MTR Corporation Limited

Siu Ho Wan Station and
Siu Ho Wan Depot Replanning Works

Monthly EM&A Report

(September 2022)

Verified by: James Choi

Position: Independent Environmental Checker

Date: 11 October 2022

MTR Corporation Limited

Siu Ho Wan Station and
Siu Ho Wan Depot Replanning Works

Monthly EM&A Report

(September 2022)

Certified by: Edan Li

Position: Environmental Team Leader

Date: 11 Oct 2022

MTR Corporation Limited

Consultancy Agreement
No. NEX/1062

Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Advance Construction Works

Monthly EM&A Report No. 10

[Period from 1 to 30 September 2022]

	Name	Signature
Prepared & Checked:	Vanessa Ao	
Reviewed & Approved:	Angela Tong	

Version: A	Date: 11 October 2022

AECOM Asia Co. Ltd.
8/F, Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3922 9000 Fax: (852) 3922 9797 www.aecom.com

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1 INTRODUCTION

1.1 Background

1.1.1 MTR Corporation Limited (MTRCL) had commenced a study to formulate a technically feasible development scheme for the Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot (hereinafter referred to the "Oyster Bay (OYB) Property Development") to optimize housing supply. To facilitate the construction of the OYB Property Development, railway related works would be required. The existing Siu Ho Wan Depot (SHD) will undergo replanning works to make room for the phased construction of the OYB Property Development, while maintenance and supporting services to the existing Tung Chung Line (TCL), Airport Express Line (AEL) and Disneyland Resort Line (DRL) should be maintained without causing disruption to the normal operation. A new Oyster Bay (OYB) Station (formerly named as Siu Ho Wan Station (SHO)) has also been proposed along the TCL tracks to meet transport needs of the OYB Property Development and enable building of a sustainable community.

1.1.2 The Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-214/2017) for the SHO and SHD Replanning Works (hereafter referred to as the "Project") was approved on 29 November 2017 under the Environmental Impact Assessment Ordinance (EIAO). Following the approval of the EIA Report, an Environmental Permit (EP) was granted on 22 March 2021 (EP No: EP-588/2021) for the construction and operation of the Project.

1.2 Project Programme

1.2.1 Two civil construction works contracts of the Project have been awarded since December 2021. The construction of the Project commenced in Decemeber 2021 and is expected to complete in 2023. **Table 1.1** summarises the information of the awarded Works Contracts.

Table 1.1 Summary of Awarded Works Contracts

Works Contract	Description	Construction Start Date	Contractor	Environmental Team
1732	Cable bridges and associated civil works for cable diversion	December 2021	Paul Y – CRCCI JV	Acuity Sustainability Consulting Ltd.
1733	Vehicular Access Bridge, Demolition of Paint Shop and Construction of EV Stabling Tracks	April 2022	Build King Civil Engineering Ltd.	SGS Hong Kong Ltd.

1.3 Purpose of the Report

1.3.1 The Environmental Monitoring and Audit (EM&A) programme for the Project commenced in December 2021. This is the tenth EM&A Report for the Project which summarises the EM&A works undertaken by the respective Contractor's ETs during the period from 1 to 30 September 2022.

2 ENVIRONMENTAL MONITORING AND AUDIT

2.1 EM&A Results

2.1.1 The EM&A Report for Works Contract 1732 and 1733 prepared by the Contractor's ET are provided in **Appendices A** to **B**. The EM&A Report provides details of the project information, EM&A requirements, impact monitoring and audit results for the Contract.

2.1.2 A summary of the major construction activities undertaken by the Contractor of Works Contract during the reporting period is presented in **Table 2.1**.

Table 2.1 Summary of Major Construction Activities in the Reporting Period

Works Contract	Site	Construction Activities
1732	Overall	• UU Detection at AB11, AB25 and Site Office Area (Including Trial Pit) ; • General Survey Works ; • Instrumentation Monitoring ; • Civil Works for Cable and Watermain Diversion ; • Footing Construction for EC1, EC2, WC1 and WC2 ; • AB11 Modification Works ; • Cable Brackets Construction ; and • Plate Load Test for Link Bridge Footing.
1733	Overall	• Site Clearance & Hoarding/ UU/ Cable Trenches; • Paint Shop Demolition ; • Excavation ; • Substructure ; • Instruments Installation & Plate Load Test ; • EV Tracks – Formation and Track Installation ; • Demolition of Existing Chain Link Fence ; and • Breaking of Existing Concrete Pavement.

2.1.3 During the reporting period, impact monitoring for air quality was conducted in accordance with the EM&A Manual. No exceedances of the Action / Limit Level of 1-hour TSP due to the Project construction were recorded. Results of air quality is summarised in **Tables 2.2**. Details of the monitoring requirements, locations, equipment and methodology are presented in **Appendices A to B** of this Report.

Table 2.2 Summary of 1-Hour TSP Monitoring Results in the Reporting Period

Monitoring Station ID	Location	TSP Concentration (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)	Exceedance due to the Project Construction (Yes/No)
Works Contract 1732 & 1733					
DM1	Siu Ho Wan Government Maintenance Depot	59.6 – 79.9	294.7	500	No

2.1.4 No environmental complaints, notification of summons and successful prosecutions were recorded in the reporting period. Log for environmental complaints, notification of summons and successful prosecutions is provided in **Table 2.3**.

Table 2.3 Log for Environmental Complaints, Notification of Summons and Successful Prosecutions for the Reporting Month

Works Contract	Environmental Complaints	Notification of Summons	Successful Prosecutions
1732	0	0	0
1733	0	0	0

2.1.5 Regular site inspections were conducted by the Contractor's ET on a weekly basis to check the implementation of environmental pollution control and mitigation measures for the Project. No non-conformance was identified in the reporting period.

3 IMPLEMENTATION STATUS ON THE ENVIRONMENTAL PROTECTION REQUIREMENTS

3.1.1 The Contractor has implemented all mitigation measures and requirements as stated in the EIA Report, EM&A Manual and EP (EP No: EP-588/2021). The status of required submissions under the EP as of the reporting period are summarised in **Table 3.1**.

Table 3.1 Summary of EP Submissions Status

EP Condition (EP-588/2021)	Submission	Submission date
Condition 1.12	Commencement Date of Construction	11 Jun 2021 (1st submission) 12 Jul 2021 (2nd submission) 12 Aug 2021 (3rd submission)
Condition 2.7	Construction Works Phasing Schedule Proposal	1 Nov 2021 (1st Submission) 20 Dec 2021 (2nd Submission) 29 Dec 2021 (Deposited)
Condition 2.8	Environmental Permit Submission Schedule	12 Aug 2021 10 Sep 2021 (Deposited)
Condition 2.9	Management Organization	1 Nov 2021 (1st Submission) 20 Dec 2021 (2nd Submission) 21 Mar 2022 (3rd Submission) 9 Aug 2022 (4th Submission)
Condition 2.10	Construction Noise Mitigation Plan	1 Nov 2021 (1st Submission) 20 Dec 2021 (2nd Submission) 28 Dec 2021 (Deposited)
Condition 2.13	Waste Management Plan	1 Nov 2021 (1st Submission) 20 Dec 2021 (2nd Submission) 28 Dec 2021 (Deposited)
Condition 3.3	Baseline Monitoring Report	1 Nov 2021 16 Nov 2021 (Deposited)
Condition 3.4	Monthly EM&A Report No.10 (Sep 2022)	11 Oct 2022
Condition 4.2	Dedicated Internet Website	12 Jan 2022

Appendix A

Monthly EM&A Report for September 2022 – Cable Bridges and Associated Civil Works for Cable Diversion Works Contract 1732

MTR Corporation Limited

Siu Ho Wan Depot Property Development -

Cable Bridges and Associated Civil Works for Cable Diversion

Monthly EM&A Report

(Period from 1 to 30 September 2022)

	Name	Signature
Prepared by	Howard Chan	
Checked & Reviewed by	F. C. Tsang	

Acuity Sustainability Consulting Limited
Flat/RM E, 12/F, Ford Glory Plaza,
Nos. 37-39 Wing Hong Street, Kowloon, Hong Kong
tel +852 2698 6833
fax +852 2698 9383 | e-mail admin@acuityhk.com
http www.acuityhk.com | www.aurecongroup.com

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EXECUTIVE SUMMARY

A.1 This is the 10th monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the reporting period from 1 to 30 September 2022.

A.2 A summary of the construction works reported by the Main Contractor for the Project during the reporting month is listed below.

Construction activities undertaken

- UU detection at AB11, AB25 and site office area (including trial pit)
- General survey works
- Instrumentation monitoring
- Civil works for cable and watermain diversion
- Footing construction for EC1, EC2, WC1 and WC2
- AB11 modification works
- Cable brackets construction
- Plate load test for link bridge footing

A.3 A summary of regular construction dust monitoring activities in this reporting period is listed below:

Construction dust (1-hour TSP) monitoring

DM1	15 times

A.4 Weekly environmental site inspections were conducted during the reporting period. A joint site inspection with the IEC was carried out on 13 September 2022. Recommendations were reported during the site inspections. All items are rectified within the reporting period. The environmental performance of the Project was considered satisfactory.

A.5 Details of waste management are presented in **Section 3**.

A.6 No Action and Limit Levels exceedance of 1-hour TSP was recorded during the reporting period.

A.7 No complaint or non-compliance was reported in the reporting period.

A.8 No notification of summon or prosecution was received in this reporting period.

A.9 No changes of EM&A programme were made in this reporting period.

A.10 A summary of the construction activities provided by the Main Contractor in the next three reporting months are listed below:

Construction Activities to be undertaken
• Civil works for cable trench and draw-pit construction for cable diversion (2a/2b) • Instrumentation installation and monitoring • General survey works • AB11 modification works • Pile load test • Construction of footings for EC1/WC1/EC2/WC2/EC3/WC3, footing 1 & 2 • Assembly of the steel bridges and erection preparation works • Construction of cable brackets • Setup of the basement for the crawl crane sitting area and the crawl crane assembly

1. BASIC PROJECT INFORMATION

1.1.1. The Project involves the construction of the foundations and superstructure for two cable bridges and each of two spans across and above the Tung Chung Line, Airport Express Line and the Siu Ho Wan Depot test track. The Works enable the diversion of the existing utilities to provide space for the future foundation works of the Siu Ho Wan Property Development and Station.

1.1.2. The Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works Environmental Impact Assessment Report was approved with conditions by the Environmental Protection Department (EPD) on 29 November 2017. The latest Environmental Permit (No. EP-588/2021) was issued by the EPD on 22 March 2021.

1.1.3. The Project (Contract 1732) was awarded to Paul Y. – CRCCI Joint Venture (JV). JV has engaged Acuity Sustainability Consulting Limited as the Environmental Team (ET) for this contract.

1.1.4. The Project covers the following construction activities:

(a) Site formation, tree removal, site safety fencing and supply and installation of Engineer's Site Accommodation;

(b) Diversion of existing above ground watermains to create working areas within the site for the Works;

(c) Constructing foundations comprising pre-bored H-piles, and carrying out pile load tests on selected H-piles;

(d) Constructing pile caps and spread footing foundations in shallow excavation;

(e) Prefabrication of steel truss vertical support frames, and erection on the foundations;

(f) Prefabrication of steel truss cable bridges and erection on to the vertical support frames;

(g) Prefabrication and erection of a steel link bridge spanning between the cable bridge and the façade of the existing building AB11;

(h) Installation of cable trays, cable supports and sunshield in and along the cable bridges, vertical support frames and at external walls of the existing building AB11;

(i) Installation of cable bridge miscellaneous details such as roof, drainage, facades, lightings, lightning protection, access control;

(j) Installation of ground level cable troughs;

(k) Modification of the façade of existing AB11 building for cable feeding out from the building;

(l) All temporary railway protection works such as hoardings and retaining structures in course of the Execution of the works; and

(m) Supply and installation of equipotential bonding for the cable bridge and associated fixed metal parts attached to the cable bridge.

1.1.5. A summary of the major construction activities undertaken in this reporting period (from 1 to 30 September 2022) is shown in **Table 1.1**. The construction programme is presented in **Appendix A**.

Table 1.1 Summary of the construction activities reported by Main Contractor during the Reporting Month

Construction Activities undertaken
• UU detection at AB11, AB25 and site office area (including trial pit) • General survey works • Instrumentation monitoring • Civil works for cable and watermain diversion • Footing construction for EC1, EC2, WC1 and WC2 • AB11 modification works • Cable brackets construction • Plate load test for link bridge footing

1.1.6. The project organisational chart specifying management structure and contact details are shown in **Appendix B**.

1.1.7. A summary of the valid permits, licences, and /or notifications on environmental protection for this Project is presented in **Table 1.2**.

Table 1.2 Summary of the Status of Valid Environmental License Notification, Permit and Documentations

Permit/ Licences/ Notification /Reference No.	**Valid Period**		**Status**	**Remark**
	From	To		
Environmental Permit				
EP-588/2021	22 Mar 2021	N/A	Valid	-
Wastewater Discharge License				
WT00040639-2022	23 Mar 2022	31 Mar 2027	Valid	-
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation				
Ref. 472845	N/A	N/A	Notified	Notification submitted on 19 Oct 2021
Chemical Waste Producer Registration				
WPN5213-961-P3457-01	19 Nov 2021	N/A	Valid	-
Billing Account for Disposal of Construction Waste				
7042328	25 Nov 2021	N/A	Valid	-
Construction Noise Permit				
GW-RS0657-22	12 Aug 2022	11 Feb 2023	Valid	Site office and main works at AB11 area and cross-track area, cable bracket works
GW-RS0622-22	1 Sep 2022	31 Jan 2023	Valid	Area W3, South Road

2. ENVIRONMENTAL STATUS

2.1.1. Environmental permit (EP) conditions under the EIAO, submission status under the EP and implementation status of mitigation measures had been reviewed and implemented on schedule. The status of required submissions under the EP (No. EP-588/2021) as of the reporting period for the Project are summarised in **Table 2.1**.

Table 2.1 Summary of Status of Required Submission for EP-588/2021 for the Project

EP Condition (EP-588/2021)	Submission	Submission date
1.12	Commencement Date of Construction	11 June 2021 (1st submission) 12 July 2021 (2nd submission) 12 August 2021 (3rd submission)
2.7	Construction Works Phasing Schedule	1 November 2021 (1st submission) 20 December 2021 (2nd submission) 29 December 2021 (Deposited)
2.8	Environmental Permit Submission Schedule	12 August 2021 10 September 2021 (Deposited)
2.9	Management Organization	1 November 2021 (1st submission) 20 December 2021 (2nd submission) 21 April 2022 (3rd submission) 9 August 2022 (4th submission)
2.10	Construction Noise Mitigation Plan	1 November 2021 (1st submission) 20 December 2021 (2nd submission) 28 December 2021 (Deposited)
2.13	Waste Management Plan	1 November 2021 (1st submission) 20 December 2021 (2nd submission) 28 December 2021 (Deposited)
3.3	Baseline Monitoring Report	1 November 2021 16 November 2021 (Deposited)
3.4	Monthly EM&A Report (December 2021)	13 January 2022
3.4	Monthly EM&A Report (January 2022)	15 February 2022
3.4	Monthly EM&A Report (February 2022)	10 March 2022
3.4	Monthly EM&A Report (March 2022)	19 April 2022

3.4	Monthly EM&A Report (April 2022)	16 May 2022
3.4	Monthly EM&A Report (May 2022)	14 June 2022
3.4	Monthly EM&A Report (June 2022)	14 July 2022
3.4	Monthly EM&A Report (July 2022)	12 August 2022
3.4	Monthly EM&A Report (August 2022)	14 September 2022
3.4	Monthly EM&A Report (September 2022)	To be submitted within 10 working days after the end of the reporting month
4.2	Dedicated Internet Website	12 January 2022

2.1.2. The drawings showing the project layout and the location of the monitoring station are attached in **Appendix C** and **Appendix D**, respectively. A summary of the monitoring location is shown in **Table 2.2**.

