

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-122/2002/D

**QUARTERLY ENVIRONMENTAL MONITORING
AND AUDIT REPORT**

- MAY 2014 TO JULY 2014 -

CLIENTS:

**Civil Engineering and Development
Department**

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DATE:

20 August 2014

Ref.: AACWBIECEM00_0_5582L.14

20 August 2014

AECOM Asia Company Limited
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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 (May 2014 to July 2014)
for EP-122/2002/D**

Reference is made to the Environmental Team's submission of the captioned Quarterly Environmental Monitoring and Audit (EM&A) Report for May 2014 to July 2014 received by email on 20 August 2014.

Please be informed that we have no adverse comment on the captioned submission and hereby 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. CEDD Mr. Jason Cheung
AECOM Mr. Francis Leong / Mr. Stephen Lai
Lam Mr. Raymond Dai

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EXECUTIVE SUMMARY

- i. This is the Quarterly Environmental Monitoring and Audit (EM&A) Report – [May 2014 to July 2014](#) specific for Environmental Permit no. EP-122/2002/D. The EM&A report is prepared by the Environmental Team (ET) employed under Contract No. HK/2011/07 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 2). This report presents the environmental monitoring and audit findings and information during the period from [1st May 2014 to 31th July 2014](#).

Construction Activities for the Reported Period

- ii. During this reporting period, the principle work activities of the contract is included as follows:
Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

Table 1 Principal Work Activities in the reporting period

May 2014	June 2014	July 2014
<ul style="list-style-type: none"> • Site preparation works • Site survey • Diaphragm wall construction works • Guide wall construction 	<ul style="list-style-type: none"> • Diaphragm wall construction works • Guide wall construction 	<ul style="list-style-type: none"> • Diaphragm wall construction works • Pipe pile wall construction

Noise Monitoring

- iii. Continuous noise monitoring was conducted at ACL3 – City Hall.
- iv. [No action and limit level exceedance was recorded in the May reporting month.](#)
- v. [No action and limit level exceedance was recorded in the June reporting month.](#)
- vi. [Limit level exceedances were recorded on 22 July 2014 during daytime in the reporting period. After the investigation, the exceedances were concluded as not project-related.](#)
- vii. Due to safety concerned, the location of the continuous noise monitoring station at City Hall was finely adjusted to the roof of the City Hall, Low Block on 1 May 2013.

Air Quality Monitoring

- viii. [No action and limit level exceedance was recorded in the May, June and July reporting month.](#)
- ix. Due to the defective electricity supply found at monitoring station ACL1 and the advice from City Hall Building Management, the air monitoring station ACL1 – City Hall was finely adjusted on 28 Feb 2014 to an alternate electricity supply.
- x. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at ACL1 – City Hall and ACL2 – PLA Barracks (ACL2a Contractor HK/2012/08 Site Office since 7 December 2013) on every six days basis.

- xi. Due to the large scale renovation works at People's Liberation Army Headquarter, a Proposal for Relocation of Air Quality Monitoring Station at People's Liberation Army Headquarter (ACL2) was formally submitted to EPD on 4th November, 2013.
- xii. Air Quality Monitoring at ACL2 was temporarily suspended during the period from 14th November, 2013 to 3rd December, 2013.
- xiii. The Proposal for Relocation of Air Quality Monitoring Station at People's Liberation Army Headquarter (ACL2) was approved by EPD on 27 November 2013.
- xiv. According to the approved proposal for relocation of Air Quality Monitoring station, the action and limit levels of ACL2a shall adopt the reference monitoring result from the baseline air monitoring report for EP/364/2009 in 22 April 2010 in which approved by EPD.
- xv. The air quality monitoring at ACL2a – Contractor HK/2012/08 Site Office was commenced on 7 December 2013.

Complaints, Notifications of Summons and Successful Prosecutions

- xvi. There was no environmental complaint recorded in the reporting period.

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-122/2002/D 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 Central Reclamation Phase III - Studies, Site Investigation, Design and Construction (Register No.: AEIAR-040/2001) since 1 May 2013.

1.1.2. This report documents the finding of EM&A works for Environmental Permit (EP) no. EP-122/2002/D, during the period from [1st May 2014](#) to [31th July 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 Central Reclamation Phase III - Studies, Site Investigation, Design and Construction (hereafter called "the Project") are Designated Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Central Reclamation Phase III - Studies, Site Investigation, Design and Construction (Register No. AEIAR-040/2001) has been approved on 31 August 2001.

2.2 Scope of the Project and Site Description

2.2.1. The design and construction of Central Reclamation Phase III involves the permanent reclamation and construction and operation of a trunk road and its road tunnel that is shown at **Figure 2.1**.

2.2.2. The key purpose of the study area encompasses the area of Victoria Harbour to the southeast of the new Outlying Islands Ferry Piers and north of Edinburgh Place and Lung Wui Road. The area extends eastward to Fenwick Pier Street and the Fleet Arcade, and includes the existing GPO, Star Ferry Piers, Queens Pier, City Hall, PLA Headquarters, Hong Kong Red Cross Headquarters building and the Tamar Site. The scope of the Central Reclamation, Phase III includes:

- Reclamation and seawalls, roads and associated services, North Island Line Protection Works and Advance Trunk Road Tunnel (ATRT) for the CWB;
- Re provisioning of Star Ferry Pier, public landing steps, wallah wallah moorings, and motor boat/launch operators' kiosks;
- External cooling water systems which consist of the cooling water pumping shells for future developments, and the re provisioning of existing cooling water pumping stations and associated pipework systems and E&M works;
- Re provisioning of existing Leisure and Cultural Services Department (LCSD)'s facilities;
- Provision of a flood relief path, stormwater culvert extensions, upgrading of hinterland stormwater drainage resulting from the reclamation, demolition of the existing waterfront structures and necessary landscaping;
- The Hong Kong Station Extended Overrun Tunnel (EOT) and associated ventilation structures entrusted for construction within the CRIII works;
- Re provisioning of the Government Heliport at the Wan Chai PCWA and re provisioning of the Wan Chai PCWA at Chai Wan Basin.

2.2.3. 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 four 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
DP1	Central-Wanchai Bypass (CWB)	Schedule 2, Part I, A.7
DP2	Road P2 and other roads which are classified as primary/district distributor roads	Schedule 2, Part I, A.1
DP3	Reclamation works	Schedule 2, Part I, C.1
DP4	The North Island Line (NIL) Protection Works within CRIII	Schedule 2, Part I, A.7

2.2.4. The designated project work I (DP1) was awarded to China State-Leader Joint Venture HK/2012/08 as part of the Project works by the Civil Engineering and Development Department (CEDD). The construction work under Contract no. HK/2012/08 was commenced on 27 May 2013.

2.3 Project Organization and Contact Personnel

2.3.1 Civil Engineering and Development Department is the overall project controllers for the Central Reclamation Phase III Project. 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.

2.3.2 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 2.2**:

Table 2.2 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	3922 3388	3912 3010
China State-Leader JV	Contractor under Contract no. HK/2012/08	Project Director	Mr. Andrew Tse	9137 1811	2877 1522
		Project Manager	Mr. Victor Wu	9193 8871	
		Deputy Project Manager	Mr. Eddie Chung	9189 8118	
		Site Agent	Mr. Paul Lui	9095 7922	
		Environmental Officer	Mr. James Ma	9130 9549	
		Environmental Supervisor	Mr. Y. L. Ho	9856 5669	
ENVIRON Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.4 Principal Work and Activities

2.4.1 During this reporting period, the principle work activities of the contract is included as follows:

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

Table 2.3 Principal Work Activities in the reporting period

May 2014	June 2014	July 2014
<ul style="list-style-type: none">• Site preparation works• Site survey• Diaphragm wall construction works• Guide wall construction	<ul style="list-style-type: none">• Diaphragm wall construction works• Guide wall construction	<ul style="list-style-type: none">• Diaphragm wall construction works• Pipe pile wall construction

2.4.2 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 continuous noise monitoring station for the Project is 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 Continuous Noise Monitoring Stations

District	Station	Description
Central	ACL3	City Hall

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 3.1.2. Continuous 24-hour noise monitoring 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.
- 3.1.3. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

MONITORING EQUIPMENT

- 3.1.4. As referred to in the Technical Memorandum TM issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agrees to within 1.0 dB.
- 3.1.5. 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.

3.1.6. The sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency before deployment to the site and during each site visit. Measurements will be accepted as valid only if the calibration level from before and after the noise measurement agrees to within 1.0 dB.

3.2. Air Monitoring

AIR QUALITY MONITORING STATIONS

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

Table 3.2 Air Monitoring Stations

Station ID	Monitoring Location
ACL1	City Hall
ACL2a	Contractor HK/2012/08 Site Office

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. 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.

3.2.9. 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.

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

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. In the reporting period, the concurrent contract is:

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

4.1. Noise Monitoring Results

4.1.1 Due to safety concerned, the location of the continuous noise monitoring station at City Hall was finely adjusted to the roof of the City Hall, Low Block on 1 May 2013.

4.1.2 The proposed division of noise monitoring stations is summarized in Table 4.1 below.

Table 4.1 Continuous Noise Monitoring Stations for Contract no. HK/2012/08

Location ID	District	Description
ACL3	Central	City Hall

Remarks: Continuous noise monitoring results and graphical presentation for ACL3 during restricted hours and night time period are for information only.

4.1.3 No action and limit level exceedance was recorded in the May reporting month.

4.1.4 No action and limit level exceedance was recorded in the June reporting month.

4.1.5 Limit level exceedances were recorded on 22 July 2014 during daytime in the reporting period. After checking with Contractor, no major noisy construction activity was conducted on 22 July 2014. In addition, thunderstorm warning for the concern location and amber rainstorm warning were hoisting during recorded period. As such, the exceedances were considered to be contributed by the adverse weather condition and not related to Project.

4.1.6 Continuous noise monitoring results measured in this reporting period are reviewed and summarized. Details of continuous noise monitoring results and graphical presentation can be referred to **Appendix 4.1**

4.2. Air Monitoring Results

4.2.1 The proposed division of air monitoring stations are summarized in **Table 4.2** below.

Table 4.2 Air Monitoring Station for Contract no. HK/2012/08

Station	Description
ACL1	City Hall
ACL2a	Contractor HK/2012/08 Site Office

- 4.2.2 No action or limit level exceedance was recorded in the May, June and July reporting month.
- 4.2.3 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at ACL1 – City Hall and ACL2 – PLA Barracks (ACL2a Contractor HK/2012/08 Site Office since 7 December 2013) on every six days basis.
- 4.2.4 No action or limit level exceedance was recorded at ACL1 – City Hall, ACL2 PLA Barracks and ACL2a Contractor HK/2012/08 Site Office in the reporting period.
- 4.2.5 Due to the large scale renovation works at People’s Liberation Army Headquarter, a Proposal for Relocation of Air Quality Monitoring Station at People’s Liberation Army Headquarter (ACL2) was formally submitted to EPD on 4th November, 2013.
- 4.2.6 Air Quality Monitoring at ACL2 was temporarily suspended during the period from 14th November, 2013 to 3rd December, 2013.
- 4.2.7 The Proposal for Relocation of Air Quality Monitoring Station at People’s Liberation Army Headquarter (ACL2) was approved by EPD on 27 November 2013.
- 4.2.8 According to the approved proposal for relocation of Air Quality Monitoring station, the action and limit levels of ACL2a shall adopt the reference monitoring result from the baseline air monitoring report for EP/364/2009 in 22 April 2010 in which approved by EPD.
- 4.2.9 The air quality monitoring at ACL2a – Contractor HK/2012/08 Site Office was commenced on 7 December 2013.
- 4.2.10 The air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 4.2.**

4.3. Waste Monitoring Results

4.3.1 Inert and Non-inert C&D wastes were disposed in this reporting period. Details of the waste flow table are summarized in **Table 4.3**.

Table 4.3 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m3	0	396	TM38
	2555	4144	TKO137
Inert C&D materials recycled, m3	NIL	NIL	NIL
Non-inert C&D materials disposed, m3	105	305	SENT Landfill
Non-inert C&D materials recycled, m3	NIL	NIL	NIL
Chemical waste disposed, kg	NIL	NIL	NIL

5. COMPLIANCE AUDIT

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

5.1. Noise Monitoring

5.1.1 No action or limit level exceedance was recorded in the May reporting month.

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

5.1.3 Limit level exceedances were recorded on 22 July 2014 during daytime in the reporting period. After the investigation, the exceedances were concluded as not project-related.

5.2. Air Monitoring

5.2.1 No action or limit level exceedance was recorded at ACL1 – City Hall and ACL2a Contractor HK/2012/08 Site Office in May reporting month.

5.2.2 No action or limit level exceedance was recorded at ACL1 – City Hall and ACL2a Contractor HK/2012/08 Site Office in June reporting month.

5.2.3 No action or limit level exceedance was recorded at ACL1 – City Hall and ACL2a Contractor HK/2012/08 Site Office in July reporting month.

5.3. Site Audit

5.3.1 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.

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

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

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

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

6. COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

6.0.1. There was no environmental complaint received in this reporting period.

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

6.0.3. No notification of summons or prosecution was received in the reporting period. 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
May 2013 – July 2014	0
Project-to-Date	0

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. This section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) and Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel).
- 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. As such, it is considered that there were no cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) undertaken by contractor HK12/02 in the reporting month.
- 7.0.1. 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, cross-harbour Watermains, Fresh Watermains and Cooling Watermains Installations, 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 backfilling works at TS4 and TPCWAE. Bridge construction and tunnel works at Central Interchange, 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.
- 7.0.2. The major environmental impacts generated from tunnel works at Central and tunnel works at Wan Chai East, IECL and Causeway Bay Typhoon Shelter were undertaken in the reporting period. No significant air impact from construction activities was anticipated in the reporting period. Besides, no project-related exceedances were recorded during the air and noise environmental monitoring events in the reporting period. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Wan Chai Development Phase II was insignificant.

