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-376/2009

QUARTERLY ENVIRONMENTAL MONITORING AND AUDIT REPORT

- MAY 2015 TO JULY 2015 -

CLIENTS:

Civil Engineering and Development Department

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CHECKED BY:

Raymond Dai
Environmental Team Leader

DATE:

25 August 2015

RAMBOLL ENVIRON

Ref.: AACWBIECEM00_0_7076L.15

25 August 2015

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

By Post and Fax (2691 2649)

Attention: Mr. Conrad Ng

Dear Mr. Ng,

Re: Contract No. HK/2011/07
Wan Chai Development Phase II - Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 2)

Quarterly Environmental Monitoring and Audit Report (May to July 2015) for EP-376/2009

Reference is made to the Environmental Team's submission of the captioned Quarterly Environmental Monitoring and Audit (EM&A) Report received by e-mail on 25 August 2015 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission.

Thank you for your 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	Attn: Mr. Jason Cheung	by fax: 2577 5040
	Lam	Attn: Mr. Raymond Dai	by fax: 2882 3331
	AECOM	Attn: Mr. Francis Leong / Stephen Lai	by fax: 2691 2649

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EXECUTIVE SUMMARY

i. This is the Quarterly Environmental Monitoring and Audit (EM&A) Report – 13 May 2015 to 27 July 2015 specific for Environmental Permit no. EP-376/2009 and Further Environmental Permit no. FEP-01/376/2009. 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 13 May 2015 to 27 July 2015. The cut-off date of reporting is at 27th of each reporting period

Construction Activities for the Reported Period

ii. During this reporting period, the 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 2015	June 2015	July 2015
• Site preparation works • Utilities	• Utilities • Excavation	• Utilities • Excavation

Noise Monitoring

iii. Noise monitoring was conducted at M1a – Harbour Road Sports Centre.

iv. No action or limit level exceedance was recorded in this reporting quarter.

Air Quality Monitoring

v. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted on every six days basis at CMA5b and CMA6a – Contractor HK/2012/08 Site Office.

vi. Due to electricity interruption, the 24hr TSP monitoring at station CMA6a was rescheduled from 29 June 2015 to 30 June 2015 in this report quater.

vii. No exceedances were recorded in the reporting quarter.

Complaints, Notifications of Summons and Successful Prosecutions

viii. There was no environmental complaint recorded in this reporting quarter.

1. INTRODUCTION

1.1 Scope of the Report

1.1.1. Lam Geotechnics Limited (LGL) has been appointed take up the role as the Environmental Team (ET) under Environmental Permit no. EP-376/2009 and Further Environmental Permit no. FEP-01/376/2009 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development Phase II and Central-Wan Chai Bypass (Register No.: AEIAR-458/2008).

1.1.2. This report documents the finding of EM&A works for Environmental Permit (EP) no. EP-376/2009 and Further Environmental Permit no. FEP-01/376/2009, during the period 13 May 2015 to 27 July 2015. The cut-off date of reporting is the 27th of each reporting month.

1.2 Structure of the Report

Section 1 ***Introduction*** – details the scope and structure of the report.

Section 2 ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

Section 3 ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring locations, monitoring frequency, duration and action plan.

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

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

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

Section 7 ***Cumulative Construction Impact due to the Concurrent Projects*** – summarizes the relevant cumulative construction impact due to the concurrent activities of the concurrent Projects.

Section 8 ***Conclusion***

2. PROJECT BACKGROUND

2.1 Background

2.1.1 Wan Chai Development phase II and Central-Wan Chai Bypass (hereafter called "the Project") are Designated Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) has been approved on 11 December 2008.

2.2 Scope of the Project and Site Description

2.2.1. The design and construction of Wan Chai Development Phase II and Central Wanchai Bypass involves the construction and operation of primary and district distributor roads that is shown at ***Figure 2.1***.

2.2.2. The key purpose of the study area encompasses the Wan Chai harbourfront area. The area starts at the boundary of Central Reclamation Phase III (CRIII) at the west and connects to the existing Hung Hing Road at the east. The scope of the project includes:

- A dual 2-lane primary distributor road, Road P2, approximately 0.6km in length; and
- Other new primary and district distributor roads connecting to the slip roads of the Central-Wan Chai Bypass with a total length of approximately 0.7km.

2.2.1. The project also contains various Schedule 2 DP 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 DP under this Project. ***Figure 2.1*** shows the locations of these Schedule 2 DP.

Table 2.1 Schedule 2 Designated Projects under this Project

Item	Designated Project	EIAO Reference
DP2	Road P2 and other roads which are classified as primary/district distributor roads	Schedule 2, Part I, A.1

2.2.2. The designated project work II (DP2) 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 EP-376/2009 by Contract no. HK/2012/08 was commenced on 13 May 2015.

2.3 Project Organization and Contact Personnel

2.3.1 Civil Engineering and Development Department is the overall project controllers for the Wan

Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.3.2 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	C. N. LAI	9106 5806	2877 1522
		Project Manager	Mr. Eddie Chung	9189 8118	
		Site Agent	Mr. Keith Tse	9095 7922	
		Environmental Officer	Mr. James Ma	9130 9549	
		Environmental Supervisor	Mr. Y. L. Ho	9856 5669	
Ramboll Environ Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited (For Enquiry)	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 2015	June 2015	July 2015
• Site preparation works • Utilities	• Utilities • Excavation	• Utilities • Excavation

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 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 Noise Monitoring Stations

District	Station	Description
Wan Chai	M1a	Harbour Road Sports Centre

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

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

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

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

MONITORING EQUIPMENT

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

3.2. Air Quality 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 Quality Monitoring Stations

Station ID	Monitoring Location
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE 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 m^3 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 Noise monitoring for project works under EP-376/2009 was commenced on 19 May 2015.

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

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

Location ID	District	Description
M1a	Wan Chai	Harbour Road Sports Centre

4.1.3 No exceedances were recorded at M1a – Harbour Road Sports Centre in this reporting quarter.

4.1.4 The 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 Quality Monitoring Results

4.2.1 Air Quality monitoring for project works under EP-376/2009 was commenced on 16 May 2015.

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

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

Station	Description
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE Site Office

4.2.3 No action or limit level exceedance was recorded in this reporting quarter.

4.2.4 The air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality 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	NIL	NIL	NIL
Inert C&D materials recycled, m3	NIL	NIL	NIL
Non-inert C&D materials disposed, m3	NIL	NIL	NIL
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 was recorded in this reporting quarter.

5.2. Air Quality Monitoring

5.2.1 No action or limit level exceedance was recorded in this reporting quarter.

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. No environmental complaint received in this reporting quarter.

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 2015 – July 2015	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. According to the Condition 3.4 of the EP-376/2009, 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 period.

7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area, construction of ELS and pipe pile wall, road works and drainage were performed in July 2015 reporting month. As no project related exceedance were recorded during the reporting period, cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was considered as insignificant.

7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were tunnel works, ELS works and culvert construction at Wan Chai East and removal of L-shape wall, D-wall construction and ELS works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and road works at Central Interchange, ELS works at Ex-PCWAW, ELS works and bowling green office demolition at Victoria Park, D- wall construction and ELS works at TS3, IEC demolition and tunnel works at North Point area in the reporting period.

7.0.5. No significant air quality impact from construction activities was anticipated in the reporting period. Besides, no project related exceedance was recorded during air quality and noise environmental monitoring events in the reporting period. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.