Table 2.2 Summary of the location of the monitoring station

Air Sensitive Receiver (ASR) ID No. in EIA Report	Monitoring Station ID	ASR Description
A2	DM1	Siu Ho Wan Government Maintenance Depot

3. MONITORING RESULTS

3.1. Monitoring Parameters

Air Quality

3.1.1. The impact monitoring had been carried out in accordance with Section 2.6 of the approved EM&A Manual, with sampling frequency of at least 3 times in every 6 days undertaken, to determine the 1-hour total suspended particulates (TSP) levels at the monitoring locations in the reporting period.

3.1.2. General meteorological conditions (wind speed, direction and precipitation) and notes regarding any significant adjacent dust producing sources had also been recorded throughout the impact monitoring period.

3.2. Monitoring Equipment and Methodology

Monitoring Equipment

3.2.1. Portable direct reading dust meter was used to carry out the 1-hour TSP monitoring. Portable direct reading dust meters used in this monitoring were proven to the IEC to be capable of achieving comparable result as that of the HVS and, thus, were used for sampling.

3.2.2. The equipment used for 1-hour TSP measurement during the reporting month are summarised in **Table 3.1**.

Table 3.1 Construction Dust Monitoring Equipment

Measuring Parameter	Monitoring Equipment	Brand and Model	Serial Number	Date of Calibration
1-hour TSP	Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3)	A.005.11a	4 May 2022
1-hour TSP	Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3B)	A.005.16a	4 May 2022

3.2.3. The portable direct reading dust meter was calibrated at 1-year interval against a High-Volume Sampler, TE-5170. Copies of calibration certificates of the portable direct reading dust meter are presented in **Appendix E.**

Monitoring Methodology

3.2.4. The 1-hour TSP measurement followed manufacturer's instruction manual. Before initiating a measurement, zeroing the Portable direct reading dust meter was carried out to ensure maximum accuracy of concentration measurements.

3.2.5. The 1-hour TSP was sampled by drawing air into the portable direct reading dust meter where particular concentrations were measured instantaneously with an in-built silicon detector sensing light scattered by the particulates in the sampled air. Continuous TSP levels were indicated and logged by a built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

3.3. Monitoring Location

3.3.1. Location of the designated dust monitoring station is described in **Table 3.2**.

Table 3.2 Construction Dust Monitoring Location

Monitoring Station ID	Dust Monitoring Station
DM1	Siu Ho Wan Government Maintenance Depot

3.4. Result Summary

3.4.1. Dust impact monitoring was carried out at DM1 on 3, 9, 15, 21 and 27 September 2022 during the reporting month (**Appendix L**). According to the field observations, the major dust sources identified included vehicular emissions from North Lantau Highway and Cheung Tung Road. Gentle wind was recorded throughout the monitoring period, with gentle to strong wind recorded occasionally.

3.4.2. The results for 1-hour TSP are summarized in **Table 3.3**. The measurement data is presented in **Appendix F.**

Table 3.3 Summary of 1-hour TSP Monitoring Results

Monitoring Location	Range ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)	No. of Exceedances
DM1	59.6 – 79.9	294.7	500	0

Waste management

3.4.3. The waste generated from this Project includes inert C&D materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/ cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 3.4**. Details of cumulative waste management data are presented as a waste flow table in **Appendix G**.

Table 3.4 Quantities of waste generated from the Project

Reporting period	Quantity						
	Inert C&D Materials (in m^3)	Chemical Waste (in '000 kg)	Non-inert C&D Materials				
			Others, e.g., General Refuse disposed at Landfill (in '000 kg)	Recycled materials			
				Paper/ cardboard (in '000 kg)	Plastics (in '000 kg)	Metals (in '000 kg)	Yard Waste (in '000 kg)
Sep 2022	23.315	0.000	28.080	0.015	0.000	0.000	0.000

3.4.4. All dump trucks for C&D materials transportation and disposal were equipped with Global Positioning System (GPS) for real time tracking and monitoring their travel routings and parking locations in order to avoid illegal dumping or landfilling of C&D materials.

3.4.5. The GPS data including travel routings of dump trucks was reviewed by the ET and IEC, and no illegal dumping activities were suspected.

4. SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

4.1.1. The Environmental Complaint Handling Procedure is shown in **Appendix H**.

4.1.2. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix I** shall be carried out.

4.1.3. No Action and Limit Levels exceedance of 1-hour TSP was recorded during the reporting month.

4.1.4. No complaint or non-compliance was reported in the reporting month.

4.1.5. No notification of summons and prosecution was received in the reporting period.

4.1.6. Statistics on complaints, notifications of summons and successful prosecutions are summarized in **Appendix J**.

5. EM&A SITE INSPECTION

5.1.1. Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, four (4) site inspections were carried out on 5, 13, 19 and 26 September 2022. One joint site inspection with the IEC was also undertaken on 13 September 2022. Recommendations were reported during the weekly site inspections. Key observations during the site inspections are summarized in **Table 5.1**.

Table 5.1 Site Observations

Date	Observation/ Recommendation	Follow-up Status
5 September 2022	1. None.	1. None.
13 September 2022	1. Some silt was observed near the drainage at AB11. The Contractor was reminded to clean up the silt. (Recommendation)	1. Silt was cleaned up properly.
19 September 2022	1. Dusty materials were observed at AB11. The Contractor was reminded to water the dusty materials for dust prevention. (Recommendation)	1. Dusty material was sprayed with water.
26 September 2022	1. None.	1. None.

5.1.2. According to the EIA Study Report, Environmental Permit, contract documents and EM&A Manual, the mitigation measures detailed in the documents are implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix K**.

6. FUTURE KEY ISSUES

6.1.1. Work to be undertaken in the next three reporting months are:

Construction Activities to be undertaken
• Civil works for cable trench and draw-pit construction for cable diversion (2a/2b) • Instrumentation installation and monitoring • General survey works • AB11 modification works • Pile load test • Construction of footings for EC1/WC1/EC2/WC2/EC3/WC3, footing 1 & 2 • Assembly of the steel bridges and erection preparation works • Construction of cable brackets • Setup of the basement for the crawl crane sitting area and the crawl crane assembly

6.1.2. Potential environmental impacts arising from the above construction activities are mainly associated with construction dust impact, noise impact, water quality impact and waste management.

6.1.3. The tentative schedule of regular 1-hour TSP monitoring in the next reporting period is presented in **Appendix M**.

6.1.4. The construction programme for the Project for the next reporting month is presented in **Appendix A**.

7. CONCLUSION AND RECOMMENDATIONS

7.1.1. This 10th monthly EM&A Report presents the EM&A works undertaken during the period from 1 to 30 September 2022 in accordance with the EM&A Manual and the requirement under EP-588/2021.

7.1.2. Air quality (including 1-hour TSP) impact monitoring was carried out in the reporting period. No exceedance of the Action and Limit Levels was recorded for air quality impact monitoring during the reporting period.

7.1.3. Weekly environmental site inspections were conducted during the reporting period. A joint site inspection with the IEC was carried out on 13 September 2022. Recommendations were reported during the site inspections. All items are rectified within the reporting period. The environmental performance of the Project was considered satisfactory.

7.1.4. No complaint or non-compliance was reported in the reporting month.

7.1.5. No notification of summons or prosecution was received in the reporting month.

7.1.6. The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

7.1.7. No change of EM&A programme was made in this reporting period.

7.1.8. The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.

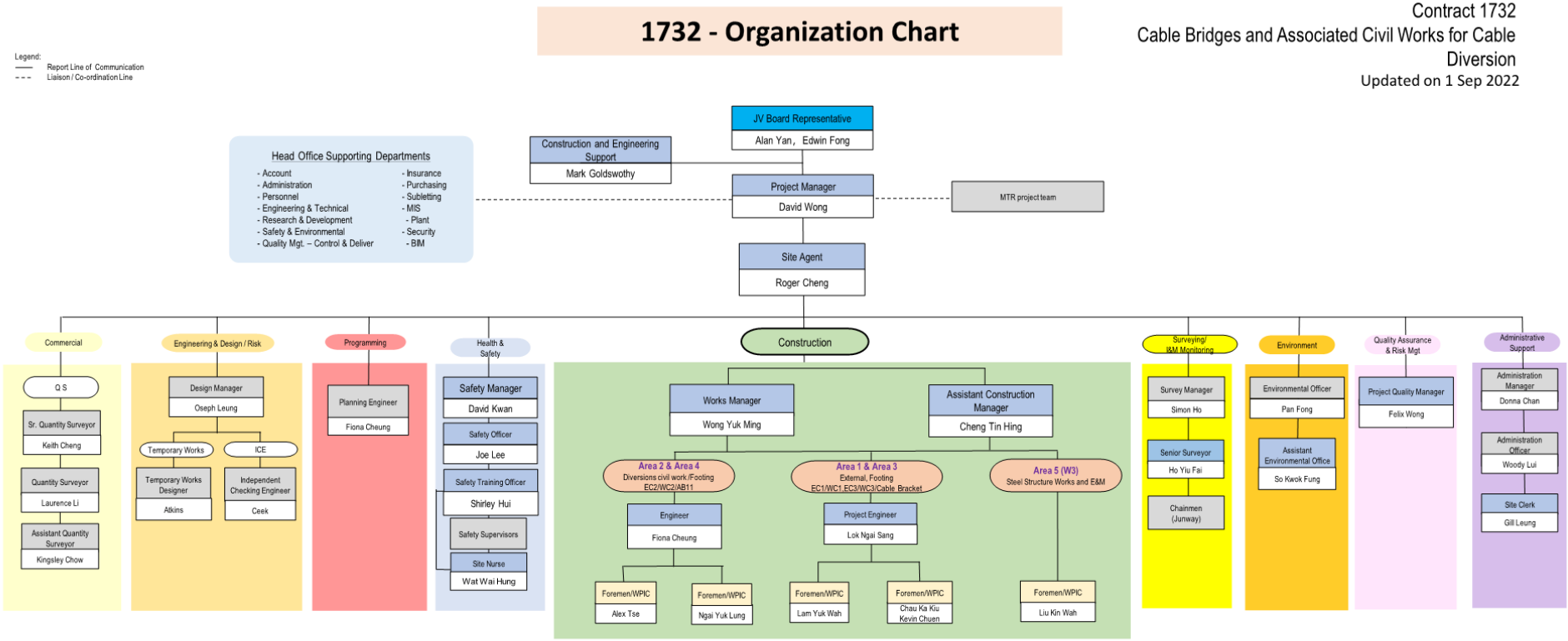
Appendix A
Construction Programme

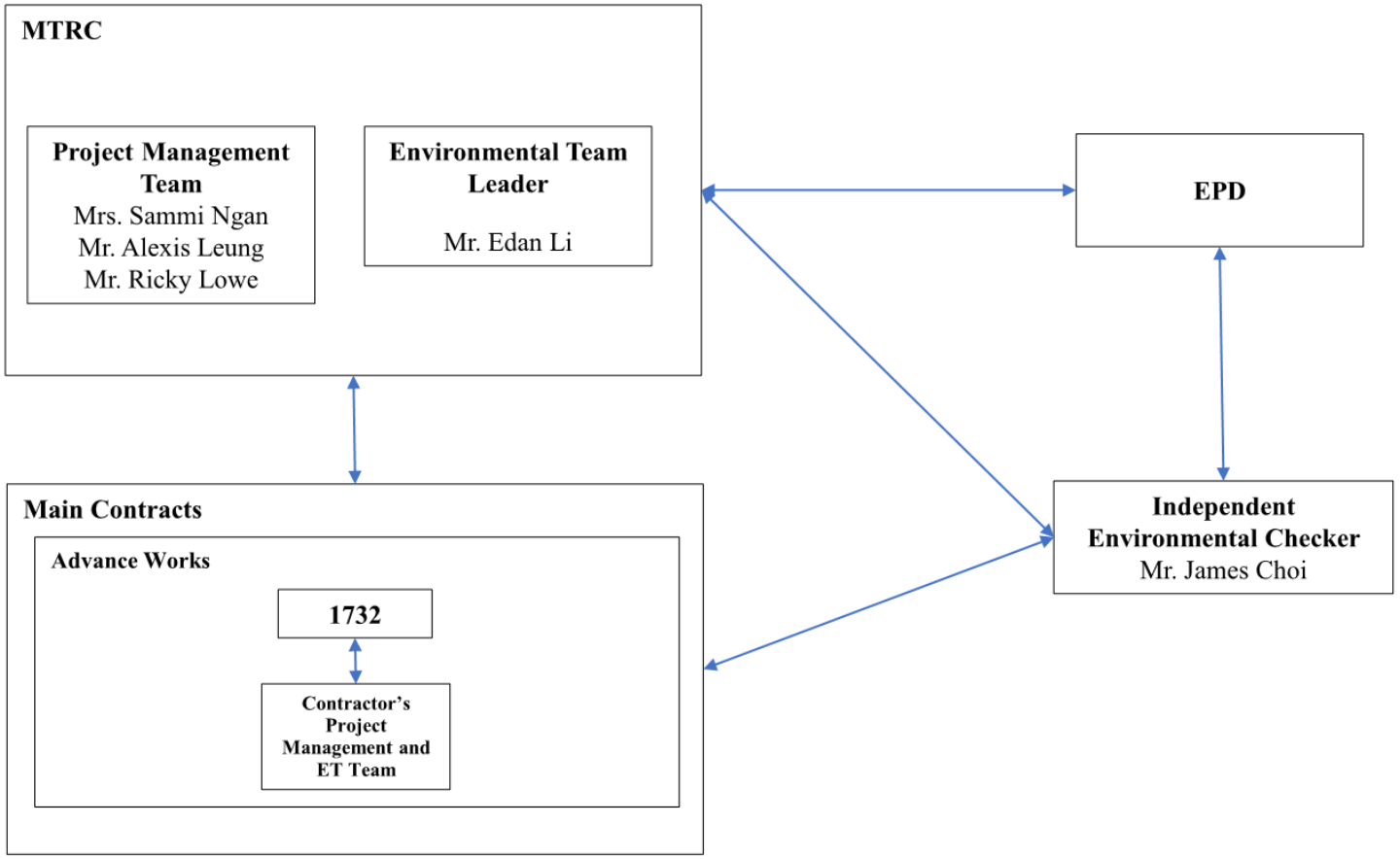
Appendix A Construction Programme

Construction Activities	ID	2021												2022												2023											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Contract 1732 - Cable Bridge and Associated Civil Works for Cable Diversion	**2**																																				
Site Clearance & Hoarding / UU / Cable Trenches	2.1																																				
H-piling	2.2																																				
Excavation (Soil)	2.3																																				
Substructure (footing, pile caps, columns)	2.4																																				
Backfilling	2.5																																				
Superstructure (Cable Bridges)	2.6																																				

Appendix B
Project Organization Chart

Project O-Chart




MTRC
Project Management Team
Mrs. Sammi Ngan
Mr. Alexis Leung
Mr. Ricky Lowe
Environmental Team Leader
Mr. Edan Li
EPD
Main Contracts
Advance Works
1732
Contractor's Project Management and ET Team
Independent Environmental Checker
Mr. James Choi
Legend:
Communication channel

MTR's Contact:

MTRC - Project Management Team		
Position	**Name**	**Telephone**
Chief Project Co-ordination Manager	Mrs. Sammi Ngan	2208 3753
Senior Project Manager-Property	Mr. Alexis Leung	2993 8028
Senior Design Manager-Civil	Mr. Ricky Lowe	2208 3347

