

Lam Geotechnics Limited

#### CONTRACT NO: HK/2015/01

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

#### ENVIRONMENTAL PERMIT NO. EP-376/2009, FURTHER ENVIRONMENTAL PERMITS NO. FEP-01/376/2009 AND FEP-02/376/2009

#### MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

- MARCH 2019 -

CLIENTS:

#### PREPARED BY:

#### Lam Geotechnics Limited

Civil Engineering and Development Department

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

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

#### CERTIFIED BY:

DATE:

/ April 2019

Raymond Dai Environmental Team Leader



Ref.: AACWBIECEM00\_0\_11193L.19

11 April 2019

By Post and Fax (2691 2649)

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

Attention: Mr. Conrad Ng

Dear Mr. Ng,

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

#### Monthly Environmental Monitoring and Audit Report (March 2019) for EP-376/2009, FEP-01/376/2009 and FEP-02/376/2009

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for March 2019 received by e-mail on 8 April 2019 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permit.

Thank you very much 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. Henry Tsang	by fax: 2301 1277
	Lam	Attn: Mr. Raymond Dai	by fax: 2882 3331
	AECOM	Attn: Mr. Francis Leong/ Stephen Lai	by fax: 2691 2649

Q:\Projects\AACWBIECEM00\Corr\AACWBIECEM00\_0\_11193L.19.docx

Ramboll Hong Kong Limited 英環香港有限公司

21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899 www.ramboll.com



### TABLE OF CONTENTS

EXEC	CUTIVE	SUMMARY	3
1	INTRO	DUCTION	4
	1.1 1.2	Scope of the Report Structure of the Report	
2	PROJE	CT BACKGROUND	7
	2.1 2.2 2.3	Background Scope of the Project and Site Description Project Organization and Contact Personnel	7
3	STATU	S OF REGULATORY COMPLIANCE	9
	3.1	Status of Environmental Licensing and Permitting under the Project	10
4	MONIT	FORING REQUIREMENTS	12
	4.1 4.2	Noise Monitoring Air Quality Monitoring	
5	MONIT	FORING RESULTS	15
	5.1 5.2	Noise Monitoring Results Air Quality Monitoring Results	
5.3	WASTI	E MONITORING RESULTS	17
6	COMP	LIANCE AUDIT	18
	6.1 6.2 6.3 6.4	Noise Monitoring Air Quality Monitoring Review of the Reasons for and the Implications of Non-compliance Summary of action taken in the event of and follow-up on non-compliance	18 18
7	CUMU	LATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS	19
8	ENVIR	ONMENTAL SITE AUDIT	20
9	COMP	LAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION	21
10	CONCI	LUSION	22



#### LIST OF TABLES

- Table 2.1 Schedule 2 Designated Projects under this Project
- Table 2.2 Contact Details of Key Personnel
- Table 3.1Summary of the current status on licences and/or permits on environmentalprotection pertinent to the Project
- Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08
- Table 3.3 Summary of submission status under FEP-01/376/2009 Condition
- Table 4.1 Noise Monitoring Stations
- Table 4.2 Air Quality Monitoring Stations
- Table 5.1 Noise Monitoring Stations for Contract no. HK/2012/08
- Table 5.2 Air Quality Monitoring Station for Contract no. HK/2012/08
- Table 5.3 Details of Waste Disposal for Contract no. HK/2012/08
- Table 8.1 Summary of Environmental Inspections for Contract no. HK/2012/08
- Table 9.1 Cumulative Statistics on Complaints
- Table 9.2 Cumulative Statistics on Successful Prosecutions
- Table 10.1
   Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month

#### LIST OF FIGURES

- Figure 2.1 Project Layout
- Figure 2.2 Project Organization Chart
- Figure 4.1 Locations of Environmental Monitoring Stations

#### LIST OF APPENDICES

- Appendix 3.1 Environmental Mitigation Implementation Schedule
- Appendix 4.1 Action and Limit Level
- <u>Appendix 4.2</u> Copies of Calibration Certificates
- <u>Appendix 5.1</u> Monitoring Schedule for Reporting Month and Coming month
- Appendix 5.2 Noise Monitoring Results and Graphical Presentations
- <u>Appendix 5.3</u> Air Quality Monitoring Results and Graphical Presentations
- Appendix 6.1 Event Action Plans
- <u>Appendix 6.2</u> Notification of Exceedance
- Appendix 9.1 Complaint Log
- Appendix 10.1 Construction Programme of Individual Contracts



Lam Geotechnics Limited

#### **EXECUTIVE SUMMARY**

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report March 2019 specific for Environmental Permit no. EP-376/2009 and Further Environmental Permits no. FEP-01/376/2009 and FEP-02/376/2009. The EM&A report is prepared by the Environmental Team (ET) employed under Contract No. HK/2015/01 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 3). This report presents the environmental monitoring findings and information recorded during the period of 27<sup>th</sup> February 2019 to 26<sup>th</sup> March 2019. The cut-off date of reporting is at 26<sup>th</sup> of each reporting month.
- ii. In the reporting month, the principal work activities of the contract are included as follows: <u>Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at</u> <u>Wan Chai West</u>
  - Drainage
  - Roadworks

#### Noise Monitoring

- iii. Noise monitoring was conducted at M1a Harbour Road Sports Centre.
- With respect to the shift in major construction site portions at Wan Chai North, the noise monitoring station M1a – Harbour Road Sports Centre was finely adjusted from East of Harbour Road Sports Centre to West of Harbour Road Sports Centre on 21 June 2016.
- With respect to the demolition of Ex-Harbour Road Sports Centre, the respective noise monitoring station M1a Harbour Road Sports Centre were finely adjusted on 16 and 25 May 2017 and thereafter to the Footbridge for Harbour Road Sports for noise monitoring.
- vi. No action or limit level exceedance was recorded on in this reporting month.

#### Air Quality Monitoring

- vii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted on every six days basis at CMA5b Pedestrian Plaza and CMA6a Contractor HK/2012/08 Site Office.
- viii. No action or limit level exceedance was recorded in this reporting month.
- ix. Due to interruption of electricity, the 24hr TSP was rescheduled from 20 March 2019 to 21
   March 2019 at CMA6a Contractor HK/2012/08 Site Office.

#### Complaints, Notifications of Summons and Successful Prosecutions

x. No environmental complaint was received in this reporting month.



Site Inspections and Audit

xi. The Environmental Team (ET) conducted weekly site inspection for Contract no. HK/2012/08 in this reporting period. The Contractors rectified major observations and recommendations made during the audit sessions. No non-conformance was identified during the site inspections.

#### Future Key Issues

xii. In the coming reporting month, the principal work activities of the contract is anticipated as follows:

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

• Landscaping



#### 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 Permits no. FEP-01/376/2009 and FEP-02/376/2009 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).

This report documents the finding of EM&A works for Environmental Permit (EP) no. EP-376/2009 and Further Environmental Permits no. FEP-01/376/2009 and FEP-02/376/2009, during the period of 27<sup>th</sup> February 2019 to 26<sup>th</sup> March 2019. The cut-off date of reporting is the 26<sup>th</sup> of each reporting month.

#### 1.2 Structure of the Report

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



- **Section 8** *Environmental Site Audit* summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.
- Section 9 Complaints, Notification of summons and Prosecution summarizes the cumulative statistics on complaints, notification of summons and prosecution
- Section 10 Conclusion



#### 2 PROJECT BACKGROUND

#### 2.1 Background

2.1.1 Wan Chai Development phase II and Central-Wan Chai Bypass (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.
- 2.2.3. 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.

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

 Table 2.1
 Schedule 2 Designated Project under this Project

2.2.4. The designated project work II (DP2) was awarded to China State-Leader Joint Venture HK/2012/08 (Contract Title: Wan Chai Development Phase II Central – Wan Chai Bypass at Wan Chai West) 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 13 May 2015.



#### 2.3 Project Organization and Contact Personnel

- 2.3.1 Civil Engineering and Development Department and Highway Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.
- 2.3.2 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*:

Party	Role	Post	Name	Contact No.	Contact Fax
AECOM	Engineer's Representative for WDII	Chief Resident Engineer	Ms. Gloria Tang	2587 1778	2587 1877
	Engineer's Representative	Chief Resident Engineer	Mr. Dennis Norton	3912 3188	3912 3010
	for CWB	Chief Resident Engineer	Mr. S. K. Lo	3912 3288	3912 3010
		Chief Resident Engineer	Mr. David Kwan	3650 1888	3665 0106
Build King	Contractor under Contract no. HK/2012/08	Project Director	C. N. LAI	9106 5806	2877 1522
		Site Agent	Mr. George Cheung	9268 1918	
		Environmental Officer	Mr. James Ma	9130 9549	
		Environmental Supervisor	Mr. Y.L. Ho	9856 5669	
Ramboll 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

Table 2.2 Contact Details of Key Personnel



- 2.3.3 In this reporting month, the principal work activities of the contract is included as follows: <u>Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at</u> <u>Wan Chai West</u>
  - Drainage
  - Roadworks
- 2.3.4 In coming reporting month, the principal work activities of the contract is anticipated as follows:

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

• Landscaping



#### 3 STATUS OF REGULATORY COMPLIANCE

#### 3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in *Table 3.1*.

## Table 3.1 Summary of the current status on licences and/or permits on environmentalprotection pertinent to the Project

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-376/2009	13 Nov 2009	Valid
Further Environmental Permit	FEP-01/376/2009	31 Mar 2015	Valid
Further Environmental Permit	FEP-02/376/2009	1 Aug 2016	Valid

3.1.2. The current status on licences and/or permits on environmental protection pertinent for contract no. HK/2012/08 under FEP-02/376/2009 showed in *Table 3.2.* and *Table 3.3* 

# Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no.HK/2012/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-01/376/2009	31 Mar 2015	N/A	Valid
	FEP-02/376/2009	1 Aug 2016	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	30 Jun 2016	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	N/A	Valid
Water Discharge Licence	WT00018470-2014	6 Mar 2014	31 Mar 2019	Valid
Construction Noise Permit	GW-RS1247-18	31 Dec 2018	13 Jan 2019 to 12 Jul 2019	Valid
	GW-RS0913-18	4 Oct 2018	5 Oct 2018 to 4 Apr 2019	Valid



EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan (Rev. 2)	Generally in order as commented by EPD on 27 Oct 2015
Condition 2.10	Landscape Plan (Rev. 0)	Generally in order as commented by EPD on 5 Aug 2015

#### Table 3.3 Summary of submission status under FEP-01/376/2009 Condition

3.1.3. Implementation status of the recommended mitigation measures during this reporting month is presented in *Appendix 3.1*.



#### 4 MONITORING REQUIREMENTS

#### 4.1 Noise Monitoring

#### NOISE MONITORING STATION

4.1.1. The noise monitoring station for the Project is listed and shown in *Table 4.1* and *Figure 4.1*. <u>Appendix 4.1</u> shows the established Action/Limit Levels for the monitoring works.

Table 4.1	Noise	Monitoring	Station
1 4010 411	110100	monitoring	otation

District	Station	Description
Wan Chai	M1a	Footbridge for Ex-Harbour Road Sports Centre

#### NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.2. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq). Leq (30 minutes) shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, Leq (5 minutes) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L10 and L90 shall also be obtained for reference.
- 4.1.3. 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

- 4.1.4. As referred to in the Technical Memorandum <sup>™</sup> 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.
- 4.1.5. 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.



#### 4.2 Air Quality Monitoring

#### AIR QUALITY MONITORING STATIONS

4.2.1. The air quality monitoring stations for the Project are listed and shown in *Table 4.2* and *Figure* <u>4.1. Appendix 4.1</u> shows the established Action/Limit Levels for the monitoring works.

Table 4.2 Air Quality Monitoring Stations

Station ID	Description
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE Site Office

#### AIR QUALITY MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six-days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs.