8. CONCLUSION

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

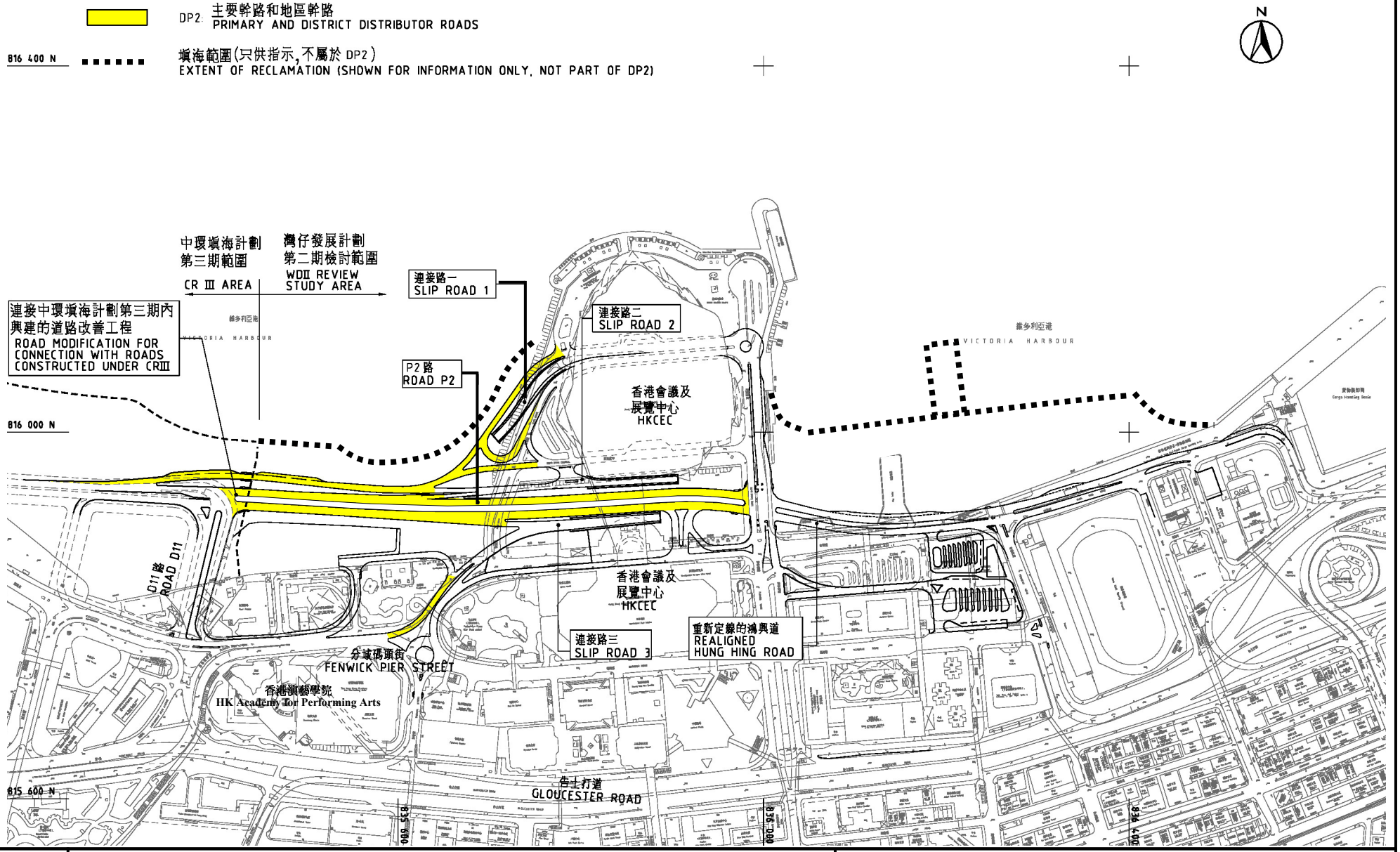
8.0.2. No non-compliance and no prosecutions were received during the reporting period.

8.0.3. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor in this reporting period. Environmental site audit was conducted by the Environmental Team and the Independent Environmental Checker and no cumulative environmental impact was identified in the reporting period. Hence, the EM&A programme was considered effective and shall be maintained.

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

Figure 2.1

Project Layout



Project Title : Road P2 and other roads which are classified as primary/district distributor roads (referred to as "DP2" in the WDII&CWB EIA Report)
工程項目名稱 : P2 路及其他分類爲主要幹路或地區幹路的道路(WDII&CWB 環評報告內稱"DP2")
Environmental Permit No. : EP-376/2009
環境許可證編號 : EP-376/2009

Figure 1: Location of the Project
圖 1: 工程項目位置圖

(This figure was prepared based on Figure 1.2b of the WDII&CWB EIA report (Register No.: AEIAR-125/2008))
(本圖是根據 WDII&CWB 環評報告(登記冊編號 AEIAR-125/2008)圖 1.2b 編制)

