## Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works

Monthly EM&A Report

(June 2022)

Verified b	y: <u>James Choi</u>	James
Position:	Independent Enviror	nmental Checker
Date:	12 July 2022	

## Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works

Monthly EM&A Report

(June 2022)

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Position:	Environmental Team Leader
Date:	12 July 2022

## Consultancy Agreement No. NEX/1062

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

#### Monthly EM&A Report No. 7

[Period from 1 to 30 June 2022]

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Version:	Α	12 July 2022

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#### **Table of Contents**

		Pa	age
1	INTRO	DUCTION	2
	1.1	Background	
	1.2 1.3	Project Programme  Purpose of the Report	
2	FNVIR	ONMENTAL MONITORING AND AUDIT	3
_	2.1	EM&A Results	
3	IMPLE	MENTATION STATUS ON THE ENVIRONMENTAL PROTECTION REQUIREMEN	ITS
			5
List of	Tables		
Table 1 Table 2 Table 2 Table 2	2.1 2.2	Summary of Awarded Works Contracts Summary of Major Construction Activities in the Reporting Period Summary of 1-Hour TSP Monitoring Results in the Reporting Period Log for Environmental Complaints, Notification of Summons and Succes Prosecutions for the Reporting Month	sful
Table 3	3.1	Summary of EP Submissions Status	
List of	Append	dices	
Append		Monthly EM&A Report for June 2022 – Cable Bridges and Associated Civil Works Cable Diversion Works Contract 1732	for
Append	dix B	Monthly EM&A Report for June 2022 – Vehicular Access Bridge, Demolition of Pa Shop and Construction of EV Stabling Tracks Works Contract 1733	aint

#### 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 "SHD Topside Development") to optimize housing supply. To facilitate the construction of the SHD Topside 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 SHD Topside 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 Siu Ho Wan Station (SHO)) has also been proposed along the TCL tracks to meet transport needs of the SHD Topside 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 December 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

Table III Califfic y C. 7 (II al al ca II ci il co Co II al ci il co				
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 seventh 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 June 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	<ul> <li>UU Detection at AB11 Area (Including Trial Pit);</li> <li>General Survey Works;</li> <li>Instrumentation Monitoring;</li> <li>Civil Works for Cable and Watermain Diversion;</li> <li>Piling Works;</li> <li>Footing Construction for EC1, EC2, WC1 and WC2;</li> <li>AB11 Modification Works; and</li> <li>Preparation Work for Cable Brackets Construction.</li> </ul>	
1733	Overall	<ul> <li>Site Formation;</li> <li>Site Clearance;</li> <li>Paint Shop Demolition;</li> <li>Excavation; and</li> <li>EV Tracks – Formation and track installation</li> </ul>	

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/m³)	Action Level (µg/m³)	Limit Level (µg/m³)	Exceedance due to the Project Construction (Yes/No)
Works Contrac	t 1732 & 1733				
DM1	Siu Ho Wan Government Maintenance Depot	58.2 – 69.2	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	Environmental	Notification of	Successful
Contract	Complaints	Summons	Prosecutions
1732	0	0	0

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Works	Environmental Complaints	Notification of	Successful
Contract		Summons	Prosecutions
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 (1 <sup>st</sup> submission) 12 Jul 2021 (2 <sup>nd</sup> submission) 12 Aug 2021 (3 <sup>rd</sup> submission)
Condition 2.7	Construction Works Phasing Schedule Proposal	1 Nov 2021 (1 <sup>st</sup> Submission) 20 Dec 2021 (2 <sup>nd</sup> 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)
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 (1 <sup>st</sup> Submission) 20 Dec 2021 (2 <sup>nd</sup> 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.7 (June 2022)	14 July 2022
Condition 4.2	Dedicated Internet Website	12 Jan 2022

#### Appendix A

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





#### Siu Ho Wan Depot Property Development -

## Cable Bridges and Associated Civil Works for Cable Diversion Monthly EM&A Report

(Period from 1 to 30 June 2022)

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





#### TABLE OF CONTENTS

#### **EXECUTIVE SUMMARY**

1.	BASIC PROJECT INFORMATION	3
2.	ENVIRONMENTAL STATUS	5
3.	MONITORING RESULTS	7
4.	SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS	10
5.	EM&A SITE INSPECTION	11
6.	FUTURE KEY ISSUES	12
7.	CONCLUSION AND RECOMMENDATIONS	13





#### LIST OF APPENDICES

- A. Construction Programme
- B. Project Organization Chart
- C. Alignment and Works Area for Contract No. 1732
- D. Location Plan of Air Quality Monitoring Station
- E. Calibration Certificate (Air Quality Monitoring)
- F. Monitoring Data (Air Quality Monitoring)
- G. Waste Flow Table
- H. Complaint Handling Procedure
- I. Event-Action Plan (Air Quality Monitoring)
- J. Statistics on Complaint, Notification of Summons and Successful Prosecution
- K. Environmental Mitigation Implementation Schedule (EMIS)
- L. Monitoring Schedule of the Reporting Month
- M. Monitoring Schedule of the Coming Month



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#### **EXECUTIVE SUMMARY**

- A.1 This is the 7<sup>th</sup> monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the reporting period from 1 to 30 June 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 area (including trial pit)
- General survey works
- Instrumentation monitoring
- Civil works for cable and watermain diversion
- Piling works
- Footing construction for EC1, EC2, WC1 and WC2
- AB11 modification works
- Preparation work for cable brackets construction
- A.3 A summary of regular construction dust monitoring activities in this reporting period is listed below:

## Construction dust (1-hour TSP) monitoring DM1

- A.4 Joint weekly site inspections were conducted by representatives of the Contractor, Engineer and Contractor's ET on 6, 13, 20 and 30 June 2022. One joint site inspection with IEC also undertaken on 13 June 2022. Details of the audit findings and implementation status are presented in **Section 5**.
- A.5 Details of waste management are presented in **Section 3**.
- A.6 No exceedance of the Action and Limit Levels 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
- Instrumentation installation and monitoring
- AB11 modification works
- Piling works for EC3/WC3
- Construction of footings for EC1/WC1/EC2/WC2/EC3/WC3
- Assembly of the steel bridges and erection preparation works
- Construction of cable brackets
- Formation works at triangle area and formation for ramp for the assembly of cable bridges at W3 Area





#### 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 June 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 area (including trial pit)
- General survey works
- Instrumentation monitoring
- Civil works for cable and watermain diversion
- Piling works
- Footing construction for EC1, EC2, WC1 and WC2
- AB11 modification works
- Preparation work for cable brackets construction
- 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/	Valid	Period			
Notification /Reference No.	From	From To		Remark	
<b>Environmental Permit</b>					
EP-588/2021	22 Mar 2021	N/A	Valid	-	
Wastewater Discharge Lie	ense				
WT00040639-2022	23 Apr 2022	31 Mar 2027	Valid	-	
Notification of Construction	on Works under	the Air Pollution (	Control (Co	nstruction 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	-	
<b>Billing Account for Dispos</b>	sal of Construction	on Waste			
7042328	25 Nov 2021	N/A	Valid	-	
<b>Construction Noise Permi</b>	t				
GW-RS0500-22	20 Jun 2022	19 Dec 2022	Valid	Site office and main works, cable bracket works, excluding work areas for SHD1741	





#### 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

<b>EP Condition</b> ( <b>EP-588/2021</b> )	Submission	Submission date
	G ID (	11 June 2021 (1st submission)
1.12	Commencement Date of Construction	12 July 2021 (2 <sup>nd</sup> submission)
	Construction	12 August 2021 (3 <sup>rd</sup> submission)
	Canada Wala Dhain	1 November 2021 (1 <sup>st</sup> submission)
2.7	Construction Works Phasing Schedule	20 December 2021 (2 <sup>nd</sup> submission)
	Senedule	29 December 2021 (Deposited)
2.8	Environmental Permit Submission	12 August 2021
2.6	Schedule	10 September 2021 (Deposited)
		1 November 2021 (1 <sup>st</sup> submission)
2.9	Management Organization	20 December 2021 (2 <sup>nd</sup> submission)
		21 April 2022 (3 <sup>rd</sup> submission)
		1 November 2021 (1 <sup>st</sup> submission)
2.10	Construction Noise Mitigation Plan	20 December 2021 (2 <sup>nd</sup> submission)
		28 December 2021 (Deposited)
		1 November 2021 (1 <sup>st</sup> submission)
2.13	Waste Management Plan	20 December 2021 (2 <sup>nd</sup> submission)
		28 December 2021 (Deposited)
3.3	Baseline Monitoring Report	1 November 2021
3.3	Buseline Wolntoring Report	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)	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. Details of the major construction activities undertaken in this reporting period are shown in **Table 2.2**.

Table 2.2 Summary of the Construction Activities Undertaken during the Reporting Period

Construction activities undertaken	Remarks on progress
UU detection at AB11 area (including trial pit)	On-going
General survey works	On-going
Instrumentation monitoring	On-going
Civil works for cable and watermain diversion	On-going
Piling works	On-going
• Footing construction for EC1, EC2, WC1 and WC2	On-going
AB11 modification works	On-going
Preparation work for cable brackets construction	On-going

2.1.3. 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 2.3**.

Table 2.3 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

<b>Monitoring Station ID</b>	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 4, 9, 15, 21 and 27 June 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.
- 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	Range	Action Level	Limit Level	No. of Exceedances
Location	(μg/m³)	(μg/m³)	(μg/m³)	
DM1	58.2 – 69.2	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

				Quantity			
				C&D Materials			
Reporting period	Inert C&D Materials (in m³)	Chemical Waste (in '000 kg)	Others, e.g. General Refuse disposed at		Recycled m	aterials	
				Paper/ cardboard (in '000 kg)		Metals (in '000 kg)	Yard Waste (in '000 kg)
June 2022	96.765	0.000	13.030	0.000	0.000	0.000	42.220

- 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 exceedance of the Action and Limit Levels 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 6, 13, 20 and 30 June 2022. One joint site inspection with the IEC was also undertaken on 13 June 2022. Observation and recommendation 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
6 June 2022	1. The capacity of sedimentation thank should be reviewed and cleaned regularly. Contractor was reminded to remove the sediment.	1. Sediment was remove regularly.
13 June 2022	<ol> <li>Slurry and muddy water were found accumulating at confined the drill site near AB11, and a small patch of muddy water was observed outside the bunding. Contractor was recommended to frequently remove the accumulated muddy materials to ensure proper function of drainage system, and the bunding near the drill site should be improved. Contractor was also recommended the regular maintenance of the sedimentation tank should continue to ensure the effectiveness of the wastewater treatment plant.</li> <li>Oil stain observed at drill site near AB11, Contractor was recommended to soak it off with spill kit and dispose of as chemical waste.</li> <li>EP and env. Licenses were missing at entrance to works area EC1/WC1, Contractor was recommended to reprint and display it.</li> </ol>	<ol> <li>Accumulated muddy materials was removed frequently. Slurry and muddy water outside the bunding was cleared and the bunding was properly erected and maintained.</li> <li>Oil stain was soaked by spill kit and disposed of as chemical waste.</li> <li>EP and env. License were reprinted and displayed at the entrance to works area EC1/WC1.</li> </ol>
20 June 2022	1. None.	1. None.
30 June 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
- Instrumentation installation and monitoring
- AB11 modification works
- Piling works for EC3/WC3
- Construction of footings for EC1/WC1/EC2/WC2/EC3/WC3
- Assembly of the steel bridges and erection preparation works
- Construction of cable brackets
- Formation works at triangle area and formation for ramp for the assembly of cable bridges at W3 Area
- 6.1.2. Potential environmental impacts arising from the above construction activities are mainly associated with dust 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 7<sup>th</sup> monthly EM&A Report presents the EM&A works undertaken during the period from 1 to 30 June 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 June 2022. Observation and recommendation were reported during the site inspection. The environmental performance of the Project was therefore 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.