#### SAMPLING PROCEDURE AND MONITORING EQUIPMENT

- 4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:
  - 0.6 1.7 m<sup>3</sup> per minute adjustable flow range;
  - Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
  - Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
  - Capable of providing a minimum exposed area of 406 cm2;
  - Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
  - Equipped with a shelter to protect the filter and sampler;
  - Incorporated with an electronic mass flow rate controller or other equivalent devices;
  - Equipped with a flow recorder for continuous monitoring;



- Provided with a peaked roof inlet;
- Incorporated with a manometer;
- Able to hold and seal the filter paper to the sampler housing at horizontal position;
- Easily changeable filter; and
- Capable of operating continuously for a 24-hour period.
- 4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

#### LABORATORY MEASUREMENT / ANALYSIS

- 4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.
- 4.2.8. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24-hours and be pre-weighed before use for the sampling.
- 4.2.9. 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.
- 4.2.10. All the collected samples shall be kept in a good condition for 6 months before disposal.
- 4.2.11. Current calibration certificates of equipment are presented in Appendix 4.2.



#### 5 MONITORING RESULTS

- 5.0.1. The environmental monitoring will be implemented based on the division of works areas of the designated project managed under the contract with FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in *Figure 2.1* and *Figure 4.1*. The monitoring results are presented in according to the Individual Contract(s).
- 5.0.2. In the reporting month, the concurrent contract is:
  - Contract no. HK/2012/08 Wan Chai Development Phase II Central Wan Chai Bypass at Wan Chai West.
- 5.0.3. The environment monitoring schedules for reporting month and coming month are presented in *Appendix 5.1*.

#### 5.1 Noise Monitoring Results

5.1.1 The proposed division of noise monitoring station is summarized in *Table 5.1* below.

#### Table 5.1 Noise Monitoring Station for Contract no. HK/2012/08

Location ID	District	Description
M1a	Wan Chai	Footbridge for Ex-Harbour Road Sports Centre

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

#### 5.2 Air Quality Monitoring Results

5.2.1 The proposed division of air quality monitoring stations are summarized in *Table 5.2* below.

 Table 5.2
 Air Quality Monitoring Station for Contract no. HK/2012/08

Station	Description
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE Site Office

- 5.2.2 No action or limit level exceedance was recorded in this reporting month.
- 5.2.3 Due to interruption of electricity, the 24hr TSP was rescheduled from 20 March 2019 to 21 March 2019 at CMA6a Contractor HK/2012/08 Site Office.



5.2.4 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 5.3*.



#### 5.3 WASTE MONITORING RESULTS

5.3.1 No Inert and non-inert C&D wastes disposed in this reporting month. Details of the waste flow table are summarized in *Table 5.3*.

Table 5.3	Details of Waste Disposal for Contract no. HK/2012/08
1 41010 010	

Waste Type	Quantity this month	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



#### 6 COMPLIANCE AUDIT

6.0.1. The Event Action Plan for construction noise and air quality are presented in Appendix 6.1.

#### 6.1 Noise Monitoring

6.1.1 No action or limit level exceedance was recorded in this reporting month.

#### 6.2 Air Quality Monitoring

6.2.1 No action or limit level exceedance was recorded in this reporting month.

#### 6.3 Review of the Reasons for and the Implications of Non-compliance

6.3.1 There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.

#### 6.4 Summary of action taken in the event of and follow-up on non-compliance

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



#### 7 CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS

- 7.0.1. According to 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 month.
- 7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area include roadworks, drainage, seawall coping and junction modification were performed in March 2019 reporting period. 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 road and drains construction and TWCR4 reinstatement at Wan Chai. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were ventilation building ABWF works and junction modification at Central; road works, drainage improvement work, utility diversion works and landscape works at Victoria Park; bridge noise enclosure installation works, road works, drainage works, soft landscape works and ventilation building ABWF work at North Point area in the reporting period. In addition, other non-Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects were observed undertaken at Wan Chai North and North Point area.
- 7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the water, air and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.



#### 8 ENVIRONMENTAL SITE AUDIT

8.0.1. Four site inspections for Contract no. HK/2012/08 were carried out on 5, 12, 19 and 26 March 2019 in this reporting period. The results of inspection and outcome are summarized in *Table 8.1*.

#### Table 8.1 Summary of Environmental Inspections for Contract no. HK/2012/08

ltem	Date	Observations	Action taken by Contractor	Outcome
190312_1		Drip tray should be provided to the chemical container (Zone C)	were removed.	Completion as observed on 12 March 2019



#### 9 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

- 9.0.1. No environmental complaint was received in the reporting period.
- 9.0.2. The details of cumulative complaint log and updated summary of complaints are presented in <u>Appendix 9.1</u>
- 9.0.3. Cumulative statistic on complaints and successful prosecutions are summarized in *Table 9.1* and *Table 9.2* respectively.

Reporting Period	No. of Complaints
Commencement works (May 2015) to last reporting month	0
March 2019	0
Total	0

#### Table 9.2 Cumulative Statistics on Successful Prosecutions

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



Lam Geotechnics Limited

runoff out of site area or direct discharge into public drainage system

#### 10 CONCLUSION

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

	commenced in coming Rep	
Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2012/08	Landscaping	<ul> <li>Dust control during dust generating works;</li> <li>Implementation of proper noise pollution control; and</li> </ul>
		• Provision of protection to ensure no

# Table 10.1 Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month



Figure 2.1

Project Layout

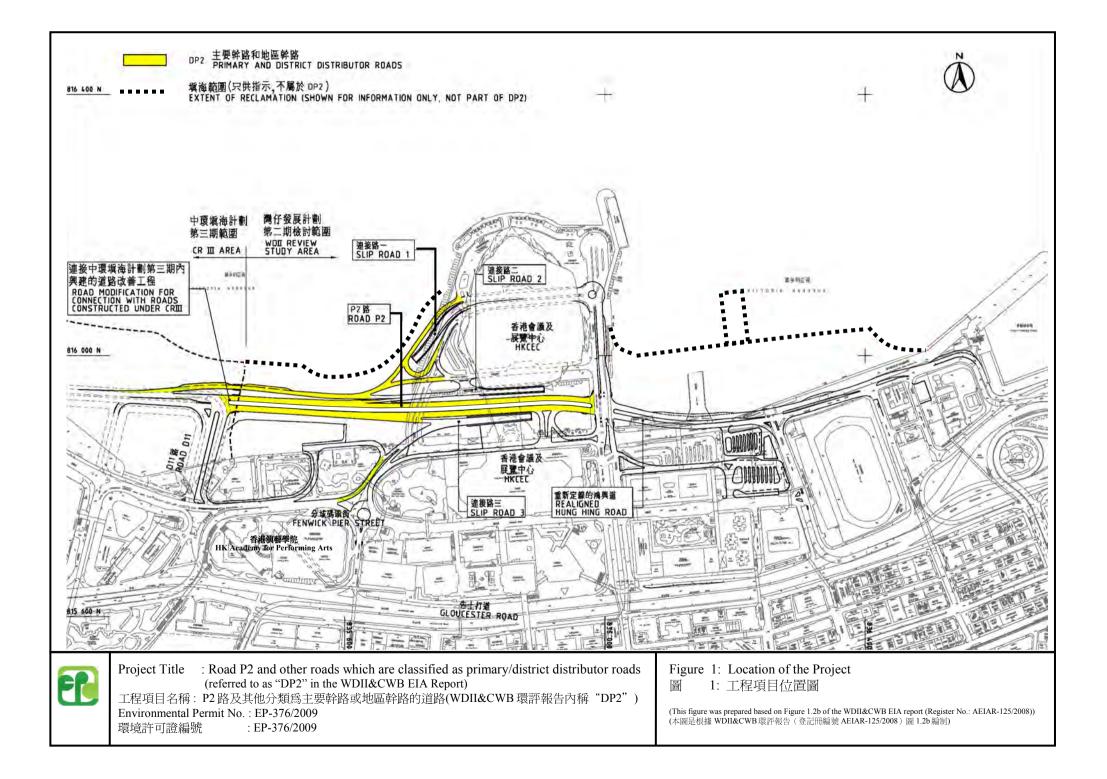




Figure 2.2

**Project Organization Chart** 



### Project Organization Chart

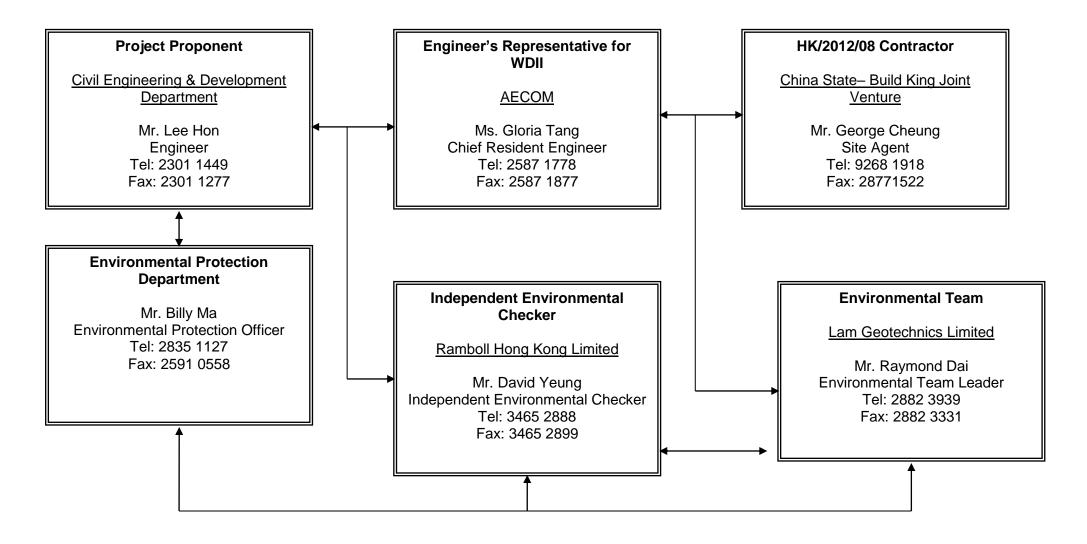
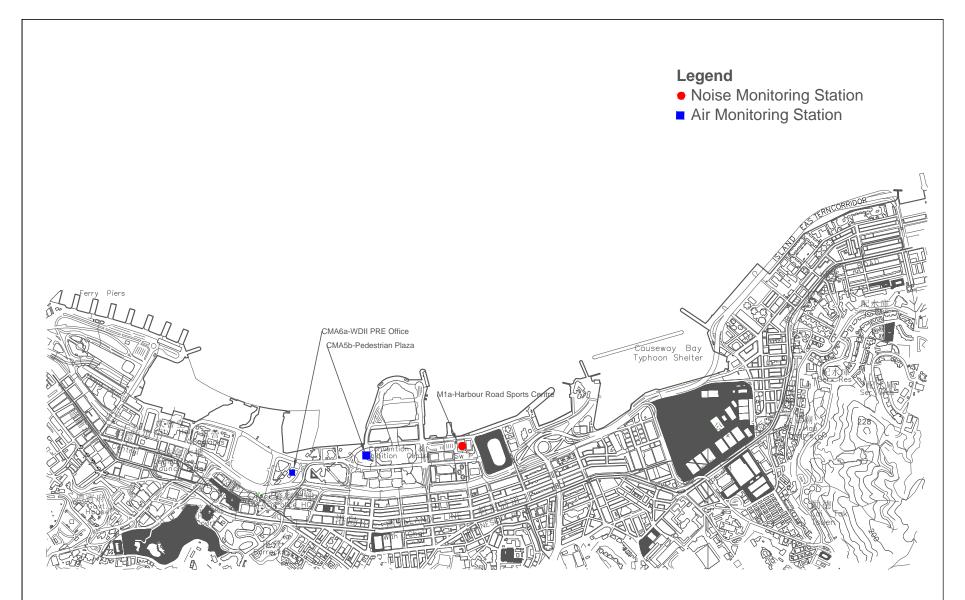




Figure 4.1

Locations of Monitoring Stations



### LOCATIONS OF AIR QUALITY AND NOISE MONITORING STATIONS



Appendix 3.1

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	<b>Environmental Protection Measures /</b>	Location / Timing	Implementation Agent	Impl	lemen	tation	stage	Relevant Legislation and Guidelines
	Mitigation Measures			Des	С	0	Dec	
Construction	n Phase							
For the Who	le Project							
\$3.6.5	Four times a day watering of the work site with active operations.	Work site / during construction	Contractor		$\checkmark$			EIAO-TM
S3.8.1	<ul> <li>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.</li> <li>Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition;</li> <li>Watering during excavation and material handling;</li> <li>Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; and</li> <li>Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.</li> </ul>	Work site / during construction	Contractor		N			