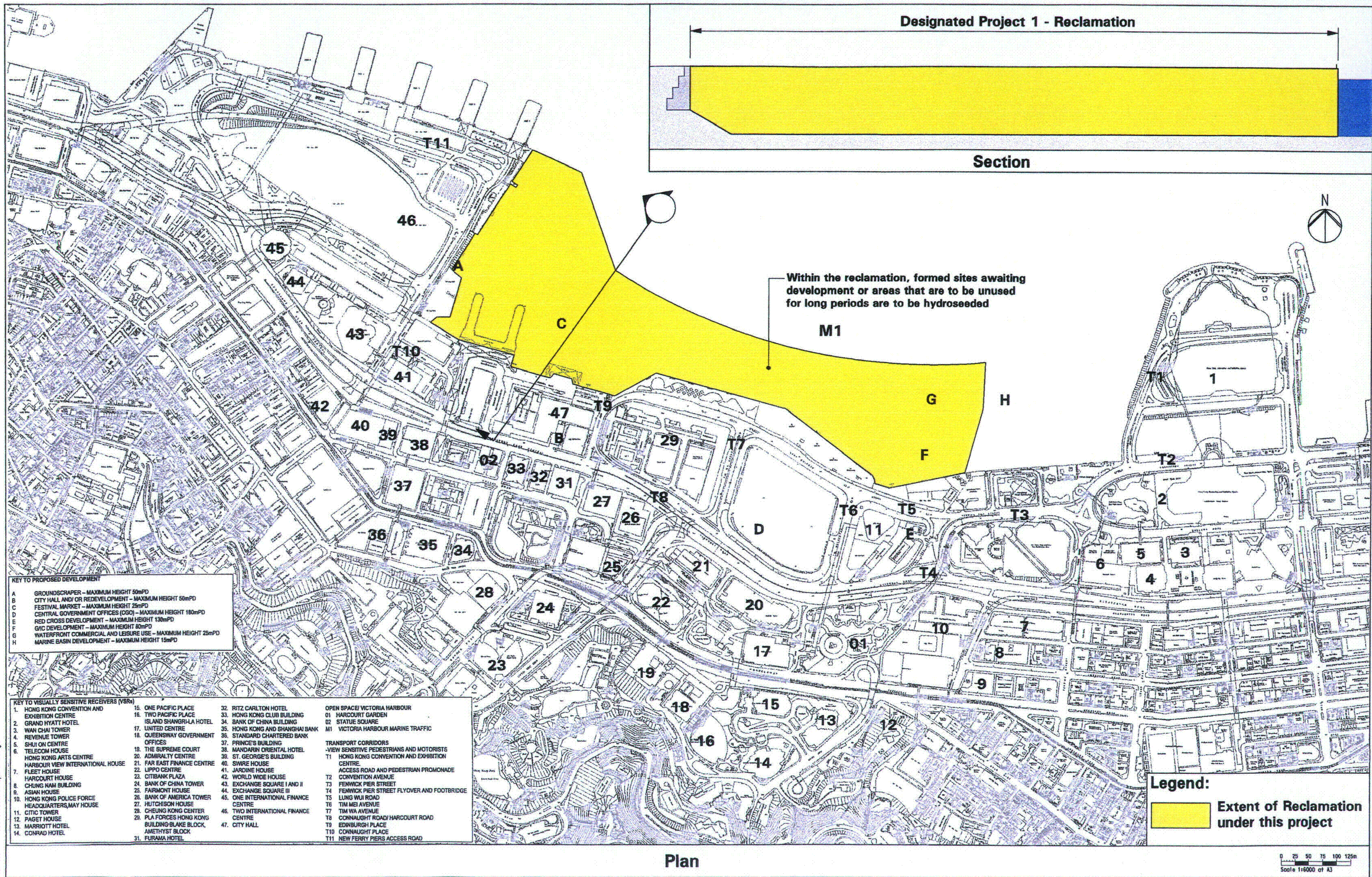
8. CONCLUSION

- 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-compliances were noted and no prosecutions were 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



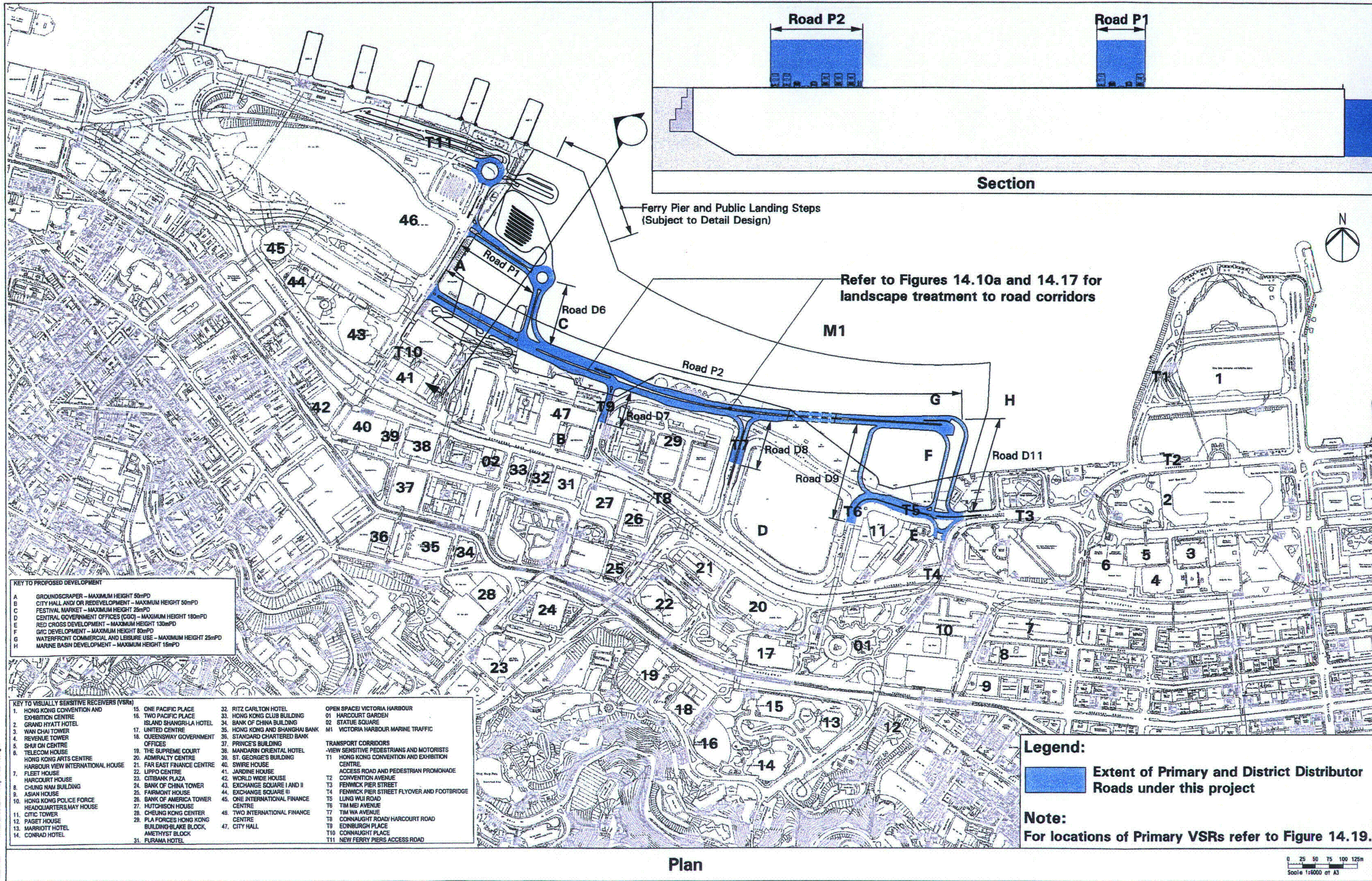
KEY TO PROPOSED DEVELOPMENT

A	GROUNDSCRAPER - MAXIMUM HEIGHT 50mPD
B	CITY HALL AND/OR REDEVELOPMENT - MAXIMUM HEIGHT 50mPD
C	FESTIVAL MARKET - MAXIMUM HEIGHT 25mPD
D	CENTRAL GOVERNMENT OFFICES (CGO) - MAXIMUM HEIGHT 180mPD
E	RED CROSS DEVELOPMENT - MAXIMUM HEIGHT 130mPD
F	G/C DEVELOPMENT - MAXIMUM HEIGHT 80mPD
G	WATERFRONT COMMERCIAL AND LEISURE USE - MAXIMUM HEIGHT 25mPD
H	MARINE BASIN DEVELOPMENT - MAXIMUM HEIGHT 15mPD

KEY TO VISUALLY SENSITIVE RECEIVERS (VSRs)

1. HONG KONG CONVENTION AND EXHIBITION CENTRE	15. ONE PACIFIC PLACE	32. RITZ CARLTON HOTEL	OPEN SPACE/ VICTORIA HARBOUR
2. GRAND HYATT HOTEL	16. TWO PACIFIC PLACE	33. HONG KONG CLUB BUILDING	01. HARCOURT GARDEN
3. WAN CHAI TOWER	17. UNITED CENTRE	34. BANK OF CHINA BUILDING	02. STATUE SQUARE
4. REVENUE TOWER	18. QUEENSWAY GOVERNMENT OFFICES	35. HONG KONG AND SHANGHAI BANK	M1. VICTORIA HARBOUR MARINE TRAFFIC
5. SHUI ON CENTRE	19. THE SUPREME COURT	36. STANDARD CHARTERED BANK	TRANSPORT CORRIDORS
6. TELECOM HOUSE	20. ADMIRALTY CENTRE	37. PRINCE'S BUILDING	-VIEW SENSITIVE PEDESTRIANS AND MOTORISTS
7. HONG KONG ARTS CENTRE	21. FAR EAST FINANCE CENTRE	38. MANDARIN ORIENTAL HOTEL	T1. HONG KONG CONVENTION AND EXHIBITION CENTRE
8. HARBOUR VIEW INTERNATIONAL HOUSE	22. LIPPO CENTRE	39. ST. GEORGE'S BUILDING	ACCESS ROAD AND PEDESTRIAN PROMONADE
9. FLEET HOUSE	23. CITIBANK PLAZA	40. SWIRE HOUSE	T2. CONVENTION AVENUE
10. HARCOURT HOUSE	24. BANK OF CHINA TOWER	41. JARDINE HOUSE	T3. FENWICK PIER STREET
11. CHUNG NAM BUILDING	25. FAIRMONT HOUSE	42. WORLD WIDE HOUSE	T4. FENWICK PIER STREET FLYOVER AND FOOTBRIDGE
12. ASIAN HOUSE	26. BANK OF AMERICA TOWER	43. EXCHANGE SQUARE I AND II	T5. LUNG WUI ROAD
13. HONG KONG POLICE FORCE HEADQUARTERS, MAY HOUSE	27. HUTCHISON HOUSE	44. EXCHANGE SQUARE III	T6. TIM MEI AVENUE
14. CITIC TOWER	28. CHEUNG KONG CENTER	45. ONE INTERNATIONAL FINANCE CENTRE	T7. TIM WA AVENUE
15. PAGET HOUSE	29. PLA FORCES HONG KONG BUILDING-BLAKE BLOCK, AMETHYST BLOCK	46. TWO INTERNATIONAL FINANCE CENTRE	T8. CONNAUGHT ROAD/ HARCOURT ROAD
16. MARRIOTT HOTEL	30. FURAMA HOTEL	47. CITY HALL	T9. EDINBURGH PLACE
17. CONRAD HOTEL			T10. CONNAUGHT PLACE
			T11. NEW FERRY PIERS ACCESS ROAD

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Designated Project 2 - Primary and District Distributor Roads
Layout Plan and Section

Figure 14.10



KEY TO PROPOSED DEVELOPMENT

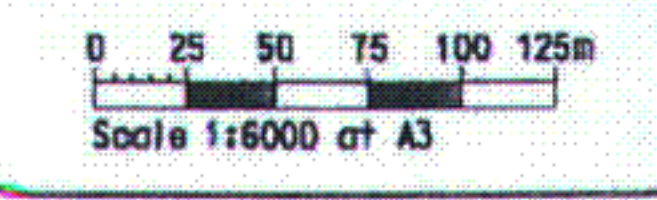
A	GROUNDSCRAPER - MAXIMUM HEIGHT 50mPD
B	CITY HALL AND/OR REDEVELOPMENT - MAXIMUM HEIGHT 50mPD
C	FESTIVAL MARKET - MAXIMUM HEIGHT 25mPD
D	CENTRAL GOVERNMENT OFFICES (CGO) - MAXIMUM HEIGHT 180mPD
E	RED CROSS DEVELOPMENT - MAXIMUM HEIGHT 130mPD
F	GVC DEVELOPMENT - MAXIMUM HEIGHT 80mPD
G	WATERFRONT COMMERCIAL AND LEISURE USE - MAXIMUM HEIGHT 25mPD
H	MARINE BASIN DEVELOPMENT - MAXIMUM HEIGHT 15mPD

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3. WAN CHAI TOWER	17. UNITED CENTRE	34. BANK OF CHINA BUILDING	02 STATUE SQUARE
4. REVENUE TOWER	18. QUEENSWAY GOVERNMENT OFFICES	35. HONG KONG AND SHANGHAI BANK	M1 VICTORIA HARBOUR MARINE TRAFFIC
5. SHUI ON CENTRE	19. THE SUPREME COURT	36. STANDARD CHARTERED BANK	TRANSPORT CORRIDORS
6. TELECOM HOUSE	20. ADMIRALTY CENTRE	37. PRINCE'S BUILDING	-VIEW SENSITIVE PEDESTRIANS AND MOTORISTS
7. FLEET HOUSE	21. FAR EAST FINANCE CENTRE	38. MANDARIN ORIENTAL HOTEL	T1 HONG KONG CONVENTION AND EXHIBITION CENTRE
8. HARCOURT HOUSE	22. LIPPO CENTRE	39. ST. GEORGE'S BUILDING	ACCESS ROAD AND PEDESTRIAN PROMENADE
9. ASIAN HOUSE	23. CITIBANK PLAZA	40. SWIRE HOUSE	T2 CONVENTION AVENUE
10. HONG KONG POLICE FORCE HEADQUARTERS, MAY HOUSE	24. BANK OF CHINA TOWER	41. JAPANESE HOUSE	T3 FENWICK PIER STREET
11. CITIC TOWER	25. FAIRMONT HOUSE	42. WORLD WIDE HOUSE	T4 FENWICK PIER STREET FLYOVER AND FOOTBRIDGE
12. PAGET HOUSE	26. BANK OF AMERICA TOWER	43. EXCHANGE SQUARE I AND II	T5 LUNG WUI ROAD
13. MARRIOTT HOTEL	27. HUTCHISON HOUSE	44. EXCHANGE SQUARE III	T6 TIM MEI AVENUE
14. CONRAD HOTEL	28. CHEUNG KONG CENTER	45. ONE INTERNATIONAL FINANCE CENTRE	T7 TIM WA AVENUE
	29. PLA FORCES HONG KONG BUILDING-SLAKE BLOCK, AMETHYST BLOCK	46. TWO INTERNATIONAL FINANCE CENTRE	T8 CONNAUGHT ROAD/ HARCOURT ROAD
	31. PURANA HOTEL	47. CITY HALL	T9 EDINBURGH PLACE
			T10 CONNAUGHT PLACE
			T11 NEW FERRY PIERS ACCESS ROAD