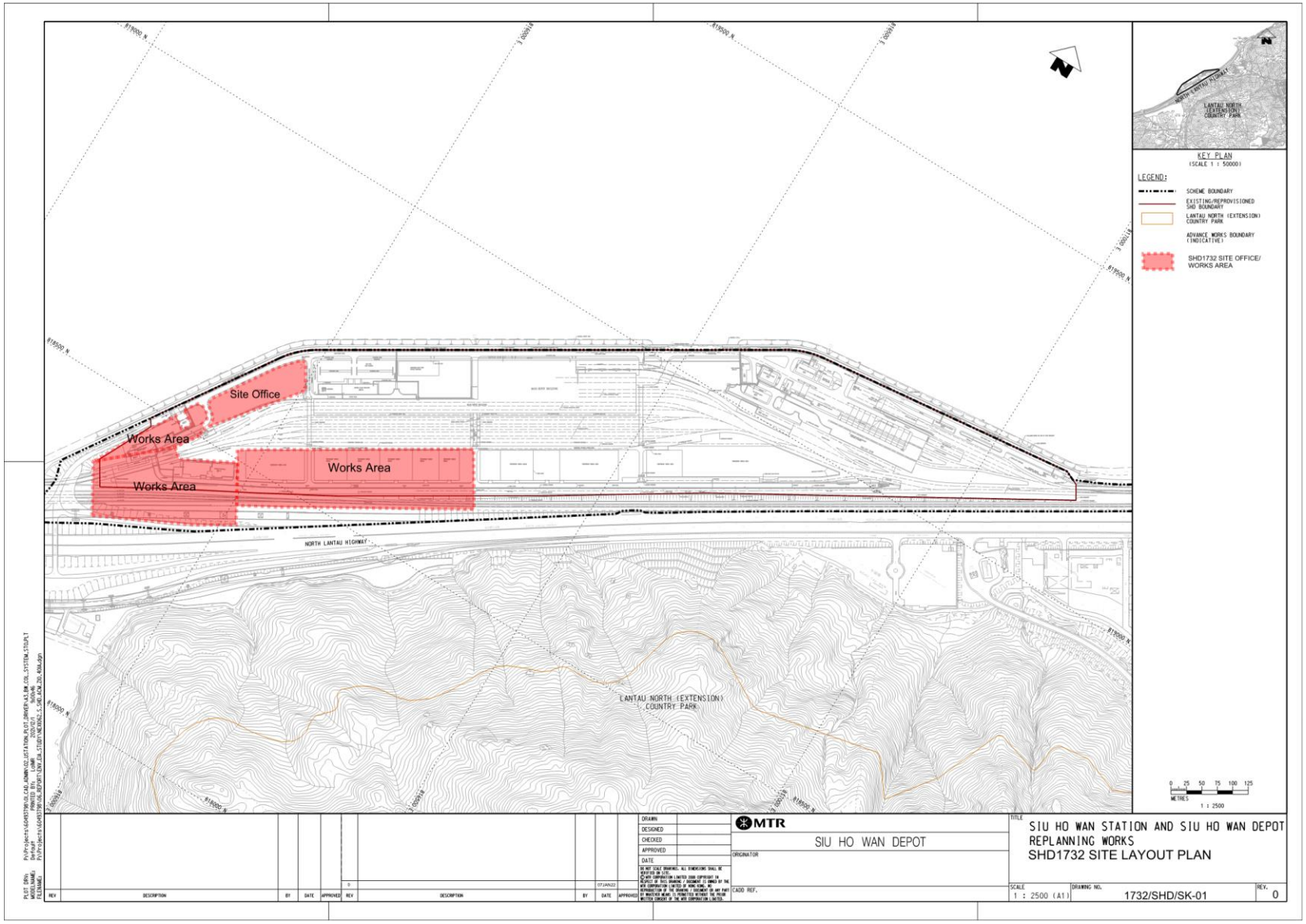
MTRC - Environmental Team		
Position	**Name**	**Telephone**
Environmental Team Leader	Mr. Edan Li	2688 1179
Environmental Team Member	Mr. Cyrus Lau	3127 6296

ANewR Consulting Limited - IEC		
Position	**Name**	**Telephone**
Independent Environmental Checker	Mr. James Choi	2618 2836

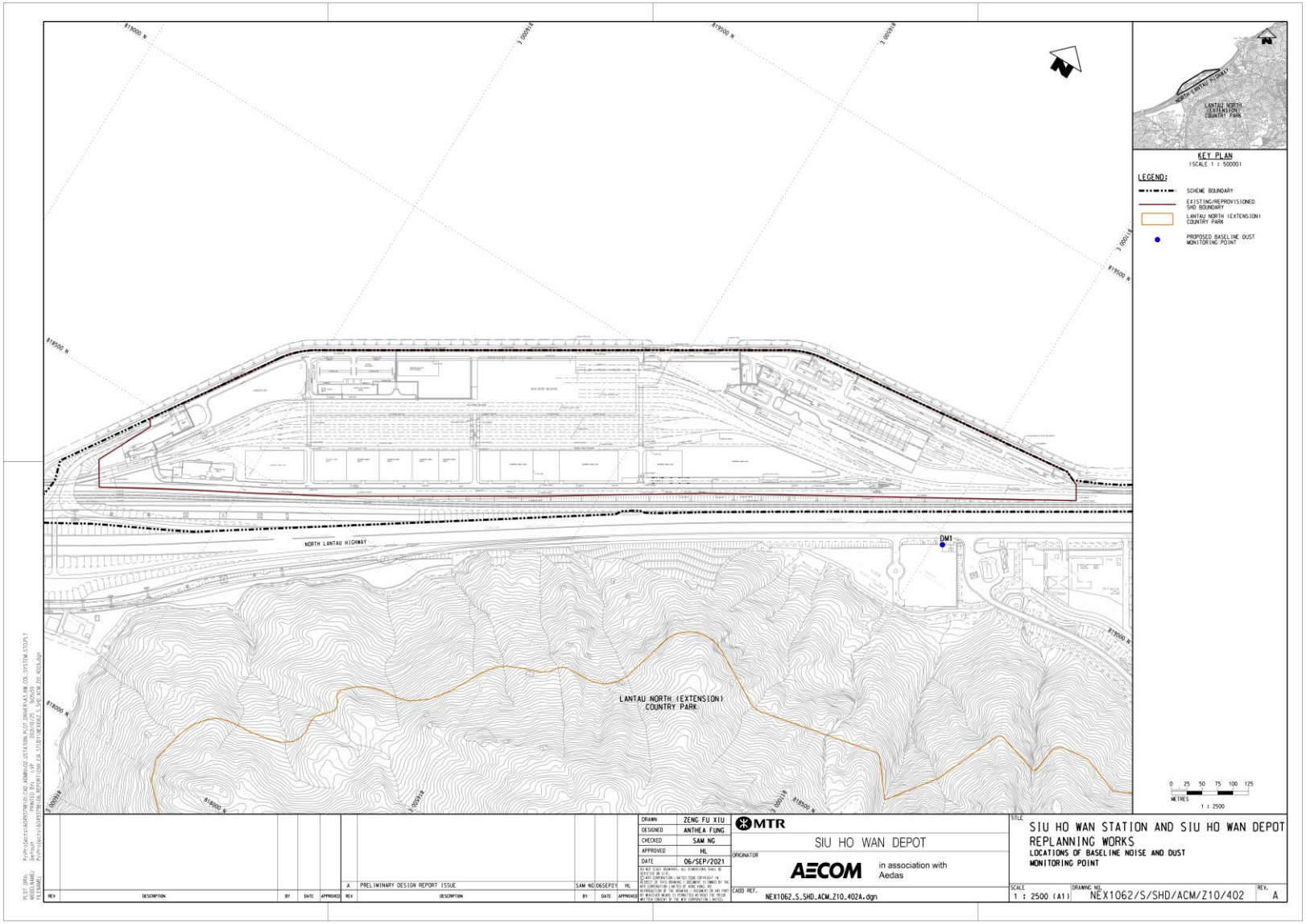
Contractor's Contact:

Main Works Contract	**Description**	**Contractor**	**Position**	**Name**	**Telephone**
1732	Construction of cable bridges and associated civil works for cable diversion	Paul Y – CRCCI Joint Venture	Project Manager	David Wong	9712 9984
			Environmental Officer	Pan Fong	9436 9435
			Assistant Environmental Officer	So, Kwok Fung	6273 1608
			Environmental Team Leader	Tsang, Fan Cheong	2698 8060

Appendix C
Alignment and Works Area for Contract No. 1732


Site Office
Works Area
Works Area
Works Area
NORTH LANTAU HIGHWAY
LANTAU NORTH (EXTENSION) COUNTRY PARK
KEY PLAN
(SCALE 1 : 50000)
LEGEND:
SCHEME BOUNDARY
EXISTING/REPROVISIONED SHD BOUNDARY
LANTAU NORTH (EXTENSION) COUNTRY PARK
ADVANCE WORKS BOUNDARY (INDICATIVE)
SHD1732 SITE OFFICE/ WORKS AREA
METRES
1 : 2500
MTR
SIU HO WAN DEPOT
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
SHD1732 SITE LAYOUT PLAN
1 : 2500 (A1)
1732/SHD/SK-01
0

Appendix D
Location Plan of Air Quality Monitoring Station


KEY PLAN
(SCALE 1 : 50000)
LEGEND:
SCHEME BOUNDARY
EXISTING/REPROVISIONED SHD BOUNDARY
LANTAU NORTH (EXTENSION) COUNTRY PARK
PROPOSED BASELINE DUST MONITORING POINT
NORTH LANTAU HIGHWAY
LANTAU NORTH (EXTENSION) COUNTRY PARK
DM1
METRES
1 : 2500
MTR
SIU HO WAN DEPOT
AECOM
in association with Aedas
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
LOCATIONS OF BASELINE NOISE AND DUST MONITORING POINT
NEX1062/S/SHD/ACM/Z10/402
A

Appendix E
Calibration Certificates
(Air Quality Monitoring Equipment)

EQUIPMENT CALIBRATION RECORD

Type:	Laser Dust Monitor
Manufacturer/Brand:	SIBATA
Model No.:	LD-3
Equipment No.:	A.005.11a
Sensitivity Adjustment Scale Setting:	799 CPM
Operator:	WS CHAN

Standard Equimment

Equipment:	High Volume Sampler
Venue:	Fanling Government Secondary School
Model No.:	TE-5170
Serial No.:	3154
Last Calibration Date:	28-Apr-22

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): 799 CPM
Sensitivity Adjustment Scale Setting (After Calibration): 799 CPM

Hour	Date (dd/mm/yy)	Time	Ambient Condition		Concentration① (mg/m3) Y-axis	Total Count②	Count/ Minute③ X-axis
			Temp (°C)	R.H.(%)			
1	03/05/22	9:30-10:30	26.0	60	0.0490	1920	32.00
2	03/05/22	10:30-11:30	26.0	60	0.0500	2010	33.50
3	03/05/22	11:30-12:30	26.0	60	0.0520	2140	35.67
4	03/05/22	12:30-13:30	26.0	60	0.0540	2290	38.17

Note: ① Monitoring data was measured by High Volume Sampler
② Total Count was logged by Laser Dust Monitor
③ Count/minute was calculated by (Total Count/60)

By Linear Regression of Y on X

Slope (K-factor):	0.0015
Correlation coefficient:	0.9991

Validity of Calibration Record: 3-May-23

Remarks:

QC Reviewer: Signature: Date: 4-May-22

EQUIPMENT CALIBRATION RECORD

Type:	Laser Dust Monitor
Manufacturer/Brand:	SIBATA
Model No.:	LD-3B
Equipment No.:	A.005.16a
Sensitivity Adjustment Scale Setting:	521 CPM
Operator:	WS CHAN

Standard Equimment

Equipment:	High Volume Sampler
Venue:	Fanling Government Secondary School
Model No.:	TE-5170
Serial No.:	3154
Last Calibration Date:	28-Apr-22

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): 521 CPM
Sensitivity Adjustment Scale Setting (After Calibration): 521 CPM

Hour	Date (dd/mm/yy)	Time	Ambient Condition		Concentration① (mg/m3) Y-axis	Total Count②	Count/ Minute③ X-axis
			Temp (°C)	R.H.(%)			
1	03/05/22	9:30-10:30	26.0	60	0.0490	1850	30.83
2	03/05/22	10:30-11:30	26.0	60	0.0500	1980	33.00
3	03/05/22	11:30-12:30	26.0	60	0.0520	2070	34.50
4	03/05/22	12:30-13:30	26.0	60	0.0540	2160	36.00

Note: ① Monitoring data was measured by High Volume Sampler
② Total Count was logged by Laser Dust Monitor
③ Count/minute was calculated by (Total Count/60)

By Linear Regression of Y on X
Slope (K-factor): 0.0015
Correlation coefficient: 0.9995

Validity of Calibration Record: 3-May-23

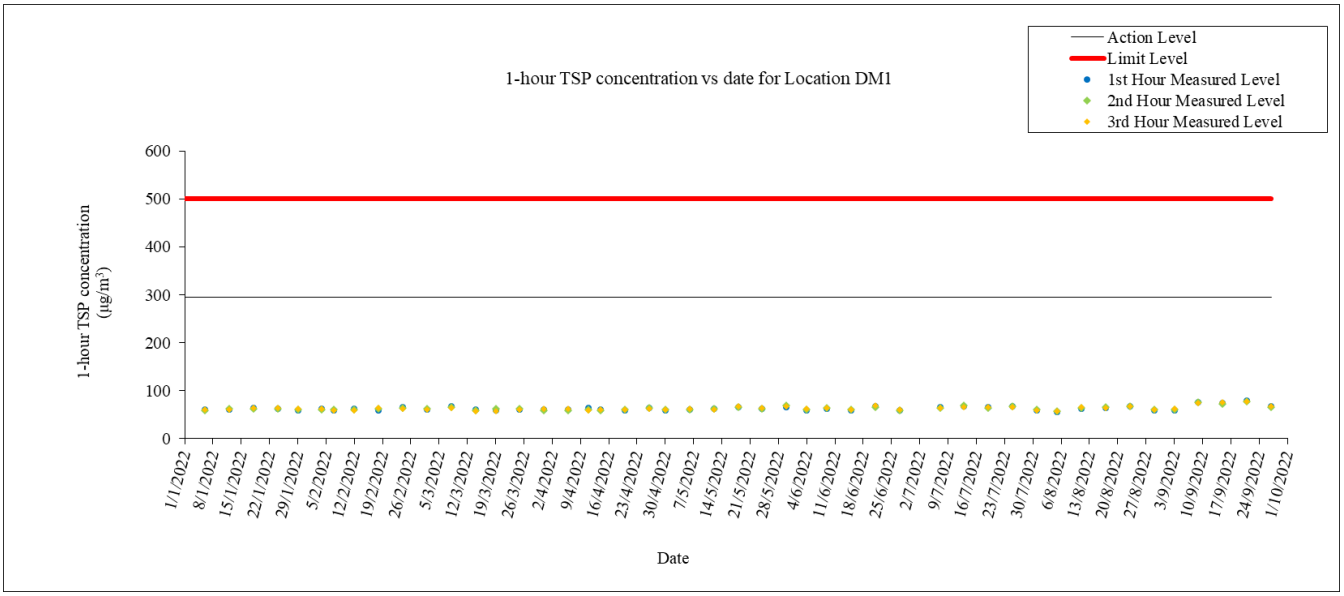
Remarks:

QC Reviewer: Yw Fung Signature: Date: 4 May 22

Appendix F
Monitoring Data (Air Quality Monitoring)

The Summary of 1-hour TSP Concentration (μg/m^3) at Location DM1

Date	Weather	Start Time (hh:mm)	1st Hour μg/m^3	2nd Hour μg/m^3	3rd Hour μg/m^3
3 Sep 2022	Rainy	10:35	59.6	60.9	62.2
9 Sep 2022	Cloudy	11:00	75.7	76.4	74.9
15 Sep 2022	Cloudy	10:45	73.6	72.9	75.4
21 Sep 2022	Sunny	10:45	79.9	78.0	77.4
27 Sep 2022	Sunny	10:45	67.1	65.7	67.8
Minimum: 59.6 μg/m^3			Maximum: 79.9 μg/m^3		