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

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation					<b>Relevant Legislation</b>
			Agent	Des	C	0	Dec	and Guidelines
Constructio								
For the Wh	ole Project							
S4.9.4	<ul> <li>Good Site Practice:</li> <li>Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.</li> <li>Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program.</li> <li>Mobile plant, if any, shall be sited as far away from NSRs as possible.</li> <li>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.</li> <li>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.</li> <li>Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from onsite</li> </ul>	Work site / during construction	Contractor					EIAO-TM, NCO
For DP2 –	construction activities.         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	Work site / during construction	Contractor		V			EIAO-TM, NCO

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

#### Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	<b>Environmental Protection Measures /</b>	Location / Timing	Implementation Agent	n Implementation stage			stage	<b>Relevant Legislation</b>
	Mitigation Measures			Des	С	0	Dec	and Guidelines
Constructio	n Phase				I			
For the Who	ole Project							
S5.8	<ul> <li>Construction Runoff and Drainage</li> <li>use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow;</li> <li>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;</li> <li>a sediment tank constructed from preformed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal;</li> <li>Oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned 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;</li> <li>On-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be</li> </ul>	Work site / during construction	Contractor					ProPECC PN 1/94; WPCO (TM-DSS)

			1	1	1 1	
	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					
	<ul> <li>diversion is no longer required.</li> <li>All fuel tanks and store areas shall be</li> </ul>					
	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	Work site / during	Contractor			ProPECC PN 1/94;
	Construction work force sewage discharges on	construction				WPCO (TM-DSS)
	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.					
L						

<u>EP-376/20</u>	009					EM&A Manual
\$5.8	<i>Floating Debris and Refuse</i> Collection and removal of floating refuse shall be performed at regular intervals on a daily basis. The contractor shall be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Work site and adjacent water / During the construction period.	Contractor		V	WPCO
\$5.8	Storm Water Discharges Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.	Work site and adjacent water / During the design and construction period.	Contractor	$\checkmark$	V	WPCO

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

## Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures /	Location / Timing	Implementation	Implementation stage				<b>Relevant Legislation</b>
	Mitigation Measures		Agent	Des	С	0	Dec	and Guidelines
Constructio	on Phase				1			
For the Wh	ole Project							
S6.7.7	<ul> <li>Good Site Practices</li> <li>Recommendations for good site practices during the construction activities include: <ul> <li>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;</li> <li>training of site personnel in proper waste management and chemical waste handling procedures;</li> <li>provision of sufficient waste disposal points and regular collection for disposal;</li> <li>appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;</li> <li>regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and</li> <li>a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).</li> </ul> </li> </ul>	Work site / During planning and design stage, and construction stage	Contractor					
S.6.7.8	<ul> <li>Waste Reduction Measures</li> <li>Recommendations to achieve waste reduction include:</li> <li>Sort C&amp;D waste from demolition of the existing waterfront structures to recover</li> </ul>	Work site / During planning and design stage, and construction stage	Contractor	V	V			

EP-376/2009

	<ul> <li>recyclable portions such as metals.</li> <li>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.</li> <li>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.</li> <li>Any unused chemicals or those with remaining functional capacity shall be recycled.</li> <li>Use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&amp;D material.</li> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>				
S6.7.10	<i>General Refuse</i> 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.	Work site / During the construction period	Contractor	V	Public Health and Municipal Services Ordinance (Cap. 132)
	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.				

S6.7.11	Chemical Wastes	Work site / During	Contractor		Waste Disposal
,01,111	After use, chemical wastes (for example,	the	Conductor	•	(Chemical Waste)
	cleaning fluids, solvents, lubrication oil and fuel)	construction period			(General) Regulation
	shall be handled according to the Code of	1			Code of Practice on
	Practice on the Packaging, Labelling and Storage				the Packaging,
	of Chemical Wastes. Spent chemicals shall be				Labelling and Storage
	collected by a licensed collector for disposal at				of Chemical Wastes
	the CWTF or other licensed facility in				
	accordance with the Waste Disposal (Chemical				
	Waste) (General) Regulation.				
56.7.12 -	Construction and Demolition Material	Work site / During	Contractor and	$\checkmark$	DEVB TCW
\$6.7.13	C&D material shall be sorted on-site into inert	the	Independent		No.6/2010;
	C&D material (that is, public fill) and C&D waste. All the suitable inert C&D material shall	construction period	Environmental Checker		ETWB TCW No.
	be broken down to 250 mm in size for reuse as		Cnecker		33/2002; ETWB TCW No.
	public fill in the WDII reclamation. C&D waste,				19/2005
	such as wood, glass, plastic, steel and other				19/2005
	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				
6.7.14	responsible for auditing the results of the system. Bentonite Slurry	Work site / During	Contractor	√	ProPECC PN 1/94
0.7.14	The disposal of residual used bentonite slurry	the	Contractor	N	FIORECC FIN 1/94
	shall follow the good practice guidelines stated	construction period			
	shan tonow the good practice guidennes stated	construction period		I I	

## EP-376/2009

## EM&A Manual

	1		 	
in ProPECC PN 1/94 "Construction Site				
Drainage" and listed as follows:				
<ul> <li>If the disposal of a certain residual</li> </ul>				
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.				
<ul> <li>If the used bentonite slurry is intended</li> </ul>				
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.				
<ul> <li>If the used bentonite slurry is intended</li> </ul>				
to be disposed to public fill reception facilities, it				
· · ·				
will be mixed with dry soil on site before				
disposal.	<u> </u>			

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

## EP-376/2009

## Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Environmental Protection Measures /	Location / Timing	Implementation	Implementation stage				<b>Relevant Legislation</b>
	Mitigation Measures		Agent	Des	С	0	Dec	and Guidelines
Construction	n Phase		I					
For the Who	le 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	V	V			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	$\checkmark$	$\checkmark$			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	$\checkmark$	V			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	$\checkmark$				EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		$\checkmark$			EIAO TM
For DP2 – W	VDII 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	V	$\checkmark$			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	$\checkmark$	$\checkmark$			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	$\checkmark$	$\checkmark$			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	$\checkmark$	$\checkmark$			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		$\checkmark$			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		$\checkmark$			EIAO TM

F	P-376/2009	
_	010/2000	

EM&A Manual

				1		
<b>Operation P</b>	hase					
For DP2 – W	DII Major Roads (Road P2)					
Table 10.6,	OM1 Aesthetic design of buildings and road-	Work site / During	CEDD/HyD	$\checkmark$	$\checkmark$	ETWB TCW 2/2004
Figure	related structures,	Design Stage and				
10.5.1-	including viaducts, vent buildings, subways,	Operation Phases				
10.5.5	footbridges					
	and noise barriers and enclosure.					
Table 10.6,	OM3 Buffer Tree and Shrub Planting to screen	Work site / During	CEDD/HyD		$\checkmark$	ETWB TCW 2/2004
Figure	proposed roads	Design Stage and				
10.5.1-	and associated structures.	Operation Phases				
10.5.5						
Table 10.6,	OM5 Aesthetic streetscape design.	Work site / During	CEDD/HyD	$\checkmark$	$\checkmark$	ETWB TCW 2/2004
Figure		Design Stage and				
10.5.1-		<b>Operation Phases</b>				
10.5.5						
Table 10.6,	OM6 Aesthetic design of roadside amenity areas	Work site / During	CEDD/HyD	$\checkmark$	$\checkmark$	ETWB TCW 2/2004
Figure		Design Stage and				
10.5.1-		Operation Phases				
10.5.5						

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



Appendix 4.1

Action and Limit Level



Lam Geotechnics Limited

## Action and Limit Level

## Action and Limit Level for Noise Monitoring

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

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 Le	vel inµg/m3	24-hour TSP Level inµg/m3		
	Action Level	Limit Level	Action Level	Limit Level	
<b>CMA5b</b> Pedestrian Plaza	339.7	500	209.9	260	
CMA6a WDII PRE Site Office	333.0	500	207.1	260	



Appendix 4.2

Copies of Calibration Certificates

				J			D	ALIBRATION UE DATE: ary 11, 2020
	Ce	rtifa	cate				tion	
			Calibration	Certificati	on Informat	ion		
Cal. Date:	January 11	, 2019	Roots	meter S/N:	438320	Ta:	293	°К
Operator:	Jim Tisch					Pa:	760.7	mm Hg
Calibration	Model #:	TE-5025A	Calik	brator S/N:	0005			
	[ ]							1
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4090	3.2	2.00	1
	2	3	4	1	0.9980	6.4	4.00	1
	4	7	8	1	0.8450	7.8	5.00	1
	5	9	10	1	0.6990	12.6	8.00	4
				-		12.0	0.00	1
			[	Data Tabula	tion			-
	Matal		$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	)( <u>Tstd</u> )			<sub>\</sub> ΔH(Ta/Pa)	
	Vstd	Qstd	Y		Va	Qa	V V /	
	(m3) 1.0138	(x-axis) 0.7195	(y-ax 1.426	the second s	Va 0.9958	(x-axis) 0.7067	(y-axis) 0.8777	
	1.0195	1.0115	2.018		0.9916	0.9936	1.2412	-
	1.0076	1.1321	2.256		0.9897	1.1121	1.3877	
	1.0064	1.1910	2.366		0.9886	1.1699	1.4555	
	1.0012	1.4323	2.853	and the second se	0.9834	1.4069	1.7553	1
		m=	1.998	861		m=	1.25149	
	QSTD	b=	-0.008		QA	b=	-0.00543	
		r=	0.999	97		r=	0.99997	
				Calculatio	ns			
			/Pstd)(Tstd/Ta	a)	Va=	∆Vol((Pa-∆P	P)/Pa)	1
	Qstd=	Vstd/∆Time			Qa=	Va/∆Time		
			For subsequ	ent flow ra	te calculation	ns:		
	Qstd=	$1/m\left(\sqrt{\Delta H}\right)$	Pa <u>(Tstd</u> ) Pstd Ta	) )-b)	Qa=	$1/m \left( \sqrt{\Delta H} \right)$	l(Та/Ра))-b)	
	Standard	Conditions	1					
Tstd:	298.15			[		RECA	IBRATION	
Pstd:	and the second s	mm Hg			LIS EDA rocc	mmende	nual recalibratio	on per 1009
AH: calibrat		(ey or roading (ii					Regulations Part	
		er reading (in eter reading (					Reference Meth	
UULSIIE							ended Particulat	
	solute tem	Jeralure I KI	1					
Ta: actual ab		essure (mm	Hg)				re, 9.2.17, page	

sch Environmental, Inc. 5 South Miami Avenue

lage of Cleves, OH 45002

<u>www.tisch-env.com</u> TOLL FREE: (877)263-7610 FAX: (513)467-9009



Lam Environmental Services Limited

# Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	CMA5b	Calbration Date	:	18-Feb-19
Equipment no.	:	HVS010	Calbration Due Date	:	20-Apr-19

## CALIBRATION OF CONTINUOUS FLOW RECORDER

	Ambient Condition							
Temperature, T <sub>a</sub>		291		Kelvin	Pressure, P	a	1	015 mmHg
			Orifice Tr	ansfer Sta	andard Inform	mation		
Equipment No.		Ori0005		Slope, m <sub>c</sub>	1.998	61	Intercept, bc	-0.00882
Last Calibration Date		11-Jan-1	9		( H x	P <sub>a</sub> / 10	13.3 x 298 /	T <sub>a</sub> ) <sup>1/2</sup>
Next Calibration Date		11-Jan-2	0		=	m <sub>c</sub> :	$x Q_{std} + b_{c}$	
				Calibratio	on of TSP			
Calibration	Mar	nometer Re	eading	c	) <sub>std</sub>	Conti	nuous Flow	IC
Point	Н (і	H (inches of water)		(m <sup>3</sup>	/ min.)	Rec	order, W	$(W(P_a/1013.3x298/T_a)^{1/2}/35.31)$
	(up)	(down)	(difference)	X-	axis		(CFM)	Y-axis
1	1.2	1.2	2.4	0.	7895		37	37.4738
2	2.0	2.0	4.0	1.	0179		42	42.5378
3	3.1	3.1	6.2	1.:	2662		50	50.6402
4	4.0	4.0	8.0	1.	4377		56	56.7171
5	5.0	5.0	10.0	1.	6069		61	61.7811
By Linear Regression of	Y on X							
	Slope, m	=	30.4	544	Inte	ercept, b	= 12	.5644
Correlation Co	pefficient*	=	0.99	9972				
Calibration	Accepted	=	Yes/	<del>\o</del> **				