Legend:

Extent of Central Wan Chai Bypass Tunnel under this project

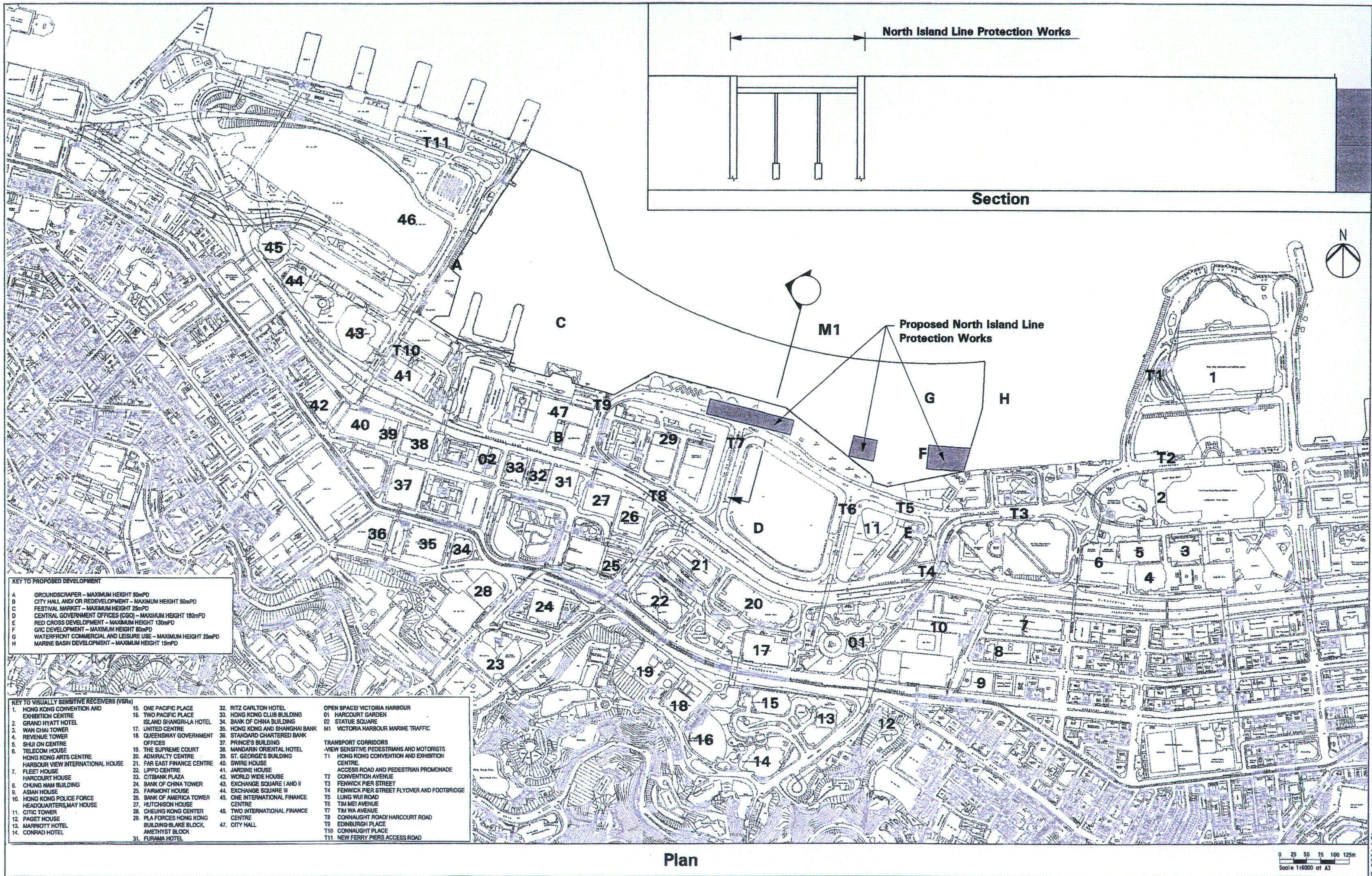


Designated Project 3 - Central Wan Chai Bypass Tunnel
Layout Plan and Section

Figure 14.11

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KEY TO PROPOSED DEVELOPMENT

A	GROUNDSCRAPER - MAXIMUM HEIGHT 50mPD
B	CITY HALL AND/OR REDEVELOPMENT - MAXIMUM HEIGHT 50mPD
C	FESTIVAL MARKET - MAXIMUM HEIGHT 25mPD
D	CENTRAL GOVERNMENT OFFICES (CGO) - MAXIMUM HEIGHT 180mPD
E	RED CROSS DEVELOPMENT - MAXIMUM HEIGHT 130mPD
F	GIC DEVELOPMENT - MAXIMUM HEIGHT 80mPD
G	WATERFRONT COMMERCIAL AND LEISURE USE - MAXIMUM HEIGHT 25mPD
H	MARINE BASIN DEVELOPMENT - MAXIMUM HEIGHT 15mPD

KEY TO VISUALLY SENSITIVE RECEIVERS (VSRs)

1. HONG KONG CONVENTION AND EXHIBITION CENTRE	15. ONE PACIFIC PLACE	32. RITZ CARLTON HOTEL	OPEN SPACE/ VICTORIA HARBOUR
2. GRAND HYATT HOTEL	16. TWO PACIFIC PLACE	33. HONG KONG CLUB BUILDING	01. HARCOURT GARDEN
3. WAN CHAI TOWER	17. ISLAND SHANGRI-LA HOTEL	34. BANK OF CHINA BUILDING	02. STATUE SQUARE
4. REVENUE TOWER	18. UNITED CENTRE	35. HONG KONG AND SHANGHAI BANK	M1 VICTORIA HARBOUR MARINE TRAFFIC
5. SHUI ON CENTRE	19. QUEENSWAY GOVERNMENT OFFICES	36. STANDARD CHARTERED BANK	TRANSPORT CORRIDORS
6. TELECOM HOUSE	20. ADMIRALTY CENTRE	37. PRINCE'S BUILDING	-VIEW SENSITIVE PEDESTRIANS AND MOTORISTS
7. HONG KONG ARTS CENTRE	21. FAR EAST FINANCE CENTRE	38. MANDARIN ORIENTAL HOTEL	T1 HONG KONG CONVENTION AND EXHIBITION CENTRE
8. HARBOUR VIEW INTERNATIONAL HOUSE	22. LIPPO CENTRE	39. ST. GEORGE'S BUILDING	ACCESS ROAD AND PEDESTRIAN PROMENADE
9. FLEET HOUSE	23. CITIBANK PLAZA	40. SWIRE HOUSE	T2 CONVENTION AVENUE
10. HARCOURT HOUSE	24. BANK OF CHINA TOWER	41. JARDINE HOUSE	T3 FENWICK PIER STREET
11. CHUNG NAM BUILDING	25. FAIRMONT HOUSE	42. WORLD WIDE HOUSE	T4 FENWICK PIER STREET FLYOVER AND FOOTBRIDGE
12. ASIAN HOUSE	26. BANK OF AMERICA TOWER	43. EXCHANGE SQUARE I AND II	T5 LUNG WUI ROAD
13. HONG KONG POLICE FORCE HEADQUARTERS, MAY HOUSE	27. HUTCHISON HOUSE	44. EXCHANGE SQUARE III	T6 TIM MEI AVENUE
14. CITIC TOWER	28. CHEUNG KONG CENTER	45. ONE INTERNATIONAL FINANCE CENTRE	T7 TIM WA AVENUE
15. PAGET HOUSE	29. PLA FORCES HONG KONG BUILDING-BLAKE BLOCK	46. TWO INTERNATIONAL FINANCE CENTRE	T8 CONNAUGHT ROAD/ HARCOURT ROAD
16. MARRIOTT HOTEL	30. AMETHYST BLOCK	47. CITY HALL	T9 EDINBURGH PLACE
17. CONRAD HOTEL	31. FURAMA HOTEL		T10 CONNAUGHT PLACE
			T11 NEW FERRY PIERS ACCESS ROAD

Designated Project 4 - North Island Line Protection Works
Layout Plan and Section

