS3W.MW.2010B	TS3W North - HIS of Dredging	2	24-Dec-14	26-Dec-14
TS3W.MW.2010C	Inspection of Founding	4	26-Dec-14	30-Dec-14
TS3W.MW.2040	TS3W North - Rockfill	21	30-Dec-14	20-Jan-15
TS3W.MW.2040A	TS3W North - Levelling	4	20-Jan-15	24-Jan-15
TS3W.MW.2050	TS3W North - Phase 1 Seawall Block Installation	28	24-Jan-15	21-Feb-15
TS3W - (Mid-Point)				
TS3W.MW.2160	TS3W - Dredging (Type 1 & 2)	30	12-Sep-14 A	16-Nov-14 A
TS3W.MW.2170	TS3W - Dredging (Type 1 & 2) - HIS	2	17-Nov-14 A	17-Nov-14 A
TS3W.MW.2180	Inspection of Founding	3	17-Nov-14 A	20-Nov-14 A
TS3W - South				
TS3W.MW.2070	TS3W South - Dredging (Type 3)	30	30-Nov-14	29-Dec-14
TS3W.MW.2070A	TS3W South - Dredging (Type 1 & 2)	20	20-Dec-14	08-Jan-15



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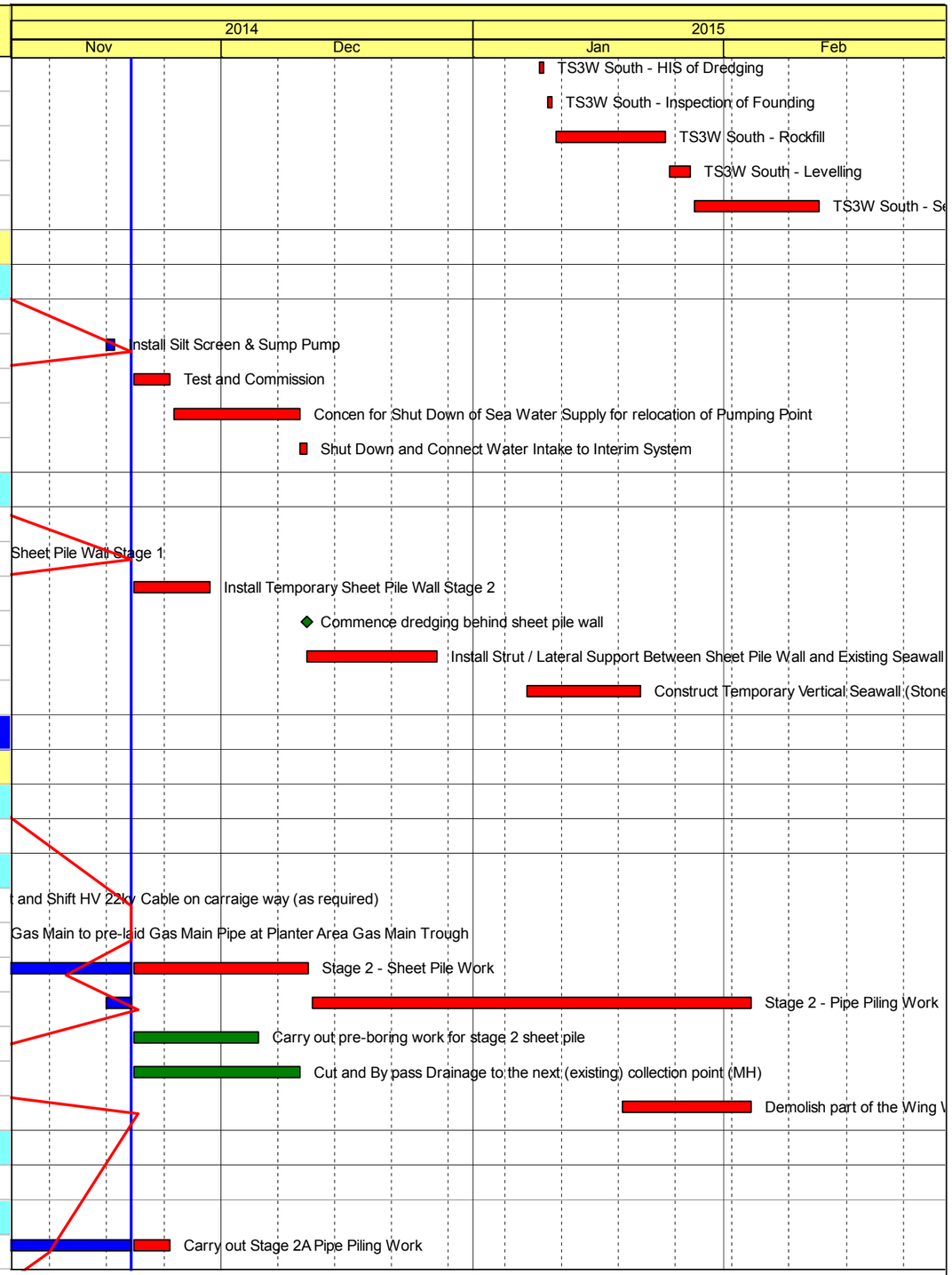
Activity ID	Activity Name	Original Duration	Start	Finish
TS3W.MW.2070B	TS3W South - HIS of Dredging	1	09-Jan-15	09-Jan-15
TS3W.MW.2070C	TS3W South - Inspection of Founding	1	10-Jan-15	10-Jan-15
TS3W.MW.2080	TS3W South - Rockfill	14	11-Jan-15	24-Jan-15
TS3W.MW.2080A	TS3W South - Levelling	3	25-Jan-15	27-Jan-15
TS3W.MW.2090	TS3W South - Seawall Block Installation	16	28-Jan-15	12-Feb-15
Works for Box Culvert Q & Water Intake				
Water Intake				
Stage 1 - Water Intake Works				
TS3_1170.20	Install Silt Screen & Sump Pump	2	17-Nov-14 A	18-Nov-14 A
TS3_1180.20	Test and Commission	4	20-Nov-14	24-Nov-14