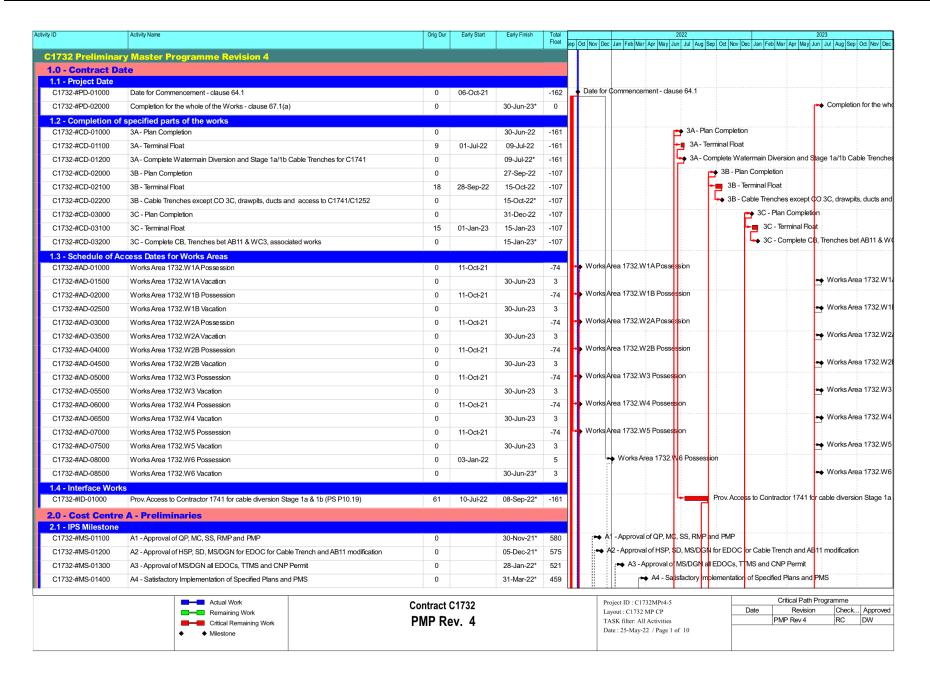




# Appendix A Construction Programme

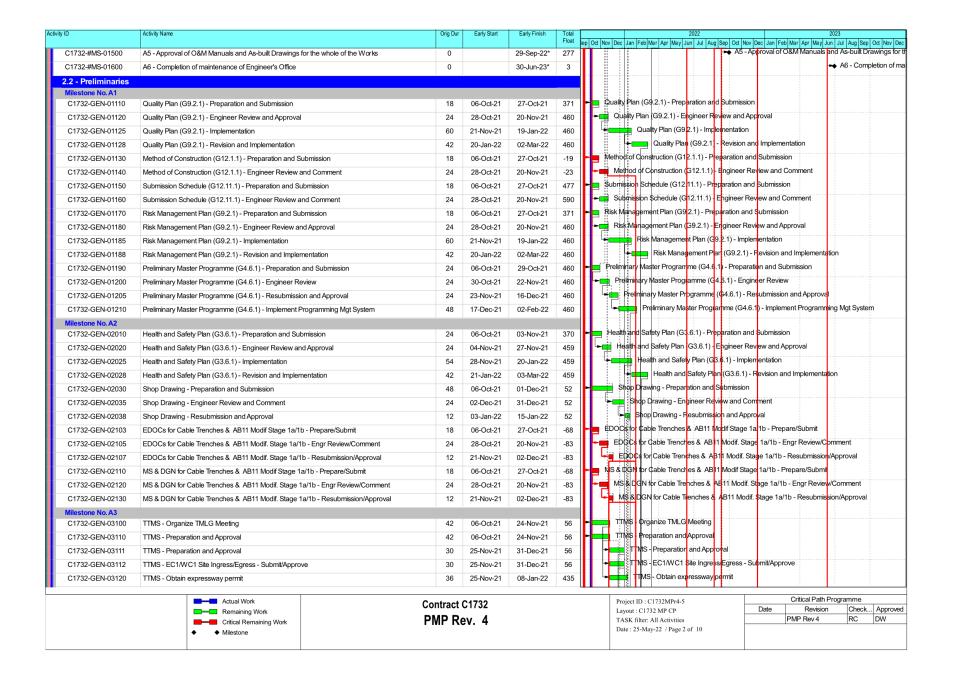












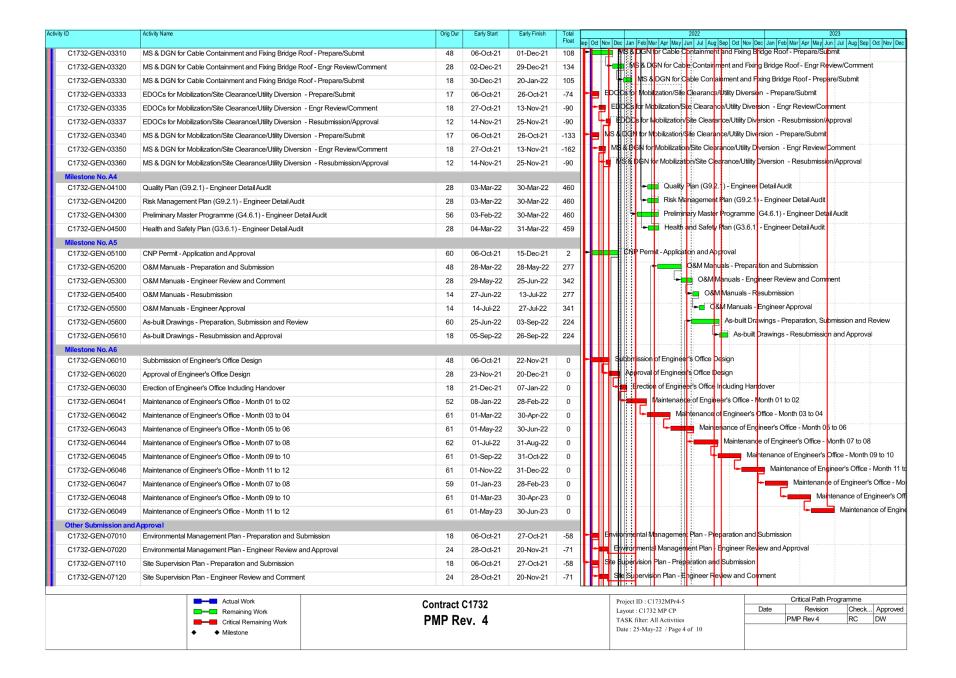




ID	Activity Name	Orig Dui	Early Start	Early Finish	Total Float	2022 2023   t
C1732-GEN-03123	EDOCs for Prefabrication of Cable Bridges - Prepare/S	Submit 36	06-Oct-21	17-Nov-21	61	
C1732-GEN-03125	EDOCs for Prefabrication of Cable Bridges - Engineer	Review and Comment 28	18-Nov-21	15-Dec-21	75	EDOCs for Prefabrication of Cable Bridges - Engineer Review and Comment
C1732-GEN-03127	EDOCs for Prefabrication of Cable Bridges - Resubmis	ssion/Approval 18	16-Dec-21	08-Jan-22	58	EDOCs for Prefabrication of Cable Bridges - Resubmission/Approval
C1732-GEN-03130	MS & DGN for Prefabrication of Cable Bridges - Prepa	re/Submit 36	06-Oct-21	17-Nov-21	61	MS & DGN for Prefabrication of Cable Bridges - Prepare/Submit
C1732-GEN-03140	MS & DGN for Prefabrication of Cable Bridges - Engine	eer Review and Comment 28	18-Nov-21	15-Dec-21	75	MS & DGN for Prefabrication of Cable Bridges - Engineer Review and Comment
C1732-GEN-03150	MS & DGN for Prefabrication of Cable Bridges - Result	omission/Approval 18	16-Dec-21	08-Jan-22	58	M\$ & DGN for Prefabrication of Cable Bridges - Resubmission/Approval
C1732-GEN-03153	EDOCs for Cable Bridges Foundation EC1/WC1 - Pre	pare/Submit 42	06-Oct-21	24-Nov-21	9	EDOCs for Cable Bridges Foundation EC1/WC1 - Prepare/Submit
C1732-GEN-03155	EDOCs for Cable Bridges Foundation EC1/WC1 - Eng	gineer Review/Comment 28	25-Nov-21	22-Dec-21	10	■ EDOCs for Cable Bridges Foundation EC1WC1 - Engineer Review Comment
C1732-GEN-03157	EDOCs for Cable Bridges Foundation EC1/WC1 - Re-	submission/Approval 18	23-Dec-21	09-Jan-22	10	EDOCs for Cable Bridges Foundation EC1WC1 - Resubmission/Approval
C1732-GEN-03160	MS & DGN for Cable Bridges Foundation EC1/WC1 -	Prepare/Submit 42	06-Oct-21	24-Nov-21	9	NS & DGN for Cable Bridges Foundation EC1/WC1 - Prepare/Submit
C1732-GEN-03170	MS & DGN for Cable Bridges Foundation EC1/WC1 -	Engineer Review/Comment 28	25-Nov-21	22-Dec-21	10	MS & DGN for Cable Bridges Foundation EQ1/WC1 - Engineer Review/Comment
C1732-GEN-03180	MS & DGN for Cable Bridges Foundation EC1/WC1 -	Resubmission/Approval 18	23-Dec-21	09-Jan-22	10	M\$ & DGN for Caple Bridges Foundation EC1/WC1 - Resubmission/Approval
C1732-GEN-03183	EDOCs for Cable Bridges Foundation EC2/WC2 - Pre	pare/Submit 38	06-Oct-21	19-Nov-21	1	EDUCS for Cable Bridges Foundation EC2/WC2- Prepare/Submit
C1732-GEN-03185	EDOCs for Cable Bridges Foundation EC2/WC2 - Eng		20-Nov-21	17-Dec-21	2	EDOCs for Cable Bridges Foundation EC2/WC2 - Engineer Review/Comment
C1732-GEN-03187	EDOCs for Cable Bridges Foundation EC2/WC2 - Re		18-Dec-21	04-Jan-22	2	
C1732-GEN-03190	MS & DGN for Cable Bridges Foundation EC2/WC2 -	**	06-Oct-21	19-Nov-21	1	
C1732-GEN-03200	MS & DGN for Cable Bridges Foundation EC2/WC2 -	·	20-Nov-21	17-Dec-21	2	MS & DGN for Cable Bridges Foundation EC2/WC2 - Engineer Review/Comment
C1732-GEN-03210	MS & DGN for Cable Bridges Foundation EC2/WC2 -	-	18-Dec-21	04-Jan-22	2	
C1732-GEN-03213	EDOCs for Cable Bridges Foundation EC3/WC3 - Pre		06-Oct-21	12-Nov-21	16	EUOCs for Cable Bridges Foundator EC3/WC3 - Prepare/Submit
C1732-GEN-03215	EDOCs for Cable Bridges Foundation EC3/WC3 - Eng	•	13-Nov-21	10-Dec-21	19	
C1732-GEN-03217	EDOCs for Cable Bridges Foundation EC3/WC3 - Re-		11-Dec-21	04-Jan-22	14	
C1732-GEN-03220	MS & DGN for Cable Bridges Foundation EC3/WC3 -		06-Oct-21	12-Nov-21	16	
C1732-GEN-03230	MS & DGN for Cable Bridges Foundation EC3/WC3 -	·	13-Nov-21	10-Dec-21	19	
C1732-GEN-03240	MS & DGN for Cable Bridges Foundation EC3/WC3 -	<u> </u>	11-Dec-21	04-Jan-22	14	
C1732-GEN-03243	EDOCs for Trackside Cable Trough Installation - Prepa		06-Oct-21	01-Dec-21	-30	
C1732-GEN-03245	EDOCs for Trackside Cable Trough Installation - Engin		02-Dec-21	29-Dec-21	-35	
C1732-GEN-03247	EDOCs for Trackside Cable Trough Installation - Resu		30-Dec-21	20-Jan-22	-28	
C1732-GEN-03250	MS & DGN for Trackside Cable Trough Installation - Pr	.,	06-Oct-21	01-Dec-21	-30	
C1732-GEN-03260	MS & DGN for Trackside Cable Trough Installation - Er		02-Dec-21	29-Dec-21	-35	
C1732-GEN-03270	MS & DGN for Trackside Cable Trough Installation - Re	*	30-Dec-21	20-Jan-22	-28	
C1732-GEN-03270	•	48	06-Oct-21	01-Dec-21	125	
	EDOCs for Cable Bridge Lifting - Prepare/Submit				160	
C1732-GEN-03275 C1732-GEN-03277	EDOCs for Cable Bridge Lifting - Engineer Review/Col EDOCs for Cable Bridge Lifting - Resubmission/Appro		02-Dec-21 30-Dec-21	29-Dec-21 20-Jan-22	126	
C1732-GEN-03277 C1732-GEN-03280		vai 18 48	30-Dec-21 06-Oct-21	20-Jan-22 01-Dec-21	125	
C1732-GEN-03280 C1732-GEN-03290	MS & DGN for Cable Bridge Lifting - Prepare/Submit		02-Dec-21	29-Dec-21	160	
C1732-GEN-03290 C1732-GEN-03300	MS & DGN for Cable Bridge Lifting - Engineer Review		30-Dec-21	29-Dec-21 20-Jan-22	126	
	MS & DGN for Cable Bridge Lifting - Resubmission/Ap		30-Dec-21 06-Oct-21	20-Jan-22 01-Dec-21	108	
C1732-GEN-03303	EDOCs for Cable Containment and Fixing Bridge Roo					
C1732-GEN-03305	EDOCs for Cable Containment and Fixing Bridge Roo		02-Dec-21	29-Dec-21	134	
C1732-GEN-03307	EDOCs for Cable Containment and Fixing Bridge Roo	f - Prepare/Submit 18	30-Dec-21	20-Jan-22	105	5 Transport Surveys for Cable Sortial Instituting Bridge Root - Prepare Submit
	Actual Work	0	C4722			Project ID : C1732MPr4-5 Critical Path Programme
	Remaining Work		Contract C1732			Layout : C1732 MP CP Date Revision Check App
	Critical Remaining Work  Milestone	PMP R	ev. 4			TASK filter: All Activities