Figure 14.12

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Figure 2.2

Project Organization Chart



Project Organization Chart

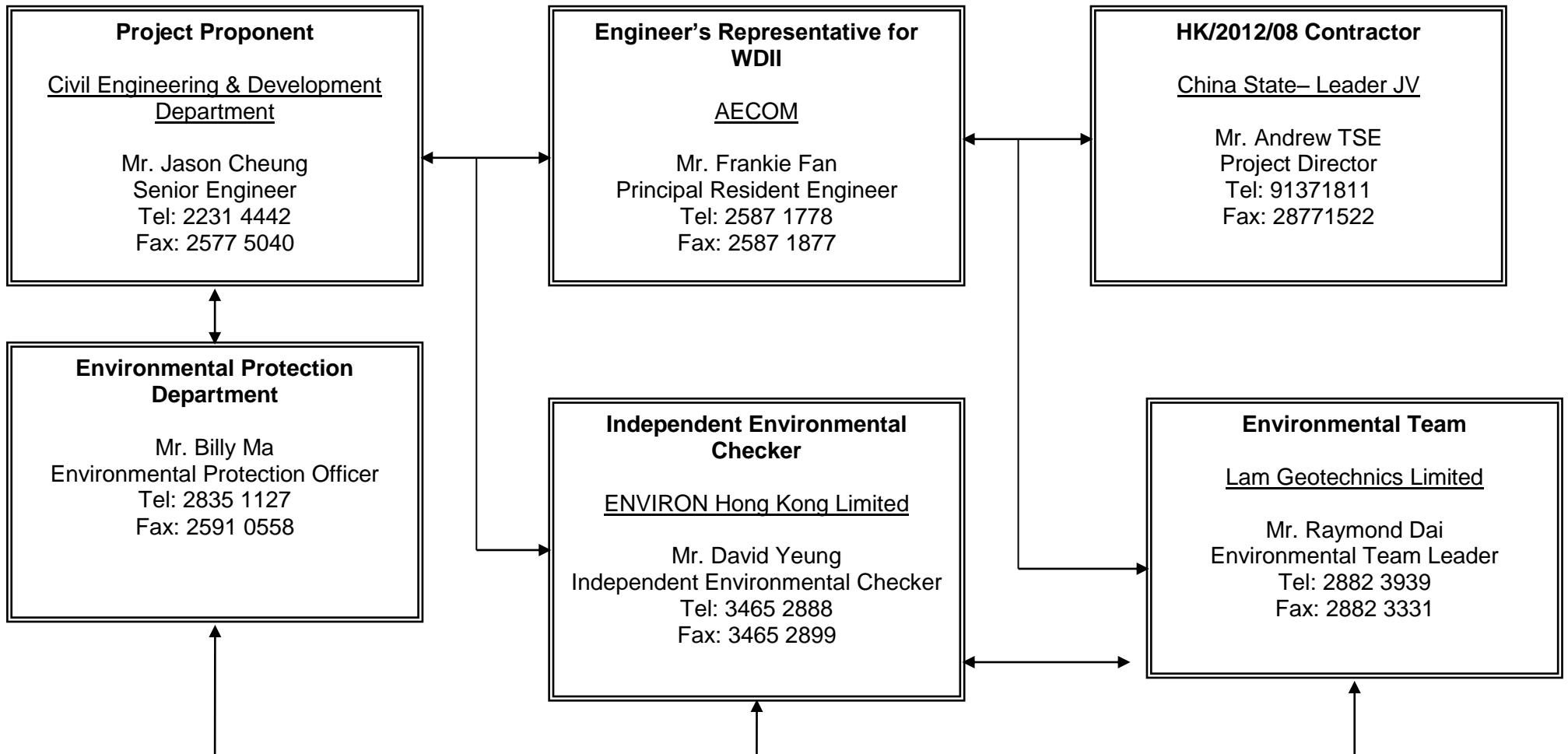


Figure 2.2



Figure 3.1

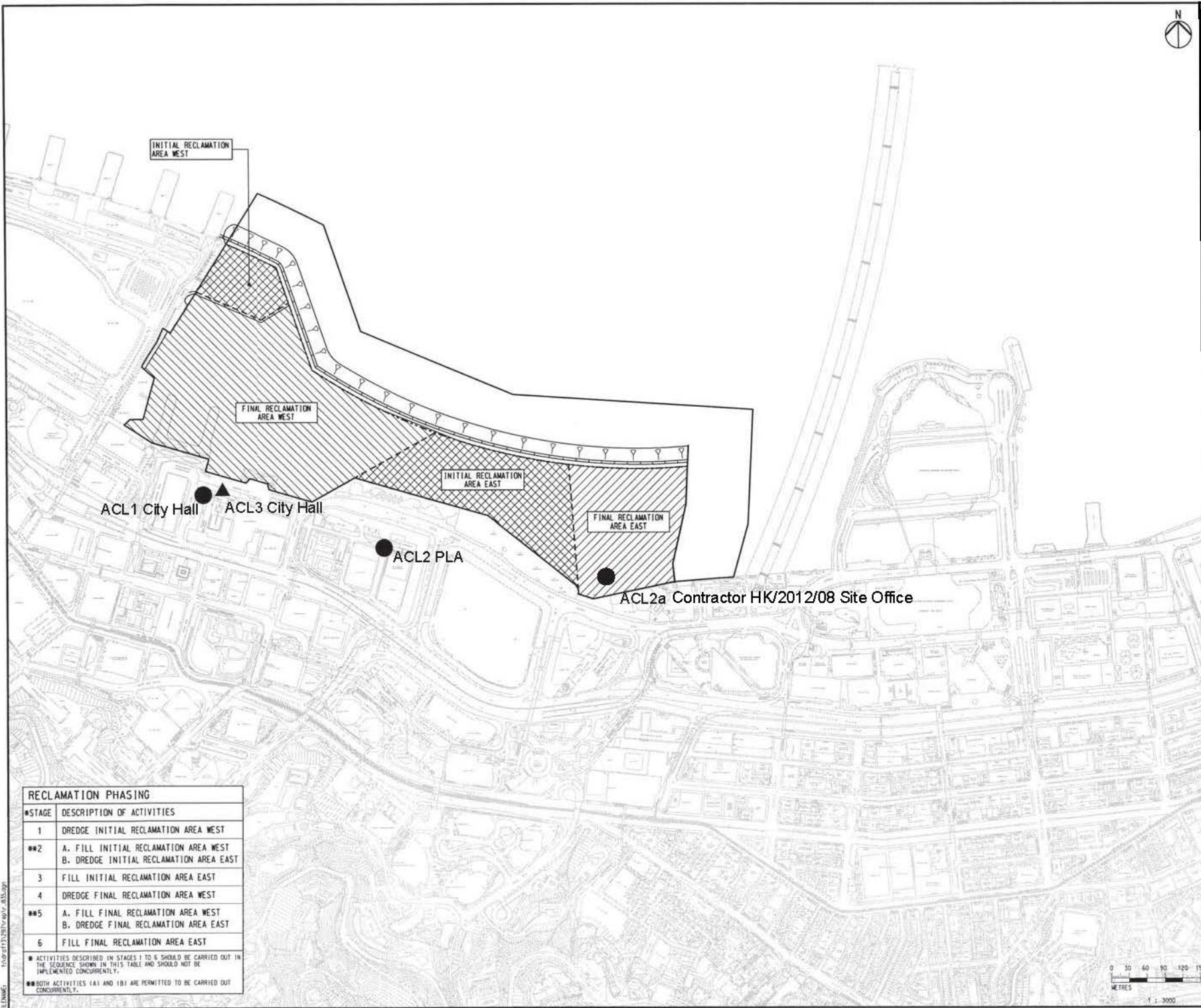
Locations of Environmental Monitoring Stations



DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS ON SITE

LEGEND:

- DUST MONITORING STATIONS
- ▲ NOISE MONITORING STATION



RECLAMATION PHASING	
#STAGE	DESCRIPTION OF ACTIVITIES
1	DREDGE INITIAL RECLAMATION AREA WEST
**2	A. FILL INITIAL RECLAMATION AREA WEST B. DREDGE INITIAL RECLAMATION AREA EAST
3	FILL INITIAL RECLAMATION AREA EAST
4	DREDGE FINAL RECLAMATION AREA WEST
**5	A. FILL FINAL RECLAMATION AREA WEST B. DREDGE FINAL RECLAMATION AREA EAST
6	FILL FINAL RECLAMATION AREA EAST

● ACTIVITIES DESCRIBED IN STAGES 1 TO 6 SHOULD BE CARRIED OUT IN THE SEQUENCE SHOWN IN THIS TABLE AND SHOULD NOT BE IMPLEMENTED CONCURRENTLY.
 ● BOTH ACTIVITIES (A) AND (B) ARE PERMITTED TO BE CARRIED OUT CONCURRENTLY.



Fig 4.1 Location of monitoring stations

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Appendix 2.1

Environmental Mitigation Implementation Schedule



IMPLEMENTATION SCHEDULE OF THE PROPOSED MITIGATION MEASURES

No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
1	Operational Traffic Noise*	The openings of ventilation buildings or ventilation shafts should be placed carefully and ideally should be such that they are not facing directly onto any NSR.	Various	Area Wide, Proposals at design stage for Implementation during construction	D/C	N/A	--
2	Operational Air Quality	Air intakes for commercial/G/IC buildings should be placed such that they are at locations where contours indicate AQOs are met.	ArchSD/Private sector +	CRIII During development of sites Completion of CRIII	Development of CRIII	Carry forward to design stage	6
3	Operational Water Quality	Provision of grit traps for surface drainage	TDD's Contractor	New roads and paved areas During construction End of construction	C	P, R, A, C	7
4	Operational Landscape and Visual	Operational stage landscape and visual mitigation measures should include + <ul style="list-style-type: none"> · Implementation of the Waterfront Promenade, Statue Square Corridor, Historic Corridor, Civic Corridor, Arts and Entertainment Corridor, Streetscape Network, Landscape Decks, and Supplementary Landscape Spaces; · provision of a legible, integrated pedestrian circulation system linking major activity nodes, reinforcing links with adjoining areas, and providing an international quality hard and soft landscape treatment; · provision of a grade separated pedestrian system to minimise vehicular/ pedestrian conflict; · provision of an integrated network of local and regional open spaces for passive and active recreation; · preservation of selected architectural features; · preservation insitu of existing significant vegetation, principally the two Banyan Trees flanking the Tamar Site; · new roads to incorporate suitable streetscape amenity and landscape planting to minimise visual and environmental impacts; 	Various	Area wide, proposals at design stage for implementation during construction	D/C	P	--



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		<ul style="list-style-type: none"> · existing roads upgraded to 'marry' with the proposed landscape framework; · Hydroseeding of reclamation if there is no immediate use of the site, periphery of the reclamation; · Designated service corridors beneath footpaths to prevent potential impacts upon vegetation during services maintenance; · Sensitively designed colour themes to footpath paving areas; and · Sensitively designed seawall to enhance the recreational value of the future promenade can be included. 	Various	Area wide, proposals at design stage for implementation during construction	D/C	P	--
5	Construction Noise Control Requirements	Use of the following quiet mechanical equipment for construction works : ·air compressor; paver; hand held breaker; breaker, excavator mounted; bulldozer; concrete lorry mixer; concrete pump; crane; dump truck; excavator/ loader; grader; lorry ; poker; road roller; vibratory roller;	TDD's Contractor	Works Area During construction End of construction	C	P, R, A, C	-
		Use of noise barriers (in the form if purpose built site hoarding of 3 - 5 m height and surface density of at least 7 kgm ² with cranked top) for the following works: · Hong Kong Station Extended Overrun Tunnels to north of Central Barracks. · North Island Line Protection Works to north of Central Barracks; · Road/Drainage Works to north of Central Barracks; · Culvert F Piling Works to north of City Hall.	TDD's Contractor	Work Sites as stated Start of activity stated End of activity stated	C	P, A	
		· Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	4
		· Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction programme.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	4
		· Mobile plant, if any, should be sited as far away from noise sensitive facilities as possible.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	4

No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		· Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	4
		· Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from nearby noise sensitive facilities.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	4
6	Construction Air Quality Control Requirements	· Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	4
		· Strictly limit truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	6,7
		· Twice daily watering of the site with active operations when the weather and the work site are dry.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	6,7
		· Watering during excavation and material handling.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	6,7
		· Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	6,7
		· Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	6,7
		· Covers for dusty stockpiles	TDD's Contractor	Works Area During construction End of construction	C	P,R,A,C	6
		· All plant shall be maintained to prevent any undue air emissions	TDD's Contractor	Works Area	C	P,R,A,C	6



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
				During construction End of construction			
7	Construction Water Quality Control Requirements	<p>Specific Measures Associated with Dredging Works</p> <ul style="list-style-type: none"> · the use of closed clamshell (water-tight) grab dredgers to remove seriously contaminated material such that the amount of SS and other pollutants released from the marine mud and pore water can be minimised; · the prohibition of stockpiling of any moderately or seriously contaminated marine sediment, and careful control of stockpiling of any uncontaminated sediment to prevent runoff, resuspension and odour nuisances; and · the control of dredging and bulk reclamation filling rates within acceptable limits. Based upon the construction sequence developed for this study the maximum dredging and filling rates adopted for Final Reclamation Area East were : Maximum Dredging Rate : 184 m²/hour Maximum Daily Filling Rate : 17,727 m³/day (for bulk reclamation filling) <p>Maximum dredging and filling rates for other reclamation sites should take account of information contained in Table 10.14 of the EIA Report and envisaged construction sequence.</p> <ul style="list-style-type: none"> · no dredging should take place under very bad weather conditions. 	TDD's Contractor	Whole reclamation area During reclamation works End of reclamation works	C	R	7
		<ul style="list-style-type: none"> · silt curtain around dredging sites to be provided as necessary. <p>Specific Measure for Marine Disposal of Dredged Materials and Marine Sand Filling Works</p> <ul style="list-style-type: none"> · all vessels should be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; · all hopper barges and dredgers should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; · loading of hopper barges should be controlled to prevent splashing of dredged or filling material to the surrounding water, and barges or hoppers should not be filled to a level which will cause the overflow of materials or polluted water during loading or 	TDD's Contractor	Whole reclamation area During reclamation works End of reclamation works	C	R	7



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		transportation;					
		<ul style="list-style-type: none"> · the works should cause no visible foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; · bulk filling should be carried out, where feasible, behind completed seawall to above high water mark. In general and where physically practical, filling should not be carried out without the seawall having been substantially completed for a distance of 100m – 200m ahead of filling; and · fill materials should comply with technical specification requirements and be taken from approved sources only. The maximum fines content of marine sand should be limited to 5% as assumed in the water quality assessments. · transport of contaminated mud (or filling material) to the marine disposal site (or works site) should, wherever possible, be by split barge of not less than 750 m³ capacity, well maintained and capable of rapid opening and discharge at the disposal site; · the dredged material should be disposed in the pit by bottom dumping, at a location within the pit specified by the MFC; · discharge should be undertaken rapidly and the hoppers should then immediately be closed. Material adhering to the sides of the hopper should not be washed out of the hopper and the hopper should remain closed until the barge next return to the disposal site; · the dumping vessel is not required to station but will be guided by the site staff managing the disposal facility. The vessel crew should be familiar with such operational procedures; · monitoring of the barge loading to ensure that loss of material does not take place during transportation; and · Transport barges or vessels shall be equipped with automatic self-monitoring devices. 	TDD's Contractor	Whole reclamation area During reclamation works End of reclamation works	C	R	7



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		<p>Specific Measures Associated with Dredging and Filling Works when CRIII Dredging and Filling Works are being constructed concurrently with WDII Dredging and Filling Works</p> <ul style="list-style-type: none"> · deployment of silt curtains around the dredging and fill release points to contain SS within the construction site during dredging and filling; · deployment of silt screens at the cooling water intakes and WSD salt water intakes to further minimise the intake of SS within the sea water. 	TDD's Contractor	<p>Reclamation Areas as appropriate</p> <p>When CRIII and WDII - Dredging and Filling Works occur concurrently</p> <p>End of Concurrent Works</p>	C	R	-
		<p>Specific Measures Associated with Floating Debris</p> <p>The result of the floating debris simulation has shown that the intermediate layout of the proposed reclamation has potential to trap floating rubbish. Monitoring and control of the construction activities should be taken to prevent the release of construction waste and rubbish from the construction site. Collection of floating debris should be carried out at least once every day by the CRIII Contractor, and more frequently (two or three times per day) at the water body south of the Initial Reclamation Area West and near the cooling water intakes where large substances could block the screens and filter pipes of the intakes and reduce their efficiency. Debris should be collected and taken to landfill sites for disposal.</p>	TDD's Contractor	<p>Whole reclamation area</p> <p>During construction</p> <p>At end of construction</p>	C	R	-
		<p>Specific Measures for Dealing with Culvert L Outfall at Completion of CRIII Eastern Seawall</p> <p>As a mitigation measure, to avoid the accumulation of water borne pollutants within a temporary embayment to the east of CRIII, an impermeable barrier, suspended from a floating boom on the water surface and extending down to the seabed, will be erected by the CRIII Contractor on completion of the CRIII eastern seawall. The barrier will channel the stormwater discharge flows from Culvert L to the outside of the embayment. The CRIII Contractor will maintain this barrier until the WDII Contractor takes possession of this site, whereupon the WDII Contractor will takeover the maintenance of this barrier until the reclamation works in this area are carried out and the new Culvert L extension is constructed.</p>	TDD's Consultant	<p>Culvert L Outfall</p> <p>During Construction</p> <p>To handover to WDII Contractor</p>	C	R	--



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		<p>Construction Run-off and Drainage</p> <ul style="list-style-type: none"> · Control of Site Surface Runoff: <ul style="list-style-type: none"> - Surface run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries should be provided where necessary. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks. - Silt removal facilities, channels and manholes should be maintained. - Construction works should be programmed to minimise soil excavation works in rainy seasons (April to September). If excavation in soil cannot be avoided, temporarily exposed slope surfaces should be covered and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided. - Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage such as intercepting channels should be provided where necessary. - Measures should be taken to minimise the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. - Open stockpiles of construction materials should be covered. - Manholes should be adequately covered and temporarily sealed. 	TDD's Contractor	<p>Works Area</p> <p>During construction</p> <p>End of construction</p>	C	P,R,A,C	7
		<ul style="list-style-type: none"> · Groundwater <ul style="list-style-type: none"> - Groundwater pumped out of tunnels or caverns should be discharged into storm drains after the removal of silt. 					