TS3_1170.40	Concen for Shut Down of Sea Water Supply for relocation of Pumping Point	14	25-Nov-14	10-Dec-14
TS3_1180.10	Shut Down and Connect Water Intake to Interim System	1	10-Dec-14	11-Dec-14
Box Culvert Q				
Box Culvert Q Outfall Diversion				
TS3_1145.20	Install Temporary Sheet Pile Wall Stage 1	30	13-Aug-14 A	20-Oct-14 A
TS3_1145.20A	Install Temporary Sheet Pile Wall Stage 2	15	25-Nov-14 A	29-Nov-14
TS3_1145.30	Commence dredging behind sheet pile wall	0		11-Dec-14
TS3_1145.40	Install Strut / Lateral Support Between Sheet Pile Wall and Existing Seawall	12	11-Dec-14	27-Dec-14
TS3_1145.50	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works	12	07-Jan-15	21-Jan-15
Works in SR8 (Open Cut Method)				
SR8 - Cofferdam & Cut & Cover Tunnel Works				
SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)				
TTA Stage 1 - East Bound				
Stage 2 - East Bound (Ref. DRG. No.CDD/SR8/083)				
SR8.EB.1325	Protect and Shift HV 22kv Cable on carraige way (as required)	18	18-Oct-14 A	29-Oct-14 A
SR8.EB.1320	Divert Gas Main to pre-laid Gas Main Pipe at Planter Area Gas Main Trough	18	27-Oct-14 A	29-Oct-14 A
SR8.EB.1340	Stage 2 - Sheet Pile Work	18	01-Nov-14 A	11-Dec-14
SR8.EB.1350	Stage 2 - Pipe Piling Work	52	17-Nov-14 A	04-Feb-15
SR8.EB.1330	Carry out pre-boring work for stage 2 sheet pile	14	20-Nov-14	05-Dec-14
SR8.EB.1327	Cut and By pass Drainage to the next (existing) collection point (MH)	18	20-Nov-14	10-Dec-14