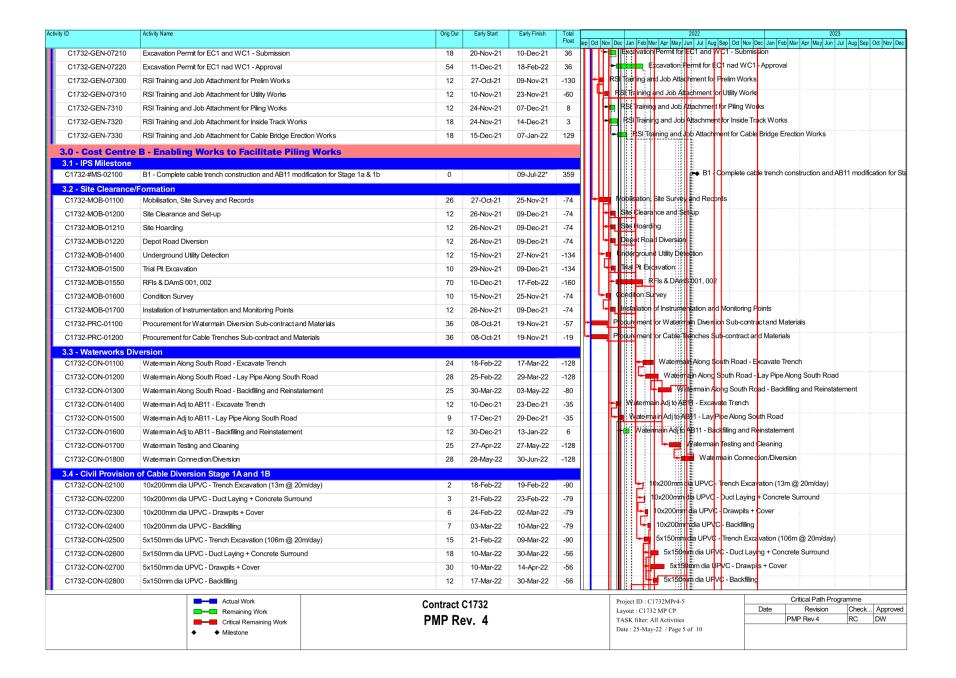






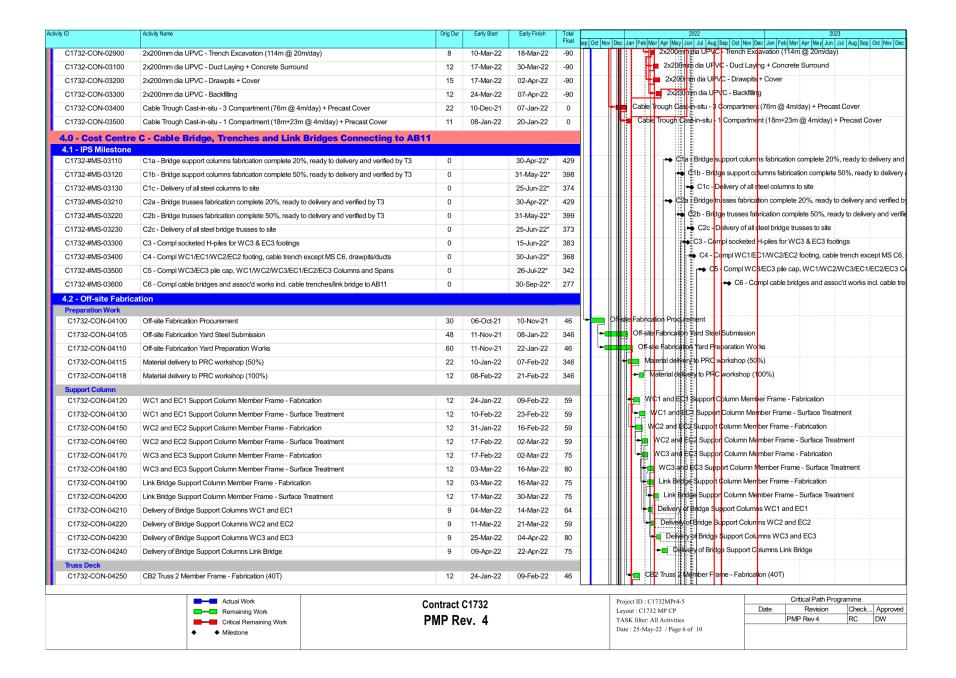






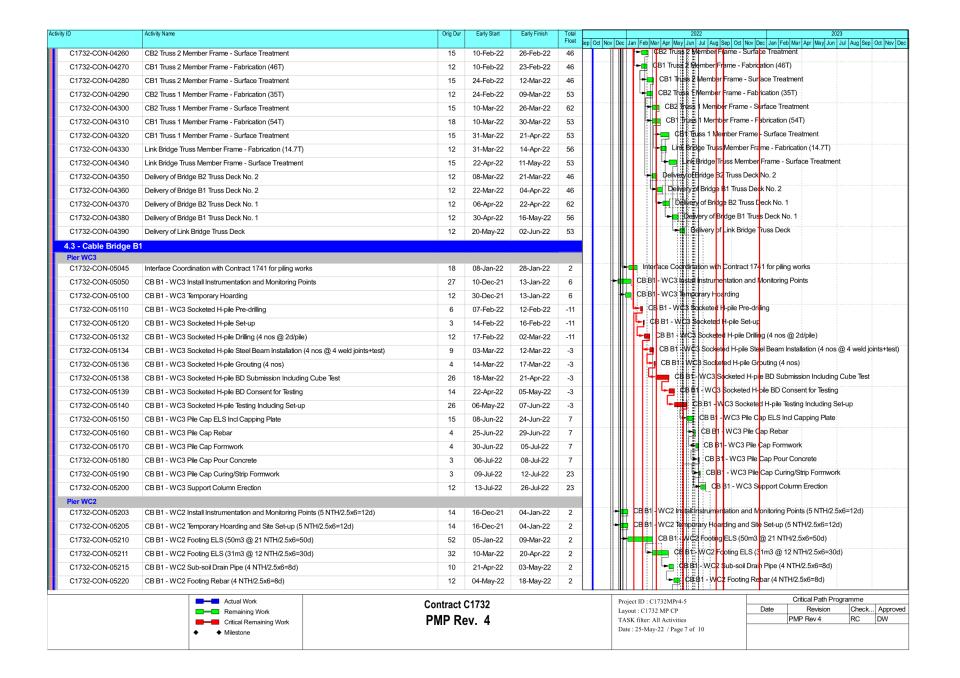






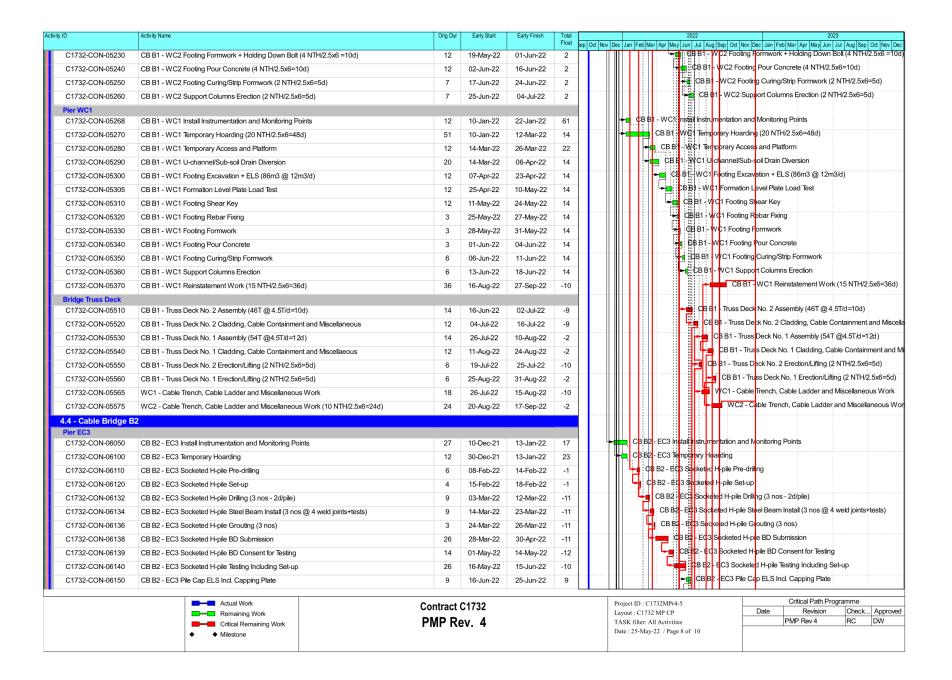






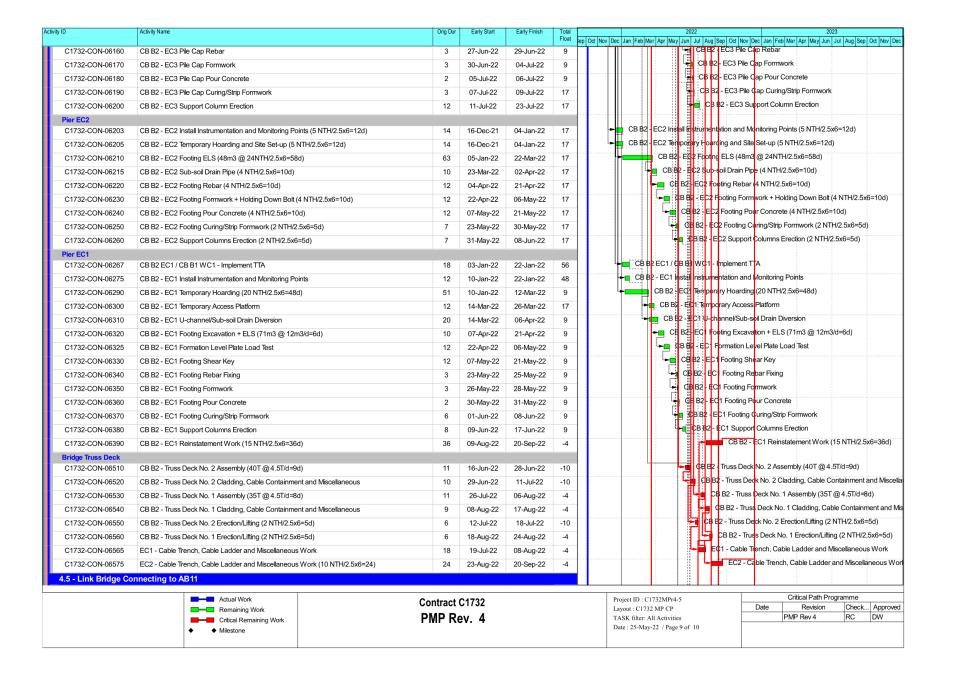
















C1732-CON-07100 Link Bridge - Footing 1 and 2 ELS  9 15-Jun-22 24-Jun-22 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C1732-CON-07150 Link Bridge - Footing 1 and 2 Rebar Fixing  4 25-Jun-22 29-Jun-22 7 C1732-CON-07200 Link Bridge - Footing 1 and 2 Footing 1 an	C1732-CON-07100 Link Bridge - Footing 1 and 2 ELS  9 15-Jun-22 24-Jun-22 7  C1732-CON-07150 Link Bridge - Footing 1 and 2 ELS  1 25-Jun-22 29-Jun-22 7  C1732-CON-07200 Link Bridge - Footing 1 and 2 Formwork and Holding Down Bolt  4 30-Jun-22 05-Jul-22 7  C1732-CON-07200 Link Bridge - Footing 1 and 2 Formwork and Holding Down Bolt  C1732-CON-07200 Link Bridge - Footing 1 and 2 Pour Concrete  3 06-Jul-22 08-Jul-22 7  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  C1732-CON-07400 Link Bridge - Footing 1 and 2 Support Columns Erection  6 09-Jul-22 12-Jul-22 7  C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T @4 5 Tid=4d)  6 06-Aug-22 12-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Cable Trench, Cable Ladder and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 EC3WC3Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07500 Cable Trenches and Other Works  C1732-CON-07600 Drainage Works  C1732-CON-08000 Drainage Works  C1732-CON-08000 Drainage Reinstatement Works  C1732-CON-08000 Drainage Reinstatement Works  C1732-CON-08000 Cable Trenches between AB11 and Pier WC3  18 23-Jul-22 12-Aug-22 7  1 Link Bridge - Footing 1 and 2 ELS  Link Bridge - Footing 1 and 2 Footing 1 an	D	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Sep Oct Nov De	c Jan Feb Mar An	2022 r May Jun J		en Oct Nov Der	Jan Feb Mar Anr	2023 May Jun Jul Aug Se	en Oct Nov F
C1732-CON-07200 Link Bridge - Footing 1 and 2 Formwork and Holding Down Bolt	C1732-CON-07200 Link Bridge - Footing 1 and 2 Formwork and Holding Down Bolt  4 30-Jun-22 05-Jul-22 7  C1732-CON-07250 Link Bridge - Footing 1 and 2 Pour Concrete  3 06-Jul-22 08-Jul-22 7  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  6 09-Jul-22 15-Jul-22 7  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  6 16-Jul-22 22-Jul-22 7  C1732-CON-07400 Link Bridge - Footing 1 and 2 Support Columns Erection  6 06-Aug-22 12-Aug-22 0  C1732-CON-07500 Link Bridge - Tiuss Deck Assembly (15T @4.5 Tid=4d)  6 06-Aug-22 12-Aug-22 0  C1732-CON-07500 Link Bridge - Cladding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07500 AB11 SEM Opening  C1732-CON-07500 Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08100 Cable Trenches Prawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08200 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C2-No-08200 Cable Trenches between AB11 and Pier WC3  C305-C0N-08300 Cable Trenches between AB11 and Pier WC3  C306-C0N-08300 Cable Trenches between AB11 and Pier WC3	C1732-CON-07200 Link Bridge - Footing 1 and 2 Formwork and Holding Down Bolt  4 30-Jun-22 05-Jul-22 7  C1732-CON-07250 Link Bridge - Footing 1 and 2 Pour Concrete  3 06-Jul-22 08-Jul-22 7  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  6 09-Jul-22 15-Jul-22 7  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  6 16-Jul-22 22-Jul-22 7  C1732-CON-07400 Link Bridge - Footing 1 and 2 Support Columns Erection  6 06-Aug-22 12-Aug-22 0  C1732-CON-07500 Link Bridge - Cladding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Cable Trench, Cable Ladder and Miscellaneous 04 16-Jul-22 12-Aug-22 0  C1732-CON-07500 AB11 SEM Opening  C1732-CON-07500 AB11 SEM Opening  C1732-CON-07500 Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08200 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C20N-07500 Cable Trenches between AB11 and Pier WC3  C20N-07500 Cable Trenches between AB11 and Pier WC3	C1732-CON-07100	Link Bridge - Footing 1 and 2 ELS	9	15-Jun-22	24-Jun-22	7	rop ou not ou	0 000 1 00 100 17 0					may our our pray or	90 00 1101 1
C1732-CON-07250 Link Bridge - Footing 1 and 2 Pour Concrete  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  C1732-CON-07400 Link Bridge - Tous Deck Assembly (15T @4 5 Tid=4d)  C1732-CON-07400 Link Bridge - Cladding, Cable Containment and Miscellaneous  C1732-CON-07500 Link Bridge - Tous Deck Assembly (15T @4 5 Tid=4d)  C1732-CON-07500 Link Bridge - Tous Deck Erection  C1732-CON-07500 Link Bridge - Tous Deck Erection  C1732-CON-07500 EC3WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  C1732-CON-07600 AB11 SEM Opening  C1732-CON-07600 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08200 Cable Trenches Detween AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C203-Jul-22  C204-Jul-22  C21-Jul-22  C21-Jul-22  C22-Jul-22  C22-Jul-22  C22-Jul-22  C22-Jul-22  C22-Jul-22  C22-Jul-22  C23-Jul-22  C23-	C1732-CON-07350	C1732-CON-07350 Link Bridge - Footing 1 and 2 Pour Concrete  C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  C1732-CON-07400 Link Bridge - Footing 1 and 2 Support Columns Erection  C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T @4 5 Tid=4d)  C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 Link Bridge - Cladding, Cable Containment and Miscellaneous  C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  C1732-CON-07600 AB11 SEM Opening  C1732-CON-08100 Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08200 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C204-CDN-08300 Cable Trenches between AB11 and Pier WC3  C205-CDN-08300 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3	C1732-CON-07150	Link Bridge - Footing 1 and 2 Rebar Fixing	4	25-Jun-22	29-Jun-22	7	1		-	Link Bri	lge - Footing	and 2 Rebar Fix	ing	
C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  6 09-Jul-22 15-Jul-22 7  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  6 16-Jul-22 22-Jul-22 7  C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T @4 5 Tid=4d)  6 06-Aug-22 12-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Assembly (15T @4 5 Tid=4d)  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  4 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08200 Drainage Works  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C3 - Value - Cable Trenches between AB11 and Pier WC3  C3 - Value - Cable Trenches between AB11 and Pier WC3	C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  6 09-Jul-22 15-Jul-22 7  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  6 16-Jul-22 22-Jul-22 7  C1732-CON-07400 Link Bridge - Footing 1 and 2 Support Columns Erection  6 16-Jul-22 12-Aug-22 0  C1732-CON-07450 Link Bridge - Caldding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  4 20-Aug-22 24-Aug-22 0  C1732-CON-07500 EC3WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  24 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  140 08-Apr-22 27-Sep-22 90  C1732-CON-08200 Drainage Works  60 09-Sep-22 21-Nov-22 88  C1732-CON-08200 Cable Trenches between AB11 and Pier WC3  18 23-Jul-22 12-Aug-22 7	C1732-CON-07300 Link Bridge - Footing 1 and 2 Curing/Strip Formwork  6 09-Jul-22 15-Jul-22 7  C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  6 16-Jul-22 22-Jul-22 7  C1732-CON-07400 Link Bridge - Footing 1 and 2 Support Columns Erection  6 06-Aug-22 12-Aug-22 0  C1732-CON-07450 Link Bridge - Caldding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  4 20-Aug-22 24-Aug-22 0  C1732-CON-07500 EC3WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  4 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  140 08-Apr-22 27-Sep-22 90  C1732-CON-08200 Drainage Works  6 0 09-Sep-22 21-Nov-22 88  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  18 23-Jul-22 12-Aug-22 7	C1732-CON-07200	Link Bridge - Footing 1 and 2 Formwork and Holding Down Bolt	4	30-Jun-22	05-Jul-22	7			الح	Link Bı	idge - Footing	1 and 2 Formwo	k and Holding Do	wn Bolt
C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T @4.5 Tid=4d)  C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  C1732-CON-07550 Link Bridge - Truss Deck Erection  C1732-CON-07550 EC3WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  C1732-CON-07560 AB11 SEM Opening  C1732-CON-07600 AB11 SEM Opening  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Reinstatement Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C27-Sep-22 C3-Sep-22 C3-Sep-22 C3-Sep-22 C4-Sep-22 C5-Dec-22 C4-Sep-22 C5-Dec-22 C5-Dec-	C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T@4.5Tid=4d)  6 06-Aug-22 12-Aug-22 0  C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  24 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08200 Drainage Works  C1732-CON-08200 Drainage Reinstatement Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  6 16-Jul-22 12-Aug-22 17  6 16-Jul-22 12-Aug-22 0  C18-Jul-22 12-Aug-22 18  C18-Jul-22 12-Aug-22 18  C18-Jul-22 12-Aug-22 18  C19-Aug-22 18	C1732-CON-07350 Link Bridge - Footing 1 and 2 Support Columns Erection  C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T@4.5Tid=4d)  C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  C1732-CON-07600 AB11 SEM Opening  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3	C1732-CON-07250	Link Bridge - Footing 1 and 2 Pour Concrete	3	06-Jul-22	08-Jul-22	7			الجا	Link B	idge - Footing	1 and 2 Pour Co	ncrete	