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		<ul style="list-style-type: none"> · Boring and Drilling Water - Water used in ground boring and drilling for site investigation or rock/soil anchoring should as far as practicable be recirculated after sedimentation. Wastewater should be discharged into storm drains via silt removal facilities. · Wastewater from Concrete Batching and Precast Concrete Casting - Wastewater generated from the washing down of mixer trucks and drum mixers and similar equipment should wherever practicable be recycled. The discharge of wastewater should be kept to a minimum. - To prevent pollution from wastewater overflow, the pump sump of any water recycling system should be provided with an on-line standby pump of adequate capacity and with automatic alternating devices. - Under normal circumstances, surplus wastewater may be discharged into foul sewers after treatment in silt removal and pH adjustment facilities (to within the pH range of 6 to 10). Disposal of wastewater into storm drains will require more elaborate treatment. <p>Surface run-off should be segregated from the concrete mixing and casting yard area as much as possible, and diverted to the stormwater drainage system. Surface run-off contaminated by materials in a concrete mixing area or casting yard should be adequately treated before disposal into stormwater drains.</p>	TDD's Contractor	<p>Work Area</p> <p>During construction</p> <p>End of construction</p>	C	P,R,A,C	7
		<ul style="list-style-type: none"> · Wheel Washing Water - All vehicles and plant should be cleaned before they leave the construction site. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains. · Bentonite Slurries - Bentonite slurries should be reconditioned and reused wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil site subject to obtaining a marine dumping licence from EPD (on a case-by-case basis). 	TDD's Contractor	<p>Work Area</p> <p>During construction</p> <p>End of construction</p>	C	P,R,A,C	7



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		<ul style="list-style-type: none"> - If the used bentonite slurry is intended to be disposed of through the public drainage system, it should be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the WPCO Technical Memorandum on Effluent Standards. 					
		<ul style="list-style-type: none"> · Wastewater from Building Construction - Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand etc. from entering public sewers/drains. - Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the stormwater drainage system. If the wastewater is to be discharged into foul sewers, it should undergo the removal of settleable solids in a silt removal facility, and pH adjustment as necessary. 					
		<ul style="list-style-type: none"> ·Licensing of Construction Site Discharges within Water Control Zones -All discharges into any drainage or sewerage systems, or inland or coastal waters, or into the ground (e.g. from septic tanks) within a Water Control Zone are controlled under the Water Pollution control Ordinance (WPCO), except the discharge of domestic sewage into foul sewers or the discharge of unpolluted water into storm drains or into the waters of Hong Kong. Construction site discharges are controlled under the WPCO. -Discharges controlled under the WPCO must comply with the terms and conditions of a valid WPCO licence. 					



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
8.	Construction Waste Control Requirements	<p>Specific Measures Associated with Marine sediments</p> <p>In accordance with the WBTC No. 3/2000, the seriously contaminated material must be dredged and transported with great care. Mitigation measures, including the use of close-grab dredgers, shall be incorporated.</p> <p>The dredged contaminated sediment must be effectively isolated from the environment upon final disposal and shall be disposed of at the East Sha Chau Contaminated Mud Pits.</p>	TDD's Contractor	Whole Reclamation Area During Reclamation Works End of Reclamation Work	C	R	7
		<p>Segregation and Disposal of Wastes</p> <ul style="list-style-type: none"> · inert demolition/construction waste material when deemed suitable for reclamation or land formation should be re-used on-site; · non-inert demolition / construction waste material should be disposed of at landfills; · chemical waste as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be stored in accordance with approved methods defined in the Regulation and Code of Practice and the chemical waste disposed of at the Chemical Waste Treatment Facility located at Tsing Yi or an approved recycler; · general refuse should be recycled where possible or disposed of at public landfill. 	TDD's Contractor	Works Areas During Construction End of Construction	C	P, R, A, C	1,8, 9
		<p>Storage, Collection and Transport of Waste</p> <ul style="list-style-type: none"> · wastes should be handled and stored in a manner which ensures that they are held securely without loss or leakage thereby minimising the potential for pollution. Release of these potential pollutants into marine waters during storage, handling or barge transportation should not be permitted as introduction of polluted waters is likely to have detrimental effects on water quality and water sensitive receivers; · only reputable waste hauliers authorised to collect the specific category of waste concerned should be employed; · appropriate measures should be employed to minimise windblown litter and dust during transportation by using enclosed bins, covering trucks or transporting wastes in enclosed containers; · the necessary waste disposal permits and registrations should be obtained from the appropriate authorities, if they are required, in accordance with the Waste Disposal 	TDD's Contractor	Works Areas During Construction End of Construction	C	P, R, A, C	1, 8, 9



No.	Activity	Mitigation/EIA Recommendations	Responsibility for Implementation	Location Duration completion of measures	Implementation Stage C : Construction D : Design	Permit Conditions apply to	Relevant Guidelines Legislation
		Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and the Crown Land Ordinance; <ul style="list-style-type: none"> · collection of general refuse should be carried out frequently, preferably daily; · waste should only be disposed of at licensed sites and the civil engineering contractor should develop procedures to ensure that illegal disposal of wastes does not occur; · waste storage areas should be well maintained and cleaned regularly; · records should be maintained of the quantities of wastes generated, recycled and disposed, determined by weighing each load or other method; and · A "trip ticket" system should be implemented, if required by Government. 					
9	Construction Landscape and Visual Control Requirements	Construction stage landscape and visual mitigation measures should include : <ul style="list-style-type: none"> · Minimising contractors accesses and working areas as far as possible; · Protection and retention of existing vegetation where possible in accordance with the Hong Kong Government "A Guide to Tree Planting and Maintenance in Urban Hong Kong, Section 5" Care of Trees on Development Sites' and the Country Parks Ordinance · Transplanting of trees where appropriate; · Advance planting and visual screening; · Conservation of top soil; · Design of the temporary works areas so as to optimise eventual use as promenade and public open space; and · Sensitively designed site hoarding. 	TDD's design consultant	Area wide during design and contract preparation	D	P, R, A, C	11, 12, 13,14
10	Monitoring and Audit	To be carried out in accordance with the Schedule in the EM and A Manual	TDD*/Contractor/ RSS TDD's design consultant	Works areas During construction End of construction and within one year of operational phase Area wide during design and contract preparation	C/O D	P, R, A, C P, R, A, C	1 11,12,13,14



Relevant Guidelines Legislation

1. Environmental Impact Assessment Ordinance Technical Memorandum (EIAO)
2. HKPSG
3. ExCo Criteria for ITR
4. Noise Control Ordinance
5. The ProPECC Note PN2/93 (Construction Noise daytime limits)
6. Air Pollution Control Ordinance (APCO)
7. Water Pollution Control Ordinance (WPCO)(Cap. 358)
8. Waste Disposal Ordinance (Cap 354)
9. Waste Disposal (Chemical Waste)(General) Regulation (Cap 354)
10. Land Ordinance (Cap 28)
11. WBTC 25/92 Allocation of Space for Urban Trees
12. WBTC 25/93 Control of Visual Impact of Slopes
13. WBTC 18/94 Management and Maintenance of both Natural Vegetation and Landscape Works
14. WBTC 24/94 and PELBTC 3/94 "Tree Preservation"
15. Antiquities and Monuments Ordinance (Cap 53)

Permit Conditions apply to

- P Primary and District Distributor Roads
- R Reclamation
- A North Island Line Protection Works
- C Central and Wanchai Bypass

+ These items should be excluded from any Environmental Permit conditions as these refer to future development of the area (which is not designated under the EIAO), and are not related to reclamation and dredging activities which are designated, and can hence be controlled through EP conditions.

* Normally undertaken by a specialist monitoring team employed directly by the proponent and audited by the Environmental Works Checker.



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.	70 dB(A)

Action and Limit Level for Air Monitoring

Monitoring Locations	1-hour TSP Level in $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	Action Level	Limit Level	Action Level	Limit Level
ACL1 - City Hall	460	500	163	260
ACL2 – PLA Barracks	432	500	154	260
ACL2a - Contractor HK/2012/08 Site Office	300.1	500	187.3	260



Appendix 4.1

Noise Monitoring Graphical Presentations

Continuous Noise Monitoring Data ACL3 (City Hall)

31/05/2014 03:41 56.7
31/05/2014 03:46 56.7
31/05/2014 03:51 56.9
31/05/2014 03:56 56.7
31/05/2014 04:01 56.4
31/05/2014 04:06 56.5
31/05/2014 04:11 56.1
31/05/2014 04:16 56.4
31/05/2014 04:21 57.2
31/05/2014 04:26 57.1
31/05/2014 04:31 56.3
31/05/2014 04:36 56.6
31/05/2014 04:41 56.7
31/05/2014 04:46 56.9
31/05/2014 04:51 56.7
31/05/2014 04:56 56.8
31/05/2014 05:01 56.5
31/05/2014 05:06 56.7
31/05/2014 05:11 57.0
31/05/2014 05:16 57.0
31/05/2014 05:21 57.2
31/05/2014 05:26 57.6
31/05/2014 05:31 57.3
31/05/2014 05:36 57.1
31/05/2014 05:41 57.7
31/05/2014 05:46 57.9
31/05/2014 05:51 57.5
31/05/2014 05:56 57.4
31/05/2014 06:01 57.7
31/05/2014 06:06 57.9
31/05/2014 06:11 58.7
31/05/2014 06:16 58.2
31/05/2014 06:21 58.0
31/05/2014 06:26 57.9
31/05/2014 06:31 58.3
31/05/2014 06:36 59.6
31/05/2014 06:41 58.8
31/05/2014 06:46 58.9
31/05/2014 06:51 59.1
31/05/2014 06:56 59.3
31/05/2014 23:01 60.1
31/05/2014 23:06 54.6
31/05/2014 23:11 60.2
31/05/2014 23:16 58.3
31/05/2014 23:21 58.2
31/05/2014 23:26 58.8
31/05/2014 23:31 59.4
31/05/2014 23:36 59.3
31/05/2014 23:41 59.1
31/05/2014 23:46 59.5
31/05/2014 23:51 59.2
31/05/2014 23:56 58.2

Continuous Noise Monitoring Data ACL3 (City Hall)

Normal Day 07:00-19:00

Table with columns for date and time (e.g., 7/6/2014 12:01, 12/6/2014 18:31, 18/6/2014 13:01, 24/6/2014 7:31, 27/6/2014 18:01) and corresponding noise level values (e.g., 62.6, 62.9, 62.7, 61.9, 63.7).

Normal Day 19:00-23:00

Sunday & Holiday

07:00-23:00

Table with columns for date and time (e.g., 07/2014 7:01, 1/6/2014 7:06, 1/6/2014 7:11, 1/6/2014 7:16) and corresponding noise level values (e.g., 57.8, 58.7, 58.0, 57.8).

Continuous Noise Monitoring Data

ACL3 (City Hall)

Table with 8 columns of date-time and noise level data (e.g., 17/6/2014 20:31 60.9, 19/6/2014 21:36 60.9, 21/6/2014 22:41 59.1, 22/6/2014 15:46 62.2, 23/6/2014 20:51 61.4, 25/6/2014 21:56 59.3).

Continuous Noise Monitoring Data

ACL3 (City Hall)

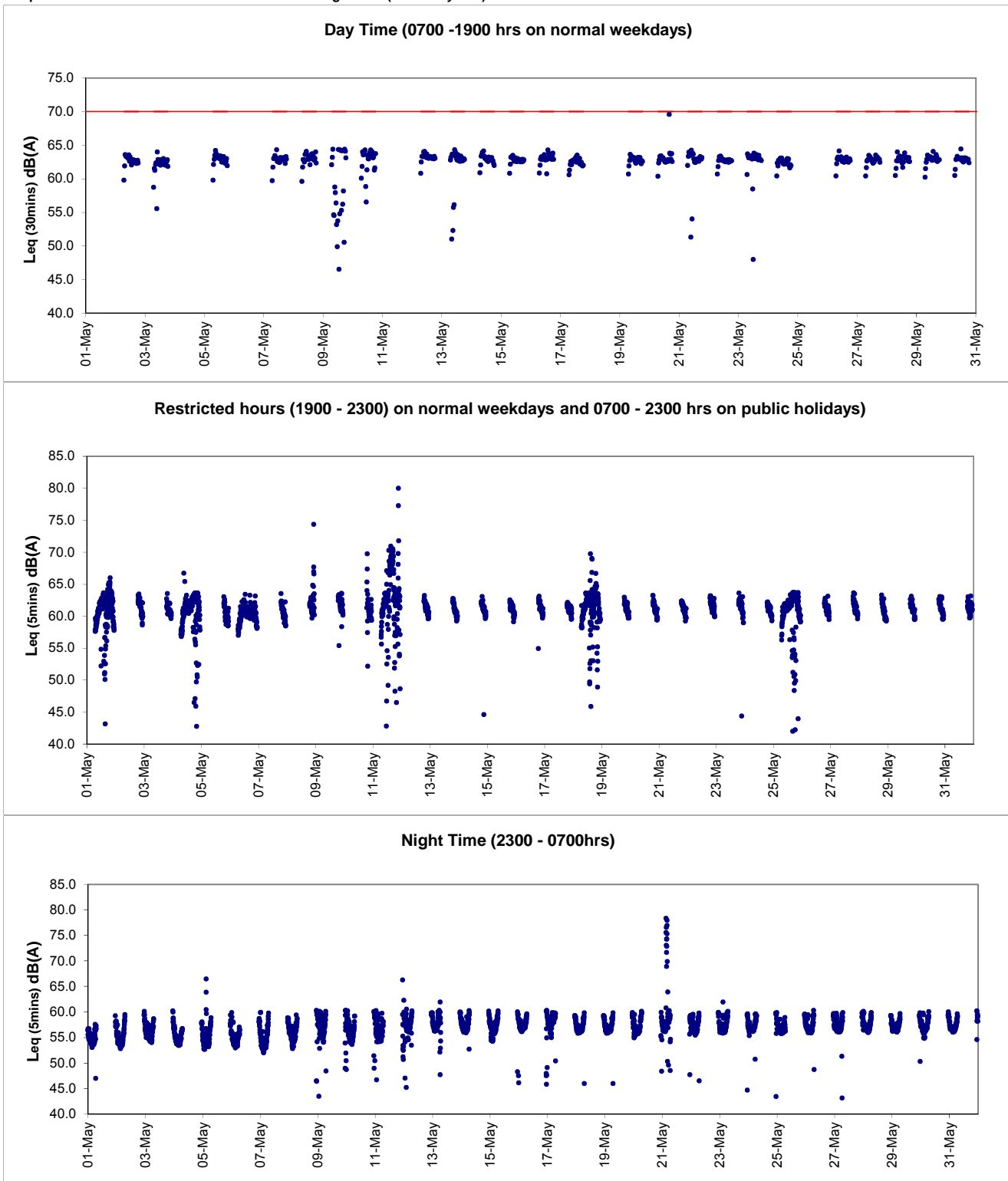
Table with 24 columns representing noise monitoring data. Each column contains a date and time (e.g., 18/6/2014 3:16) followed by a numerical noise level value. The data is organized in a grid format with 10 rows per column.