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

** Delete as appro	priate.				
Remarks :					
Calibrated by	:	Henry Lau	Checked by	:	Chan Ka Chun
Date	:	18-Feb-19	Date	:	18-Feb-19



Lam Environmental Services Limited

# Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	CMA6a	Calbration Date	:	18-Feb-19
Equipment no.	:	HVS013	Calbration Due Date	:	20-Apr-19

## CALIBRATION OF CONTINUOUS FLOW RECORDER

	Ambient Condition							
Temperature, T <sub>a</sub>		291		Kelvin	Pressure, P	a	1	015 mmHg
			Orifice Tr	ansfer Sta	andard Inform	mation		
Equipment No.		Ori0005			1.998	61	Intercept, bc	-0.00882
Last Calibration Date		11-Jan-1	9		( H x	P <sub>a</sub> / 10	)13.3 x 298 /	T <sub>a</sub> ) <sup>1/2</sup>
Next Calibration Date	11-Jan-20				=	m <sub>c</sub>	xQ <sub>std</sub> +b <sub>c</sub>	
	Calibration of TSP							
Calibration	Mar	nometer R	eading	G	Q <sub>std</sub>	Conti	nuous Flow	IC
Point	Н (і	H (inches of water)		(m <sup>3</sup>	/ min.)	Recorder, W		(W(P <sub>a</sub> /1013.3x298/T <sub>a</sub> ) <sup>1/2</sup> /35.31)
	(up)	(down)	(difference)	X-	axis		(CFM)	Y-axis
1	1.4	1.4	2.8	0.	8524		28	28.3585
2	2.1	2.1	4.2	1.	0430		37	37.4738
3	3.4	3.4	6.8	1.3	3259		45	45.5762
4	4.4	4.4	8.8	1.	5077		52	52.6658
5	5.5	5.5	11.0	1.	6851		59	59.7555
By Linear Regression of	Y on X							
	Slope, m	=	36.4	334	Inte	ercept, b	= -1	.9709
Correlation Co	pefficient*	=	0.99	9972				
Calibration	Accepted	=	Yes/	<del>\o</del> **				

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

\*\* Delete as appropriate.

Remarks :					
Calibrated by	:	Henry Lau	Checked by	:	Chan Ka Chun
Date	:	18-Feb-19	Date	: _	18-Feb-19



## 综合試驗有限公司 SOILS & MATERIALS ENGINEERING CO., LTD. 香港美行就道 37號利達中心12樓

12/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. E-mail: smec@cigismec.com Website: www.cigismec.com Tel: (852) 2873 6860 Fax: (852) 2555 7533



# CERTIFICATE OF CALIBRATION

Certificate No.:	18CA1114 02			Page	1	of	2
Item tested							
Description:	Sound Level Mete	r (Type 1)	20	Microphone			
Manufacturer:	B&K			B&K			
Type/Model No.:	2236		- 22	4188			
Serial/Equipment No.:	2100736		- 56	2288941			
Adaptors used:	-		- 18 - I	-			
Item submitted by			_				
Customer Name:	Lam Environment	al Service Ltd.					
Address of Customer:		15-50000000000					
Request No .:							
Date of receipt:	14-Nov-2018						
Date of test:	15-Nov-2018						
Reference equipment	used in the calib	ration					
Description:	Model:	Serial No.		Expiry Date:		Traceal	ble to:
Multi function sound calibrator	B&K 4228	2288444		23-Aug-2019		CIGISME	EC
Signal generator	DS 360	33873		24-Apr-2019		CEPREI	
Signal generator	DS 360	61227		23-Apr-2019		CEPREI	
Ambient conditions							
Temperature:	20 ± 1 °C						
Relative humidity:	50 ± 10 %						
Air pressure:	1000 ± 5 hPa						
Test specifications							
1, The Sound Level Met	ter has been calibrat	ed in accordance w	ith the	requirements as sp	ecifie	d in BS 7	580: Part 1
and the lab calibratio	n procedure SMTP00						
	Contraction and the Contraction of the	The second se					

- The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
- The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

## **Test results**

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

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

Actual Measurement data are documented on worksheets.

Approved Signatory: Date: 15-Nov-2018 Company Chop:

© Soils & Materials Engineering Co., Ltd.

Form No.CARP152-18 num 1/Rev.C/01/02/2007

Hong Kong Accreditation Service (HKAS) has accredited this laboratory (Reg. No. HOKLAS 928) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards. This certificate shall not be reproduced except in full.



## 綜合試驗有限公司 SOILS & MATERIALS ENGINEERING CO., LTD.

香 憲 黄 竹 坑 道 3 7 號 利 嶠 中 心 1 2 樓 12F., Laader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. E-mail: smec@cigismec.com Website: www.cigismec.com

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



2

# CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.:

18CA1114 02

Page

of

#### **Electrical Tests** 1.

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

Test:	Subtest:	Status:	Expanded Uncertanity (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	1.0	2.1
	Lin	Pass	2.0	2.2
Linearity range for Leg	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
15 BAD OF #1000#154	Single Burst Slow	Pass	0.3	
Peak response	Single 100µs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
Contraction and an end of the second	Repeated at frequency of 100 Hz	Pass.	0.3	
Time averaging	1 ms burst duty factor 1/10 <sup>3</sup> at 4kHz	Pass	0.3	
000 CAN DE 200 CAN DE 2	1 ms burst duty factor 1/10 <sup>4</sup> at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
50000000000000000000000000000000000000	Lea	Pass	0.4	

#### 2, Acoustic tests

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

Test:	Subtest	Status	Expanded Uncertanity (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
6848877.0003978787891495	Weighting A at 8000 Hz	Pass	0.5	

#### Response to associated sound calibrator 3.

### N/A

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

	1	- End -	Amon	
Calibrated by:	~ 7	Checked by:	- 1-44	
Date:	Fung Chi Yip 15-Nov-2018	Date:	/Shek Kwong Tat 15-Nov-2018	

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

© Sote & Materials Engineering Co., UM

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

Hong Kong Accreditation Service (HKAS) has accredited this laboratory (Reg. No. HOKLAS 028) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards. This certificate shall not be reproduced except in full,

# Calibration Certificate

Certificate Number 2018010851

Customer: LAM Environmental Services Ltd 11/F Centre Point 181-185 Gloucester Road Wanchai, , Hong Kong

Model Number	CAL20	0	Procedure Number	D0001.8386		
Serial Number	13098		Technician	Scott Montgomery		mery
Test Results	Pass		Calibration Date	29 Oc	29 Oct 2018	
1.50 - 1.00	Inopera	and a	Calibration Due			
Initial Condition	mopera	sole	Temperature	23	*C	± 0.3 °C
Description	Larson	Davis CAL200 Acoustic Calibrator	Humidity	34	%RH	± 3 %RH
			Static Pressure	101.2	kPa	±1 kPa
Evaluation Metho	od	The data is aquired by the insert volta circuit sensitivity. Data reported in dB	500 XM 200 CM 570	ne refere	nce mic	crophone's open
Compliance Stan	dards	Compliant to Manufacturer Specificat IEC 60942:2017	ions per D0001.8190 and the ANSI S1.40-2006	following	standa	ards:

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2005. Test points marked with a \$ in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2008.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

This report may not be reproduced, except in full, unless permission for the publication of an approved abstract is obtained in writing from the organization issuing this report.

Standards Used	1	
Cal Date	Cal Due	Cal Standard
09/06/2018	09/06/2019	001021
04/10/2018	04/10/2019	001051
03/07/2018	03/07/2019	005446
09/20/2018	09/20/2019	006506
08/07/2018	08/07/2019	006507
05/10/2018	05/10/2019	006510
07/18/2018	07/18/2019	007368
	Cal Date 09/06/2018 04/10/2018 03/07/2018 09/20/2018 08/07/2018 05/10/2018	09/06/2018 09/06/2019 04/10/2018 04/10/2019 03/07/2018 03/07/2019 09/20/2018 09/20/2019 08/07/2018 08/07/2019 05/10/2018 05/10/2019

Larson Davis, a division of PCB Piczotronics, Inc 1681 West 820 North Provo, UT 84601, United States 716-684-0001





10/29/2018 1-43-01PM



Appendix 5.1

Monitoring Schedules for Reporting Month and Coming Reporting Month

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

	r	r		r	r	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			27-Feb	28-Feb	01-Mar	02-Mar 24hr TSP
03-Mar	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar	09-Mar
	1hr TSP	Noise (daytime)			24hr TSP	1hr TSP
10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar
	Noise (daytime)			24hr TSP	1hr TSP	
17-Mar	18-Mar	19-Mar	20-Mar 24hr TSP (CMA5b)	21-Mar 24hr TSP (CMA6a) 1hr TSP	22-Mar Noise (daytime)	23-Mar
24-Mar	25-Mar	26-Mar 24hr TSP	27-Mar 1hr TSP			
	Noise (daytime)					

Environmental Monitoring Schedule March 2019



Appendix 5.2

Noise Monitoring Results and Graphical Presentations

Noise Monitoring Result for EP-376/2009

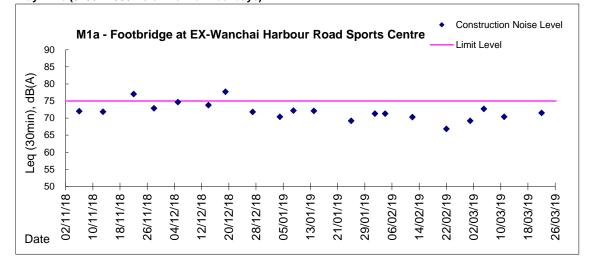
## Day Time (0700 - 1900hrs on normal weekdays)

Location: M1a - Footbridge at EX-Wanchai Harbour Road Sports Centre

			Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level		
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq		
			Unit: dB(A), (30-min)							
01/03/2019	15:15	Cloudy	74.3	77.3	68.5	72	69	75		
05/03/2019	17:18	Fine	72.7	74.9	68.3	73	73	75		
11/03/2019	10:45	Fine	74.7	76.0	68.0	73	70	75		
22/03/2019	13:50	Cloudy	71.5	73.5	68.5	73	72	75		
25/03/2019	9:35	Fine	74.1	77.0	69.5	73	69	75		

am

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





Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations

Location: CMA5b - Pedestrian Plaza

Report on 24-hour TSP monitoring for EP-376/2009						
Action Level -	209.9 µg/m3					
Limit Level -	260 µg/m3					

Date	Sampling	Weather	Filter paper no.	Filter Weig	ht, g	Elapse Tim	e, hr	Sampling	Flo	w Rate, m <sup>3</sup> /r	min	Total	TSP Level,
	Time	Condition		Initial	Final	Initial	Final	Time, hr	Initial, $Q_{si}$	Final, $Q_{sf}$	Average	Volume, m <sup>3</sup>	μg/m <sup>3</sup>
02-Mar-19	08:00	Cloudy	CMA5b_24hr 140595	2.6401	2.7270	11704.09	11728.09	24.00	0.79	0.79	0.79	1139	76.3
08-Mar-19	08:00	Rainy	CMA5b_24hr 140509	2.6436	2.6869	11731.09	11755.09	24.00	0.80	0.80	0.80	1151	37.6
14-Mar-19	08:00	Rainy	CMA5b_24hr 140711	2.6656	2.7530	11758.27	11782.27	24.00	0.80	0.80	0.80	1148	76.1
20-Mar-19	08:00	Cloudy	CMA5b_24hr 140818	2.6684	2.7350	11785.27	11809.27	24.00	0.79	0.78	0.78	1128	59.0
26-Mar-19	08:00	Cloudy	CMA5b_24hr 140898	2.6300	2.7290	11812.27	11836.27	24.00	0.79	0.79	0.79	1136	87.2