C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T@4.5Tid=4d)  C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  4 20-Aug-22 24-Aug-22 0  C1732-CON-07500 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  4.6 - Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C27-Sep-22 0-Sep-22 1-Nov-22 8-Sep-22 0-Sep-22 1-Nov-22	C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T@4.5Tid=4d)  C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  4 20-Aug-22 24-Aug-22 0  C1732-CON-07500 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  24 16-Jul-22 12-Aug-22 18  4 16-Jul-22	C1732-CON-07400 Link Bridge - Truss Deck Assembly (15T@4.5Tid=4d)  C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  6 20-Aug-22 24-Aug-22 0  C1732-CON-07500 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  24 16-Jul-2 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3	C1732-CON-07300	Link Bridge - Footing 1 and 2 Curing/Strip Formwork	6	09-Jul-22	15-Jul-22	7	T			Link E	ridge - Footn	g 1 and 2 Curing/	Strip Formwork	
C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous 6 13-Aug-22 19-Aug-22 0 Link Bridge - Truss Deck Erection 4 20-Aug-22 24-Aug-22 0 C1732-CON-07500 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works 18 25-Aug-22 15-Sep-22 0 C1732-CON-07600 AB11 SEM Opening 24 16-Jul-22 12-Aug-22 18 4.6 - Cable Trenches and Other Works C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B 140 08-Apr-22 27-Sep-22 9.0 C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 88 C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88 C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous 6 13-Aug-22 19-Aug-22 0 1 10-Aug-22 24-Aug-22 0 10-10-10-10-10-10-10-10-10-10-10-10-10-1	C1732-CON-07450 Link Bridge - Cladding, Cable Containment and Miscellaneous  6 13-Aug-22 19-Aug-22 0  C1732-CON-07500 Link Bridge - Truss Deck Erection  4 20-Aug-22 24-Aug-22 0  C1732-CON-07550 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  4 16-Jul-22 12-Aug-22 18  4 16-Jul-22 12-Aug-22 18  4 16-Jul-22 12-Aug-22 18  4 16-Jul-22 12-Aug-22 18  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  140 08-Apr-22 27-Sep-22 90  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  18 23-Jul-22 12-Aug-22 7	C1732-CON-07350	Link Bridge - Footing 1 and 2 Support Columns Erection	6	16-Jul-22	22-Jul-22	7			-	Link	Bridge - Footir	g 1 and 2 Suppo	rt Columns Erecti	on
C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07550 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  24 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  18 23-Jul-22 12-Aug-22 77	C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07500 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  24 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3	C1732-CON-07500 Link Bridge - Truss Deck Erection  C1732-CON-07550 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18 25-Aug-22 15-Sep-22 0  C1732-CON-07600 AB11 SEM Opening  24 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08200 Drainage Works  C1732-CON-08210 Drainage Reinstatement Works  C1732-CON-08210 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3	C1732-CON-07400	Link Bridge - Truss Deck Assembly (15T @4.5T/d=4d)	6	06-Aug-22	12-Aug-22	0					nk Bridge - Tru	ss Deck Assemb	ly (15T @4.5T/d=	4d)
C1732-CON-07550 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18	C1732-CON-07550 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18	C1732-CON-07550 EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works  18	C1732-CON-07450	Link Bridge - Cladding, Cable Containment and Miscellaneous	6	13-Aug-22	19-Aug-22	0	1			494	ink Bridge - C	adding, Cable Co	ontainment and M	iscellaneou
C1732-CON-07600 AB11 SEM Opening 24 16-Jul-22 12-Aug-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B 140 08-Apr-22 27-Sep-22 -90  C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 -88  C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-08200 Cable Trenches Drainage Reinstatement Works C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  24 16-Jul-22 12-Aug-22 18  24 16-Jul-22 12-Aug-22 18  25 16-Jul-22 18  26 16-Jul-22 18  27-Sep-22 90  27-Sep-22 90  27-Sep-22 90  27-Sep-22 90  27-Sep-22 90  27-Sep-22 90  28 27-Sep-22 90  28 27-Sep-22 90  28 27-Sep-22 90  28 27-Sep-22 90  29 27-Sep-22 90  20 27-Sep-22 90  20 28 27-Sep-22 90  20 28 30  20 2	C1732-CON-07600 AB11 SEM Opening 24 16-Jul-22 18  4.6 - Cable Trenches and Other Works  C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B 140 08-Apr-22 27-Sep-22 -90  C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 -88  C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-07500	Link Bridge - Truss Deck Erection	4	20-Aug-22	24-Aug-22	0					_ink Bridge - T	russ Deck Erection	n	
4.6 - Cable Trenches and Other Works         C1732-CON-08100       Cable Trenches, Drawpits and Ducts for Stage 2A and 2B       140       08-Apr-22       27-Sep-22       -90         C1732-CON-08200       Drainage Works       60       09-Sep-22       21-Nov-22       -88         C1732-CON-08210       Drainage Reinstatement Works       12       22-Nov-22       05-Dec-22       -88         C1732-CON-08300       Cable Trenches between AB11 and Pier WC3       18       23-Jul-22       12-Aug-22       7	4.6 - Cable Trenches and Other Works         C1732-CON-08100       Cable Trenches, Drawpits and Ducts for Stage 2A and 2B       140       08-Apr-22       27-Sep-22       -90         C1732-CON-08200       Drainage Works       60       09-Sep-22       21-Nov-22       -88         C1732-CON-08210       Drainage Reinstatement Works       12       22-Nov-22       05-Dec-22       -88         C1732-CON-08300       Cable Trenches between AB11 and Pier WC3       18       23-Jul-22       12-Aug-22       7	4.6 - Cable Trenches and Other Works         C1732-CON-08100       Cable Trenches, Drawpits and Ducts for Stage 2A and 2B       140       08-Apr-22       27-Sep-22       -90         C1732-CON-08200       Drainage Works       60       09-Sep-22       21-Nov-22       -88         C1732-CON-08210       Drainage Reinstatement Works       12       22-Nov-22       05-Dec-22       -88         C1732-CON-08300       Cable Trenches between AB11 and Pier WC3       18       23-Jul-22       12-Aug-22       7	C1732-CON-07550	EC3/WC3/Link Bridge - Cable Trench, Cable Ladder and Miscellaneous Works	18	25-Aug-22	15-Sep-22	0				<u>-</u>	EC3/WC3/	ink Bridge - Cab	le Trench, Cable L	adder and
C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B 140 08-Apr-22 27-Sep-22 -90  C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 -88  C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B 140 08-Apr-22 27-Sep-22 -90 C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 -88 C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88 C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-08100 Cable Trenches, Drawpits and Ducts for Stage 2A and 2B 140 08-Apr-22 27-Sep-22 -90 C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 -88 C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88 C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-07600	AB11 SEM Opening	24	16-Jul-22	12-Aug-22	18	l :		+	<u> </u>	311 SEM Ope	ning		
C1732-CON-08200         Drainage Works         60         09-Sep-22         21-Nov-22         -88           C1732-CON-08210         Drainage Reinstatement Works         12         22-Nov-22         05-Dec-22         -88           C1732-CON-08300         Cable Trenches between AB11 and Pier WC3         18         23-Jul-22         12-Aug-22         7	C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 -88 C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88 C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-08200 Drainage Works 60 09-Sep-22 21-Nov-22 -88 C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88 C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	4.6 - Cable Trench	es and Other Works												
C1732-CON-08210 Drainage Reinstatement Works  12 22-Nov-22 05-Dec-22 -88  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  18 23-Jul-22 12-Aug-22 7  Cable Trenches between AB11 and Pier WC3	C1732-CON-08210 Drainage Reinstatement Works  12 22-Nov-22 05-Dec-22 -88  C1732-CON-08300 Cable Trenches between AB11 and Pier WC3  18 23-Jul-22 12-Aug-22 7  Cable Trenches between AB11 and Pier WC3	C1732-CON-08210 Drainage Reinstatement Works 12 22-Nov-22 05-Dec-22 -88 C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7	C1732-CON-08100	Cable Trenches, Drawpits and Ducts for Stage 2A and 2B	140	08-Apr-22	27-Sep-22	-90	1	L-B			Cable Te	nches, Drawpits	and Ducts for Stag	ge 2A and 2
C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7 Cable Trenches between AB11 and Pier WC3	C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7 Cable Trenches between AB11 and Pier WC3	C1732-CON-08300 Cable Trenches between AB11 and Pier WC3 18 23-Jul-22 12-Aug-22 7 Cable Trenches between AB11 and Pier WC3	C1732-CON-08200	Drainage Works	60	09-Sep-22	21-Nov-22	-88				احا	Dr.	ain age Works		
			C1732-CON-08210	Drainage Reinstatement Works	12	22-Nov-22	05-Dec-22	-88						- 1		
C1732-CON-08400 Clean Up and Make Good 21 06-Dec-22 31-Dec-22 -88	C1732-CON-08400 Clean Up and Make Good 21 06-Dec-22 31-Dec-22 -88	C1732-CON-08400 Clean Up and Make Good 21 06-Dec-22 31-Dec-22 -88	C1732-CON-08300	Cable Trenches between AB11 and Pier WC3	18	23-Jul-22	12-Aug-22	7			L.	- <u> </u>	able Trer ches	between AB11 a	nd Pier WC3	
			C1732-CON-08400	Clean Up and Make Good	21	06-Dec-22	31-Dec-22	-88					L- i	→Clean Up and	Make Good	
										:	1		:	:	·	