Continuous Noise Monitoring Data

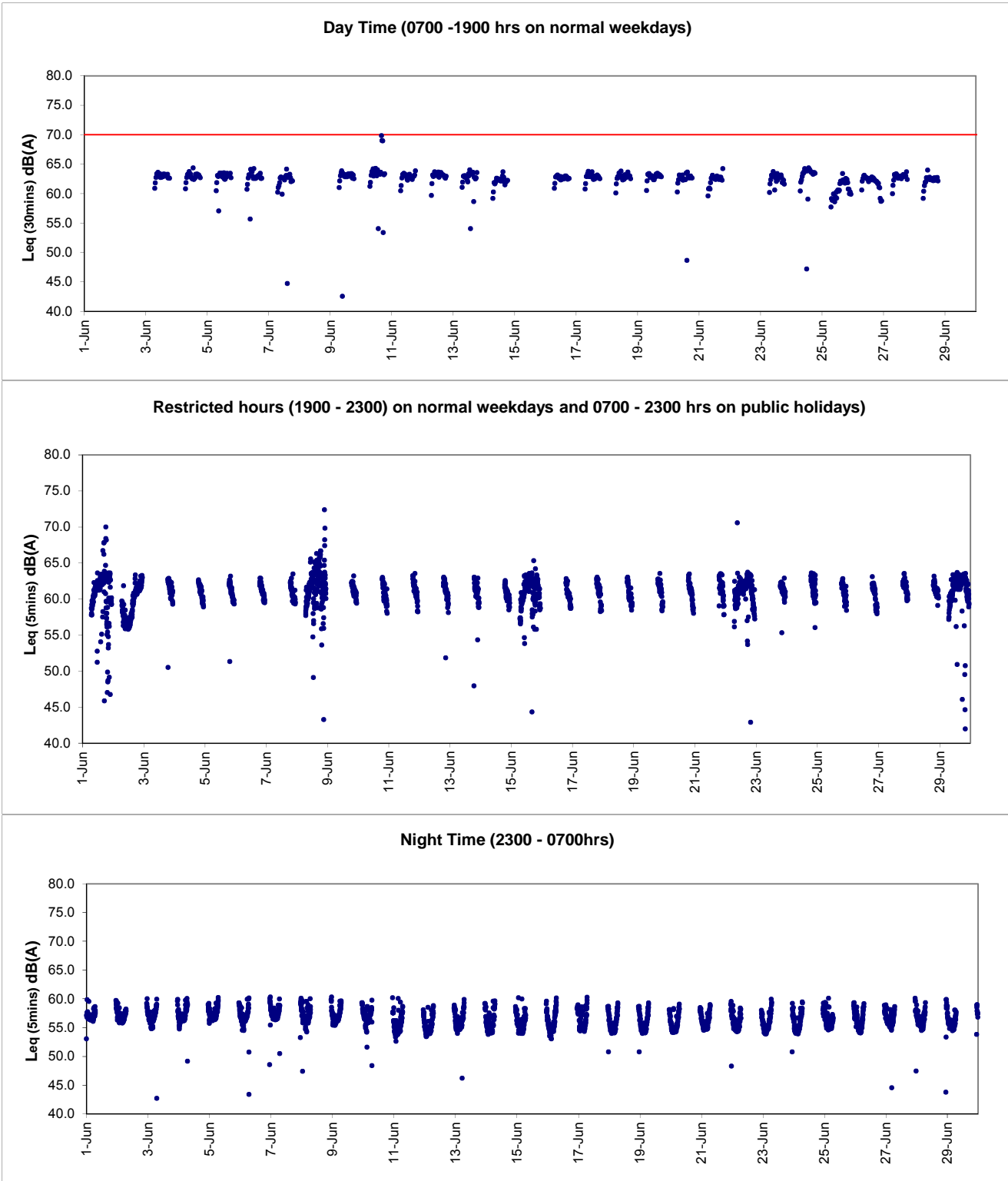
ACL3 (City Hall)

Table with 4 columns of noise monitoring data. Each row contains a date-time stamp (e.g., 25/6/2014 1:46), a numerical noise level (e.g., 54.9), and another date-time stamp (e.g., 26/6/2014 2:51) with a corresponding numerical value (e.g., 54.9). The data is organized into four vertical columns.

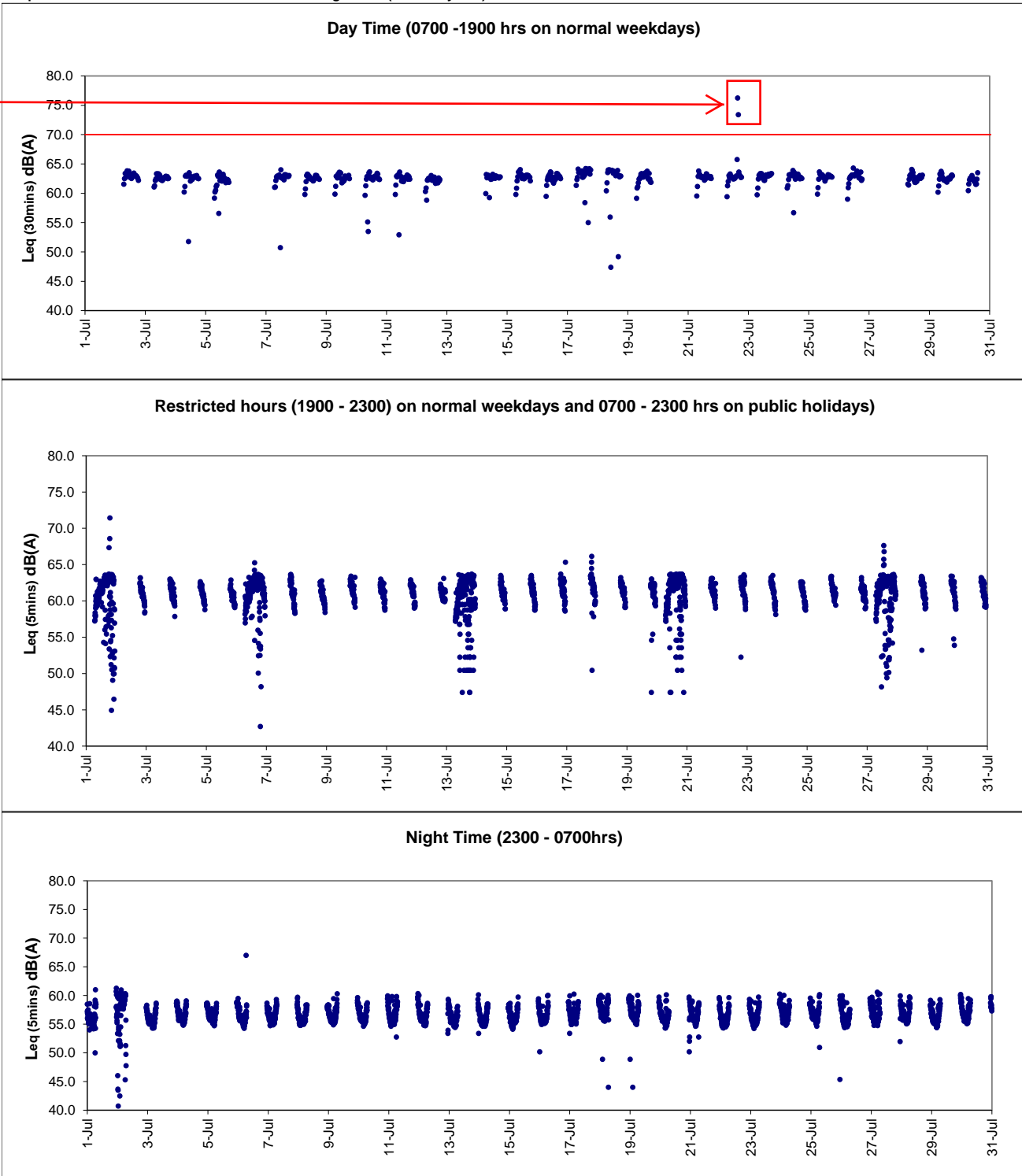
Graphic Presentation of Continuous Noise Monitoring Result (ACL3-City Hall)



Graphic Presentation of Continuous Noise Monitoring Result (ACL3-City Hall)



Graphic Presentation of Continuous Noise Monitoring Result (ACL3-City Hall)



After checking with contractor HK/2012/08, no major noisy construction activity was conducted at the concerned location during the recorded period and the exceedances were considered to be contributed by the adverse weather condition during the hoisting period of amber rainstorm Warning Signal and thunder warning signal. As such the exceedances were considered to be not related to Project.



Appendix 4.2

Air Quality Monitoring Graphical Presentations



Location: ACL1 - City Hall

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 163

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

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
02-May-14	08:00	Rainy	008631	2.8218	2.8941	2620.07	2644.07	24.00	1.32	1.32	1.32	1899	38
08-May-14	08:00	Rainy	008808	2.8523	2.9093	2647.08	2671.08	24.00	1.28	1.32	1.30	1874	30
14-May-14	08:00	Rainy	008868	2.8556	2.9555	2674.09	2698.09	24.00	1.33	1.27	1.30	1872	53
20-May-14	08:00	Rainy	008661	2.8143	2.8929	2701.09	2725.09	24.00	1.33	1.33	1.33	1918	41
26-May-14	08:00	Rainy	008209	2.8182	2.8643	2728.09	2752.09	24.00	1.33	1.33	1.33	1914	24
30-May-14	08:00	Rainy	008702	2.8135	2.8397	2755.08	2779.08	24.00	1.23	1.33	1.28	1844	14

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 460

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

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
03-May-14	08:40	Rainy	008829	2.8817	2.8850	2644.08	2645.08	1.00	1.32	1.32	1.32	79	42
03-May-14	09:45	Rainy	008895	2.8561	2.8576	2645.08	2646.08	1.00	1.32	1.32	1.32	79	19
03-May-14	10:50	Rainy	008898	2.8470	2.8493	2646.08	2647.08	1.00	1.32	1.32	1.32	79	29
09-May-14	08:50	Rainy	008579	2.8533	2.8624	2671.09	2672.09	1.00	1.24	1.32	1.28	77	118
09-May-14	10:00	Rainy	008874	2.8563	2.8628	2672.09	2673.09	1.00	1.20	1.32	1.26	76	86
09-May-14	13:00	Rainy	008869	2.8623	2.8634	2673.09	2674.09	1.00	1.24	1.32	1.28	77	14
15-May-14	08:50	Rainy	008660	2.8095	2.8147	2698.09	2699.09	1.00	1.33	1.33	1.33	80	65
15-May-14	09:52	Rainy	008659	2.8144	2.8160	2699.09	2700.09	1.00	1.33	1.33	1.33	80	20
15-May-14	10:54	Rainy	008658	2.8154	2.8180	2700.09	2701.09	1.00	1.33	1.33	1.33	80	33
21-May-14	08:50	Rainy	007509	2.6390	2.6430	2725.09	2726.09	1.00	1.33	1.33	1.33	80	50
21-May-14	09:52	Rainy	008517	2.8747	2.8762	2726.09	2727.09	1.00	1.33	1.33	1.33	80	19
21-May-14	10:54	Rainy	008521	2.8606	2.8616	2727.09	2728.09	1.00	1.33	1.33	1.33	80	13
27-May-14	08:50	Fine	008694	2.8271	2.8331	2752.09	2753.09	1.00	1.33	1.33	1.33	80	75
27-May-14	09:52	Fine	008697	2.8227	2.8272	2753.09	2754.09	1.00	1.33	1.33	1.33	80	56
27-May-14	10:54	Fine	008701	2.8171	2.8227	2754.09	2755.09	1.00	1.33	1.33	1.33	80	70
31-May-14	13:00	Rainy	008744	2.8701	2.8714	2779.08	2780.08	1.00	1.23	1.33	1.28	77	17
31-May-14	14:23	Rainy	008747	2.8579	2.8602	2780.08	2781.08	1.00	1.23	1.23	1.23	74	31
31-May-14	15:30	Rainy	008750	2.8727	2.8738	2781.08	2782.08	1.00	1.23	1.33	1.28	77	14



Location: ACL2a - Contractor HK/2012/08 Site office

Report on 24-hour TSP monitoring
Action Level ($\mu\text{g}/\text{m}^3$) - 187.3
Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
02-May-14	08:00	Rainy	008782	2.8504	2.9602	1783.81	1807.81	24.00	1.31	1.30	1.31	1880	58
08-May-14	08:00	Rainy	008576	2.8625	2.9948	1810.82	1834.83	24.01	1.31	1.31	1.31	1883	70
14-May-14	08:00	Rainy	008571	2.8493	2.9214	1837.83	1861.83	24.00	1.25	1.27	1.26	1818	40
20-May-14	08:00	Rainy	008904	2.8244	2.9091	1864.83	1888.83	24.00	1.32	1.32	1.32	1901	45
26-May-14	08:00	Rainy	008688	2.8337	2.8889	1891.83	1915.83	24.00	1.32	1.32	1.32	1896	29
30-May-14	08:00	Rainy	008735	2.8581	2.9227	1918.83	1942.83	24.00	1.29	1.29	1.29	1864	35