## Report on 1-hour TSP monitoring for EP-376/2009 Action Level - 339.7 µg/m3 Limit Level - 500 µg/m3

Date	Sampling	Weather	Filter paper no.	Filter Weigh	nt, g	Elapse Tim	e, hr	Sampling	Flo	w Rate, m <sup>3</sup> /r	min	Total	TSP Level,
	Time	Condition		Initial	Final	Initial	Final	Time, hr	Initial, $Q_{si}$	Final, $Q_{sf}$	Average	Volume, m <sup>3</sup>	<sup>3</sup> μg/m <sup>3</sup>
04-Mar-19	08:25	Rainy	CMA5b_1hr_1 140528	2.6322	2.6345	11728.09	11729.09	1.00	0.79	0.79	0.79	48	48.3
04-Mar-19	09:30	Rainy	CMA5b_1hr_2 140546	2.6317	2.6355	11729.09	11730.09	1.00	0.79	0.79	0.79	48	79.8
04-Mar-19	13:00	Rainy	CMA5b_1hr_3 140554	2.6305	2.6323	11730.09	11731.09	1.00	0.79	0.79	0.79	48	37.8
09-Mar-19	08:03	Rainy	CMA5b_1hr_1 140572	2.6246	2.6246	11755.09	11756.09	1.00	0.80	0.80	0.80	48	0.0
09-Mar-19	09:06	Rainy	CMA5b_1hr_2 140552	2.6430	2.6444	11756.09	11757.09	1.00	0.80	0.80	0.80	48	29.3
09-Mar-19	10:25	Rainy	CMA5b_1hr_3 140705	2.6659	2.6691	11757.09	11758.09	1.00	0.80	0.80	0.80	48	66.9
15-Mar-19	08:04	Cloudy	CMA5b_1hr_1 140713	2.6618	2.6649	11782.27	11783.27	1.00	0.80	0.80	0.80	48	64.6
15-Mar-19	09:50	Cloudy	CMA5b_1hr_2 140719	2.6561	2.6597	11783.27	11784.27	1.00	0.80	0.80	0.80	48	75.0
15-Mar-19	13:00	Cloudy	CMA5b_1hr_3 140801	2.6550	2.6648	11784.27	11785.27	1.00	0.80	0.80	0.80	48	204.2
21-Mar-19	08:10	Cloudy	CMA5b_1hr_1 140824	2.6391	2.6427	11809.27	11810.27	1.00	0.78	0.78	0.78	47	76.9
21-Mar-19	09:50	Cloudy	CMA5b_1hr_2 140858	2.6426	2.6446	11810.27	11811.27	1.00	0.78	0.78	0.78	47	42.7
21-Mar-19	13:00	Cloudy	CMA5b_1hr_3 140867	2.6537	2.6570	11811.27	11812.27	1.00	0.78	0.78	0.78	47	70.5
27-Mar-19	08:04	Cloudy	CMA5b_1hr_1 140729	2.6656	2.6686	11836.27	11837.27	1.00	0.79	0.79	0.79	47	63.5
27-Mar-19	09:25	Cloudy	CMA5b_1hr_2 140876	2.6542	2.6583	11837.27	11838.27	1.00	0.79	0.79	0.79	47	86.8
27-Mar-19	10:30	Cloudy	CMA5b_1hr_3 140880	2.6437	2.6479	11838.27	11839.27	1.00	0.79	0.79	0.79	47	88.9

Location: CMA6a - WDII PRE Office

## Report on 24-hour TSP monitoring for EP-376/2009

Action Level -	207.1 µg/m3
Limit Level -	260 µg/m3

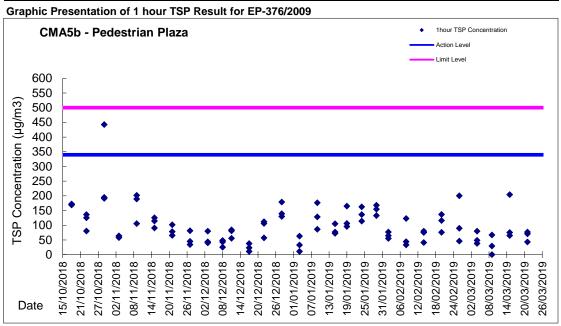
Date	Sampling	Weather	Filter paper no.	Filter Weigh	nt, g	Elapse Time	ə, hr	Sampling	Flo	w Rate, m <sup>3</sup> /r	min	Total	TSP Level,
	Time	Condition		Initial	Final	Initial	Final	Time, hr	Initial, $Q_{si}$	Final, $Q_{sf}$	Average	Volume, m <sup>3</sup>	μ <b>g/m</b> ³
02-Mar-19	08:00	Cloudy	CMA6a_24hr 140596	2.6435	2.7395	5371.76	5395.76	24.00	1.11	1.11	1.11	1603	59.9
08-Mar-19	08:00	Rainy	CMA6a_24hr 140550	2.6402	2.6743	5398.76	5422.76	24.00	1.07	1.07	1.07	1537	22.2
14-Mar-19	08:00	Rainy	CMA6a_24hr 140744	2.6495	2.7467	5425.78	5449.78	24.00	1.17	1.17	1.17	1688	57.6
21-Mar-19	14:05	Cloudy	CMA6a_24hr 140897	2.6314	2.6868	5455.78	5479.78	24.00	1.10	1.10	1.10	1590	34.8
26-Mar-19	08:00	Cloudy	CMA6a_24hr 140832	2.6742	2.7714	5479.79	5503.79	24.00	1.16	1.16	1.16	1676	58.0

# Report on 1-hour TSP monitoring for EP-376/2009Action Level -333 µg/m3Limit Level -500 µg/m3

Date	Sampling	Weather	Filter paper no.	Filter Weigl	nt, g	Elapse Tim	e, hr	Sampling	Flo	w Rate, m <sup>3</sup> /r	min	Total	TSP Level,
	Time	Condition		Initial	Final	Initial	Final	Time, hr	Initial, $Q_{si}$	Final, $Q_{sf}$	Average	Volume, m <sup>3</sup>	μg/m <sup>3</sup>
04-Mar-19	08:35	Rainy	CMA6a_1hr_1 140530	2.6396	2.6404	5395.76	5396.76	1.00	1.06	1.06	1.06	64	12.5
04-Mar-19	09:55	Rainy	CMA6a_1hr_2 140548	2.6224	2.6243	5396.76	5397.76	1.00	1.06	1.06	1.06	64	29.8
04-Mar-19	13:00	Rainy	CMA6a_1hr_3 140579	2.6540	2.6547	5397.76	5398.76	1.00	1.06	1.06	1.06	64	11.0
09-Mar-19	08:15	Rainy	CMA6a_1hr_1 140574	2.6328	2.6330	5422.76	5423.76	1.00	1.07	1.07	1.07	64	3.1
09-Mar-19	09:17	Rainy	CMA6a_1hr_2 140749	2.6390	2.6400	5423.76	5424.76	1.00	1.17	1.17	1.17	70	14.2
09-Mar-19	10:30	Rainy	CMA6a_1hr_3 140707	2.6553	2.6570	5424.76	5425.76	1.00	1.17	1.17	1.17	70	24.2
15-Mar-19	08:15	Cloudy	CMA6a_1hr_1 140714	2.6555	2.6581	5449.78	5450.78	1.00	1.17	1.17	1.17	70	36.9
15-Mar-19	10:05	Cloudy	CMA6a_1hr_2 140721	2.6621	2.6639	5450.78	5451.78	1.00	1.07	1.07	1.07	64	28.1
15-Mar-19	13:00	Cloudy	CMA6a_1hr_3 140803	2.6441	2.6541	5451.78	5452.78	1.00	1.17	1.17	1.17	70	141.9
21-Mar-19	08:00	Cloudy	CMA6a_1hr_1 140819	2.6640	2.6655	5452.78	5453.78	1.00	1.05	1.05	1.05	63	23.8
21-Mar-19	10:06	Cloudy	CMA6a_1hr_2 140860	2.6398	2.6424	5453.78	5454.78	1.00	1.05	1.05	1.05	63	41.2
21-Mar-19	13:00	Cloudy	CMA6a_1hr_3 140869	2.6179	2.6189	5454.78	5455.78	1.00	1.16	1.16	1.16	69	14.4
27-Mar-19	08:16	Cloudy	CMA6a_1hr_1 140872	2.6456	2.6469	5503.79	5504.79	1.00	1.06	1.06	1.06	63	20.5
27-Mar-19	09:40	Cloudy	CMA6a_1hr_2 140890	2.6445	2.6474	5504.79	5505.79	1.00	1.16	1.16	1.16	70	41.6
27-Mar-19	10:15	Cloudy	CMA6a_1hr_3 140882	2.6425	2.6442	5505.79	5506.79	1.00	1.06	1.06	1.06	63	26.8

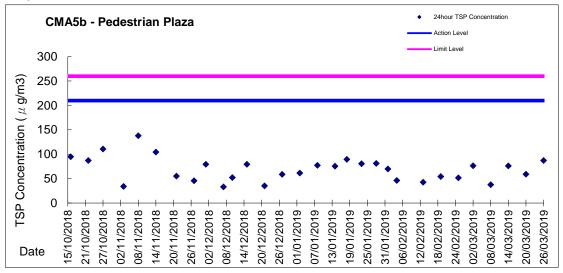
Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 20 March 2019 to 21 March 2019.

Contract No. HK/2015/01 Wanchai Development Phase II and Central Wanchai Bypass Sampling, Field Measurement and Testing Work (Stage 3)



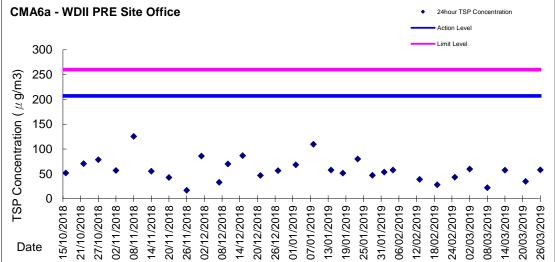
Graphic Presentation of 24 hour TSP Result for EP-376/2009

am



Contract No. HK/2015/01 am Wanchai Development Phase II and Central Wanchai Bypass Sampling, Field Measurement and Testing Work (Stage 3) Graphic Presentation of 1 hour TSP Result for EP-376/2009 1hour TSP Concentration CMA6a - WDII PRE Site Office ٠ Action Level Limit Level 600 550 TSP Concentration (µg/m3) 500 450 400 350 300 250 200 150 100 50 0 01/01/2019 07/01/2019 31/01/2019 06/02/2019 15/10/2018 21/10/2018 27/10/2018 02/11/2018 38/11/2018 14/11/2018 20/11/2018 26/11/2018 02/12/2018 08/12/2018 14/12/2018 20/12/2018 26/12/2018 13/01/2019 19/01/2019 25/01/2019 12/02/2019 18/02/2019 24/02/2019 02/03/2019 08/03/2019 14/03/2019 20/03/2019 26/03/2019 Date

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





Appendix 6.1

**Event Action Plans** 



## **Event/Action Plan for Construction Noise**

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



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



## Event / Action Plan for Construction Air Quality

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



## Event and Action Plan for Marine Water Quality

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



EVENT		ACTION		
	ET	IEC	ER	CONTRACTOR
Limit level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Limit level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)



## Event and Action Plan for Odour Patrol

Event		ACTION
	Person-in-charge of Odour Monitoring	Implementation Agent Identified by CEDD
Action Level		
Exceedance of Action Level	<ol> <li>Identify source/reason of exceedance;</li> <li>Repeat odour patrol to confirm finding.</li> </ol>	<ol> <li>Carry out investigation to identify the source/reason of exceedance;</li> <li>Rectify any unacceptable practice</li> <li>Implement more mitigation measures if necessary;</li> <li>Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.</li> </ol>
Limit Level		
Exceedance of Limit Level	<ol> <li>Identify source / reason of exceedance;</li> <li>Repeat odour patrol to confirm findings;</li> <li>Increase odour patrol frequency;</li> <li>If exceedance stops, cease additional odour patrol.</li> </ol>	<ol> <li>Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks;</li> <li>Rectify any unacceptable practice;</li> <li>Formulate remedial actions;</li> <li>Ensure remedial actions properly implemented;</li> <li>If exceedance continues, consider what more/enhanced mitigation measures shall be implemented;</li> <li>Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.</li> </ol>



Appendix 6.2

Summary for Notification of Exceedance

am							Wanchai Development Phase II and Central Wanchai Bypass Sampling, Field Measurement and Testing Work (Stage3)
Lam Geot	echnics Limit	ed					Summary for Notification of Exceedance
Ref no.	Date	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action