# Appendix B Project Organization Chart

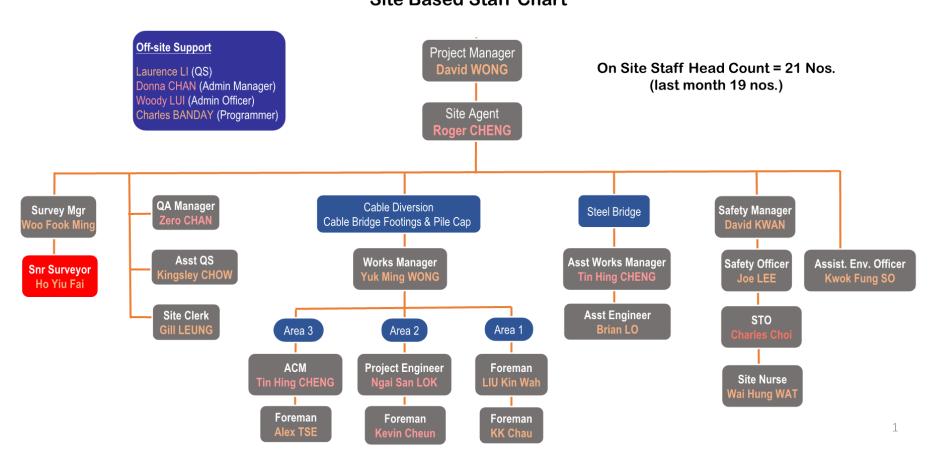




# Project O-Chart

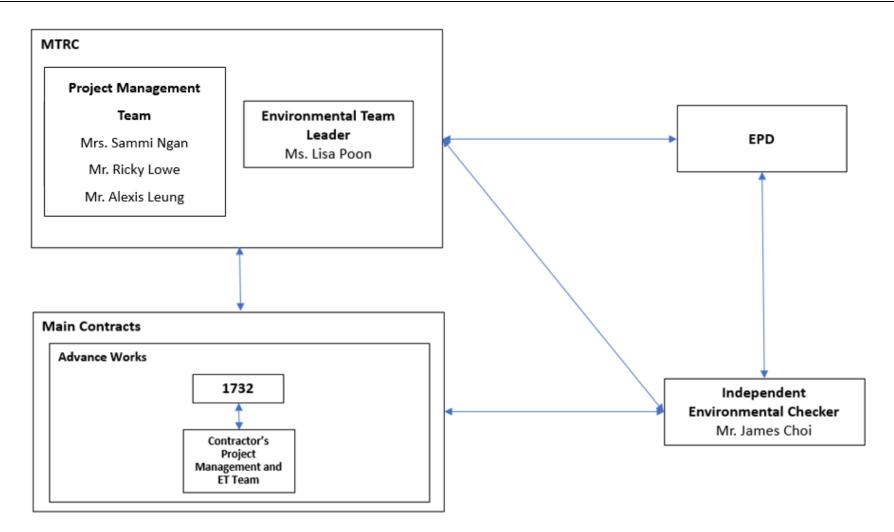


#### Site Based Staff Chart













## 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	Ms. Lisa Poon	3127 6295		
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	
			Project Manager	David Wong	9712 9984	
1732	Construction of cable bridges and associated civil works for cable diversion	Paul Y – CRCCI	Environmental Officer	Pan Fong	9436 9435	
1732			Joint Venture	Assistant Environmental Officer	So, Kwok Fung	6273 1608
			Environmental Team Leader	Tsang, Fan Cheong	2698 8060	



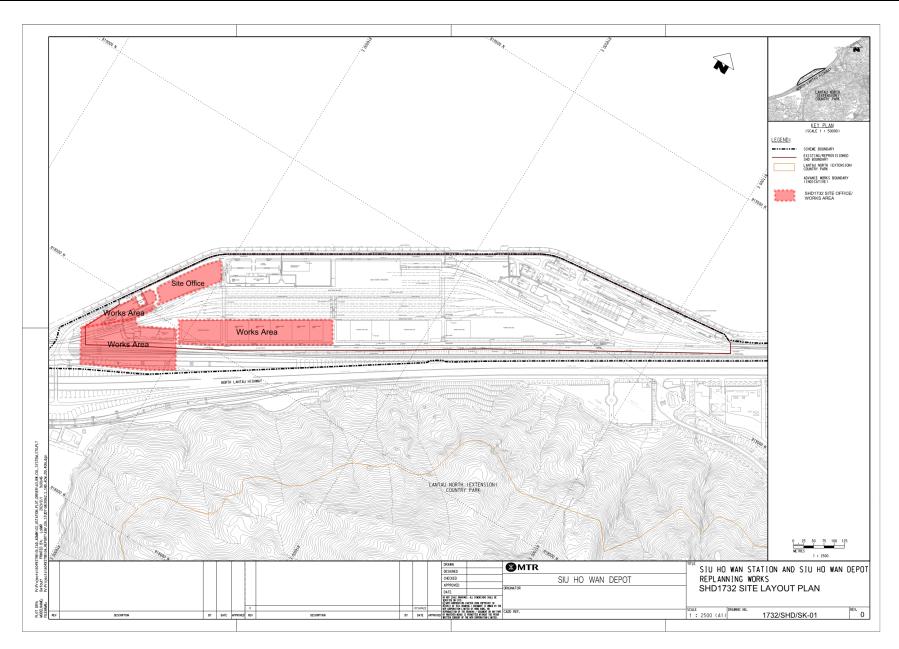


# Appendix C

Alignment and Works Area for Contract No. 1732









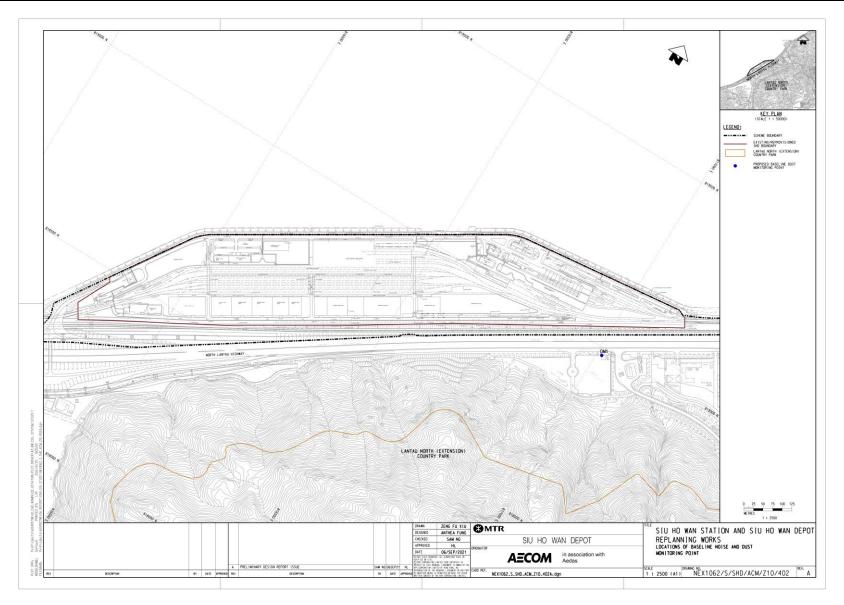


# Appendix D

Location Plan of Air Quality Monitoring Station











Appendix E

Calibration Certificates

(Air Quality Monitoring Equipment)





		EQUIPM					
Туре:			Laser Dus	t Monitor			
	urer/Brand:		SIBATA				
Model No.	:		LD-3				
Equipment	t No.:		A.005.11a	1			
Sensitivity	Adjustment Sca	le Setting:	799 CPM				
Operator:			WS CHAN				
Standard E	Equimment						
Equipmen:	<b>*</b> .		High Volu	mo Samn	lor		
Equipment Venue:	ι.				nt Secondary Scho	DI	
Model No.	·		TE-5170	overnmen	it secondary serior	01	
Serial No.:			3154				
	ation Date:		28-Apr-22	!			
Calibration	n Result						
Sensitivity	Adjustment Sca	le Setting (Refo	re Calibrati	on).		799	СРМ
	Adjustment Sca					799	CPM
		,					
Hour	Date	Time	Ambient (	Condition	Concentration ①	Total Count 2	Count/
	(dd/mm/yy)		Temp (°C)	R.H.(%)	(mg/m3)		Minute (3)
					Y-axis		X-axis
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:		data was measi			Sampler	500	
		was logged by I					
	③ Count/minu	ite was calculate	ed by (Total	Count/6	0)		
Dylinger	Degracion of V	- V					
ву шпеат	Regression of Y		0.0015				
	Slope (K-factor) Correlation coe		0.0015		-		
	Correlation coe	mcient:	0.9991		-		
Validity of	f Calibration Reco	ord:	3-Ma	ау-23	-		
Remarks:							
Remarks:							
Remarks:				***			

QC Reviewer:

Signature:





A.005.16a   Sensitivity Adjustment Scale Setting:   A.005.16a   Sensitivity Adjustment Scale Setting:   Sensitivity Adjustment   Sensitivity Adjustment   Sensitivity Adjustment   Sensitivity Adjustment   Sensitivity Adjustment Scale Setting (Before Calibration):   Sensitivity Adjustment Scale Setting (After Calibration):   Sensitivity Adjustment Scale Setting (A	Туре:			Laser Dus	t Monitor			
A.005.16a   Sensitivity Adjustment Scale Setting:   A.005.16a   Sensitivity Adjustment Scale Setting:   Sensitivity Adjustment   Sequipment:   High Volume Sampler   Sequipment:   Sensitivity Adjustment Secondary School   TE-5170   Serial No.:   3154   Sensitivity Adjustment Scale Setting (Before Calibration):   Sensitivity Adjustment Scale Setting (After Calibra	Manufactı	urer/Brand:		SIBATA				
Sensitivity Adjustment Scale Setting: 521 CPM    Standard Equimment	Model No.	.:		LD-3B				
Standard Equimment   High Volume Sampler	Equipmen	t No.:		A.005.16a	L			
Standard Equimment   High Volume Sampler	Sensitivity	Adjustment Sca	le Setting:	521 CPM				
High Volume Sampler   Fanling Government Secondary School   TE-5170   Serial No.:   3154	Operator:			WS CHAN			26	
Venue:   Fanling Government Secondary School	Standard I	Equimment						
Model No.:   TE-5170	Equipmen	t:		High Volu	me Sampl	er		
Serial No.:   3154   28-Apr-22	√enue:			Fanling Go	overnmen	t Secondary School	ol	
Calibration Date:   28-Apr-22     28-Apr-22						3		
Calibration Result   Sensitivity Adjustment Scale Setting (Before Calibration):   521 CPM								.e
Sensitivity Adjustment Scale Setting (After Calibration):	Last Calibr	ration Date:		28-Apr-22				6
Hour	Calibratio	n Result						
Hour	C	. A di	I. C. Adin - (D. f.	- Calibasti	1-		F21	CDM
Hour		T 19 <del>5</del> 0	ie Setting (Befor	e Calibrati	on):		521	CPIVI
Temp (°C)   R.H.(%)   (mg/m3)   Minu   X-axis   X-axis		Adimeter ant Con	la Cattina (After	Calibration			E21	CDM
1 03/05/22 9:30-10:30 26.0 60 0.0490 1850 30 2 03/05/22 10:30-11:30 26.0 60 0.0500 1980 33 3 03/05/22 11:30-12:30 26.0 60 0.0520 2070 34 4 03/05/22 12:30-13:30 26.0 60 0.0540 2160 36  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	Sensitivity	Adjustment Sca	le Setting (After	Calibratio	n):		521	.CPM
1     03/05/22     9:30-10:30     26.0     60     0.0490     1850     30       2     03/05/22     10:30-11:30     26.0     60     0.0500     1980     33       3     03/05/22     11:30-12:30     26.0     60     0.0520     2070     34       4     03/05/22     12:30-13:30     26.0     60     0.0540     2160     36       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						Concentration (1)		Count/
2 03/05/22 10:30-11:30 26.0 60 0.0500 1980 33 3 03/05/22 11:30-12:30 26.0 60 0.0520 2070 34 4 03/05/22 12:30-13:30 26.0 60 0.0540 2160 36  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		Date		Ambient	Condition	Programme and the second		
3 03/05/22 11:30-12:30 26.0 60 0.0520 2070 34 4 03/05/22 12:30-13:30 26.0 60 0.0540 2160 36  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		Date (dd/mm/yy)	Time	Ambient (Temp (°C)	Condition R.H.(%)	(mg/m3) Y-axis	Total Count(2)	Count/ Minute(3 X-axis
4 03/05/22 12:30-13:30 26.0 60 0.0540 2160 36  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	Hour 1	Date (dd/mm/yy) 03/05/22	Time 9:30-10:30	Ambient (°C)	Condition R.H.(%)	(mg/m3) Y-axis 0.0490	Total Count②	Count/ Minute(3 X-axis 30.83
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	Hour 1 2	Date (dd/mm/yy) 03/05/22 03/05/22	9:30-10:30 10:30-11:30	Ambient (°C)  26.0  26.0	R.H.(%) 60	(mg/m3) Y-axis 0.0490 0.0500	Total Count②  1850 1980	Count/ Minute (3 X-axis 30.83 33.00
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): Correlation coefficient:  0.0015 0.9995  Validity of Calibration Record: 3-May-23	Hour 1 2 3	Date (dd/mm/yy)  03/05/22  03/05/22  03/05/22	9:30-10:30 10:30-11:30 11:30-12:30	Ambient (°C) Temp (°C) 26.0 26.0 26.0	R.H.(%)  60 60 60	(mg/m3) Y-axis 0.0490 0.0500 0.0520	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50
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	1 2 3 4	Date (dd/mm/yy) 03/05/22 03/05/22 03/05/22 03/05/22	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30	Ambient (°C)  26.0  26.0  26.0  26.0  26.0	R.H.(%)  60 60 60 60	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00
Slope (K-factor): 0.0015 Correlation coefficient: 0.9995  Validity of Calibration Record: 3-May-23	1 2 3 4	Date (dd/mm/yy)  03/05/22  03/05/22  03/05/22  03/05/22  1 Monitoring	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30 data was measu	Ambient (*C)  26.0  26.0  26.0  26.0  26.0  and the properties of	60 60 60 60 60 h Volume	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50
Correlation coefficient: 0.9995  Validity of Calibration Record: 3-May-23	1 2 3 4	Date (dd/mm/yy)  03/05/22  03/05/22  03/05/22  03/05/22  ① Monitoring ② Total Count	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30 data was measu was logged by L	Ambient ( Temp (°C)  26.0  26.0  26.0  26.0  ired by Hig aser Dust	R.H.(%)  60 60 60 60 h Volume	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540 Sampler	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50
Validity of Calibration Record: 3-May-23	Hour  1 2 3 4 Note:	Date (dd/mm/yy)  03/05/22  03/05/22  03/05/22  03/05/22  1 Monitoring 2 Total Count 3 Count/minu	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30 data was measu was logged by L	Ambient ( Temp (°C)  26.0  26.0  26.0  26.0  ired by Hig aser Dust	R.H.(%)  60 60 60 60 h Volume	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540 Sampler	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50
	Hour  1 2 3 4 Note:	Date (dd/mm/yy)  03/05/22  03/05/22  03/05/22  03/05/22  1 Monitoring 2 Total Count 3 Count/minu	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30 data was measu was logged by L	Ambient (*C)  26.0  26.0  26.0  26.0  26.0  irred by Hig aser Dust (d by (Total	60 60 60 60 60 h Volume Monitor	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540 Sampler	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50
Remarks:	Hour  1 2 3 4 Note:	Date (dd/mm/yy)  03/05/22  03/05/22  03/05/22  03/05/22  ① Monitoring ② Total Count ③ Count/minutesession of Yes	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30 data was measu was logged by Lute was calculate	Ambient (Temp (°C)  26.0  26.0  26.0  26.0  aser Dust (aby (Tota)  0.0015	60 60 60 60 60 h Volume Monitor	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540 Sampler	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50
	Hour  1 2 3 4 Note:	Date (dd/mm/yy)  03/05/22  03/05/22  03/05/22  03/05/22  ① Monitoring ② Total Count ③ Count/minu  Regression of Y of Slope (K-factor) Correlation coef	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30 data was measu was logged by Lute was calculate on X :: ::fficient:	Ambient (Temp (°C) 26.0 26.0 26.0 26.0 red by Hig aser Dust 1 dby (Tota 0.0015 0.9995	60 60 60 60 60 h Volume Monitor	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540 Sampler	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50
	Hour  1 2 3 4 Note:	Date (dd/mm/yy)  03/05/22 03/05/22 03/05/22 03/05/22 1 Monitoring 2 Total Count 3 Count/minu Regression of Your Slope (K-factor) Correlation coefficients (Correlation Recomplete)	9:30-10:30 10:30-11:30 11:30-12:30 12:30-13:30 data was measu was logged by Lute was calculate on X :: ::fficient:	Ambient (Temp (°C) 26.0 26.0 26.0 26.0 red by Hig aser Dust 1 dby (Tota 0.0015 0.9995	60 60 60 60 60 h Volume Monitor	(mg/m3) Y-axis 0.0490 0.0500 0.0520 0.0540 Sampler	Total Count②  1850 1980 2070	Count/ Minute(3 X-axis 30.83 33.00 34.50