Report on 1-hour TSP monitoring
Action Level ($\mu\text{g}/\text{m}^3$) - 300.1
Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
03-May-14	09:50	Rainy	008892	2.8557	2.8632	1807.81	1808.81	1.00	1.30	1.30	1.30	78	96
03-May-14	10:53	Rainy	008574	2.8484	2.8555	1808.81	1809.81	1.00	1.30	1.30	1.30	78	91
03-May-14	13:00	Rainy	008581	2.8450	2.8521	1809.81	1810.81	1.00	1.30	1.30	1.30	78	91
09-May-14	10:00	Rainy	008559	2.8415	2.8460	1834.83	1835.83	1.00	1.31	1.31	1.31	78	57
09-May-14	13:00	Rainy	008562	2.8507	2.8541	1835.83	1836.83	1.00	1.22	1.31	1.26	76	45
09-May-14	14:05	Rainy	008568	2.8545	2.8585	1836.83	1837.83	1.00	1.22	1.31	1.26	76	53
15-May-14	09:05	Rainy	008566	2.8690	2.8720	1861.83	1862.83	1.00	1.21	1.21	1.21	73	41
15-May-14	10:14	Rainy	008601	2.8388	2.8408	1862.83	1863.83	1.00	1.25	1.25	1.25	75	27
15-May-14	13:00	Rainy	008604	2.8290	2.8339	1863.83	1864.83	1.00	1.32	1.32	1.32	79	62
21-May-14	08:53	Rainy	008708	2.8206	2.8266	1888.83	1889.83	1.00	1.32	1.32	1.32	79	76
21-May-14	09:55	Rainy	008711	2.8175	2.8198	1889.83	1890.83	1.00	1.21	1.21	1.21	73	32
21-May-14	10:58	Rainy	008685	2.8347	2.8365	1890.83	1891.83	1.00	1.21	1.21	1.21	73	25
27-May-14	08:34	Fine	008948	2.8206	2.8262	1915.83	1916.83	1.00	1.29	1.29	1.29	78	72
27-May-14	09:42	Fine	008730	2.8662	2.8696	1916.83	1917.83	1.00	1.29	1.29	1.29	78	44
27-May-14	10:48	Fine	008731	2.8582	2.8620	1917.83	1918.83	1.00	1.29	1.29	1.29	78	49
31-May-14	09:36	Rainy	009071	2.8346	2.8403	1942.83	1943.83	1.00	1.25	1.25	1.25	75	76
31-May-14	10:56	Rainy	009069	2.8411	2.8475	1943.83	1944.83	1.00	1.29	1.29	1.29	78	82
31-May-14	13:00	Rainy	009066	2.8488	2.8540	1944.83	1945.83	1.00	1.21	1.21	1.21	73	72



Location: ACL1 - City Hall

Report on 24-hour TSP monitoring
 Action Level ($\mu\text{g}/\text{m}^3$) - 163
 Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
06-Jun-14	17:25	Rainy	008677	2.8236	2.8775	2785.09	2809.09	24.00	1.23	1.33	1.28	1846	29
12-Jun-14	15:07	Fine	008763	2.8517	2.9265	2843.16	2867.16	24.00	1.23	1.23	1.23	1774	42
17-Jun-14	8:00	Rainy	008774	2.8499	2.8988	2874.18	2898.18	24.00	1.25	1.27	1.26	1815	27
23-Jun-14	8:00	Rainy	008462	2.8537	2.8972	2901.18	2925.18	24.00	1.14	1.14	1.14	1647	26
28-Jun-14	8:00	Fine	009024	2.8400	2.9065	2928.18	2952.18	24.00	1.28	1.28	1.28	1838	36

* Due to interruption of electricity supply, the 24hr TSP was rescheduled from 5 and 11 June 2014 to 6 and 12 June 2014 respectively.

Report on 1-hour TSP monitoring
 Action Level ($\mu\text{g}/\text{m}^3$) - 460
 Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
06-Jun-14	10:58	Rainy	009050	2.8129	2.8162	2782.09	2783.09	1.00	1.23	1.33	1.28	77	43
06-Jun-14	13:00	Rainy	009053	2.8241	2.8287	2783.09	2784.09	1.00	1.23	1.23	1.23	74	62
06-Jun-14	14:15	Rainy	009054	2.8336	2.8367	2784.09	2785.09	1.00	1.23	1.33	1.28	77	40
12-Jun-14	9:17	Fine	008760	2.8666	2.8701	2840.16	2841.16	1.00	1.31	1.31	1.31	78	45
12-Jun-14	10:29	Fine	008767	2.8477	2.8540	2841.16	2842.16	1.00	1.31	1.31	1.31	78	80
12-Jun-14	13:00	Fine	008764	2.8549	2.8622	2842.16	2843.16	1.00	1.31	1.31	1.31	78	93
18-Jun-14	8:56	Rainy	008471	2.8560	2.8590	2898.18	2899.18	1.00	1.33	1.33	1.33	80	38
18-Jun-14	10:02	Rainy	008470	2.8479	2.8499	2899.18	2900.18	1.00	1.33	1.33	1.33	80	25
18-Jun-14	13:00	Rainy	008469	2.8498	2.8527	2900.18	2901.18	1.00	1.33	1.33	1.33	80	36
24-Jun-14	8:53	Rainy	009079	2.8313	2.8354	2925.18	2926.18	1.00	1.14	1.14	1.14	69	60
24-Jun-14	10:04	Rainy	009082	2.8254	2.8292	2926.18	2927.18	1.00	1.25	1.14	1.20	72	53
24-Jun-14	13:00	Rainy	009085	2.8239	2.8315	2927.18	2928.18	1.00	1.14	1.14	1.14	69	111
30-Jun-14	8:17	Rainy	009023	2.8320	2.8360	2952.18	2953.18	1.00	1.28	1.28	1.28	77	52
30-Jun-14	9:36	Rainy	009020	2.8303	2.8342	2953.18	2954.18	1.00	1.28	1.28	1.28	77	51
30-Jun-14	10:39	Rainy	009017	2.8317	2.8345	2954.18	2955.18	1.00	1.28	1.28	1.28	77	36



Location: ACL2a - Contractor HK/2012/08 Site office

Report on 24-hour TSP monitoring
 Action Level ($\mu\text{g}/\text{m}^3$) - 187.3
 Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
05-Jun-14	8:00	Rainy	009063	2.8467	2.9109	1945.82	1969.82	24.00	1.29	1.29	1.29	1856	35
11-Jun-14	8:00	Rainy	008753	2.8745	3.0375	1972.83	1996.83	24.00	1.29	1.29	1.29	1857	88
17-Jun-14	8:00	Rainy	008016	2.8479	2.9454	1999.83	2023.83	24.00	1.27	1.27	1.27	1824	53
23-Jun-14	8:00	Rainy	008961	2.8472	2.9031	2026.83	2050.83	24.00	1.05	1.03	1.04	1502	37
28-Jun-14	8:00	Fine	009011	2.8194	2.8989	2060.85	2084.85	24.00	1.12	1.12	1.12	1614	49

Report on 1-hour TSP monitoring
 Action Level ($\mu\text{g}/\text{m}^3$) - 300.1
 Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
06-Jun-14	13:00	Rainy	008917	2.8248	2.8292	1969.82	1970.82	1.00	1.25	1.25	1.25	75	59
06-Jun-14	14:29	Rainy	009055	2.8194	2.8217	1970.82	1971.82	1.00	1.29	1.29	1.29	77	30
06-Jun-14	16:25	Rainy	009059	2.8113	2.8220	1971.82	1972.82	1.00	1.20	1.20	1.20	72	148
12-Jun-14	13:00	Fine	008976	2.8273	2.8409	1996.83	1997.83	1.00	1.29	1.29	1.29	77	176
12-Jun-14	14:05	Fine	008978	2.8380	2.8568	1997.83	1998.83	1.00	1.29	1.29	1.29	77	243
12-Jun-14	15:10	Fine	008974	2.8286	2.8407	1998.83	1999.83	1.00	1.20	1.20	1.20	72	168
18-Jun-14	9:25	Rainy	008960	2.8247	2.8294	2023.83	2024.83	1.00	1.31	1.31	1.31	79	60
18-Jun-14	13:00	Rainy	008957	2.8192	2.8263	2024.83	2025.83	1.00	1.31	1.31	1.31	79	90
18-Jun-14	14:24	Rainy	008964	2.8256	2.8307	2025.83	2026.83	1.00	1.20	1.20	1.20	72	71
24-Jun-14	8:10	Rainy	009035	2.8260	2.8324	2050.83	2051.83	1.00	1.10	1.10	1.10	66	97
24-Jun-14	9:14	Rainy	009027	2.8271	2.8313	2051.83	2052.83	1.00	1.10	1.10	1.10	66	64
24-Jun-14	14:00	Rainy	006291	2.6284	2.6367	2052.83	2053.83	1.00	1.10	1.08	1.09	65	127
30-Jun-14	8:36	Rainy	008551	2.8538	2.8553	2084.85	2085.85	1.00	1.12	1.12	1.12	67	22
30-Jun-14	9:40	Rainy	009014	2.8542	2.8557	2085.85	2086.85	1.00	1.12	1.12	1.12	67	22
30-Jun-14	10:49	Rainy	009094	2.8293	2.8309	2086.85	2087.85	1.00	1.12	1.12	1.12	67	24



Location: ACL1 - City Hall

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 163

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

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
4-Jul-14	8:00	Fine	009196	2.8592	2.9183	2955.17	2979.17	24.00	1.27	1.27	1.27	1834	32
10-Jul-14	8:00	Rainy	009179	2.8551	2.9065	2982.17	3006.17	24.00	1.28	1.28	1.28	1838	28
16-Jul-14	8:00	Rainy	009166	2.8609	2.9272	3009.17	3033.17	24.00	1.28	1.25	1.26	1820	36
22-Jul-14	8:00	Rainy	009164	2.8814	3.0660	3036.17	3060.17	24.00	1.28	1.27	1.27	1834	101
29-Jul-14	12:00	Fine	009434	2.8509	2.9390	3066.17	3090.17	24.00	1.28	1.28	1.28	1837	48

* Due to interruption of electricity supply, the 24hr TSP was rescheduled from and 28 July 2014 to 29 July 2014 respectively.

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 460

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

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
5-Jul-14	8:41	Rainy	009207	2.8526	2.8553	2979.17	2980.17	1.00	1.27	1.27	1.27	76	35
5-Jul-14	10:00	Rainy	009210	2.8483	2.8496	2980.17	2981.17	1.00	1.27	1.27	1.27	76	17
5-Jul-14	11:10	Rainy	009176	2.8435	2.8515	2981.17	2982.17	1.00	1.27	1.27	1.27	76	105
11-Jul-14	8:46	Rainy	009279	2.8394	2.8440	3006.17	3007.17	1.00	1.28	1.28	1.28	77	60
11-Jul-14	10:20	Rainy	009280	2.8330	2.8373	3007.17	3008.17	1.00	1.28	1.28	1.28	77	56
11-Jul-14	13:00	Rainy	009281	2.8461	2.8520	3008.17	3009.17	1.00	1.28	1.28	1.28	77	77
17-Jul-14	9:02	Rainy	009220	2.8339	2.8384	3033.17	3034.17	1.00	1.28	1.28	1.28	77	59
17-Jul-14	10:05	Rainy	009221	2.8502	2.8540	3034.17	3035.17	1.00	1.28	1.28	1.28	77	50
17-Jul-14	13:00	Rainy	009222	2.8511	2.8524	3035.17	3036.17	1.00	1.28	1.28	1.28	77	17
23-Jul-14	8:43	Fine	009441	2.8626	2.8695	3060.17	3061.17	1.00	1.27	1.27	1.27	76	90
23-Jul-14	9:48	Fine	009442	2.8558	2.8638	3061.17	3062.17	1.00	1.27	1.27	1.27	76	105
23-Jul-14	10:53	Fine	009443	2.8518	2.8603	3062.17	3063.17	1.00	1.27	1.27	1.27	76	111
29-Jul-14	8:36	Fine	009161	2.8495	2.8586	3063.17	3064.17	1.00	1.28	1.28	1.28	77	119
29-Jul-14	9:44	Fine	009162	2.8408	2.8502	3064.17	3065.17	1.00	1.28	1.28	1.28	77	123
29-Jul-14	10:52	Fine	009163	2.8474	2.8562	3065.17	3066.17	1.00	1.28	1.28	1.28	77	115



Location: ACL2a - Contractor HK/2012/08 Site office

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 187.3

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

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
4-Jul-14	8:00	Fine	009142	2.8556	2.9246	2087.84	2111.84	24.00	1.05	1.05	1.05	1513	46
10-Jul-14	8:00	Rainy	009284	2.8383	2.8998	2114.84	2138.84	24.00	1.10	1.10	1.10	1581	39
16-Jul-14	8:00	Rainy	009265	2.8500	2.9813	2141.84	2165.84	24.00	1.08	1.08	1.08	1550	85
22-Jul-14	8:00	Rainy	009124	2.8677	3.0183	2168.84	2192.84	24.00	1.10	1.09	1.10	1578	95
28-Jul-14	8:00	Fine	009406	2.8605	2.9991	2195.85	2219.85	24.00	1.05	1.05	1.05	1516	91

Report on 1-hour TSP monitoring

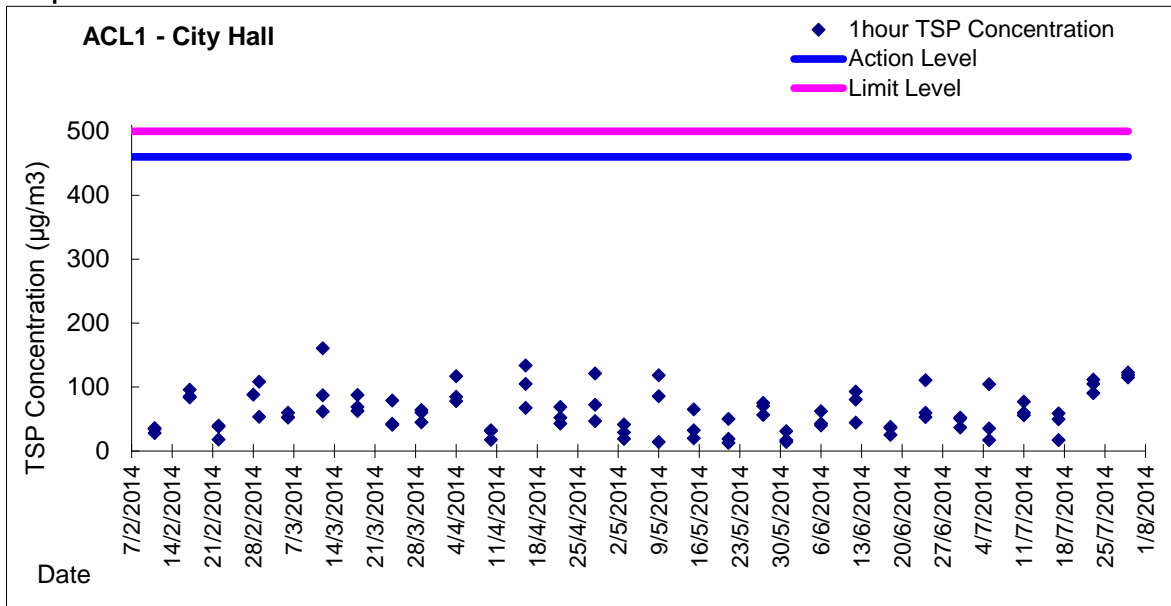
Action Level ($\mu\text{g}/\text{m}^3$) - 300.1