Contract No. HK/2015/01



Appendix 9.1

Complaint Log



# Environmental Complaints Log

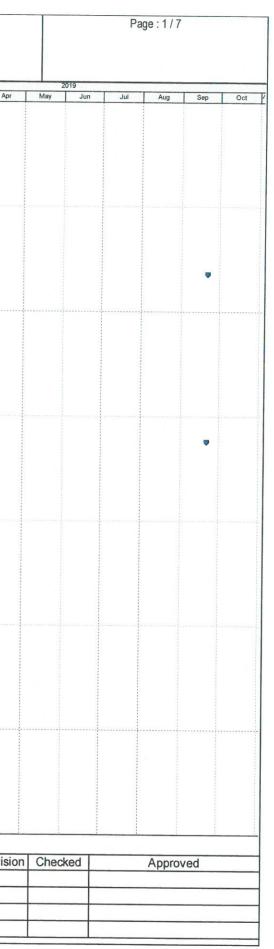
Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status



Appendix 10.1

Construction Programme of Individual Contracts

						C		Chai	Develo	o. HK/20 oment P ass at W	hase II		st				
Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Activity % Complete	Jan Feb Mar	Apr May	2 Jun	Jul	Aug Sep	Oct	Nov	Dec	Jan	Feb	Mar	
	Revised Works Programme Rev.12.0(DD 20	November 20	017)											Jan	reo	Midi	-
	nd Milestone Dates																
A Charles and a second s	Works Completion (Included Not Granted EOT En	ititlement of 1	he Contracto	r)									-				
KD10840	Completion of Section IIIA	0		08-Sep-18*	0%					•							
KD10860	Complection of Section IV	0		30-Aug-18*	0%					•							
KD10880	Completion of Section V	0		26-Sep-18*	0%						•						
KD11010	Completion of Section VII	0		14-Sep-18*	0%												
KD11020	Completion of Section VIII	0		21-Sep-18*	0%												
KD11040	Completion of Section IX	0		21-Sep-19*	0%												
KD11060	Completion of Section X	0		21-Sep-18*	0%												
Planned Sec	tions of Works Completion																
KD10080	Planned Section IIIA Completion - Road A2,A4, A5	0		08-Sep-18	0%												
KD10100	Planned Section IV Completion - Slip Road 3	0		30-Aug-18	0%												
KD10140	Planned Section V Completion - Remaining At-Grade Road	0		26-Sep-18	0%						•						
KD10280	Planned Section VII Completion - Remainder Works	0		14-Sep-18	0%											-	
KD10300	Planned Section VIII Completion - Landscape Softwork	0		21-Sep-18	0%					•							
KD10320	Planned Section IX Completion - Establishment Works	0		21-Sep-19	0%												
KD10340	Planned Section X Completion - Tree Protection &	0		21-Sep-18	0%												
Dredging an	Preservation d Reclamation																
Marine Worl	Construction				Signal and												
Zone CRIII			CENSION AND	REPRESE													
Seawall Con	struction - Zone CRIII																
Zone CRIII S	eawall- 2nd Stage																
Seawall 2 &	12				STATES												
MAR21371	Zone CRIII - seawall 2 & 12 - Backfilling remaining portion	0	19-Jan-18 A	27-Jan-18 A	100%												
Zone D	(type A, geotextile and filter)	-															
Seawall Con	struction - Zone D																
Seawall 10 8	11																
MAR20630	Zone D - Seawall 10 & 11: Install remaining seawall block	14	20-Feb-18*	05-Mar-18	0%												
MAR20650	Zone D - Seawall 10 & 11: Backfill Type A	7	06-Mar-18	12-Mar-18	0%												
MAR20670	Zone D - Seawall 10 & 11: Lay geotextile and filter	7	13-Mar-18	19-Mar-18	0%												
	ection Completion	AND	10 10 10	19 1101 10	070	_											
Construction																	
	- Road A2, A4 & A5																
	Utilities - Section 1 (L1806 - L1801)																
Data Date:	Current Milestone     Actual Work														Date		Revis
20-Feb-18	Critical Remaining Work					ated Works Pr								20	0-Feb-1	18 12	<u> </u>
	Remaining Work				(Ref	o Rev.12 as of	f 20 Feb	urary	2018)								
	Remaining Level of Effort																



								Ce		n Cha	ontrac ai Deve Chai By	lopme	nt Pha	ase II	Wes	t							Ра	ge:2/7		
ID	Activity Name	Remaining Dur	Early Start	Early Finish	Activity % Complete	Jan	Feb	Mar A	Apr May	Jun	2018	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	2019 Jun	Jul	Aug	Sep	Oct
SIIIA10279c	Sec III A - section 1 carriageway - sewerage pipe from M/H 8C to F8B (night time): construct sewerage pipe	0	02-Jan-18 A	03-Feb-18 A	100%												Uni	100	mui		iviay	Juli	Jui	Aug	Seb	000
SIIIA10293	Sec III A - section 1 carriageway - sewerage pipe from M/H	6	05-Feb-18 A	26-Feb-18	0%			•																		
SIIIA10294	F8B - F8A (night time) Sec III A - section 1 carriageway - sewerage pipe from M/H	8	17-Jan-18 A	28-Feb-18	27.27%	-	-																			
SIIIA10295	F8A - F8 Sec III A - carriageway - works prrior TTA stage 5:	7	18-Jan-18 A	27-Feb-18	0%																					
SIIIA10298	excavation and duct laying of TCSS and public lighting Sec III A - section 1 carriageway - works prrior TTA stage	5	28-Feb-18	05-Mar-18	0%																					
	5: road kerb																									
SIIIA10301	Sec III A - section 1 carriageway - works prrior TTA stage 5: road formation	2	06-Mar-18	07-Mar-18	0%																					
SIIIA10302	Sec III A - section 1 carriageway - works prrior TTA stage 5: laying asphalt	5	08-Mar-18	13-Mar-18	0%			•																		
SIIIA10303	Sec III A - section 1 carriageway - works prrior TTA stage 5: road marking & preparation works	3	14-Mar-18	16-Mar-18	0%																					
SIIIA10310	Sec III A - section 1 carriageway - TTA stage 5: Implementation of TTA Stage 5	1	17-Mar-18	17-Mar-18	0%			- I	-																	
SIIIA10310a	Sec III A - section 1 carriageway - TTA stage 5: remaining	12	19-Mar-18	04-Apr-18	0%				-																	
SIIIA10310b	sewerage pipe for M/H F8A - M/H F8 Sec III A - section 1 carriageway - TTA stage 5: remaining	18	06-Apr-18	26-Apr-18	0%																					
SIIIA10310c	sewerage pipe for M/H F8A - M/H F8B Sec III A - section 1 carriageway - TTA stage 5: SR1	5	19-Mar-18	23-Mar-18	0%																					
	at-grade road- remove sheetpile at U-trough west								_																	
	Sec III A - section 1 carriageway - TTA stage 5: SR1 at-grade road -remove temp. road access bay 5 of SR1	21	24-Mar-18	21-Apr-18	0%																					
SIIIA10310e	Sec III A - section 1 carriageway - TTA stage 5: SR1 at-grade road -construct upstand wall above Dwall	25	23-Apr-18	23-May-18	0%																					
SIIIA10310f	Sec III A - section 1 carriageway - TTA stage 5: SR1 at-grade road - roadside barrier	14	24-May-18	08-Jun-18	0%																					
SIIIA10310g	Sec III A - section 1 carriageway - TTA stage 5: SR1 at-grade road - road formation	7	09-Jun-18	16-Jun-18	0%																					
SIIIA10310h	Sec III A - section 1 carriageway - TTA stage 5: SR1	14	19-Jun-18	05-Jul-18	0%																					
SIIIA10312	at-grade road - laying asphalt with transition slab Sec III A - roadwork and utilities section 1 carriageway -	15	19-Mar-18	09-Apr-18	0%																					
SIIIA10312a	Drainage works (L2202 - L2201) Sec III A - roadwork and utilities section 1 carriageway -	15	10-Apr-18	26-Apr-18	0%															2 2 2 2						
SIIIA10312b	Drainage works (L1805 - L1801) Sec III A - roadwork and utilities section 1 carriageway -	12	27-Apr-18	11-May-18	0%																					
SIIIA10313	Drainage works (L1805-1807) Sec III A - roadwork and utilities section 1 carriageway -	14	07-May-18	23-May-18	0%																					
	gully pipe (L1807 - L1801)																									
SIIIA10320	Sec III A - roadwork and utilities section 1 carriageway - fresh watermain	7	24-May-18	31-May-18	0%																					
SIIIA10340	Sec III A - roadwork and utilities section 1 carriageway - utilities: HEC (80m) along carriageway	14	01-Jun-18	16-Jun-18	0%																					
SIIIA10360	Sec III A - roadwork and utilities section 1 carriageway - road kerb & formation	14	19-Jun-18	05-Jul-18	0%																					
SIIIA10400	Sec III A - roadwork and utilities section 1 carriageway - black top	7	06-Jul-18	13-Jul-18	0%																					
SIIIA10420	Sec III A - Implementation of TTA Stage 7P (Closure of	1	14-Jul-18	14-Jul-18	0%						1															
SIIIA10440	U-turn at Expo Drive) Sec III A - roadwork and utilities section 1 carriageway :	10	16-Jul-18	26-Jul-18	0%						_															
SIIIA10460	breaking existing asphalt Sec III A - roadwork and utilities section 1 carriageway: road	14	27-Jul-18	11-Aug-18	0%																					
SIIIA10480	kerb and formation Sec III A - roadwork and utilities section 1 carriageway :	10	13-Aug-18	23-Aug-18	0%																					
SIIIA10500	black top												_													
	Sec III A - roadwork and utilities section 1 carriageway : roadmarking and road furniture	14	24-Aug-18	08-Sep-18	0%																					
Roadwork &	Utilities - Section 2 (L1810 - L1807)																									
SIIIA12590	Sec III A - roadwork and utilities section 2 carriageway - black top	0	20-Jan-18 A	27-Jan-18 A	100%																					
Roadwork &	Utilities - Section 3 (L1808 - L1102)																									
SIIIA12770	Sec III A - roadwork and utilities section 3 carriageway -	0	20-Jan-18 A	07-Feb-18 A	100%																					
SIIIA12790	utilities: HEC ducting (60m) & crossroad duct (PCCW & HGC) Sec III A - roadwork and utilities section 3 carriageway -	17	08-Feb-18 A	10-Mar-18	0%																					
SIIIA12810	road kerb & formation Sec III A - roadwork and utilities section 3 carriageway -	7	12-Mar-18	19-Mar-18	0%																					
	black top Utilities - Section 6 (L1102 - L1411)																									
SIIIA13399		0	12 100 10 4	26 br 10 4	10004																					
	Sec III A - roadwork and utilities section 6 carriageway - gully pipe (L1101 -L1102)	0	12-Jan-18 A	26-Jan-18 A	100%																					
SIIIA13444	Sec III A - roadwork and utilities section 6 carriageway - watermain (road crossing)	0	27-Jan-18 A	03-Feb-18 A	100%																					
SIIIA13445	Sec III A - roadwork and utilities section 6 carriageway - utilities: crossed duct(HEC, HGC, PCCW)	13	05-Feb-18 A	06-Mar-18	0%			-																		