Appendix G
Waste Flow Table

Monthly Summary Waste Flow Table

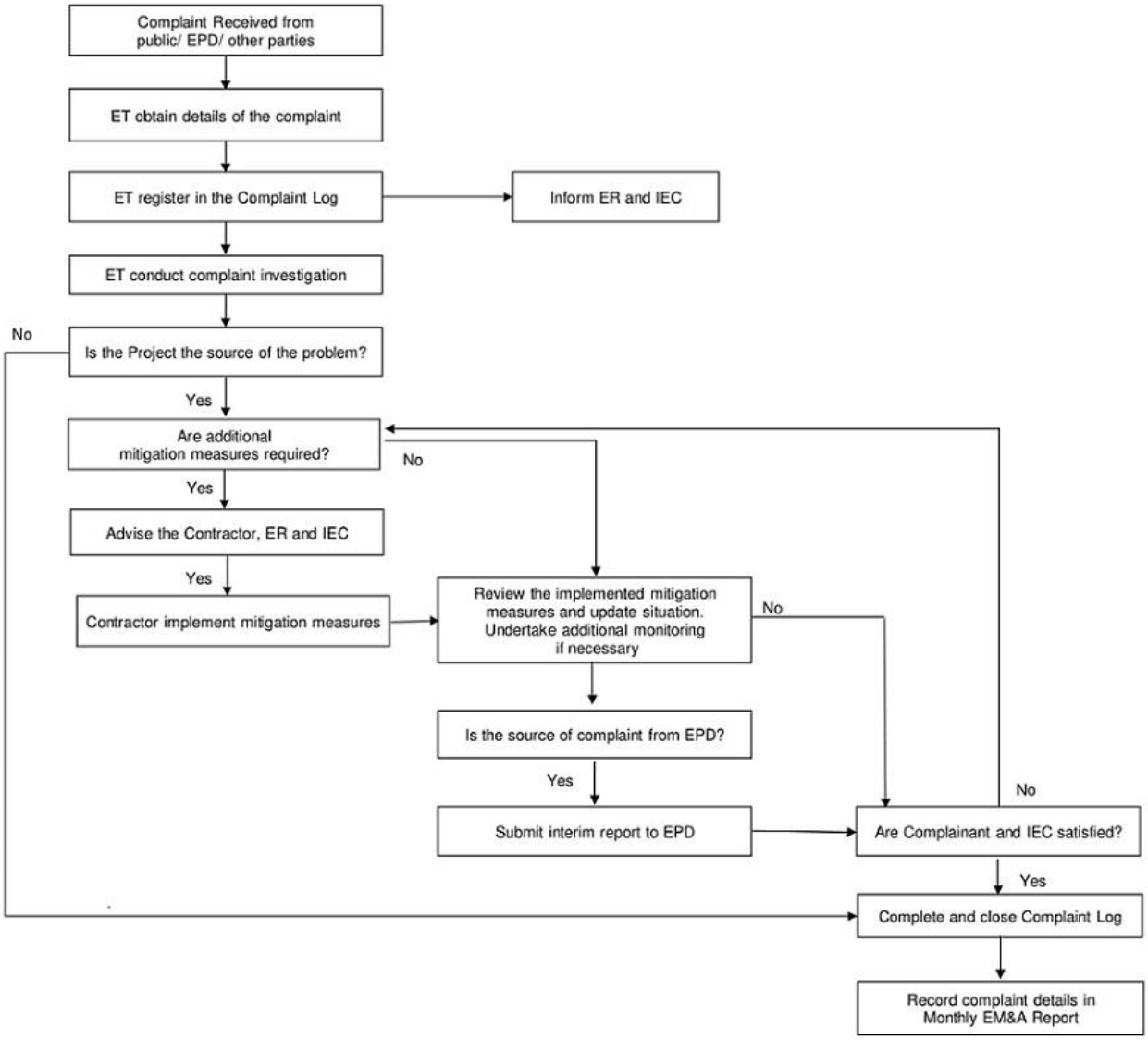
Name of Department: MTR Contract No. / Works Order No.: 1732

Monthly Summary Waste Flow Table for September 2022

Month		Actual Quantities of Inert Construction Waste Generated Monthly				
	(a) Total Quantity Generated	(b) Hard Rock and Large Broken Concrete	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill	(f) Imported Fill
	(in m^3)	(in m^3)	(in m^3)	(in m^3)	(in m^3)	(in m^3)
Jan-22	0.000	0.000	0.000	0.000	0.000	0.000
Feb-22	0.000	0.000	0.000	0.000	0.000	0.000
Mar-22	2.780	2.780	0.000	0.000	0.000	0.000
Apr-22	78.845	0.000	0.000	0.000	78.845	0.000
May-22	35.467	11.372	0.000	0.000	24.095	0.000
Jun-22	96.765	0.000	0.000	0.000	96.765	0.000
Sub-total	213.857	14.152	0.000	0.000	199.705	0.000
Jul-22	118.317	38.172	0.000	0.000	80.145	0.000
Aug-22	77.420	8.240	0.000	0.000	69.180	0.000
Sep-22	23.315	0.000	0.000	0.000	23.315	0.000
Oct-22	NA	NA	NA	NA	NA	NA
Nov-22	NA	NA	NA	NA	NA	NA
Dec-22	NA	NA	NA	NA	NA	NA
Total	432.909	60.564	0.000	0.000	372.345	0.000
2021	0.000	0.000	0.000	0.000	0.000	0.000
Accumulated Total	432.909	60.564	0.000	0.000	372.345	0.000

Month	Actual Quantities of Non-inert Construction Waste Generated Monthly					
	(g) Metals	(h) Paper/ cardboard packaging	(i) Plastics	(j) Chemical Waste	(k) Recyclable Yard Waste	(l) Others, e.g. General Refuse disposed of at Landfill
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
	generated	generated	generated	generated	generated	generated
Jan-22	0.000	0.030	0.000	0.000	0.000	140.760
Feb-22	0.000	0.051	0.000	0.000	0.000	28.180
Mar-22	0.000	0.000	0.000	0.000	4.430	9.520
Apr-22	0.000	0.116	0.000	0.000	0.000	0.000
May-22	0.000	0.010	0.000	0.000	47.010	0.000
Jun-22	0.000	0.000	0.000	0.000	42.220	13.030
Sub-total	0.000	0.207	0.000	0.000	93.660	191.490
Jul-22	0.000	0.017	0.000	0.010	0.000	6.300
Aug-22	0.000	0.024	0.000	0.000	0.000	2.860
Sep-22	0.000	0.015	0.000	0.000	0.000	28.080
Oct-22	NA	NA	NA	NA	NA	NA
Nov-22	NA	NA	NA	NA	NA	NA
Dec-22	NA	NA	NA	NA	NA	NA
Total	0.000	0.263	0.000	0.010	93.660	228.730
2021	0.000	0.000	0.000	0.000	0.000	0.000
Accumulated Total	0.000	0.263	0.000	0.010	93.660	228.730

Appendix H
Complaint Handling Procedure


Complaint Received from public/ EPD/ other parties
ET obtain details of the complaint
ET register in the Complaint Log
Inform ER and IEC
ET conduct complaint investigation
No
Is the Project the source of the problem?
Yes
Are additional mitigation measures required?
No
Yes
Advise the Contractor, ER and IEC
Yes
Contractor implement mitigation measures
Review the implemented mitigation measures and update situation. Undertake additional monitoring if necessary
No
Is the source of complaint from EPD?
Yes
Submit interim report to EPD
Are Complainant and IEC satisfied?
No
Yes
Complete and close Complaint Log
Record complaint details in Monthly EM&A Report

Appendix I
Event-Action Plan (Air Quality Monitoring)

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	1. Repeat measurement to confirm findings; 2. If exceedance is confirmed, inform the Contractor, IEC and ER; 3. Identify source(s), investigate the causes of exceedance and propose remedial measures; and 4. Increase monitoring frequency.	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; and 3. Discuss with ET, ER and Contractor on possible remedial measures 4. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of exceedance in writing.	1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; and 3. Amend working methods agreed with the ER as appropriate.
Exceedance for two or more consecutive samples	1. Repeat measurements to confirm findings; 2. If exceedance is confirmed, inform Contractor, IEC and ER; 3. Identify source(s), investigate the causes of exceedance and propose remedial measures; 4. Increase monitoring frequency to daily; 5. Advise the Contractor and ER on the effectiveness of the proposed remedial measures; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with Contractor, IEC and ER to discuss the remedial measures to be taken; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; and 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Review and advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC agree with the Contractor on the remedial measures to be implemented; and 3. Supervise implementation of remedial measures	1. Identify source(s) and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER, ET and IEC within three working days of notification for agreement; 3. Implement the agreed proposals; and 4. Amend proposal as appropriate.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
LIMIT LEVEL				
Exceedance for one sample	1. Repeat measurement to confirm findings; 2. If exceedance is confirmed, inform the Contractor, IEC, EPD and ER; 3. Identify source(s), investigate the causes of exceedance and propose remedial; 4. Increase monitoring frequency to daily; and 5. Discuss with the ER, IEC and Contractor on the remedial measures and assess effectiveness.	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; 3. Discuss with the ET, ER and Contractor on possible remedial measures; 4. Review and advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Review and agree on the remedial measures proposed by the Contractor; and 3. Ensure remedial measures properly implemented.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER, ET and IEC within three working days of notification for agreement; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
Exceedance for two or more consecutive samples	1. Repeat measurement to confirm findings; 2. If exceedance is confirmed, inform IEC, ER, Contractor and EPD; 3. Identify source(s), investigate the causes of exceedance and propose remedial measures; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and	1. Check monitoring data submitted by the ET; 2. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 4. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and 4. 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.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER, IEC and ET within three working days of notification for agreement; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.			portion of works as determined by the ER until the exceedance is abated.

Note: ET – Environmental Team; ER – Engineer's Representative; IEC – Independent Environmental Checker

Appendix J
Statistics on Complaint, Notification of Summons and Successful Prosecution

Table J1 Statistical Summary of Exceedance

Air Quality			
Location	**Action Level**	**Limit Level**	**Total**
DM1	0	0	0

Table J2 Statistical Summary of Environmental Complaint

Reporting Period	**Environmental Complaint Statistics**		
	Frequency	**Cumulative**	**Complaint Nature**
1 September 2022 - 30 September 2022	0	0	N/A

Table J3 Statistical Summary of Environmental Non-compliance

Reporting Period	**Environmental Non-compliance Statistics**		
	Frequency	**Cumulative**	**Details**
1 September 2022 - 30 September 2022	0	0	N/A

Table J4 Statistical Summary of Environmental Summons

Reporting Period	**Environmental Summons Statistics**		
	Frequency	**Cumulative**	**Details**
1 September 2022 - 30 September 2022	0	0	N/A

Table J5 Statistical Summary of Environmental Prosecution

Reporting Period	**Environmental Prosecution Statistics**		
	Frequency	**Cumulative**	**Details**
1 September 2022 - 30 September 2022	0	0	N/A

Appendix K
Environmental Mitigation Implementation Schedule (EMIS)

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
Air Quality (Construction Phase)							
S3.8.1	Watering once per hour on active works areas, exposed areas and unpaved haul roads during working hours.	To minimize dust impacts	Contractor	All works area	Construction phase	Air Pollution Control Ordinance (APCO)	Implemented
S3.8.9	Implementation of dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices should be carried out to further minimize construction dust impact. • Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to ASRs. • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering should be applied to aggregate fines. • Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.	To minimize dust impacts	Contractor	All works area	Construction phase	Air Pollution Control Ordinance (APCO)	Implemented, recommendation issued

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	• Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Imposition of speed controls for vehicles on unpaved site roads. 8 kilometres per hour is the recommended limit. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high-level alarm which is interlocked with the material filling line and no overfilling is allowed. • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
Noise Impact (Construction Phase)							
S4.5.16	Implement the following good site practices as far as practicable: • Only well-maintained plant should be operated on-site, and plant should be serviced regularly during the construction program; • Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction program; • Mobile plant, is any, should be sited as far from NSRs as possible; • Machine and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	To minimise impacts to surrounding habitats	Contractor	All works area	Construction phase	TM-EIAO	Implemented
S4.5.17	Adopting quiet PME is recommended. The type of quiet PME adopted in this assessment is for reference only. The contractors may adopt alternative quiet PME as long as it can be demonstrated that they would not result in construction noise impacts worse than those predicted in this assessment.	To reduce impact to affected NSRs	Contractor	All works area	Construction phase	TM-EIAO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
S4.5.19	Use of noise barriers and noise enclosures to provide screening for construction plant where recommended.	To reduce impact to affected NSRs	Contractor	All works area	Construction phase	TM-EIAO	N/A
Water Quality Impact (Construction Phase)							
S5.8.4	Surface and road run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels or earth bunds or sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	Water Pollution Control Ordinance (WPCO), Technical Memorandum on EIA Ordinance (EIAO-TM), ProPECC PN 1/94, Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS)	Implemented
S5.8.5	Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re- alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase		Implemented
S5.8.6	Construction works should be programmed to minimize soil excavation works in rainy seasons (April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g., by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g., along the crest / edge of excavation) to	To minimise impact from construction site run-off	Contractor	All works area	Construction phase		Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.						
S5.8.7	Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase		Implemented
S5.8.8	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase		Implemented
S5.8.9	If bentonite slurries are required for any construction works, they should be reconditioned and reused wherever practicable to minimise the disposal volume of used bentonite slurries. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after the related construction activities are completed. Requirements as stipulated in ProPECC Note PN 1/94 should be closely followed when handling and disposing bentonite slurries.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94	N/A
S5.8.10	Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
S5.8.11	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS	Implemented
S5.8.12	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS	Implemented
S5.8.12	The following mitigation measures related to the transportation of the sediment should be implemented to minimize the potential water quality impact: • Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. • The barge transporting the sediments to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation. • Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the Director of Environmental Protection (DEP).	To minimise impact from transportation of sediment	Contractor	Barging point and barges	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
S5.8.13	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on- site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence.	To minimize impact from effluent discharge	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS	Approved
S5.8.14	Water for Bored Piling Works Water used in ground boring and drilling for site investigation or rock / soil anchoring should be re-circulated as far as practicable after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS	Implemented
S5.8.15	Wheel Washing Water Wash-water from wheel washing facility should have been treated by silt removal facilities before discharging into storm drains. Treated wash-water could be used as dust suppression measures as far as practicable. The section of access road between the wheel washing bay and the public road should be paved to reduce vehicle tracking of soil and to prevent silty water from entering public road and drains.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS	Implemented
S5.8.16	Construction Works near Channelized Watercourse / Ditch For minimization of potential water quality impacts from the works to nearby inland channelized watercourse/ditch near SHWSTW, the practices outlined in ProPECC Note PN 1/94 “Construction Site Drainage” and ETWB TC	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS, ETWB TC(Works) No.	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	(Works) No.5/2005 "Protection of natural streams / rivers from adverse impacts arising from construction works" should be adopted where applicable. Relevant mitigation measures are listed below: • The use of less or smaller construction plants may be specified in works area close to the inland water bodies. • Temporary storage of material (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from watercourse/ditch when carrying out of the construction works. Stockpiling of construction materials and dusty materials should be covered and located away from any watercourse/ditch. • Construction debris and spoil should be covered up and / or disposed of as soon as possible to avoid being washed into the nearby water receivers. • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the watercourse/ditch, where practicable. Construction effluent, site run-off and sewage should be properly collected and / or treated.					5/2005	
S5.8.17 – S5.8.19	<u>Accidental Spillage of Chemicals</u> • The Contractor should register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied.	To minimise impact from accidental spillage	Contractor	All works area	Construction phase	WPCO, EIAO-TM, Waste Disposal Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	• Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges. • Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.						
S5.8.22 – S5.8.24	<u>Groundwater from Contaminated Areas, Contaminated Site Runoff and Wastewater from Land Decontamination</u> • Remediation of contaminated land should be properly conducted following the recommendations of Land Contamination Assessment to be conducted in future. Any excavated contaminated material and exposed contaminated surface should be properly housed and covered to avoid generation of contaminated runoff.	To minimise impact from groundwater from contaminated areas, contaminated site run-off/ wastewater from	Contractor	All works area confirmed with land contamination	Construction phase	WPCO, EIAO-TM, TM-DSS, Guidance Note for Contaminated Land Assessment	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	Open stockpiling of contaminated materials should not be allowed. Any contaminated runoff or wastewater generated from the land decontamination processes should be properly collected and diverted to wastewater treatment facilities (WTF) as necessary. The WTF shall deploy suitable treatment processes (e.g., oil interceptor/ activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment system shall meet the requirements as stated in TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal. • No direct discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas, the baseline groundwater quality in these areas should be reviewed based on the past relevant site investigation data and any additional groundwater quality measurements to be performed with reference to Guidance Note for Contaminated Land Assessment and Remediation and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution	land decontamination					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in the TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal. • If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells, and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. • The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
Waste Management Implication (Construction Phase)							
S7.5.3	Recommendations for good site practices during the construction phase include: • Nomination of approved personnel, such as a site manager, to be responsible for implementation of good site practices, arrangements for waste collection and effective disposal to an appropriate facility; • Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures; • Provision of sufficient waste reception/ disposal points, and regular collection of waste; • Adoption of appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; Provision of regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; • Adoption of a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites); and • Preparation of Waste Management Plan (WMP), as part of the Environmental Management Plan (EMP)	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	Waste Disposal Ordinance (WDO) and Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)	Implemented
S7.5.4	Recommendations to achieve waste reduction are as follow: • Segregate and store different types of construction related waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Provide separate labelled bins to segregate recyclable waste such as aluminium cans from other general refuse generated by the work force, and to encourage	To minimize waste generation	Contractor	All works areas	Construction phase	WDO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	collection by individual collectors; • Recycle any unused chemicals or those with remaining functional capacity; • Maximise the use of reusable steel formwork to reduce the amount of C&D materials; • Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials; • Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; and • Minimize over ordering and wastage through careful planning during purchasing of construction materials.						
S7.5.6	To minimise the impact resulting from collection and transportation of C&D materials as far as practicable, C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed to landfill. A suitable area should be designated within the site for temporary stockpiling of C&D materials and to facilitate the sorting process.	To minimise the disposal of C&D waste	Contractor	All works areas	Construction phase	WDO	Implemented
S7.5.6	Within the stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance: • Proper handling and storage of waste such as soil by means of covers and/or water spraying system to minimise the potential environmental impact and to prevent materials from wind-blown or being washed away; • Covering materials during heavy rainfall; • Locating stockpiles to minimise potential visual impacts;	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	• Minimising land intake of stockpile areas as far as possible; • Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials; and • Keeping record and analysis of data collected by GPS or equivalent system related to travel routings and parking locations of dump trucks engaged on site.						
S7.5.7 to S7.5.9	General refuse should be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light materials. The recyclable component of general refuse, such as aluminium cans, paper and cleansed plastic containers shall be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste shall be set up by the Contractor. The Contractor shall also be responsible for arranging recycling companies to collect these materials. The Contractor shall carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins shall also be provided in the sites as reminders.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
S7.5.10 to S7.5.12	If chemical wastes were to be produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer, and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Appropriate containers with proper labels should be used for storage of chemical wastes. Chemical wastes should be collected and delivered to designated outlet by a licensed collector. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the CWTC, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. Any unused chemicals or those with remaining functional capacity should be collected for reuse as far as practicable.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	Implemented
S7.5.13 to S7.5.14	The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. For minimization of sediment disposal, beneficial reuse will be considered on site as far as practicable during the construction stage before the disposal of excavated sediment. Requirements of the Air Pollution Ordinance (Construction Dust) Regulation, where relevant, shall be adhered to during excavation, transportation and disposal of sediments.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	APCO WDO	N/A
S7.5.15	In order to minimise the exposure to contaminated materials, workers shall, when necessary, wear appropriate personal protective equipment (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities shall also be provided on site.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
S7.5.20	Stockpiling of contaminated sediments shall be avoided as far as possible. If temporary stockpiling of contaminated sediments is unavoidable, the excavated sediment shall be covered by tarpaulin and the area shall be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and/or surrounding water bodies. The stockpiles shall be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas shall be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, shall be collected and discharged according to the Water Pollution Control Ordinance (WPCO).	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WPCO	N/A
S7.5.21	In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO APCO	N/A
Land Contamination							
S8.9.3	To minimise environmental impacts arising from the handling of potentially contaminated materials, the following environmental precautionary measures are recommended to be utilised during the course of any required site remediation: • Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; • Establish and maintain a Health and Safety Plan with the information below before commencement of the	To control land remediation work	Contractor	Area identified with land contamination	Prior to the commencement of construction works at the contaminated areas	"Guidance Note for Contaminated Land Assessment and Remediation" "Guidance Manual for Use of Risk-based Remediation Goals for Contaminated	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	SI: (a) Instruction of works on work procedures, safe practices, emergency duties, and applicable regulations; (b) Regularly scheduled meetings of the workers in which the possible hazards, problems of the job, and related safe practices are emphasized and discussed; (c) Good housekeeping practices; and (d) Availability of and instruction in the location, use and maintenance of personal protective equipment. • Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils; • Supply of suitable clean backfill material (or treated soil) after excavation; • Stockpiling site(s) shall be lined with impermeable sheeting and bunded. Stockpiles shall be fully covered by impermeable sheeting to reduce dust emission. If this is not practicable due to frequent usage, regular watering shall be applied. However, watering shall be avoided on stockpiles of contaminated soil to minimise contaminated runoff; • Vehicles containing any excavated materials shall be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates shall be sealed to prevent any discharge during transport or during wet conditions; • Speed control for the trucks carrying contaminated materials shall be enforced; • Vehicle wheel and body washing facilities at the site exist points shall be established and used; and • Pollution control measures for air emissions (e.g. from					Land Management "Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)" APCO, WDO and WPCO	