SR8.EB.1380	Demolish part of the Wing Wall of Abutment M	14	19-Jan-15	04-Feb-15
SR8 West Bound - Ch. 459.000 to 385.000 (Victoria Road / IEC Central Divider)				
TTA Stage 1 - West Bound				
Stage 2A - West Bound (Ref. DRG. No.CDD/SR8/086)				
SR8.WB.2030	Carry out Stage 2A Pipe Piling Work	42	21-Aug-14 A	24-Nov-14



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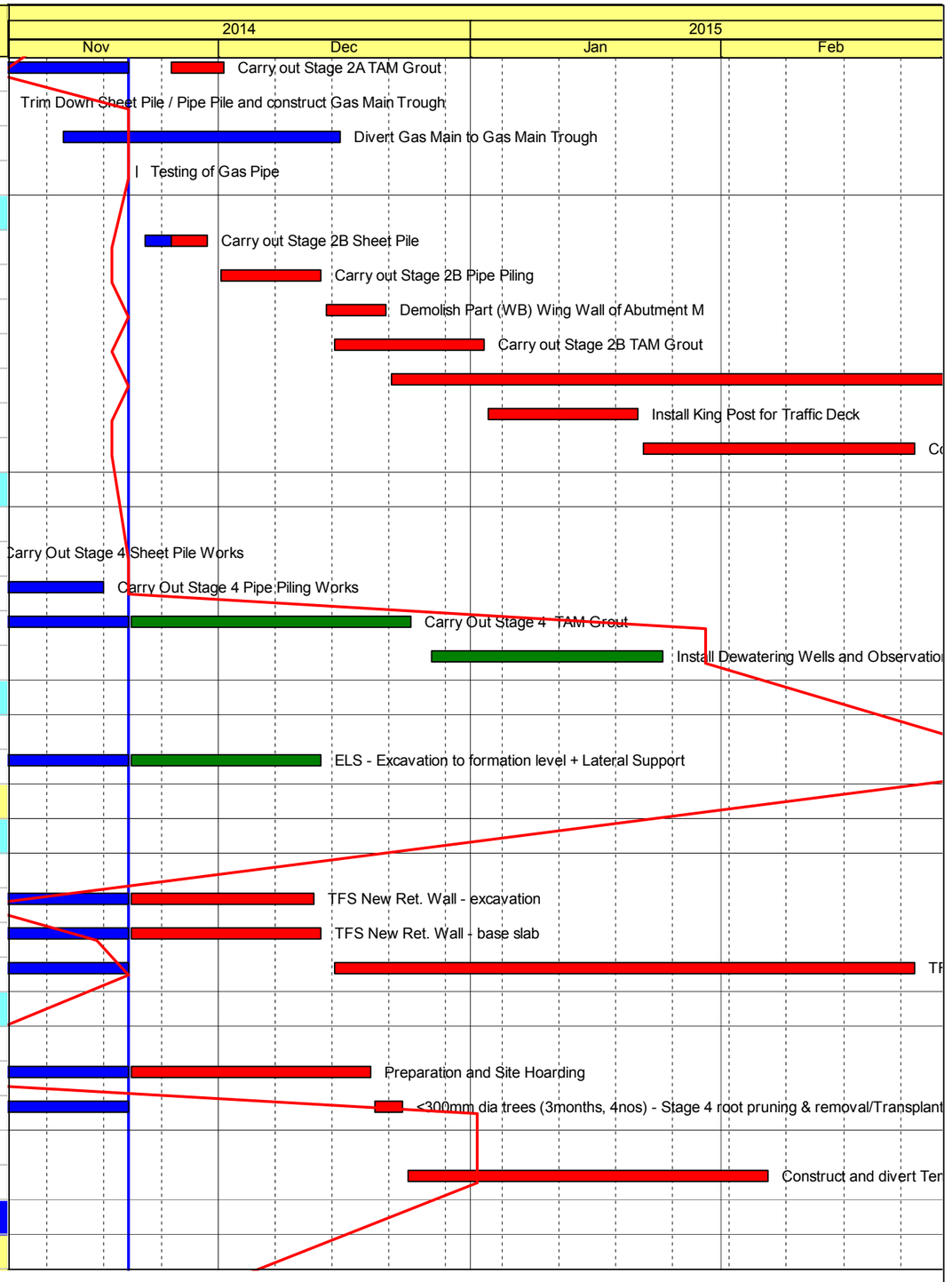
Activity ID	Activity Name	Original Duration	Start	Finish
SR8.WB.2040	Carry out Stage 2A TAM Grout	14	29-Oct-14 A	01-Dec-14
SR8.WB.2050	Trim Down Sheet Pile / Pipe Pile and construct Gas Main Trough	8	29-Oct-14 A	05-Nov-14 A
SR8.WB.2060	Divert Gas Main to Gas Main Trough	6	12-Nov-14 A	16-Dec-14 A
SR8.WB.2140	Testing of Gas Pipe	6	21-Nov-14 A	21-Nov-14 A
Stage 2B - West Bound (Ref. DRG. No.CDD/SR8/086)				
SR8.WB.2070	Carry out Stage 2B Sheet Pile	7	22-Nov-14 A	29-Nov-14
SR8.WB.2080	Carry out Stage 2B Pipe Piling	12	01-Dec-14 A	13-Dec-14
SR8.WB.2100	Demolish Part (WB) Wing Wall of Abutment M	2	14-Dec-14	21-Dec-14
SR8.WB.2090	Carry out Stage 2B TAM Grout	14	15-Dec-14	02-Jan-15
SR8.WB.2120	Construct Temporary IEC West Bound Down Ramp	57	22-Dec-14	04-Mar-15
SR8.WB.2085	Install King Post for Traffic Deck	16	03-Jan-15	21-Jan-15
SR8.WB.2110	Construct Temporary Traffic Deck	26	22-Jan-15	24-Feb-15
SR8 Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)				
Stage 4 - SR8 Ch.385.000 to Ch317.500 (Tunnel Portal) (Ref. DRG. No.CDD/SR8/087)				