							Centra	Wan	D Cont Chai D an Chai	evelo	opme	nt Ph	ase II	i Wes	t					
vity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Activity % Complete	Jan Fet			2018					1						2
SIIIA13450	Sec III A - roadwork and utilities section 6 carriageway -	18	07-Mar-18	27-Mar-18	0%	Jan Pel	Mar Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
SIIIA13470	road kerb & formation Sec III A - roadwork and utilities section 6 carriageway -	7	28-Mar-18	09-Apr-18	0%		-												1 1 1 1	
SIIIA13570	black top Achievement of Section IIIA of the Works	0		08-Sep-18	0%															
	emaining At-Grade Road & Road P2																			
																			_	
Roadwork &																				
Section 1 (L1	L504 - L1900)																			-
SV12456	Sec V-Roadwork & Utilities Section 1 - implementation of TTA stage 5E (closure of slow lane at northbound of Expo	0	20-Feb-18*	20-Feb-18	0%															
SV12460	Sec V - Roadwork & Utilities Section 1 - drinage works	15	20-Feb-18	08-Mar-18	0%															
SV12462	(L1902 - L1900) Sec V - Roadwork & Utilities Section 1 - gully pipe (L1902 -	6	09-Mar-18	15-Mar-18	0%															
SV12464	L1900) Sec V - Roadwork & Utilities Section 1 - temp. reinstatement	14	16-Mar-18	04-Apr-18	0%															
SV12466	to match with existing Expo Drive Sec V - Section 1 - Modification to 2nd stage ITA (V.O. 50) :	1	14-Jul-18	14-Jul-18	0%					_										
	closure of northbound and maintain one lane at southbound																			
SV12468	Sec V - Roadwork & Utilities Section 1 Carriageway - breaking existing asphalt	7	16-Jul-18	23-Jul-18	0%					•										
SV12490	Sec V - Roadwork & Utilities Section 1 Carriageway - Road kerb & formation	10	24-Jul-18	03-Aug-18	0%															
SV12520	Sec V - Roadwork & Utilities Section 1 Carriageway - Black top	7	04-Aug-18	11-Aug-18	0%					1	-									
SV12522	Sec V - Section 1 - Implementation of TTA for road closure	3	13-Aug-18	15-Aug-18	0%						٠									
SV12524	of northbound and southbound of Expo Drive Sec V - Section 1 - Northbound & Southbound of Expo Drive :	14	16-Aug-18	31-Aug-18	0%															
SV12526	breaking asphalt Sec V - Section 1 - Northbound & Southbound of Expo Drive :	14	01-Sep-18	17-Sep-18	0%															
SV12528	road kerb & formation Sec V - Section 1 - Northbound & Southbound of Expo Drive :	7	18-Sep-18	26-Sep-18	0%							_								
	black top											-								
SV12570	Sec V - Roadwork & Utilities Section 1 footpath - utilities:TCSS	12	29-Dec-17 A	05-Mar-18	60%															
SV12580	Sec V - Roadwork & Utilities Section 1 footpath - paving block	29	06-Mar-18	12-Apr-18	0%															
Section 2 ( L	1510 - L1504)																			
SV12624	Sec V - Roadwork & Utilities Section 1 Carriageway - road kerb & formation	0	04-Jan-18 A	30-Jan-18 A	100%															
SV12626	Sec V - Roadwork & Utilities Section 1 Carriageway - black	13	31-Jan-18 A	06-Mar-18	0%															
SV12692	top Sec V - Roadwork & Utilities Section 2 footpath - U channel	11	17-Jan-18 A	03-Mar-18	21.43%	Entertaint														
SV12695	Sec V - Roadwork & Utilities Section 2 footpath - Watermain	13	05-Mar-18	19-Mar-18	0%															
SV12700	Sec V - Roadwork & Utilities Section 2 footpath - utilities: TCSS	16	20-Mar-18	11-Apr-18	0%															
SV12740	Sec V - Roadwork & Utilities Section 2 footpath - paving block	18	12-Apr-18	03-May-18	0%			•												
Section 3 ( C	Culvert L - L1510)																			
SIV12860	Sec V - Roadwork & Utilities Section 3 footpath - Utilities: TCSS, HGC, PCCW)	30	16-Jan-18 A	26-Mar-18	11.76%															
SIV12880	Sec V - Roadwork & Utilities Section 3 footpath - Paving	21	27-Mar-18	24-Apr-18	0%															
Section 4 (K)	block 1106 - Culvert L)																			
SIV12282	Sec V - Roadwork & Utilities Section 4 Carriageway -	10	20-Feb-18	02-Mar-18	0%															
	Drainage Works (L1311 - Culvert L, L1201 - Culvert L)																			
SIV12300	Sec V - Roadwork & Utilities Section 4 Carriageway - Gully pipe (L1301 - Culvert L, L1201 - Culvert L)	7	03-Mar-18	10-Mar-18	0%															
SIV12302	Sec V - Roadwork & Utilities Section 4 Carriageway - watermain	6	12-Mar-18	17-Mar-18	0%															
SIV12305	Sec V - Roadwork & Utilities Section 4 Carriageway - utilities : cross road duct	7	19-Mar-18	26-Mar-18	0%															
SIV12310	Sec V - Roadwork & Utilities Section 4 Carriageway - Road	15	27-Mar-18	17-Apr-18	0%															
SIV12320	kerb & formation : between culvert K and culvert L Sec V - Roadwork & Utilities Section 4 Carriageway - Black	10	18-Apr-18	28-Apr-18	0%		_													
SIV12340	top : between culvert K and culvert L Sec V - Roadwork & Utilities Section 4 Carriageway - Black	7	20-Feb-18	27-Feb-18	0%															
	top : at west of culvert K Sec V - Roadwork & Utilities Section 4 footpath - Utilities :																			
SIV12422	TCSS	20	20-Feb-18	14-Mar-18	0%															
SIV12440	Sec V - Roadwork & Utilities Section 4 footpath - Utilities : HGC & PCCW	8	15-Mar-18	23-Mar-18	0%															

			Pa	age : 3 / 7		
		2019	1		1	
Apr	May	Jun	Jul	Aug	Sep	Oct /
	4 4 4 4 4					
	- - - -					
				- - - - - - - - - - - - - - - - - - -		
			4 9 9 9 9	9 8 9 9 9 9 9 9		
	* * * *					

									Centr	Wan	Chai	ntract Devel nai By	opme	nt Ph	ase II		st							Pa	ge:4/7		
rity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Activity % Complete	Jan	Feb	Mar	Apr	May	Jun	2018 Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	2019 Jun	Jul	Aug	Sep	Oct
SIV12460	Sec V - Roadwork & Utilities Section 4 footpath - Paving	22	24-Mar-18	23-Apr-18	0%					incej			ribg	COP				our	100		, interest	indy	bui	Uui	nug	ocp	
SV10300	block Achievement of Section V of the Works	0		26-Sep-18	0%																						
Section IV - S	lip Road 3																										
Roadwork &																											
								-						1 1 1 1													
	6608 - L1601)							_																			
SIV11747	Sec IV - sign gantry DS20 & DS21 footing (type 2): excavation & ELS	4	30-Dec-17 A	23-Feb-18	80.95%																						
SIV11748	Sec IV - sign gantry DS20 & DS21 footing (type 2): footing structure	21	24-Feb-18	20-Mar-18	0%			:																			
SIV11749	Sec IV - sign gantry DS20 & DS21 footing (type 2): removal of ELS and backfilling	10	21-Mar-18	04-Apr-18	0%			-																			
SIV11751	Sec IV - sign gantry DS21 footing (type 3): excavation	5	26-Mar-18	03-Apr-18	0%				<b>-</b>																		
SIV11752	Sec IV - sign gantry DS21 footing (type 3): footing structure	13	04-Apr-18	19-Apr-18	0%					2 2 2 2 2 2 2 3				4 4 4 4													
SIV11753	Sec IV - sign gantry DS20: install steel frame of gantry D20	14	15-Aug-18	30-Aug-18	0%																						
SIV11760	Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway -	0	09-Dec-17 A	26-Jan-18 A	100%	Station and																					
	Drainage Works (L1607 - L1601)	•								8 8 8 8																	
SIV11761	Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway - Drainage Works (L1602 - L2005)	0	20-Jan-18 A	27-Jan-18 A	100%																						
SIV11762	Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway - Drainage Works (L2103-L2101A)	17	29-Jan-18 A	10-Mar-18	0%																						
SIV11763	Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway - Drainage Works (L2004 - L2005, L2101 - L2101A)	21	20-Apr-18	15-May-18	0%																						
SIV11764	Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway - Gully pipe (L1607-L1601)	21	12-Mar-18	09-Apr-18	0%																						
SIV11765	Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway -	7	17-May-18	25-May-18	0%																						
SIV11780	Gully pipe (L2004) Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway -	18	26-May-18	15-Jun-18	0%						-			*													
SIV11800	Watermain Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway -	14	16-Jun-18	04-Jul-18	0%							-															
SIV11830	Utilities : TCSS crossroad duct Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway	24	05-Jul-18	01-Aug-18	0%																						
	- Road kerb & formation												_														
SIV11840	Sec IV - Roadwork & Utilities at SR3 Section 1 Carriageway - Black top	11	02-Aug-18	14-Aug-18	0%																						
SIV11860	Sec IV - Roadwork & Utilities at SR3 Section 1 footpath - Drainage Works: future connection pipes	7	26-May-18	02-Jun-18	0%					-										-							
SIV11880	Sec IV - Roadwork & Utilities at SR3 Section 1 footpath - watermain	7	04-Jun-18	11-Jun-18	0%																						
SIV11900	Sec IV - Roadwork & Utilities at SR3 Section 1 footpath - utilities: HEC & TCSS	39	12-Jun-18	28-Jul-18	0%																						
SIV11920	Sec IV - Roadwork & Utilities at SR3 Section 1 footpath -	17	30-Jul-18	17-Aug-18	0%							1		5 5 6 8 9													
Section 2 ( L	paving block 2301 - L2103)						-																				
SIV11942	Sec IV - Roadwork & Utilities at SR3 Section 2 Carriageway -	0	28-Dec-17 A	23-Jan-18 A	100%																						
SIV11960	Gully pipe (L2301-L2013, L1608-L1609) Sec IV - Roadwork & Utilities at SR3 Section 2 Carriageway -	0	24-Jan-18 A	03-Feb-18 A	100%																						
SIV12010	Watermain Sec IV - Roadwork & Utilities at SR3 Section 2 Carriageway -	20	05-Feb-18 A	14-Mar-18	0%									2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2													
	Road kerb & formation	7																									
SIV12020	Sec IV - Roadwork & Utilities at SR3 Section 2 Carriageway - Black top	/	15-Mar-18	22-Mar-18	0%										ļ			ļ						ļ			
SIV12040	Sec IV - Roadwork & Utilities at SR3 Section 2 footpath - Drainage Works: future connection pipes	7	07-Mar-18	14-Mar-18	0%																						
SIV12060	Sec IV - Roadwork & Utilities at SR3 Section 2 footpath - utilities: TCSS	25	15-Mar-18	17-Apr-18	0%																						
SIV12080	Sec IV - Roadwork & Utilities at SR3 Section 2 footpath - paving block	21	18-Apr-18	12-May-18	0%																						
Section 3 ( N	//H1.6 - L2301)																										
SIV12092	Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway -	38	28-Dec-17 A	09-Apr-18	35.59%		-		-																		
SIV12096	Drainage Works (M/H1.7 - L2301) Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway -	0	29-Nov-17 A	24-Jan-18 A	100%			•••							+						+						
SIV12102	M1.7-M1.6: construct manholes Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway	. 0	25-Jan-18 A	08-Feb-18 A	100%	1																					
	M1.7-M1.6: demolish existing seawall Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway	- 10	09-Feb-18 A	02-Mar-18	0%	1		100																			
SIV12103	M1.7-M1.6: ELS					1			-																		
SIV12104	Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway - M1.7-M1.6: Construct manhole & pipes		03-Mar-18	11-Apr-18	0%									-													
SIV12120	Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway Drainage Works (M1.6-C1.1-C1.2): ELS,construct MH and	- 28	12-Apr-18	15-May-18	0%																						