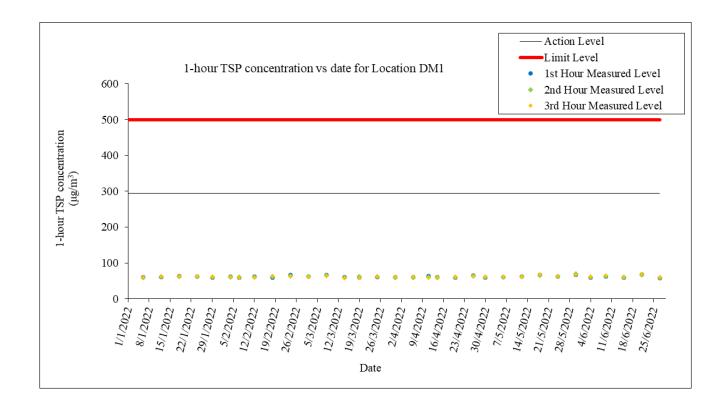
Appendix F
Monitoring Data (Air Quality Monitoring)





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

Date	Weather	Start Time	1 <sup>st</sup> Hour	2 <sup>nd</sup> Hour	3 <sup>rd</sup> Hour
Date	weather	(hh:mm)	μg/m <sup>3</sup>	$\mu g/m^3$	μg/m <sup>3</sup>
4 June 2022	Cloudy	14:05	58.8	61.3	61.6
9 June 2022	Cloudy	10:55	62.1	63.3	64.9
15 June 2022	Cloudy	13:15	58.9	60.1	60.8
21 June 2022	Cloudy	10:50	68.1	66.4	69.2
27 June 2022	Sunny	13:45	58.2	59.4	60.1
Mir	nimum: 58.2 μ	g/m <sup>3</sup>	Max	ximum: 69.2 μg	g/m <sup>3</sup>







Appendix G
Waste Flow Table

Siu Ho Wan Depot Property Development Cable Bridges and Associated Civil Works for Cable Diversion Monthly EM&A Report (June 2022)



**Monthly Summary Waste Flow Table** 

Name of Department: MTR Contract No. / Works Order No.: \_1732\_\_\_

**Monthly Summary Waste Flow Table for <u>June 2022</u>** 

			Actual Quantities of Inert Co	onstruction Waste Genera	ated Monthly	
Month	(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 <sup>3</sup> )	(in m <sup>3</sup> )	(in m <sup>3</sup> )	(in m <sup>3</sup> )	(in m <sup>3</sup> )	(in m <sup>3</sup> )
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	193.530	0.000
Sub-total	213.857	14.152	0.000	0.000	296.470	0.000
Jul-22	NA	NA	NA	NA	NA	NA
Aug-22	NA	NA	NA	NA	NA	NA
Sep-22	NA	NA	NA	NA	NA	NA
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	213.857	14.152	0.000	0.000	296.470	0.000
2021	0.000	0.000	0.000	0.000	0.000	0.000
Accumulated Total	213.857	14.152	0.000	0.000	296.47	0.000





		Act	tual Quantities of Non-ine	rt Construction Waste (	Generated Monthly	
Month	(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	NA	NA	NA	NA	NA	NA
Aug-22	NA	NA	NA	NA	NA	NA
Sep-22	NA	NA	NA	NA	NA	NA
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	0.207	0.000	0.000	93.660	191.490
2021	0.000	0.000	0.000	0.000	0.000	0.000
Accumulated Total	0.000	0.207	0.000	0.000	93.660	191.490

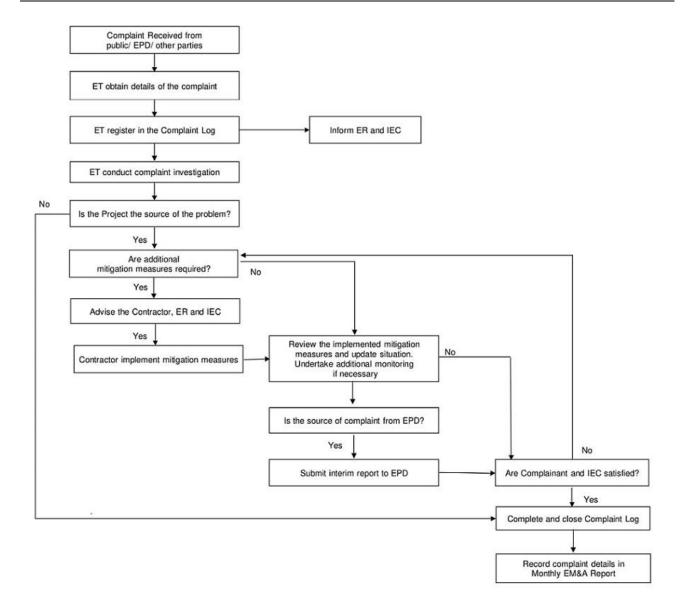




Appendix H
Complaint Handling Procedure











Appendix I

Event-Action Plan (Air Quality Monitoring)





FUENT		ACTION		
EVENT	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.	Confirm receipt of notification of exceedance in writing.	Identify source(s), investigate the causes of exceedance and propose remedial measures;     Implement remedial measures; and     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.	Confirm receipt of notification of exceedance in writing;     In consultation with the ET and IEC agree with the Contractor on the remedial measures to be implemented; and     Supervise implementation of remedial measures	Identify source(s) and investigate the causes of exceedance;     Submit proposals for remedial measures to the ER, ET and IEC within three working days of notification for agreement;     Implement the agreed proposals; and     Amend proposal as appropriate.





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

Donarting Daried	<b>Environmental Complaint Statistics</b>						
Reporting Period	Frequency	Cumulative	Complaint Nature				
1 June 2022 - 30 June 2022	0	0	N/A				

Table J3 Statistical Summary of Environmental Non-compliance

Donouting Donied	<b>Environmental Non-compliance Statistics</b>						
Reporting Period	Frequency	Cumulative	Details				
1 June 2022 - 30 June 2022	0	0	N/A				

**Table J4 Statistical Summary of Environmental Summons** 

Donouting Donied	E	<b>Environmental Summons Statistics</b>					
Reporting Period	Frequency	Cumulative	Details				
1 June 2022 - 30 June 2022	0	0	N/A				

**Table J5 Statistical Summary of Environmental Prosecution** 

Donauting Davied	F	<b>Environmental Prosecution Statistics</b>						
Reporting Period	Frequency	Cumulative	Details					
1 June 2022 - 30 June 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	y (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
\$3.8.9	<ul> <li>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.</li> <li>Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.</li> <li>Use of frequent watering for particularly dusty construction areas and areas close to ASRs.</li> <li>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.</li> <li>Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.</li> <li>Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.</li> <li>Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.</li> </ul>	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
	• 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 Impa	act (Construction Phase)						
S4.5.16	<ul> <li>Implement the following good site practices as far as practicable:</li> <li>Only well-maintained plant should be operated on-site, and plant should be serviced regularly during the construction program;</li> <li>Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction program;</li> <li>Mobile plant, is any, should be sited as far from NSRs as possible;</li> <li>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;</li> <li>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</li> <li>Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.</li> </ul>		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 Qual	ity Impact (Construction Phase)						
	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 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.	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)	Observation issued, rectified after observation
	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	Observation issued, rectified after observation





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
S5.8.6	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 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.	To minimise impact from construction site run-off	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM- DSS	Implemented
S5.8.7	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	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	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	To minimise impact from construction site run-off	Contractor	All works area	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
	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.						
\$5.8.10	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
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.	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
	<ul> <li>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.</li> <li>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).</li> </ul>						
\$5.8.13	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





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
S5.8.15	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 (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:	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
	<ul> <li>The use of less or smaller construction plants may be specified in works area close to the inland water bodies.</li> <li>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.</li> <li>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.</li> <li>Construction activities, which generate large amount of wastewater, should be carried out in a distance away</li> </ul>						





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
	from the watercourse/ditch, where practicable.  Construction effluent, site run-off and sewage should be properly collected and / or treated.						
S5.8.17 – S5.8.19	<ul> <li>Accidental Spillage of Chemicals</li> <li>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.</li> <li>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.</li> <li>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</li> <li>Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows:</li> <li>Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> <li>Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.</li> </ul>	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	Observation issued, rectified after observation





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
	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	Groundwater from Contaminated Areas, Contaminated Site Runoff and Wastewater from Land Decontamination  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. 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	To minimise impact from groundwater from contaminated areas, contaminated site run-off/ wastewater from land decontamination	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
	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 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						





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
	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.						
	<ul> <li>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.</li> </ul>						
Waste Mar	nagement 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;	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
	<ul> <li>Provision of sufficient waste reception/ disposal points, and regular collection of waste;</li> <li>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;</li> </ul>						





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
	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)						
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;	To minimize waste generation	Contractor	All works areas	Construction phase	WDO	Implemented
	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	To minimise the disposal of C&D waste	Contractor	All works areas	Construction phase	WDO	Implemented





EIA Ref.	A Ref. Recommended Mitigation Measures		Implementation Agent	Location of the Measures	Implementation Stage	Requirements	Implementation Status
	landfill. A suitable area should be designated within the site for temporary stockpiling of C&D materials and to facilitate the sorting process.						
\$7.5.6	Within the stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance:	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	Implemented
	<ul> <li>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;</li> </ul>						
	<ul> <li>Covering materials during heavy rainfall;</li> <li>Locating stockpiles to minimise potential visual impacts;</li> <li>Minimising land intake of stockpile areas as far as possible;</li> </ul>						
	<ul> <li>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&amp;D materials; and</li> </ul>						
	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	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
\$7.5.10 to \$7.5.12	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.  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.	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
	Any unused chemicals or those with remaining functional capacity should be collected for reuse as far as practicable.						
\$7.5.13 to \$7.5.14	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.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	APCO WDO	N/A
	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





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
S7.5.21	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 Cont	tamination						
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.	To control land remediation work	Contractor	Area identified with land contamination	Prior to the commencement of construction works at the contaminated areas	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)"	
	• Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from					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
Landscape	<ul> <li>contaminated soils;</li> <li>Supply of suitable clean backfill material (or treated soil) after excavation;</li> <li>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;</li> <li>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;</li> <li>Speed control for the trucks carrying contaminated materials shall be enforced;</li> <li>Vehicle wheel and body washing facilities at the site exist points shall be established and used; and</li> <li>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.</li> <li>and Visual Impact (Construction Phase)</li> </ul>						
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

Siu Ho Wan Depot Property Development Cable Bridges and Associated Civil Works for Cable Diversion Monthly EM&A Report (June 2022)