Figure 2.2

Project Organization Chart

Project Organization Chart

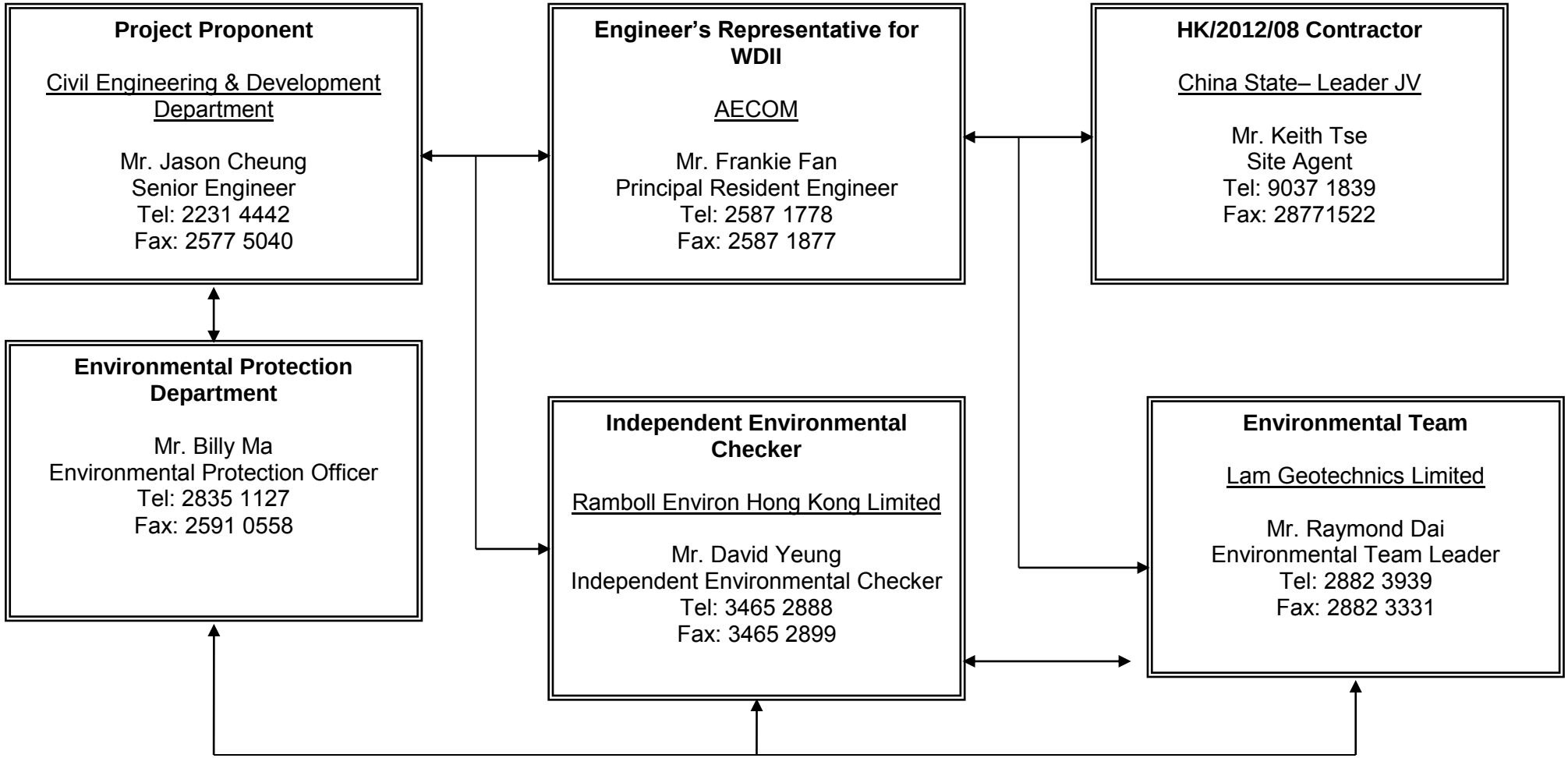


Figure 3.1

Locations of Environmental Monitoring Stations and Sensitive Recievers