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving equipment), and water discharges (e.g. runoff control from treatment facility) shall be implemented and complied with relevant regulations and guidelines.						
Landscape and Visual Impact (Construction Phase)							
S9.8.1	Trees unavoidably affected by the works should be transplanted as far as possible in accordance with DEVB TC(W) 7/2015 – Tree Preservation or LAO PN 7/2007 - Tree Preservation and Tree Removal Application for Building Development in Private Projects where applicable.	To transplant affected trees	Contractor	All works areas	Construction phase	DEVB TC(W) No. 7/2015 or LAO PN 7/2007 where applicable	N/A
S9.8.1	Control of night-time lighting glare.	To minimize the Landscape and visual impact on surrounding setting	Contractor	All works areas	Construction phase	TM-EIAO	N/A
S9.8.1	Erection of decorative screen hoarding which should be compatible with the surrounding setting.		Contractor	All works areas	Construction phase	TM-EIAO	N/A
S9.8.1	Management of facilities on work sites by controlling the height and disposition/arrangement of all facilities on the works site to minimize visual impact to adjacent VSRs.	To minimize visual impact to adjacent VSRs.	Contractor	All works areas	Construction phase	-	N/A
S9.8.1	All hard and soft landscape areas disturbed temporarily during construction should be reinstated on like-to-like basis, to the satisfaction of the relevant Government Departments.	To minimize the landscape impact on surrounding setting	Contractor	All works areas	Construction phase	-	To be implemented

Appendix L
Monitoring Schedule of the Reporting Month

Consultancy Agreement No.NEX/1062
Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Advance Constuction Works
Dust and Noise Monitoring Schedule in September 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Sep	2-Sep	3-Sep
						1-hr Dust Monitoring
4-Sep	5-Sep	6-Sep	7-Sep	8-Sep	9-Sep	10-Sep
					1-hr Dust Monitoring	
11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep
				1-hr Dust Monitoring		
18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	24-Sep
			1-hr Dust Monitoring			
25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	
		1-hr Dust Monitoring				

Appendix M
Monitoring Schedule of the Coming Month

Consultancy Agreement No.NEX/1062
Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Advance Constuction Works
Tentative Dust and Noise Monitoring Schedule in October 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Oct
2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct	8-Oct
	1-hr Dust Monitoring				1-hr Dust Monitoring	
9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
				1-hr Dust Monitoring		
16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
			1-hr Dust Monitoring			
23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct
		1-hr Dust Monitoring				
30-Oct	31-Oct					
	1-hr Dust Monitoring					

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

Appendix B

Monthly EM&A Report for Septmeber 2022 – Vehicular Access Bridge, Demolition of Paint Shop and Construction of EV Stabling Tracks Works Contract 1733

MTR Corporation Limited
Siu Ho Wan Depot Property Development - Vehicular Access Bridge, Demolition of Paint Shop and Construction of EV Stabling Tracks
Monthly EM&A Report
(Period from 1 to 30 September 2022)

Prepared by

SGS Hong Kong Limited

MTR Corporation Limited

Issue and Revision Record

Revision	Description	Prepared by	Checked by	Approved by	Date
01	Submission	Various	Roy Hung	Grace Fung	Oct 2022

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TABLE OF CONTENT

EXECUTIVE SUMMARY

SGS Hong Kong Limited. ("SGS") has been commissioned by the Build King Civil Engineering Limited, to undertake the Environmental Team (ET) services to carry out environmental monitoring and audit (EM&A) for Vehicular Access Bridge, Demolition of Paint Shop and Construction of EV Stabling Tracks (hereafter referred to as the "Project").

This is the 6th monthly EM&A report for the project submitted under Condition 3.4 of the Environmental Permit (No. EP-588/2021). This report summarises the findings on EM&A during the period from 1 to 30 September 2022.

Exceedance of Action and Limit Levels

The summary of measured 1-hour TSP level is presented in **Section 3**.

No exceedance of Action or Limit Levels for 1-hour TSP levels were recorded in the Reporting Period.

Waste Management

Details of waste management are presented in **Section 4**.

Record of Complaints

There was no record of complaints received in the Reporting Period.

Record of Notification of Summons and Successful Prosecutions

There were no record of notification of summons and successful prosecution in the Reporting Period.

Reporting Changes

There are no reporting changes.

Site inspection

Weekly environmental site inspections were conducted during the reporting period. A joint site inspection with the IEC was carried out on 13 September 2022. Non-compliance was not observed. Observation and recommendation were reported during the site inspection. Items are rectified accordingly in the reporting period. The environmental performance of the Project was therefore considered satisfactory.

Future Key Issues

- Site clearance & hoarding/UU/Cable Trenches
- Paint shop demolition
- Excavation
- Substructure

- Instruments installation & plate load test
- EV Tracks - Formation and Track installation
- Demolition of existing chain link fence
- Laying of recycled road asphalt
- Concreting of pavement

1. PROJECT INFORMATION

The Project involves the construction of vehicular access bridge, demolition of paint shop and construction of engineering vehicle (EV) stabling tracks.

The Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works Environmental Impact Assessment Report was approved with conditions by the Environmental Protection Department (EPD) on 29 Nov 2017. The latest Environmental Permit (No. EP-588/2021) was issued by the EPD on 22 March 2021.

SGS Hong Kong Limited (SGS) has been commissioned by Build King Civil Engineering Limited to undertake the Environmental Team (ET) services to carry out environmental monitoring and audit for this project.

The Project covers the following construction activities:

- Site clearance & hoarding /UU/ Cable Trenches
- Paint shop demolition
- Excavation (Soil)
- Substructure (footings, pile caps, columns, abutments)
- Backfilling
- Superstructure (Vehicle Bridge Spans)
- EV Tracks – Formation and Track installation

The construction programme is presented in **Appendix A**

A summary of the major construction activities undertaken in this reporting period (from 1 to 30 September 2022) is shown in below:

- Site clearance & hoarding/UU/Cable Trenches
- Paint shop demolition
- Excavation
- Substructure
- Instruments installation & plate load test
- EV Tracks - Formation and Track installation
- Demolition of existing chain link fence
- Breaking of existing concrete pavement

The project organizational chart specifying management structure and contact details are shown in **Appendix B**.

A summary of the valid permits, licenses, and /or notifications on environmental protection for this Project is presented in **Table 1.1**.

Table 1.1 Summary of Status of Required Submission for EP-588/2021 for the Project

Type of Permit/ License	Permit No. / Account No.	Valid From	Expiry Date	Status
Environmental Permit	EP-588/2021	22 Mar 2021	N/A	Valid
Wastewater Discharge License	WT00041829-2022	31 Aug 2022	31 Aug 2027	Valid
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation	Ref.: 477410	N/A	N/A	Notification submitted on 3 Mar 2022
Chemical Waste Producer Registration	WPN5213-961-B2653-01	15 Feb 2022	N/A	Valid
Billing Account for Disposal of Construction Waste	7043460	18 Mar 2022	N/A	Valid
Construction Noise Permit	GW-RS0385-22	19 May 2022	15 Nov 2022	Surrendered on 22 Jun 2022
	GW-RS0484-22	22 Jun 2022	15 Dec 2022	Valid

2. ENVIRONMENTAL STATUS

Environmental permit (EP) conditions under the EIAO, submission status under the EP and implementation status of mitigation measures had been reviewed and implemented on schedule. The status of required submissions under the EP (No. EP-588/2021) as of the reporting period for the Project are summarised in **Table 2.1**.

Table 2.1 Summary of Status of Required Submission for EP-588/2021 for the Project

EP Condition	Submission	Submission Date
1.12	Commencement Date of Construction	11 Jun 2021 (1st submission) 12 Jul 2021 (2nd submission) 12 Aug 2021 (3rd submission)
2.7	Construction Works Phasing Schedule	1 Nov 2021 (1st submission) 20 Dec 2021 (2nd submission) 29 Dec 2021 (Deposited)
2.8	Environmental Permit Submission Schedule	12 Aug 2021 10 Sep 2021 (Deposited)
2.9	Management Organization	1 Nov 2021 (1st Submission) 20 Dec 2021 (2nd Submission) 21 Mar 2022 (3rd Submission) 9 Aug 2022 (4th Submission)
2.10	Construction Noise Mitigation Plan	1 Nov 2021 (1st submission) 20 Dec 2021 (2nd submission) 28 Dec 2021 (Deposited)
2.13	Waste Management Plan	1 Nov 2021 (1st submission) 20 Dec 2021 (2nd submission)

		28 Dec 2021 (Deposited)
3.3	Baseline Monitoring Report	1 Nov 2021 16 Nov 2021 (Deposited)
3.4	Monthly Monitoring Report (Aug 2022)	To be submitted within 10 working days after the end of the reporting month
4.2	Dedicated Internet Website	12 Jan 2022

The drawings showing the project layout and the location of the monitoring station are attached in **Appendix C** and **Appendix D**, respectively. A summary of the monitoring location is shown in **Table 2.2**.

Table 2.2 Summary of the location of the monitoring station

Air Sensitive Receiver (ASR) ID No. in EIA	Monitoring Station	Description
A2	DM1	Siu Ho Wan Government Maintenance Depot

3. AIR QUALITY MONITORING

MONITORING REQUIREMENTS, FREQUENCY AND DURATION

The impact monitoring had been carried out in accordance with Section 2.6 of the approved EM&A Manual, with sampling frequency of at least 3 times in every 6 days undertaken, to determine the 1-hour total suspended particulates (TSP) levels at the monitoring locations in the reporting period.

General meteorological conditions (wind speed, direction and precipitation) and notes regarding any significant adjacent dust producing sources had also been recorded throughout the impact monitoring period.

Monitoring Equipment

Portable direct reading dust meter was used to carry out the 1-hour TSP monitoring. Portable direct reading dust meters used in this monitoring were proven to the IEC to be capable of achieving comparable result as that of the HVS and, thus, were used for sampling. The equipment used for 1-hour TSP measurement during the reporting month are summarised in **Table 3.1**.

Table 3.1 Construction Dust Monitoring Equipment

Measuring Parameter	Monitoring Equipment	Brand	Model No.	Calibration Date
1-hour TSP	Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3)	A.005.11a	4 May 2022
1-hour TSP	Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3)	A.005.16a	4 May 2022

The portable direct reading dust meter was calibrated at 1-year interval against a High Volume Sampler, TE-5170. Copies of calibration certificates of the portable direct reading dust meter are presented in **Appendix E**.

Field Monitoring Methodology

The 1-hour TSP measurement followed manufacturer's instruction manual. Before initiating a measurement, zeroing the Portable direct reading dust meter was carried out to ensure maximum accuracy of concentration measurements.

The 1-hour TSP was sampled by drawing air into the portable direct reading dust meter where particular concentrations were measured instantaneously with an in-built silicon detector sensing light scattered by

the particulates in the sampled air. Continuous TSP levels were indicated and logged by a built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

Monitoring Location

Location of the designated dust monitoring station is described in **Table 3.2**.

Table 3.2 Location of the designated dust monitoring station

Monitoring Station ID	Dust Monitoring Station
DM1	Siu Ho Wan Government Maintenance Depot

Result Summary

Dust impact monitoring was carried out at DM1 on 3, 9, 15, 21 and 27 September 2022 during the reporting month (**Appendix L**). According to our field observations, the major dust sources identified included vehicular emissions from North Lantau Highway and Cheung Tung Road. Gentle wind was recorded throughout the monitoring period, with gentle to strong wind recorded occasionally.