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
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 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 June 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Jun	2-Jun	3-Jun	4-Jun
						1-hr Dust Monitoring
5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun
				1-hr Dust Monitoring		
12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun
			1-hr Dust Monitoring			
19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun
		1-hr Dust Monitoring				
26-Jun	27-Jun	28-Jun	29-Jun	30-Jun		
	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 July 2022

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

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

#### Appendix B

Monthly EM&A Report for June 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 June 2022)

#### **Issue and Revision Record**

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

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#### EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733

#### Monthly EM&A Report

Page 3

Ref# 
Rev. 01

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#### **TABLE OF CONTENT**

EXECUTIVE SUMMARY	4
1. PROJECT INFORMATION	6
2. ENVIRONMENTAL STATUS	8
3. AIR QUALITY MONITORING	. 10
4. WASTE MANAGEMENT	. 12
5. SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS	. 13
6. EM&A SITE INSPECTION	. 14
7. FUTURE KEY ISSUES	. 15
8. CONCLUSION AND RECOMMENDATION	. 16
APPENDIX A – CONSTRUCTION PROGRAMME	
APPENDIX B – PROJECT ORGANIZATION CHART	
APPENDIX C – ALIGNMENT AND WORKS AREA FOR CONTRACT NO. 1733	
APPENDIX D - LOCATION PLAN OF MONITORING STATION	
APPENDIX E - CALIBRATION CERTIFICATES	
APPENDIX F - MONITORING DATA	
APPENDIX G – WASTE FLOW TABLE	
APPENDIX H - COMPLAINT HANDLING PROCEDURE	
APPENDIX I - EVENT-ACTION PLAN	
APPENDIX J - STATISTICS ON COMPLAINT, NOTIFICATION OF SUMMONS AND SUCCESS PROSECUTION	FUL

APPENDIX L - MONITORING SCHEDULE OF THE REPORTING MONTH

APPENDIX K - ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

APPENDIX M - MONITORING SCHEDULE OF THE COMING MONTH



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot
Replanning Works – Contract 1733

Page	4
Ref#	-
Rev.	01
Date	Jul 22

#### **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 3<sup>rd</sup> 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 June 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

In the Reporting Period, joint site inspections were undertaken by the representatives of the Contractor, Engineer, IEC and Contractor's ET on 13 June 2022. During site inspection, non-compliance was not observed by the ET and IEC.

#### **Future Key Issues**

- Site clearance & hoarding /UU/ Cable Trenches
- · Paint shop demolition
- Excavation (Soil)
- Substructure (footings, pile caps, columns, abutments)



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	5
Replanning Works – Contract 1733		-
Monthly EM&A Report		01
monthly Emant Hopolt	Date	Jul 22

- Backfilling
- Superstructure (Vehicle Bridge Spans)
- EV Tracks Formation and Track installation



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot
Replanning Works - Contract 1733

Page	6
Ref#	-
Rev.	01
Date	Jul 22

#### 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 June 2022) is shown in below:

- Site formation
- Site clearance & hoarding /UU/ Cable Trenches
- Paint shop demolition
- Excavation (Soil)
- EV Tracks Formation and Track installation

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**.



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		7
Replanning Works - Contract 1733		-
Monthly EM&A Report		01
monthly =mark report	Date	Jul 22

#### 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	Ref.: 478318	(Pending)	(Pending)	Application submitted on 4 Apr 2022
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



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	8
Replanning Works – Contract 1733		-
Monthly EM&A Report		01
		Jul 22

#### 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)
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)



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		9
Replanning Works - Contract 1733		-
Monthly EM&A Report		01
		lul 22

3.3	Baseline Monitoring Report	1 Nov 2021 16 Nov 2021 (Deposited)
3.4	Monthly Monitoring Report (Jun 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



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	10
Replanning Works - Contract 1733	Ref#	-
	Pov	0.

Ref# Rev. 01
Date Jul 22

#### 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	Monitorir	Monitoring		and	Model No.	Calibration
Parameter	Equipme	nt				Date
1-hour TSP	Portable	direct	Sibata	Digital	A.005.11a	4 May 2022
	reading dust	meter	Dust	Monitor		
	(1-hour TSP)		(Model	No. LD-		
			3)			
1-hour TSP	Portable	direct	Sibata	Digital	A.005.16a	4 May 2022
	reading dust	meter	Dust	Monitor		
	(1-hour TSP)		(Model	No. LD-		
			3)			
			1			

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



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		11
Replanning Works – Contract 1733	Ref#	-
Monthly EM&A Report		01
		lul 22

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 4, 9, 15, 21 and 27 June 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	Limit Level	No. of
		(µg/m3 )	(µg/m3 )	Exceedances
DM1	58.2 – 69.2	294.7	500	0



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	12
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report		01
		lul 22

#### 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	Hard	Reused	Reused	Disposal	Imported	Metals	Paper /	Plastics	Chemical	Other,
	Quantity	Rock and	in the	in other	as Public	Fill		Cardboard	(See	Waste	e.g.
	Generated	Large	Contract	Projects	Fill			Packaging	note 3)		general
		Broken									refuse
		Concrete									
	[in Tonne]	[in	[in	[in	[in	[in	[in	[in kg]	[in kg]	[in kg]	[in
		Tonne]	Tonne]	Tonne]	Tonne]	Tonne]	Tonne]				Tonne]
June	306.77	0.00	0.00	0.00	306.77	0.00	0.00	0.00	0.00	0.00	95.20

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.



Replanning Works – Contract 1733	EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Pa
	Replanning Works - Contract 1733	Re

Page	13
Ref#	-
Rev.	01
Date	Jul 22

#### 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**.



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	
Replanning Works - Contract 1733	

Page	14
Ref#	-
Rev.	01
Date	Jul 22

#### 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 6, 13, 20 and 27 June 2022. One joint site inspection with the IEC also undertaken on 13 June 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
6 June 2022	None	None
13 June 2022	None	None
20 June 2022	None	None
27 June 2022	None	None

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**.



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		15
Replanning Works – Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
monthly Linda Report		Jul 22

#### 7. FUTURE KEY ISSUES

Work to be undertaken in the next reporting month are:

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



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot
Replanning Works – Contract 1733

Page	16
Ref#	-
Rev.	01
Date	Jul 22

#### 8. CONCLUSION AND RECOMMENDATION

This 3<sup>rd</sup> monthly EM&A Report presents the EM&A works undertaken during the period from 1 June to 30 June 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 June 2022. No observations and reminders were reported during the site inspections. 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.



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	A-1
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report		01
	Date	Jul 22

#### **APPENDIX A – CONSTRUCTION PROGRAMME**



### EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Page A-2 Ref# -

#### Monthly EM&A Report

Ref#	-
Rev.	01
Date	Jul 22

Construction Activities		2022						2023						
Construction Activities		М	ΑΙ	M J	J A	S C	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														

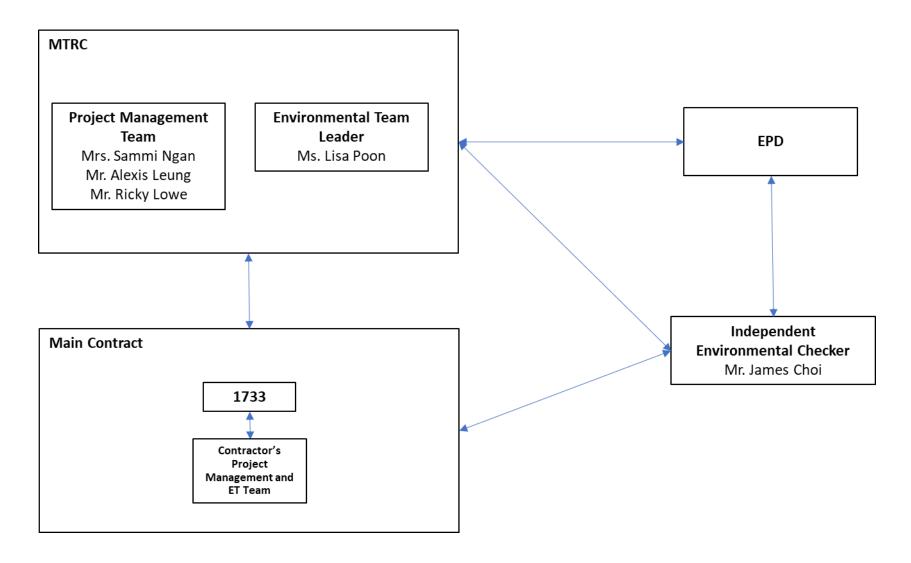


EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	B-1
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
monany Emarchoport	Data	lul 22

#### **APPENDIX B - PROJECT ORGANIZATION CHART**



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Contract 1733		B-2
		-
Monthly EM&A Report		01
		Jul 22





## EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Page B-3 Ref# Monthly EM&A Report Rev. 01 Date Jul 22

#### 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	Ms. Lisa Poon	3127 6295					
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
4700	Vehicular access bridge, demolition of paint shop and	Build King Civil	Project Manager Environmental Manager	Andy Yu Louisa Fung	9648 4896 9271 5370
1733	construction of engineering vehicle stabling tracks	Engineering Ltd	Environmental Team Leader	Roy Hung	2204 8305



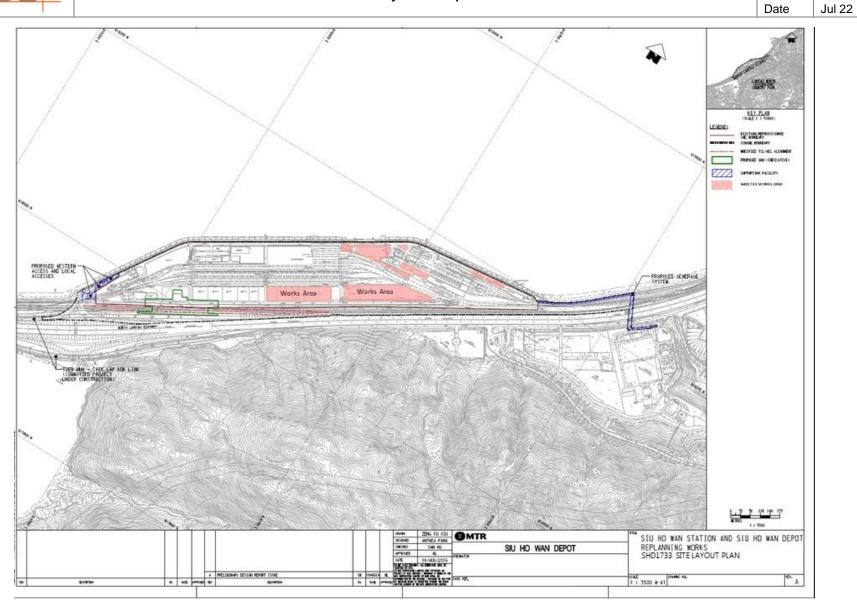
EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	C-1
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
	Date	lul 22

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



#### Page C-2 EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Ref# Rev. 01 Monthly EM&A Report

Date



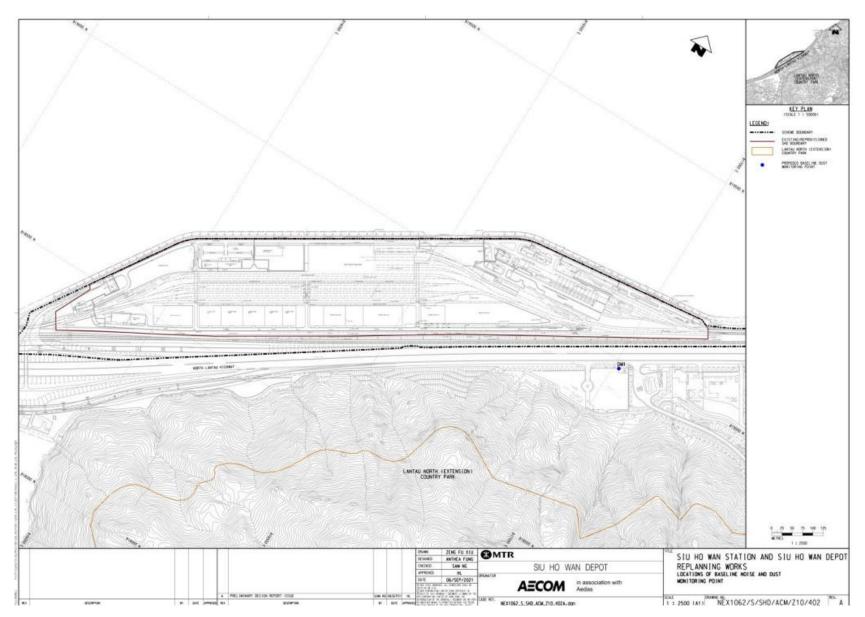


EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	D-1
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report		01
		Jul 22

### APPENDIX D - LOCATION PLAN OF AIR QUALITY MONITORING STATION



## EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Page Ref# D-2 Monthly EM&A Report Rev. 01 Date Jul 22





EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	E-1
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report		01
		Jul 22

### APPENDIX E - CALIBRATION CERTIFICATES (AIR QUALITY MONITORING EQUIPMENT)



#### Monthly EM&A Report

Page	E-2
Ref#	-
Rev.	01
Date	Jul 22

#### **EQUIPMENT CALIBRATION RECORD**

pe: 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				

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

799	CPM
799	CPM

Hour Date (dd/mm/yy)	Time	Ambient Condition		Concentration(1)	Total Count(2)	Count/	
	7 - 7 - 7	Temp (°C)	R.H.(%)	(mg/m3) Y-axis		Minute③ X-axis	
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:

- 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



#### Monthly EM&A Report

Page	E-3
Ref#	-
Rev.	01
Date	Jul 22

#### **EQUIPMENT CALIBRATION RECORD**

Type:	Laser Dust Monito		
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 Secon

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

Hour	Date	Time	Ambient	Condition	Concentration(1)	Total Count②	Count/
	(dd/mm/yy)		Temp (°C)	R.H.(%)	(mg/m3)		Minute(3)
					Y-axis		X-axis
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