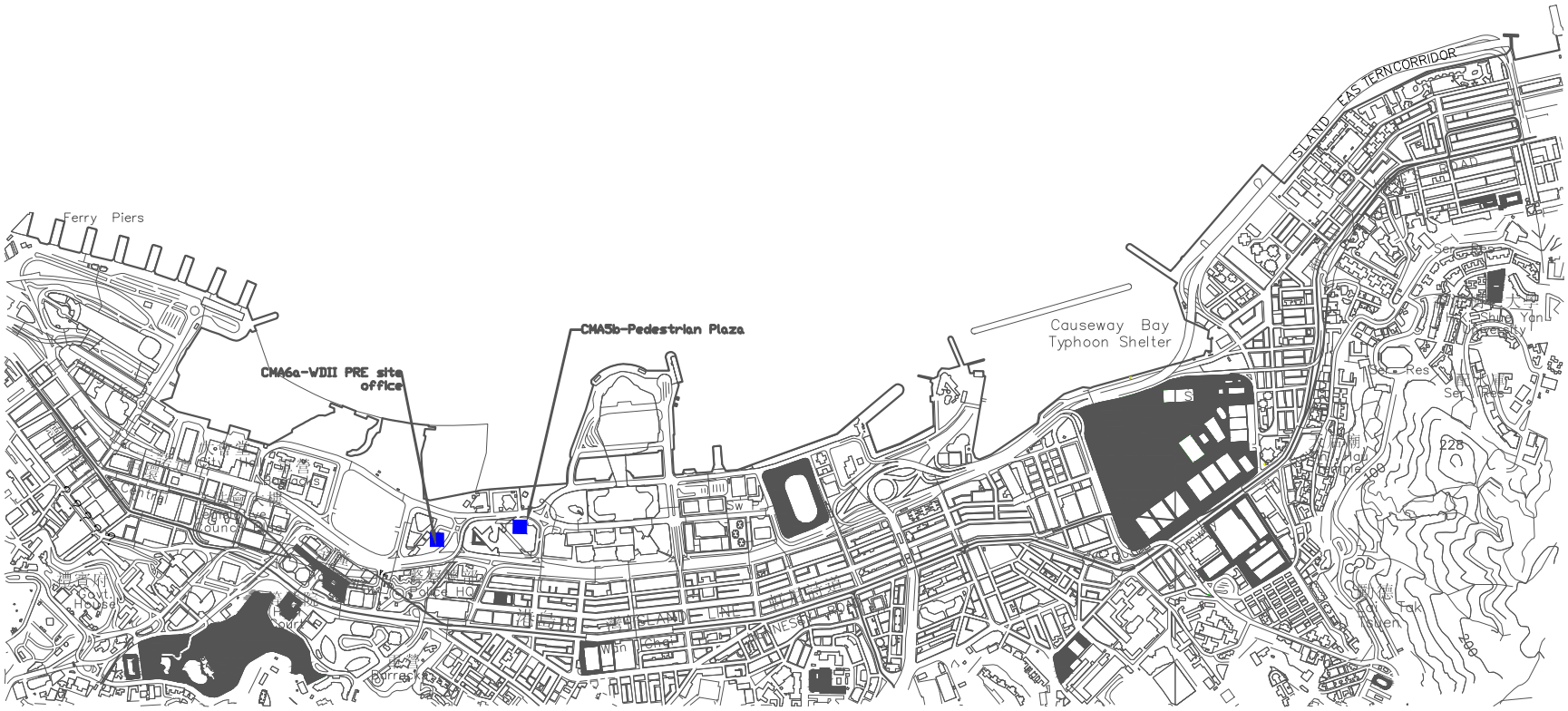


FIGURE 2.1

LOCATIONS OF IMPACT AIR MONITORING STATIONS

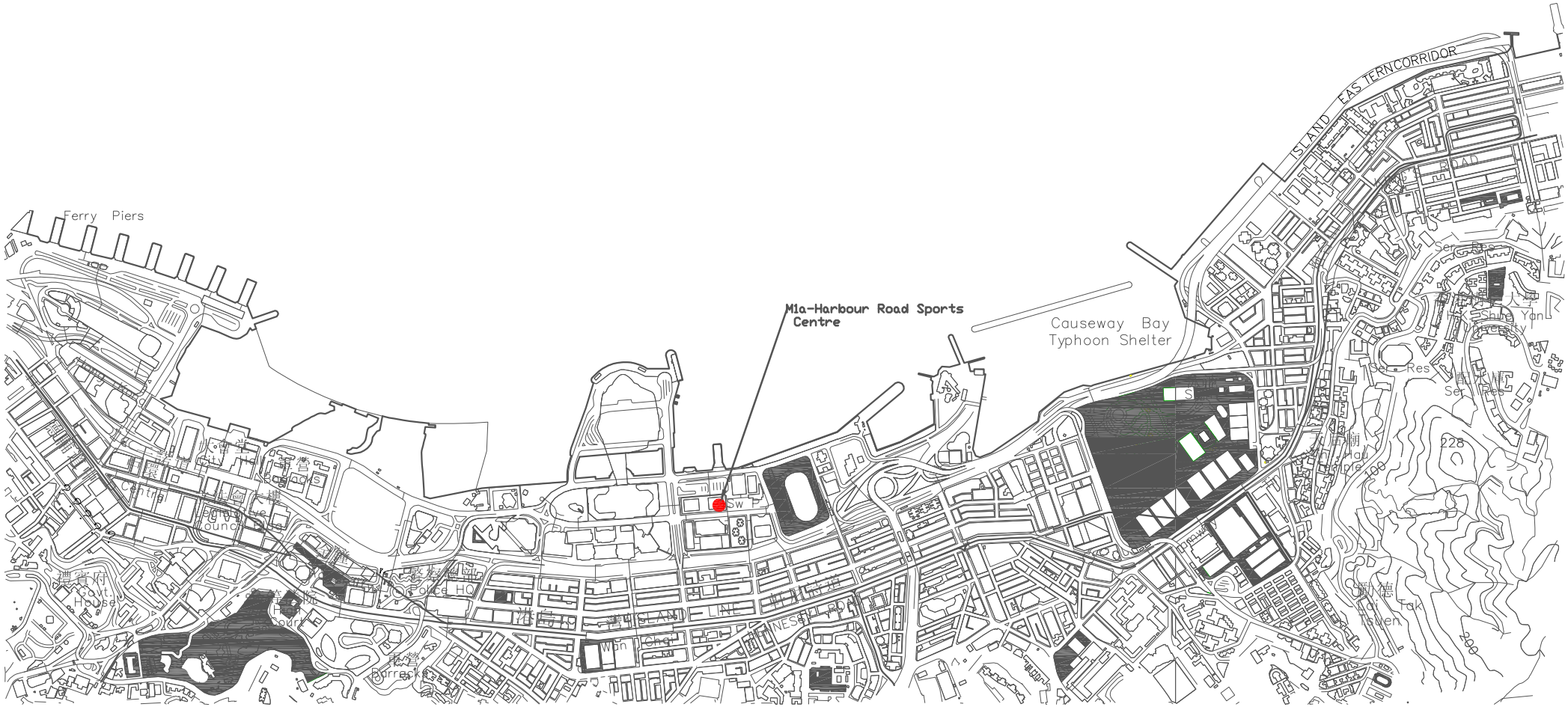
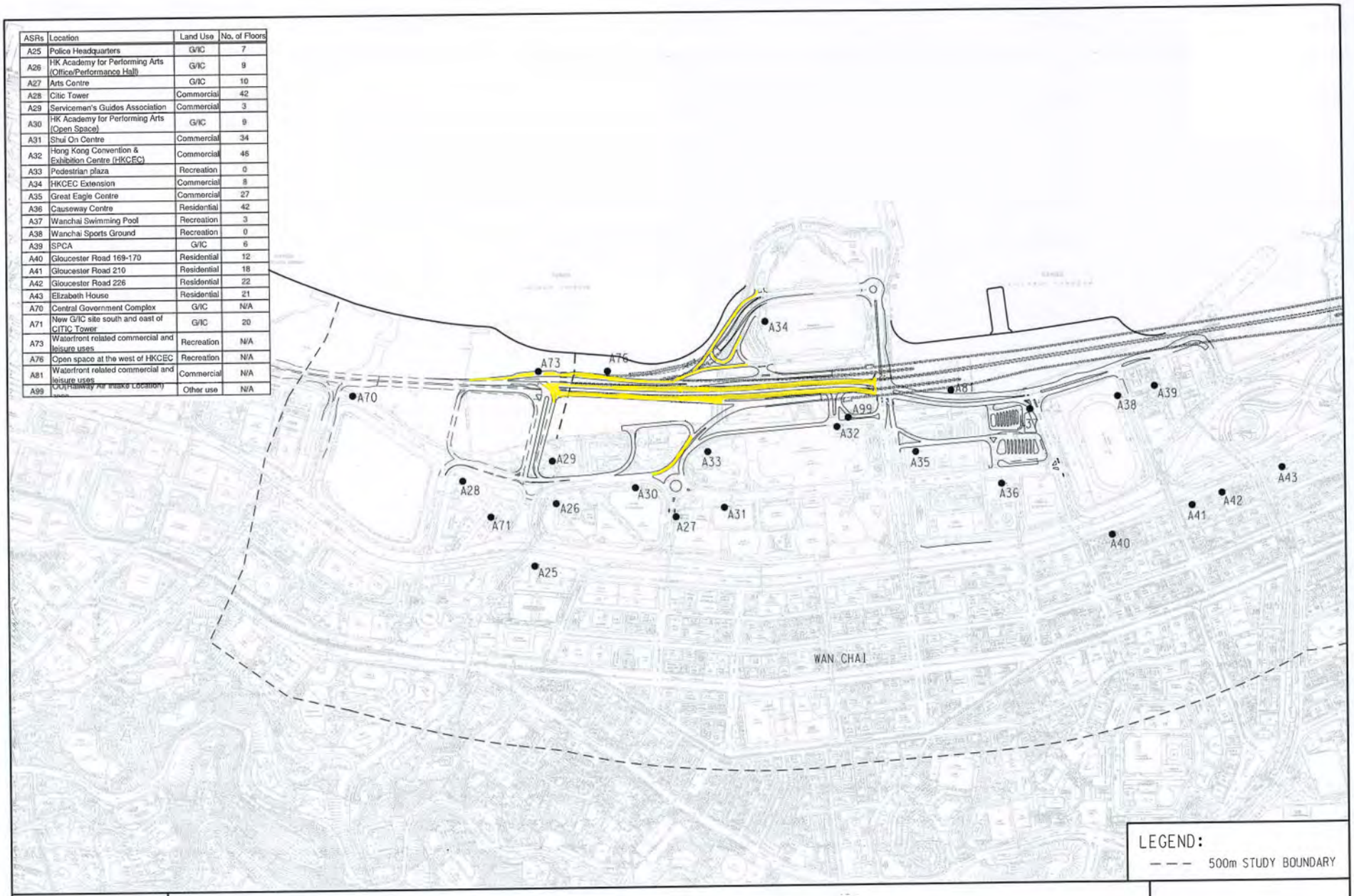