The results for 1 - hour TSP are summarized in **Table 3.3**. The measurement data is presented in **Appendix F**

Table 3.3 Summary of 1-hour TSP Monitoring Results

Monitoring Location	Range (µg/m3)	Action Level (µg/m3)	Limit Level (µg/m3)	No. of Exceedances
DM1	59.6 – 79.9	294.7	500	0

4. WASTE MANAGEMENT

The waste generated from this Project includes inert C&D materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/ cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarized in Table 4.1. Details of cumulative waste management data are presented as a waste flow table in **Appendix G.**

Table 4.1 Quantities of waste generated from the Project

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (See note 3)	Chemical Waste	Other, e.g. general refuse
	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in kg]	[in kg]	[in kg]	[in Tonne]
Sep	162.85	0.00	0.00	0.00	162.85	0.00	0.00	0.00	0.00	0.00	64.01

All dump trucks for C&D materials transportation and disposal will be equipped with Global Positioning System (GPS) for real time tracking and monitoring their travel routings and parking locations in order to avoid illegal dumping or landfilling of C&D materials.

The GPS data including travel routings of dump trucks was reviewed by the ET and IEC, and no illegal dumping activities were suspected.

5. SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

The Environmental Complaint Handling Procedure is shown in **Appendix H**.

Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix I** shall be carried out.

No exceedance of the Action and Limit Levels of 1-hour TSP was recorded during the reporting month.

No complaint or non-compliance was reported in the reporting month.

No notification of summons and prosecution was received in the reporting period.

Statistics on complaints, notifications of summons and successful prosecutions are summarized in **Appendix J**.

6. EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, four (4) site inspections were carried out on 5, 13, 19 and 26 September 2022. One joint site inspection with the IEC also undertaken on 13 September 2022 with engineer, IEC, contractor and contractor's ET. No observations and reminders were reported during the weekly site inspection. Key observations during the site inspections are summarized in **Table 6.1**.

Table 6.1 Site Observations

Date	Observation or Reminder	Follow-up Status
5 September 2022	Observation 1: The contractor was reminded to provide suitable mitigation measures to prevent surface runoff. (Target on 6 Sep 2022)	The drainage gully has been covered with sealant to prevent surface runoff. (Item closed on 6 Sep 2022)
13 September 2022	Observation 1: The contractor was reminded to keep tidy in the waste storage area to avoid potential waste dispersion. (Target date: 14 Sep 2022) The contractor was also reminded to improve waste storage area by different containers, skips or stockpiles for segregate and store different types of construction related waste to enhance reuse or recycling of materials and their proper disposal. (Target date: Mid of Oct 2022)	Loosen waste has been removed. (Item closed on 14 Sep 2022) The contractor replied the purchase order was given for purchase containers / skips for store different types of construction related waste to improve waste storage area.
19 September 2022	Observation 1: General refuse was observed loosen adjacent to the designated waste disposal area. The contractor was reminded to maintain the site tidiness. (Target date: 21 Sep 2022)	General refuse has been removed accordingly. (Item closed on 21 Sep 2022)
26 September 2022	Observation 1. Broken sandbag was observed near AB8. The contractor was reminded to replace sandbag to maintain the effectiveness of bunding.	Broken sandbag has been replaced accordingly. (Close item on 30 Sept 2022)

	(Target date: 30 Sep 2022)	

According to the EIA Study Report, Environmental Permit, contract documents and EM&A Manual, the mitigation measures detailed in the documents are implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix K**.

7. FUTURE KEY ISSUES

Work to be undertaken in the next reporting month are:

- Site clearance & hoarding/UU/Cable Trenches
- Paint shop demolition
- Excavation
- Substructure
- Instruments installation & plate load test
- EV Tracks - Formation and Track installation
- Demolition of existing chain link fence
- Breaking of existing concrete pavement

The tentative schedule of regular 1-hour TSP monitoring in the next reporting period is presented in **Appendix M**.

8. CONCLUSION AND RECOMMENDATION

This 6th monthly EM&A Report presents the EM&A works undertaken during the period from 1 September to 30 September 2022 in accordance with the EM&A Manual and the requirement under EP-588/2021.

Air quality (including 1-hour TSP) impact monitoring was carried out in the reporting period. No exceedance of the Action and Limit Levels was recorded for air quality impact monitoring during the reporting period.

Weekly environmental site inspections were conducted during the reporting period. A joint site inspection with the IEC was carried out on 13 September 2022. Non-compliance was not observed. Observation and recommendation were reported during the site inspection. Items are rectified accordingly in the reporting period. The environmental performance of the Project was therefore considered satisfactory.

No complaint or non-compliance was reported in the reporting month.

No notification of summons or prosecution was received in the reporting month.

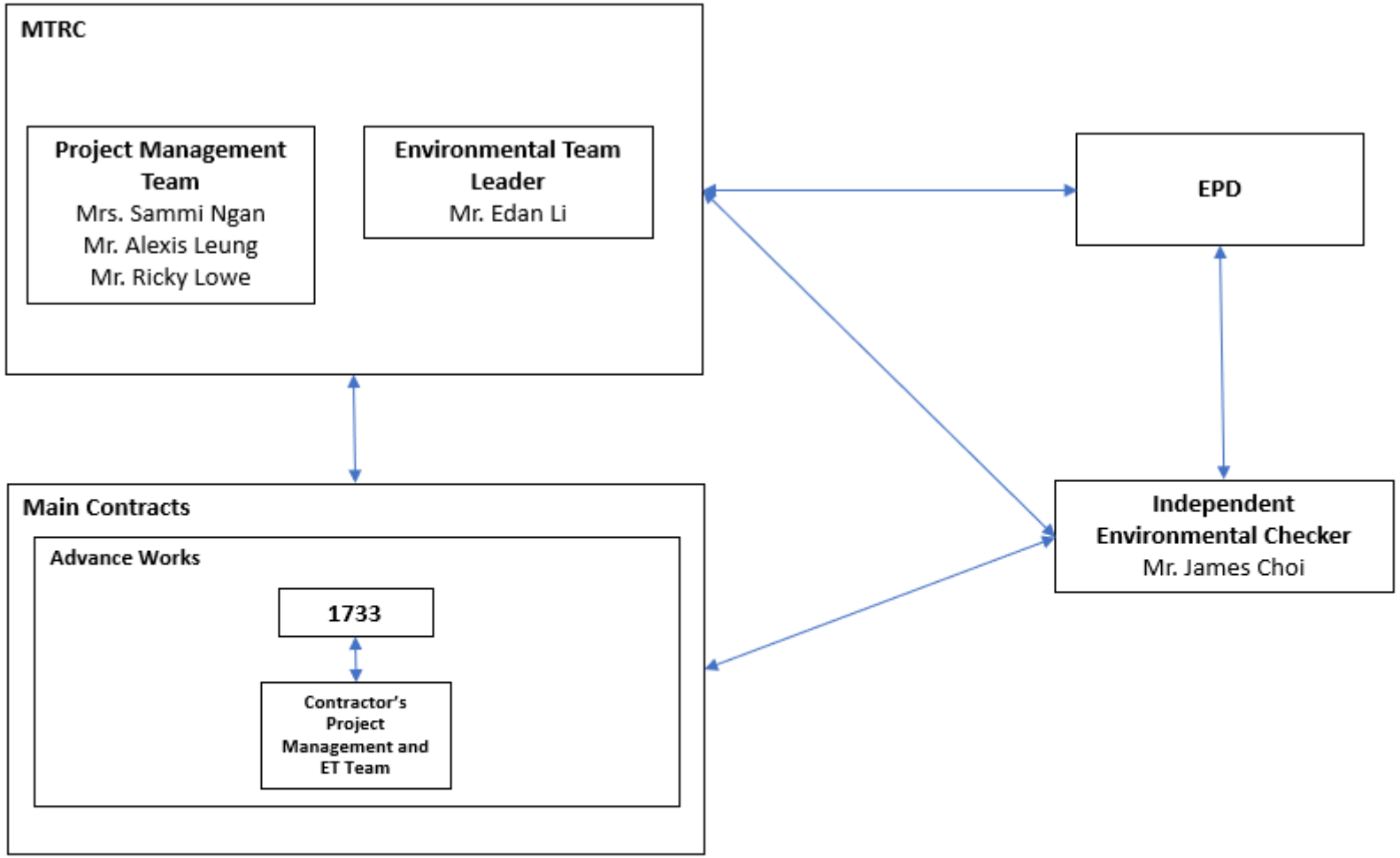
The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.

APPENDIX A – CONSTRUCTION PROGRAMME

Construction Activities	2022												2023											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Contract 1733 - Vehicular Access Bridge, Demolition of Paint Shop and Construction of EV Stabling Tracks																								
Site Clerance & Hoarding / UU / Cable Trenches																								
Paint Shop Demolition																								
Excavation (Soil)																								
Substructure (footing, pile caps, columns, abutments)																								
Backfilling																								
Superstructure (Vehicular Bridge Spans)																								
EV Tracks - Formation and Track Installation																								

APPENDIX B – PROJECT ORGANIZATION CHART


MTRC
Project Management Team
Mrs. Sammi Ngan
Mr. Alexis Leung
Mr. Ricky Lowe
Environmental Team Leader
Mr. Edan Li
EPD
Main Contracts
Advance Works
1733
Contractor's Project Management and ET Team
Independent Environmental Checker
Mr. James Choi
Legend:
Communication channel

MTR's Contact:

MTRC - Project Management Team		
Position	*Name*	*Telephone*
Chief Construction Manager - OYB	Mrs. Sammi Ngan	2208 3753
Senior Project Manager-Property	Mr. Alexis Leung	2993 8028
Senior Design Manager-Civil	Mr. Ricky Lowe	2208 3347

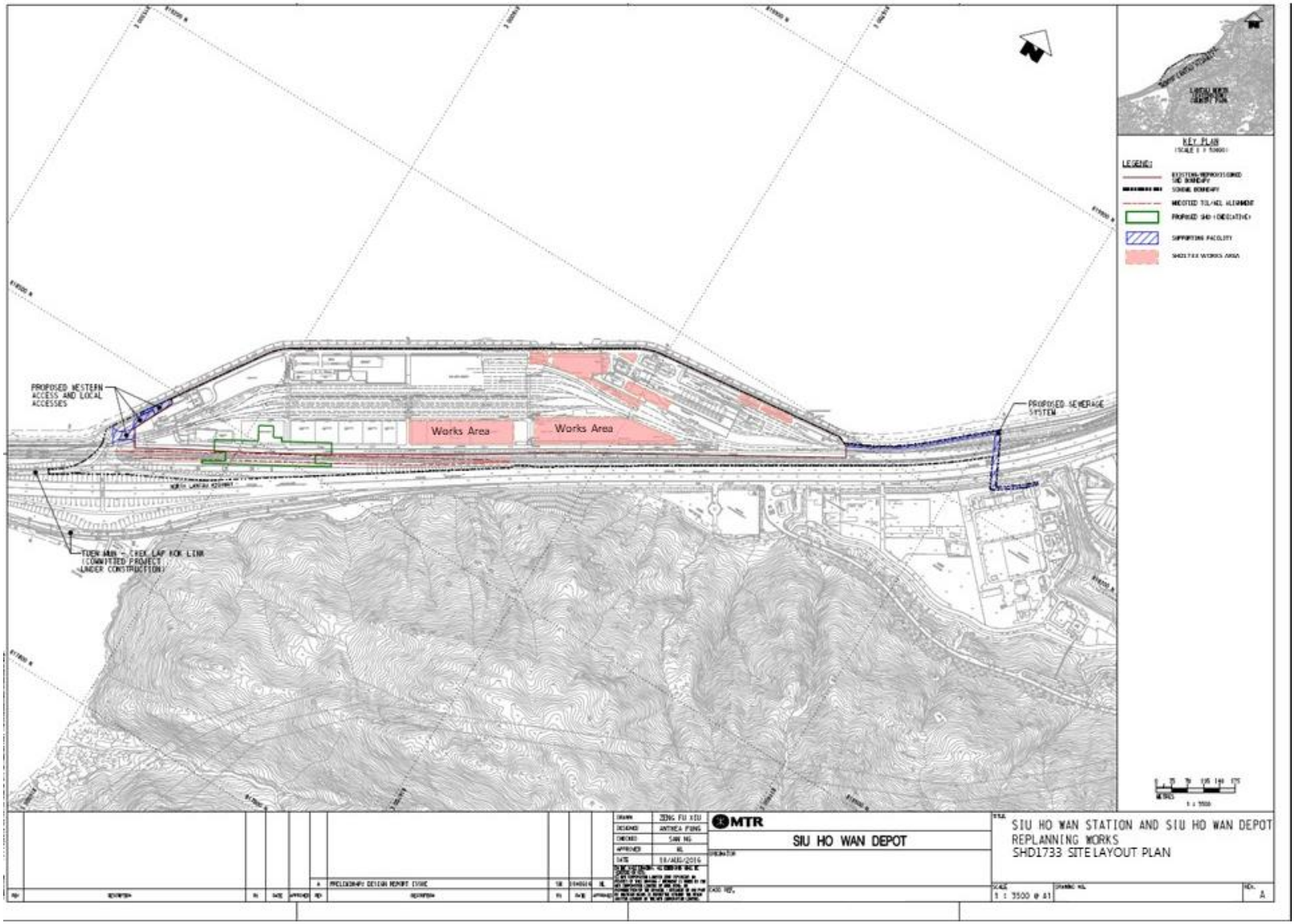
MTRC - Environmental Team		
Position	*Name*	*Telephone*
Environmental Team Leader	Mr. Edan Li	2688 1179
Environmental Team Member	Mr. Cyrus Lau	3127 6296

ANewR Consulting Limited - IEC		
Position	*Name*	*Telephone*
Independent Environmental Checker	Mr. James Choi	2618 2836

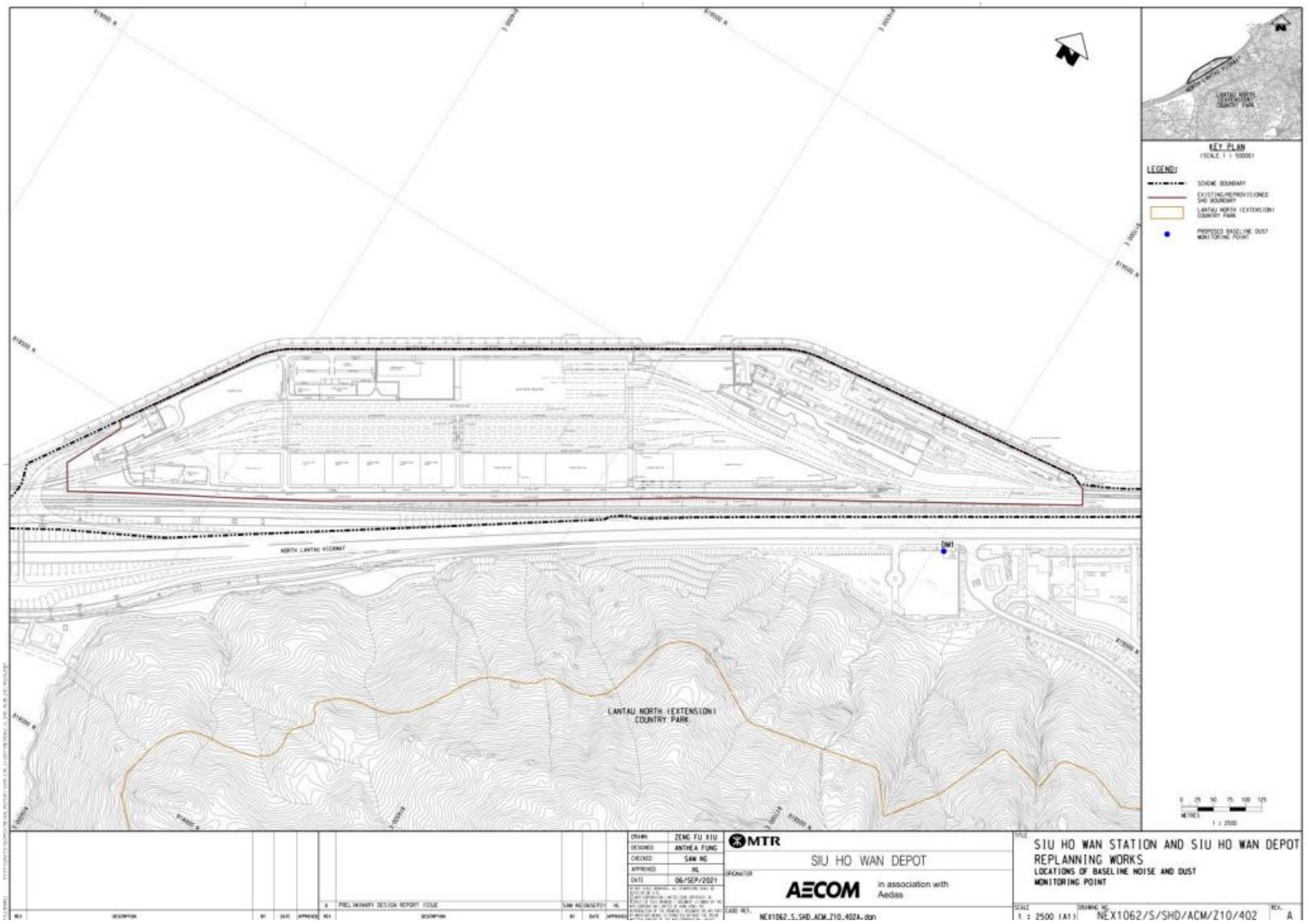
Contractor's Contact

Main Works Contract	**Description**	**Contractor**	**Position**	**Name**	**Telephone**
1733	Vehicular access bridge, demolition of paint shop and construction of engineering vehicle stabling tracks	Build King Civil Engineering Ltd	Project Manager	Andy Yu	9648 4896
			Environmental Manager	Louisa Fung	9271 5370
			Environmental Officer	Jason Cheng	6158 2117
			Environmental Team Leader	Roy Hung	2204 8305