#### CEDD Contract No. HK/2012/08 Wan Chai Development Phase II Central - Wan Chai Bypass at Wan Chai West Activity ID ctivity Nan emaining Dur Early Start Early Finis Activity % Complete Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr SIV12121 Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway 16-May-18 23-May-18 0% 6 Drainage Works (M1.6-C1.1-C1.2): Backfilling & shift lane STV12122 Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway Drainage Works (M1.6-C1.1-C1.2): Construct MH C1.2 5 24-May-18 29-May-18 0% SIV12140 Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway -32 10-Apr-18 17-May-18 0% Gully pipe (M/H 1.7 - L2301) SIV12150 Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway -14 18-May-18 04-Jun-18 0% Road kerb Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway -SIV12155 10 05-Jun-18 15-Jun-18 0% formation SIV12160 Sec IV - Roadwork & Utilities at SR3 Section 3 Carriageway 7 16-Jun-18 25-Jun-18 0% Black top SIV12170 Sec IV - Roadwork & Utilities at SR3 Section 3 footpath -21 10-May-18 04-Jun-18 0% Utilities: TCSS SIV12180 Sec IV - Roadwork & Utilities at SR3 Section 3 footpath - U 10 05-Jun-18 15-Jun-18 0% channel SIV12220 Sec IV - Roadwork & Utilities at SR3 Section 3 footpath -25 16-Jun-18 17-Jul-18 0% Paving block SIV12222 Achievement of Section IV of the Works 0 30-Aug-18 0% Section VII - Remainder Works Road & Drainage Works (Culvert L - M/H1.7, Adjacent to SR3) SVII11600 Sec IV - Roadwork & Utilities at SR3 Section 4 Carriageway -48 08-1an-18 A 20-Apr-18 18.64% Drainage Works (Culvert L -MH1.7) Sec IV - Roadwork & Utilities at SR3 Section 4 Carriageway : SVII11620 3 21-Apr-18 24-Apr-18 0% traffic diversion at Lung King Street SVII11640 Sec IV - Roadwork & Utilities at SR3 Section 4 Carriageway 27 25-Apr-18 28-May-18 0% -Gully pipe (Culvert L -MH1.7) SVII11650 Sec IV - Roadwork & Utilities at SR3 Section 4 Carriageway 29-May-18 05-Jun-18 0% TCSS duct SVII11654 Sec IV - Roadwork & Utilities at SR3 Section 4 Carriageway 14 06-Jun-18 22-Jun-18 0% road kerb & formation SVII11660 Sec IV - Roadwork & Utilities at SR3 Section 4 Carriageway 6 23-lun-18 29-Jun-18 0% Black top SVII11680 Sec IV - Roadwork & Utilities at SR3 Section 4 footpath - U 14 29-May-18 13-Jun-18 0% channel SVII11700 Sec IV - Roadwork & Utilities at SR3 Section 4 footpath -14 14-Jun-18 30-Jun-18 0% utilities: TCSS SVII11720 Sec IV - Roadwork & Utilities at SR3 Section 4 footpath -14 03-Jul-18 18-Jul-18 0% naving block **Retaining Wall RW5 Construction** SVII10660 Sec VII - Retaining Wall RW5 (bay 1) - construct base slab 22 20-Mar-18 18-Apr-18 0% Contraction of the and wall SVII10680 Sec VII - Retaining wall RW5 (bay 2) - construct base slab 22 19-Apr-18 15-May-18 0% Concernant of and wall Sec VII - Retaining wall RW5 (bay 3) - construct base slab SVII10800 22 20-Mar-18 18-Apr-18 0% and wall SVII10820 Sec VII - Retaining wall RW5 (bay 4) - construct base slab 22 19-Apr-18 15-May-18 0% and wall SVII10860 Sec VII - Retaining wall RW5 - curing, removal formwork 8 16-May-18 25-May-18 0% Landing Steps Construction Landing Steps BSW13 SVII10900 Sec VII - Landing steps (BSW13) - install vertical fender / 15 15-May-18 01-Jun-18 0% step fender SVII10920 Sec VII - Landing steps (BSW13) - install s.s. handrail / 25 02-Jun-18 0% 03-Jul-18 tactile / sign board / bollard Landing Steps BSW4 SVII10980 Sec VII - Landing steps (BSW4) - install vertical fender / step 15 20-Jun-18 07-Jul-18 0% fender SVII11000 Sec VII - Landing steps (BSW4) - install s.s. handrail / tactile 25 09-Jul-18 06-Aug-18 0% / sign board / bollard Landing Steps BSW5 SVII11060 Sec VII - Landing steps (BSW5) - install vertical fender / step 15 25-Jul-18 10-Aug-18 0% fender SVII11080 Sec VII - Landing steps (BSW5) - install s.s. handrail / tactile 25 11-Aug-18 08-Sep-18 0% / sign board / bollard Landing Steps BSW9 SVII11140 Sec VII - Landing steps (BSW9) - Install vertical fender / step 15 13-Jun-18 30-Jun-18 0% fender SVII11160 Sec VII - Landing steps (BSW9) - install s.s. handrail / tactile 25 03-Jul-18 0% 31-Jul-18 / sign board / bollard

			Pa	age : 5 / 7	7	
		2019				
	May	Jun	Jul	Aug	Sep	Oct
				1		
				-		
1						
			_			
/						
****						
-						
***						
-						
í.,			1		1	

						CEDD Contract No. HK/2012/08 Page:6/7 Wan Chai Development Phase II Central - Wan Chai Bypass at Wan Chai West
	Activity Name	Remaining Dur	Early Start	Early Finish	Activity % Complete	2018         2019           Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep           Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec         Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Sep         Sep         Sep         Sep         Sep         Sep         Sep         Sep         Sep
romenade S	eawall Parapet Construction & EVA					
SVII12000	Sec VII - Precast parapet	67	18-Nov-17 A	14-May-18	0%	
VII12010	Sec VII - Zone CRIII - seawall parapet: Backfilling	14	20-Feb-18	07-Mar-18	0%	
SVII12120	Sec VII - Zone CRIII - seawall parapet: Construct mass	30	08-Mar-18	16-Apr-18	0%	
VII12122	concrete coping Sec VII - Zone CRIII - seawall parapet: reinforced concret	17	17-Apr-18	07-May-18	0%	
VII12140	coping Sec VII - Zone CRIII - seawall parapet: construct seawall	30	08-May-18	12-Jun-18	0%	
VII12160	parapet Sec VII - CRIII - EVA: watermain	14	13-Jun-18	29-Jun-18	0%	
		14		17-Jul-18		
WII12180	Sec VII - CRIII - EVA: U-channel		30-Jun-18		0%	
SVII12200	Sec VII - CRIII - EVA: bituminous layer	5	18-Jul-18	23-Jul-18	0%	
SVII12220	Sec VII - CRIII - EVA: paving block	30	24-Jul-18	27-Aug-18	0%	
SVII13120	Sec VII - Zone A1, A2 & B - seawall parapet: Construct mass concrete coping	14	28-Dec-17 A	07-Mar-18	68.18%	
SVII13122	Sec VII - Zone A1, A2 & B - seawall parapet: reinforced concrete coping	18	08-Mar-18	28-Mar-18	0%	
SVII13140	Sec VII - Zone A1, A2 & B - seawall parapet: Construct seawall parapet	30	09-Apr-18	14-May-18	0%	
SVII13160	Sec VII - Zone A1, A2 & B - EVA: watermain	14	15-May-18	31-May-18	0%	
SVII13180	Sec VII - Zone A1, A2 & B - EVA: U-channel	14	01-Jun-18	16-Jun-18	0%	
SVII13182	Sec VII - Zone A1, A2 & B - EVA: bituminous layer	5	19-Jun-18	23-Jun-18	0%	
VII13184	Sec VII - Zone A1, A2 & B - EVA: paving block	30	25-Jun-18	30-Jul-18	0%	
SVII13200	Sec VII - Zone D - seawall parapet: Remove temporary	21	07-Mar-18	03-Apr-18	0%	
SVII13220	seawall block Sec VII - Zone D - seawall parapet: Construct mass concrete	30	04-Apr-18	10-May-18	0%	
SVII13222	Sec VII - Zone D - seawall parapet: reinforced concrete	18	11-May-18	01-Jun-18	0%	
SVII13240	coping Sec VII - Zone D - seawall parapet: Construct seawall	25	02-Jun-18	03-Jul-18	0%	
	parapet Sec VII - Zone D - EVA : watermain	14			0%	
SVII13260			04-Jul-18	19-Jul-18		
SVII13280	Sec VII - Zone D - EVA : U-channnel	14	20-Jul-18	04-Aug-18	0%	
SVII13300	Sec VII - Zone D - EVA : bituminous layer	5	06-Aug-18	10-Aug-18	0%	
SVII13320	Sec VII - Zone D - EVA : paving block	30	11-Aug-18	14-Sep-18	0%	
Promenade F	ootpath					
Section 1						
SVII10440	Sec VII - section 1 footpath - drainage works : connection pipe & U -channel	10	24-May-18	04-Jun-18	0%	
SVII10445	Sec VII - section 1 footpath - watermain	7	05-Jun-18	12-Jun-18	0%	
SVII10460	Sec VII - section 1 footpath - lighting	7	13-Jun-18	21-Jun-18	0%	
SVII10500	Sec VII - section 1 footpath - paving block	21	22-Jun-18	17-Jul-18	0%	
Section 2		Non-Stand	100 Martin		ALC: NO	
SVII12610	Sec VII - section 2 footpath - drainage works : L2202 -	20	20-Feb-18	14-Mar-18	0%	
	L2203A Sec VII - section 2 footpath - watermain	7	15-Mar-18	22-Mar-18	0%	
SVII12630	Sec VII - section 2 footpath - utilities: TCSS	21	23-Mar-18	20-Apr-18	0%	
		30			0%	
	Sec VII - section 2 footpath - paving block	UC	21-Apr-18	28-May-18	070	
Section 3						
	Sec VII - section 3 footpath - watermain	17	20-Feb-18	10-Mar-18	0%	
SVII12870	Sec VII - section 3 footpath - utilities (HEC, TCSS, HGC, PCCW)	40	12-Mar-18	02-May-18	0%	
SVII12875	Sec VII - 3 footpath - drainage works :U chanel	14	03-May-18	18-May-18	0%	

								Centr	Wan	Chai	Deve	t No. H Iopme pass	ent Ph	ase II		st				
ID	Activity Name	Remaining Dur	Early Start	Early Finish	Activity % Complete	Jan F	eb Mar	Apr	May	2 Jun	018 Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	A
SVII12890	Sec VII - section 3 footpath - paving block	30	19-May-18	25-Jun-18	0%	, in the second		1.41		Jun	Jun	nug	Gep	000	1400	Dec	Jan	Feb	Wat	
Section 4																				
SVII13049	Sec VII - section 4 footpath - watermain	1	14-Nov-17 A	20-Feb-18	95.24%															
SVII13050	Sec VII - section 4 footpath - drainage works (L2203	21	21-Feb-18	16-Mar-18	0%															
SVII13055	-L2203A) Sec VII - section 4 footpath - utilities: HEC, TCSS, HEC &	49	17-Mar-18	18-May-18	0%															
SVII13110	PCCW Sec VII - section 4 footpath - paving block	25	19-May-18	19-Jun-18	0%			-												-
Section 5																				
SVII13270	Sec VII - section 5 footpath - drainage works :L2203A	14	17-Mar-18	06-Apr-18	0%			-												
SVII13275	-L2204 Sec VII - section 5 footpath - watermain	14	07-Apr-18	23-Apr-18	0%															
SVII13310	Sec VII - section 5 footpath - utilities: HEC, TCSS, HGC,	42	24-Apr-18	13-Jun-18	0%															
SVII13330	PCCW Sec VII - section 5 footpath - paving block	22	14-Jun-18	11-Jul-18	0%															
Section 6					and the second															
SVII13490	Sec VII - section 6 footpath - drainage works(Culvert L -	14	20-Feb-18	07-Mar-18	0%															
SVII13510	L2204) Sec VII - section 6 footpath - watermain	13	08-Mar-18	22-Mar-18	0%															
SVII13514	Sec VII - section 6 footpath - U channel	20	23-Mar-18	19-Apr-18	0%															
SVII13530	Sec VII - section 6 footpath - utilities: HEC, TCSS, HGC,	49	23-Mar-18	25-May-18	0%															<b>.</b>
SVII13550	PCCW Sec III A - section 6 footpath - paving block	25	26-May-18	25-Jun-18	0%															
SVII19420	Achievement of Section VII of the Works	0	20110/ 20	14-Sep-18	0%															
	Landscape Softworks	v		11 500 10	0.00															
Soft Landsca				21.0.10																
SVIII10040	Sec VIII - Trees Planting	141	04-May-18	21-Sep-18	0%															
SVIII10060	Sec VIII - Shrubs Planting	141	04-May-18	21-Sep-18	0%															
SVIII10080	Achievement of Section VIII of the Works	0		21-Sep-18	0%								•							
	stablishment Works																			
Soft Landsca	ping Works												-							
SIX10020	Sec IX - Establishment Works	365	22-Sep-18	21-Sep-19	0%															
SIX10040	Achievement of Section IX of the Works	0		21-Sep-19	0%															
Section X - Pr	rotection & Preservation of Trees																			
Summary of	Section X - Protection & Preservation of Trees																			
SX10000	Achievement of Section X of the Works	0		21-Sep-18	0%								•							
Soft Landsca	ping Works																			1
SX10020	Sec X - Protection & Preservation of Trees	214	31-Jan-13 A	21-Sep-18	86.89%	i i i	:	1	1		and the second	1	Constant of the							