Remarks:

Validity of Calibration Record: 3-May-23

QC Reviewer: Yw Fung Signature: 4 Date: 4May 2



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	F-1
Replanning Works – Contract 1733	Ref#	-
Monthly EM&A Report		01
monthly Emart Report	Date	Jul 22

### APPENDIX F – MONITORING DATA (AIR QUALITY MONITORING)



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	
Replanning Works - Contract 1733	

#### Monthly EM&A Report

Page	F-2
Ref#	-
Rev.	01
Date	Jul 22

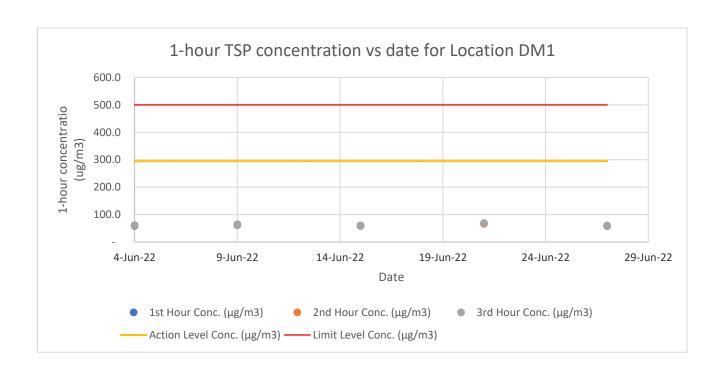
### The Summary of 1-hour TSP Concentration (µg/m3) at Location DM1

	Start	1st Hour	2nd Hour	3rd Hour	Action Level	Limit Level	Exceedance
	Time	Conc.	Conc.	Conc.	Conc.	Conc.	(Y/N)
Date	(hh:mm)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(1714)
4-Jun-22	14:05	58.8	61.3	61.6			N
9-Jun-22	10:55	62.1	63.3	64.9			N
15-Jun-22	13:15	58.9	60.1	60.8	294.7	500	N
21-Jun-22	10:50	68.1	66.4	69.2			N
27-Jun-22	13:45	58.2	59.4	60.1			N

 Average
 62.2

 Min
 58.2

 Max
 69.2





EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	G-1
Replanning Works – Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
	Date	Jul 22

### APPENDIX G - WASTE FLOW TABLE



EP-588/2021 -	Siu Ho Wan Station a	nd Siu Ho Wan Depo	t Replanning Works - 0	Contract 1733
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Page Ref#

01 Rev. Date Jul 22

G-2

Monthly EM&A Report

### **Monthly Summary Waste Flow Table for 2022 Year**

	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				astes
Month	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
June	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											
Aug											
Sep											
Oct											
Nov											
Dec											
TOTAL	306.77	0.00	0.00	0.00	306.77	0.00	0.00	0.00	0.00	0.00	107.69

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

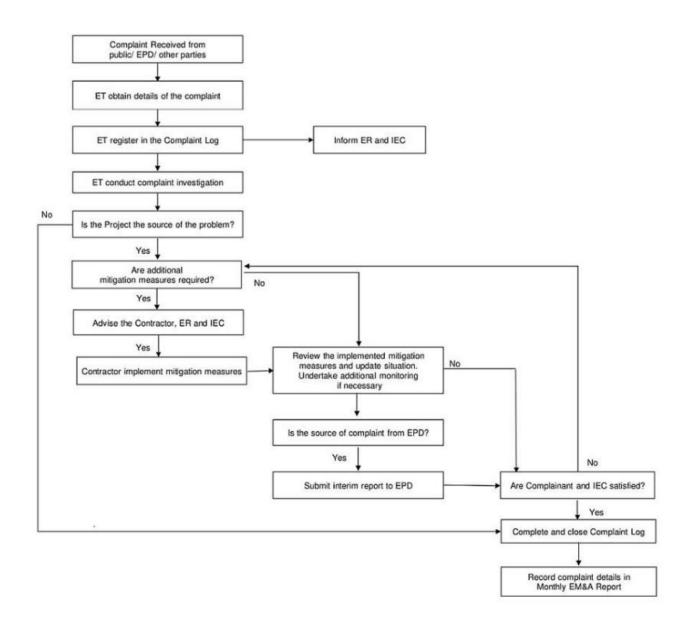


EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	H-1
Replanning Works – Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
	Date	Jul 22

### **APPENDIX H - COMPLAINT HANDLING PROCEDURE**



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	H-2
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
	Date	Jul 22





EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	I-1
Replanning Works – Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
	Date	Jul 22

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



Page	I-2
Ref#	-
Rev.	01
Date	lul 22

EVENT	ACTION							
EVENT	ET	IEC	ER	CONTRACTOR				
<b>ACTION LEVEL</b>								
Exceedance for one sample	<ol> <li>Repeat measurement to confirm findings;</li> <li>If exceedance is confirmed, inform the Contractor, IEC and ER;</li> <li>Identify source(s), investigate the causes of exceedance and propose remedial measures; and</li> <li>Increase monitoring frequency.</li> </ol>	<ol> <li>Check monitoring data submitted by the ET;</li> <li>Check Contractor's working method; and</li> <li>Discuss with ET, ER and Contractor on possible remedial measures</li> <li>Review and advise the ET and ER on the effectiveness of the proposed remedial measures.</li> </ol>	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	<ol> <li>Repeat measurements to confirm findings;</li> <li>If exceedance is confirmed, inform Contractor, IEC and ER;</li> <li>Identify source(s), investigate the causes of exceedance and propose remedial measures;</li> <li>Increase monitoring frequency to daily;</li> <li>Advise the Contractor and ER on the effectiveness of the proposed remedial measures;</li> <li>Discuss with IEC and Contractor on remedial actions required;</li> <li>If exceedance continues, arrange meeting with Contractor, IEC and ER to</li> </ol>	<ol> <li>Check monitoring data submitted by the ET;</li> <li>Check Contractor's working method; and</li> <li>Discuss with ET, ER and Contractor on possible remedial measures;</li> <li>Review and advise the ET and ER on the effectiveness of the proposed remedial measures; and</li> <li>Supervise Implementation of remedial measures.</li> </ol>	Confirm receipt of notification of exceedance in writing;     In consultation with the ET and IEC agree with the Contractor on the remedial measures to be implemented; and     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.				



Page	I-3
Ref#	-
Rev.	01
Date	Jul 22

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



### Monthly EM&A Report

Page	I-4
Ref#	-
Rev.	01
Date	lul 22

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

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



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		J-1
Replanning Works - Contract 1733		-
Monthly EM&A Report		01
		Jul 22

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



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		J-2
Replanning Works - Contract 1733		-
Monthly EM&A Report		01
	Date	Jul 22

### Statistic Summary of Exceedance

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

### Statistical Summary of Environmental Complaint

	Environmental Complaint Statistics			
Reporting Period	Frequency	Cumulative	Complaint Nature	
1 June 2022 – 30 June 2022	0	0	0	

### Statistical Summary of Environmental Non-compliance

	Environmental Non-compliance Statistics				
Reporting Period	Frequency	Cumulative	Complaint Nature		
1 June 2022 – 30 June 2022	0	0	0		

### Statistical Summary of Environmental Summons

	Environmental Summons Statistics			
Reporting Period	Frequency	Cumulative	Complaint Nature	
1 June 2022 – 30 June 2022	0	0	0	



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		J-3
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report		01
монтну Ем&А керог	Date	Jul 22

### Statistical Summary of Environmental Prosecution

	Environmental Prosecution Statistics				
Reporting Period	Frequency	Cumulative	Complaint Nature		
1 June 2022 – 30 June 2022	0	0	0		



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot		K-1
Replanning Works - Contract 1733		-
Monthly EM&A Report		01
		Jul 22

### APPENDIX K - ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)



# EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Page Ref# K-2 Monthly EM&A Report Rev. 01 Date Jul 22

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	y (Construction Phase)						
\$3.8.1	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	<ul> <li>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.</li> <li>Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.</li> <li>Use of frequent watering for particularly dusty construction areas and areas close to ASRs.</li> <li>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.</li> <li>Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.</li> <li>Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.</li> <li>Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.</li> </ul>	dust impacts	Contractor	All works area	Construction phase	Air Pollution Control Ordinance (APCO)	Implemented
	<ul> <li>Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points,</li> </ul>						



# EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Page Ref# K-3 Monthly EM&A Report Rev. 01 Date Jul 22

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.						
	<ul> <li>Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.</li> </ul>						
	<ul> <li>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.</li> </ul>						
	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.						
	<ul> <li>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.</li> </ul>						
Noise Impa	nct (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		Construction phase	TM-EIAO	Implemented



# EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Contract 1733 Page Ref# K-4 Monthly EM&A Report Rev. 01 Date Jul 22

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 Qual	ity 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



soil excavation cannot be avoided in these months or at any construction site

time of year when rainstorms are likely, for the purpose of run-off

preventing soil erosion, temporary exposed slope surfaces

should be covered e.g. by tarpaulin, and temporary access

EIA Ref.

S5.8.5

S5.8.6

#### Page K-5 EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Ref# 01

#### **Monthly EM&A Report**

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.					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
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.	impact from construction site	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM- DSS	To be implemented
Construction works should be programmed to minimize soil excavation works in rainy seasons (April to September). If		Contractor	All works area	Construction phase	WPCO, EIAO- TM,	To be implemented

Rev.

Date

ProPECC PN

1/94, TM-

DSS

Jul 22



Page	K-6
Ref#	-
Rev.	01
Date	Jul 22

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.						
\$5.8.7	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.	impact from construction site	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM- DSS	To be implemented
	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.	impact from construction site	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM- DSS	To be implemented
	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.	impact from construction site	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



Page	K-7
Ref#	-
Rev.	01
Date	Jul 22

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.	impact from construction site	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.	impact from construction site	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM- DSS	Implemented
\$5.8.12	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	impact from transportation of sediment	Contractor	Barging point and barges	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94	N/A



Page	K-8
Ref#	-
Rev.	01
Date	Jul 22

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.	impact from	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.	construction site	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.	construction site	Contractor	All works area	Construction phase	WPCO, EIAO- TM, ProPECC PN 1/94, TM- DSS	To be implemented



# EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Contract 1733 Page Ref# K-9 Monthly EM&A Report Rev. 01 Date Jul 22

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.	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	impact from	Contractor	All works area	Construction phase	WPCO, EIAO- TM, Waste Disposal	Implemented



## EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Page Ref# K-10 Monthly EM&A Report Rev. 01 Date Jul 22

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	Groundwater from Contaminated Areas, Contaminated Site   Runoff and Wastewater from Land Decontamination     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



Jul 22

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	areas, contaminated site run-off/ wastewater from land decontamination		contamination		Note for Contaminate d Land Assessment	



# EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works - Contract 1733 Page K-12 Monthly EM&A Report Rev. 01 Date Jul 22

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 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.						



Jul 22

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
	<ul> <li>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.</li> </ul>						
Waste Mai	nagement 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		Contractor	All works areas	Construction phase	WDO	Implemented



# EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Contract 1733 Page R-14 K-14 Monthly EM&A Report Rev. 01 Date Jul 22

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;						
	<ul> <li>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;</li> </ul>						
	<ul> <li>Recycle any unused chemicals or those with remaining functional capacity;</li> </ul>						
	<ul> <li>Maximise the use of reusable steel formwork to reduce the amount of C&amp;D materials;</li> </ul>						
	<ul> <li>Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials;</li> </ul>						
	<ul> <li>Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; and</li> </ul>						
	<ul> <li>Minimize over ordering and wastage through careful planning during purchasing of construction materials.</li> </ul>						
\$7.5.6	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:		Contractor	All works areas	Construction phase	WDO	Implemented



Jul 22

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
	<ul> <li>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;</li> </ul>						
	<ul> <li>Covering materials during heavy rainfall;</li> </ul>						
	<ul> <li>Locating stockpiles to minimise potential visual impacts;</li> </ul>						
	<ul> <li>Minimising land intake of stockpile areas as far as possible;</li> </ul>						
	<ul> <li>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&amp;D materials; and</li> </ul>						
	<ul> <li>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.</li> </ul>						
\$7.5.7 to \$7.5.9	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	arising from waste management	Contractor		Construction phase	WDO	Implemented



Jul 22

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.	To avoid and minimize impacts arising from waste management	Contractor	All works areas	Construction phase	WDO	Implemented
	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.						
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



Jul 22

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.						
\$7.5.15	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.	minimize impacts arising from waste	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).	minimize impacts arising from waste	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	minimize impacts arising from waste	Contractor	All works areas	Construction phase	WDO APCO	N/A



Page	K-18
Ref#	-
Rev.	01
Date	Jul 22

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 Cont	amination						
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		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



Jul 22

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		To minimize the Landscape and visual impact on	Contractor	All works areas	Construction phase	TM-EIAO	N/A



# EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Contract 1733 Page Ref# K-20 Monthly EM&A Report Rev. 01 Date Jul 22

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.	landscape impact	Contractor	All works areas	Construction phase	-	To be implemented



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	L-1
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report	Rev.	01
	Date	Jul 22

### APPENDIX L - MONITORING SCHEDULE OF THE REPORTING MONTH



ED 500/2024 Six He Way Station and Six He Way Danet Benjaming Works Contract 1722	Page	L-2
88/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Contract 1733		-
Monthly EM&A Report	Rev.	01
	Date	Jul 22

### 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 June 2022

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

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



EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot	Page	M-1
Replanning Works - Contract 1733	Ref#	-
Monthly EM&A Report		01
monthly Emarchoport	Date	Jul 22

### 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 July 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Jul	2-Jul
						Monitoring Cancelled due to 8 Storm Signal
3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul
				1-hr Dust Monitoring		
10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul
			1-hr Dust Monitoring			
17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul
		1-hr Dust Monitoring				
24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul
	1-hr Dust Monitoring					1-hr Dust Monitoring
31-Jul						
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The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)