APPENDIX C – ALIGNMENT AND WORKS AREA FOR CONTRACT NO. 1733


KEY PLAN
LEGEND:
PROPOSED WESTERN ACCESS AND LOCAL ACCESSES
Works Area
Works Area
PROPOSED SEWERAGE SYSTEM
TUEN MUN - CHEK LAP KOK LINK (CONVYED PROJECT UNDER CONSTRUCTION)
MTR
SIU HO WAN DEPOT
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
SHD1733 SITE LAYOUT PLAN

APPENDIX D - LOCATION PLAN OF AIR QUALITY MONITORING STATION


KEY PLAN
LEGEND
SCHEME BOUNDARY
LANTAU NORTH (EXTENSION) COUNTRY PARK
PROPOSED BASELINE DUST MONITORING POINT
NORTH LANTAU HIGHWAY
LANTAU NORTH (EXTENSION) COUNTRY PARK
DM1
MTR
SIU HO WAN DEPOT
AECOM
in association with Aedas
SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS
LOCATIONS OF BASELINE NOISE AND DUST MONITORING POINT
NEX1062/S/SHD/ACM/Z10/402

APPENDIX E - CALIBRATION CERTIFICATES (AIR QUALITY MONITORING EQUIPMENT)

EQUIPMENT CALIBRATION RECORD

Type:	Laser Dust Monitor
Manufacturer/Brand:	SIBATA
Model No.:	LD-3
Equipment No.:	A.005.11a
Sensitivity Adjustment Scale Setting:	799 CPM
Operator:	WS CHAN

Standard Equimment

Equipment:	High Volume Sampler
Venue:	Fanling Government Secondary School
Model No.:	TE-5170
Serial No.:	3154
Last Calibration Date:	28-Apr-22

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): 799 CPM
Sensitivity Adjustment Scale Setting (After Calibration): 799 CPM

Hour	Date (dd/mm/yy)	Time	Ambient Condition		Concentration① (mg/m3) Y-axis	Total Count②	Count/ Minute③ X-axis
			Temp (°C)	R.H.(%)			
1	03/05/22	9:30-10:30	26.0	60	0.0490	1920	32.00
2	03/05/22	10:30-11:30	26.0	60	0.0500	2010	33.50
3	03/05/22	11:30-12:30	26.0	60	0.0520	2140	35.67
4	03/05/22	12:30-13:30	26.0	60	0.0540	2290	38.17

Note: ① Monitoring data was measured by High Volume Sampler
② Total Count was logged by Laser Dust Monitor
③ Count/minute was calculated by (Total Count/60)

By Linear Regression of Y on X
Slope (K-factor): 0.0015
Correlation coefficient: 0.9991

Validity of Calibration Record: 3-May-23

Remarks:

QC Reviewer: Signature: Date: 4-May-22

EQUIPMENT CALIBRATION RECORD

Type: Laser Dust Monitor
Manufacturer/Brand: SIBATA
Model No.: LD-3B
Equipment No.: A.005.16a
Sensitivity Adjustment Scale Setting: 521 CPM

Operator: WS CHAN

Standard Equimment

Equipment: High Volume Sampler
Venue: Fanling Government Secondary School
Model No.: TE-5170
Serial No.: 3154
Last Calibration Date: 28-Apr-22

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): 521 CPM
Sensitivity Adjustment Scale Setting (After Calibration): 521 CPM

Hour	Date (dd/mm/yy)	Time	Ambient Condition		Concentration① (mg/m3) Y-axis	Total Count②	Count/ Minute③ X-axis
			Temp (°C)	R.H.(%)			
1	03/05/22	9:30-10:30	26.0	60	0.0490	1850	30.83
2	03/05/22	10:30-11:30	26.0	60	0.0500	1980	33.00
3	03/05/22	11:30-12:30	26.0	60	0.0520	2070	34.50
4	03/05/22	12:30-13:30	26.0	60	0.0540	2160	36.00

Note: ① Monitoring data was measured by High Volume Sampler
② Total Count was logged by Laser Dust Monitor
③ Count/minute was calculated by (Total Count/60)

By Linear Regression of Y on X
Slope (K-factor): 0.0015
Correlation coefficient: 0.9995

Validity of Calibration Record: 3-May-23

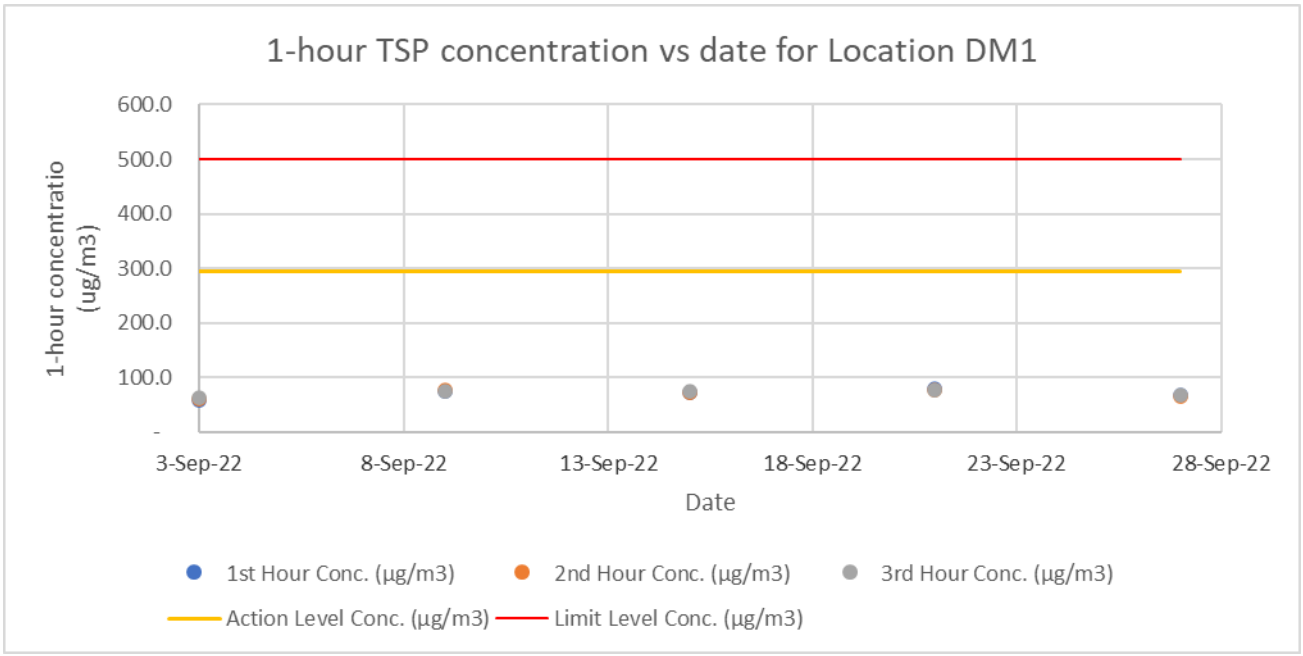
Remarks:

QC Reviewer: Yw Fung Signature: Date: 4May22

APPENDIX F – MONITORING DATA (AIR QUALITY MONITORING)

The Summary of 1-hour TSP Concentration (μg/m3) at Location DM1

Date	Start Time (hh:mm)	1st Hour Conc. (μg/m³)	2nd Hour Conc. (μg/m³)	3rd Hour Conc. (μg/m³)	Action Level Conc. (μg/m³)	Limit Level Conc. (μg/m³)	Exceedance (Y/N)
3-Sep-22	10:35	59.6	60.9	62.2	294.7	500	N
9-Sep-22	11:00	75.7	76.4	74.9			N
15-Sep-22	10:45	73.6	72.9	75.4			N
21-Sep-22	10:45	79.9	78	77.4			N
27-Sep-22	10:45	67.1	65.7	67.8			N
			Average	71.2			
			Min	59.6			
			Max	79.9			



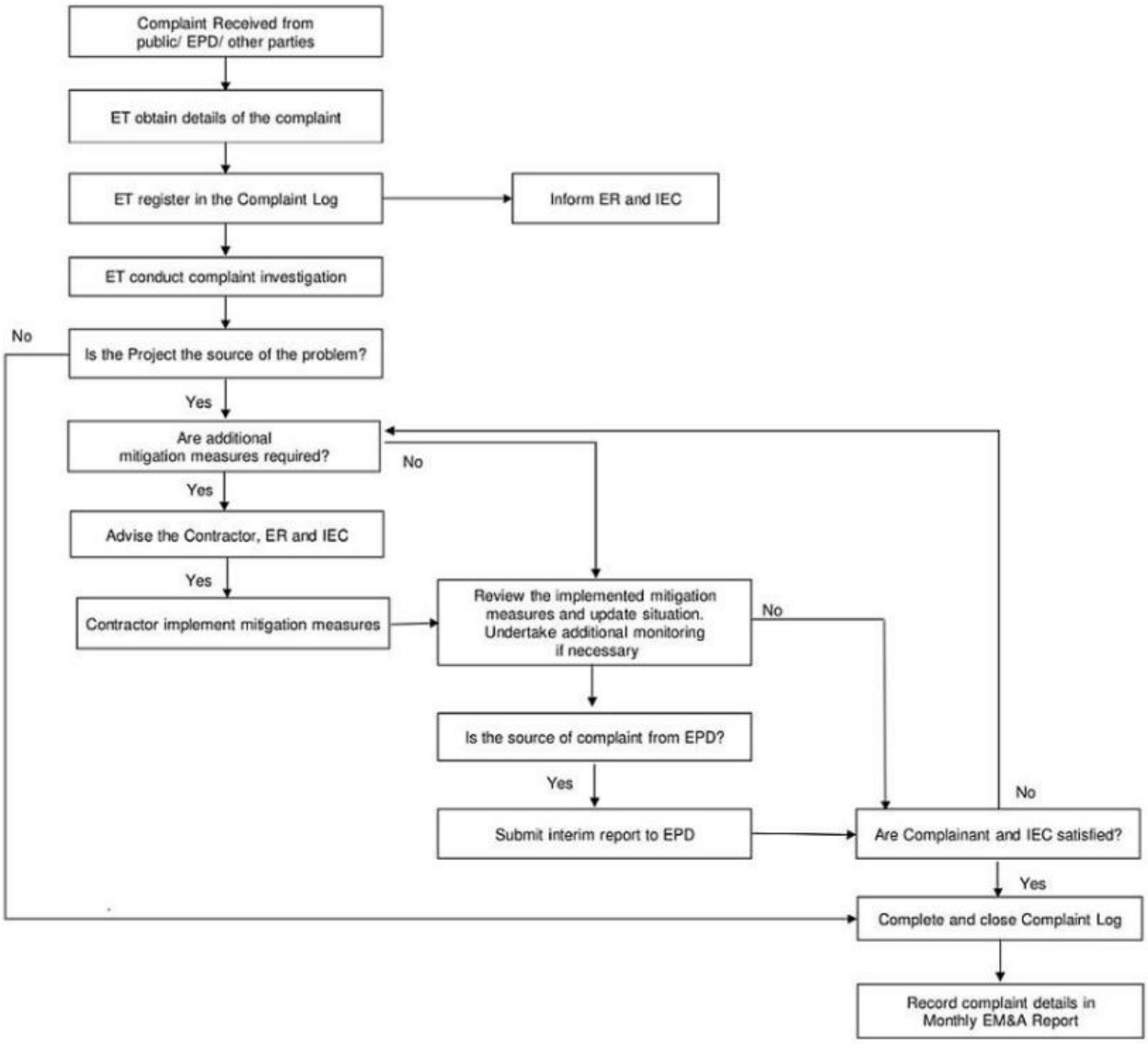
APPENDIX G – WASTE FLOW TABLE

Monthly Summary Waste Flow Table for 2022 Year

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (See note 3)	Chemical Waste	Other, e.g. general refuse
	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in Tonne]	[in kg]	[in kg]	[in kg]	[in Tonne]
Jan											
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.49
July	306.77	0.00	0.00	0.00	306.77	0.00	0.00	0.00	0.00	0.00	95.20
SUB-TOTAL	306.77	0.00	0.00	0.00	306.77	0.00	0.00	0.00	0.00	0.00	107.69
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.51
Aug	3.22	0.00	0.00	0.00	3.22	0.00	0.00	0.00	0.00	0.00	32.81
Sep	162.85	0.00	0.00	0.00	162.85	0.00	0.00	0.00	0.00	0.00	64.01
Oct											
Nov											
Dec											
TOTAL	472.84	0.00	0.00	0.00	472.84	0.00	0.00	0.00	0.00	0.00	226.02

Note: 1 full loaded dumping truck is assumed equivalent to 6.5 m3 by volume from Archsd D/OL03/09.002
Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material

APPENDIX H - COMPLAINT HANDLING PROCEDURE


Complaint Received from public/ EPD/ other parties
ET obtain details of the complaint
ET register in the Complaint Log
Inform ER and IEC
ET conduct complaint investigation
No
Is the Project the source of the problem?
Yes
Are additional mitigation measures required?
No
Yes
Advise the Contractor, ER and IEC
Yes
Contractor implement mitigation measures
Review the implemented mitigation measures and update situation. Undertake additional monitoring if necessary
No
Is the source of complaint from EPD?
Yes
Submit interim report to EPD
Are Complainant and IEC satisfied?
No
Yes
Complete and close Complaint Log
Record complaint details in Monthly EM&A Report

APPENDIX I - EVENT-ACTION PLAN (AIR QUALITY MONITORING)"

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	1. Repeat measurement to confirm findings; 2. If exceedance is confirmed, inform the Contractor, IEC and ER; 3. Identify source(s), investigate the causes of exceedance and propose remedial measures; and 4. Increase monitoring frequency.	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; and 3. Discuss with ET, ER and Contractor on possible remedial measures 4. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of exceedance in writing.	1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; and 3. Amend working methods agreed with the ER as appropriate.
Exceedance for two or more consecutive samples	1. Repeat measurements to confirm findings; 2. If exceedance is confirmed, inform Contractor, IEC and ER; 3. Identify source(s), investigate the causes of exceedance and propose remedial measures; 4. Increase monitoring frequency to daily; 5. Advise the Contractor and ER on the effectiveness of the proposed remedial measures; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with Contractor, IEC and ER to	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; and 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Review and advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC agree with the Contractor on the remedial measures to be implemented; and 3. Supervise implementation of remedial measures	1. Identify source(s) and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER, ET and IEC within three working days of notification for agreement; 3. Implement the agreed proposals; and 4. Amend proposal as appropriate.