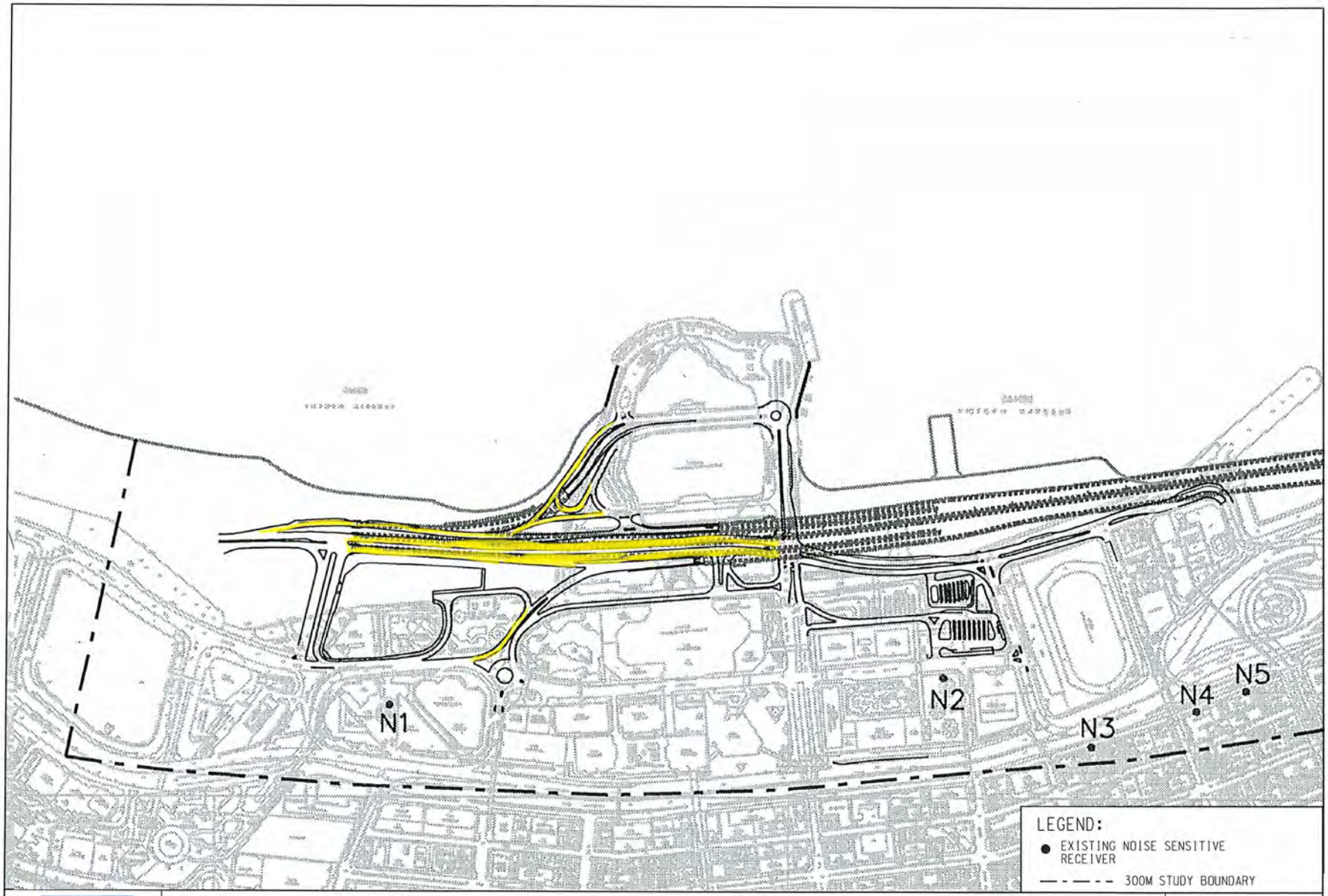
FIGURE 3.1

LOCATION OF IMPACT NOISE MONITORING STATIONS

ASRs	Location	Land Use	No. of Floors
A25	Police Headquarters	G/IC	7
A26	HK Academy for Performing Arts (Office/Performance Hall)	G/IC	9
A27	Arts Centre	G/IC	10
A28	Citic Tower	Commercial	42
A29	Servicemen's Guides Association	Commercial	3
A30	HK Academy for Performing Arts (Open Space)	G/IC	9
A31	Shui On Centre	Commercial	34
A32	Hong Kong Convention & Exhibition Centre (HKCEC)	Commercial	46
A33	Pedestrian plaza	Recreation	0
A34	HKCEC Extension	Commercial	8
A35	Great Eagle Centre	Commercial	27
A36	Causeway Centre	Residential	42
A37	Wanchai Swimming Pool	Recreation	3
A38	Wanchai Sports Ground	Recreation	0
A39	SPCA	G/IC	6
A40	Gloucester Road 169-170	Residential	12
A41	Gloucester Road 210	Residential	18
A42	Gloucester Road 226	Residential	22
A43	Elizabeth House	Residential	21
A70	Central Government Complex	G/IC	N/A
A71	New G/IC site south and east of CITIC Tower	G/IC	20
A73	Waterfront related commercial and leisure uses	Recreation	N/A
A76	Open space at the west of HKCEC	Recreation	N/A
A81	Waterfront related commercial and leisure uses	Commercial	N/A
A99	COD(Railway Air Intake Location)	Other use	N/A



Locations of Representative Air Sensitive Receivers



LOCATIONS OF REPRESENTATIVE NOISE SENSITIVE RECEIVERS

Appendix 2.1

Environmental Mitigation Implementation Schedule

Appendix A
Table A13.1 Implementation Schedule for Air Quality Control
Table A13.2 Implementation Schedule for Noise Control
Table A13.3 Implementation Schedule for Water Quality Control
Table A13.4 Implementation Schedule for Waste Management
Table A13.7 Implementation Schedule for Landscape and Visual

IMPLEMENTATION SCHEDULE OF THE PROPOSED MITIGATION MEASURES

Table A13.1 Implementation Schedule for Air Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
Construction Phase					
For the Whole Project					
S3.6.5	Four times a day watering of the work site with active operations.	Work site / during construction	Contractor	Implemented during Construction Stage	EIAO-TM
S3.8.1	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. ▪ Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition; ▪ Watering during excavation and material handling; ▪ Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; and ▪ Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.	Work site / during construction	Contractor	Implemented during Construction Stage	

Table A13.2 Implementation Schedule for Noise Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
Construction Phase					
For the Whole Project					
S4.9.4	Good Site Practice: ▪ Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program. ▪ Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program. ▪ Mobile plant, if any, shall be sited as far away from NSRs as possible. ▪ Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum. ▪ Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. ▪ Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from onsite construction activities.	Work site / during construction	Contractor	Implemented during Construction Stage	EIAO-TM, NCO
For DP2 – WDII Major Roads (Road P2)					
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: ▪ Temporary road diversion ▪ Resurfacing ▪ At-grade roadwork	Work site / during construction	Contractor	Implemented during Construction Stage	EIAO-TM, NCO

Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
Construction Phase					
For the Whole Project					
S5.8	*Construction Runoff and Drainage* ▪ use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow; ▪ Permanent drainage channels shall incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94; ▪ a sediment tank constructed from pre-formed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal; ▪ Oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor shall have a bypass to prevent flushing during periods of heavy rain; precautions and actions to be taken when a rainstorm is imminent or forecast, and during or after rainstorms. Particular attention shall be paid to the control of any silty surface runoff during storm events; ▪ On-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be	Work site / during construction	Contractor	Implemented during Construction Stage	ProPECC PN 1/94; WPCO (TM-DSS)

	installed in order to minimise the sediment loading of the effluent prior to discharge; ▪ All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge shall be adequately designed for the controlled release of storm flows. All sediment control measures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. ▪ The temporarily diverted drainage shall be reinstated to its original condition when the construction work is finished or the temporary diversion is no longer required. ▪ All fuel tanks and store areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity. ▪ Minimum distances of 100 m shall be maintained between the storm water discharges and the existing or planned WSD flushing water intakes during construction phase.				
S5.8	*Sewage from Construction Work Force* Construction work force sewage discharges on site shall be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage shall be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.	Work site / during construction	Contractor	Implemented during Construction Stage	ProPECC PN 1/94; WPCO (TM-DSS)

S5.8	*Floating Debris and Refuse* Collection and removal of floating refuse shall be performed at regular intervals on a daily basis. The contractor shall be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Work site and adjacent water / During the construction period.	Contractor	Implemented during Construction Stage	WPCO
S5.8	*Storm Water Discharges* Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.	Work site and adjacent water / During the design and construction period.	Contractor	Implemented during Construction Stage	WPCO

Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
Construction Phase					
For the Whole Project					
S6.7.7	*Good Site Practices* Recommendations for good site practices during the construction activities include: ▪ nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; ▪ training of site personnel in proper waste management and chemical waste handling procedures; ▪ provision of sufficient waste disposal points and regular collection for disposal; ▪ appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; ▪ regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and ▪ a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	Work site / During planning and design stage, and construction stage	Contractor	Implemented during Construction Stage	
S.6.7.8	*Waste Reduction Measures* Recommendations to achieve waste reduction include: • Sort C&D waste from demolition of the existing waterfront structures to recover recyclable portions such as metals.	Work site / During planning and design stage, and construction stage	Contractor	Implemented during Construction Stage	

	• Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. • Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force. • Any unused chemicals or those with remaining functional capacity shall be recycled. • Use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&D material. • Proper storage and site practices to minimise the potential for damage or contamination of construction materials. • Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.				
S6.7.10	*General Refuse* General refuse shall be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D material. A collection area shall be provided where wastes can be stored and loaded prior to removal from site. An enclosed and covered area is recommended to reduce the occurrence of 'wind blow' light material.	Work site / During the construction period	Contractor	Implemented during Construction Stage	Public Health and Municipal Services Ordinance (Cap. 132)

S6.7.11	*Chemical Wastes* After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals shall be collected by a licensed collector for disposal at the CWTF or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Work site / During the construction period	Contractor	To be implemented at the corresponding stage of construction	Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
S6.7.12 – S6.7.13	*Construction and Demolition Material* C&D material shall be sorted on-site into inert C&D material (that is, public fill) and C&D waste. All the suitable inert C&D material shall be broken down to 250 mm in size for reuse as public fill in the WDII reclamation. C&D waste, such as wood, glass, plastic, steel and other metals shall be reused or recycled and, as a last resort, disposed of to landfill. A suitable area shall be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials. In order to monitor the disposal of public fill and C&D waste at public fill reception facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker	To be implemented at the corresponding stage of construction	DEVB TCW No.6/2010; ETWB TCW No. 33/2002; ETWB TCW No. 19/2005
S6.7.14	*Bentonite Slurry* The disposal of residual used bentonite slurry shall follow the good practice guidelines stated	Work site / During the construction period	Contractor	To be implemented at the corresponding stage of construction	ProPECC PN 1/94

	in ProPECC PN 1/94 "Construction Site Drainage" and listed as follows: ▪ If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis. ▪ If the used bentonite slurry is intended to be disposed of through the public drainage system, it shall be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the Technical Memorandum of Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters. ▪ If the used bentonite slurry is intended to be disposed to public fill reception facilities, it will be mixed with dry soil on site before disposal.				

Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Status	Relevant Legislation and Guidelines
Construction Phase					
For the Whole Project					
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
For DP2 – WDII Major Roads (Road P2)					
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor	Implemented during Construction Stage	EIAO TM

Operation Phase					
For DP2 – WDII Major Roads (Road P2)					
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD	To be implemented during Operation Stage	ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD	To be implemented during Operation Stage	ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD	To be implemented during Operation Stage	ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas	Work site / During Design Stage and Operation Phases	CEDD/HyD	To be implemented during Operation Stage	ETWB TCW 2/2004

Appendix 3.1

Action and Limit Level

Action and Limit Level

Action and Limit Level for Noise Monitoring

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

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

Action and Limit Level for Air Monitoring

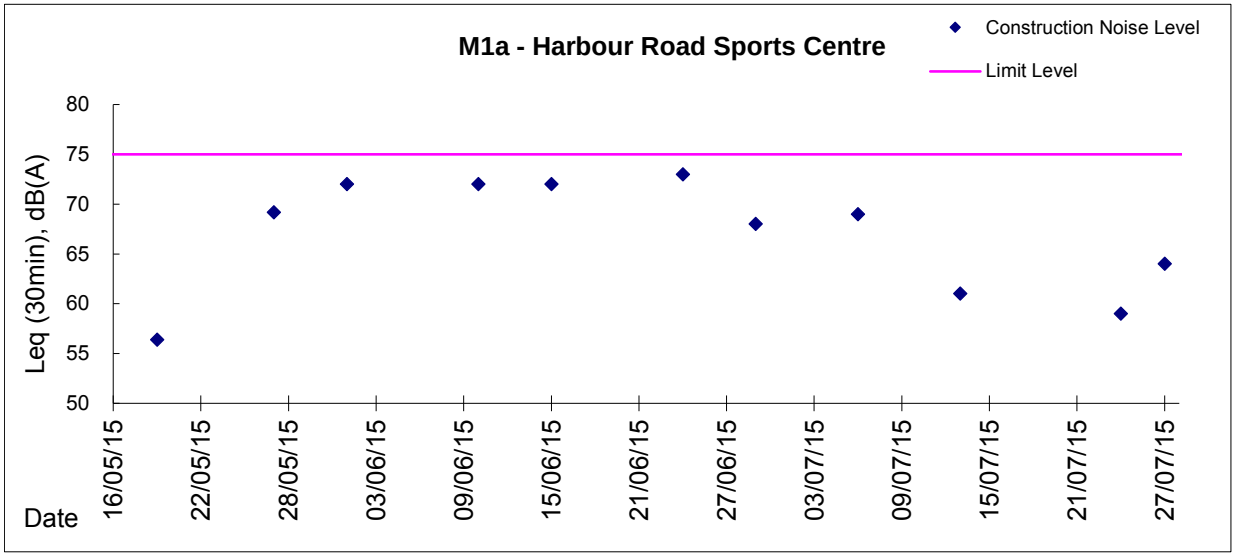
Monitoring Locations	1-hour TSP Level inμg/m3		24-hour TSP Level inμg/m3	
	Action Level	Limit Level	Action Level	Limit Level
CMA5b Pedestrian Plaza	339.7	500	209.9	260
CMA6a WDII PRE Site Office	333.0	500	207.1	260

Appendix 4.1

Noise Monitoring Graphical Presentations

Graphic Presentation of Noise Monitoring Result

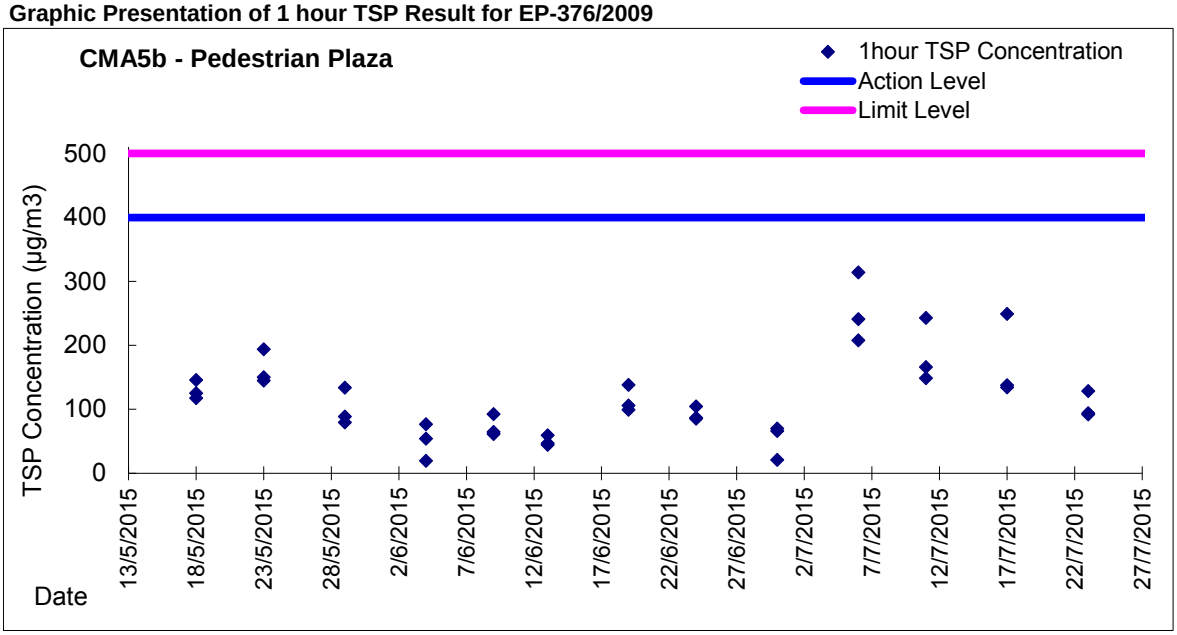
Day Time (0700 - 1900hrs on normal weekdays)