SR8.VP.4010	Carry Out Stage 4 Sheet Pile Works	90	13-Mar-14 A	03-Nov-14 A
SR8.VP.4020	Carry Out Stage 4 Pipe Piling Works	145	24-Jul-14 A	17-Nov-14 A
SR8.VP.4030	Carry Out Stage 4 TAM Grout	36	04-Nov-14 A	24-Dec-14
SR8.VP.4040	Install Dewatering Wells and Observation Wells & Carry out Pump Test	24	27-Dec-14	24-Jan-15
SR8 Ch 317.500 to Ch 210.000 - U-Structure & Slab (Victoria Park)				
Excavation and Lateral Support				
SR8_2230	ELS - Excavation to formation level + Lateral Support	96	13-Jun-14 A	13-Dec-14
Tsing Fung St - RW & Subway Extension & Toe Wall at Hing Fat St				
Ret. Wall & TF Subway Extension (Portion V)				
Retaining Wall RW8C at Tsing Fung Street (Portion V)				
VP_1240	TFS New Ret. Wall - excavation	42	26-Sep-14 A	12-Dec-14
VP_1260	TFS New Ret. Wall - base slab	42	07-Oct-14 A	13-Dec-14
VP_1290	TFS New Ret. Wall - wall stem + Railing	60	04-Nov-14 A	24-Feb-15
Retaining Wall + Toe Wall at Hing Fat Street				
Tree Transplanting at Portion VIII (Tree Zone 20) (6 trees)				
VP_1700	Preparation and Site Hoarding	36	19-Sep-14 A	19-Dec-14
VP_1140.04	<300mm dia trees (3months, 4nos) - Stage 4 root pruning & removal/Transplanting	12	03-Nov-14 A	23-Dec-14
RC Works - Toe Wall				
VP_6152	Construct and divert Temporary Footpath	36	24-Dec-14	06-Feb-15
Works in Victoria Park				
Re-Provisioning Works				



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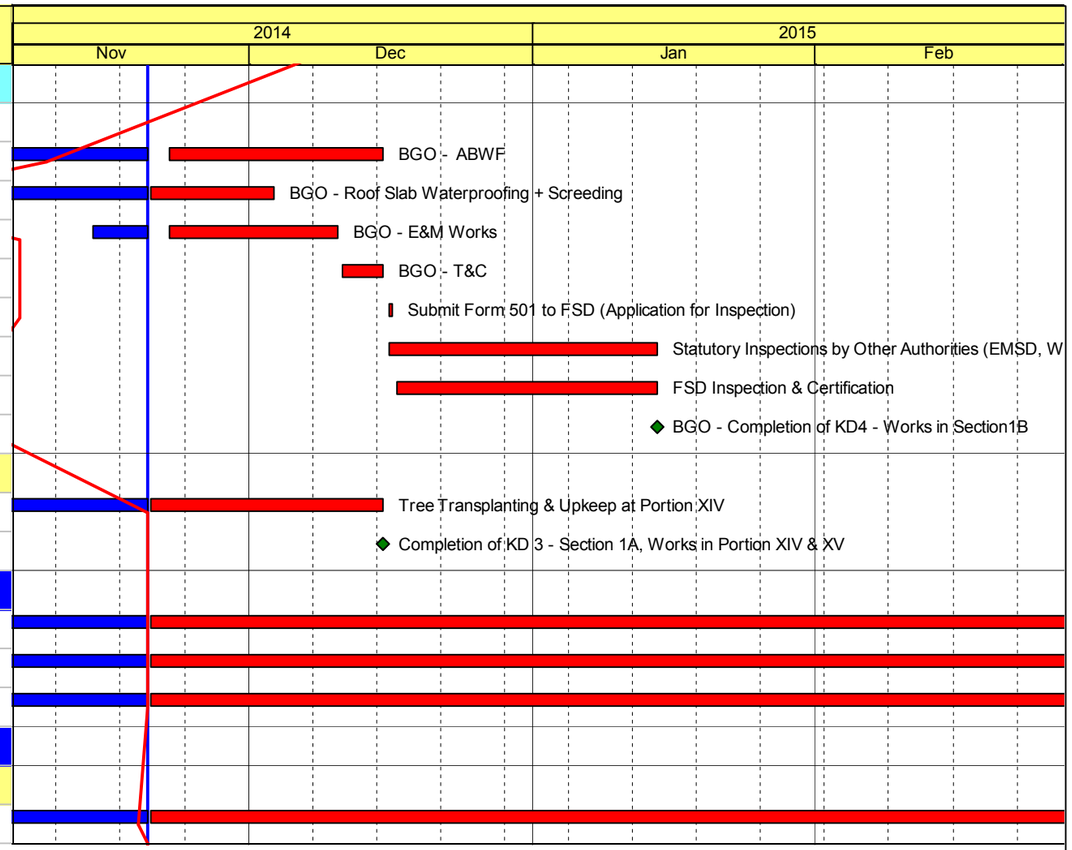