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

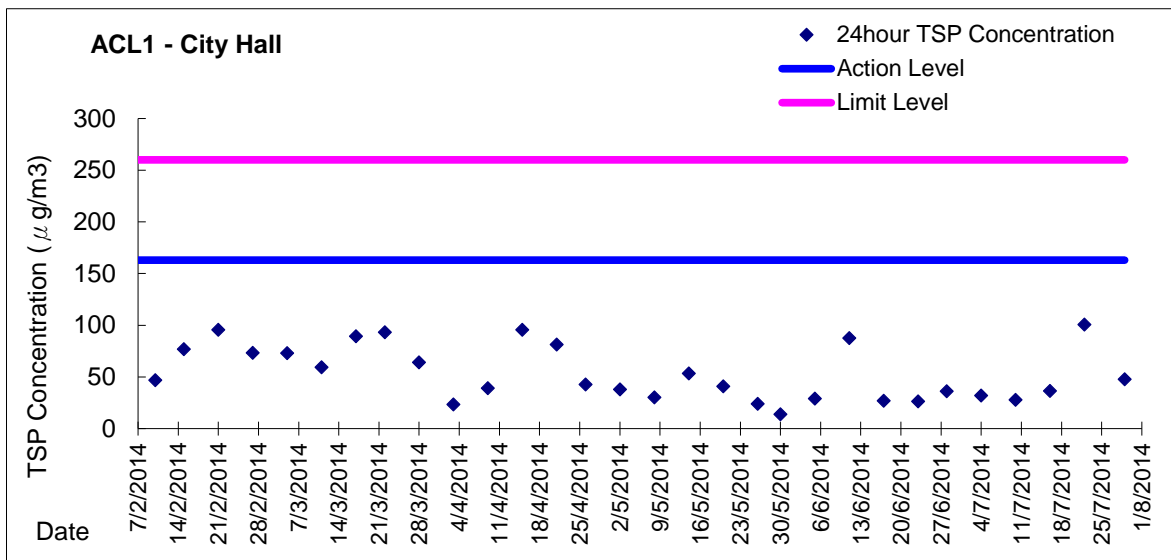
Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
5-Jul-14	8:44	Rainy	009172	2.8481	2.8562	2111.84	2112.84	1.00	1.05	1.05	1.05	63	128
5-Jul-14	9:48	Rainy	009173	2.8505	2.8584	2112.84	2113.84	1.00	1.05	1.05	1.05	63	125
5-Jul-14	10:52	Rainy	009174	2.8656	2.8731	2113.84	2114.84	1.00	1.05	1.05	1.05	63	119
11-Jul-14	9:19	Rainy	009181	2.8466	2.8548	2138.84	2139.84	1.00	1.03	1.03	1.03	62	133
11-Jul-14	10:45	Rainy	009184	2.8471	2.8505	2139.84	2140.84	1.00	1.05	1.05	1.05	63	54
11-Jul-14	13:00	Rainy	009187	2.8477	2.8519	2140.84	2141.84	1.00	1.10	1.10	1.10	66	64
17-Jul-14	9:35	Rainy	009115	2.8611	2.8735	2165.84	2166.84	1.00	1.10	1.10	1.10	66	188
17-Jul-14	10:40	Rainy	009118	2.8538	2.8630	2166.84	2167.84	1.00	1.01	1.01	1.01	60	152
17-Jul-14	13:00	Rainy	009121	2.8483	2.8570	2167.84	2168.84	1.00	1.10	1.10	1.10	66	132
23-Jul-14	9:35	Fine	009373	2.8556	2.8605	2192.84	2193.84	1.00	1.00	1.00	1.00	60	81
23-Jul-14	10:40	Fine	009377	2.8422	2.8497	2193.84	2194.84	1.00	1.09	1.09	1.09	66	114
23-Jul-14	13:00	Fine	009379	2.8711	2.8760	2194.84	2195.84	1.00	1.00	1.00	1.00	60	81
29-Jul-14	13:00	Fine	009347	2.8572	2.8682	2219.85	2220.85	1.00	1.05	1.05	1.05	63	174
29-Jul-14	14:09	Fine	009350	2.8507	2.8585	2220.85	2221.85	1.00	1.01	1.01	1.01	60	129
29-Jul-14	15:17	Fine	009353	2.8625	2.8754	2221.85	2222.85	1.00	1.10	1.10	1.10	66	196



Graphic Presentation of 1 hour TSP Result

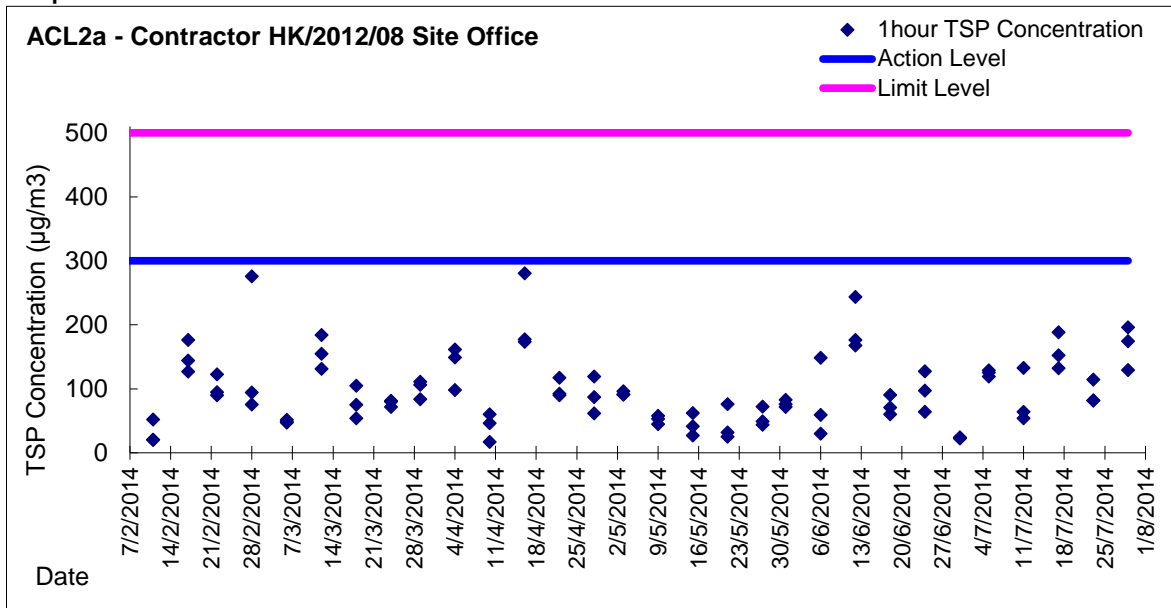


Graphic Presentation of 24 hour TSP Result

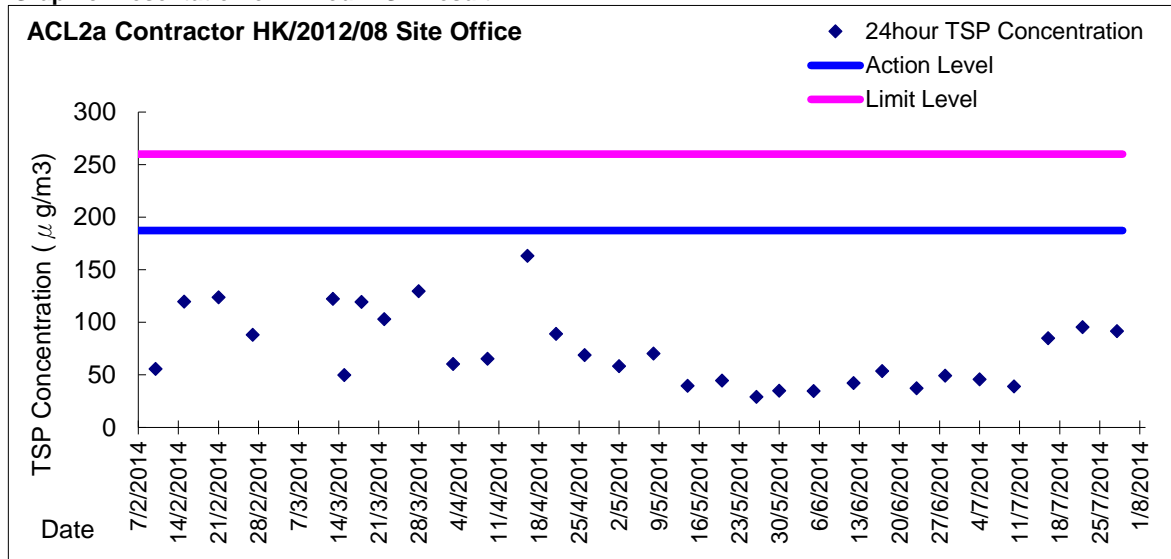




Graphic Presentation of 1 hour TSP Result



Graphic Presentation of 24 hour TSP Result





Appendix 5.1

Event Action Plans

Central Reclamation Phase III : Environmental Monitoring and Audit - Event and Action Plan for Air and Noise Quality

Event and Action Plan for Air Quality				
Event	Action			
	ET Leader	IC(E)	ER	Contractor
Action Level - Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check Contractor's working method 	<ol style="list-style-type: none"> 1. Notify Contractor 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Amend working methods if appropriate
Action Level - Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Discuss with IC(E) and Contractor on remedial actions 6. If exceedance continues, arrange meeting with IC(E) and ER 7. If exceedance stops cease additional monitoring 	<ol style="list-style-type: none"> 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 the implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> 1. Submit proposals for remedial actions to IC(E) within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
Limit Level - Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source 2. Inform ER and EPD 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results 	<ol style="list-style-type: none"> 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 the implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposal for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed measures
Limit Level - Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Notify IC(E), ER, Contractor and EPD 2. Identify source 3. Repeat measurements 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 IC(E) and ER to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results 8. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IC(E), 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 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) 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

Central Reclamation Phase III : Environmental Monitoring and Audit - Event and Action Plan for Air and Noise Quality

Event and Action Plan for Noise Quality				
Event	Action			
	ET Leader	IC(E)	ER	Contractor
Action Level is reached	<ol style="list-style-type: none"> 1. Notify IC(E) and Contractor 2. Carry out investigation 3. Report the results of the investigation to the IC(E) and Contractor 4. Discuss with the Contractor and formulate remedial measures 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analyzed noise problem 4. Ensure remedial measures are properly implemented 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposal to IC(E) 2. Implement noise mitigation proposals
Limit Level is reached	<ol style="list-style-type: none"> 1. Notify IC(E), ER, EPD and Contractor 2. Identify source 3. Repeat measurement to confirm findings 4. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 5. Inform IC(E), ER and EPD the causes & actions taken for the exceedances 6. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results 7. If exceedance stops cease additional monitoring 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analyzed noise problem 4. Ensure remedial measures are properly implemented 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion or work until the exceedance is abated 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) 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



Appendix 6.1

Complaint Log



Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
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Appendix 8.1

Construction Programme of Individual Contracts



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	2014			
						Jun	Jul	Aug	Sep
HK/2012/08 3-Mth Rolling Programme for Jun 2014 - Aug 2014 Rev. 1 on 24Jun14									
Dredging and Reclamation									
Marine Work Construction									
Dredging									
Dredging - Zone CRIII									
CRIII - Temporary Pipe Pile Wave Wall									
LPCU31020	CRIII - temp pipe pile wall (1-120) - Order Materials for 610 dia. pipe pile [120nos. @750c/c]	50	02-May-14 A	19-Jun-14	231				
MAR10028	CRIII - design of temporary pile wave wall - Eng comment and approve	28	20-Mar-14 A	26-Jun-14	63				
MAR12320	CRIII - temp pipe pile wall (35-70) - install 610 dia. pipe pile [30nos. @750c/c]	30	02-Jul-14	05-Aug-14	53				
MAR12340	CRIII - temp pipe pile wall (71-105) - install 610 dia. pipe pile [30nos. @750c/c]	30	28-Jul-14	30-Aug-14	53				
MAR12360	CRIII - temp pipe pile wall (91-120) - install 610 dia. pipe pile [30nos. @750c/c]	0	31-May-14	31-May-14	130				
Works for Section Completion									
Construction									
Section II A - CWB Tunnel & Slip Road Structures and Facilities									
CWB CRIII & A1									
CWB CRIII & A1 - Dwall and Pile Construction									
SIIA10620	Sec II A - CWB CRIII - predrilling for Dwall and piles	83	04-Dec-13 A	05-Aug-14	32				
SIIA10640	Sec II A - CWB CRIII - carry out ground pretreatment for Dwall	83	07-Feb-14 A	17-Jun-14	22				
SIIA10660	Sec II A - CWB CRIII - construct Guide Wall	40	10-Feb-14 A	16-Jun-14	23				
SIIA10680	Sec II A - CWB CRIII - construct DWall and barrette (1.2m thk on rock)	77	24-Feb-14 A	28-Jul-14	0				
SIIA10700	Sec II A - CWB CRIII - construct temporary DWall (1.2m thk)	60	29-Jul-14	09-Oct-14	0				
SIIA10710	Sec II A - CWB CRIII - Construct pre-bored H-pile	70	15-Aug-14	07-Nov-14	3				
SIIA10720	Sec II A - CWB CRIII - D-wall grout curtain / contact grout	85	01-Aug-14	11-Nov-14	0				
SIIA10740	Sec II A - CWB CRIII - D-wall Sonic test / interface core	85	01-Aug-14	11-Nov-14	0				
SIIA10760	Sec II A - CWB CRIII - install dewater/ recharge / observation well	85	01-Aug-14	11-Nov-14	0				

Data Date: 31-May-14

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

3 - Months Rolling Programme (June 2014 to August 2014)
For Zone CRIII Works

Date	Revision	Checked	Approved
31-May-14			