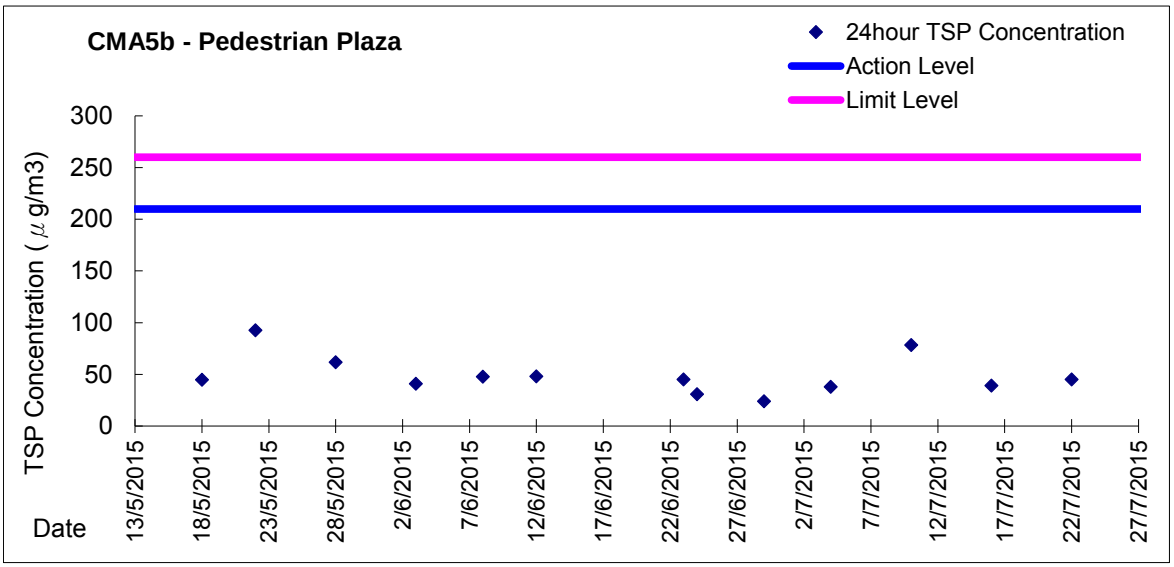
Appendix 4.2

Air Quality Monitoring Graphical Presentations

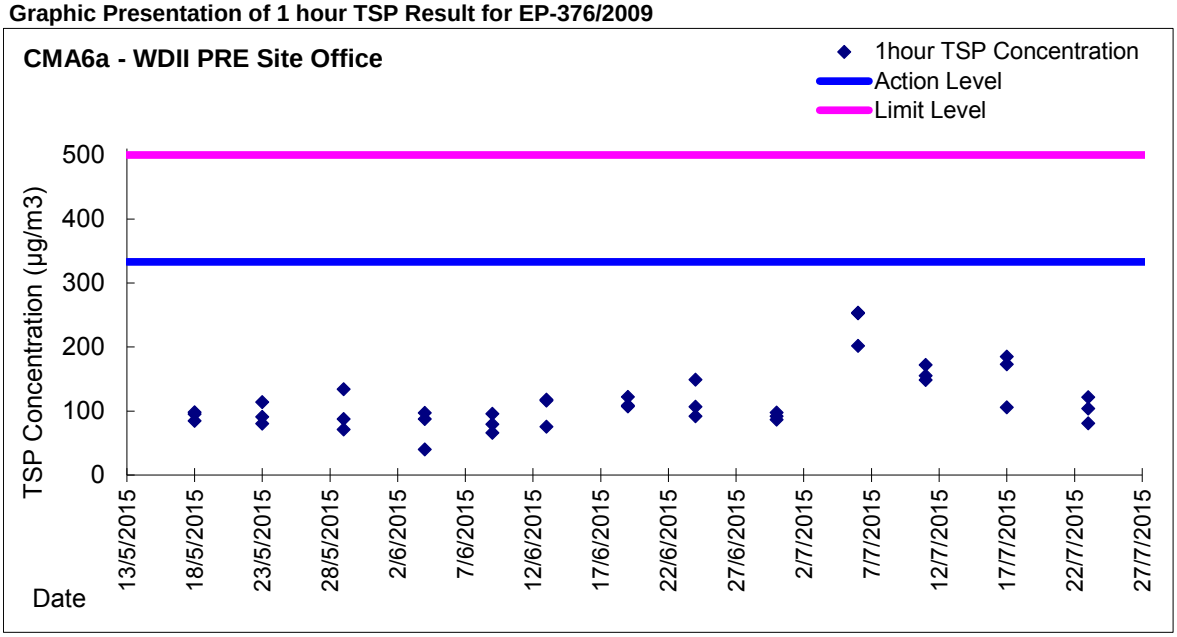
Graphic Presentation of 1 hour TSP Result for EP-376/2009



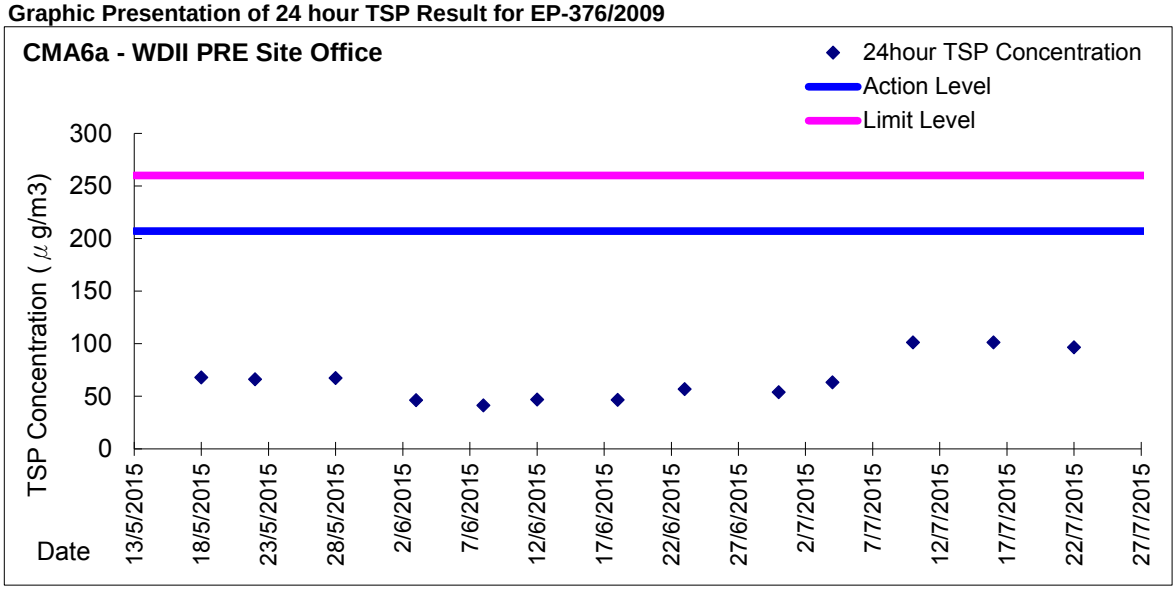
Graphic Presentation of 24 hour TSP Result for EP-376/2009