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
	discuss the remedial measures to be taken; and 8. If exceedance stops, cease additional monitoring.			
LIMIT LEVEL				
Exceedance for one sample	1. Repeat measurement to confirm findings; 2. If exceedance is confirmed, inform the Contractor, IEC, EPD and ER; 3. Identify source(s), investigate the causes of exceedance and propose remedial; 4. Increase monitoring frequency to daily; and 5. Discuss with the ER, IEC and Contractor on the remedial measures and assess effectiveness.	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; 3. Discuss with the ET, ER and Contractor on possible remedial measures; 4. Review and advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Review and agree on the remedial measures proposed by the Contractor; and 3. Ensure remedial measures properly implemented.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER, ET and IEC within three working days of notification for agreement; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
Exceedance for two or more consecutive samples	1. Repeat measurement to confirm findings; 2. If exceedance is confirmed, inform IEC, ER, Contractor and EPD; 3. Identify source(s), investigate the causes of exceedance and propose remedial measures;	1. Check monitoring data submitted by the ET; 2. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 3. Review Contractor's remedial actions whenever necessary to assure their	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER, IEC and ET within three working days of notification for agreement;

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
	4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	effectiveness and advise the ER accordingly; and 4. Supervise the implementation of remedial measures.	4. 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.	4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Note: ET – Environmental Team; ER – Engineer's Representative; IEC – Independent Environmental Checker

APPENDIX J - STATISTICS ON COMPLAINT, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTION

Statistic Summary of Exceedance

Air Quality			
Location	**Action Level**	**Limit Level**	**Total**
DM1	0	0	0

Statistical Summary of Environmental Complaint

Reporting Period	**Environmental Complaint Statistics**		
	Frequency	**Cumulative**	**Complaint Nature**
1 September 2022 – 31 September 2022	0	0	0

Statistical Summary of Environmental Non-compliance

Reporting Period	**Environmental Non-compliance Statistics**		
	Frequency	**Cumulative**	**Complaint Nature**
1 September 2022 – 31 September 2022	0	0	0

Statistical Summary of Environmental Summons

Reporting Period	**Environmental Summons Statistics**		
	Frequency	**Cumulative**	**Complaint Nature**
1 September 2022 – 31 September 2022	0	0	0

Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Complaint Nature
1 September 2022 – 31 September 2022	0	0	0

APPENDIX K - ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
Air Quality (Construction Phase)							
S3.8.1	Watering once per hour on active works areas, exposed areas and unpaved haul roads during working hours.	To minimize dust impacts	Contractor	All works area	Construction phase	Air Pollution Control Ordinance (APCO)	Implemented
S3.8.9	Implementation of dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices should be carried out to further minimize construction dust impact. • Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to ASRs. • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering should be applied to aggregate fines. • Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points,	To minimize dust impacts	Contractor	All works area	Construction phase	Air Pollution Control Ordinance (APCO)	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Imposition of speed controls for vehicles on unpaved site roads. 8 kilometres per hour is the recommended limit. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed. • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.						
Noise Impact (Construction Phase)							
S4.5.16	Implement the following good site practices as far as practicable: • Only well-maintained plant should be operated on-site, and plant should be serviced regularly during the	To minimise impacts to surrounding habitats	Contractor	All works area	Construction phase	TM-EIAO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	construction program; • Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction program; • Mobile plant, is any, should be sited as far from NSRs as possible; • Machine and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities						
S4.5.17	Adopting quiet PME is recommended. The type of quiet PME adopted in this assessment is for reference only. The contractors may adopt alternative quiet PME as long as it can be demonstrated that they would not result in construction noise impacts worse than those predicted in this assessment.	To reduce impact to affected NSRs	Contractor	All works area	Construction phase	TM-EIAO	Implemented
S4.5.19	Use of noise barriers and noise enclosures to provide screening for construction plant where recommended.	To reduce impact to affected NSRs	Contractor	All works area	Construction phase	TM-EIAO	N/A
Water Quality Impact (Construction Phase)							
S5.8.4	Surface and road run-off from construction sites should be discharged into storm drains via adequately designed	To minimise impact from	Contractor	All works area	Construction phase	Water Pollution Control	To be

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	construction site run-off				Ordinance (WPCO), Technical Memorandum on EIA Ordinance (EIAO-TM), ProPECC PN 1/94, Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS)	implemented
S5.8.5	Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re- alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	To be implemented
S5.8.6	Construction works should be programmed to minimize soil excavation works in rainy seasons (April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	To be implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.						
S5.8.7	Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	To be implemented
S5.8.8	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	To be implemented
S5.8.9	If bentonite slurries are required for any construction works, they should be reconditioned and reused wherever practicable to minimise the disposal volume of used bentonite slurries. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after the related construction activities are completed. Requirements as stipulated in ProPECC Note PN 1/94 should be closely followed when handling and disposing bentonite slurries.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94	N/A
S5.8.10	Open stockpiles of construction materials (e.g. aggregates,	To minimise	Contractor	All works area	Construction	WPCO,	To be

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.	impact from construction site run-off			phase	EIAO- TM, ProPECC PN 1/94, TM-DSS	implemented
S5.8.11	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	Implemented
S5.8.12	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	Implemented
S5.8.12	The following mitigation measures related to the transportation of the sediment should be implemented to minimize the potential water quality impact: Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. • The barge transporting the sediments to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation. • Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as	To minimise impact from transportation of sediment	Contractor	Barging point and barges	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	specified by the Director of Environmental Protection (DEP).						
S5.8.13	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on- site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence.	To minimize impact from effluent discharge	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	Pending for approval
S5.8.14	Water for Bored Piling Works Water used in ground boring and drilling for site investigation or rock / soil anchoring should be re-circulated as far as practicable after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	To be implemented
S5.8.15	Wheel Washing Water Wash-water from wheel washing facility should have been treated by silt removal facilities before discharging into storm drains. Treated wash-water could be used as dust suppression measures as far as practicable. The section of access road between the wheel washing bay and the public road should be paved to reduce vehicle tracking of soil and to prevent silty water from entering public road and drains.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM-DSS	To be implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
S5.8.16	Construction Works near Channelized Watercourse / Ditch For minimization of potential water quality impacts from the works to nearby inland channelized watercourse/ditch near SHWSTW, the practices outlined in ProPECC Note PN 1/94 "Construction Site Drainage" and ETWB TC (Works) No.5/2005 "Protection of natural streams / rivers from adverse impacts arising from construction works" should be adopted where applicable. Relevant mitigation measures are listed below: • The use of less or smaller construction plants may be specified in works area close to the inland water bodies. • Temporary storage of material (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from watercourse/ditch when carrying out of the construction works. Stockpiling of construction materials and dusty materials should be covered and located away from any watercourse/ditch. • Construction debris and spoil should be covered up and / or disposed of as soon as possible to avoid being washed into the nearby water receivers. • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the watercourse/ditch, where practicable. Construction effluent, site run-off and sewage should be properly collected and / or treated.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO-TM, ProPECC PN 1/94, TM-DSS, ETWB TC(Works) No. 5/2005	Implemented
S5.8.17 – S5.8.19	Accidental Spillage of Chemicals • The Contractor should register as a chemical waste producer if chemical wastes would be produced from	To minimise impact from accidental spillage	Contractor	All works area	Construction phase	WPCO, EIAO-TM, Waste Disposal	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied. • Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges. • Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.					Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation	
S5.8.22 – S5.8.24	<u>Groundwater from Contaminated Areas, Contaminated Site Runoff and Wastewater from Land Decontamination</u> • Remediation of contaminated land should be properly	To minimise impact from groundwater from	Contractor	All works area confirmed with land	Construction phase	WPCO, EIAO-TM, TM-DSS, Guidance	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	conducted following the recommendations of Land Contamination Assessment to be conducted in future. Any excavated contaminated material and exposed contaminated surface should be properly housed and covered to avoid generation of contaminated runoff. Open stockpiling of contaminated materials should not be allowed. Any contaminated runoff or wastewater generated from the land decontamination processes should be properly collected and diverted to wastewater treatment facilities (WTF) as necessary. The WTF shall deploy suitable treatment processes (e.g. oil interceptor/ activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment system shall meet the requirements as stated in TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal. • No direct discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas, the baseline groundwater quality in these areas should be reviewed based on the past relevant site investigation data and any additional groundwater quality measurements to be performed with reference to Guidance Note for Contaminated Land Assessment and Remediation and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with	contaminated areas, contaminated site run-off/ wastewater from land decontamination		contamination		Note for Contaminated Land Assessment	

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in the TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal. • If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells, and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor.						

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	• The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.						
Waste Management Implication (Construction Phase)							
S7.5.3	Recommendations for good site practices during the construction phase include: • Nomination of approved personnel, such as a site manager, to be responsible for implementation of good site practices, arrangements for waste collection and effective disposal to an appropriate facility; • Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures; • Provision of sufficient waste reception/ disposal points, and regular collection of waste; • Adoption of appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; Provision of regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; • Adoption of a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites); and • Preparation of Waste Management Plan (WMP), as part of the Environmental Management Plan (EMP)	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	Waste Disposal Ordinance (WDO) and Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)	Implemented
S7.5.4	Recommendations to achieve waste reduction are as follow: • Segregate and store different types of construction	To minimize waste generation	Contractor	All works areas	Construction phase	WDO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	related waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Provide separate labelled bins to segregate recyclable waste such as aluminium cans from other general refuse generated by the work force, and to encourage collection by individual collectors; • Recycle any unused chemicals or those with remaining functional capacity; • Maximise the use of reusable steel formwork to reduce the amount of C&D materials; • Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials; • Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; and • Minimize over ordering and wastage through careful planning during purchasing of construction materials.						
S7.5.6	To minimise the impact resulting from collection and transportation of C&D materials as far as practicable, C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed to landfill. A suitable area should be designated within the site for temporary stockpiling of C&D materials and to facilitate the sorting process.	To minimise the disposal of C&D waste	Contractor	All works areas	Construction phase	WDO	Implemented
S7.5.6	Within the stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance:	To avoid and minimize impacts	Contractor	All works areas	Construction phase	WDO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	• Proper handling and storage of waste such as soil by means of covers and/or water spraying system to minimise the potential environmental impact and to prevent materials from wind-blown or being washed away; • Covering materials during heavy rainfall; • Locating stockpiles to minimise potential visual impacts; • Minimising land intake of stockpile areas as far as possible; • Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials; and • Keeping record and analysis of data collected by GPS or equivalent system related to travel routings and parking locations of dump trucks engaged on site.	arising from waste management					
S7.5.7 to S7.5.9	General refuse should be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light materials. The recyclable component of general refuse, such as aluminium cans, paper and cleansed plastic containers shall be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste shall be	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	Implemented

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	set up by the Contractor. The Contractor shall also be responsible for arranging recycling companies to collect these materials. The Contractor shall carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins shall also be provided in the sites as reminders.						
S7.5.10 to S7.5.12	If chemical wastes were to be produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer, and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Appropriate containers with proper labels should be used for storage of chemical wastes. Chemical wastes should be collected and delivered to designated outlet by a licensed collector. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the CWTC, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. Any unused chemicals or those with remaining functional capacity should be collected for reuse as far as practicable.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	Implemented
S7.5.13 to S7.5.14	The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. For minimization of sediment disposal, beneficial reuse will be considered on site as far as practicable during the construction stage before the disposal	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	APCO WDO	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	of excavated sediment. Requirements of the Air Pollution Ordinance (Construction Dust) Regulation, where relevant, shall be adhered to during excavation, transportation and disposal of sediments.						
S7.5.15	In order to minimise the exposure to contaminated materials, workers shall, when necessary, wear appropriate personal protective equipment (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities shall also be provided on site.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	N/A
S7.5.20	Stockpiling of contaminated sediments shall be avoided as far as possible. If temporary stockpiling of contaminated sediments is unavoidable, the excavated sediment shall be covered by tarpaulin and the area shall be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and/or surrounding water bodies. The stockpiles shall be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas shall be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, shall be collected and discharged according to the Water Pollution Control Ordinance (WPCO).	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WPCO	N/A
S7.5.21	In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO APCO	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	water.						
Land Contamination							
S8.9.3	To minimise environmental impacts arising from the handling of potentially contaminated materials, the following environmental precautionary measures are recommended to be utilised during the course of any required site remediation: • Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; • Establish and maintain a Health and Safety Plan with the information below before commencement of the SI: (a) Instruction of works on work procedures, safe practices, emergency duties, and applicable regulations; (b) Regularly scheduled meetings of the workers in which the possible hazards, problems of the job, and related safe practices are emphasized and discussed; (c) Good housekeeping practices; and (d) Availability of and instruction in the location, use and maintenance of personal protective equipment. • Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils; • Supply of suitable clean backfill material (or treated soil) after excavation; • Stockpiling site(s) shall be lined with impermeable sheeting and bunded. Stockpiles shall be fully covered by impermeable sheeting to reduce dust emission. If this is not practicable due to frequent usage, regular	To control land remediation work	Contractor	Area identified with land contamination	Prior to the commencement of construction works at the contaminated areas	"Guidance Note for Contaminated Land Assessment and Remediation" "Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management "Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)" APCO, WDO and WPCO	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	watering shall be applied. However, watering shall be avoided on stockpiles of contaminated soil to minimise contaminated runoff; • Vehicles containing any excavated materials shall be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates shall be sealed to prevent any discharge during transport or during wet conditions; • Speed control for the trucks carrying contaminated materials shall be enforced; • Vehicle wheel and body washing facilities at the site's exist points shall be established and used; and • Pollution control measures for air emissions (e.g. from biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving equipment), and water discharges (e.g. runoff control from treatment facility) shall be implemented and complied with relevant regulations and guidelines.						
Landscape and Visual Impact (Construction Phase)							
S9.8.1	Trees unavoidably affected by the works should be transplanted as far as possible in accordance with DEVB TC(W) 7/2015 – Tree Preservation or LAO PN 7/2007 - Tree Preservation and Tree Removal Application for Building Development in Private Projects where applicable.	To transplant affected trees	Contractor	All works areas	Construction phase	DEVB TC(W) No. 7/2015 or LAO PN 7/2007 where applicable	N/A
S9.8.1	Control of night-time lighting glare.	To minimize the Landscape and visual impact on surrounding setting	Contractor	All works areas	Construction phase	TM-EIAO	N/A
S9.8.1	Erection of decorative screen hoarding which should be compatible with the surrounding setting.	To minimize the Landscape and visual impact on	Contractor	All works areas	Construction phase	TM-EIAO	N/A

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
		surrounding setting					
S9.8.1	Management of facilities on work sites by controlling the height and disposition/arrangement of all facilities on the works site to minimize visual impact to adjacent VSRs.	To minimize visual impact to adjacent VSRs.	Contractor	All works areas	Construction phase	-	N/A
S9.8.1	All hard and soft landscape areas disturbed temporarily during construction should be reinstated on like-to-like basis, to the satisfaction of the relevant Government Departments.	To minimize the landscape impact on surrounding setting	Contractor	All works areas	Construction phase	-	To be implemented

APPENDIX L - MONITORING SCHEDULE OF THE REPORTING MONTH

Consultancy Agreement No.NEX/1062

Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Advance Constuction Works

Tentative Dust and Noise Monitoring Schedule in September 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Sep	2-Sep	3-Sep
						1-hr Dust Monitoring
4-Sep	5-Sep	6-Sep	7-Sep	8-Sep	9-Sep	10-Sep
					1-hr Dust Monitoring	
11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep
				1-hr Dust Monitoring		
18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	24-Sep
			1-hr Dust Monitoring			
25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	
		1-hr Dust Monitoring				

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

APPENDIX M - MONITORING SCHEDULE OF THE COMING MONTH

Consultancy Agreement No.NEX/1062

Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Advance Constuction Works

Tentative Dust and Noise Monitoring Schedule in October 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Oct
2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct	8-Oct
	1-hr Dust Monitoring				1-hr Dust Monitoring	
9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
				1-hr Dust Monitoring		
16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
			1-hr Dust Monitoring			
23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct
		1-hr Dust Monitoring				
30-Oct	31-Oct					
	1-hr Dust Monitoring					

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)