Activity ID	Activity Name	Original Duration	Start	Finish
Bowling Green Office				
BGO - Construction Works				
VP_1190	BGO - ABWF	50	21-Sep-14 A	15-Dec-14
VP_1180.04	BGO - Roof Slab Waterproofing + Screeding	12	30-Oct-14 A	03-Dec-14
VP_1220	BGO - E&M Works	36	14-Nov-14 A	10-Dec-14
VP_1250	BGO - T&C	4	11-Dec-14	15-Dec-14
VP_1260.10	Submit Form 501 to FSD (Application for Inspection)	1	16-Dec-14	16-Dec-14
VP_1250.40	Statutory Inspections by Other Authorities (EMSD, WSD, ASD)	30	16-Dec-14	14-Jan-15
VP_1260.20	FSD Inspection & Certification	29	17-Dec-14	14-Jan-15
VP_1270	BGO - Completion of KD4 - Works in Section1B	0		14-Jan-15
Tree Transplanting at Portion XIV (Victoria Park Open Space)				
VP_1040	Tree Transplanting & Upkeep at Portion XIV	348	16-Oct-13 A	15-Dec-14
VP_1280	Completion of KD 3 - Section 1A, Works in Portion XIV & XV	0		15-Dec-14
Mooring Components Upkeep (CBTS and ATS)				
MAR_2000	Mooring Upkeep at Portion XIX(19) & XX(20) - ATS (if instructed by Engineer)	1399	21-Mar-13 A	17-Jan-17
MAR_1000	Mooring Upkeep at Portion III (3) - CBTS	574	15-May-14 A	09-Dec-15
MAR_3020	Mooring Upkeep at Portion X(10) & XVI(16) - CBTS	979	15-May-14 A	17-Jan-17
Works for Public Works Regional Laboratory (North Lantau)				
Maintenance and Upkeep of New PWRL (Portion XVII)				
PWRL_1050	Maintenance/ Upkeep of New PWRL	1301	19-Jul-13 A	21-Nov-17



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