Graphic Presentation of 1 hour TSP Result for EP-376/2009



Graphic Presentation of 24 hour TSP Result for EP-376/2009



Appendix 5.1

Event Action Plans

Event/Action Plan for Construction Noise

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

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

Event / Action Plan for Construction Air Quality

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

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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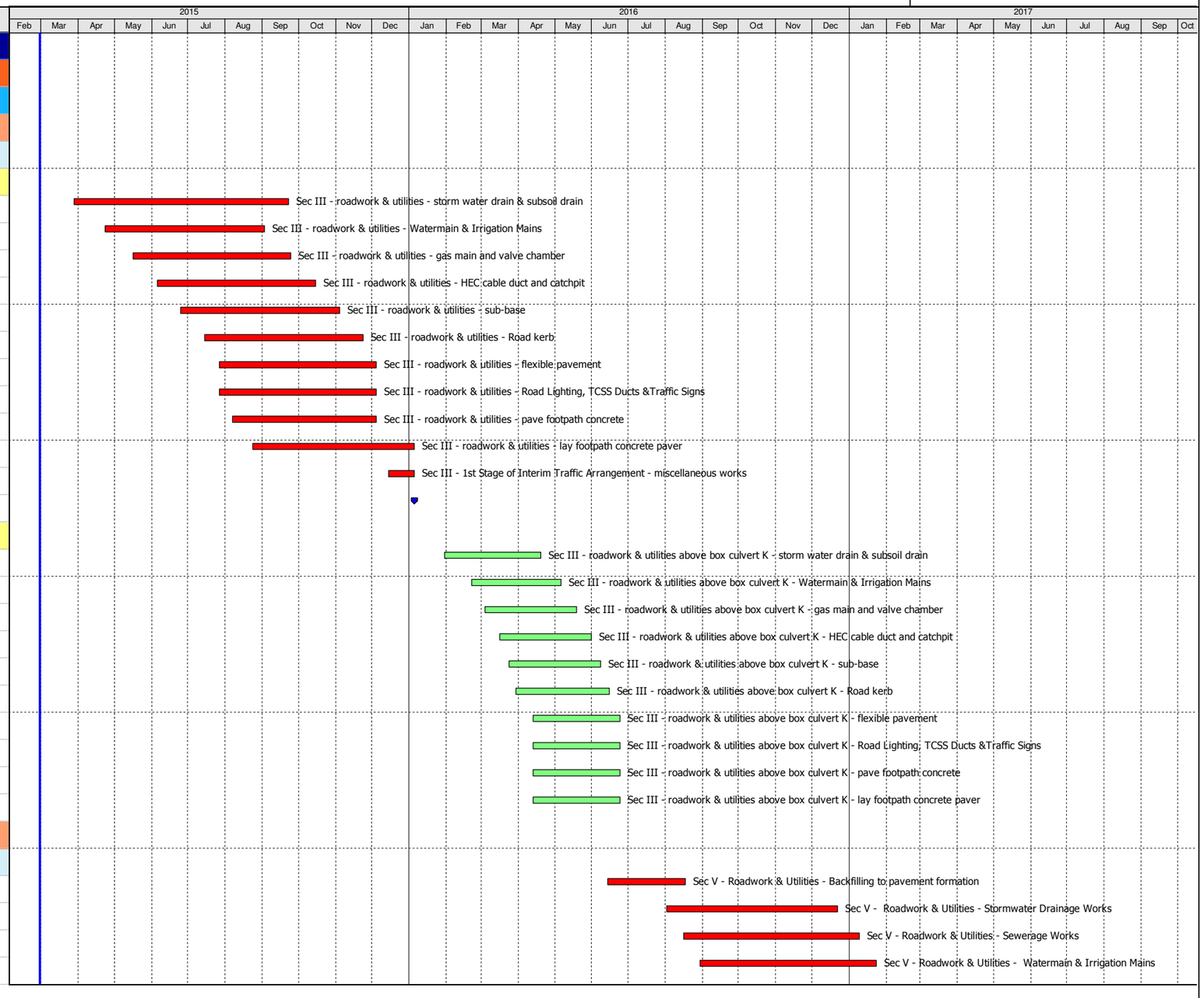
Appendix 8.1

Construction Programme of Individual Contracts

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

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

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Road & Drain
HK/2012/08 Revised Works Programme Rev.4 (Revised as of 28-Feb-15) - Road & Drain					
Works for Section Completion					
Construction					
Section III - Road D11 & Part of Road P2, Area 4, Implement 1st Stage ITA					
Roadwork & Utilities					
General					
SIII10040	Sec III - roadwork & utilities - storm water drain & subsoil drain	145	28-Mar-15	22-Sep-15	Road
SIII10060	Sec III - roadwork & utilities - Watermain & Irrigation Mains	110	23-Apr-15	02-Sep-15	Road
SIII10080	Sec III - roadwork & utilities - gas main and valve chamber	110	16-May-15	24-Sep-15	Road
SIII10100	Sec III - roadwork & utilities - HEC cable duct and catchpit	110	05-Jun-15	15-Oct-15	Road
SIII10120	Sec III - roadwork & utilities - sub-base	110	25-Jun-15	04-Nov-15	Road
SIII10140	Sec III - roadwork & utilities - Road kerb	110	15-Jul-15	23-Nov-15	Road
SIII10160	Sec III - roadwork & utilities - flexible pavement	110	27-Jul-15	04-Dec-15	Road
SIII10180	Sec III - roadwork & utilities - Road Lighting, TCSS Ducts &Traffic Signs	110	27-Jul-15	04-Dec-15	Road
SIII10200	Sec III - roadwork & utilities - pave footpath concrete	100	07-Aug-15	04-Dec-15	Road
SIII10220	Sec III - roadwork & utilities - lay footpath concrete paver	110	24-Aug-15	05-Jan-16	Road
SIII10485	Sec III - 1st Stage of Interim Traffic Arrangement - miscellaneous works	16	15-Dec-15	05-Jan-16	Road
SIII10490	Achievement of Section III of the Works	0		05-Jan-16	Road
Works after the Box Culvert Reinstatement					
SIII10300	Sec III - roadwork & utilities above box culvert K - storm water drain & subsoil drain	60	30-Jan-16	19-Apr-16	Road
SIII10320	Sec III - roadwork & utilities above box culvert K - Watermain & Irrigation Mains	60	22-Feb-16	06-May-16	Road
SIII10340	Sec III - roadwork & utilities above box culvert K - gas main and valve chamber	60	04-Mar-16	19-May-16	Road
SIII10360	Sec III - roadwork & utilities above box culvert K - HEC cable duct and catchpit	60	16-Mar-16	31-May-16	Road
SIII10380	Sec III - roadwork & utilities above box culvert K - sub-base	60	24-Mar-16	08-Jun-16	Road
SIII10400	Sec III - roadwork & utilities above box culvert K - Road kerb	60	30-Mar-16	15-Jun-16	Road
SIII10420	Sec III - roadwork & utilities above box culvert K - flexible pavement	60	13-Apr-16	24-Jun-16	Road
SIII10440	Sec III - roadwork & utilities above box culvert K - Road Lighting, TCSS Ducts &Traffic Signs	60	13-Apr-16	24-Jun-16	Road
SIII10460	Sec III - roadwork & utilities above box culvert K - pave footpath concrete	60	13-Apr-16	24-Jun-16	Road
SIII10480	Sec III - roadwork & utilities above box culvert K - lay footpath concrete paver	60	13-Apr-16	24-Jun-16	Road
Section V - Remaining At-Grade Road; Remove 2nd Stage ITA					
Roadwork & Utilities					
SV10020	Sec V - Roadwork & Utilities - Backfilling to pavement formation	55	14-Jun-16	17-Aug-16	Road
SV10040	Sec V - Roadwork & Utilities - Stormwater Drainage Works	120	02-Aug-16	22-Dec-16	Road
SV10060	Sec V - Roadwork & Utilities - Sewerage Works	120	16-Aug-16	09-Jan-17	Road
SV10080	Sec V - Roadwork & Utilities - Watermain & Irrigation Mains	120	30-Aug-16	23-Jan-17	Road



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

Working Programme for Road P2 (Roadworks and Utilities)

(Ref. to RWP 4.0 - Sec III & V)

Date	Revision	Checked	Approved
20-May-15	Rev. A		

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

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

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Road & Drain
SV10100	Sec V - Roadwork & Utilities - Gas Main	90	13-Sep-16	31-Dec-16	Road
SV10120	Sec V - Roadwork & Utilities - HEC cable duct and drawpit	90	28-Sep-16	16-Jan-17	Road
SV10140	Sec V - Roadwork & Utilities - Telecom cable duct and drawpit	90	14-Oct-16	04-Feb-17	Road
SV10160	Sec V - Roadwork & Utilities - lay & compact sub-base	110	28-Oct-16	14-Mar-17	Road
SV10180	Sec V - Roadwork & Utilities - construct road kerb	110	05-Nov-16	22-Mar-17	Road
SV10200	Sec V - Roadwork & Utilities - flexible pavement	110	14-Nov-16	30-Mar-17	Road
SV10220	Sec V - Roadwork & Utilities - footpath paving block	110	24-Nov-16	11-Apr-17	Road
SV10240	Sec V - Roadwork & Utilities - concrete footpath	72	02-Dec-16	04-Mar-17	Road
SV10260	Sec V - Roadwork & Utilities - construct surface channel	72	02-Dec-16	04-Mar-17	Road
SV10280	Sec V - Roadwork & Utilities - Road Lighting, TCSS Ducts &Traffic Signs	72	11-Feb-17	12-May-17	Road
SV10300	Achievement of Section V of the Works	0		12-May-17	Road